

APPLIEL

# Make Possible<sup>™</sup> a Better Future

SUSTAINABILITY REPORT 2023

# **Table of Contents**





Message from Our CEO	5	
2023 Highlights	6	
2030 Goals and Progress	7	
Fiscal 2023 Company Overview Highlights	10	
Corporate Responsibility Materiality Assessment	12	
Awards and Recognition	13	
Memberships and Affiliations	13	



### Net Zero 2040 Playbook 3



Key Highlights Goals and Progress Climate and Energy Climate and Water Risk Assess Water Management Waste Management



## **Invest in People**

Key Highlights
Goals and Progress
Human Rights
Recruiting and Hiring
Employee Benefits
Culture of Inclusion
Pay Equity
Learning and Development
Environmental, Health and Safety



### 47 Lead with Purpose

48	Key Highlights
49	Community Impact
50	Corporate Governance
51	Ethics & Compliance
54	Cybersecurity and Data Protection
56	Public Policy
62	
63	
67	



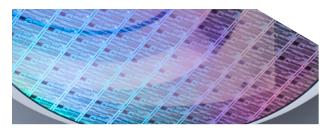
### 69 **About this Report**

71	About this Report
73	Third-Party Data Assurance Statemer
79	
81	
83	
85	

Front cover: Applied's Logistics Service Center has one of the largest solar arrays in Austin, Texas, with over 10,000 solar modules that will generate 5.6MW of clean energy.







## 22 Innovate for Progress

35

	23	Key Highlights	36
	24	Goals and Progress	37
	25	Sustainability Systems Center of Exellence	38
sment	31	Promoting the Circular Economy	41
	32	Product Safety	43
	33	Supply Chain Responsibility	44

	87	Data and Disclosures	90
	88	About Applied Materials	91
ent	89	Environmental Metrics	92
		Social Metrics	96
		SASB Index	103
		TCFD Index	106
		GRI Index	113

01

# Introduction



APPLIED MATERIALS Sustainability Report 2023

# As technology transforms our world at an unprecedented pace, it offers almost limitless possibilities to Make Possible a Better Future for everyone.

Artificial Intelligence (AI) and the Internet of Things (IoT) are the biggest inflections of our lifetimes, and they are all built upon semiconductor innovation. Realizing the full potential of these game-changing technologies will require major advances in the performance, power efficiency and cost of chips. At the same time, the semiconductor industry needs to significantly scale up global chip manufacturing capacity while simultaneously finding a path to net zero. These are complex challenges that no single company—or country—can solve alone. Rather, we must work together across the semiconductor supply chain to define and deploy innovative solutions. Just as AI and IoT will reshape our world, I fully expect deeper and earlier collaboration will reshape our industry in the years to come."

<sup>-</sup>Gary E. Dickerson, President and Chief Executive Officer

# Message from Our CEO

There has never been a more exciting time to be working in technology and especially in the semiconductor industry. The digital transformation of the global economy is built on semiconductor innovation and that means the semiconductor industry now provides a foundation for virtually every other industry. As a result, we expect the market for semiconductors to approximately double in size by the end of this decade. But this expansive growth cannot come at the expense of our planet.

There is consensus within the scientific community that we must limit global warming to 1.5°C to avert the most severe impacts of climate change. While advances in semiconductor technology are enabling new solutions that can accelerate global carbon reduction, the carbon emissions linked to manufacturing those semiconductors are on a path to quadruple by 2030. We cannot solve certain challenges by creating new ones, and it will take the entire industry working together to chart a different path.

Our industry has a shared responsibility to deliver the game-changing advances in technology the world needs while consuming less energy, generating fewer emissions and extending the functional life of our products. The onus is on us to drive grid decarbonization, create a more efficient, low-carbon supply chain and develop more sustainable solutions in manufacturing.

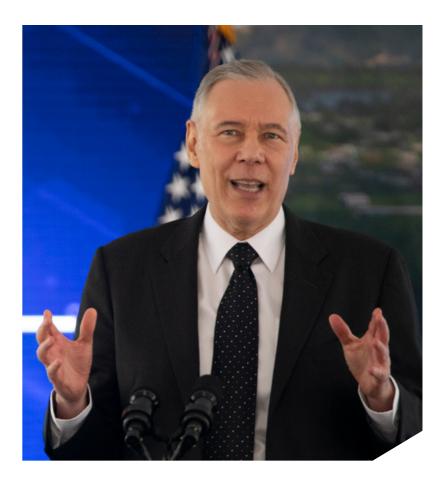
At Applied Materials, we have set bold <u>Scope</u> <u>1, 2 and 3</u> carbon reduction targets, which have received validation from the Science Based Targets initiative (SBTi). In this report you will see the progress we are making toward these goals to reduce the emissions produced by our company (Scope 1) and the energy we purchase (Scope 2), as well as the emissions from our supply chain and customer use of our products (Scope 3).

Ninety-nine percent of our emissions are Scope 3, which means we cannot achieve our aspirations in isolation. We must set common objectives, based on deep collaboration and enduring partnerships up and down our value chain. This is the driving force behind our <u>Net Zero 2040 Playbook™</u>, which outlines a collaborative pathway along with detailed, practical plans for us to work together with our co-travelers.

Our Net Zero 2040 Playbook encompasses several key initiatives that we launched in 2020 and now have strong momentum. Our 3x30 program focuses on reducing the electricity consumption, chemical consumption and physical footprint of our systems by 30%, averaged over our entire portfolio, by 2030. In July 2023, we launched our first purpose-built, low-carbon platform, which we call Vistara<sup>™</sup>. This is Applied's most significant new platform in over a decade, designed for flexibility, intelligence and sustainability. In addition, we have more than 25 "eco products and services" that are available for new systems and can be retrofitted to tools in our customers' installed base. In parallel, our SuCCESS2030 initiative, which stands for Supply Chain Certification for Environmental and Social Sustainability, provides us with a scalable framework to work with our supply chain partners so they can attain the same standards in the areas of environmental impact, labor practices and diversity and inclusion.

Within Applied Materials, we have also deepened our commitment to advance a <u>Culture of</u> <u>Inclusion</u>, which helps define how our leaders lead, and how we engage with our colleagues inside Applied. We are investing time and resources to inspire and strengthen the future talent pipeline, attract and retain employees with diverse experiences, and build a more inclusive supply chain.

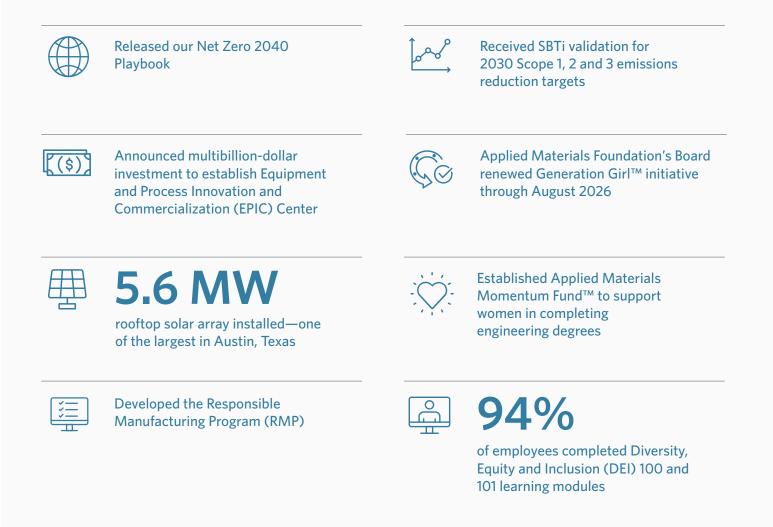
As we scale our workforce, operations and partnerships to support the exciting era of AI and IoT, I am more certain than ever that deeper and earlier collaboration will be the foundation for the semiconductor industry's future success. None of us can do this alone. But together, we can innovate the way we innovate, align the ecosystem around a common vision and tangible plan to get there, and Make Possible a Better Future for everyone.



Day & Dukener

**Gary E. Dickerson** President and Chief Executive Officer

# 2023 Highlights





# APPLIED MATERIALS

# **2030 Goals and Progress**

People				Planet	
Goal	Progress*	Status	UN SDG**	Goal	Progress*
Achieve greater than 25% women representation at Applied globally rom 2021 baseline	20.3%, representing a 2.2% increase from FY21		5 ENDER EQUALITY	100% of electricity at Applied globally comes from renewable sources by 2030	Goal validated by SBTi 70% of electricity at Applied globally, including 100% in the U.S., came from renewal
Achieve greater than 21% executive women epresentation at Applied globally, with an aspiration to achieve equal global and executive representation of women by 2040 rom 2021 baseline	13.0%, representing a 0.8% increase from FY21		5 GENDER EQUALITY	50% reduction in Scope 1 and 2 (market-based) emissions by 2030 from a 2019 baseline	Sources Goal validated by SBTi Scope 1 and Scope 2 (marke
Achieve greater than 25% Inderrepresented minority (URM)	19.9%, representing a 3.5% increase from FY21		10 REDUCED		based) emissions decrease 4% from FY22; 2% increas our 2019 baseline
presentation in Applied's U.S. workforce om 2021 baseline			<≞>	55% reduction per million USD of value added of Scope 3 Category 11 emissions by 2030 from 2019 baseline	Goal validated by SBTi 8% decrease per million USD gross profit of Scope
chieve greater than 10% executive URM presentation in Applied's U.S. workforce om 2021 baseline	5.9%, representing a 1.1% increase from FY21		10 REDUCED	for semiconductor products***	Category 11 emissions fro FY21; 7% decrease from a 2019 baseline****

Not yet started In progress

\*Cumulative through fiscal 2023 unless otherwise noted

\*\* United Nations Sustainable Development Goals

\*\*\* The target addresses just the direct electricity portion of Category 11 emissions per SBTi requirements

Completed

\*\*\*\* Category 11 emissions do not include emissions from Applied's Display business (which represented 5% of total net sales in FY2023) nor from refurbished systems

On target



# **2030 Goals and Progress**

# Progress

Goal	Progress*	Status
Reduce equivalent energy consumption per per- wafer pass for semiconductor products by 30% by 2030 from 2019 baseline	Average per-wafer energy use continued to decrease due to changes in the mix of products sold. Incorporating new energy savings developments into our existing and upcoming products keeps us on track to meet or exceed our 3x30 target.	
Reduce the impact from chemical consumption per per-wafer pass for semiconductor products by 30% by 2030 from 2019 baseline	Sustainability Systems Center of Excellence team and its engineering partners in the product business units continue to pursue development of multiple products that can significantly reduce chemical impact through reduced demand for process chemicals, alternative process chemistries and improved abatement solutions. Some of these initiatives are expected to be multi-year efforts, but we are on track to meet or exceed the 3x30 target.	
30% reduction in tool footprint per production unit ratio (sqm/wph) for semiconductor products from 2019 baseline	Footprint reduction to date is largely the result of productivity improvements in existing tool architectures. As new product architectures, such as Vistara, begin volume shipments to customers, footprints can be further reduced and are expected to meet or exceed the 3x30 target.	
\$1 billion spend with women- and minority-owned businesses by 2027	\$594 million spent with certified diverse suppliers in 2023.	

○ Not yet started ● In progress

Completed

ted 💿 On target

\* Cumulative through fiscal 2023 unless otherwise noted \*\* United Nations Sustainable Development Goals



## 2030 Goals and Progress 8

# **About Applied Materials**

We are the leader in materials engineering solutions used to produce virtually every new chip and advanced display in the world. Our expertise in modifying materials at atomic levels and on an industrial scale enables customers to transform possibilities into reality. At Applied Materials, our innovations Make Possible a Better Future.

Applied Materials has been reporting on social responsibility and environmental matters since 2005.

## **Our Products and Services**

Applied provides manufacturing equipment, services and software to the semiconductor, display and related industries. With our diverse technologies, we deliver products and services that improve device performance, power, yield and cost. Our customers include manufacturers of semiconductor chips, display products, and other electronic devices, and they may use what they manufacture in their own end products or sell the items to other companies for use in electronic products.

## Semiconductor Systems

Design and manufacture the systems used to fabricate semiconductor chips.

## Applied Global Services<sup>™</sup>

Provide integrated solutions including consulting, spare parts, upgrades, services, remanufactured equipment and automation software to improve equipment and fab operation performance and productivity.

## • Display and Adjacent Markets

Make the products to manufacture liquid crystal displays (LCDs), organic light-emitting diode displays (OLEDs) and other display technologies and customer-oriented devices, and technology used to manufacture solar energy cells.

## Applied Ventures, LLC

Applied Ventures, LLC is the venture capital arm of Applied Materials, investing in and collaborating with startups with disruptive technologies.

Applied Ventures promotes and drives environmental, social and governance (ESG)related innovations in the broader semiconductor industry through investments and engagements with the venture startup ecosystem. In fiscal 2023, Applied Ventures co-organized the second annual Startup for Semiconductor Sustainability pitch event at SEMICON West, providing a platform for startups to showcase their sustainable solutions for the industry.





Rehovot, Israel Semiconductor Equipment Manufacturing

Singapore Semiconductor Equipment Manufacturing

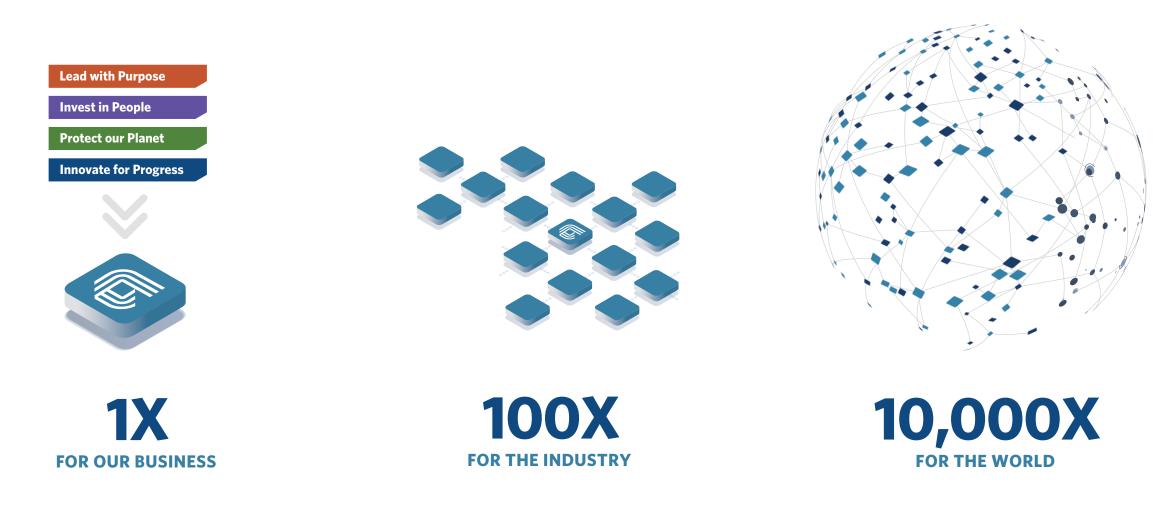
Tainan, Taiwan Display Equipment Manufacturing

## Europe, the Middle East and Africa

Total	4,277
Undeclared	0
Male	3,437
Female	840
	Male Undeclared

# **ESG Vision and Strategy**

Our 1X/100X/10,000X ESG framework considers the social and environmental impacts of our direct operations (1X); how we design solutions to address our industry's impact, including that of our customers and suppliers (100X); and how our technology can be used in innovation to advance sustainability and equity on a global scale (10,000X).



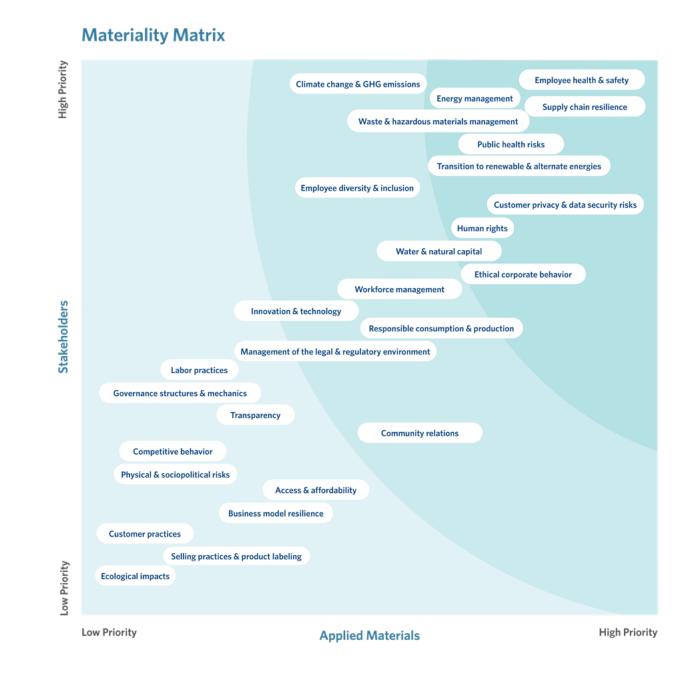
# **Corporate Responsibility Materiality Assessment**

Applied regularly conducts corporate responsibility materiality\*assessments to help us identify the ESG issues most important to our stakeholders and where we can have the greatest impact.

We also view issues through a double-materiality lens, which assesses the ESG factors likely to affect our business (e.g., financial impacts) as well as the factors that our activities may affect, both positively and negatively.

Our 2023 materiality assessment, conducted on the Datamaran platform, showed no new issues, though there are small variations in issue prioritization on both the standard and double-materiality assessments. The top material issues continue to be employee health and safety, climate change and GHG emissions, and energy management, and these align with the priority focus areas in Applied's ESG strategy.

Employee health and safety Climate change and GHG emissions Energy management



\* The terms "material" and "materiality" as used in this report and the corporate responsibility materiality assessment and double-materiality assessment are different than those terms as used in the context of filings with the U.S. Securities and Exchange Commission (SEC). Issues deemed material for the purposes of this report may not be deemed material for SEC reporting purposes.

# **Awards and Recognition**



# **Memberships and Affiliations**

- Alliance for Global Inclusion, Commitment Partner
- Association of Certified Fraud Examiners (ACFE)
- Boston College Center for Corporate Citizenship
- Business Ethics Leadership Alliance (BELA)
- CEFLEX (Europe)
- Clean Energy Buyers Association (CEBA)
- DIGITALEUROPE
- Diverse Manufacturing Supply Chain Alliance (DMSCA)
- Houston Minority Supplier Development Council (HMSDC)
- IEEE International Roadmap for Devices and Systems<sup>™</sup> (IRDS<sup>™</sup>) Community
- International Association of Privacy Professionals (IAPP)—Bronze sponsor
- Interuniversity of Microelectronics Centre (imec) Sustainable Semiconductor Technologies and Systems (SSTS)
- National Minority Supplier Development Council (NMSDC)
- Reboot Representation Coalition (India)
- Responsible Business Alliance (RBA)
- Responsible Minerals Initiative (RMI)
- Semiconductor Climate Consortium (SCC)—Founding member,
- Governing Council member
- SIA Semiconductor PFAS Consortium
- Women's Business Enterprise National Council (WBENC)





A Collaborative Path to Net Zero



APPLIED Sustainability Report 2023

# A Collaborative Path to Net Zero

# "None of us can do this alone. The only way we can accomplish Net Zero is by working together."

- Gary E. Dickerson, President and Chief Executive Officer

Advances in AI and IoT enable nearly infinite applications that touch every area of our lives including business, education, healthcare, logistics and smart mobility. By the end of this year, there are expected to be more than 207 billion<sup>1</sup> devices connected to the worldwide IoT network, and increasingly these connected devices are augmented with AI.

## Did You Know?

An advanced fab with a capacity of 50,000 wafer starts per month consumes about one terawatt-hour per year—roughly equivalent to the electricity use of a city of 100,000 residents. In 2023, the world witnessed major evolutionary gains with augmented AI demonstrating impressive capabilities.<sup>2</sup> As businesses increasingly integrate artificial intelligence into their operations, this creates unprecedented demand in the semiconductor industry, which is foundational for these technological advances. According to imec, the semiconductor industry is expected to double in size this decade, reaching \$1 trillion in global revenue by 2030.<sup>3</sup>

Yet tremendous growth in computing power could come with a potentially high cost to our planet if left unchecked. In fact, total energy usage by electronics and computing systems may grow from about 10% of global electricity supply today to more than 30% by 2030. Imec projects our industry is on a path to quadruple its carbon footprint this decade, from about 100 million tons  $CO_2e$  per year in 2020 to nearly 400 million tons  $CO_2e$  per year by 2030.

At Applied, we're committed to shifting this paradigm, together with our customers and partners. We aim to decarbonize in line with the 1.5°C pathway as defined by the <u>Paris</u> <u>Agreement</u>, even as we aggressively grow our business. We've identified a clear strategy to work together to reach our aspiration, transforming the foundation of technology and accelerating the global clean energy mix.

We call it the Net Zero 2040 Playbook.

<sup>1</sup> 2024 IoT And Smart Device Trends: What You Need To Know For The Future (forbes.com) <sup>2</sup> The Dawn Of Creation: 2023 Rise Of Generative AI (forbes.com) <sup>3</sup> Imec USA: accelerating semiconductor innovation | imec (imec-int.com)





# **Opportunities Beyond the Numbers**

Applied Materials has set 2030 science-based goals for Scope 1, 2 and 3, which received validation from the Science-Based Targets initiative in 2023. We continue to make progress toward our Scope 1 and Scope 2 goals, which are the emissions that come from running our business and the energy we purchase. We aim to reach net zero for these emissions by 2030.

The greater challenge comes with Scope 3—emissions that are generated upstream in our supply chain and downstream through customers' use of our semiconductor system products. Ninety-nine percent of our emissions are Scope 3, so the only way for us to reach our 2040 aspiration is to work in close, long-term collaboration with our customers and suppliers.

For more than a year, a cross-functional Applied team worked together to collect, analyze, model and forecast our projected path to net zero that is rooted in science.

Our models forecast that we could generate around 37 million metric tons of carbon by 2030 and 55 million metric tons by 2040 in a "business as usual" scenario. To hit the 1.5°C pathway, we need to reduce our projected emissions to just over one million metric tons by 2040, which represent nearly a 90% absolute reduction from 2019 emissions levels. Total  $CO_2$  e emissions will vary year over year as we implement further strategies to address our full carbon footprint.

We expect these strategies will take time to implement and deliver steeper reductions in the second half of this decade. In fiscal 2023, Applied's absolute emissions were 22.6 million metric tons CO<sub>2</sub>e, representing a reduction of 11% over fiscal 2022.

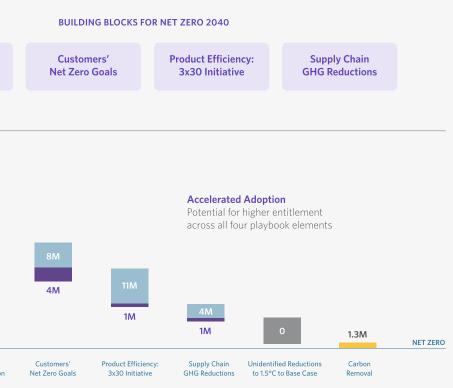
The greatest opportunity we see is in working across our industry to drive grid decarbonization, to support our customers to achieve their own net zero goals, to innovate differently to improve our product efficiency and to work with our supply chain to redesign for a net zero future.

These are the building blocks of our Net Zero 2040 Playbook. They aren't just the right thing to do for the planet, they are also business opportunities for our company, our customers and our industry.

# Applied's Net Zero 2040 Playbook Accelerated Adoption BUILDING BLOCKS FOR NET ZERO 2040 Grid **Customers' Product Efficiency:** Decarbonization Net Zero Goals 3x30 Initiative

2040 Projected

\*Covers 90% of Applied's Scope 3 per SBTi (87% product use emissions; 13% supply chain), GHG = Greenhouse Gas



# **Accelerating Grid Decarbonization**

Nearly 70% of our Scope 3 emissions are linked to the energy used to power our products. Advanced fabs consume a significant amount of electricity, so where that power comes from is very important. Of the estimated 40 billion tons of global carbon dioxide emissions in 2023, nearly 37 billion tons are attributed to fossil fuels.<sup>4</sup>



Using clean energy—such as solar and wind has a much more positive impact on nature and society, including on air and water quality, human health, biodiversity and ecosystems.<sup>5</sup>

It also drives greater semiconductor demand. Smart grid connectivity increases demand for sensors and power devices. Grid intelligence requires foundry-logic and memory demand. Each megawatt of wind and solar produced requires power chips.

Given the environmental, social and business benefits, locating new fabs where there is access to clean energy should be a major consideration for customers and for governments that provide financial incentives for new fab construction. Yet, regulatory and market barriers impact the availability, accessibility and affordability of renewable energy in many areas around the world.

4 Global carbon emissions from fossil fuels reached record high in 2023 | Stanford Doerr School of Sustainability 5 Building a Nature-Positive Energy Transformation | WWF (panda.org)

Sustainability Report 2023

As a business community, we have significant influence in the form of combined buying power to help advance global grid decarbonization. In 2023, Applied joined Intel as the inaugural corporate sponsors of Schneider Electric's Catalyze program, which aims to accelerate access to renewable energy across the global semiconductor value chain. We also joined the Semiconductor Climate Consortium Energy Collaborative, bringing together the combined purchasing power of semiconductor companies to encourage a faster conversion to clean energy in the Asia-Pacific region.

Through active participation in programs like Catalyze and the SCC Energy Collaborative, as well as organizations like the CEBA and RE100, we can amplify our industry's combined voice as buyers of energy to improve global accessibility to clean energy options. We encourage our customers and partners to join us in this effort.

## **Did You Know?**

Applied's Logistics Service Center has one of the largest solar arrays in Austin, Texas, with over 10,000 solar modules that will generate 5.6MW of clean energy.

# **Innovating with Customers**

Our biggest opportunity to accelerate progress toward net zero is for our customers to set and achieve their own science-based net zero goals.

Currently, about two-thirds of our customers have scoped net zero goals, contributing to a reduction of about eight million tons of  $CO_2e$  by 2040. Bringing the additional one-third onto the 1.5°C pathway would accelerate adoption by another four million tons of  $CO_2e$ . These reductions are incremental to the grid decarbonization discussed above.

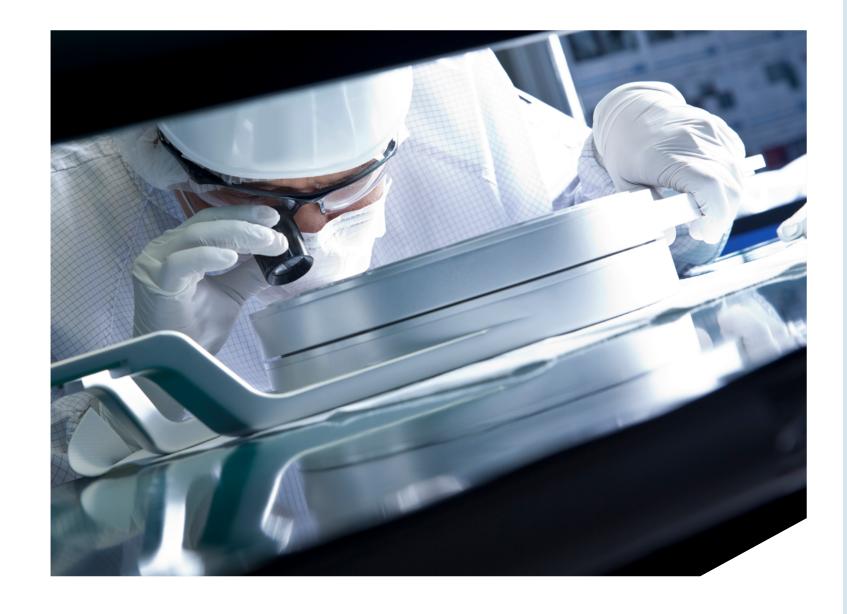
We are working alongside customers to achieve emissions savings and energy reductions, supporting those that have set net zero goals as well as those that have not yet developed a net zero strategy.

Building on our ongoing <u>energy-savings work</u> with Taiwan Semiconductor Manufacturing Company (TSMC), we have expanded our sustainability engagements with major memory and IoT, Communications, Automotive, Power and Sensors (ICAPS) customers in Europe, Asia and North America, helping reduce greenhouse gas (GHG) emissions and energy consumption of their wafer fab and subfab equipment. In May 2023, we announced a historic investment to establish the world's largest and most advanced facility for collaborative semiconductor process technology and manufacturing equipment research and development (R&D), the EPIC Center™. Here we will bring together customers, university partners, suppliers and peers to accelerate innovation and commercialization of energy efficient, next-generation technology.

We are also driving solutions alongside our customers through active engagement in the <u>Semiconductor Climate Consortium</u> and imec's SSTS program.

## Goal

**8 M tons** CO<sub>2</sub>e by 2040. Two-thirds of customers have scoped net zero goals.



# **Improving Product Efficiency**

About 80% of our Scope 3 emissions comes from our customers' use of our products. To achieve our own goals and support our customers in achieving theirs on the net zero pathway, we are investing to improve the sustainability of our systems, while offering products and services that help customers reduce their own emissions.



Our 3x30 engineering team, established in 2020, focuses on reducing the electricity consumption, chemical impact and physical fab footprint of our systems by 30%, averaged across our entire portfolio, by 2030.

We use proprietary modeling tools that analyze product design and process recipes and incorporate semiconductor equipment utilization data to pinpoint sustainability improvement opportunities for legacy, in-production and design-stage semiconductor manufacturing tools. Through Applied Global Services (AGS), we work with customers to optimize the eco-efficiency of their existing equipment and fab performance to help lower their cost of ownership, save energy, reduce environmental impacts and meet GHG reporting regulations.

We have 24 eco-focused products and services in our portfolio today—both new ecoUP™ innovations and components for existing products.

## Goal

30% reduction of electricity consumption, chemical impact and physical fab footprint of our systems by 2030

One such product introduced in 2023, Vistara, is the first platform designed to support Integrated Materials Solution<sup>™</sup> recipes using more types and sizes of chambers. It optimizes high-energyconsumption subfab components, like pumps, heat exchangers, chillers and gas panels, lowering platform energy consumption by as much as 35% compared to previous platforms.

To extend the life of our existing products while advancing environmental performance for customers, we offer new components, software and solutions through ecoUP Upgrades. EcoTwin<sup>™</sup>, for example, is a digital twin that can monitor and model recipes and operations so chipmakers can drive energy optimization in their fabs. The iSystem<sup>™</sup> Controller, developed in collaboration with TSMC, monitors resource consumption and GHG emissions and automatically adjusts the energy needs in the subfab based on what's happening within a tool.

By utilizing the ecoUP Upgrades and our newest eco-performance-optimized technologies, like the Vistara platform, chipmakers can advance progress toward reducing their Scope 1 and Scope 2 emissions. At the same time, these technologies help us to reduce our own Scope 3 emissions and accelerate progress on our path to net zero.

# **Transforming Our Supply Chain**

The fourth component of our 2040 Net Zero Playbook is significant, not only for our own 1.5°C journey and that of our customers, but also for the journey of our entire industry—decarbonizing the semiconductor supply chain.

In 2020, we launched our <u>SuCCESS2030</u> program, a 10-year roadmap for strengthening our ESG supply chain strategy to support our business. We've collected GHG goals and data from our top spend suppliers, through which 80 suppliers were able to provide site-level data for Applied supplier sites. We are working with our suppliers on creating a path to reach net zero by 2040, including establishing a GHG emissions reduction plan and assisting them in procuring renewable energy. Our supply chain accounts for about 13% of our Scope 3 emissions. At the same time, these partners also supply our customers and peers, which is a call to action for crossindustry collaboration. In June 2023, we <u>announced</u> our collaborative engineering center in India that will be focused on critical supply chain technologies for equipment. The center will be designed to bring together Applied engineers, leading global and domestic suppliers, and top research and academic institutions, enabling them to collaborate in one location with a common goal of accelerating development of energy-efficient semiconductor equipment sub-systems and components.



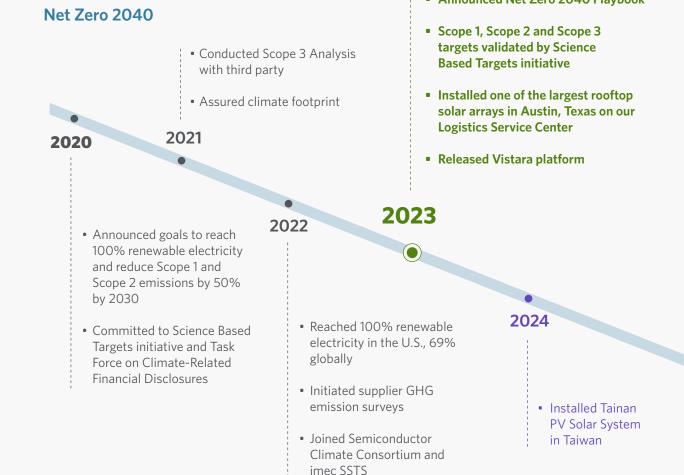


# **Our Journey to Net Zero**

While we are making good progress toward our 2030 goals and have a clear pathway to execute our Net Zero 2040 Playbook—we cannot achieve these aspirations alone. Ninetynine percent of our emissions are shared with our customers and suppliers, so our success depends on forging strong, long-term partnerships up and down our value chain.

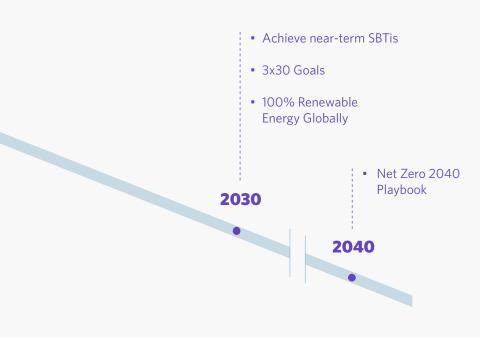
By working together to redesign the semiconductor value chain, to decarbonize the grid that powers breakthrough technology and to innovate in new and transformative ways, we believe we can and will solve the great contradictory challenge facing our industry: how to become a \$1 trillion market, while simultaneously creating a path to net zero carbon emissions.

Collaboration is the solution that benefits us all.



Announced Net Zero 2040 Playbook





03

# Protect our Planet

Key Highlights
Goals and Progress
Climate and Energy
Climate and Water Risk Assessment
Vater Management
Vaste Management



# **Our Net Zero 2040 Playbook reflects Applied's** strategy to decarbonize our value chain on a 1.5°C trajectory as we invest in a renewable energy future.

With 2023 recording the warmest year in history<sup>6</sup>—and 2024 on pace to exceed that record-breaking rise in the global temperatures—comprehensive action to protect our planet has never been more urgent.

We believe our industry has both the responsibility and a tremendous opportunity to lead the way to a more sustainable future through collaboration and innovation, as outlined in our Net Zero 2040 Playbook. And we are committed to leading by example.

With SBTi validation of our 2030 Scope 1, 2 and 3 emissions reduction targets, we are working to reduce our GHG emissions aligned with the 1.5°C pathway as defined by the Paris Agreement. We have formed an internal task force to explore innovative Scope 1 efficiency improvements that will enable us to continue advancing our reduction targets even as the company expands to meet growing customer demand.

For Scope 2, Applied is making significant investments to accelerate clean energy adoption across our global operations as we aim to reach 100% renewable energy for our electricity use by 2030. We made solid progress toward increasing our renewable electricity use in 2023, through expansion of on-site solar, utility green energy programs, power purchase agreements (PPA) and renewable energy credits (RECs) to support our operations worldwide. For example, we installed one of the largest rooftop solar arrays in Austin, Texas, and signed our first on-shore wind PPA in Taiwan.

Just as importantly, we are working alongside our customers, partners and others in the industry to combine our collective purchasing power to accelerate grid decarbonization globally, through active participation in groups like Schneider Electric's Catalyze Program, the Semiconductor Climate Consortium Energy Collaborative, RE100 and CEBA.

As we continue to reduce the emissions produced by our company and the energy we purchase, we remain focused on addressing the largest share of our footprint: Scope 3. Through Sustainability Systems Center of Excellence innovations aligned with our 3x30 goals and advancements in our <u>SuCCESS2030</u> 10-year roadmap, we are working to drive transformative innovation and practices that help decarbonize the entire semiconductor value chain.

Protecting our planet is a daily practice that impacts every choice we make as a business. With our sights set on a net zero pathway, value chain goals aligned with the latest climate science, advancements in clean energy and a focus on expansive collaboration and transformative innovation, we see infinite possibilities to accelerate a low-carbon future for all.

Austin Solar Array Video

## Key Highlights for 2023







7%



<sup>6</sup> Sources: National Centers for Environmental Information (NCEI)







Released a Net Zero 2040 Playbook, identifying a clear strategy to reach Net Zero emissions in collaboration with our partners

expanded total renewable electricity by 7% year over year



Announced our largest onsite renewable generation system covering about 75% of the Austin Logistics Service Center roof

reduced GHG intensity 7% per employee and per million dollars of revenue

Conducted a comprehensive refresh of our Task Force on Climate-Related Financial Disclosures (TCFD)-aligned Climate Risk Assessment



12%

reduced total water withdrawal 12%, including 9% reduction in waterstressed areas



Reached 100% renewable electricity in the U.S. and 70% globally

# **Goals and Progress**

# 2030 Goals

Goal	Progress*	Status	UN SDG
100% of electricity at Applied globally comes from renewable sources by 2030	Goal validated by SBTi 70% of electricity at Applied globally, including 100% in the U.S., comes from renewable sources		7 CLEAN ENERGY
50% reduction in Scope 1 and Scope 2 CO <sub>2</sub> e emissions by 2030 from 2019 baseline	Goal validated by SBTi Scope 1 and Scope 2 (market-based) emissions decreased by 4% from FY22; 2% increase from our 2019 baseline		13 CLIMATE
55% reduction per million USD of value added of Scope 3 Category 11 emissions by 2030 from 2019 baseline for semiconductor products**	Goal validated by SBTi 8% decrease per million USD gross profit of Scope 3 Category 11 emissions from FY21; 7% decrease from our 2019 baseline***		13 CLIMATE

Not yet started 🚺 In progress 🥥 🤇

Completed On target

\* Cumulative through fiscal 2023 unless otherwise noted

\*\* The target addresses just the direct electricity portion of Category 11 emissions per SBTi requirements

\*\*\* Category 11 emissions do not include emissions from Applied's Display business (which represented 5% of total net sales in FY2023) nor from refurbished systems



# Applied is a member of corporate groups collaborating to reduce the environmental impact of technology.

- Semiconductor Climate Consortium (SCC) (Founding Member, Governing Council Member)
- Schneider Electric's Catalyze Program (Founding Member)
- SCC Energy Collaborative (Founding Member)
- imec SSTS program

RE100 CEBA

# **Climate and Energy**

As we continue to grow to meet the demands of our customers, our commitment to reducing our Scope 1, 2 and 3 carbon impacts remains steadfast. We expanded our global renewable electricity by 7%, adding new renewable projects in Taiwan and Xi'an, as well as in the U.S., which also helped us reduce our Scope 2 (marketbased) emissions 7% year over year.

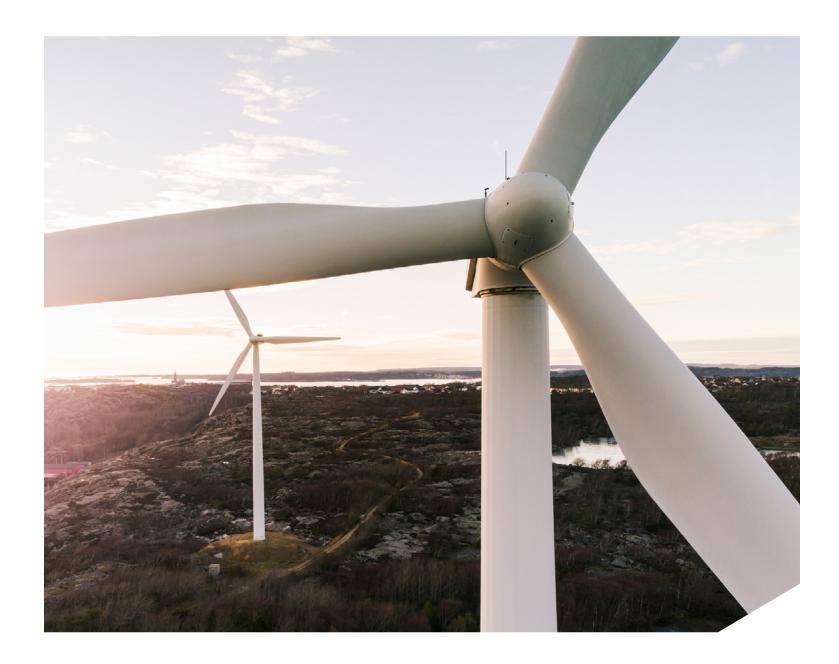
In 2023, SBTi classified Applied's Scope 1 and 2 emissions reduction target ambitions as in line with the 1.5°C trajectory, which is currently the most ambitious designation available through the SBTi process.

# The near-term science-based targets as validated by SBTi that Applied Materials commits to are:

- Reduce absolute Scope 1 and 2 GHG emissions 50% by fiscal 2030 from a fiscal 2019 base year.
- Increase active annual sourcing of renewable electricity from 36% in fiscal 2019 to 100% by fiscal 2030.
- Reduce Scope 3 GHG emissions from use of sold products 55% per million USD of value added by fiscal 2030 from a fiscal 2019 base year.

The validation reflects our commitment to minimize our own carbon footprint and marks a significant step toward our Net Zero 2040 Playbook, as we collaborate with our customers and partners to reduce carbon emissions across the semiconductor industry.

The SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI) and World Wide Fund for Nature (WWF) and is one of the We Mean Business Coalition (WMBC) commitments.



# Scope 1: Direct Emissions from our Operations

In 2023, Applied's Scope 1 emissions totaled 49,053 metric tons of  $CO_2e$ , representing a 1% increase from FY22. The primary drivers of Applied's Scope 1 emissions are the use of natural gas for facility operations and process gases used for equipment testing in R&D labs.

To identify the greatest opportunities to drive efficiency in our operations and reduce our Scope 1 footprint, we formed a cross-functional Scope 1 internal task force in fiscal 2023 with representatives from ESG, Environmental, Health and Safety (EHS), Global Workplace and Infrastructure (GWI) and Sustainability Systems

Scope 1 and Scope 2 Emissions by source

(MT CO <sub>2</sub> e)	FY23	FY22	FY21	FY20	FY19
Electricity (market based)	67,661	72,933	65,573	77,433	78,677
Stationary	25,103	24,415	24,081	22,022	23,090
Process Emissions*	22,302	23,090	16,222	12,360	11,000
Refrigerant	1,634	1,114	2,083	2,286	1,125
Mobile Combustion	14	14	10	10	9
Total Scope 1 + Scope 2 (market-based)	116,715	121,566	107,969	114,111	113,901

\* Restated using updated process gas methodology

Center of Excellence. The task force is organized into two working groups—process gases and natural gas—to address the largest portions of Applied's Scope 1 footprint. Each group is tasked with identifying key strategies and priorities to ensure Scope 1 emissions stay below the levels required to meet our science-based targets. Outcomes from the recommendations made by the Scope 1 task force will be shared in future Applied Sustainability Reports.

We are also working through industry groups, such the <u>SCC</u> and <u>imec</u>, to collaborate and share best practices for reducing Scope 1 greenhouse gas emissions across the semiconductor value chain.

## **Emissions Data Update**

We aligned the methodology for measuring process gases across key R&D facilities in fiscal 2023 to improve the accuracy and consistency of our data in alignment with our science-based targets. Based on the updated methodology, we have restated our Scope 1 emissions data to enable comparability over time.

## Energy management

Applied's total energy use increased 4% in 2023 from the previous year, in line with the expansion of our real estate footprint. At the same time, our greenhouse gas intensity dropped 7% as measured against employee headcount and revenue, as reported in the Environmental Metrics on page 92.

Across our global headquarters, semiconductor and display manufacturing, and semiconductor remanufacturing sites, our facilities groups implemented energy efficiency projects that saved more than 5.7 million kWh, resulting in over 1,203 metric tons of avoided  $CO_2$  e emissions savings. By continuing to optimize our lighting systems with LED lights at sites around the globe, we saved 2.7 million kWh of electricity and about 604 metric tons of  $CO_2$  e emissions. Nearly 2.3 million kWh of the savings came through energy conservation measures and upgrades to our Building Management Systems (BMS) at our sites in Massachusetts and California.



## **Green IT Efforts**

Applied continued its multi-year effort to increase efficiency and reduce our data center carbon footprint through optimization efforts and transitioning to cloud computing. In 2023, our efforts included:

- Santa Clara Co-Location Data Center and Cloud Migration: In 2023, we completed migration of key applications to cloud and a move to a new co-location data center facility. With these moves to modern infrastructure and other improvements, we reduced net power usage by 25kW and moved another 12kW to carbon neutral power sources.
- Amsterdam Co-Location Data Center and Cloud Migration: In 2023, we completed migration of key applications to cloud and a move to a new co-location data center facility. This resulted in a reduction of 18kW and we moved an additional 15kW to carbon neutral power sources.

## Employee teams drive local impact

Employees across the globe help advance Applied's ESG strategy through local impact programs, initiatives and community outreach.

Cross-functional Applied Impact Teams in India, Israel, Korea, Southeast Asia (Singapore/ Malaysia/Philippines) and Taiwan are united through the Global Applied Impact Network (GAIN). GAIN is intended to augment and amplify regional ESG performance by connecting the country's regional teams to share knowledge and to support the company's ESG framework.



In the U.S., our employee-led Green Teams in Austin, Texas and Gloucester and Newburyport, Massachusetts collaborate through the Applied Sustainability Alliance, sharing best practices to help reduce our personal and collective environmental footprints.

The teams work to increase awareness of sustainability issues and practices that employees can implement at work, at home and in their local communities. Through special speaker events, volunteering activities, environmental projects and other engagement efforts, the teams spark discussions, advance deeper understanding and inspire action among our employees.

GAIN and the Sustainability Alliance are supported and sponsored by our Global ESG Team, which helps ensure the teams' efforts complement and support our vision to Make Possible a Better Future.



# 

## Austin Green Team

A group of passionate employees in Austin, Texas holds the honor of being Applied's longest consecutively serving Green Team. First formed in 2009, the Austin Green Team is an active group of sustainability-invested employees that host regular campus events to engage the broader Austin employee community in living and working with less impact on our planet.

One of the largest rooftop solar installations in Austin is at Applied, and the Austin Green Team uses this project to educate employees about the importance and benefits of renewable energy, hosting learning sessions on topics like electric cars and residential rooftop solar.

The Team often pairs activities with holidays and global observances, such as an organic farming event timed with Earth Day, and an "upcycle Halloween" event inspiring creative costume ideas using otherwise discarded items. In the spring, the Team joined with a local community organization, Austin Creative Reuse, to host an art-inspired workshop to turn wood architectural samples, designer and decorator fabric samples, and traditional household paper-based waste products, like tissue rolls and egg cartons, into creative art displays, totes and laptop bags, and recycled writing paper.



## Scope 2: Indirect Emissions From Energy Use

Our Scope 2 market-based emissions decreased 7% from FY 2022, totaling 67,661 metric tons of carbon dioxide equivalent ( $CO_2e$ ) in fiscal 2023, driven in large part by renewable electricity progress in the Asia Pacific region. This represents a 14% decrease from base year fiscal 2019.

# **Renewable Electricity**

The largest share of our Scope 2 footprint is traceable to the power needs of our manufacturing sites and labs. Applied Materials is committed to sourcing 100% renewable electricity for our worldwide operations as part of our 2030 Sustainability Goals. Through 2023, we maintained 100% renewable power in the U.S. and reached 70% globally. Our global renewable energy strategy includes four key approaches: utility green procurement programs, RECs, virtual power purchase agreements (VPPA) and on-site solar power generation.

## **United States**

In 2023, Applied announced our largest on-site renewable generation system, a 5.6 megawatt (DC) solar array comprised of over 10,000 state-of-the-art solar modules covering about 75% of the Austin Logistics Service Center roof. This installation, completed in March 2024, is one of the largest rooftop solar arrays in Austin and Central Texas and is expected to begin service in September 2024.

The Austin solar array has the potential to offset about 43% of the building's electricity consumption and save over 5,400 metric tons of  $CO_2$  per year. It's expected to reduce our Logistics Service Center energy costs by about 46%.

In addition to Austin, Applied also maintains on-site solar generating capacities at our facilities in Sunnyvale, California; Singapore; Bangalore, India; and Xi'an, China. Combined these arrays generated 1,437 MWh of clean power in 2023.

We also continue to invest in a VPPA with the White Mesa Wind Project in Texas, which has been operational since October 2021. The White Mesa VPPA represents 51% of our total global renewable energy and 54% of our U.S. renewable energy portfolio.



# Taiwan Solar Array and PPA

Applied signed its first power purchase agreement in Taiwan with Energy Helper TCC Corporation to procure 1.2 MW of onshore wind energy over the next four years (about 3,000,000 kWh/year). The project is an important first step to supporting the expansion of renewable energy in the Taiwan market. In addition, construction of a 700 kW on-site solar array was completed in March 2024 at our Tainan facility, which will further expand our renewables portfolio in the region.

## Israel PPA

We signed a 15-year contract with <u>Enlight</u> <u>Renewable Energy</u>, which finances, develops and constructs solar power plants, to provide renewable electricity to Applied Materials in Israel. Since March 2024, Applied Israel's energy is being sourced from Enlight's solar and storage facilities in growing percentages, with the intent to reach 100% by 2030.

# Renewable Electricity by Type

(MWh)	FY23	FY22	FY21	FY20
Utility Green Procurement	134,512	102,883	95,080	87,128
RECs	60,548	32,536	64,252	65,332
VPPA	145,065*	183,604	63,888	
On-site Renewables	1,437	157	309	375

\* Actual VPPA generation in fiscal 2023 was higher, exceeding our total U.S. electricity consumption. The total quantity was capped to match our electricity use for the year and residual RECs will be retired in the following reporting year



# Xi'an, China

A contract was signed with Beijing Electricity Trade Center to provide renewable electricity to Applied Materials in Xi'an, China. From March through October 2023 the agreement has delivered over seven million kWhs of green power, representing 44% of total electricity used at the Xi'an campus in fiscal 2023.

These global on-site power installations, PPAs and VPPAs, in combination with RECs and utility green procurement programs in Santa Clara and San Jose, California; Austin, Texas; and Alzenau, Germany, enabled us to expand our total renewable electricity by 7% year over year to 341,562 MWh of renewable power in 2023.

## Scope 3: Value Chain Emissions\*

Our Scope 3 emissions dropped 12% year over year, driven in large part by production adjustments in 2023 that followed recordbreaking production in 2022 to address a significant order backlog caused by COVID-19related supply chain disruptions.

Among the 15 categories defined by the Greenhouse Gas Protocol, Category 11, Use of Sold Products, represents the largest share (80% in 2023) of our Scope 3 emissions. Category 11 covers both emissions from the electricity used to power the equipment in customer fabs during its estimated 10-year lifespan and the chemicals and gases used during the chipmaking process. Our Category 11 emissions dropped 4% in 2023, driven primarily by our product mix.

Because of the outsized influence of Category 11 on our overall carbon footprint—and our customers' footprints—our Sustainability Systems Center of Excellence and dedicated 3x30 engineering team are focused on reducing the energy consumption, chemical impact and fab footprint of our systems by 30% this decade. Applied's systems are designed for durability, supporting upgrades, repairs, refurbishment and reuse, and Applied Global Services (AGS) focuses on optimizing our equipment and fab performance and productivity with the lowest feasible environmental footprint.

# 

## Massachusetts Green Team

The Massachusetts Green Team, including campuses in Gloucester and Newburyport, focused its efforts in 2023 on strengthening its internal network, including uniting with representatives of EHS, facilities, logistics, and various engineering disciplines, to learn, collaborate and act together to advance more sustainable lifestyle and work practices. In 2024, the team is collaborating with EHS and Facilities to improve the current recycling program across our local campuses, including working with local waste management partners.

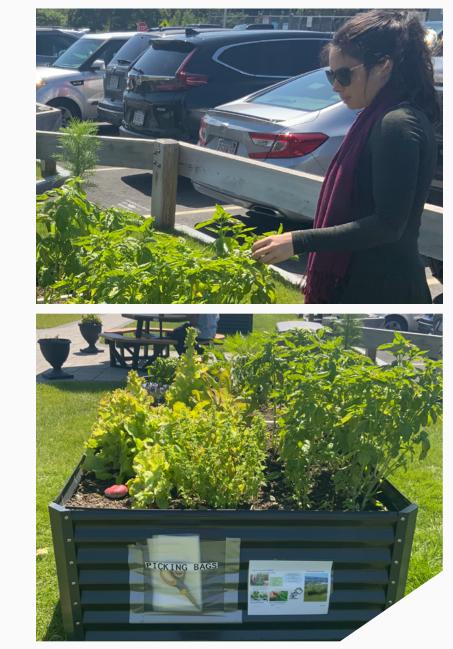
Among its efforts, the Team led the construction of outdoor vegetable and pollinator gardens. The on-campus garden spots provide relaxing spaces for employees to gather during breaks and the opportunity to pick and enjoy fresh vegetables. By planting a mix of vegetables and pollinating plants, the gardens have invited wildlife that promote healthy bee populations. Blackberry bushes were also also planted at each site to encourage foraging and to help make the campuses greener places to work.

To further support education on local food generation, the Team has contracted with a beekeeping service, The Best Bees Company, a Certified LGBT Business Enterprise<sup>™</sup>, to monitor and manage our hives, collect the honey and educate our teams on healthy beekeeping practices. In 2023, 20 pounds of honey were collected and sold at the Fight Against Hunger auction in Gloucester, extending the positive impact from the beehives to help address food insecurity.

The Team is also building a sustainability tool library, which will offer, for loan, tools that help advance sustainability at Applied and at home. The first tool purchased for the tool library is a thermal camera, used to inspect homes and buildings for sources of heat loss. The camera will be used in campus buildings to confirm insulation efficiency and can be checked out by employees for use at home.

\* Applied Materials Scope 3 measurements do not include our display business





Category 1, Purchase of Goods and Services, which estimates our upstream supply chain emissions, represents the second largest share of our Scope 3 (about 13%) emissions. In 2023, our Category 1 emissions dropped about 27%, based on our supplier spend, which correlates to our adjusted production in 2023 following the post-pandemic backlog in 2022.

Applied is working with our suppliers to collect GHG emission goals and data, from which we can collaborate on creating a plan for a pathway to net zero by 2040. We anticipate being able to integrate primary supplier data into our GHG inventory in the near future and are working with suppliers to improve the quality of the data being reported.

Applied continues to review the methodology annually to refine its calculations, emissions factors, data, estimates and underlying assumptions. In alignment with this review process, we have adjusted the historic data for Category 1 in fiscal 2021 and 2022, as well as Category 4, Upstream Transportation and Distribution, for fiscal 2019, 2021 and 2022 in the Data and Disclosures section. The adjustment does not materially impact our overall Scope 3 calculations for those years.

7 @

See the Data and Disclosures section for complete 2019-2023 Scope 3 emissions reporting.



actively evaluating opportunities to invest in nature-based restoration projects, which benefit biodiversity, climate and communities.

(Million MT CO <sub>2</sub> e)	FY23	FY22	FY21	FY19—Baseline
Category 11 (Use of sold products)	18.0	18.8	16.4	10.2
Category 1 (Purchased goods and services)	2.9	3.9	3.2	1.9
Category 4 (Upstream transportation and services)	1.0	2.0	1.3	0.6
All other categories	0.6	0.7	0.5	0.5

## Scope 3 Emissions

Fiscal 2020 not included due to abnormal business operations related to COVID-19 pandemi

# **Climate and Water Risk Assessment**

Applied monitors emerging climate- and water-related risks on an annual basis, and every two years, we do a more comprehensive risk assessment to evaluate key physical climate and water risks across our value chain as well as transition risks and opportunities for our business.

disclosures.

In 2023–2024, Applied engaged a third party to conduct a comprehensive refresh of our climate risk assessment. The assessment included a scenario analysis across high-carbon and lowcarbon pathways for physical and transitional risks. It was modeled from 2020 to 2040 to align with our Net Zero 2040 Playbook. The assessment included engagement from a broad cross-function of internal stakeholders.

The assessment identified and prioritized seven climate-related risks and opportunities for further analysis: exposure from extreme and chronic weather events, water risk, carbon pricing, regulations on process chemicals, R&D pressure, product deselection and customer demand which is both a risk and an opportunity.

Applied has teams dedicated to global emergency response, crisis management and business continuity, including at local facilities, that ensure our business is prepared to respond and recover quickly from climate-related events and effectively support our customers' and suppliers' operations.

We participate in efforts to inform policymakers about issues and challenges critical to our business and industry, including advancing next-generation technology. We are prioritizing the elimination of per- and polyfluoroalkyl substances (PFAS) where technically and commercially feasible, and the development of non-PFAS alternatives where needed, as part of our "PFAS Responsible" approach to process chemicals.

Applied is well positioned to meet increasing customer demand through its portfolio of eco-advantaged products and continues to develop purpose-built technologies that enable customers to meet their own current and future environmental obligations to stakeholders. We see increasing opportunities for our ICAPS business in advancing decarbonization across the world by enabling key technologies, such as electric vehicles (EVs) and smarter, more efficient electrical grids.

⊼ ⊘

See the TCFD Index in the Data and Disclosures section.

In 2023, Applied Materials earned an A- score from CDP on its Climate Change list and a B score on CDP's Water Security list. See our Climate Change and Water Security

# Water Management

Absolute water withdrawal decreased 12% and water withdrawal in water-stressed areas decreased 9% in fiscal 2023, primarily due to a reduction in irrigation, especially in water-stressed regions, improvements in facility and equipment water efficiency, and postpandemic supply chain stabilization.

Applied's operations are not high-volume water consumers relative to the broader semiconductor industry, yet we strive to optimize our water use across our facilities. Ninety percent of water use is in our labs or mixed-use buildings, with our R&D labs having the highest consumption of ultrapure water. Most of our tools require cooling water, which runs in a closed-loop process and is negligible in terms of water consumption.

## Our water conservation efforts include:

- Water recycling and reuse for non-potable applications, especially cooling and landscape irrigation
- Rainwater collection at certain sites for use in landscaping or non-production needs
- Drought-tolerant landscaping and smart irrigation to reduce the number of watering days

Facility groups are responsible for on-site water use management, with oversight from the company's EHS organization. For example, in Singapore, our facility group began channeling HVAC condensate to top off the cooling tower water, saving 43,800 cubic meters of water in fiscal 2023.

Our Vice President of Global EHS is responsible for ensuring that water-related risks and minimization opportunities are assessed as appropriate. Water reduction is covered under our EHS policy and ISO 14001 EHSMS, which call for our business operations to identify opportunities, make continual improvements on environmental preservation and natural resource conservation, and meet or exceed all relevant regulatory requirements.



## Water Withdrawal

(Thousand m <sup>3</sup> )	FY23	FY22	FY21	FY20	FY19
City water purchase	2,077	2,221	2,149	2,088	1,990
Groundwater	1.3	138	100	16	26

# Waste Management

Applied is committed to minimizing waste across our global locations and logistics operations, with a special focus on eliminating non-recyclable, landfill-found waste. Waste reduction, reuse and recycling programs are managed and monitored at the site level.

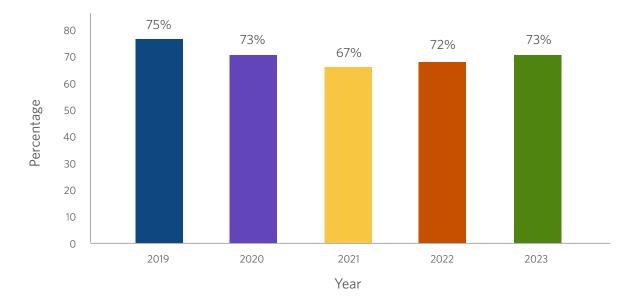
In 2023, Applied decreased our total waste 2% year over year, and increased our landfill/ incineration diversion rate to 73%, up 1% over 2022.

## A few of our site-based projects included:

- Installing wood augers to recycle wood crates in Austin, Texas, repurposing over five million pounds of wooden crates into engineered wooden products, such as oriented strand board (OSB), achieving an 85% waste diversion rate.
- In Israel, an industrial symbiosis project, established by the Ministry of Economics and Ministry of Environmental Protection, provides a platform for businesses across industries to repurpose and reuse items. Through this platform connection, Applied diverted about 30 tons of potential waste (packages, electrical and mechanical items, furniture, cables, pipes, pumps), enabling new uses in the market.

• Composting cafeteria waste in Singapore. Hazardous waste accounted for less than 6% of our annual waste output in 2023, up from 3% in 2022 due to the addition of a new Chemical Mechanical Planarization (CMP) tool and its associated waste. We contract with licensed third parties to transport waste, including hazardous waste, for off-site disposal, consistent with applicable laws and regulations. Our EHS organization oversees the process and verifies all disposal sites and methods meet regulatory requirements. We evaluate potential vendors via the CHWMEG Facility Review Program, which provides environmental, operational and financial information on waste treatment, disposal, recycling and storage facilities.

## Diversion Rate



## Year-Over-Year Waste Performance

(Thousand Mt)	FY23	FY22	FY21	FY20	FY19
Non-haz recycled	12.9	13.9	12.5	10.4	8.9
Non-haz composted	0.2	0.2	0.1	0.1	0.4
Non-haz incineration	0.1	0.3	0.7	1.3	0.5
Non-haz landfill	14.1	4.7	4.8	2.3	2.1
Total haz waste	1.1	0.5	0.5	0.4	0.5

Applied strives to reduce the negative impacts of wastewater produced by our operations, monitoring to ensure sufficient removal of solids and adherence to permitted parameters, such as ph and fluoride content, before discharge to publicly owned treatment works. Each Applied site is responsible for wastewater monitoring. Concerns are escalated to site management and applicable corporate staff for immediate correction.

# 

# **Applied Materials Taiwan Driving Environmental Efficiency**

Applied Materials Taiwan implemented a variety of environmental efficiency initiatives in 2023, driving solid reductions in electricity, waste and water use across our campuses.

## For example:

- 425,607 kWh of electricity saved through office lighting optimization with LED light retrofits, another 6,076 kWh saved through sensorcontrolled LED landscape lighting, and 9,720 kWh saved by optimizing office air conditioning and wall lamps use outside of business hours
- 3,155 kg CO<sub>2</sub> emissions saved by converting to Green Label and Forest Stewardship Council (FSC)-certified products, including hand and dish soap, bath tissue and paper towels
- 21,000 kg CO<sub>2</sub> emissions saved by repurposing wood packaging waste to create a wooden pathway on campus
- 16.2 tons of plastic waste was reused (between July-November 2023) to produce Solid Recovered Fuel for power generation and garbage bag production
- 1,092 tons of water saved by optimizing deionized water usage through recycling



# 04

# Innovate for Progress

# Key Highlights

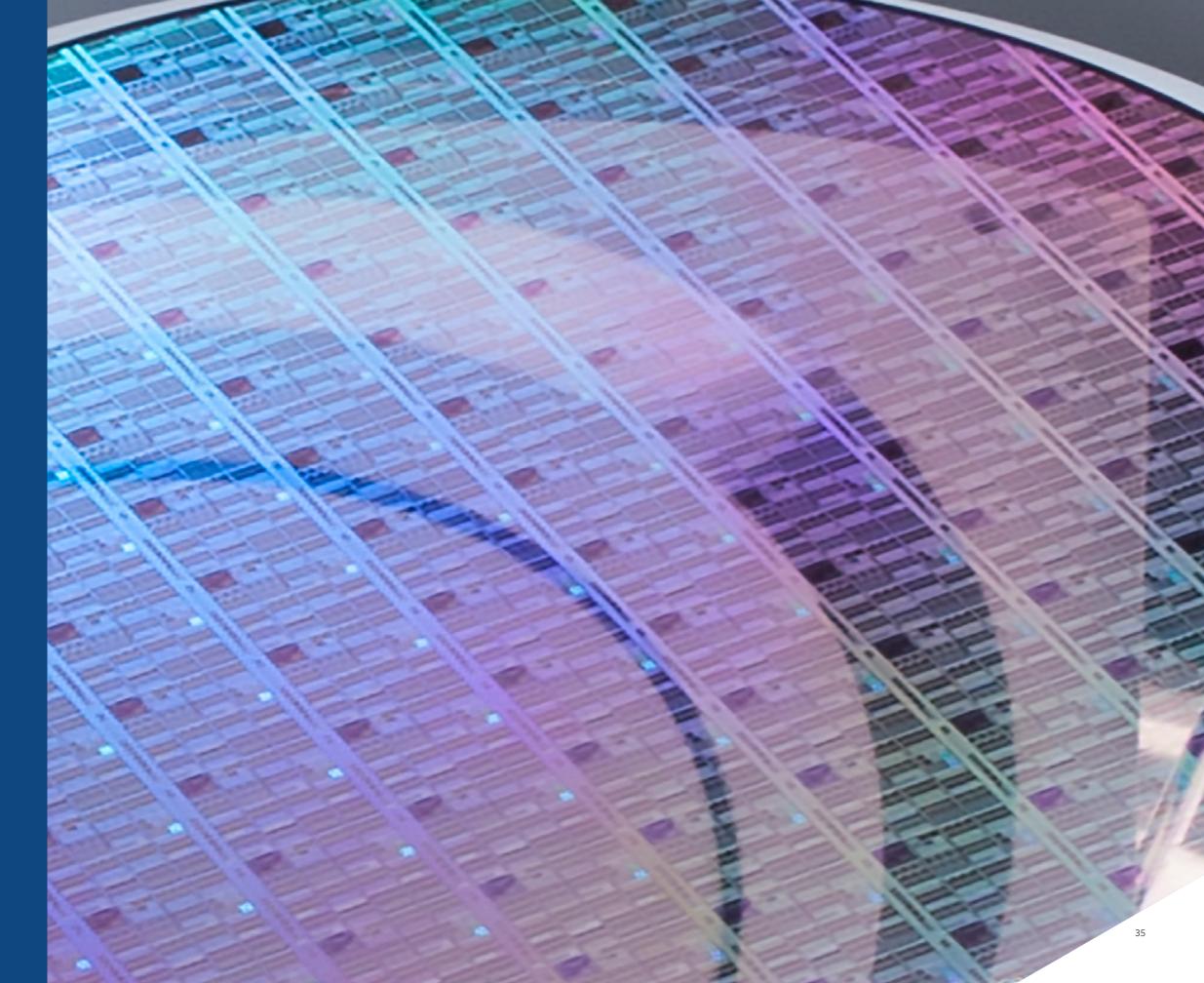
Goals and Progress

Sustainability Systems Center of Excellence

Promoting the Circular Economy

Product Safety

Supply Chain Responsibility



In an era of hyper-accelerated innovation, progress toward sustainability cannot be incremental. Applied is taking a system-view approach, together with our customers and business partners, to fundamentally transform our industry on a pathway to net zero.

> The digital transformation that is redefining our economy and impacting every aspect of our lives is also impacting our planet at an expedited pace. The semiconductor industry—the very foundation of tech innovation—is uniquely positioned to solve this challenge. But it won't happen in isolation.

Applied is committed to collaborating across the semi ecosystem to drive energy-efficient computing and create a pathway to global carbon reduction. We're building the world's largest and most advanced facility for collaborative semiconductor process technology and manufacturing equipment R&D in Silicon Valley and planning a collaborative engineering center in Bangalore, India, to fundamentally transform how innovation happens, from concept to commercialization.

Working alongside our customers, we're innovating the way we innovate—creating purpose-driven products and advancing the environmental performance of existing products—to significantly reduce the energy, chemical and physical footprints of fabs as we drive progress toward our ambitious 3x30 goals.

Through a growing portfolio of—and continuing investments in—eco-advantaged products and upgrades, and with more than a third of our installed systems under service agreements, we're enabling our customers to optimize the life of their equipment, boost their efficiency and lower emissions, while maximizing the value of their capital investment.

Upstream in our value chain, our suppliers play an essential role in our systems-view approach. Our strategic 10-year roadmap, SuCCESS2030, guides our progress toward creating a more sustainable supply chain aligned with our business values and standards.

Through these collaborations with our customers, suppliers and the broader technology ecosystem, we see a clear pathway to accelerate the energyefficient computing roadmap as we aspire to achieve net zero semiconductor manufacturing.

# **Key Highlights for 2023**



Center, accelerating innovation and commercialization of energy-efficient, next-



Released Vistara, Applied's first platform designed to support Integrated Materials Solution recipes using more types and sizes of chambers



6,000

crates eliminated from outbound shipments and 70% reduction in supplier inbound extra-large shipments through packaging optimization initiative



Distinction



- Announced a landmark investment to build the EPIC
- generation technology





eco-advantaged products and services in our portfolio-with a pipeline of new developments and ecoUP components for existing products



Introduced Sculpta<sup>™</sup> Pattern-Shaping System—an industryfirst patterning technology that eliminates an entire EUV mask layer from a wafer process flow



69

supplier audits conducted in alignment with the RBA audit protocol

Recognized with the Intel EPIC **Program Outstanding Supplier** Award with Supplier Diversity



Received Micron's Supplier Award for Outstanding Performance in Sustainability

Setting New Goals to Advance Sustainability

# **Goals and Progress**

3x30 Goals			
Goal	Progress*	Status	UN SDG
Reduce equivalent energy consumption per-wafer pass for semiconductor products by 30% by 2030 from 2019 baseline	Average per-wafer energy use continued to decrease due to changes in the mix of products sold. As we incorporate new energy savings developments into our existing and upcoming products, we are on track to meet or exceed our 3x30 target.		12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Reduce the impact from chemical consumption per-wafer pass for semiconductor products by 30% by 2030 from 2019 baseline	Sustainability Systems Center of Excellence team and its engineering partners in the product business units continue to pursue development of multiple products that can significantly reduce chemical impact through reduced demand for process chemicals, alternative process chemistries and improved abatement solutions. Some of these initiatives are expected to be multi-year efforts, but we are on track to meet or exceed the 3x30 target.		12 RESPONSIBLE CONSUMPTION AND PRODUCTION
30% reduction in tool footprint per production unit ratio (sqm/ wph) for semiconductor products from 2019 baseline	Footprint reduction to date is largely the result of productivity improvements in existing tool architectures. As new product architectures, such as Vistara, begin volume shipments to customers, footprints can be further reduced and are expected to meet or exceed the 3x30 target.		9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

SuCCESS2030 Goals

Goal

Collect GHG data from top suppliers and partner on reduction targets

Drive compliance with RBA Code of Conduct and Applied Materials Standards of Business Conduct (SBC)

Increase the percentage of spend with, and representation of, women- and minority-owned businesses by 2024, aiming to reach \$1 billion in diverse spend by 2027

Transition the supply chain to recyclable content packaging, with a target of 80% by year-end 2023

Not yet started In progress

Completed On target

\* Cumulative through fiscal 2023 unless otherwise noted

Progress*	Status	UN SDG
Conducted GHG surveys with over 80 suppliers in fiscal 2023		12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Conducted audits of over 50 top-tier suppliers in 2023		5 GENDER EQUALITY 10 REDUCED INEQUALITIES 10 REDUCED INEQUALITIES
Met our interim goal of increasing diverse spend to 3.8% of total global supplier spend, spending \$594 million with certified diverse suppliers in 2023		5 GENDER EQUALITY 10 REDUCED INEQUALITIES I I I I I I I I I I I I I I I I I I I
Through 2023, an estimated 80% of Applied packaging materials were made from recyclable materials		12 RESPONSIBLE CONSUMPTION AND PRODUCTION

## **Sustainability Systems Center of Excellence**

As the semiconductor industry continues to deliver better performance per bit, chip structures are becoming more intricate and wafer production is becoming orders of magnitude more complex.

This complexity requires more process steps that increase direct emissions, energy use and supply requirements. At the same time, growing demand for current and legacy generation chips to support the sectors, including the Internet-of-Things, communications, automotive, power electronics and sensors (ICAPS), lead to compounding increases in GHG emissions from chipmakers.

A key element of our Net Zero 2040 Playbook is driving efficiencies in our products so they use less electricity and process chemistry and emit fewer emissions for each wafer processed. By improving the sustainability of our products, we can help our customers—many of whom have set their own aggressive net zero emissions targets reduce emissions from their own operations.

Our 3x30 engineering team, established in 2020, is focused on reducing the energy consumption, chemical impact and fab footprint of our systems by 30% this decade. The team fosters a culture that prioritizes sustainable design principles in the earliest stages of product development to create systems that consume fewer resources and

supports end-to-end deployment and adoptions of purpose-built sustainability products by our customers.

#### Our comprehensive sustainable design approach encompasses three core elements:

- Sustainability Systems Center of Excellence, which supports our product engineering design teams in developing more sustainable technologies products and processes; the results can be seen in our expanding portfolio of purpose-driven products and services for fab and subfab.
- A proprietary modeling tool that quantifies the energy, chemical impact and footprint of past, present and future tool designs, to provide continuous measure and ensure progress toward our 3x30 goals.
- Customer partnerships to innovate efficiencies in our tools and processes, boost industry-wide sustainability and deliver broad benefits to the planet.





### Next-Generation Platforms and Systems

- Vistara is one of our most significant new equipment platforms in a decade, reimagined for a new, more-sustainable era of chipmaking. Vistara is our first purpose-built platform, designed to support Integrated Materials Solution recipes using more types and sizes of chambers. It combines and co-optimizes multiple process steps within a single tool, resulting in an estimated 35% reduction in platform energy consumption and about 30% reduction in chemical footprint for etch applications. The design increases throughput density by as much as 30%, allowing chipmakers to build smaller fabs and potentially save one million metric tons of carbon for every 100,000 wafer-starts-permonth fab built.
- Applied's <u>Sculpta Pattern-Shaping System</u> features industry-first patterning technology that eliminates an entire EUV mask layer from a wafer process flow. In addition to significant capital and manufacturing cost savings, Sculpta enables tremendous energy savings of more than 15 kWh per wafer, direct GHG emissions reduction of more than 0.34 kg of CO<sub>2</sub>e per wafer and water savings of about 15 liters per wafer.

### ecoUP Upgrades and Purpose-Built Products

Applied has 24 eco-focused products and services in our portfolio today—new ecoUP innovations and components for existing products. This is a pipeline of new upgrades engineered for our existing products that help customers meet their sustainability targets. Applied offers new components, software and solutions that advance environmental performance.

#### For example:

- **<u>EcoTwin</u>** is a digital twin that can monitor and model recipes and operations so chipmakers can drive energy optimization in their fabs. EcoTwin Eco-Efficiency Software automatically generates detailed reports of carbon footprint and related consumption parameters from both the fab and subfab to help customers identify opportunities to reduce consumption.
- **<u>iSystem Controller</u>** monitors resource consumption and GHG emissions and automatically adjusts the energy needs in the subfab based on what's happening within a tool. The small footprint iSystem controller can support up to four tools and is easily installed on both Applied and non-Applied Materials process tools.

- Aeris<sup>™</sup>-G is a pre-pump plasma abatement solution that uses less energy by treating the actual process gas volume. The Aeris-G system can be installed within the pump footprint of each chamber and requires only power, nitrogen, oxygen, cooling water and ultrapure water connections. For new tool installations, Aeris-G saves subfab space, reduces utility and exhaust connections and minimizes installation costs while improving abatement efficiency of greenhouse gases.
- There are more than 20—and growing—fieldapplication specific upgradable products in our ecoUP portfolio to help customers optimize the performance of their existing tools while reducing energy consumption and GHG emissions, including shared heatexchangers between chambers, low-power systems, thermal control and equivalent energy utilities savings components.



### India Sustainability Systems Center of Excellence Team

The India Sustainability Systems Center of Excellence team develops many of our ecoUP Upgrades in collaboration with Applied's business units, with the specific purpose of improving the performance of our existing equipment. The team conducts modeling and testing to validate the performance improvement of the ecoUP upgrades and works to find new ways to reduce and eliminate use of certain types of materials. For example, the team developed upgrade kits to decrease evaporation loss on heat transfer fluids, which reduces the amount of GHG emissions and PFAS that is released by certain thermal management systems used widely in the semiconductor industry.

### Accelerating Semiconductor Collaboration and Innovation

To meet the explosive demand and growing complexity of technology, the semiconductor industry needs to fundamentally transform its model of collaboration and feedback to increase the speed and lower the cost of innovation.

In May 2023, Applied <u>announced</u> a landmark investment to build the world's largest and most advanced facility for collaborative semiconductor process technology and manufacturing equipment R&D, the EPIC Center. Located at an Applied campus in Silicon Valley, the multibilliondollar EPIC facility will include more than 180,000 square feet—more than three American football fields—of state-of-the-art cleanroom for collaborative innovation with chipmakers, universities and ecosystem partners.

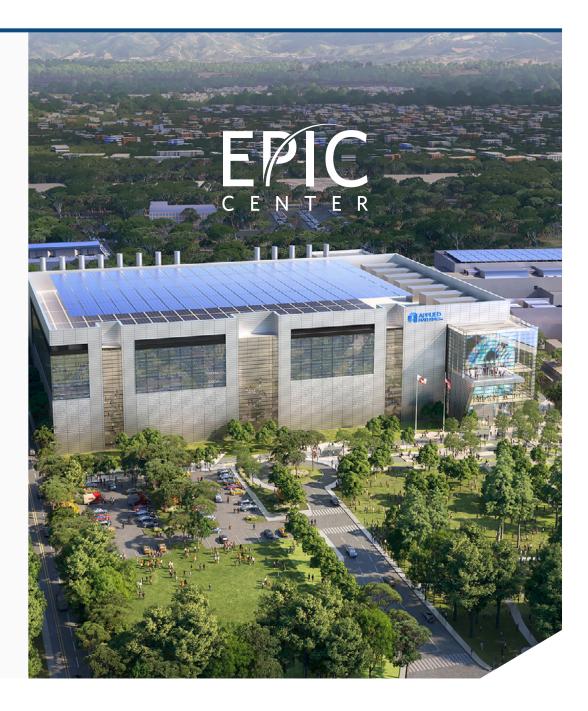
The new EPIC Center is expected to reduce the time it takes the industry to bring a technology from concept to commercialization by several years, while simultaneously increasing the commercial success rate of new innovations and the return on R&D investments for the entire semiconductor ecosystem.

The EPIC platform will provide university researchers with access to the full range of industrial-scale capabilities to validate their ideas. University researchers can perform research alongside industry professionals, and Applied can collaborate with academic partners to build a network of industrial-quality satellite labs at university facilities. In July 2023, Applied and Arizona State University (ASU) <u>announced</u> such a satellite lab.

Aided by the Arizona Commerce Authority, the Materials-to-Fab (MTF) Center will be a world-class shared R&D and prototyping facility designed to accelerate the transfer of innovations from ideation to fab prototype. Students and faculty will have the opportunity for hands-on learning and research using the same equipment used in leading production fabs.

To build an inclusive talent pipeline, Applied also intends to launch an endowment fund that will provide scholarships to first-generation and/or underrepresented minority students in the ASU Ira A. Fulton Schools of Engineering.





### Addressing PFAS in the Semiconductor Industry

As part of Applied Materials' commitment to minimize the environmental impact of our operational footprint and supply chain, we have adopted a "PFAS Responsible" approach. We are prioritizing both the elimination of per- and polyfluoroalkyl substances where technically and commercially feasible, and the development of non-PFAS alternatives where needed. In critical applications where no current line of sight exists to suitable non-PFAS alternatives, Applied will drive environmental and commercial risk mitigation and work with our suppliers and customers to ensure the most responsible use of PFAS.

Limited and responsible use of PFAS will require industry-wide collaboration. Applied is actively participating in industry groups that are sharing information about the use of PFAS throughout the semiconductor industry, including serving as a leading member of SIA's Semiconductor PFAS Consortium and SEMI's PFAS Initiative.

For more information, please see Applied Materials Statement on  $\underline{\mathsf{PFAS}}.$ 

Applied Materials received Micron's 2023 Supplier Award for Outstanding Performance in Sustainability. Applied collaborated with Micron to achieve about 15k MTCO<sub>2</sub>e emissions savings, 17M kWh of energy reduction and 120k m<sup>3</sup> of DIW usage reduction in 2023.

## **Promoting the Circular Economy**

Applied's customers need to run their equipment at maximum capacity, often 24 hours a day, seven days a week. This can put big demands on their electricity use and increase process chemistry and carbon emissions.

Applied Global Services (AGS) provides integrated solutions to optimize equipment and fab performance and productivity. Through its corrective and preventive service contracts, AGS ensures Applied's installed equipment is working at its optimal performance with the lowest environmental footprint.

AGS works with our customers to understand their sustainability goals and manufacturing expectations, and deploys diagnostic systems and tools, powered by AI, to fully understand how the equipment is performing. The team combines that insight with deep product knowledge to recommend software and/or hardware upgrades to help optimize performance and minimize emissions.

For example, Applied's Total Kit Management<sup>™</sup> (TKM) program provides a customized kit of certified spares with best-in-class cleaning and coating services to reduce total cost of ownership. For our CMP equipment, the HeadSmart<sup>™</sup> TKM solution offers offsite head rebuilds, which saves the customer valuable floor space while keeping the CMP polishing head in use longer. Applied has rebuilt more than 276,000 heads through the HeadSmart solution.

Applied operates regional TKM processing facilities, which help reduce transportation costs and time. By carefully monitoring key dimensions on the parts, we are able to best determine when parts have achieved end of life.

Our Forecast Parts Management<sup>™</sup> (FPM) leverages Applied Materials' global supply chain infrastructure and inventory to offer parts support specifically tailored to our customers' operational needs. The FPM allows greater supply assurance by placing the right inventory closer to fabs, which provides savings to our customers while reducing the carbon footprint.

### By the Numbers

16,600

Systems under service agreements

276,000

Heads rebuilt through the HeadSmart solution

## 111,468

Kits per year are recycled in our chambers following TKM processing



### **Operating Amid Electricity Constraints**

AGS is working with a customer located in a region where access to electricity is at risk. Optimizing the efficiency of their equipment isn't just about cost efficiency—it's about operating at the greatest capacity with the lowest possible energy footprint. Using a system of diagnostic data collection and analysis, AGS is able to prioritize actions, parts and eco upgrades to keep the equipment operating at optimal output aligned with the environmental constraints faced by this customer.

#### Did You Know?

AGS supports more than 48,000 installed Applied semiconductor, display and other manufacturing systems worldwide through a global distribution system in more than 195 locations and trained service engineers and recycling facilities located in close proximity to customer sites.

### **Keeping Systems and Parts in** Use Longer

Applied's systems are designed for long life, supported by upgrades, repairs, refurbishment and reuse. All newly manufactured parts are engineered for greater repairability, and where possible, Applied uses refurbished parts to repair and remanufacture systems and parts.

As part of its work supporting customers in the field, AGS recovers parts and assemblies from our equipment for potential reconditioning and reuse. Applied has the capability to repair about 10,000 unique parts. Applied maintains one of the industry's largest global inventories of spare parts, with recovered parts searchable in our inventory management system and ready to be selected for cleaning and repair.

Each recovered part goes through an exacting process of inspection, cleaning, refurbishment and repair. These recovered parts are certified by AGS as "like new" for reuse, with a full warranty and the same service level as a new part. Repaired parts are used to support Applied equipment in the field.

Applied offers an ever-expanding portfolio of eco-focused products and services.

### Packaging Reduction and Reuse

Applied's precision products require strong, durable packaging to avoid damage and absorb vibration during transport. Our Design for Distribution task force works to meet those stringent demands while reducing materials use, improving recyclability and increasing reusability.

In 2023, about 80% of our packaging materials were made from recyclable materials (polyethylene, polypropylene, corrugated fiberboard, steel and wood), up from 70% in 2022. Our supplier packaging specifications prohibit all non-recyclable material, except laminated plastic bags used for moisture barrier protection, for which there is currently no viable alternative.

We are working with our suppliers to report packaging materials data. Together with our major packaging partner, TransPak, we are establishing a baseline of our total use of lumber, plywood and foam for packaging used to ship products to customers, which will enable us to set tangible reduction targets informed by data.

In fiscal 2023, TransPak and Applied calculated wood content savings based on selected designs. This initial project was done as a proof of concept to validate our measurement approach. Through this targeted effort, Applied reports a savings of about 1.2 million pounds of wood content in 2023. Using fiscal 2023 as a baseline, supported with a validated measurement methodology, we aim to achieve a target reduction of 5% in 2024. This will be calculated through a macro approach of measuring board feet of lumber, square feet of plywood and square feet of foam for packaging across our portfolio.

### Award-winning Design for Distribution

In 2023, more than 100 representatives from our manufacturing engineering, procurement, logistics, sourcing, packaging engineering, operations and multiple business units embarked on a project to rethink processes, redesign packaging and reimagine sourcing and shipping logistics to solve for rising end-to-end transportation costs and heavy, inefficient packaging designs.

Applied has traditionally relied on wood crates to safely and securely ship our semiconductor manufacturing products to customers. In fiscal 2022, Applied used 108,000 wood crates, which is the equivalent of about 80 acres of forest or 20,000 trees. The crates, generally single use, are not optimized based on content, leaving excess, non-functional "air space" that costs more to ship, takes up more space in transit and uses more materials than necessary to protect the products.

The cross-functional team set out to solve these issues, implementing a company-wide program to reduce waste and excessive spend on packaging materials and freight by integrating logistics into product design. The program includes both incoming and outgoing materials, covering everything that we buy, integrate, make and sell.

The team uses modeling and simulations to ensure we are optimizing both the packaging and logistics.

### Among the improvements the team realized in 2023 include:

- Redesigning shipping crates and implementing flat packaging and packaging densification to better match the packaging with the product or products being shipped; the packaging optimization resulted in a 70% reduction in supplier inbound extra-large shipments and a 21% reduction in wasted "air space" in the packaging
- Implementing a collapsible crate design to reduce storage and transportation costs
- Reusing inbound crates for outbound shipments to customers
- Replacing wood with FSC-certified fiberboard where possible, which also reduces the weight of shipments
- Providing crate recycling where beneficial
- Carting to enable mode shift from air to ocean, as well as aggressively negotiating freight rates

The project reduced outbound shipments by about 6,000 crates (equivalent of saving about 5,300 trees), reduced the consumption of wood and plastics, lessened the cost and carbon footprint of logistics operations through smaller, lighter and fewer crates per shipment and saved Applied \$164 million dollars in fiscal 2023. The project also inspired an awareness and greater understanding of the positive environmental impact Applied employees can drive together.

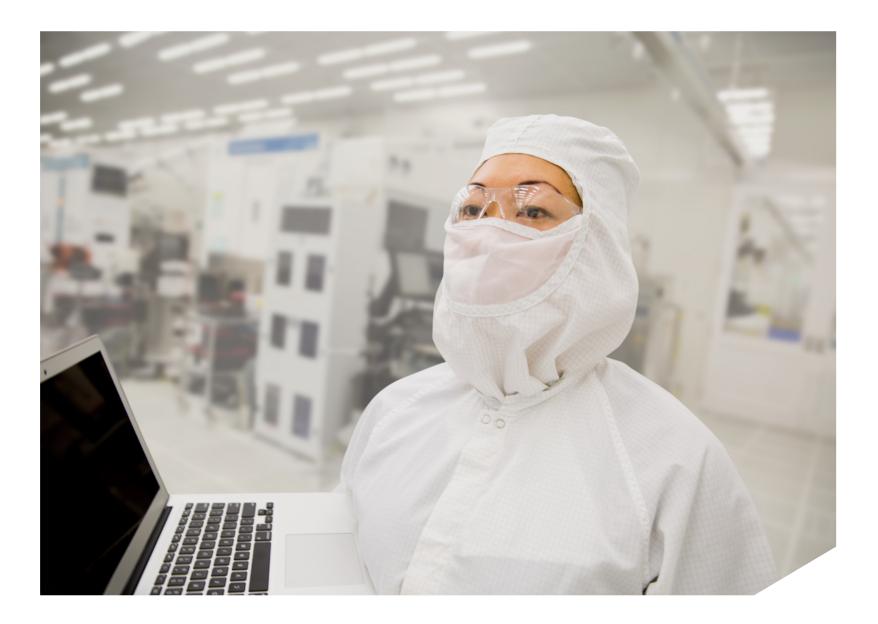
The Design for Distribution Program received the top score for the Applied 2023 President's Quality Award. The annual award, presented by Applied CEO Gary E. Dickerson and VP Global Quality Vinjay Sinha, focuses on recognizing teams that are strengthening our Culture of Quality by applying quality processes and data-driven decision-making to deliver impactful enhancements to our products and services or sustainable, systemic improvements in our operations.

## **Product Safety**

Applied Materials develops and implements comprehensive product design, manufacturing, labeling and testing policies and programs to ensure our products are safe to use and comply with applicable legal requirements and conform with relevant industry standards and guidelines.

Third-party assessments validate that our products meet applicable safety requirements.

Applied's product release process draws upon applicable consensus standards, including SEMI S2. Our risk assessment process follows the applicable SEMI S10 Safety Guideline for Risk Assessment and Risk Evaluation Process on identifying, estimating and evaluating the lifecycle risks of semiconductors. Our Product Safety group partners with other company functions to oversee the design of products and services, monitors their safety during the product's lifecycle and drives compliance with our product safety policy and procedures.



## **Supply Chain Responsibility**

SuCCESS2030 is our 10-year roadmap for creating a more sustainable supply chain. The effort builds on our foundation of supporting ethical labor practices, environmentally responsible operations, responsible minerals sourcing and international human rights standards.

Through SuCCESS2030, our assessments of supplier performance and capabilities require shared commitments across core ESG focus areas—including environmental impact; labor practices; and diversity, equity and inclusion—most of which include defined performance targets.

We hold our supply chain partners to the same high standards as we hold ourselves. Applied's Supplier ESG Requirements document is incorporated into our Global Supplier Agreements and other agreements with direct and indirect suppliers. These requirements are also included in the terms and conditions for logistics suppliers and all purchase order transactions and are enumerated in our most commonly used agreements for indirect services. Our SuCCESS2030 Office oversees metrics and compliance audits and conducts training and coordination with participating suppliers. Applied is committed to protecting human rights and conducting business in an ethical and responsible manner. Learn more about our commitment to human rights and <u>Applied's Responsible</u> <u>Manufacturing Program</u>.

## Supplier Audits, Risk Assessment and Remediation

To best assess the working conditions of the employees within our supplier factories, Applied conducts third-party audits to the <u>RBA</u> audit protocol, which includes labor and working conditions, environment, health and safety, and ethics. The RBA audit program requires at least three data points, including worker interviews, to validate conformance to the audit criteria, ensuring a thorough review of working conditions. The RBA includes hundreds of member companies aligned to one code, one audit protocol and one audit result, enabling suppliers to leverage their audit reports across multiple customers to help reduce audit fatigue and free up time to focus on remediation and capacity improvement.

With thousands of supplier factories around the world, we prioritize supplier sites based on spend. For other facilities, we include our medium- to high-risk sites, according to regional risk, as assessed by the RBA Risk Assessment tool.

For our suppliers, these on-site audits typically take four to 10 days. It is required that there is no interference by the supplier site management. Worker interviews must be conducted without management present and interviews are not recorded. In 2023, Applied had zero instances of management interference.

Once the audit is completed and the findings are agreed upon, the suppliers work with our SuCCESS2030 team to close issues. In the event of a life-threatening priority finding, audit firms are required to notify Applied within 24 hours, though these types of priority findings are typically reported at the time of discovery. At Applied, we require our suppliers to close their priority and major findings within the recommended RBA timeline through additional on-site, third-party audits.



To support our suppliers in closing their findings, we have secured services from an independent consulting firm to work directly with our suppliers to create corrective action plans.

Our audit reports go through a quality review, and the suppliers are given a post-audit survey on their audit experience throughout the entire cycle. This helps ensure high quality and consistency across auditors and firms and enables us to work with individual auditors to improve their processes and capacity, as needed.

Supplier sites that are under consideration by Applied go through a shortened, second-party audit. An Applied engineer reviews audit criteria, such as forced labor, young workers, working hours, environment, health and safety, and ethics. All Applied engineers who conduct these condensed working-condition assessments have taken the RBA auditor course. Potential suppliers who fail to close the gaps in these assessments are not approved to be Applied suppliers.

2023 Supplier Audits			
Initial Audits Conducted	51		
Closure Audits Conducted	18		
Total Audits Conducted	69		

### **Capability Building**

We offer our suppliers a structured program of webinars and training on responsible factories. product compliance and other topics to help them close any gaps across our ESG focus areas. In addition, our SuCCESS2030 Office meets one-onone with each tier 1 supplier, at least once a year, to go through the SuCCESS2030 requirements and answer any questions. Suppliers can also meet with the head of SuCCESS2030 using a public scheduling link.

### **GHG** Data

In fiscal 2023, we announced our Net Zero 2040 <u>Playbook.</u> To prepare Applied suppliers for this initiative, we collected GHG goals and data from all our top spend suppliers, through which 80 suppliers were able to provide site-level data for Applied supplier sites. In 2024, we are continuing to collect supplier site data for all our top suppliers, by spend, and to drive adoption of GHG reduction goals for at least 110 suppliers.

Our survey includes source data for us to collaborate with our suppliers on creating an emissions reduction plan to reach net zero by 2040, including establishing a reduction plan and assisting them in procuring renewable energy.

As part of this effort, Applied Materials became an inaugural corporate sponsor of Schneider Electric's Catalyze partnership program, which aims to accelerate the adoption of renewable energy and reduce carbon emissions throughout the global semiconductor value chain. We also joined the Semiconductor Climate Consortium Energy Collaborative, bringing together the combined purchasing power of semiconductor companies to encourage a faster conversion to clean energy in the Asia-Pacific region.

Through active participation in programs like Catalyze and SCC Energy Collaborative, as well as through organizations like <u>CEBA</u> and <u>RE100</u>, we are building on our SuCCESS2030 efforts to instill sustainability best practices among our suppliers and intend, in the future, to accelerate supply chain decarbonization and drive higher output of clean energy for the semiconductor industry.

### **Responsible Minerals Sourcing**

Applied Materials is committed to the responsible sourcing of minerals used in our products. Key to this commitment is our policy around tantalum, tin, tungsten and gold (3TG), also known as conflict minerals for their frequent origin in the Democratic Republic of Congo (DRC) and adjoining countries affected by conflict and human rights abuses.

For more than five years, Applied has worked with third-party service providers to assist in conducting outreach to suppliers regarding their sourcing of 3TG intentionally added to products furnished to Applied, and evaluating their responses. Applied is a member of the RMI, and we work to validate that our suppliers conform with Responsible Minerals Assurance Process (RMAP) standards. In 2023, our SuCCESS2030 team worked directly with approximately 11 smelters or refiners to ensure their continued participation in the RMI RMAP program.

Our SuCCESS2030 lead is the co-chair for the RMI Smelter Engagement Team (SET), which oversees the different smelter engagement teams, and three Applied employees serve in a voluntary capacity. In addition, an Applied SuCCESS2030 program manager leads a second-level SET team, which oversees re-audits as part of the RMAP program to maintain the RMAP conformance rate.

In addition to 3TG, we also collect data on cobalt and will begin our due diligence for aluminum, steel and iron in fiscal 2024. We are one of the founding members of Copper Mark, to ensure a responsible supply chain within the copper industry.

For more information about our 3TG due diligence, please see our Conflict Minerals Report.

### Supplier Diversity

We met our goal to achieve greater than \$500 million spending with certified diverse or pending certified diverse suppliers—39% with minorityowned, 56% with women-owned and 5% with veteran-owned businesses—reaching \$594 million in 2023. Our goal is to reach \$1 billion in spend with diverse suppliers by 2027.

All suppliers, regardless of certification or ownership status, must meet the same procurement standards, participate in the same audits and go through the same rigorous onboarding process. To ensure all Applied suppliers are accountable to the same quality standards, there is no special consideration or weighting based on diverse supplier status.

### We are also active in the supplier diversity space beyond Applied, including being a:

 Founding member of SEMI's Manufacturing Ownership Diversity (MOD) working group, which brings together semiconductor manufacturers, original equipment manufacturers (OEMs), material suppliers, certified diverse suppliers and diverse supplier organizations to build collective understanding, remove barriers and create growth opportunities that advance a more diverse manufacturing supply chain.

- Corporate member of the Diverse Manufacturing Supply Chain Alliance (DMSCA), which is the only U.S. non-profit membership organization focused exclusively on the development of small-and medium-sized U.S.-based diverse manufacturers. DMSCA helps diverse manufacturers assess and mitigate performance risk and address operational readiness, including environmental sustainability factors, to support emerging technologies, like IoT and AI.
- Corporate member of the National Minority Supplier Development Council (NMSDC), which, in addition to being a certifying agency, provides minority business enterprises (MBEs) with resources, such as business classes, pitch coaching and connections to potential corporate buyers. In fiscal 2023, Applied joined a regional NMSDC chapter, through which we collaborate across multiple industries to increase efficiencies and advocacy in the supplier diversity space.





Applied Materials earned the exclusive Intel EPIC Program Outstanding Supplier Award with Supplier Diversity Distinction for 2023. The award recognizes the highest level of achievement in the Intel global supply chain and is an ongoing realization of continuous improvement within the high-performing Intel supplier ecosystem.

Of the thousands of Intel suppliers around the world, only a few hundred qualify to participate in the EPIC Supplier Program. Applied is one of only six companies recognized by Intel in 2023. Intel honored Applied's unwavering commitment to quality, drive for excellence and dedication to technology innovation.

### Fostering Diverse Supplier Talent

Applied is working to grow the pipeline of talent across our supply chain. In addition to working closely with our existing suppliers to secure applicable diversity certifications, we are committed to helping strengthen both the capabilities and capacity of suppliers to grow with Applied and the semiconductor industry. This includes helping strengthen the pipeline of talent with essential vocational skills, like welding and electrical, as well as science, technology, engineering, arts and math (STEAM) skills to support our supply chain.

Applied is working to establish a vocational and STEAM educational program, SuCCESS school, to foster an awareness and interest in pursuing vocational and STEAM skills in the semiconductor industry, and provide access to materials on starting a business. Our intent is to encourage middle and high school students to become business owners within the semiconductor space, building a pipeline of future diverse-owned businesses. We plan to share additional details in upcoming Applied Sustainability Reports.

See additional efforts to grow diverse talent for Applied and our industry in our <u>Community</u> <u>Impact</u> and <u>Learning and Development</u> sections.

Brooks Automation US, LLC, received the 2023 <u>Applied Supplier Excellence</u> <u>Award</u> for Excellence in ESG (SuCCESS2030 initiative).

### R SPOTLIGHT

### Southeast Asia Alliance for Sustainability

Launched two years ago, the Southeast Asia Alliance for Sustainability (AFS) works to aggregate sustainability workstreams, strategies and operational plans across business units and functional areas to collectively advance Applied's ESG efforts. The team is intended to drive a sustainability culture across Applied in Southeast Asia through a series of informational sessions, sustainability initiatives and employee engagement opportunities.

In 2023, the AFS team led the initiative to install electric vehicle chargers at our Singapore Changi site, in collaboration with Charge+. The project makes Applied one the first semiconductor companies in Singapore to host on-site EV chargers. These on-site charging stations advance our efforts to transition to <u>renewable energy</u> across our global operations, while supporting our employees' choices for more sustainable forms of transportation.

In the community, the AFS team drove employee engagement efforts to support cleaner seas and more trees. To celebrate Earth Day 2023, AFS hosted a coastal cleanup at Pasir Ris Park in Singapore. Employees gathered in kayaks to collect over 50 kilograms of trash from the water, including fishing line, plastic Styrofoam boxes and tires. The event was paired with a sustainable food awareness campaign, where employees had the opportunity to refuel their bodies with alternativeprotein burgers.

AFS hosted two tree planting events in 2023. The first, in conjunction with Earth Day, was organized to support Singapore's National Parks Board One Million Trees Movement. The second, in September, was hosted in commemoration of Singapore's founding father Lee Kuan Yew's 100th birth anniversary. Employees planted 100 trees at the Tampines Eco-Green site to honor Lee Kuan Yew's legacy as Singapore's "Chief Gardener."



05

# Invest in People

Key Highlights
Goals and Progress
Human Rights
Recruiting and Hiring
Employee Benefits
Culture of Inclusion
Pay Equity
Learning and Development
Environmental, Health and Safety



APPLIED MATERIALS Sustainability Report 2023

**Cultivating a culture where all people can thrive** as their truest selves, strengthens our ability to attract and retain top talent, accelerates our innovation engine and better positions Applied to serve our customers in a dynamic market.

> Diverse perspectives and collaboration are the greatest drivers of innovation. At Applied, we strive to create a culture where all individuals feel they are seen, heard and invited to contribute. We are working to operationalize our inclusion practices, helping each other to recognize and remove biases, and breaking down systemic barriers that prevent progress.

Strengthening the pipeline for skilled talent is essential to meet the expansive growth of our industry. We invest in building a broad and inclusive talent pipeline, partnering with nonprofit organizations, colleges and universities to foster interest in—and build capabilities in—science, technology, engineering and math (STEM) capabilities. Our investments continue into early-career development, with robust programs supporting interns, apprentices, new college graduates (NCGs) and women in engineering and technology. We empower all employees to reap the full benefits of continuous learning, and we strive to ensure everyone has fair and, equitable opportunities to grow in their career at Applied.

Investing in people means supporting the whole person, not just their roles at Applied. We provide access to a range of benefits that promote physical, emotional and social health and well-being and financial security, and we provide employees with flexible options to best meet their own needs and the needs of their families.

Applied is fully committed to protecting the fundamental human rights of our employees and those of our suppliers. This commitment is formalized in our Human Rights Statement of Principles and is operationalized and governed through our Responsible Manufacturing Program.

By fostering a culture where everyone is welcome to bring their inherent, lived experiences and learned skills, knowledge, and experience together as One Applied, we accelerate innovation and enable the growth needed to serve the needs of our customers and communities for generations.

### **Key Highlights for 2023**



Texas



Transformed Applied's Global Hiring and Transfer Policy to strengthen employees' ability to be considered for any role and at any level without bias based on their current position



2023



Developed the Responsible Manufacturing Program and completed an RMP pilot internal assessment at Applied's manufacturing site in Austin,



Added new Disabilities Employee Resource Group and chartered four new ERG chapters globally



Increased U.S. pay transparency by publishing salary ranges in all U.S. job postings and pay ratios comparing compensation for designated populations



total learning hours were completed by employees and contingent workers in fiscal





Launched Connected Leadership Training course to help Applied's people managers build and lead high-performance teams

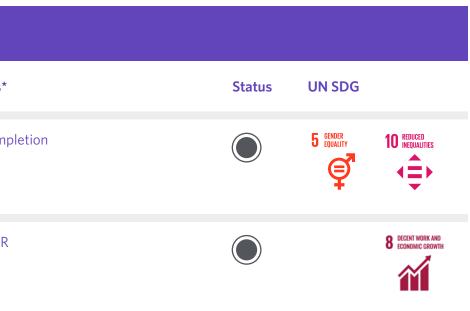


**Embracing a Culture of Inclusion** 

# **Goals and Progress**

2030 Goals				Annual Goals	
Goal	Progress*	Status	UN SDG	Goal	Progress*
Greater than 25% women representation at Applied globally	20.3%, representing a 2.2% increase from FY21		5 EQUALITY	90% completion of designated DEI Engine learning modules by all Applied employees, annually	94% comple
Greater than 21% executive women representation globally, with an aspiration to achieve equal global and executive representation of women by 2040	13.0%, representing a 0.8% increase from FY21		5 EENDER EQUALITY	Maintain occupational health and safety total case incident rate (TCIR) of 0.40 or below	0.44 TCIR
Greater than 25% underrepresented ninorities (URM) representation in J.S. workforce	19.9%, representing a 3.5% increase from FY21		10 REDUCED INEQUALITIES		
Greater than 10% executive URM representation in Applied's U.S. workforce	5.9%, representing a 1.1% increase from FY21		10 REDUCED		

\* Cumulative through fiscal 2023 unless otherwise noted



# Human Rights

We are committed to protecting human rights wherever we do business and have formalized our intent in our Human Rights Statement of Principles.

Ensuring the protection of human rights is integrated across our global operations and incorporated into relevant policies and training programs, including Employee Relations; <u>Culture</u> of Inclusion; <u>Ethics & Compliance</u>; <u>Learning</u> <u>and Development</u>; <u>Environmental</u>, <u>Health and</u> <u>Safety</u>; <u>Recruitment and Hiring</u>; <u>Supply Chain</u> <u>Responsibility</u> and others.

Our cross-functional Human Rights Working Group oversees our corporate human rights program, the Responsible Manufacturing Program. To support corporate accountability, the working group reports on human rights to our board's Corporate Governance and Nominating Committee (<u>CGNC</u>) at least twice a year, and the human rights program progress is included on our corporate scorecard.

As part of our EU Corporate Sustainability Reporting Directive readiness efforts, we are conducting a double-materiality assessment and will report the results to the CGNC in 2024.

### **Responsible Manufacturing Program**

We are committed to providing workers with safe working conditions, treating workers with respect and dignity, and conducting our business operations in an environmentally responsible and ethical manner. These commitments apply and are communicated to our entire global workforce and our suppliers.

Applied developed a formal Responsible Manufacturing Program (RMP) to operationalize human rights governance across our manufacturing operations to comply with our Human Rights Statement of Principles and the RBA Code of Conduct. The RMP builds upon the results of a 2022 assessment by Article One Advisors designed to identify human rights risk associated with our operations and opportunities to elevate our human rights management. The program focuses on Applied's internal operations across our manufacturing and R&D sites, assessing key areas including labor, health and safety, environment, ethics, and management systems.

In fiscal 2023, we socialized the RMP across all business units and large manufacturing sites before piloting the RMP at our manufacturing site in Austin, Texas, which is one of our largest manufacturing locations.



In preparation for the internal assessment, we partnered with a third-party consultant to develop resources and training materials, and we updated our Human Rights Statement of Principles, strengthening the language concerning accommodations of persons with disabilities or based on religious beliefs, and enhancing our freedom of association language.

In 2024 and beyond, Applied will assess additional manufacturing sites, staging our internal RMP assessments to avoid overlap with the performance of site audits pursuant to the RBA's Validated Assessment Program.

### **Non-Discrimination Policy**

Applied Materials is committed to providing a workplace that is free of discrimination, harassment and retaliation. We do not tolerate harassment based on race, color, national origin, ancestry, religion, age, sex (including pregnancy, childbirth or related medical conditions), sexual orientation, gender identity, material status, physical disability, mental disability, medical condition, genetic information, family care leave status, union membership, veteran status or any other basis prohibited by law. Our Standards of Business Conduct policy protects employees who have lodged good-faith reports of possible ethical issues or policy violations, or participated in any investigation, proceeding or hearing. The policy addresses conduct, complaint procedure, supervisory responsibilities, responsive action and supplemental state-specific rules.



Standards of Business Conduct for Employees (English)

Standards of Business Conduct for Employees (alternative languages)

Standards of Business Conduct for Business Partners (English)

## **Recruiting and Hiring**

As the semiconductor industry is predicted to grow to \$1 trillion by 2030, competition for talent grows, too. Applied is committed to expanding our talent pipeline and ensuring everyone has equal access to opportunity.

Applied is continually identifying global opportunities to standardize and accelerate our talent processes to strengthen cross-company growth opportunities for employees and streamline how we operate globally. In 2023, those changes included expanding Applied's Global Hiring and Transfer Policy to enhance talent movement and career development, and standardizing and extending the Global Employee Referral Program to drive even more referral opportunities.

We are committed to compensating our employees fairly and equitably. In the U.S., we increased pay transparency by publishing salary ranges in all U.S. job postings. On <u>our website</u> and in this 2023 Sustainability Report we have published <u>pay ratios</u> comparing compensation for Applied employees who identify as men and women, both globally and in the U.S., as well as for those who identify as minorities and nonminorities in the U.S.

### **Recruiting Diverse and Inclusive Talent**

Applied has a strong record of being a destination employer for veterans. Veterans have a unique combination of experience, skills, leadership and discipline that Applied needs to drive our vision to Make Possible a Better Future, so we have a small team focused exclusively on recruiting military talent as they exit the U.S. services.

In 2023, Applied earned the U.S. Department of Labor Gold HIRE Vets Medallion Award, which recognizes employers for their commitment to supporting U.S. military veterans in the civilian workforce. In the U.S. alone, Applied is proud to employ more than 1,200 veterans, representing approximately 7% of the U.S.-based workforce.

### ⊼ ⊘

Learn more about Applied careers for veterans.



Navy veteran and reservist Alicia leverages the skills she honed in the military in her role as U.S. Northwest/Central Regional Operations Manager at Applied. From interpersonal skills that advance an inclusive mindset to a rigorous commitment to dedication, follow-through and mission completion, Alicia found her military training created a strong foundation that transferred well to the high-tech semiconductor industry. Alicia started her career at Applied as a process engineer, learning the intricacies of the equipment, before being promoted to an operations manager. Read more about her journey, lessons learned and why veterans should consider building their career at Applied in <u>Search and Employ</u> magazine. Applied seeks diverse gender representation across our global workforce and uses technology, new sourcing channels/talent pools and programmatic approaches to diversity recruiting. Programmatic approaches vary by region and include programs to help women restart their careers after a gap in their work history, and others to bridge cultural boundaries for women who had not previously been in the workforce.

In addition, Applied participates in industry recruiting events and community events supporting other diverse groups, such as Hispanic and African-American populations, veteran populations and LGBTQ+ populations.

### Recruiting, Hiring and Onboarding Next-Generation Talent

Across the globe, Applied is working to attract the top incoming talent with global growth opportunities, a commitment to continuous learning, and a diverse and inclusive culture where everyone has the opportunity to reach their full potential. In 2023, we broadened our approach to NCG employment by increasing global year-overyear hiring in this talent category. In addition, we expanded existing onboarding programs and created new onboarding and development programs in countries and organizations we had not yet tapped. Through these programs, which are customized by region, business unit and/ or role type, NCGs receive world-class training, opportunities to work across multiple functions, and a chance to work with some of the most innovative professionals in the industry.

### **Campus Recruitment**

Globally, Applied Materials deepened existing school relationships and developed new relationships—especially with women's universities—to collaborate on increasing the industry talent pipeline. Hundreds of female STEM students participated in Applied's curated online, in-house and on-site events across Taiwan, Korea, Israel, India, Ireland and the U.S. Activities varied from information sessions to one-on-one consultations to set up candidates for interview success.

In conjunction with the creation of a <u>Material-</u> <u>to-Fab Center</u> in collaboration with ASU, Applied intends to launch an endowment fund that will provide scholarships to first-generation and/or underrepresented minority students in the ASU Ira A. Fulton Schools of Engineering.



"As a new college grad, I wanted to learn as much as possible from mentors and peers that have been in multiple industries and get a new perspective about what being an engineer entails. And that is exactly what I found in my team here—everyone I have interacted with has been welcoming, engaging and incredibly bright."

—Sara, Santa Clara, California



Learn more about early career opportunities at Applied.

### Internships and Apprenticeships

Applied offers an increasingly wide range of internship and apprenticeship positions for qualified students in both technology and business areas around the globe.

Internship opportunities have expanded well beyond the U.S. into Europe and across Asia. Intern experiences range in length from two to five months, with deep business engagement. Highlights from 2023 include the U.S. Intern Summit attended by more than 100 interns in Santa Clara as well as enhanced intern experiences in both Taiwan and Singapore. Activities included a speaker series, company career fairs, fireside chat with the CEO, roundtable discussions with Young Professionals Network (YPN) members, networking events and project-based work.

Similarly, Applied's apprenticeship presence grew globally, with new opportunities underway or in development in the U.S., Taiwan and Singapore. Applied has partnered with government entities and new schools around the world to create and launch apprenticeship programs—and, in one case, the apprenticeship program is the first of its kind in its state.



#### **Taiwan Talent Acquisition Team Recognized**

Demonstrating that we're One Applied, stronger together, the new AGS Equipment Products Group Manufacturing Plant in Taiwan credited the Taiwan Talent Acquisition team for helping them achieve the President's Quality Award. The Talent Acquisition team enabled the recruitment of quality talent to ramp the 200mm semi-equipment manufacturing site to support ICAPS business growth.

### **Featured Awards**





- 51 Jobs' Top Graduate Employer & Employer Excellence Award for HR Digitalization, China
- Arts & Business Awards, Taiwan
- Best Workplaces in Taiwan
- Commonwealth Talent Sustainability Award, #1 in Multinational Enterprises Category, Taiwan
- Excellence in Corporate Social Responsibility Award, Taiwan
- Glassdoor's Best Places to Work 2024, U.S.

### **Best Workplace for** Millennials, Korea



Human Rights Campaign Foundation Equality 100 Award: Leader in LGBTQ+ Workplace Inclusion 2023

### Military Friendly Employer 2024, Bronze



U.S. Department of Labor **Gold Hire VETS Medallion** 

- Great Place to Work Certification, China, Taiwan, India (August 2023-2024)
- *Military Times* Best for Vets 2023
- National Talent Development Awards, Taiwan
- Premier Employer, South Korea Minister of Employment and Labor
- Strait's Times Best Employers, Singapore
- STEM Workforce Diversity Top 50 Employers
- U.S. Veterans Magazine Top Veteran-Friendly Company 2023
- US Vets Indexes Top Employer, 2023

## **Employee Benefits**

**Applied's Global Benefits guiding principles have been** refreshed to further enable scale; support well-being; and advance diversity, equity and inclusion.

Applied Total Rewards offers a suite of health and wellness benefits to support our employees' physical, emotional, social and financial health. Our Total Rewards philosophy is based on offering equitable benefits, compensation and recognition opportunities to all employees. In 2023, we released several new and updated benefits guides including LGBTQ+, Gender Affirming Care, Fertility and Pregnancy.

While benefits differ based on employee priorities and needs in different geographies, our Culture of Inclusion team works together with the Total Rewards team to ensure there is equity and inclusion across our Total Rewards benefits.



### **Our Guiding Principles**



We support business and talent strategies that focus on improving health and wellness, increased productivity and encourage flexibility and work-life balance.



We foster the employee experience with inclusive and competitive programs, clear communications and strong vendor partnerships.

We maintain strong governance and shared responsibility, with sustainable and accessible options, support for informed choices and compliance and accountability.

Applied's 100% Paid Family Care Leave in the U.S.



And we drive productivity and efficiency with consistent policies and processes, automation and scale and intuitive technology.



globally. Some of these advancements in the U.S. in 2023 include:

- Providing access to virtual care across the U.S. and near-site care in certain markets through Crossover; employees in Santa Clara, Austin and Gloucester have access to on-site health centers at Applied.
- Providing enhanced mental health care for children and teens through a virtual program called Brightline; the program is available to U.S. employees enrolled in the Aetna health plan.

In 2023, 157 employees took advantage of Applied's 100% Paid Family Care Leave in the U.S., which covers 12 weeks of paid time off to care for a newborn, adopted or foster child, spouse or partner, as well as extended family members.

### In Asia Pacific, our Total Rewards program advancements include:

- Providing employees in South Korea with access to a new Flex account that enables them to use their benefit dollars in a way that works best for their individual and family needs.
- Offering a series of educational sessions to support the mental health of our employees.
- Offering health check-up events on-site in India, China and Singapore.

Applied is continuously working to enhance and strengthen our Total Rewards program

### Additional Advancements in the U.S

Implemented a Lifestyle account for employees to receive 50% reimbursement on

### <sup>up</sup> **\$1,000**

of eligible expenses that support the physical, emotional, and social well-being of themselves and their families.

Enhanced the adoption expense reimbursement program to now include surrogacy expenses and doubled the benefit

## <sup>to</sup> \$10,000

to support Culture of Inclusion efforts.

Supported student loan debt repayment for non-highly-compensated U.S. employees, with

### \$2.9M

repaid in 2023 supporting 947 employees.

## **Culture of Inclusion**

To attract and retain top talent, we are continuing to build an inclusive environment where everyone can reach their full potential.

We recognize that more inclusive companies that integrate diverse points of view tend to be more innovative and are better positioned to address broader market challenges. At Applied, our Culture of Inclusion is not a program or an initiative; it's an integral part of our business and talent strategy.

Across our global company, we aspire to be One Applied team—connected, inclusive and working together to be the most trusted and valued partner for our customers. It all starts with creating a Culture of Inclusion, where everyone shows up every day as their best selves and achieves their full aspirations.

We strive to be inclusive, understand different perspectives and, at our core, always listen and learn with others. By creating a culture where everyone feels included, seen and heard, our rich, diverse community of individuals are more likely to stay and grow their careers at Applied.

"This program provided a wonderful opportunity for selfreflection to understand how events in one's life shape who we are, and how we can create a positive impact as a leader in the company. Inclusion is about connecting with one another on a personal level, listening to hear and understanding how to empower others to succeed."

-Derek, Vice President, Semiconductor **Products Group** 





-Ugne, Field Service Engineer, Leixlip, Ireland

"Applied is an exciting, forward-thinking, fastmoving company. The company's enthusiasm for developing its employees has fostered a creative and productive environment of professionals that are truly engaged with their work."

### Our culture of inclusion strategy has three elements:



**Engage Leaders as Champions of Change** by making inclusion personal and defining metrics and driving leader accountability for change.

Since 2021, more than 200 executive leaders have participated in a tailored "Coaching for Inclusion" program from the Berkeley Executive Coaching Institute (BECI). The program focuses on making inclusion personal for leaders, building core capabilities and helping develop an authentic leadership presence around DEI. It builds empathy and an understanding of how DEI issues affect oneself and others. The program helps leaders become more conscious of how personal behaviors can unintentionally reinforce unproductive dynamics and guides them to make personal commitments to adapt their leadership style and approach to be more inclusive and influence change across the enterprise.

Leaders say the program has greatly expanded their understanding of inclusion and the role they play in creating and modeling a more inclusive culture.

"It was a fantastic and engaging class, filled with honesty and appreciation for the paths that others have walked on their inclusion journey. I very much look forward to using the skills with my team."

-Rory, Managing Director, Joint Operations Leadership Team



**Eliminate Systemic Barriers to Inclusion** as identified by Inclusion Change Teams, using discussions and data to guide the strategies and actions in their respective organizations.

To support the effectiveness of Inclusion Change Teams, we created a five-step Inclusion Change Team Toolkit. The purpose of the toolkit is to stimulate critical thinking and foster dialogue as leaders work together to identify and remove barriers to inclusion.

The five steps, identified by the acronym "DRIVE" (Direction setting, Role modeling, Informing others, Validating results, Empower everyone), include: guidance for validating and clarifying direction; championing inclusive behaviors by taking an active role; communicating expectations and stating the importance of inclusion; measuring, pivoting and celebrating successes; and empowering everyone to take responsibility for inclusion. A portion of the toolkit was piloted in Japan in 2023 and is being rolled out globally across Applied in 2024.



Our DEI Engine, launched in 2022, accelerates our journey to strengthen a Culture of Inclusion. It's a framework of tools, training and processes that aims to connect employees and leaders to our Culture of Inclusion strategy and inclusive behaviors.

There are three main components to the Engine:

- Ingrain an Inclusive Culture
- Inspire, Engage and Attract World-Class Talent
- Impact DEI in Industry and Society

**Operationalize Inclusion in All That We Do** by ensuring all talent practices are inclusive and use qualitative and quantitative data to measure our progress.

### Ingrain an Inclusive Culture

An ingrained inclusive culture is one in which everyone can speak safely and be fully heard, and where we leverage and embrace our differences across all levels of the organization. Fostering a sense of belonging strengthens employee morale and productivity and enables us to attract and retain talent. This leads to greater innovation and a better workplace for all.

To this end, we launched two new required training courses for employees, Introduction to the DEI Engine (DEI 100) and Common Language and Behaviors (DEI 101), which provide an overview of the DEI Engine and help establish a baseline of common inclusive language and behaviors. Ninety-four percent of Applied employees completed the DEI 100 and 101 training in 2023. Building on this foundation of awareness, in 2024 we are focused on building deeper understanding and driving more inclusive behaviors.

Our annual, week-long Global Inclusion Summit engaged more than 4,400 employees from across 16 countries in 2023. Twenty-five speakers delivered insights, inspiration and personal perspectives at both in-person and virtual sessions. Applied hosted an ERG fair along with group watch parties across multiple locations. Since 2022, 13,000 employees have participated in the annual Global Inclusion Summit. At Applied, we want people to describe themselves in a way that represents who they are. In 2023, we expanded the selfidentification options in Workday, which is our system of record for employee information. In North America, Applied employees can now voluntarily select from expanded gender identity options, including cisgender, non-binary, transgender, gender fluid and prefer not to answer.

The expanded self-identification helps inform and strengthen Applied's Culture of Inclusion initiatives, policies and resources to better mitigate biases, enhance employee engagement and aid in retention efforts.

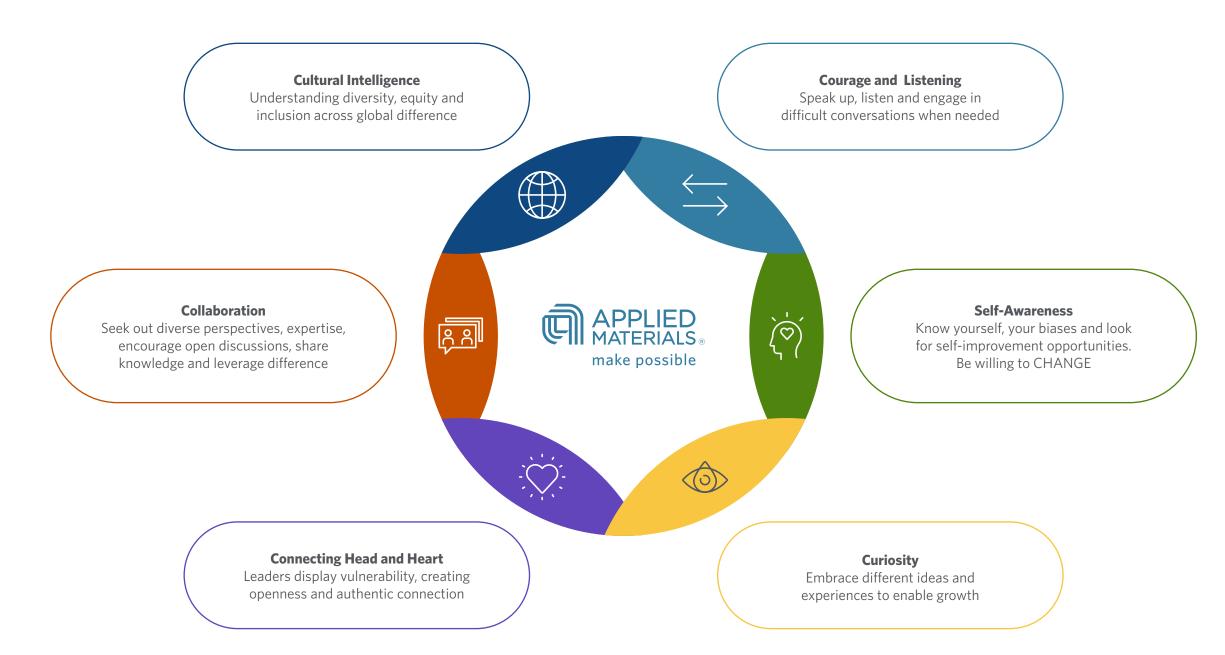
"Being part of the LGBTQIA+ community is not a limitation, it's a strength. Here at Applied Materials, I feel safe. I feel like I belong here, and I'm not looked at differently because I'm transgender. There is no hiding or there is no needing to be a particular person. Here I'm able to be my truest self and be the best employee I can be for Applied Materials."

-Ale, Austin, Texas



### **Inclusive Behaviors**

There are six inclusive behaviors that we foster to create a connected and inclusive environment. These behaviors promote openness, understanding, connection and empathy with others, as well as a willingness to recognize and face personal biases.



### Singapore Hosts Event for Neurodiverse Professionals

Neurodiversity encompasses a range of neurological differences including autism, attention deficit hyperactivity disorder (ADHD) and other cognitive conditions. In Singapore, the Applied Materials Southeast Asia team created a three-day work experience for young professionals with neurodiversity and hearing impairment. The pilot event included workshops, training sessions and ongoing dialogues to provide opportunities for those historically marginalized, while fostering a Culture of Inclusion and acceptance. Hosea Lai, Senior Director, Culture of Inclusion, called the pilot event a blueprint for a more harmonious future. "As we continue this journey, we are reminded that by giving others a chance, we give ourselves the opportunity to learn, evolve and thrive in ways we never thought possible," said Hosea.

### Inspire, Engage and Attract World-**Class Talent**

We work to inspire, engage and attract worldclass talent by incorporating DEI throughout the employee experience, including hiring, promotion, rewards and <u>benefits</u>. We are focused on building inclusive hiring practices, and diversity, equity and inclusion are integrated at every step of career progression at Applied. Our Total Rewards philosophy is based on offering equitable benefits, compensation and recognition opportunities to all employees.

### **Women in Engineering Talent Development Program**

The 2023 WE TDP cohort more than doubled in size compared with the 2022 cohort. The program's expansive growth is attributed to increased program awareness and manager support for Applied's high-performing technical women. The manager-nominated, twoyear certificate program is intended to support the career growth of female technical talent at Applied.



### 2023 AMC Female Engineer Conference

Applied Materials China (AMC) hosted the third annual AMC Female Engineer Conference in October in Xiamen, China. Nearly 80 female engineers and technicians, and more than 15 global and China-based leaders, participated in the two-day event. Designed exclusively for Women in Technology and Engineering in China, the conference provided a platform for women to learn, collaborate and build their personal branding and network.

### Impact DEI in Industry and Society

We aim to lead our industry in DEI and positively impact our communities through leadership and stakeholder engagement, creating pathways that reduce social, economic and educational inequities.

### For example:

- We work to build diversity in our supply chain, increasing spend with diverse-owned businesses, onboarding new diverse suppliers and helping existing suppliers achieve diversity certifications.
- We established an 18-month Applied Apprenticeship Program for process technicians in the U.S. This full-time earn-and-learn program is registered with the U.S. Department of Labor and the California Department of Apprenticeship Standards.
- Applied is committed to equity-centered community involvement, working to remove unintended biases from our investments in global communities.
- Through the Applied Materials Foundation's Generation Girl initiative, we collaborate with U.S. nonprofit organizations to strengthen girls' self-confidence and grow interest and engagement in STEM subjects.
- The <u>Applied Materials Momentum</u> Fund helps accelerate the next generation of women in engineering by helping cover unexpected expenses that create barriers to degree completion.

### **DEI Maturity Model**

Building a Culture of Inclusion is a journey. We are intentionally focused and making progress toward our desired future state, yet there is much more work to do. We will remain purposeful in executing our strategy to engage leaders, managers and individual contributors in understanding and removing barriers to full inclusion and engagement.

Applied uses the Global Diversity, Equity and Inclusion Benchmarks (GDEIB) to measure our DEI maturity progress as we work to model best practice in action. Using 266 benchmarks in 15 categories, the GDEIB helps to elevate our strategy and approach to fostering a more connected, inclusive, and engaged workforce and ultimately becoming an exemplary model for other organizations globally.





#### The WPDN

The group teamed up with Austin Habitat for Humanity to organize a local <u>Women Build</u> event. Members from other Applied Materials ERG groups joined the event, volunteering time and skills to build a home for a deserving family in the Austin community. The home was sponsored, in part, by Applied Materials.

### **Employee Resource Groups**

Employees are invited to join any of our nine ERGs, where members and allies create their own unique sense of belonging, help members grow professionally, educate employees and engage with the community.

Applied has 30 ERG chapters globally, including new chapters of WPDN in Japan, YPN in Singapore, HiP in Hillsboro and MERGE in Gloucester. We encourage employees to participate in multiple ERGs, to recognize and build awareness of intersectionality and drive greater understanding of our diverse culture.

### **Our ERGs include:**

### Applied PRIDE

- Asians in Motion (AIM)
- Disability Resources for Everyone at Applied Materials (DREAM)—New! Established 2023
- Hispanics in Partnership (HiP)
- Leadership Encouraging Achievement Through Diversity / Black Employees Network (LEAD-BEN)
- Male ERG for Equity (MERGE)
- Veterans Employee Team (VET)
- Women's Professional Development Network (WPDN)
- Young Professionals Network (YPN)

"Being part of Asians in Motion at Applied Materials has let me network with a variety of other employees that I wouldn't meet in my day-today tasks, and it's let me learn more about the different cultures that employees celebrate and come from."

-Kat, Santa Clara, California



### Applied PRIDE Wins 2023 President's Quality Award

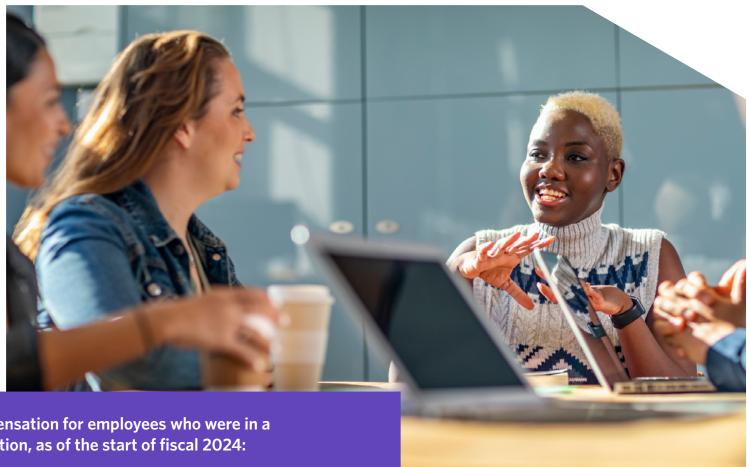
The Applied PRIDE ERG was recognized with a 2023 President's Quality Award for its work to address the inequalities and discrimination that inhibit people from doing their best work. The group helps to create a culture where everyone feels included. Among its many accomplishments to drive more inclusive business practices, the all-volunteer Applied PRIDE ERG helped get BrandPride added as the first LGBTQ+ vendor that supports <u>SuCCESS2030</u> and has driven corporate-level conversations that resulted in policy changes. Applied PRIDE has doubled in size three of the last four years, now with nearly 400 members globally.

# **Pay Equity**

We are committed to compensating our employees fairly and equitably. To that end, we have structured our compensation program so that our employees' pay is based on relevant factors such as their roles, organizational levels and geographic locations and not on their demographics.

To confirm that we live up to our goal of pay equity, we have engaged an independent third party to calculate pay ratios comparing compensation for Applied employees who identify as men and women, both globally and in the U.S., and a pay ratio comparing compensation for employees who identify as minorities and non-minorities in the U.S. In each instance, the ratio is based on total compensation, which reflects the sum of an employee's base salary, any cash bonus and any stock award.

We will continue monitoring our compensation practices and provide information about Applied's pay equity efforts in future Sustainability Reports.



The ratios compare compensation for employees who were in a similar role, level and location, as of the start of fiscal 2024:

99%

Total compensation for women globally was 99% of total compensation for men

100%

Total compensation for women in the U.S. was 100% of total compensation for men

101%

Total compensation for racial or ethnic minorities in the U.S. was 101% of total compensation for non-minorities

## **Learning and Development**

As Applied scales up its workforce to meet the explosive growth of our industry, we are focused on building world-class leaders at every level of our company who are skilled at running large, complex, high-velocity, highly collaborative and productive organizations.

We launched several new training programs for managers in 2023 to create more connected, collaborative and inclusive leaders across Applied, with coaching skills to support, guide and accelerate the development of our talent.

One of these programs, the Connected Leadership Training, provides information, tools and best practices to help Applied's people managers build and lead high-performance teams. With best practice models, concrete action steps, prompts to engage employees and spark conversations, and guidance for self-reflection, the Connected Leadership Training is designed to build best-in-class leadership skills to help employees reach their highest potential and enable Applied's growth goals. In 2023, more than 4,800 managers and leaders participated in Connected Leadership Training, representing about 87% of our current leadership.

Our General Manager Development Program was designed, developed and deployed in fiscal 2023 to build the capabilities of Applied Vice Presidents and selected Directors. Through the program, leaders can gain greater awareness about their personal capabilities and temperament, and how these traits impact their leadership. The program reinforces business capabilities specific to Applied and fosters organizational leadership, including inspiring collaboration and a growth mindset. Leaders also learn how to better utilize their influence and leverage across the organization to drive greater enterprise-wide success.

This engaging and experiential General Manager Development Program journey consists of about 80 learning hours completed in six months, followed by team action learning projects that span three additional months. At the conclusion of the program, teams present recommendations from their action learning projects to the Applied Executive Leadership.

In fiscal 2023, 33 leaders completed the General Manager Development Program, and it will be extended to other Applied leaders in fiscal 2024.

In 2023



## 4,800

managers and leaders participated in Connected Leadership Training, representing about 87% of our current leadership.



leaders completed the General Manager Development Program, and it will be extended to other Applied leaders in fiscal 2024.

### Extending Learning Across Our Regions

Applied's senior leaders and managers across the world participate in other learning programs tailored to their region's unique needs.

In Israel, for example, a program called INSPIREAPP is helping senior leaders mentor their management teams and facilitate small-group sessions to solve organization-specific challenges. Each senior leader participating in INSPIREAPP is asked to facilitate four one-hour sessions with a group of managers to solve two unique challenges faced by managers. The program helps managers strengthen their problemsolving skills, while developing leaders' ability to coach, develop and facilitate small teams.

In Japan, Applied is preparing leaders to support the Japan Advanced Semiconductor Manufacturing Company (JASM), a joint venture of two Applied customers, TSMC and Sony Semiconductor. Applied employees will work in and support this new fab, which is expected to begin production in 2024. In order to attract and retain diverse talent that can operate at maximum performance, an Applied human resources/ talent task force created the JASM Team Building Workshop. This workshop was designed to increase cross-cultural awareness and diversity understanding, build effective communication and collaboration in a cross-cultural work environment, and allow participants to get to know each other and build working relationships.

In a post-workshop assessment by the 51 program participants, 97.5% agreed or strongly agreed with the statement: "This workshop helped us know our team better, experience and learn the differences among cultures, and learn how to work together more effectively and efficiently going forward."

In Korea, a new "reverse mentoring" program was established. Six NCGs, who had joined the company in the last three years, provided reverse mentoring to the Applied Materials Korea Country President during a Culture of Inclusion session in September 2023. In this session, the NCGs provided perspectives on diversity, equity and inclusion, reflecting on both Applied Materials Korea and Korean society. They discussed generational gaps, Applied's Culture of Inclusion, and how Applied's company strategy can be better shared with employees. The reverse mentoring session was recorded and shared across the Applied Materials Korea employee base.

### **R** SPOTLIGHT

### Sustainability at Applied Materials India

Nearly 150 employee volunteers across Applied India support a variety of sustainability initiatives aligned with our corporate ESG strategy and 2030 goals, including Culture of Inclusion and SBTi-validated Scope 1, 2 and 3 targets, as well as the UN Sustainable Development Goals (UN SDG).

Applied India employees bring together a broad set of skills, experience and capabilities that support our labs, engineering and operations, products and services, IT infrastructure, and sales and customer support functions spanning five cities—along with a passion to advance environmental and social efforts.

One of India's key employee-led initiatives, supporting SDG 4 Quality Education, engages volunteers to work with professors and students at local colleges to drive awareness of the semiconductor ecosystem. The employees provide insights into Applied's portfolio, ESG goals and initiatives, and showcase our efforts to accelerate industry collaboration and sustainable innovation.

Students and professors are also invited to tour Applied's labs to gain a close-up look at our components and tools that support leading technology innovation. The intent of the initiative is to inspire students to pursue careers in the semiconductor industry and to help professors advance industry-ready curriculum.

Employee commuting is another key area of sustainability focus in India. Public transportation infrastructure, while improving, is not yet viable to meet the needs of our India employee base. Applied India provides a network of cabs to transport employees to and from work. In 2023, the India sustainability team of volunteers created a model for an electric vehicle pilot for the cab network, which will be tested in 2024. Watch for updates in future Sustainability Reports.

Sustainability Report 2023



### Strengthening Training in the Field

To support the rapid increase of new field managers, Applied developed and deployed a comprehensive training program across 14 countries. This program includes self-driven online learning to introduce key concepts, followed by live workshops conducted at the Applied headquarters and across the regions. The workshops involve Applied executives and local leadership to share the company's vision and strategy.

Each program participant is matched with a seasoned "buddy," chosen for their management and communication skills, with whom they meet bi-monthly for six months.

To further strengthen Applied Materials customer engineers in the field, we established a program for U.S. NCGs joining Applied Materials as customerfacing process engineers. This program provides a thorough and structured onboarding process, including a seven-month structured curriculum program with web-based training, instructor led training, hands-on instruction, independent projects, simulations, modeling and AR/VR. The goal is to optimize the NCG program and onboarding process to accelerate the time required for these NCGs to be effective in their roles. Field managers report that participating NCGs were able to deliver equivalent results in six months that previously were achieved in two years.

### **Training Magazine APEX Award Top 5**





*Training Magazine* ranked Applied Materials #5 on its APEX Awards list of the top 105 training organizations.

Applied also received the "Outstanding New Training Initiative Award" for the development and deployment of our new AGS Training Services Enhanced Knowledge Delivery field training program.

The APEX Awards is a worldwide ranking of organizations that excel at training and human capital development.



"The Coaching for Inclusion Program was transformational. The skills our team developed will strengthen our communication and mutual understanding well into the future."

-Tim, Group Vice President, Applied Global Services

### **Employee Learning and Development**

We work to enable every employee to excel in their current role while preparing them for career growth. Our employee learning and development program focuses on improving technical skills, professional capabilities and business acumen. All training is coordinated centrally and aligned with common objectives through Applied Global University, the delivery arm of our Learning and Development organization.

"At Applied, I learn something new almost every day! I get to work within a cross-functional team and am constantly improving my financial, business and industry acumen. It's also exciting being part of a company that influences innovation, technology and the world that we live in."

-Katie, Financial Analyst, Santa Clara, California

### **PATHWAY:** Personalized Employee Development

Our integrated PATHWAY learning program empowers employees to create a personalized learning journey to strengthen their existing skills and build capacity for career growth. Each fiscal year, Applied employees who are eligible for PATHWAY are required to select a skill goal and a defined "skill journey." In fiscal 2023, 90% of eligible Applied employees selected their skill goals in PATHWAY, and 70% completed their goal.

Program enhancements in 2023 strengthen the way learning is measured in PATHWAY, giving employees more flexibility to fulfill their learning requirements. Employees may meet their required learning experience points through a broad range of experiences, including university-level courses, professional accreditation or continuing education workshops, attending conferences, reading a job-related book, mentoring or creating a course.

"Experience points" replaced "hours" as a measure of learning in PATHWAY, with different learning experiences being measured by different point values. Employees complete their pathway when they reach 4,000 experience points.

In fiscal 2023, 19,786 eligible employees completed their PATHWAY, an increase of 3.3% over fiscal 2022, reaching 86% of their PATHWAY progress and surpassing our goal of 85% completion.



### **Fiscal 2023 PATHWAY Metrics**

19,786 86%

their PATHWAY, an increase of 3.3% over fiscal 2022.

eligible employees completed completed their skill journey, surpassing PATHWAY's learning goal of 85%.

### 2023 Learning Hours

Nearly all (99.9%) of our leaders, executive-level Vice Presidents, Directors and Managers, and 99.8% of regular, full-time employees completed learning hours in 2023. In total, Applied's full-time employees and extended workforce completed more than two million total learning hours in fiscal 2023.

Details on Ethics and Compliance training is available here and additional learning details are available in the Data and Disclosures section.

### **Totals**

Total Individual Lea

Total Individual Lea

**Total Learning Hou** 

### **Completed Training**

**Executive Level Vice** 

**Executive Level Dire** 

Manager Level

Individual Contribut

Interns

	FY23
arners (RFT employees)	34,264
arners (Total Workforce)	48,774
ırs	2,053,104

g by Role (Unique Learners)	FY23
e Presidents	206
rectors	2,185
	3,469
itors	28,404
	142

## **Environmental, Health and Safety**

Applied is committed to operating in a way that protects the environment and the health and safety of our employees, customers and communities. We strive to create a culture of safety and ensure product compliance and business resilience through embedding safe practices in our daily work.

Our vision is to inspire a proactive environmental, health and safety culture where every employee is engaged and cares for one another. Our global Environmental, Health and Safety (EHS) strategy is focused on maintaining a consistently high standard across our global operations, reducing our EHS risk profile and making a positive impact on our employees and our communities through our world-class safety standards and practices.

In calendar year 2023, we strengthened and better aligned our EHS organizational structure and strategy to drive higher productivity and efficiency, increase EHS visibility and enable future growth potential. We adopted a new EHS vision and mission and created a more robust Applied Materials EHS <u>policy</u>. We established the EHS Centers of Excellence to oversee the strategy and operations for Environmental, Industrial Hygiene, Programs and Policies, Training and Contractor Safety, and Internal Audit. We also added a Special Projects team to focus on large growth and expansion projects.

The EHS organization is an integrated entity responsible for overseeing essential programs, initiatives and policies, including Occupational Health and Safety, <u>Product Safety</u>, <u>Crisis Response and Business Continuity Planning (BCP)</u>.





### Occupational Health and Safety

Applied Materials prioritizes the safety of our onsite workforce, field services engineers, suppliers and customers. We are committed to complying with or exceeding all applicable and relevant regulatory requirements regarding the health and safety performance of our operations, processes and products.

### Safety Targets and Performance

Applied maintains global programs and monitoring to promote a safety culture and safe work practices, minimize workplace risks, and support continuous improvement in our safety performance.

We use the definitions set by the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) for recordable, lost-time and restricted-day injuries. These definitions are implemented globally for data gathering and analysis, and we set both corporate- and site-level targets and objectives, which are embedded into annual performance objectives. These key safety metrics are made available to all business units in our safety performance dashboards. At the end of each year, we analyze results and reset targets for the coming year.



**OSHA** violations

### Total Case Incident Rate (TCIR)

Throughout 2023, Applied sustained our existing EHS systems, which delivered best-in-class results—including zero OSHA violations—despite a dynamic market. Our TCIR has remained relatively flat across the past three years, in fiscal 2023 achieving a TCIR of 0.44, significantly outperforming the industry benchmark of 0.60.

Work-Related Injury Rates	FY23	FY22	FY21
TCIR	0.44	0.35	0.45
Days Away, Restricted or Transferred Rate	0.33	0.24	0.35
Lost Time Severity Rate	3.03	2.59	4.44
Fatalities	0	0	0

06

## Lead with Purpose

Key	H	iσ	hli	ioł	nts
TC y		ıδ		יאי	113

Community Impact

Corporate Governance

Ethics & Compliance

Cybersecurity and Data Protection

Public Policy



**Purpose connects why Applied exists with** how we operate. By anchoring purpose to the core of our business strategy, we create a stronger, more trusted and resilient company that benefits all stakeholders.

> As the world leader in materials engineering, we embrace our responsibility to lead with purpose. We understand the decisions we make and the actions we take today can have long-lasting impacts far beyond our company. We strive to model purpose-driven behaviors and advance more inclusive, equitable and sustainable practices that help elevate our entire industry.

> Earning and maintaining the trust of our employees, customers, partners and other stakeholders is central to our purpose. We follow a clear and robust governance model and operate with the highest levels of integrity and ethics. We maintain a relentless commitment to safeguard the privacy, data and intellectual property (IP) that is entrusted to us, and we continuously evaluate and sharpen our internal processes and oversight to protect that trust.

We advocate for U.S. and global policies and issues that align with our business interests and values and that matter to our employees and customers.

Through Applied Materials and the Applied Materials Foundation, we take an equity-centered approach to investing in the communities where we live and operate, and support our employees as they invest their time, talents and resources to advance causes and issues that are most important to them.

By leading with purpose, we are helping safeguard our business and the interests of our stakeholders to enable long-term success, while delivering on our vision to Make Possible a Better Future.

### **Key Highlights for 2023**

(\$)

Girl since 2018

ဂိုဂိ

Announced a new center to be built in Bangalore



students



## **Community Impact**

Applied's commitment to invest in global communities is rooted in our history, demonstrates our core values of responsibility and integrity, and supports our vision to Make Possible a Better Future.

Our community investment efforts, supported through funding from Applied Materials and the Applied Materials Foundation, are aligned with what matters to our employees and their families and to the communities where we live and work.

We are committed to equity-centered community involvement, working to identify and remove the unintended barriers that are created from personal biases, traditional norms, and systemic structures. We collaborate with local leaders, non-governmental organizations (NGOs), and community members to identify and support specific local needs and work to build neighborhood vitality where we do business.

Our investments in community impact are centered in three core areas—strategic grantmaking, employee engagement and inclusive pathways to opportunity.

 For strategic grantmaking, Applied and the Foundation invest in girls' empowerment, delivered primarily through <u>Generation Girl</u>, a Foundation initiative, education, environment, arts and culture, and civic engagement and disaster relief.

- We empower collective global impact through localized employee engagement programs, including <u>Fight Against Hunger</u> and <u>EarthWorks</u>, and we support individual employee giving efforts with <u>matching funds</u> and Volunteer Time Grants.
- Through the new Applied Materials Momentum Fund, we strengthen inclusive pathways to rewarding careers in technology.

### Strategic Grantmaking

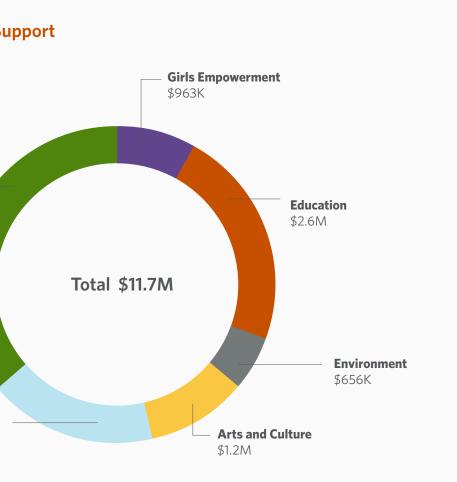
In 2023, Applied and the Foundation awarded \$11,673,538 in <u>direct corporate contributions</u> and <u>Foundation grants</u>, benefiting 279 recipients in 10 countries. Each strategic grantee is asked to complete an impact report to measure results of the project. The Foundation's Generation Girl initiative is evaluated by an external evaluator. See a complete list of grants awarded by <u>Applied</u> and the <u>Foundation</u> in fiscal 2023.

### FY 2023 Community Impact Support

**Employee Matching** \$4.2M

**Civic Development** \$2M

More than 36% of our total community investments are directed by Applied employee matching gift and volunteer time grant programs. A 2023 Applied employee census shows that employees who participate in giving, volunteering and other communityrelated programs express higher employee engagement scores compared with employees who do not participate in such efforts. New employees (1-3 years of tenure) reported higher engagement. This positive correlation was seen among both on-site and remote workers.





"One student was extremely quiet and shy as a freshman joining Tech Girls, but this year as a sophomore, she found her confidence through her passion for STEM activities. Being able to lead the girls with the soldering project and the rockets assembly with patience and grace, the other girls looked to her and she rose to the occasion. Now not only can she add a leadership role to her high school resume, but she has learned invaluable skills she can further grow and use in her future career and beyond."

-Girl Scouts of Central Texas

### Girls' Empowerment | Generation Girl

Generation Girl, a Foundation initiative, celebrated its fifth anniversary in 2023, showing that targeted, thoughtful investments in girl-serving programs leads to strong outcomes by nonprofit service providers. Since 2018, over 50,000 girls across the United States have participated in Generation Girl-funded programs, the majority of whom come from low-income families and/or identify as Black, Indigenous and/or People of Color (BIPOC).

During the 2022–2023 program year, 54% of girls served were from low-income families, and 59% of the girls identified as Black, Latina and/or Native American.

### The Generation Girl initiative is guided by three evidence-based funding priorities:

- 1. Expanding access to high-quality STEM programs by prioritizing programs that serve girls from low-income backgrounds and girls who identify as BIPOC
- 2. Going beyond STEM by funding organizations and programs that work to improve girls' confidence and leadership skills
- 3. Strengthening the field by convening Community of Practice meetings to facilitate learning and enhance connections among the grant recipients, often bringing in external experts to guide collective learning

Watch how Applied Materials Foundation's Generation Girl<sup>®</sup> initiative is inspiring girls across the U.S. to pursue their dreams.

Through the initiative, girls have participated in leadership development programs, after-school robotics and summer STEM camps delivered by Foundation grantees. Participants have testified in state capitals on issues affecting girls today and have won regional coding championships. And, through a global pandemic and subsequent recovery efforts, they have redefined what it means to be successful in the face of adversity.

Based on the success of the first five years, and in acknowledgment that there is still much work to be done to improve the number of women in STEM and leadership roles in general, in 2023 the Applied Materials Foundation's board renewed the initiative through August 2026.

The next three years of the initiative will focus on strengthening organization capacity and growing the number of girls served by existing grantees in six key geographies across the United States: Albany and Malta, New York; Austin, Texas; Gloucester, Massachusetts; Hillsboro, Oregon; Kalispell, Montana; and Silicon Valley, California.

#### **Generation Girl Stories of Impact**

Close to 800 girls participated in the Adelante Mujeres Chicas Youth Development Program, which provides a comprehensive and proactive approach to empowering Latina youth, third through 12th grade, and in college. In a post-program survey, 97% report feeling more confident about being a leader in their community and 84% report an increased desire to attend college after completing high school.





APPLIED MATERIALS Sustainability Report 2023

#### **Generation Girl Initiative** Totals to Date (2018-2023)

\$4.25M total investment

50,000+ total number of girls served

59% of the girls identified as Black, Latina and/or Native American

54% of girls served were from

low-income families

#### Key Program Moments in 2023



Applied hosted funders and community leaders to inspire greater investment in girl-serving organizations. More than 50 local leaders heard from Alliance for Girls, Hispanic Foundation Silicon Valley and Techbridge Girls on how to better support girls and their families in a postpandemic environment.

**Mission Unstoppable** 

Applied and Techbridge Girls co-hosted an episode of the CBS series Mission Unstoppable. The series featured an Applied process engineer who led a young girl and her teachers on a tour of Applied's headquarters in Silicon Valley, California. The episode had more than 1.6M broadcast views through October 2023.

Day of the Girl



Employees from across the U.S. gathered in person and virtually to create inspirational bookmarks for girls in their lives and girls in the Generation Girl community. Applied also sponsored Day of the Girl celebrations hosted by Girls Inc. of the Pacific Northwest in Oregon and Boys & Girls Club of Silicon Valley in California.

#### Generation Girl Initiative Year Five (2022-2023)

Funding Area	# of Programs Funded	Total G
Girls Empowerment	13	
STEM Programming	15	
Adult Training/Professional Development Services	2	
Total	30	

#### Grant Amount

\$320,000

\$454,500

\$175,900

\$950,400

"The Generation Girl **Community of Practice** Cohort has been invaluable. It has something to offer to the most seasoned program leaders among us to the newest on the scene. It is evident that our bi-monthly meetings are places where we all feel seen and listened to. It can often feel isolating in the trenches, but Applied Materials has created true community. The entire process cultivates camaraderie and a desire to contribute to the benefit of the whole."

-Westcave Outdoor Discovery Center

#### **Promoting Access to Education**

In fiscal 2023, Applied and the Foundation supported 69 education-focused organizations with \$2,618,819 in grant funding. We prioritize programs that address local challenges, support educator professional development and prepare students for every stage of the education journey, including:

• Entering school ready to learn—SOS Children's Villages India is helping create caring, healthy living and learning environments for children without parents or guardians by supporting four Family Homes in Bangalore, Thrissur and Nagapattinam. AVANCE-Austin is helping increase family well-being and success among Latino parents and children from underresourced Central Texas communities by creating pathways to economic mobility through high-quality early childhood education, parent education and community resources.

#### • Reading at grade level—To boost childhood literacy and learning success, Wuxi Lingshan Charity Foundation (China) provides reading resources in rural schools and training support to teachers and families. THINK Together (Silicon Valley, California) provides daily targeted reading skill development after school for kindergarten to second grade students in the Alum Rock Union School District. SMART Reading (Portland, Oregon) provides historically underserved prekindergarten to third grade children with access to books and shared reading time to boost literacy and learning success.

• Succeeding in math and science—Child Fund Korea helps elementary and middle school students gain an understanding of science and creativity during their summer break in the South Gyeonggi Province. The Association of Taiwan Online Education Development Association is working to generate interest in STEM among elementary students with fun and engaging



STEM learning resources. E3 Alliance (Austin, Texas) engages educators in the Math Peer Learning Network to provide students access to advanced math pathways and completing four years of math in high school.

#### • Exploring opportunities in STEM/STEAM-

The Discovery Center of Idaho Inc. (Boise, Idaho) provides facilitated, experiential STEM learning for Idaho students through behind-the-scenes exploration of Discovery Center exhibits. Austin Science Education Foundation (Austin, Texas) provides research-based science competition for third to 12th grade students from Central Texas, including an opportunity to interact with STEM professionals. Gloucester Marine Genomics Institute (Massachusetts) works to enroll youth and young adults in a Biotechnology Certificate Program and STEM Enrichment programs.

• Preparing for college and/or career—College Possible (Portland, Oregon) provides access programming for historically underserved high school students. Katariba (Japan) works with high schools to advocate for advanced education and career development for students born outside Japan through online guidance and mentorship. 10,000 Degrees (Silicon Valley, California) supports San Jose high school students and family members from underserved backgrounds with financial aid and college application assistance, near-peer coaching, scholarships and college success support.



#### Supporting the Environment

Our commitment to protect our natural resources and create a more sustainable future extends beyond our net zero aspirations for our company and industry. In fiscal 2023, Applied and the Foundation awarded \$655,880 in grants to 37 nonprofits advancing environmental education and stewardship, including:

 Outdoor skill building, STEM and nature-based education—Backyard Growers, Inc. (Gloucester, Massachusetts) activates teens as garden mentors to expand access to healthy, accessible food through inclusive community gardens. Youth Science Institute (Silicon Valley, California) supports kindergarten through sixth grade school field trips to Alum Rock Park in San Jose, California, focused on helping local youth from lower income households experience our natural world.

#### **Applied and the Foundation Awarded Education Organizations**

\$2.6M+ in grant funding

education-focused organizations

 Advancing environmental leadership and climate change solutions—Glacier National Park Conservancy (Kalispell, Montana) enables free field trips, classroom visits, and distance learning opportunities for more than 10,000 Montana students to engage with the resources of Glacier National Park. Shanghai Roots & Shoots (China) supports programs to encourage youth to conduct environmentally conscious actions and to inspire independent and responsible citizenship. Acterra: Action for a Healthy Planet (Silicon Valley, California) educates students about climate change science and engages them in creating local and/or global solutions to the climate challenge.

Environmental service and beautification

projects—Mori no Kaze (Japan) supports tree planting and forest preservation efforts around the Yokkaichi area. The Good Energy Initiative (Israel) funds a tree nursery where school children in Rehovot plant and tend saplings they will later replant in permanent locations.

#### Funding Arts and Culture

Arts and culture add vibrancy to our neighborhoods and invite us to participate in building stronger connections to communities and each other. Applied and the Foundation have a long and proud tradition supporting arts near our company facilities and encouraging employees and their families to get involved. In fiscal 2023, Applied and the Foundation awarded \$1,230,775 in grants to 72 nonprofits advancing arts and culture.

• Celebrating cultural moments—Intermountain Opera Bozeman cultivates relationships and cultural exchanges with rural and tribal communities through a music education tour of schools in rural Montana. Mexic-Arte Museum provides unique, culturally conscious arts programming for elementary school students in Austin, Texas, hosting a Day of the Dead-focused screen-printing workshop.

#### • Honoring history and culture-In

Massachusetts, the 400 Stories Project aims to collect, preserve and share 400 stories of Gloucester and its people, in celebration of the city's 400th anniversary as "America's Oldest Seaport." The Shanghai Yiyou Youth Service Center (China) works to enhance the confidence of minority children and strengthen relationships among citizens by empowering children to share their talents and traditional arts and culture in their community.

#### **Arts and Culture Funding**

\$1.23M in grants to 72 nonprofits

#### Deepening arts and culture literacy and

**understanding**—The Portland Classical Chinese Garden (Oregon) engages marginalized families and students from low-income households to learn about Chinese culture, arts and history, and contemporary Asian American experiences. The Kaohsiung Museum of Fine Arts (Taiwan) delivers a universal and inclusive experience for people of all abilities using assistive technologies and promoting cultural equality, accessibility and social inclusion.

• Connecting with the community—Shakespeare San Francisco (California) staged a full production of Cymbeline for the community in a free Shakespeare in the Park event. Taiwan Cultural & Creativity Development Foundation facilitates collaboration between arts and cultural groups to benefit the community. The San Jose Museum of Art Association (California) nurtures empathy and connection by engaging communities with socially relevant contemporary art exhibits and inclusive public programs.

## Civic Engagement, Development and Relief

Applied and the Foundation invest in making communities stronger, grounded in equity and more livable. We provide support to nongovernmental organizations (NGOs) and nonprofits to address community challenges and help people find stability in difficult times. In fiscal 2023, Applied and the Foundation provided \$2,018,866 in grants to 80 organizations that:

 Provide basic needs and resources for people who are unhoused, have low or no income, and have immigrated or been displaced—In Silicon Valley, California, we provided funding for Sunnyvale Community Services, Sacred Heart Community Services and LifeMoves to support emergency assistance programs that pay utility bills, cover rent increases, enable food access, and more, to help individuals and families stay housed. In Israel, Pa'amonim funds financial literacy education for women living in shelters for female victims of violence. In Montana, Valley Neighbors of the Flathead creates affordable rental unit access for immigrant households, using a funding model that encourages gradual growth toward selfsufficiency and independence.

- Conduct after-school and youth leadership development programs for youth from lower income backgrounds and/or historically excluded communities. Community Chest: Enhanced Step-up and Friends of Children and Youth (Singapore) support educational programming for children deemed at risk and provides intervention, social and emotional support and volunteerism for youth, ages 7-19, whose parent is or has been incarcerated.
- Engage community members in addressing issues of human rights, inclusion and equity. In Austin, Texas, The New Philanthropists provide training and support to local nonprofits to assist them on their journey to becoming more diverse, equitable and inclusive. In California, Silicon Valley Council of Nonprofits works to increase the racial equity capacity of local nonprofit organizations.
- Promote collaboration to solve community challenges. The Austin Community Foundation, on behalf of Austin Together, supported a second Culture of Collaboration Summit to inspire social sector collaboration in the community. The Center for the Future of Arizona engages Phoenix-area public schools in civic engagement improvement projects. Silicon Valley Community Foundation's LatinXCel fund builds capacity of Latinx leaders in Santa Clara County.

Applied has a long legacy of responding to disasters in areas where we work, and we invite employees to take advantage of the employee giving and matching program to support causes close to their hearts. In 2023, Applied, the Foundation and employees provided support to local organizations providing services to people experiencing crisis and disasters, including in Israel, Turkey, Morocco, Libya and Hawaii.



#### **Civic Engagement, Development** and Relief Funding

\$2M in grants to 80 organizations

#### **Employee Engagement**

We connect what matters to our employees and the community with who we are and what we stand for as a company. This benefits our company as well as our communities. According to a 2023 Applied Employee Engagement Survey, employees who participate in volunteering and giving programs said they are more likely to remain at Applied, demonstrating a direct link between purpose programs and employee retention.

#### **Fighting Hunger Year Round**

Nishil Nambiar, Vice President of Operations and Aftermarket Quality, shows how to lead with purpose and humanity—pairing food bank volunteering with his quarterly All-Hands Meetings. Members of Nishil's team based in California volunteer each quarter to pack food bags and boxes with Second Harvest of Silicon Valley to support local families. In 2023, 88 employees volunteered three hours each, sorting nearly 86,000 pounds of food to feed more than 71,000 people. Teammates located beyond California are encouraged to volunteer quarterly at their local food banks.

#### **Fight Against Hunger**

One of the largest employee engagement programs at Applied is the annual Fight Against Hunger campaign. In fiscal 2023, employee donations and a match from the Applied Materials Foundation totaled nearly \$3.3 million, supporting 54 food banks throughout North America.

#### Globally, Applied employees address food insecurity in ways that are most relevant to their local communities, including:

- In Singapore employees volunteered to prepare and deliver meals for the Willing Hearts organization.
- Employees in Taiwan packed food at the People's Food Bank.
- In India, Greece and Korea, employees raised funds for local charities that are combatting hunger and helping to feed those in need.
- In China employees participated in food packaging workshops, a farm tour and an online quiz to raise hunger awareness.
- Applied Materials Japan collected food for distribution to hungry families.
- In Israel, colleagues participated in their annual Passover Fight Against Hunger program, donating funds and fresh fruit and vegetable parcels to economically disadvantaged families and Ukrainian refugees in the country.

#### (n) SPOTLIGHT

#### **Taiwan Impact Committee**

The Taiwan Impact Committee was established in 2022 to build cross-functional communication, increase employee engagement in sustainability efforts, and boost employee motivation and sense of purpose. The Committee works to strengthen Applied's reputation and improve stakeholder engagement, and it created the Employee Impact Project to help drive progress toward Applied's 2030 goals.

One of the most impactful programs led by the Committee in 2023 was to engage employees as change agents to build up STEM teaching and learning materials and scale up positive social impact with NGO partners. Working in collaboration with Learning in Science and National Taiwan Science Education Center (NTSEC), employees brought their industry knowledge and expertise to help develop a fun and engaging semiconductor education kit, featuring teaching animations and tools. The learning extended to Semiconductor Adventurers workshops, presented by Applied employees at rural elementary schools and at the NTSEC.

Applied Materials Taiwan has been a long-term supporter of promoting STEM education. We collaborated with NTSEC to create a new "Semiconductor Pavilion of the Future" exhibition. Designed to inspire every age to learn about semiconductor advancement, the exhibition also aims to cultivate interest in STEM fields in younger students to foster next generation skilled professionals. The exhibit showcases Applied's next generation equipment and offers interactive games to guide participants through the R&D process. The exhibit attracts, on average, 43,000 visitors per month.

### 2022

Established the Taiwan Impact Committee to boost engagement

## 43,000

Visitors monthly to the Semiconductor Pavilion of the Future

### P5000

Tool is showcased in the exhibit



In early 2024, the Committee initiated the Impact Project to encourage ideas from employees to advance sustainability in our operations. More details on the project and select submissions will be shared in future Applied Sustainability Reports.



#### **EarthWorks**

From April to June—connecting Earth Day to World Environment Day—employees from around the world mobilize to protect our planet and enjoy nature during the annual EarthWorks campaign. The 2023 campaign engaged more than 1,500 employees worldwide and marked the return of in-person activities following three years of virtual events and limited face-to-face gatherings in the wake of the COVID-19 pandemic.

To incentivize participation and further extend lasting environmental impact, the Applied Materials Foundation donated funds to One Tree Planted to plant a tree in recognition of each participant.

#### Here are a few of the many ways Applied employees honored the planet in 2023:

- In the U.S., employees biked to work, and gathered to hike, clean up beaches and plant trees, learned about the environmental impacts of fast fashion, and more.
- Applied Materials China focused on the theme of urban biodiversity, encouraging employees to learn about the natural beauty of their cities and support the well-being of our planet. They also cleaned up Guanyin Mountain beach, collecting over 200 pounds of garbage.
- Employees in Greece hiked to the Center for Environmental Information at Panachaiko Mountain to learn about the local ecosystem.

- In India, employees participated in eco-friendly crafts and celebrated World Environment Day by volunteering for a restoration project at Yerappanahalli Lake, planting 200 saplings to help restore the Earth's natural resources.
- In Israel, employees participated in a bike building activity to encourage bicycling and joined a green energy initiative at a local tree nursery.
- Across Japan, employees competed in an environmental themed photo contest and helped clean up Mt. Fuji.
- In Korea, our team focused on a "Save Our Rivers" theme, encouraging participants to share photos of their local rivers and inviting them to remove invasive species from river areas.
- Singapore employees contributed to the country's One Million Trees movement, participated in an Earth Hour power shutdown, and organized a kayak-based coastal cleanup long Pasir Ris Beach.
- Employees in Taiwan cleaned up beaches in Hsinchu and Tainan, participated in an Earth Hour shutdown, and volunteered in elementary school classrooms, reading stories that inspire children to care for the environment and all creatures.

#### Volunteering and Giving

Applied Giving offers full-time employees up to \$3,000 in matching funds per year to eligible charitable organizations and schools. Volunteer Time Grants of \$100 are offered for every 10 hours volunteered with an eligible charitable organization or school per calendar quarter.

In fiscal 2022, Applied began partnering with Visit.org to expand our reach to new organizations beyond our existing networks and local geographies and to help bring a greater equity lens to our volunteering efforts. An internal survey conducted in 2023 found 94% of attendees of Visit.org events say the event had a positive impact on their experience at Applied.

In fiscal 2023, Applied employees donated 14,500 hours of personal time, volunteering with organizations and for causes that matter to them, and the Foundation awarded \$41,900 in time grants. Among the ways Applied employees gave back to their communities in 2023 are creating back-to-school kits for teachers, mentoring students, participating in Habitat for Humanity events, and supporting Meals on Wheels through giving and volunteering.

#### **Inclusive Pathways**

As the semiconductor industry grows, we have the responsibility to help usher in a new age of inclusive innovation to create a more equitable and sustainable world. When young people can pursue their dreams and unlock their potential, the future becomes brighter for all of us. However, too often financial circumstances stand between dreams and pursuit.

A recent survey found that almost half of students who recently left college or university prior to degree completion did so due to financial reasons. For scholars from lower-and medium-income backgrounds, an unexpected expense can create an insurmountable barrier to degree completion.

#### **Applied Materials Momentum Fund**

The Applied Materials Momentum Fund harnesses the power of strategic grantmaking and our dedicated employees to strengthen pathways for women in engineering. Launched in 2023in collaboration with Last Mile Education Fund, the Momentum Fund provides women majoring in engineering with timely financial support to cover unexpected expenses—such as a car repair, medical bill, or an increase in rent—and helps ensure they can complete their undergraduate degrees.

The Fund is open to women within four semesters, or guarter equivalent, of completing their undergraduate engineering degree at a U.S. college or university.

The grant recipients, Momentum Scholars, are also connected with internships, career development and networking opportunities at Applied to strengthen the pathway from college to career.



Watch our Applied Materials Momentum Fund Video.

#### **2023 Applied Volunteering**

## 14,500 hrs

personal time volunteering





## **Corporate Governance**

At Applied, ESG is integrated into our operations and culture as a key part of our corporate strategy. The ESG Leadership Council, a cross-functional group of Applied's business unit and function leaders, is responsible for overseeing the implementation of our ESG strategy. In addition, the Council approves all content in our annual Sustainability Report.

To ensure accountability, the Council reports progress to our CEO and Executive Leadership Team as part of the annual corporate strategic review process. Quarterly, progress is reported to the Corporate Governance and Nominating Committee (CGNC) and is included in the Corporate Scorecard. The CGNC reviews our ESG strategy on a quarterly basis.

Progress toward our ESG goals is a consideration in determining the annual bonus for Applied's CEO and Executive Leadership Team.

#### **Business Continuity Planning**

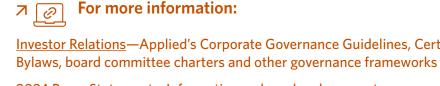
Our Global Business Continuity Planning Department, part of EHS, oversees the global BCP policy. The goal of BCP is to ensure the continuation of operations in the face of a technology impact, a human-made crisis or a natural disaster. At Applied, all critical operations have BCPs in

place, which are reviewed, tested and certified by management annually. The Global BCP team supports business continuity plan creation and program implementations around the globe, with critical stakeholders ranging from country presidents, business unit executives and functional leaders.

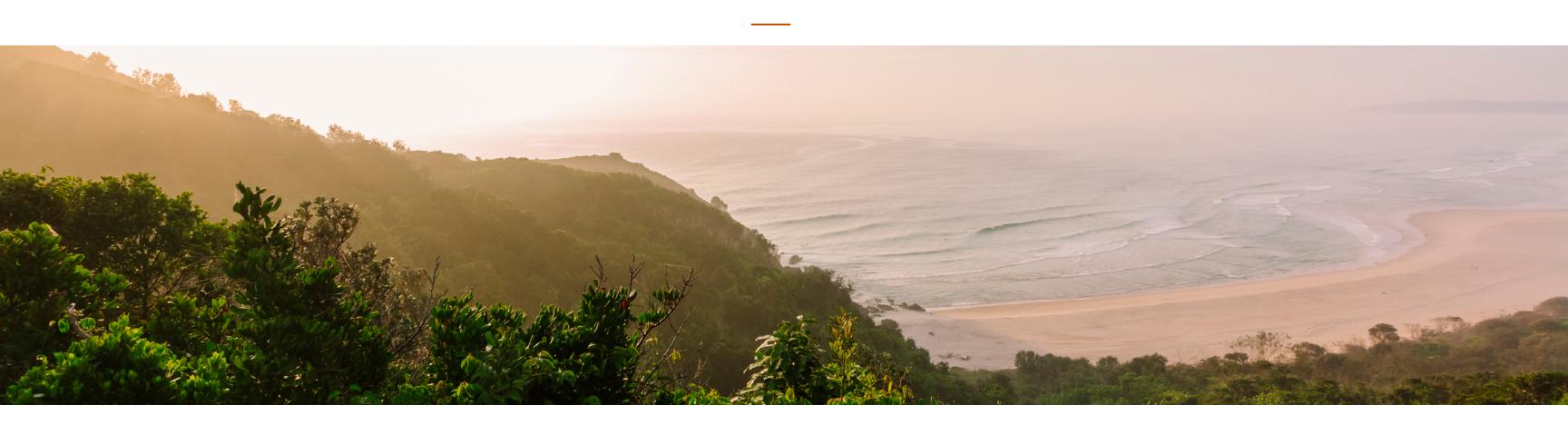
Our Emergency Response Teams (ERTs), also part of EHS, serve as first responders to incidents, such as those involving gases, chemicals, illnesses and injuries. This allows Applied to guickly contain potential hazards and minimize impacts before they escalate into a crisis.

ERT and BCP teams are crucial for protecting Applied's employees, facilities, business, brand and customer obligations, and to maintaining a competitive advantage. In addition, we also focus on maintaining regulatory compliance, security and protecting current and future revenue streams in the event of a major disruption.





- Investor Relations—Applied's Corporate Governance Guidelines, Certificate of Incorporation,
- 2024 Proxy Statement—Information on board and corporate governance policies and practices



#### **Board and Executive ESG Oversight**

#### **Environmental, Social and Governance**

Cross-functional ESG Leadership Council oversees implementation of our ESG strategy

CGNC receives quarterly in-person and written progress updates; reviews ESG strategy

Executive Leadership Team receives quarterly ESG progress updates via Corporate Scorecard

Progress reported to CEO and Executive Leadership Team via annual corporate strategic review process

#### **Environmental, Health and Safety**

CGNC receives quarterly progress updates

CGNC receives annual deep-dive EHS update

#### **Supply Chain and Conflict Minerals**

Board reviews material supply chain issues

Board's Audit Committee reviews annual Conflict Minerals Report (filed with SEC)

#### People and Workplace

Board's Human Resources and Compensation Committee oversees corporate culture and human capital management programs, including Culture of Inclusion practices and initiatives



#### **Community Engagement**

The Applied Materials Foundation funds a majority of the combined Applied and Foundation community engagement and grantmaking activities

The Foundation is governed by its own Board and is audited annually by a thirdparty auditor

CGNC receives quarterly report of Applied's and the Applied Foundation's charitable contributions

## **Ethics & Compliance**

### Applied recognizes the inherent value of having an ethics-led business model and a world-class compliance culture.

That means demonstrating our commitment to the highest ethical standards, both in how we interact with each other as well as with our customers, suppliers and the communities in which we operate.

#### **Compliance Structure**

Applied's Board Audit Committee oversees the program's overall design and implementation and receives quarterly reports on key initiatives and indicators, including reporting of potential violations of law and investigations into suspected violations of company policies. Applied's Office of Compliance (OOC), which is led by Applied's Chief Compliance Officer (CCO), implements this program across four main pillars: Global Ethics & Compliance, Global Trade, Privacy and Data Governance, and IP Risk Management. Applied's Global Ethics & Compliance program (see graphic) is responsible for administration of the Global Anti-Corruption Policy, the Conflicts of Interest Policy as well as the Global Policy on Giving and Receiving Business Gifts, Meals, Entertainment and Travel (GMET Policy). The Global Trade program is responsible for ensuring compliance with all applicable laws and regulations related to sanctions as well as the import and export of goods in every country in which we do business.

In 2023, the company continued its investment in the Office of Compliance by expanding the Ethics & Compliance and Trade teams, partnering with new vendors and focusing on monitoring capabilities and data analytics tools.



#### Advancements in 2023

- Deployed Fiscal 2023 Compliance Scorecards in APAC Region to enable datadriven decision making. Complementing our Regional Compliance Committees, the Compliance Scorecards present regional compliance health indicators and set benchmarks for topics such as online training completion rates, awareness campaign participation rates, ethical perception survey results and tone from the top.
- Launched data analytics tool to conduct close to real-time transactional testing of employee expenses.
- Deployed cross-functional, in-person compliance training for employees in Taiwan, Korea, China and India, covering ethics and compliance, trade, privacy and intellectual property. Through October 2023, nearly 5,600 Applied employees participated in one of 36 in-person compliance training sessions.
- Implemented a new cross-pillar case management tool, which helps drive more consistent and automated reporting across our organization.

#### **Our Core Values**



Most valued partner Collaborate broadly to solve customer high-value problems faster and better



Winning team Achieve great results together in an environment where employees do their best



**Responsibility & integrity** Operate with mutual trust and respect to make a positive contribution to the industry and community



World-class performance Create competitive advantage and deliver superior results that generate value and fuel growth

#### Standards of Business Conduct

Our Standards of Business Conduct (SBC) are a keystone component of the program. The SBC outlines the core values and compliance expectations for our global workforce and network of trusted partners. The SBC reinforces the uncompromising standards that lead our interactions and govern our operations.

Available in 14 languages, the SBC is designed to foster trust in management's commitment to our core values, empower employees to speak up without fear of retaliation, and provide clear guidance about risks, laws, company policies and reporting channels.

Each year, we ask our employees to certify their compliance with the Standards of Business Conduct and repledge their commitment to leading with integrity. For our 2023 campaign, greater than 99% of Applied's more than 34,000 employees completed the certification.

#### **Responsible Business Alliance** Code of Conduct

Applied is a member of the RBA, the world's largest industry coalition dedicated to social responsibility in global supply chains. Throughout 2023, we continued to advance our Responsible Manufacturing Program to better monitor our compliance with the RBA Code of Conduct. The RBA Code provides standards related to labor, health and safety, environment, ethics and management systems, including responsible minerals sourcing.

Applied vendors and suppliers are required to comply with both Applied's Standards of Business Conduct for Business Partners and the RBA Code of Conduct.

At Applied, we believe that every employee plays a critical role in supporting the company's compliance efforts. The program therefore develops practical, relevant and engaging training content to enable our employees to act responsibly and make good business decisions with a positive impact. We also engage our employees by facilitating awareness campaigns, ethics surveys and roadshows, and encourage them to participate in our annual Responsibility & Integrity Week. Nearly 70 designated Compliance Champions further foster ethical practices and model compliance within the business units. Compliance Champions serve as trusted local contacts for employee questions or concerns.



↗ ⊘

Standards of Business Conduct for Employees (English) Standards of Business Conduct for Employees (alternative languages) Standards of Business Conduct for Business Partners (English)



and India) and virtual events. In 2023, we saw a 14% increase in online content views compared with 2022. Through increased collaboration with risk-mitigation functions, we achieved a 75% increase in content posted on our internal Inside Compliance site.

## **Cybersecurity and Data Protection**

In a dynamic and evolving digital landscape, data and intellectual property (IP) security remain among our top strategic priorities. We devote robust resources toward protecting our IP and making Applied a safe choice for our global stakeholders. We maintain both defense-in-depth-based controls and the capacity for rapid detection and response.

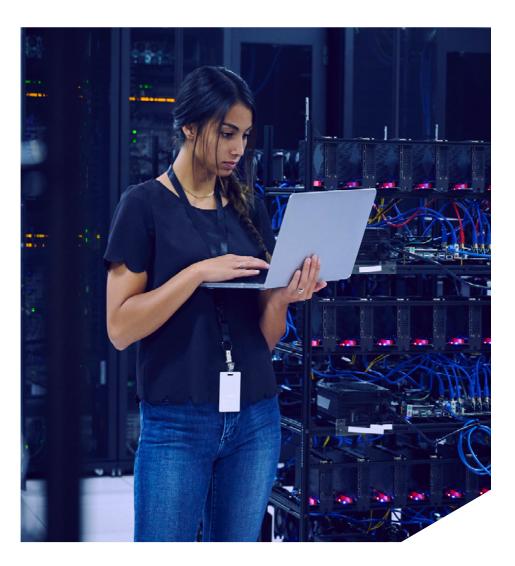
Some of our efforts include maintaining detailed response procedures and escalation protocols, engaging third-party auditors to help assure the effectiveness of internal controls, and providing robust training to our employees on recognizing security threats. For example, we educate employees on cyber threats, with mandatory information security and privacy training for all employees as part of their new-hire orientation and every two years thereafter. We partner with industry groups, government agencies and third-party experts to improve our controls. We have also established a Generative AI Task Force with strategic oversight and broad business unit participation to explore business use cases, conduct security and privacy reviews, and to operationalize necessary controls.

Applied hosts an annual Cybersecurity Awareness Month campaign to engage our employees globally in learning how to identify and appropriately respond to cyber risks. The 2023 "Be Cyber Safe" campaign featured live events across two time zones, and featured experts from both inside and outside the company. The live and virtual events, gamified awareness-building activities, including Spot-a-Phish, cyber word games and online quizzes, generated successful engagement across the organization.

Applied has undergone a National Institute of Standards of Technology Cybersecurity Framework assessment and continues to maintain one of the best BitSight security scores among our industry peers. Forty-nine of our business-critical locations globally hold ISO 27001 certification for information security, aligning our data security management systems and programs with global best practices. We engage third-party vendors to independently assess, proactively monitor and reduce attack surface risk, to provide an outsidein view of Applied's cybersecurity posture.

Our Chief Information Security Officer (CISO) reports quarterly to the Board's Audit Committee on our data and IP security programs, policies, controls, key risks and notable incidents.

While we have not directly experienced a material information security (cybersecurity) incident in the past three fiscal years, we maintain a cybersecurity risk insurance policy as a matter of good practice.



#### Fiscal 2023 Insider Risk and IP Protection Awareness Campaign

We held our third-annual Insider Risk and IP Protection Awareness campaign to educate our global workforce on best practices and trends in IP risk and protection. The campaign featured 25 videos on IP protection best practices featuring Applied leaders, including members of the Executive Team.



#### Supply Chain Cybersecurity

Our commitment to data and IP security extends to our supply chain. We established and operated a Supply Chain Cybersecurity Program to increase awareness, assess supplier security controls, help improve supplier security controls and manage security incidents. This program is sponsored by our supply chain head and CISO and managed by a cross-functional team encompassing Global Supply Chain, AGS Commodity Business Management, Global Information Security, Information Security Risk Management, Legal and Compliance Organization, and Global General Procurement. As part of this program, we work with our suppliers to assess and improve their security controls during the onboarding process and subsequently on a risk and need basis for highimpact suppliers.

In 2023, Applied joined the SEMI Supply Chain Global Industry Advisory Council to help create industry standard supply chain cyber risk management. Applied released a supplier training course to increase awareness of minimum cybersecurity requirements and adoption of best practice cybersecurity controls.

_	
2	
5	•
	Ø

See <u>Applied's Privacy Policy</u> for more information on our collection, use, storage and disclosure of personal information.

#### **IP** Protection

Applied maintains a dedicated Valuable Intellectual Property (VIP) program to protect company, customer and supplier IP by operationalizing strategy, policy and awareness.

The VIP program works with teams across the enterprise to identify and address lessons learned and pursue controls that continue to protect IP. We strongly believe that equipping our workforce and suppliers with knowledge about company requirements and best practices on IP protection is critical to safeguarding our innovations and that of our partners.

#### Data Privacy and Governance

Applied respects the privacy of all individuals with whom we communicate and interact. We are committed to safeguarding the data of our employees and trusted business partners.

We recognize the importance that our global workforce, customers and suppliers place on their personal information, and we take seriously our obligations to protect that data.

We maintain a dedicated privacy and data protection team engaged in continuous improvements of our privacy and data governance program to keep pace with rapidly evolving global data laws and regulations as well as emerging technologies such as Generative AI. In 2023, we enhanced our programs by launching new technology and automated solutions to standardize and centralize the collection and management of consent to personal data processing by Applied.

## **Public Policy**

**Applied participates in efforts to inform policymakers** about issues and challenges critical to our company, our customers, and our customers' customers. Our general policy focus areas include technology regulation, international trade, R&D, human resources and sustainability.

#### Efforts within these areas include:

- Working on policies, partnerships and R&D incentives to develop and advance the nextgeneration technologies
- Consulting on reporting standards, such as the draft European Sustainability Reporting Standards, and advocating for interoperable global standards
- Advocating for international trade
- Advocating for STEM education and workforce development policies, as well as immigration reform that embraces the contributions of immigrants to the U.S. economy
- Advocating for fairness, diversity and inclusion, including LGBTQ+ rights

#### **United States**

In the U.S., Applied continues to engage with the federal government and play a leadership role on the implementation of the U.S. CHIPS and Science Act, including development of the National Semiconductor Technology Center (NSTC). The NSTC is a critical part of the CHIPS research and development program established to support and extend U.S. leadership in semiconductor research, design, engineering and advanced manufacturing.

In May 2023, Applied announced a historic multi-billion-dollar investment to build the world's largest and most advanced facility for collaborative semiconductor process technology and manufacturing equipment R&D, the Equipment and Process Innovation and Commercialization (EPIC) Center. The EPIC



Center is designed to be capable of engaging semiconductor industry on its path to becoming a with a future U.S. NSTC. The scale of Applied's \$1 trillion market over the next decade. The summit investment is contingent upon receiving support took place at the future site of the EPIC Center from the U.S. government through provisions of the in Silicon Valley, California, and welcomed global CHIPS and Science Act. industry executives from semiconductor design, manufacturing and equipment companies, as well In conjunction, Applied hosted U.S. Vice President as academic leaders representing top engineering universities to discuss economic stability, national security and talent development.

Kamala Harris and other senior-level government officials at the Summit to Advance Semiconductor Leadership, an event focused on exploring solutions for overcoming key challenges facing the



#### Europe

In Europe, we continue to track the Corporate Sustainability Due Diligence Directive (CS3D) and Ecodesign for Sustainable Products Regulation (ESPR) (among other sustainability-related regulations) and engage as appropriate with the European Financial Reporting Advisory Group (EFRAG), which developed the European Sustainability Reporting Standards (ESRS) that guide disclosures pursuant to the Corporate Sustainability Reporting Directive (CSRD). In September, Applied's Senior Director of ESG met with representatives of the European Commission, DIGITALEUROPE, and other stakeholders in Brussels to share Applied's ESG strategy, introduce the new Net Zero 2040 Playbook, and provide consultation on the implementation of global standards.

#### India

In June 2023, Applied CEO Gary Dickerson met with India Prime Minister Narendra Modi in Washington, D.C. to discuss Applied's 20year history in India and the company's plans to strengthen its global innovation infrastructure, including establishing a collaborative engineering center in Bangalore. The Center will serve as a catalyst for supplier innovation as well as training and developing future semiconductor talent, and open new opportunities for India to play an expanded role in the global chip ecosystem.

The meeting was part of the Prime Minister's state visit to the United States at the invitation of the Biden Administration.

#### Business and Trade Associations

Applied maintains memberships in various business and trade associations that advance issues aligned with our corporate strategy and the needs of our company, industry, employees and communities. Our membership in a group does not imply that we endorse the entirety of that group's policy positions.

In 2023, Applied paid approximately \$612,000 in trade association membership dues, 18% of which were specified by the associations as nondeductible lobbying expenditures. This total does not include conference or event sponsorships, programming activities or similar costs.

Applied reports on federal lobbying through the Lobbying Disclosure Act Database and files periodic reports with federal and state agencies, as appropriate.

Our 2023 U.S. Trade, Business and Civic Associations membership list can be found here.

∧ ⊳

Watch Applied's CEO explain why it's "India's Time to Shine."

#### **Political Contributions**

The Applied Materials Political Action Committee (AMPAC) contributes to federal candidates. political action committees and party committees supporting issues of strategic importance to Applied, consistent with all legal requirements. Our State Contributions Committee oversees corporate political spending to advance strategic issues at the state and local levels.

While Applied pays the administrative expenses for AMPAC, the committee is funded entirely through voluntary contributions from eligible employees, and does not make any contributions using Applied Materials corporate funds.

#### **Political Contributio**

Total value of financial co parties, candidates and **Applied Materials** 

Total value of financial co parties, candidates and by AMPAC

See the Political Contributions and Activity Report for additional details on Applied's political donation policies, mechanisms and compliance practices.

AMPAC's activities are overseen—and its contributions reviewed and approved—by the AMPAC Board of Directors. Contributions are based solely on corporate objectives, without regard for the private political preferences of either the employees who contribute to AMPAC or individual committee members.

During 2023, political contributions made by AMPAC totaled \$42,500. Semi-annual Political Contributions Reports can be viewed here.

on Data	FY23	FY22	FY21
contributions to political related institutions by	\$0	\$0	\$0
contributions to political related institutions	\$42,500	\$69,500	\$24,600

07

## About this Report

About this Report

Third-Party Data Assurance Statement



APPLIED MATERIALS Sustainability Report 2023

## **About this Report**

Published on behalf of Applied Materials, Inc. and its subsidiaries (collectively referred to as "Applied Materials," "Applied" or "the company"), this 2023 Sustainability Report provides an overview of our sustainability strategy, governance models, actions, goals and progress made during our fiscal 2023, except where noted.

Applied has reported on its environmental responsibility annually since 2005 and published its first Citizenship Report in 2008. Data covers all global operations unless clearly marked otherwise.

#### **Reporting Standards**

- This report has been prepared in accordance with the Global Reporting Initiative. A GRI Index is included in the <u>Data and Disclosures</u> section.
- Disclosures following the Sustainability Accounting Standards Board (SASB) Semiconductor Standard are also provided in the <u>Data and Disclosures</u> section.
- We provide a TCFD Index in the <u>Data and</u> <u>Disclosures</u> section and discuss the results of our climate risk assessment in the Climate and Energy section of the report.

- GHG emissions are calculated following the GHG Protocol using the best available data in the reporting year. Calculation methodology improvements are likely to be implemented annually and will be transparently disclosed in future sustainability reports.
- Throughout the report, we demonstrate alignment and contribution to key United Nations Sustainable Development Goals (SDGs).

## Report Information and Data Assurance

Limited assurance of select indicators included in the Sustainability Report and Data and Disclosures has been conducted by ERM CVS, whose assurance statement is provided on <u>page 89</u>. Further, Applied manufacturing sites maintain ISO 14001:2015 and ISO 45001:2018 certifications, which require annual third-party audits of our management systems and processes.

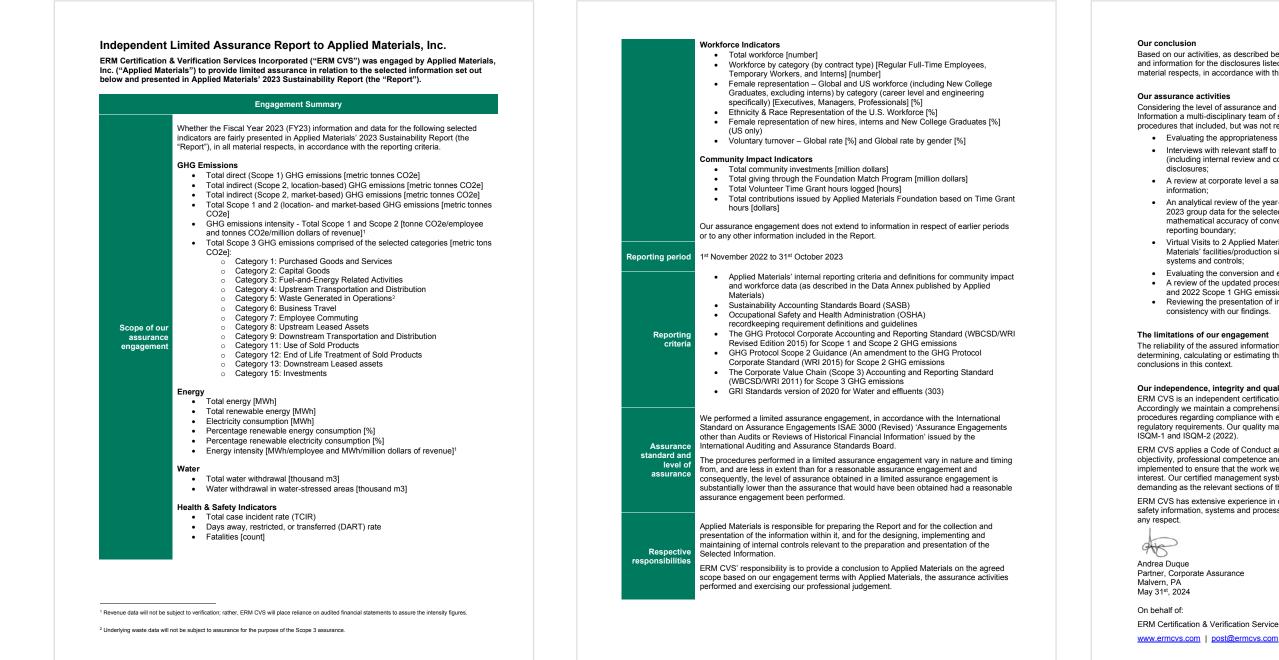
## Forward-Looking Statements and Reporting Uncertainties

This report contains forward-looking statements, including our sustainability strategies and targets and other statements that are not historical facts. These statements are subject to risks and uncertainties and are not guarantees of future performance. Factors that could cause actual results to differ materially from those expressed or implied by such statements are included in the "Risk Factors" section of our SEC filings, including our recent Forms 10-K, 10-Q and 8-K. All forwardlooking statements are based on management's current estimates, projections and assumptions, and we assume no obligation to update them.

Non-financial information is subject to measurement uncertainties resulting from limitations inherent in the nature and methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements.



## **Third-Party Data Assurance Statement**



APPLIED MATERIALS

Based on our activities, as described below, nothing has come to our attention to indicate that the FY2023 data and information for the disclosures listed under 'Scope' above are not fairly presented in the Report, in all material respects, in accordance with the reporting criteria.

Considering the level of assurance and our assessment of the risk of material misstatement of the Selected Information a multi-disciplinary team of sustainability and assurance specialists performed a range of procedures that included, but was not restricted to, the following:

· Evaluating the appropriateness of the reporting criteria for the Selected information;

 Interviews with relevant staff to understand and evaluate the management systems and processes (including internal review and control processes) used for collecting and reporting the selected

A review at corporate level a sample of qualitative and quantitative evidence supporting the reported

· An analytical review of the year-end data submitted by all locations included in the consolidated FY 2023 group data for the selected disclosures which included testing the completeness and mathematical accuracy of conversions and calculations, and consolidation in line with the stated reporting boundary:

• Virtual Visits to 2 Applied Materials' facilities/production sites, and 2 in-person visits to Applied Materials' facilities/production sites in the U.S. and Korea to review source data and local reporting systems and controls:

• Evaluating the conversion and emission factors and assumptions used;

· A review of the updated process emissions methodology and subsequent restatements for 2020, 2021, and 2022 Scope 1 GHG emissions; and

Reviewing the presentation of information relevant to the scope of our work in the Report to ensure consistency with our findings.

#### The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance

#### Our independence, integrity and quality control

ERM CVS is an independent certification and verification body accredited by UKAS to ISO 17021:2015. Accordingly we maintain a comprehensive system of guality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our quality management system is at least as demanding as the relevant sections of ISOM-1 and ISOM-2 (2022).

ERM CVS applies a Code of Conduct and related policies to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our certified management system covers independence and ethical requirements that are at least as demanding as the relevant sections of the IESBA Code relating to assurance engagements

ERM CVS has extensive experience in conducting assurance on environmental, social, ethical and health and safety information, systems and processes, and provides no consultancy related services to Applied Materials in



ERM Certification & Verification Services Incorporated

08

## Data and Disclosures

bout Applied Materials
nvironmental Metrics
ocial Metrics
ulture of Inclusion Metrics
ASB Index
CFD Index



APPLIED MATERIALS Sustainability Report 2023

## **Data and Disclosures**

In developing our 2023 Sustainability Report, we compiled key data and disclosures in accordance with <u>Global Reporting Initiative</u> (GRI) <u>Standards</u>, <u>Sustainability Accounting Standards Board</u> (SASB) frameworks, and the <u>Task Force on Climate-Related Financial Disclosures</u> (TCFD). Further information and disclosures can be found in <u>Applied's 2023 Annual Report</u> and the <u>CDP Climate Change 2023</u> and <u>CDP Water Security 2023</u> reports.

## **About Applied Materials**

	FY 2023	FY 2022	FY 2021	FY 2020
Company Profile				
Revenue (\$Billions)	\$26.5	\$25.8	\$23.1	\$17.2
Net income (\$Billions)	\$6.9	\$6.5	\$5.9	\$3.6
R&D (\$Billions)	\$3.1	\$2.8	\$2.5	\$2.2
Number of patents	19,600	~17,300	~15,700	~14,300
Number of locations/countries	>150 in 24 countries	>120 locations in 24 countries	>115 locations in 19 countries	>110 locations in 19 countries

Find more information about Applied Materials on our Investor Relations website

Non-financial information is subject to measurement uncertainties resulting from limitations inherent in the nature and methods used for determining such data The selection of different but acceptable measurement techniques can result in materially different measurements



## **Environmental Metrics**

#### Each year, Applied Materials continues to review and refine our environmental metrics calculation methodology.

All data is reported in terms of Applied's Fiscal Year (October 31, 2022 – October 29, 2023). Occasionally we restate historical data when improvements are made. We have incorporated some updates to historical data due to methodology improvements and improved data availability to ensure consistent comparison across years. Restated data can be identified through the footnotes. Greenhouse gas (GHG) emissions are calculated following the GHG Protocol, covering all greenhouse gases included in the Kyoto Protocol: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PCFs, SF<sub>6</sub> and NF<sub>3</sub>. The report includes all Scope 1 and 2 emissions following an operational control boundary and uses Emissions First principles for market-based calculations. Emissions are calculated using a variety of emission factor sources including eGRID, IEA, EIA CBECS, IPCC AR6, EPA EEIO, DEFRA, and Ecoinvent. Informed estimations are used where primary data is limited or unavailable. An overview of our 2023 Scope 3 emissions calculation methodology can be found <u>here</u>.

	UNITS	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019		
Climate/GHG Emissions								
Total Scope 1 <sup>1</sup> (A)	MT CO <sub>2</sub> e	49,053	48,633	42,396	36,678	35,225		
Total Scope 2 (location-based)		170,299	161,303	147,087	138,521	144,371		
Total Scope 2 (market-based)		67,661	72,933	65,573	77,433	78,677		
Scope 1 + Scope 2 (market-based)		116,715	121,566	107,969	114,111	113,901		
	Total Scope 1 & Scope 2 in MT CO <sub>2</sub> e per employee	3.4	3.7	4.0	4.7	5.2		
GHG Intensity (A)	Total Scope 1 & Scope 2 in MT CO <sub>2</sub> e per million dollars of revenue	4.4	4.7	4.7		7.8		

1 Scope 1 emissions restated from FY19-FY23 based on update to process gas emissions calculation methodology (aligning all sites to using an invoice-based reporting approach)

(A) 2023 data assured by ERM CVS. See our data assurance statement on page 89 of the Sustainability Report

APPLIED MATERIALS & SI

### **Environmental Metrics (cont'd)**

		UNITS	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
	Total		22,483,001	25,421,930	21,616,076	_	13,108,629
	Category 1: Purchased Goods & Services <sup>3,4</sup>		2,852,968	3,882,759	3,231,545	_	1,862,516
	Category 2: Capital Goods <sup>,4</sup>		132,506	179,156	148,968	_	61,953
	Category 3: Fuel & Energy Related Activities		59,828	56,544	52,142	_	36,012
	Category 4: Upstream Transportation & MT Distribution <sup>3,4</sup>	MT CO <sub>2</sub> e	950,522	1,998,985	1,340,467	_	567,080
	Category 5: Waste from Operations.4	-	2,015	1,941	1,975	_	531
	Category 6: Business Travel	-	96,098	52,538	22,383	_	97,953
<b>Scope 3</b> <sup>2,3,4</sup> (A)	Category 7: Employee Commuting <sup>5</sup>		41,667	31,902	24,343	_	76,751
	Category 8: Upstream Leased Assets		6,619	3,860	3,715	_	2,601
	Category 9: Downstream Transportation & Distribution		86,304	229,937	144,619	_	191,577
	Category 11: Use of Sold Products <sup>6</sup>		18,029,534	18,821,840	16,500,030	_	10,203,120
Proc	Category 12: End of Life Treatment of Sold Products	MT CO <sub>2</sub> e	636	940	845	_	713
	Category 13: Downstream Leased Assets		2,303	2,870	3,989	_	3,330
	Category 15: Investments <sup>7</sup>		222,001	158,658	141,055	_	4,492

2 Some Scope 3 categories may exclude recent acquisitions that occurred in FY2022, which are estimated to have a nominal impact on the overall footprint and will be integrated in the following reporting year

3 In Scope 3 spend-based calculations, EPA EEIO factors include related transportation and distribution margins

4 Historical data for Scope 3 Category 1 and Category 4 have been restated due to improved data availability

5 Scope 3 Category 7 (Employee Commuting) currently excludes employee work-from-home emissions

6 Scope 3 Category 11 was calculated using the SEMI S23 standard to model Applied semiconductor tools' annual energy consumption across product categories, multiplied by an average 10-year product lifespan. Emissions in this category include the energy, chemicals and gases used by Applied products as well as the ancillary equipment required to power Applied products. The category also includes emissions from the combustion of natural gas in point-of-use abatement systems where applicable. Category 11 emissions do not include emissions from Applied's Display business (which represented 5% of total net sales in FY2023) nor from refurbished systems

7 Scope 3 Category 15 (Investments) currently excludes project finance and debt investments; managed investments and client services are not applicable

APPLIED MATERIALS Sustainability Report 2023

### **Environmental Metrics (cont'd)**

	UNITS	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Energy						
Electricity consumption (A)	A 43.471	486,978	464,044	429,484	404,673	400,850
Total renewable electricity (A)	MWh	341,562	319,180	223,529	152,835	154,848
U.S. renewable electricity rate	%	100%	100%	73%	50%	51%
Global renewable electricity rate A	%	70%	69%	52%	38%	39%
Total energy A	MWh	623,693	597,500	560,776	525,292	527,125
Energy intensity (A)	MWh of energy consumed per employee	18.33	18.1	20.6	21.9	23.9
	MWh of energy consumed per million dollars of revenue	23.5	23.2	24.3	30.5	36.1
Water						
Total water withdrawal (A)		2,079	2,359	2,249	2,104	2,016
City water purchased		2,077	2,221	2,149	2,088	1,990
Groundwater		1.3	138	100	16	26
Total water consumption		494	443	424	418	404
Domestic water <sup>8</sup>	Thousand m <sup>3</sup> %	399	363	364	340	327
Irrigation		96	80	60	78	77
Water withdrawal in water-stressed areas $\textcircled{A}$		13%	13%	12%	12%	13%
Water withdrawal intensity per employee		0.06	0.07	0.08	0.09	0.09
Water withdrawal intensity per M\$ Revenue		0.08	0.09	0.1	0.12	0.14

8 Domestic water consumption assumes negligible water consumption in office buildings

APPLIED MATERIALS. Sustainability Report 2023

### **Environmental Metrics (cont'd)**

		UNITS	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Waste							
Non-hazardous landfill diversion	rate	%	73%	72%	67%	73%	75%
		Thousand MT	18.1	19.1	18.1	14.1	11.9
	Non-hazardous: landfill		4.1	4.7	4.8	2.3	2.1
Total non-hazardous waste	Non-hazardous: incineration		0.1	0.3	0.7	1.3	0.5
	Non-hazardous: recycled		12.9	13.9	12.5	10.4	8.9
	Non-hazardous: composted		0.2	0.2	0.1	0.1	0.4
Total hazardous waste			1.1	0.5	0.5	0.4	0.5
Total waste generation			19.1	19.6	18.6	14.5	12.4

APPLIED MATERIALS. Sustainability Report 2023

## **Social Metrics**

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Global Workforce (amount)					
Total workforce (A)	36,605	36,737	30,130	25,775	23,234
Regular full-time employees (A)	34,328	33,306	27,223	24,031	22,014
Temporary workers (A)	2,130	3,264	2,793	1,637	1,114
Interns (A)	147	167	114	107	106
Female Representation of the Global Workforce (%)					
Women on Applied Materials' Board of Directors 🛞	30.0%	36.0%	40.0%	30.0%	30.0%
Total Women in Workforce (A)	20.3%	19.3%	18.1%	17.8%	17.4%
Women Executives (Vice Presidents and Directors) (A)	13.0%	12.5%	12.2%	11.2%	11.0%
Women Managers (People Managers) 🛞	17.4%	16.8%	16.3%	15.5%	14.9%
Women Professionals (Business, Engineering and Sales Career Bands) 🕢	28.1%	27.5%	26.2%	25.8%	25.3%
Women Engineering Employees <sup>1</sup> (A)	15.6%	15.2%	13.9%	13.2%	12.7%

(A) 2023 data assured by ERM CVS. See our data assurance statement on page 89 of the Sustainability Report

APPLIED MATERIALS Sustainability Report 2023

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Female Representation in U.S. Workforce (%)					
Total Women in Workforce (A)	23.0%	21.7%	20.8%	20.2%	19.5%
Women Executives (Vice Presidents and Directors) $\textcircled{ extsf{0}}$	13.6%	12.9%	12.7%	11.6%	11.3%
Women Managers (People Managers) 🛞	20.0%	19.2%	19.0%	17.4%	16.1%
Women Professionals (Business, Engineering and Sales Career Bands) (A)	29.4%	28.2%	26.8%	26.9%	26.1%
Women Engineering Employees <sup>1</sup> (A)	15.6%	14.9%	13.5%	12.9%	12.4%
Female Representation by Region (%)					
AMER	23.0%	21.8%	20.8%	20.2%	19.5%
APAC	17.8%	16.9%	15.6%	15.7%	15.6%
EMEA	19.6%	19.6%	18.3%	16.7%	16.5%
Ethnicity and Race Representation in the U.S. Workforce <sup>2</sup>					
White (3)	41.7%	43.6%	45.6%	48%	49.8%
Asian (A)	34.8%	35.4%	37.1%	37.3%	36.8%
Hispanic or Latino (A)	10.6%	10.1%	9.2%	8.4%	7.8%
Black or African American (A)	6.1%	5.4%	4.5%	3.9%	3.7%
Employees with two or more races (A)	2.0%	1.9%	1.8%	1.4%	1.4%
American Indian or Alaska Native 🛞	0.3%	0.3%	0.3%	0.2%	0.3%
Native Hawaiian or Pacific Islander 🛞	0.9%	1.0%	0.7%	0.3%	0.2%

1 Engineers are those in roles within the Engineering Career band only. Customer Engineers and Engineering Technicians are excluded from this metric 2 In FY23, 3.6% of employees did not disclose race/ethnicity



	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Hiring and Recruitment					
U.S. Employee New Hires					
Female new hires (excludes NCG female hires) <sup>3</sup> (A)	29.5%	23.9%	22.8%	23.6%	26.1%
U.S. Intern Program					
Female intern hires (A)	38.9%	46.9%	53.1%	60.2%	44.4%
U.S. New College Graduate (NCG) Program					
Female NCG hires (A)	39.5%	38.3%	31.1%	38.3%	33.3%
Global Voluntary Turnover					
Global Total					
Total global voluntary turnover (A)	5.2%	8.5%	7.0%	4.8%	5.4%
Global Turnover by Gender					
Global female turnover (A)	5.3%	9.0%	7.1%	5.1%	7.2%
Global male turnover (A)	5.1%	8.4%	6.9%	4.8%	5.0%

3 New College Graduates (NCG) are defined as employees hired or rehired within two years of graduation (Technical diploma, or Associates, Bachelors, Masters, PhD, or post-doc degree). Due to this updated definition, we restated FY20 and FY21 for consistency

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Learning and Development					
Total Workforce (includes all regular full-time, temporary and interns)					
Total learning hours	2,053,104	2,046,238	1,740,492	1,436,271	1,407,932
Total individual learners	48,774	45,859	42,223	33,759	32,087
Average training hours per person	42.09	45	41	43	44
Regular Full-Time Employees					
Total learning hours	1,944,092	1,869,669	1,598,502	1,353,985	1,336,812
Total individual learners	34,264	32,890	27,335	23,214	21,850
Average training hours per person	57	57	58	58	61
Percentage of employees completed training/learning hours	99.8%	98.0%	99.0%	98.0%	99.0%
Contingent Workers					
Total learning hours	105,273	176,569	141,990	82,286	71,120
Average training hours per person	7.3	14	10	8	7
Completed Training by Role (Unique Learners)					
Executive Level Vice Presidents	206	193	n/a	n/a	n/a
Executive Level Directors	2,185	2,126	n/a	n/a	n/a
Manager Level	3,469	3,193	n/a	n/a	n/a
Individual Contributors	28,404	27,472	n/a	n/a	n/a
Interns	142	100	n/a	n/a	n/a

APPLIED MATERIALS. Sustainability Report 2023

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019
Health and Safety					
Employee Health and Safety					
Total Case Incident Rate (TCIR) (A)	0.44	0.35	0.45	0.33	0.43
Days Away, Restricted, or Transferred Rate (DART) 🖲	0.33	0.24	0.35	0.23	0.29
Lost Time Severity Rate (LTSR)	3.03	2.59	4.44	3.70	3.63
Fatalities (A)	0	0	0	0	0
Community Impact					
Community Giving and Investments					
Total community investments (A)	\$11.7M	\$11.2M	\$13.7M	\$14.9M	
					\$10.8M
Total community investments by Applied Materials, Inc.	\$3.1M	\$2.8M	\$3.1M	\$3.8M	\$10.8M \$2.8M
Total community investments by Applied Materials, Inc. Total community investments by the Applied Materials Foundation (excludes administrative)	\$3.1M \$8.5M	\$2.8M \$8.4M	\$3.1M \$10.6M	\$3.8M \$11.1M	
					\$2.8M
Total community investments by the Applied Materials Foundation (excludes administrative)	\$8.5M	\$8.4M	\$10.6M	\$11.1M	\$2.8M \$8.0M

4 The reporting period for Volunteer hours and Volunteer Time Grant hours logged changed to fiscal year in FY22. Prior years are based on calendar year. FY22 data will have some overlap with 2021 data

APPLIED MATERIALS Sustainability Report 2023

## **Culture of Inclusion Metrics**

							Women	Asian	Black	Hispanic/	Other	White
	FY 2023	FY 2022	FY 2021	FY 2020						Latino	URMs	
Women Representation					U.S. Representation by							
Global (A)	20.3%	19.3%	18.1%	17.8%	and Race/ Ethnicity by							
U.S. (A)	23.0%	21.7%	20.8%	20.2%		FY2023	13.6%	46.7%	1.3%	3.1%	1.5%	45.6%
Global Increase %	1.0%	1.2%	0.3%		Executives	FY2022 FY2021	12.9%	47.1% 46.0%	1.1%	2.9%	1.3%	46.3%
U.S. Increase %	1.3%	0.9%	0.6%		(VP+Director) (A)	FY2021	11.3%	40.0%	0.8%	2.0%	0.7%	54.8%
						FY2016	11.3%	40.5%	1.0%	2.0%	0.8%	55.6%
						FY2023	20.0%	32.3%	5.1%	9.6%	2.4%	48.1%
	FY 2023	FY 2022	FY 2021	FY 2020		FY2022	19.2%	33.9%	4.2%	8.7%	2.7%	49.1%
<b>URM U.S. Representation</b> <sup>1</sup>					Managers (A)	FY2021	19.0%	34.9%	4.7%	8.2%	2.4%	49.6%
U.S. URM (A)	19.9%	18.8%	16.4%	14.2%	-	FY2017	13.0%	31.3%	3.2%	5.8%	0.9%	58.8%
U.S. Increase %	1.1%	2.4%	2.2%			FY2016	12.4%	29.0%	3.1%	5.3%	0.7%	61.7%
						FY2023	29.4%	44.0%	3.9%	8.4%	3.1%	37.8%
					Professionals (Business,	FY2022	28.2%	43.7%	3.8%	8.1%	2.9%	39.3%
	FY 2023	FY 2022	FY 2021	FY 2020	Engineering & Sales	FY2021	27.3%	45.6%	2.9%	7.4%	2.4%	40.9%
Global Executive Women					Career Band) (A)	FY2017	24.8%	42.1%	3.2%	6.6%	1.2%	46.8%
Representation						FY2016	24.1%	40.6%	2.9%	6.4%	1.1%	48.9%
Global Executive Leadership (A)	13.0%	12.5%	12.2%	11.2%		FY2023	17.8%	17.8%	11.5%	16.7%	4.1%	43.9%
Increase %	0.5%	0.3%	1.0%		Other Professionals	FY2022	15.5%	18.4%	10.0%	16.4%	4.8%	47.5%
	0.570	0.570	1.0 /0		(Customer Support, Technical &	FY2021	13.3%	19.2%	8.7%	15.4%	4.2%	51.2%
) 2023 data assured by ERM CVS. See our data assura	2023 data assured by ERM CVS. See our data assurance statement on page 89 of the Sustainability Report						12.5%	18.7%	6.2%	12.1%	2.5%	60.4%
Underrepresented Minorities include Hispanic or Lat or Alaska Native, and Native Hawaiian or Pacific Isla		or more races, Americar	Indian			FY2016	11.8%	18.4%	5.5%	11.3%	2.1%	62.6%

### **Culture of Inclusion Metrics (cont'd)**

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
Female Representation by Region								
APAC	17.8%	16.9%	15.6%	15.7%	15.6%	14.8%	14.9%	15.5%
EMEA	19.6%	19.6%	18.3%	16.7%	16.5%	15.4%	14.5%	14.6%
NA	23.0%	21.8%	20.8%	20.2%	19.5%	19.3%	18.8%	18.0%

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
Male Representation by Region								
APAC	82.2%	82.7%	83.9%	84.2%	84.2%	83.5%	84.1%	84.2%
EMEA	80.4%	80.3%	81.5%	83.3%	83.5%	84.6%	85.4%	85.4%
NA	76.8%	78.0%	79.1%	79.7%	80.4%	80.7%	81.2%	82.0%

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
Not declared Representation by Region								
APAC	0.0%	0.3%	0.6%	0.1%	0.2%	1.6%	0.3%	0.0%
EMEA	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
NA	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%	0.2%	0.3%

	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
Gender Diversity in Engineering								
Global	15.6%	15.2%	13.9%	13.2%	12.7%	12.2%	11.6%	11.4%
U.S.	15.6%	14.9%	13.5%	12.9%	12.4%	12.2%	11.7%	10.8%



## **SASB Index**

Торіс	Code	Accounting Metric	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	Narrative Response / Report Location
Greenhouse Gas Emissions	TC-SC-110a.1	Gross global Scope 1 emissions	49,053 MT CO <sub>2</sub> e	48,633 MT CO <sub>2</sub> e	42,396 MT CO <sub>2</sub> e	36,678 MT CO <sub>2</sub> e	35,225 MT CO <sub>2</sub> e	Scope 1 emissions restated from FY19-FY23 based on update to process gas emissions calculation methodology (aligning all sites to using an invoice-based reporting approach) Additional emissions data available in the Environmental Metrics table above, <u>page 92</u>
		Amount of total emissions from perfluorinated compounds	18,986 MT CO <sub>2</sub> e	20,148 MT CO <sub>2</sub> e	14,436 MT CO <sub>2</sub> e	10,421 MT CO <sub>2</sub> e	9,428 MT CO <sub>2</sub> e	Emissions restated from FY19-FY23 based on update to process gas emissions calculation methodology (aligning all sites to using an invoice-based reporting approach) Additional emissions data available in the Environmental Metrics table above, <u>page 92</u>
	TC-SC-110a.2	Discussion of long-term and short- term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets		See the "Climate and Energy" section of our Sustainability Report, <u>pages 25-30</u>				
		Total energy consumed	623,693 MWh	597,500 MWh	560,776 MWh	525,292 MWh	527,125 MWh	
Energy Management in Manufacturing	TC-SC-130a.1	Percentage of energy consumed that was supplied from grid electricity	78%	77%	75%	76%	75%	Additional energy data available in the Environmental Metrics table above, <u>page 94</u>
		Percentage of energy consumed that is renewable energy	55%	53%	40%	29%	29%	

### SASB Index (cont'd)

Торіс	Code	Accounting Metric	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	Narrative Response / Report Location
		Total water withdrawn	2,079,000 m <sup>3</sup>	2,359,000 m <sup>3</sup>	2,249,000 m <sup>3</sup>	2,104,000 m <sup>3</sup>	2,016,000 m <sup>3</sup>	Additional water data available in the Environmental Metrics table above, <u>page 94</u>
Water Management	TC-SC-140a.1	Percentage of water withdrawn in regions with high or extremely high baseline water stress	13%	13%	12%	12%	13%	See the "Water Management" section of our Sustainability Report, <u>page 32</u>
		Total water consumed	494,000 m <sup>3</sup>	443,000 m <sup>3</sup>	424,000 m <sup>3</sup>	418,000 m <sup>3</sup>	404,000 m <sup>3</sup>	
		Percentage of water consumed in regions with high or extremely high baseline water stress	12%	13%	11%	11%	13%	Domestic water consumption assumes negligible water consumption in office buildings
Masta Management	TC 5C 150-1	Amount of hazardous waste from manufacturing	1,071 MT	514 MT	491MT	424 MT	470 MT	Additional waste data available in the Environmental Metrics table above, page 95
Waste Management	TC-SC-150a.1	Percentage of hazardous waste recycled	15%	28%	18%	n/a	n/a	Tracking of this information started in FY2020
	TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards						See the "Occupational Health and Safety" section of our Sustainability Report, <u>page 68</u>
Employee Health and Safety	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations						In 2023, Applied received zero notices of violation (NOV) worldwide
<b>Recruiting and Managing a Global and Skilled Workforce</b>	TC-SC-330a.1	Percentage of employees that are (1) foreign nationals and (2) located offshore		n/a	n/a	n/a	n/a	Applied Materials does not disclose the percentage of employees who are foreign nationals or located offshore
Droduct Lifequelo Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances		n/a	n/a	n/a	n/a	This information is not tracked at this time
Product Lifecycle Management	TC-SC-410a.2	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops		n/a	n/a	n/a	n/a	This information is not applicable to Applied Materials who is a semiconductor equipment manufacturer

### SASB Index (cont'd)

Торіс	Code	Accounting Metric	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	Narrative Response / Report Location
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials						See the "Supplier Assessments and Audit" and "Responsible Minerals Sourcing" in our 2023 Sustainability Report, pages <u>44-45</u> ; see also our <u>Conflict Minerals Report</u>
Intellectual Property Protection and Competitive Behavior	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	n/a	n/a	n/a	n/a	n/a	This information is not tracked at this time
	TC-SC-000.A	Total production units	~4,200	~4,400	~3,600	~2,000	~1,800	
Activity Metrics	TC-SC-000.B	Percentage of production from owned facilities	85%	85%	85%	85%	85%	Production data covers semiconductor systems

## **TCFD Index**

Response and References
Applied's Corporate Governance and Nominating Committee (CGNC) oversees the ESG program, which includes its climate strategy, and throughout the year to foster continuous improvement and accountability. The CGNC is briefed on a quarterly basis by the Senior Director progress of Applied's sustainability objectives, including emerging climate-related risks and opportunities, progress on climate and energy relevant initiatives across the value chain.
sections C1.1a and C1.1b
For additional information, review the company's <u>CDP Climate response</u> questions C1.2a and C2.2.
<ul> <li>Timeframes:</li> <li>In 2023-2024, Applied engaged a third party to complete an updated comprehensive climate risk assessment, including scenario analysi and transitional risks, modeled from 2020 to 2040 (to align with Applied's Net Zero 2040 Playbook timeframe) across high-carbon and pathway scenarios. Applied defines timeframes as:</li> <li>Short-term: 0-5 years (2023-2025)</li> <li>Medium-term: 5-10 years (2025-2030)</li> <li>Long-term: 10-30 years (2030-2040)</li> </ul>
Description of climate-related issues potentially arising across timeframes:
<ul> <li>Physical Risks:</li> <li>Magnitude of exposure to physical risks is projected to vary geographically and temporally across value-chain and scenarios.</li> <li>On average, Applied Materials is projected to face the greatest increase in exposure to extreme heat, drought, and storms, particular and Middle East.</li> <li>Applied sites are also projected to face an increase in exposure to certain hazards such as flooding and wildfire, depending on their get Water stress exposure is expected to increase throughout Applied Materials' value chain, with the most notable impacts in the West Asia, Asia, and the Middle East.</li> </ul>

and is engaged ctor of ESG on the ergy goals, and

<u>e response</u> to

ysis, across physical nd low-carbon

arly in Southeast Asia

geographic location. estern U.S., Southeast

### TCFD Index (cont'd)

Торіс	Response and References
Strategy (cont'd)	
a) Describe the climate-related risks and	Description of climate-related issues potentially arising across timeframes (cont'd):
opportunities the company has identified over the short, medium, and long term. (cont'd)	Transition Risks & Opportunities:
the short, medium, and long term. (cont u)	<ul> <li>Transition risks were assessed across short- and medium-term time periods due to the rapid pace of change in the semiconductor inc data to support long-term analysis in a credible or useful manner.</li> </ul>
	• Exposure to carbon price increases could increase operating costs, particularly under a Low Carbon Pathway.
	• Compliance costs are projected to increase under a Low Carbon Pathway as regulatory requirements on process gases increase.
	• Shifting customer demand for less emissions-intensive equipment may be either a risk or opportunity depending on Applied's ability activities to meet this demand and produce products that support decarbonization.
	• Demand for ICAPS products is projected to increase as the demand for power electronics that enable grid transformation grows.
	Processes used to determine materiality of risk and opportunity impacts
	<ul> <li>Through a stakeholder engagement process lasting approximately three months in Q4 2023, Applied Materials identified and prioritize related risks and opportunities for further analysis. Engagement approaches included interviews, workshops and surveys.</li> </ul>
	• Criteria used to prioritize analyzed risks and opportunities included the scale, scope, likelihood and mitigation approaches.
	Description of prioritized risks and opportunities:
	• Exposure from extreme and chronic weather events: Exposure from extreme weather events such as storms, floods, droughts, heavy p wildfire impacts the entire value chain.
	• Water risk: Semiconductor manufacturing and R&D is a water-intensive process, with customers and Applied Materials operating in in constrained geographies.
	• Carbon pricing: The implementation of carbon-pricing mechanisms (e.g., carbon tax) may increase operating costs for Applied Materia
	• <b>Regulations on process chemicals:</b> As regulatory requirements and restrictions on fluorinated process chemicals that are also greenhow the cost of compliance and qualifying new tools is expected to increase.
	• <b>R&amp;D pressure:</b> Demand for technological advancements to reduce energy and water consumption in customer fabs could exceed Appli capabilities thus requiring greater investment in R&D.
	• <b>Product deselection:</b> Inability to meet market demand for more sustainability-advantaged products as compared to competitors could share and therefore result in revenue loss.
	• <b>Customer demand:</b> In the transition to a low-carbon economy, new products and services are required that Applied is well positioned to example, its ICAPS business is enabling grid transformation, which in turn is increasing market demand for such products.
	For additional information, review the <u>Climate and Energy</u> and <u>Sustainability Systems Center of Excellence</u> sections of the 2023 Sustainability the company's <u>CDP Climate response</u> questions C2.3 and C2.4.

# r industry and lack of lity to ramp up R&D tized seven climate-

- y precipitation and
- increasingly water
- erials.
- house gases increase,
- plied Materials' R&D
- ld reduce market
- d to deliver. For
- nability Report and

### TCFD Index (cont'd)

Торіс	Response and References			
Risk Management				
b) Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.	Description of potential impact of evaluated risks and opportunities:			
	Risk / Opportunity	Time-horizon	Financial planning areas potentially impacted	Potential strategies that may be impacted
	Exposure from extreme and chronic weather events	Long-term	Products and services, operations, supply chain, adaptation and mitigation activities	<ul> <li>New site selection</li> <li>Site-level capital allocation</li> <li>Acquisitions or divestments</li> </ul>
	Water risk	Short, medium and long-term	Products and services, operations (especially R&D sites), supply chain	<ul> <li>Access to capital from financial lenders due to sites being in high climate-risk</li> <li>Supplier and customer engagement strategy to increase climate resiliency</li> <li>Business continuity planning</li> <li>Water efficiency and conservation planning</li> </ul>
	Carbon pricing	Medium-term	Operations	<ul><li>Decarbonization efforts</li><li>Compliance strategy for carbon pricing mechanisms</li></ul>
	Regulations on process chemicals	Medium-term	Products and services, investment in R&D	<ul> <li>New product development</li> <li>Compliance strategy for fluorinated process gases</li> <li>R&amp;D funding</li> </ul>
	R&D pressure	Medium-term	Products and services, investment in R&D	<ul><li> R&amp;D funding</li><li> New product development</li></ul>
	Product deselection	Medium-term	Products and services, supply chain, investment in R&D	<ul> <li>New product development</li> <li>Value chain decarbonization efforts and supplier engagement</li> </ul>
	Customer demand	Medium-term	Products and services, investment in R&D	<ul> <li>New product development</li> <li>Market expansion</li> <li>Customer engagement to support development of ICAPS tools to capture new markets</li> </ul>
	For additional information, review the <u>Climate and Energy</u> and <u>Innovate for Progress</u> sections of our 2023 Sustainability Report and the company's CDP Climate response question C2.3 and C2.4			

CDP Climate response question C2.3 and C2.4.



mate-risk areas liency

pture new

Торіс	Response and References
Strategy (cont'd)	
b) Describe the impact of climate-related	Resulting actions across business, strategy, and planning:
risks and opportunities on the company's businesses, strategy, and financial planning.	<ul> <li>Applied has teams dedicated to global emergency response, crisis management and business continuity, including extensions to local that ensure our business is prepared to respond and recover quickly from climate-related events and effectively support our customers operations. While no individual weather event can be tied to climate change, our business continuity teams are tracking weather-related Applied's business operations over time.</li> </ul>
	<ul> <li>As customer preferences shift toward resource-efficient products, Applied has and continues to develop technologies that enable custo current and future environmental obligations to their own customers, regulators and other stakeholders. For example, Applied is active technologies to reduce the power consumption of semiconductor chips, improve the energy density of batteries and increase the effect abatement systems. As part of our 3x30 goals, our teams are developing tools and services to improve the overall energy efficiency of fabrication facilities.</li> </ul>
	<ul> <li>Through its Net Zero 2040 Playbook, Applied has set its strategy and is organizing its teams to make progress towards a decarbonized global operations, value chain and through its products. By doing so, Applied can proactively prepare and respond to climate-related m carbon pricing, emerging regulations and evolving customer needs.</li> </ul>
	For additional information, review the <u>Climate and Energy</u> and <u>Sustainability Systems Center of Excellence</u> sections of the 2023 Sustainable the company's <u>CDP Climate response</u> question C3.3.
c) Describe the resilience of the company's	Resilience of strategies across scenarios:
strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul> <li>Applied has measures in place to mitigate various site-level climate risks, from expanding our global emergency response, crisis manage business continuity teams, to implementing facilities upgrades and having proper insurance policies in place. We have also started to crelated risks more directly in the selection and expansion of new facilities, such as potential energy costs and interruptions, access to read water constraints.</li> </ul>
	• Applied's 3x30 goals and strategy are enabling the transition to a low-carbon economy through the modeling and identification of ener reducing measures across our semiconductor products and customers' fab operations. Simultaneously, our supply chain SuCCESS2030 up their engagement with key suppliers on tracking and managing GHG emissions, energy and water consumption.
	• Applied Materials' progress towards its Net Zero 2040 Playbook mitigates the risk of rising carbon pricing.
	<ul> <li>Applied Materials is working to mitigate compliance risks by pursuing reduction of fluorinated process gas use in products and per- and Substances (PFAS) across components where feasible. In addition, Applied Materials is working to test alternatives to such chemicals. innovation in this area can help Applied Materials reduce usage of fluorinated process gases and use of PFAS in components, and there burden of compliance.</li> </ul>
	• Applied is investing in R&D and delivery of products to the market with reduced emissions impacts, including the announcement of its platform and <u>Sculpta</u> patterning tools in 2023.
	• Applied is continuing its delivery of ICAPS products, which are poised for growth as the demand for components that enable the low-catransformation grows.
	For additional information, review the <u>Climate and Energy</u> , <u>Sustainability Systems Center of Excellence</u> and <u>Supply Chain Responsibility</u> se company's <u>CDP Climate response</u> question C3.3.

al facilities' teams ers' and suppliers' ated impacts to

stomers to meet vely producing ectiveness of of semiconductor

ed future across its market shifts, such as

nability Report and

agement and consider climaterenewable energy

nergy and emissions-130 teams are scaling

and polyfluorinated Ils. Continued ereby reduce the

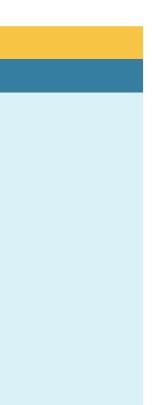
its new <u>Vistara</u>

-carbon grid

sections and the

Торіс	Response and References				
Risk Management					
a) Describe the company's processes for identifying and assessing climate-related risks.	transition risks across a Low (	Carbon Pathway and High	ete an updated comprehensive climate risk assess n Carbon Pathway, which leveraged the following s		ized physical and
	Table 2: Scenarios used for a	nalysis by risk			
		Category	Scenario used	Warming in 2050	Goverrning Body*
	Low Carbon Pathway	Physical risks	RCP2.6-SSP1	<2°C	IPCC
		Water risk	RCP2.6-SSP1	<2°C	IPCC
		Transition risks and opportunities	Net Zero Emissions by 2050 (NZE2050)	1.5°C	IEA
	High Carbon Pathway	Physical risks	RCP8.5-SSP5	4°C+	NTFS
	Trans	Water risk	RCP8.5-SSP3	4°C+	IPCC
		Transition risks and	Stated Policies (STEPS)	2°C	IEA
		opportunities	Current Policies	3°C+	NGFS
	• Through a multi-stakeholder engagement process in Q4 2023, Applied Materials identified and prioritized 7 climate-related risks and opportunities for further analysis through a range of interviews, workshops and surveys.				
	• Exposure to 9 hazards (including storm, precipitation, hail, wind speed, flooding, extreme heat, wildfires, extreme cold and drought) was assessed for 46 sites throughout the value chain.				
	• The Applied sites assessed represented over 80% of property value and operational footprint.				
	• Water risk was assessed through a site-level water-stress analysis for 46 sites throughout the value chain.				
	Carbon pricing assessed projected operating costs due to carbon pricing under climate scenarios from NGFS.				
	<ul> <li>Regulatory, R&amp;D and produce business data.</li> </ul>	ct-related transition risks	were evaluated both qualitatively and quantitative	ely across scenarios based or	n representative
	For additional information, rev	view the company's <u>CDP</u>	<u>Climate response</u> question C2.2.		

Торіс	Response and References
Risk Management	
b) Describe the company's processes for managing climate-related risks.	Refer to sections above describing Applied's actions and strategy to respond and prepare for climate-related transition risks. We use a risk assessment structure as an opportunity to identify processes or conditions of concern. The core team of global emergency response, crisis management and business continuity personnel identify site-level and other acute risks, including those associated with climate change. Our aim is to anticipate risks, establish mitigation plans and prepare so we can ensure a quick recovery in the event of a catastrophe. Applied monitors transitional risks, including potential regulatory changes covering climate change and their impact on our business operations. Risks are prioritized based on probability and impact. For example, a low-probability event with high impact is flagged as a risk. Once risks are prioritized, Applied identifies key risks and begins planning for different scenarios and impacts with our business continuity teams to develop business continuity plans and complete drills and exercises annually to remain prepared to support our business, customers and supplier operations. At the asset level, our site facilities and business continuity teams identify local physical risks and concerns to business units and operations. These teams use the ISO 14001 EMS, PSI Behavior Change Framework or Private Sector Preparation, or variations of these frameworks, with tool development to identify site-specific concerns. We also utilize a physical risk assessment process to identify and monitor those facilities that are most susceptible to acute and chronic risks based on their geographical location. For additional information, review the company's <u>CDP Climate response</u> question C2.2.
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.	<ul> <li>Within Applied Materials, our Enterprise Risk Management (ERM) program provides perspective into existing and potential risks. The ERM program is overseen by the Board's Audit Committee, with a focus on identifying the most significant strategic, operational, financial, legal and compliance risks. An evaluation of risks associated with climate is now included in Applied's ERM survey, which is conducted on an annual basis with company leadership.</li> <li>Applied defines substantive climate-related risks as risks that could materially and adversely affect Applied's business, financial condition, operations and/or reputation. Our risk assessment processes allow us to evaluate and prioritize the impact of emerging and ongoing risks, which would be considered substantive based on factors like probability, magnitude and anticipated time horizons, depending on the scenario.</li> <li>For additional information, review the company's <u>CDP Climate response</u> question C2.1.</li> </ul>



Торіс	Response and References
Metrics and Targets	
a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.	<ul> <li>Applied's risk assessment processes allow us to evaluate and prioritize the impact of emerging and ongoing risks, which would be considered substantive based on factors like probability, magnitude and anticipated time horizons, depending on the scenario.</li> <li>Applied's comprehensive, annual tracking of environmental metrics (included in this Data and Disclosures section) such as greenhouse gas emissions, energy and water help inform which parts of our business or value chain may have greater exposure to relevant climate-related risks and opportunities depending on how those metrics are trending.</li> <li>The Business Continuity Team also monitors and tracks any events that may disrupt Applied operations or impact employees, including certain potentially climate-related events such as storms, excessive heat events and water-related interruptions. The team is monitoring the frequency and impact of such events to the business (e.g., hours/days of operation disruption and the number of employees impacted).</li> <li>For additional information, review the company's <u>CDP Climate response</u> questions C2.1b, C4.1, C4.1a, C4.1b, C4.2 and C4.2a.</li> </ul>
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	See the Environmental Metrics section above, <u>page 92</u> . For additional information, review the company's <u>CDP Climate response</u> questions C6.1, C6.3 and C6.5.
c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.	<ul> <li>Applied has several climate-related goals to address impacts across its value chain:</li> <li>Increase active annual sourcing of renewable electricity from 36% in 2019 to 100% in 2030 (SBTi validated)</li> <li>Reduce absolute Scope 1 and 2 GHG emissions by 50% by 2030 from 2019 baseline (SBTi validated)</li> <li>Achieve Net Zero for Scope 1 and 2 emissions by 2030</li> <li>Reduce Scope 3 GHG emissions from the use of sold products 55% per million USD of value added by 2030 from a 2019 base year (SBTi validated)</li> <li>Reduce equivalent energy consumption per wafer pass for semiconductor products by 30% by 2030 from 2019 baseline</li> <li>Reduce the impact from chemical consumption per wafer pass for semiconductor products by 30% by 2030 from 2019 baseline</li> <li>For additional information, review the <u>Climate and Energy</u> and <u>Innovate for Progress</u> sections of our 2023 Sustainability Report and the company's <u>CDP Climate response</u> question C4.2.</li> </ul>



# **GRI Index**

Applied Materials has reported in reference to the GRI Standards for the period of October 31, 2022 to October 29, 2023 using the GRI 1: Foundation.

Disclosure	2023 Report Locations and Narrative Responses	
GRI 2: General Disclosures 2021		
The organization and its reporting practices		
2-1 Organizational Details	Applied Materials (AMAT)	
2-2 Entities included in the organization's sustainability reporting	About this Report, <u>page 88</u>	
2-3 Reporting period, frequency and contact points	Applied Materials publishes our sustainability report annually. Our reporting period is October 31, 2022 through October 29, 2023. The sustainability report will be published in June 2024.	
2-4 Restatements of information	Applied has footnoted any restated data in the Environmental and Social data tables above, as well as throughout the 2023 Sustainability Report.	
2-5 External assurance	ERM CVS has conducted limited assurance of select environmental, social and community impact data metrics for FY2023. For more information on the scope and approach, please see the assurance statement referenced at the end of the 2023 Sustainability Report on page 89	
Activities and workers		
2-6 Activities, value chain and other business relationships	World Location Map, <u>page 10</u> Supply Chain Responsibility, <u>pages 44-46</u> About Applied Materials, <u>page 91</u> There have been no significant changes to our company or supply chain.	
2-7 Employees	Social Metrics, <u>page 96</u> Applied Materials will consider providing a more detailed breakdown of our workforce data by gender and region in future reporting cycles.	
2-8 Workers who are not employees	Social Metrics, <u>page 96</u>	

#### **Applied Materials External Reference**

2023 Annual Report, pages 4-9, 20-21, 31

Disclosure	2023 Report Locations and Narrative Responses	Applied Materials External Reference
Governance		
2-9 Governance structure and composition	Corporate Governance, <u>page 79</u>	<u>2024 Proxy Statement</u> , pages 1–12, 17 <u>Corporate Governance Guidelines</u>
2-10 Nomination and selection of the highest governance body		<u>2024 Proxy Statement</u> , pages 1–12, 17 <u>Corporate Governance Guidelines</u>
2-11 Chair of the highest governance body		<u>2024 Proxy Statement</u> , pages 1–12, 17 <u>Corporate Governance Guidelines</u>
2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance, <u>page 79</u>	<u>2024 Proxy Statement</u> , pages xiii- xiv, 21 <u>Corporate Governance Guidelines</u>
2-13 Delegation of responsibility for managing impacts	Corporate Governance, <u>page 79</u> Environmental, Health and Safety, EHS Policies, Systems and Governance, <u>page 67</u>	<u>2024 Proxy Statement</u> , pages xiv, 23-25 <u>Corporate Governance Guidelines</u>
2-14 Role of the highest governance body in sustainability reporting	Corporate Governance, page 79	2024 Proxy Statement, pages xii-xiv
2-15 Conflicts of interest		<u>2024 Proxy Statement</u> , page 14 <u>Corporate Governance Guidelines</u> <u>Standards of Business Conduct</u> , page 15
2-16 Communication of critical concerns		<u>2024 Proxy Statement</u> , page 73 <u>Corporate Governance Guidelines</u>
2-17 Collective knowledge of the highest governance body		<u>2024 Proxy Statement</u> , pages iii, 1-14 <u>Corporate Governance Guidelines</u> <u>Standards of Business Conduct</u> , page 6
2-18 Evaluation of the performance of the highest governance body		2024 Proxy Statement, pages 18-19 Corporate Governance Guidelines

Disclosure	2023 Report Locations and Narrative Responses	
Governance (cont'd)		
2-19 Remuneration policies		
2-20 Process to determine remuneration		
2-21 Annual total compensation ratio		
Strategy, policies and practices		
2-22 Statement on sustainable development strategy	Message from Our CEO, <u>page 5</u>	
2-23 Policy commitments		-
2-24 Embedding policy commitments		
2-25 Process to remediate negative impacts		
2-26 Mechanisms for seeking advice and raising concerns	Ethics & Compliance, <u>page 81</u>	
2-27 Compliance with laws and regulations	In 2023, Applied received zero notices of violation (NOV) worldwide.	
2-28 Membership associations	Public Policy, Business and Trade Associations, page 85	
2-29 Approach to stakeholder engagement		
2-30 Collective bargaining agreements	Applied Materials participates in collective bargaining agreements at certain sites in Germany and the Netherlands. Employees at certain sites in Germany and the Netherlands have formal representation on works councils. One of Applied's sites in Italy has trade union representatives.	

#### **Applied Materials External Reference**

<u>2024 Proxy Statement</u>, pages ix-x, 26-27, 37-40, 50 <u>Corporate Governance Guidelines</u>

2024 Proxy Statement, pages 38-52

<u>2024 Proxy Statement</u>, pages 38—47, 60

<u>Standards of Business Conduct</u> <u>Human Rights Statements of Principles</u> <u>Responsible Minerals Sourcing Policy</u>

<u>Standards of Business Conduct</u> <u>Human Rights Statements of Principles</u>

<u>Standards of Business Conduct</u> <u>Human Rights Statements of Principles</u> <u>Occupational Health and Safety Overview</u>

Standards of Business Conduct, page 6

Occupational Health and Safety Overview

2023 Applied Materials U.S. Trade, Business and Civic Association Memberships

<u>2024 Proxy Statement</u>, pages v, pages 22—24

Disclosure	2023 Report Locations and Narrative Responses	
Material Topic Disclosures		
GRI 3: Material Topics		
3-1 Process to determine material topics	Corporate Responsibility Materiality Assessment, page 12	
3-2 List of material topics	Corporate Responsibility Materiality Assessment, page 12	
GRI 205: Anti-Corruption 2016		
3-3 Topic Management Disclosure	Ethics & Compliance, <u>page 81</u>	
205-1 Operations assessed for risks related to corruption	We conduct periodic anti-corruption risk assessments across our global operations, utilizing the results to continually enhance our anti-corruption policies and procedures. In addition, we participate in RBA assessments and audits that include an evaluation of corruption risk.	4
205-2 Communication and training about anti-corruption policies and procedures	Ethics & Compliance, <u>page 81</u>	1
GRI 302: Energy 2016		
3-3 Topic Management Disclosure	Environmental, Health and Safety, Energy Management, page 67	
302-1 Energy consumption within the organization	Environmental Metrics, <u>page 92</u>	
302-2 Energy consumption outside the organization	Environmental Metrics, <u>page 92</u>	
302-3 Energy intensity	Environmental Metrics, <u>page 92</u>	
302-4 Reduction of energy consumption	Climate and Energy, Renewable Energy, <u>page 25</u> Environmental, Health and Safety, Energy Management, <u>page 67</u> Environmental Metrics, <u>page 92</u>	
302-5 Reductions in energy requirements of products and services	Sustainability Systems Center of Excellence, pages 38-40	

#### **Applied Materials External Reference**

Standards of Business Conduct, page 15

Standards of Business Conduct, page 15

Disclosure	2023 Report Locations and Narrative Responses
GRI 303: Water & Effluents 2018	
3-3 Topic Management Disclosure	Applied Materials 2023 CDP Water Security Submission Environmental, Health and Safety, Water Management, page 32
303-1 Interactions with water as a shared resource	Applied Materials 2023 CDP Water Security Submission Environmental, Health and Safety, Water Management, <u>page 32</u>
303-2 Management of water discharge-related impacts	Applied Materials 2023 CDP Water Security Submission Environmental, Health and Safety, Water Management, <u>page 32</u>
303-3 Water withdrawal	Environmental Metrics, <u>page 94</u>
303-4 Water discharge	Environmental Metrics, <u>page 94</u>
303-5 Water consumption	Environmental Metrics, <u>page 94</u>
GRI 305: Emissions 2016	
3-3 Topic Management Disclosure	Climate and Energy, <u>page 25</u> TCFD Index, <u>pages 106-112</u>
305-1 Direct (Scope 1) GHG emissions	Environmental Metrics, <u>page 92</u>
305-2 Energy indirect (Scope 2) GHG emissions	Environmental Metrics, <u>page 92</u>
305-3 Other indirect (Scope 3) GHG emissions	Environmental Metrics, <u>page 92</u>
305-4 GHG emissions intensity	Environmental Metrics, <u>page 92</u>
305-5 Reduction of GHG emissions	Climate and Energy, page 25

#### **Applied Materials External Reference**

Disclosure	2023 Report Locations and Narrative Responses	
GRI 306: Waste 2020		
3-3 Topic Management Disclosure	Environmental, Health and Safety, Waste Management, page 33	
306-1 Waste generation and significant waste-related impacts	Environmental, Health and Safety, Waste Management, page 33	
306-2 Management of significant waste-related impacts	Environmental, Health and Safety, Waste Management, page33	
306-3 Waste generated	Environmental Metrics, <u>page 92</u>	
306-4 Waste diverted from disposal	Environmental Metrics, page 92	
306-5 Waste directed to disposal	Environmental Metrics, <u>page 92</u>	
GRI 308: Supplier Environmental Assessment 2016		
3-3 Topic Management Disclosure	Supply Chain Responsibility, pages 44-46	
308-1 New suppliers that were screened using environmental criteria	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, pages 44-46	
308-2 Negative environmental impacts in the supply chain and actions taken	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, pages 44-46	
GRI 401: Employment 2016		
3-3 Topic Management Disclosure	Invest in People, <u>page 47</u>	
401-1 New employee hires and employee turnover	Social Metrics, <u>page 96</u>	
401-2 Benefits provided to FTEs that are not provided to temporary or PTEs		
401-3 Parental leave	Employee Benefits, <u>page 54</u>	2

#### **Applied Materials External Reference**

U.S. Total Rewards Summary

Applied Materials U.S. Benefits U.S. Total Rewards Summary

Disclosure	2023 Report Locations and Narrative Responses
GRI 403: Occupational Health and Safety 2018	
3-3 Topic Management Disclosure	Occupational Health and Safety, page 68
403-1 Occupational health and safety management system	Environmental, Health and Safety, EHS Policies, Systems, and Governance, page 67
403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety, <u>page 68</u> Environmental, Health and Safety, EHS Policies, Systems, and Governance, <u>page 67</u>
403-3 Occupational health services	Occupational Health and Safety, <u>page 68</u>
403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety, <u>page 68</u> Environmental, Health and Safety, EHS Policies, Systems, and Governance, <u>page 67</u>
403-5 Worker training on occupational health and safety	Occupational Health and Safety, <u>page 68</u> Environmental, Health and Safety, <u>page 67</u>
403-6 Promotion of worker health	Occupational Health and Safety, <u>page 68</u>
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety, <u>page 68</u> Environmental, Health and Safety, EHS Policies, Systems, and Governance, <u>page 67</u>
403-8 Workers covered by an occupational health and safety management system	Occupational Health and Safety, <u>page 68</u> Environmental, Health and Safety, <u>page 67</u>
403-9 Work-related injuries	Occupational Health and Safety, <u>page 68</u> Social Metrics, <u>page 100</u>

#### **Applied Materials External Reference**

- Occupational Health and Safety Overview

Disclosure	2023 Report Locations and Narrative Responses	
GRI 404: Training and Education 2016		
3-3 Topic Management Disclosure	Learning and Development, page 63	
404-1 Average hours of training per year per employee	Social Metrics, <u>page 96</u>	
404-2 Programs for upgrading employee skills and transition assistance programs	Learning and Development, page 63	
404-3 Percentage of employees receiving regular performance and career development reviews	Learning and Development, page 63	Ī
GRI 405: Diversity and Equal Opportunity 2016		
3-3 Topic Management Disclosure	Invest in People, <u>page 47</u> Culture of Inclusion, <u>page 56</u>	
405-1 Diversity of governance bodies and employees	Culture of Inclusion, <u>page 56</u> Social Metrics, <u>page 100</u>	4
GRI 408: Child Labor 2016		
3-3 Topic Management Disclosure	Human Rights, <u>page 50</u> Supply Chain Responsibility, <u>page 44</u>	ŀ
408-1 Operations and suppliers at significant risk for incidents of child labor	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, page 44	()  
GRI 409: Forced or Compulsory Labor 2016		
3-3 Topic Management Disclosure	Human Rights <u>, page 50</u> Supply Chain Responsibility, <u>page 44</u>	ŀ
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, page 44	

#### **Applied Materials External Reference**

Learning and Development Overview

Learning and Development Overview

2024 Proxy Statement, page iii-iv, 14-15

Human Rights Statements of Principles

<u>Statement under the California Transparency in Supply Chains Act</u> <u>Standards of Business Conduct</u>

#### Human Rights Statements of Principles

Statement under the California Transparency in Supply Chains Act Standards of Business Conduct, page 21 Human Rights Statements of Principles Responsible Minerals Sourcing Policy

Disclosure	2023 Report Locations and Narrative Responses
GRI 414: Supplier Social Assessment 2016	
3-3 Topic Management Disclosure	Supply Chain Responsibility, page 44
414-1 New suppliers that were screened using social criteria	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, page 44
414-2 Negative social impacts in the supply chain and actions taken	Supply Chain Responsibility, Supplier Engagement, Training and Assessment, page 44
GRI 415: Public Policy 2016	
3-3 Topic Management Disclosure	Public Policy, page 85
415-1 Political contributions	Public Policy, Political Contributions, page 86
GRI 416: Customer Health and Safety 2016	
3-3 Topic Management Disclosure	Product Safety, <u>page 43</u>
416-1 Assessment of the health and safety impacts of product and service categories	Product Safety, <u>page 43</u>
GRI 417: Marketing and Labeling 2016	
3-3 Topic Management Disclosure	Product Safety, <u>page 43</u>
417-1 Requirements for product and service information and labeling	Product Safety, <u>page 43</u>

#### **Applied Materials External Reference**

Corporate Governance Guidelines

<u>1H 2023 Semi-Annual Political Contributions</u> 2H 2023 Semi-Annual Political Contributions

