

2013 CORPORATE RESPONSIBILITY REPORT



WORKING OUR WAY TO



WE ARE CHARTING A BOLD NEW COURSE TO COMPLETELY RESHAPE THE LANDSCAPE OF THE FOUNDRY INDUSTRY THROUGH A COLLABORATIVE APPROACH TO BOTH TECHNOLOGY DEVELOPMENT AND CUSTOMER ENGAGEMENT.

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01 COMPANY PROFILE



GLOBALFOUNDRIES is the world's first full-service semiconductor foundry with a truly global footprint. Launched in March 2009, the company has guickly achieved scale as the second largest foundry in the world, providing a unique combination of advanced technology and manufacturing to more than 160 customers. With operations in Singapore, Germany and the United States, GLOBALFOUNDRIES is the only foundry that offers the flexibility and security of manufacturing centers spanning three continents. The company's three 300mm fabs and five 200mm fabs provide the full range of process technologies from mainstream to the leading edge. This global manufacturing footprint is supported by major facilities for research, development and design enablement located near hubs of semiconductor activity in the United States, Europe and Asia.

GLOBALFOUNDRIES is owned by Mubadala Technology. Mubadala Technology is a specialist investment company focused primarily on the global advanced technology sector. Mubadala Technology is a wholly-owned subsidiary of Mubadala Development Company ("Mubadala"), which is owned by the Government of Abu Dhabi.

GLOBALFOUNDRIES' target markets include integrated circuits designed for high-performance and mobile computing, communications, industrial, automotive and computer applications. The rise of smart mobile computing is driving new innovations across semiconductor technologies, affecting displays, touch-screens, power management, Central Processing Units (CPUs) and packaging. This trend is driving greater cost and complexity, making early deep collaboration between a foundry and its customer absolutely essential.

GLOBALFOUNDRIES is committed to driving future success in the semiconductor industry through joint development during technology definition, early engagement in device architecture, and leveraging an integrated ecosystem. We believe this collaborative business model, which we call Foundry 2.0[™], is critical to developing and manufacturing the advanced devices that will meet the high-performance, low-power requirements of increasingly sophisticated mobile devices.

We are focused on innovating, together with our customers and ecosystem partners, to move new technologies from "lab to fab." In the fast-paced and rapidly changing semiconductor business, the ability to rapidly bring leading-edge technologies into high volume production is the key to decreasing time to market.

O1 VISION, MISSION AND VALUES

OUR VISION is to reshape the semiconductor industry through collaboration and innovation.

OUR MISSION is to bring global resources together to unleash our customers' potential to innovate and create amazing new things with us.

OUR VALUES:



O1 COMPANY LOCATIONS

GLOBALFOUNDRIES has central administration and R&D offices in Santa Clara, California, with significant manufacturing operations in Singapore; Dresden, Germany; and Saratoga County, New York. Our integrated circuit manufacturing capabilities include three wafer fabrication facilities ("fabs") that produce integrated circuits on 300mm (millimeter) silicon wafers and five fabs that produce 200mm wafers. GLOBALFOUNDRIES maintains regional sales and support offices in Shanghai, China; Yokohama, Japan; Hsinchu, Taiwan; Austin, Texas; Abu Dhabi, United Arab Emirates; Munich, Germany; and Amsterdam, Netherlands.



O1 CREATION OF AN INDUSTRY LEADER

2009-2013

2009

GLOBALFOUNDRIES is formed as a joint venture between ATIC and Advanced Micro Devices, Inc. (AMD) in which AMD contributes their Dresden, Germany wafer fab and R&D capabilities.

GLOBALFO

2010

GLOBALFOUNDRIES announces integration of operations with former Chartered Semiconductor after ATIC acquires their wafer manufacturing facilities in Singapore.

2012

GLOBALFOUNDRIES repurchases AMD's remaining stake in the joint venture, thus becoming wholly owned by ATIC.

GLOBALFOUNDRIES announces "Singapore Vision 2015" to address high-growth market segments through capacity expansion, assets refresh and new products mix.

Dresden Fab 1 ships 500,000th High-k Metal Gate Wafer.

GLOBALFOUNDRIES begins constructing a Technology Development Center at the Fab 8 campus to support rapid migration to leading-edge technologies.

Fab 8 is fully operational.

2013

Fab 8 reaches "Ready for Equipment" milestone.

Dresden site's new Fab 1 Annex Cleanroom meets "Ready for Equipment" milestone.

2011

GLOBALFOUNDRIES breaks ground for construction of our newest state-of-the-art wafer manufacturing facility in Saratoga County, New York.

2009

02 CEO STATEMENT

Excellence in Corporate Responsibility is not only a mandate that we set for ourselves, but a fundamental expectation of our customers and the communities where we operate. Our commitment to integrity begins with me and my leadership team, and extends throughout our global population of talented and dedicated employees. We are striving to build a culture of excellence that ensures we exceed our stakeholders' expectations.

GLOBALFOUNDRIES is committed to upholding the highest ethical and compliance standards. Our Worldwide Standards of Business Conduct embody this commitment and serve as a foundation for how we conduct business.

"THROUGH OUR COMMITMENT TO 'ACT WITH INTEGRITY,' WE HOLD OURSELVES TO THE HIGHEST STANDARDS OF FAIRNESS, HONESTY AND TRANSPARENCY IN EVERYTHING WE DO." Our relationships are based on trust and mutual respect. As a company, we believe in the importance of doing the right thing.

GLOBALFOUNDRIES' vision is to reshape the semiconductor industry through collaboration and innovation. As the global semiconductor industry continues to evolve, leading companies will drive semiconductor R&D and high-volume manufacturing, and those leaders must shoulder increasing social and environmental responsibilities.

Environmental, Health and Safety (EHS) excellence is a critical contributor to the success of the global semiconductor industry. GLOBALFOUNDRIES has made substantial investments to make our manufacturing operations sustainable — implementing best-in-class safety measures and improving fab productivity by conserving resources.

Corporate Responsibility was integrated into our company from the beginning, as presented in "Forging a New Path on Sustainable Business Practices," our CSR overview first published in 2009. We are now pleased to provide our first Corporate Responsibility Report to our stakeholders. While we are proud of our progress, made possible by the dedication of our 13,000 employees around the globe, we also recognize there is much more work to be done. We look forward to working with our customers, communities and suppliers to meet our shared goals of a prosperous industry that is also a leader in responsible business practices. •

SANJAY JHA CHIEF EXECUTIVE OFFICER

03 CORPORATE RESPONSIBILITY STRATEGY

Corporate responsibility is an integral part of the value we provide to our customers, employees, technology partners, and communities worldwide. Our commitment to operate responsibly influences the strategies we adopt to advance our business and shapes our corporate culture.

We analyze the corporate responsibility issues that are most important to our stakeholders and our business to ensure we focus on the right priorities, including the topics included in this report. We evaluate a broad spectrum of environmental, health and safety, social and economic aspects to determine their importance to our stakeholders and their potential impact on our business.

As a result, we have established these priorities for governance, social and environmental responsibility:

- Operating our business with the utmost integrity and ethics
- Driving our economic performance
- Growing our market presence
- Protecting intellectual property
- Providing a safe and healthy workplace
- Managing risks (including business continuity, EHS and reputational risk)
- Ensuring our supply chain exceeds CSR expectations
- Enabling diversity and equal opportunity

- Providing opportunities for personal and professional development
- Ensuring compliance with product and environmental, health and safety (EHS) regulations
- Conserving resources
- Reducing emissions of greenhouse gases

In this report, we discuss our systems, processes and procedures to address each of these issues, providing relevant metrics where practical to demonstrate our commitment to transparency and responsible business operations.

04 GOVERNANCE

GLOBALFOUNDRIES is a privately held company led by experienced semiconductor executives. We are committed to upholding the highest ethical and compliance standards, and building a systematic approach to corporate governance. The GLOBALFOUNDRIES Inc. Board of Directors (the "Board") is responsible for reviewing and setting the company's strategic direction, overseeing management's performance, and monitoring the company's performance on behalf of our sole shareholder. The Board is comprised of nine members, including CEO Sanjay Jha, representatives of Mubadala Technology and Mubadala Development Company, and senior industry leaders. The Board draws on a great depth of experience that spans the semiconductor IDM (integrated device manufacturer) and equipment industries, consumer electronics, international finance, energy, and business development. The Chairman of the Board is not an executive officer of the company. The company has instituted processes for handling potential or actual director conflicts of interest.

Three committees support the Board in carrying

out its governance responsibilities: Audit. Risk & Compliance; People & Compensation; and Security (see **FIGURE 1**). The Board's compliance oversight functions are focused within the Audit, Risk & Compliance Committee. The Audit. Risk Compliance Committee also assists the Board in identifying and recommending potential candidates to serve on the Board, overseeing evaluations of Board members, reviewing conflict of interest matters involving Board members, and advising generally on corporate governance matters. This committee is further supported by GLOBALFOUNDRIES' Ethics Committee and the Internal Audit group, which reports functionally to the Audit, Risk & Compliance Committee. Each year, Internal Audit develops a risk-assessment based audit plan and schedule that covers topics ranging from finance to operations, compliance (including environmental, health and safety, and ethical business practices), governance and risk management. Results of completed audits and the implementation status of corrective actions are reported to the Audit. Risk & Compliance Committee.

and to other committees of the board as needed.

The People & Compensation Committee oversees the company's strategy to recruit and retain talent. This committee assists the Board in fulfilling its responsibilities concerning compensation of executives and provides guidance to management on personnel and compensation issues, including benefit and incentive plans. The People & Compensation Committee seeks to ensure that compensation programs are designed to drive a high performance culture, promote accountability, and assure that employee interests are aligned with the interests of the company's shareholder. The Security Committee oversees GLOBALFOUNDRIES' commitments to the U.S. government regarding security, compliance, and related policies and procedures to meet these commitments.

In addition to the oversight provided by the Board and its committees, the GLOBALFOUNDRIES Executive Stewards Council (ESC) is responsible for setting direction for global EHS, risk management and corporate

04 GOVERNANCE

social responsibility. The ESC is chaired by the CEO and includes senior executives from Fab Operations, Technology Research and Development, Sales and Marketing, Information Technology, Global Supply Management, Communications, Legal, and Human Resources.

Worldwide Standards of Business Conduct

We set high standards for ethical conduct and corporate governance. The daily actions and decisions of our workforce are guided by our Worldwide Standards of Business Conduct (WWSBC), which are available <u>here</u>. These standards, combined with our values, encourage a "beyond compliance" culture, providing a platform for consistent and correct decisionmaking. Our business standards cover a wide range of issues pertinent to ethical business practices, including human rights, discrimination, harassment, environmental responsibility, protecting intellectual property, and anti-corruption.

Each year our employees receive a notice from our executive management that emphasizes the importance of ethical conduct in all aspects of our business. WWSBC training is mandatory for all employees. We established the Ethics First Reporting Tool, a hotline which is accessible 24 hours per day, 365 days per year, for reporting potential violations. The hotline is available to employees and contractors, as well as customers, suppliers and vendors globally. We promptly review all reports, and the company has a strong

non-retaliation policy to protect anyone who makes a report. Investigations of complaints are overseen by the GLOBALFOUNDRIES Ethics Committee, supported by the Legal Department and internal resources such as Internal Audit.

Risk Management

GLOBALFOUNDRIES manages risk at the enterprise, business and functional levels of the organization. Our structured approach enables us to identify critical risks and target mitigation programs at the appropriate level to avoid loss, disruption or interruption of mission-critical activities and systems. We routinely review and update our business resilience and preparation, including risk management plans. Each year, our manufacturing sites and business units identify the potential operational and natural disaster risks that present business continuity challenges. We prioritize potential risks and challenges to develop and implement mitigation plans. The Executive Stewards Council conducts an annual review of prioritized risks and our related mitigation strategies, projects and goals. Protecting the intellectual property of GLOBALFOUNDRIES and our customers and suppliers is a critical risk-management focus area.

GLOBALFOUNDRIES' growing portfolio of intellectual property advances our leadership in manufacturing technology and strengthens our competitive position. We adhere to strict policies and procedures at all times to ensure the security of company confidential information and the confidential information of our customers and suppliers. Our Enterprise Security Council brings together expertise in both information security and physical security to address potential threats.

05 STAKEHOLDER ENGAGEMENT

As a leading semiconductor foundry, our key stakeholders have a significant interest in our business, and help shape our company and the products and services we provide. We regularly engage with our employees, customers, suppliers, communities and industry peers, sharing perspectives and gaining valuable insight relevant to our business and operations.

Employees are our most important stakeholder group, and we strive to make it easy for them to be informed and engaged. As we grow, we continue to develop and improve our communications. Employees stay current on corporate and site-specific information through regular leadership communications, periodic town hall meetings, and GlobalConnect, our company intranet. We periodically survey our employees on various topics. The results of these surveys help to target improvement areas. Our employees also participate in regular performance reviews, meeting with their managers to discuss job performance and career development, all part of the Global Performance Management System.

05 STAKEHOLDER ENGAGEMENT

Success in the semiconductor industry is increasingly dependent upon deep collaboration with customers. We help our customers achieve more by engaging early to become an extension of their strategy, striving for seamless collaboration. The ultimate objective is exceptional service, resulting in operational and manufacturing excellence. We review and analyze customer feedback through Quarterly Business Reviews and supplier satisfaction surveys to improve our quality and service. Improvement actions are identified, tracked and implemented. The relationships we forge through ongoing dialogue and collaboration ensure that we understand our customers' expectations, including a shared commitment to social and environmental responsibility.

Our suppliers are critical partners in our drive to achieve manufacturing excellence. Together, we address supply continuity and the geographic risks associated with the globally distributed supply chain. Our supplier relationships are built on a foundation of trust and integrity. We strive to establish long-term working relationships through mutual performance expectations and measures, performance feedback and continuous improvement plans. We engage our suppliers through periodic business reviews and our Total Supplier Rating (TSR) process to determine supplier performance with regard to technology, quality, cost, flexibility and service (including EHS and CSR). The EHS and CSR expectations we establish early in supplier relationships help improve efficiency and reduce risks throughout the supply chain.

COMMUNITIES

We have built strong, collaborative relationships in the communities where we operate. Each of our manufacturing sites maintains constructive relationships with their communities built on a commitment to accountability. Our Dresden facility has a long-standing history of engaging with our neighbors in the villages of Boxdorf and Wilschdorf. Our Singapore site has a strong engagement with its community partners, and our newest site in Saratoga County, New York, is working closely with the towns of Malta and Stillwater as well as the broader Tech Valley region of upstate New York. Our community engagement initiatives focus on STEM (Science, Technology, Engineering and Math) education as the key to sustainable development of our communities as well as our industry, which is dependent upon a highly educated and skilled workforce. Furthermore, we address essential social needs through direct charitable giving and by encouraging our employees to volunteer in the ways most meaningful to them.

05 STAKEHOLDER ENGAGEMENT

Industry Collaboration

Through our participation — and leadership in semiconductor industry trade associations, we gain valuable insight into the economic, social and environmental trends that affect our business. These groups include the Semiconductor Industry Association (SIA), the European Semiconductor Industry Association (ESIA), the World Semiconductor Council (the WSC is a global body consisting of semiconductor associations from the U.S., Europe, Japan, Taiwan, Korea and China), the Global Semiconductor Alliance (GSA), SEMI (Semiconductor Equipment and Materials International), and ZVEI (a leading German electronics trade association).

GSA's membership spans the entire semiconductor ecosystem, representing the world's best integrated device manufacturers, fabless companies and their suppliers. These associations are engaged in a wide variety of public policy matters, ranging from trade, tax and environmental policy to promoting STEM education and adoption of energy-efficient technologies. SIA, ESIA, the WSC and SEMI all have active EHS committees. GLOBALFOUNDRIES is also a member of the Abu Dhabi Sustainability Group (ADSG), established in 2008 by Environment Agency Abu Dhabi and the Executive Council to promote sustainability management by providing policy support, learning and knowledge-sharing opportunities for government, private companies and non-profit organizations.

Former CEO Ajit Manocha Received SEMI EHS Leadership Award

In July 2013, Semiconductor Materials and Equipment International (SEMI) presented the "Outstanding EHS Achievement Award – Inspired by Akira Inoue" to former CEO Ajit Manocha, recognizing his leadership and commitment to environment, health and safety excellence in GLOBALFOUNDRIES and the global semiconductor industry.

"I am honored and humbled that SEMI recognized GLOBALFOUNDRIES'

commitment to the health and safety of employees and the environment," said Ajit. "But commitment does not in itself yield results. That comes from the expertise, dedication and hard work of our employees."

Under Ajit's leadership, GLOBALFOUNDRIES achieved significant EHS results and led industry improvement actions.

Ajit Manocha receiving the SEMI EHS Leadership Award from Mary Puma, CEO, Axcelis Technologies, Inc.; André-Jacques Auberton-Hervé, President, CEO and Chairman, Soitec; and Dennis McGuirk, President and CEO of SEMI.

LEADERSHIP INITIATIVES CITED BY THE SEMI AWARD COMMITTEE

- > Zero-Incident Safety Culture
- Commitment to Eco-efficiency in Foundry Operations
- World Semiconductor Council (WSC) Commitment to Best Practices for PFC Reduction
- WSC Commitment to a "Conflict-free Supply Chain"

06 SUPPLIER RESPONSIBILITY

Our supply chain consists mainly of manufacturers of highly specialized semiconductor manufacturing equipment and materials. The vast majority of these suppliers conduct their operations in the United States, Germany and other EU countries, and in Japan, Singapore and Taiwan — countries with strong regulatory systems defining the cornerstones for responsible business.

In 2009, GLOBALFOUNDRIES adopted the Electronics Industry Citizenship Coalition® (EICC®) Code of Conduct to align our approach to supply chain CSR with this industry-wide commitment to responsible business practices. The EICC Code of Conduct was launched in 2004 to improve the social and environmental responsibility of the electronics industry's global supply chain.

Our Global Supplier and Subcontractor Management Policy, standard supplier agreements, and Purchase Order terms and conditions all require conformance with the EICC Code. We also have incorporated EICC Code requirements into the standard questionnaire used for our Supplier Audit process. Our Global Supply Management staff has participated in training to ensure they have the necessary understanding of the EICC Code and related supply chain risks to carry out their important role in implementing GLOBALFOUNDRIES' responsible sourcing policies and practices.

In 2011, we began conducting regular evaluations of our suppliers to determine their understanding of the EICC's environmental, social and ethical expectations. Our top-tier equipment and material suppliers and service providers completed a self-assessment questionnaire evaluating their conformance to the EICC Code of Conduct. This information is included in the TSR rating process. In order to reduce supply chain risk most effectively, we addressed our top-tier suppliers first, while assuring that our expectations are formally communicated to all suppliers. Based on our review of their responses, we are confident that our primary suppliers maintain a high level of conformance with the EICC Code.

Addressing the Challenge of Conflict Minerals

GLOBALFOUNDRIES has supported global efforts to address the challenging issue of minerals sourced from "conflict regions" since our formation in 2009. Many of our customers are subject to the conflict minerals provisions in the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act. Accompanying U.S. Securities and Exchange Commission (SEC) regulations require companies with SEC reporting obligations to disclose the sources of tantalum, tin, tungsten and gold (designated as "Conflict Minerals") used in their products. These reporting requirements affect many of our customers, who look to GLOBALFOUNDRIES to support their supply chain due diligence efforts.

In the complex, multi-step silicon wafer manufacturing process, tantalum, tungsten, tin or gold are added to achieve the desired functionalities of integrated circuits. The commodities we purchase that contain tantalum or tungsten include highpurity targets used in physical vapor deposition (PVD), or process gases and chemicals, all of which are used to deposit ultra-thin films of these metals directly on the wafer surface. Tin and gold may be used in a subsequent wafer bump process offered by GLOBALFOUNDRIES.

We have adopted a policy prohibiting the use of tantalum, tungsten, tin and gold if they are sourced from conflict regions within the Democratic Republic of Congo (DRC) and adjoining countries.

06 SUPPLIER RESPONSIBILITY

Our Conflict Minerals Policy is available **here.** The policy is implemented through our specification for Banned, Restricted and Declarable Materials Management.

We perform due diligence assessments to determine the sources of conflict minerals. based on the Conflict-Free Sourcing Initiative's Conflict-Free Smelter (CFS) program. Through this program, smelters that successfully complete an extensive audit to verify they do not source minerals that provide direct or indirect financial support for armed groups in the DRC conflict regions are deemed "conflict-free" and placed on the CFS list. We conducted a thorough assessment of our current supply base and identified all suppliers of tantalum, tungsten, tin and gold. We worked with these suppliers to identify all smelters in our extended supply chain, and determined their progress toward certification as "conflict-free" smelters. We are actively engaged with our suppliers to track the status of all smelters that are not yet certified. As of Q2 2014, we determined that all sources of tantalum and gold used in our manufacturing processes are "conflict-free."

We routinely provide due diligence information to our customers using industry-standard reporting tools and processes. In support of our customers' preparations for their first SEC Conflict Minerals reports in May 2014, we closely tracked changes to the CFS lists and updated our supply chain assessments on a regular basis. Our conflict minerals due diligence approach is reviewed periodically by the Executive Stewards Council. • In May 2013, CEOs from all regions of the World Semiconductor Council established a WSC **Conflict-free Supply Chain Policy** for the global semiconductor industry.

The policy is based on a commitment to source conflictfree minerals and perform comprehensive due diligence using common tools and methods.

Chief Executive Officers representing the six regions of the World Semiconductor Council established a Conflict-Free Supply Chain Policy at the May 2013 WSC meeting in Lisbon, Portugal.

The semiconductor industry is intensely competitive for innovative talent. Achieving our leadership position was possible only through attracting, developing and retaining top talent. Sustaining and growing that position are likewise dependent on our people. We have developed management systems to provide a safe and healthy working environment, offer opportunities for personal and professional growth, and nurture an innovative spirit that continues to engage talented employees at all levels of the organization. Our 13,000 employees are empowered to help customers do and achieve more through deep collaboration, successful innovation, exceptional service, and operational and manufacturing excellence. **TABLE 1** shows the regional breakdown and gender diversity of our workforce.

At GLOBALFOUNDRIES, individuals of varied backgrounds enrich our ideas and innovative drive. Our worldwide growth delivers the strength of a highly diverse international workforce that brings the capabilities, experiences and qualifications to give us a competitive advantage in our global markets. ►

Women in Manufacturing **STEP Award**

GLOBALFOUNDRIES' then General Counsel and Executive Vice President of Legal and Corporate Affairs, **Alexie Lee**, was honored in January 2013 by the STEP Ahead initiative with a "Women in Manufacturing STEP (Science, Technology, Engineering and Production) Award" for her excellence and leadership in manufacturing. The STEP Ahead initiative was launched by The Manufacturing Institute, Deloitte, University of Phoenix and the Society of Manufacturing Engineers, to examine and promote the role of women in the manufacturing industry through recognition, research and best practices for attracting, advancing and retaining strong female talent.

TABLE 1 Employee Data (as of April 2014)

INDICATOR	TOTAL	MEN	WOMEN	
Number of Employees	Approximately 13,000	73%	27%	
USA	21%	82%	18%	
Europe, Middle East, Africa	30%	81%	19%	
Asia Pacific / China	49%	64%	36%	

This is exemplified by Fab 8 in New York. Since breaking ground on the project in 2009, GLOBALFOUNDRIES has created more than 2,200 new direct jobs, developing a unique and diverse workforce drawn from local talent as well as experienced professionals from across the United States and more than 40 countries.

Health & Safety

Protecting the health, safety and well-being of our employees and communities is primary. We achieve that in a systematic and proactive way, striving to continuously reduce occupational injuries and illnesses in all of our operations, with a goal of zero incidents. >

Singapore's Health and Safety Awards

In July 2012, GLOBALFOUNDRIES' Singapore facilities received four Workplace Safety and Health Performance Silver Awards from the Workplace Safety and Health (WSH) Council, one for each of our operating entities. The WSH Council was established in 2008 and works closely with industry, the Ministry of Manpower and other government agencies to raise WSH standards in Singapore. These annual national awards recognize companies and organizations that demonstrate excellent performance in safety and health through the implementation of sound management systems. While several of GLOBALFOUNDRIES' Singapore fabs had been recognized previously, 2012 was the first year in which all of our fabs in Singapore received this national recognition in the Silver award category. In 2013, all of our Singapore fabs received Silver awards once again.

Our Global EHS Policy and Standards are the foundation of health and safety management systems at each manufacturing location. The standards cover a wide range of health and safety aspects, including injury and illness prevention, electrical safety, chemical safety and industrial hygiene monitoring programs.

All of our manufacturing facilities are certified to the OHSAS 18001 standard for health and safety management systems. Our newest facility, Fab 8 in Saratoga County, New York, achieved its initial OHSAS 18001 certification in January 2013. Our OHSAS certificates are available <u>here.</u>

Health and safety professionals, management and employees share responsibility for implementing the Global EHS standards through local programs and operating procedures. We provide a wide range of general and job-specific health and safety training to our employees and contractors. The training is provided by our health and safety professionals and supplemented with specialized training programs as needed.

MANAGING CHEMICALS SAFELY

Semiconductor processing takes place in a highly controlled cleanroom environment. Manufacturing equipment and chemical/gas distribution systems are completely enclosed to maintain an ultra-clean manufacturing space and provide safe working conditions. Stringent material handling procedures include automated chemical delivery systems and sophisticated manufacturing equipment that incorporates multiple engineering controls to minimize the risk of chemical exposure for employees working in

the cleanroom and chemical distribution areas.

GLOBALFOUNDRIES has established a stringent chemical review process that is applied globally. Through this process, all chemicals are reviewed to ensure the proper safeguards and material handling procedures are in place before materials are approved for use. Our Chemical Information System (CIS) serves as a resource for employees at each of our sites. CIS provides easy access to Safety Data Sheets, safe operating procedures, and identification of appropriate personal protective equipment.

PROMOTING HEALTH AND WELL-BEING

Recognizing the importance of the health and well-being of all our employees in reaching our goals, each of our manufacturing facilities has on-site medical professionals that administer health and well-being programs. We encourage employees to live healthy, active lives, and provide them with access to a variety of health and well-being activities such as vaccinations, health screenings and surveillance, first aid training, and safety tips for travelers.

In 2013, we hosted our third annual Global Health Day at major locations around the world. The theme for 2013 was "Stay Active, Be Healthy", encouraging employees to adopt an active lifestyle. Our Singapore site conducted a mass Tai-Chi exercise (a Chinese martial art having defense and health benefits). Employees at Fab 1 also participated in Tai Chi, along with yoga, acupuncture and massage. Our California and Abu Dhabi offices hosted local events focused on topics ranging from exercise and wellness to commuter benefits and emergency preparedness.

Our ongoing well-being focus provides other opportunities for employees and their families to learn about healthy living and lifestyles.

Examples include the following:

- Vitality Week, held at our Dresden facility, focused on preventative and active well-being programs, including healthy diet options.
- U.S. employees competed either individually or as a team in the GetFit Challenge, earning points for each workout over an 8-week period.
- Our Singapore employees access a variety of well-being opportunities, including fitness facilities, fitness classes and other organized activities that promote a healthy, active lifestyle.

SAFETY IN THE WORKPLACE

Health and safety professionals at each of our manufacturing sites provide training, monitor performance, and work with manufacturing and facilities staff to implement effective safety and health programs.

FIG 2 ALL FABS COMPOSITE I&I RATE (LOST DAY CASES ≥ 1 DAY PER 200,000 HRS WORKED)

Lost work day case rates are an important indicator of the effectiveness of our health and safety programs. We evaluate all occupational injuries and illness cases to identify the root cause and determine appropriate preventative measures or corrective actions. As shown in **FIGURE 2**, from 2010 to 2013 our employee lost work day case rates ranged between 0.25 and 0.29 days per 200,000 hours worked, below the 2012 U.S. Lost Work Day Incidence Rate for the semiconductor industry.

Compensation & Benefits

To remain competitive, we provide our employees with a package of compensation and benefits. At the employee, management and executive levels, **GLOBALFOUNDRIES** maintains a comprehensive system of rewards based on our pay-for-performance philosophy. In 2013, we launched a Total Rewards Survey to ask our employees what they value most among current and potential future rewards, such as base pay and salary, time away from work, flexible work arrangements, incentive and bonus programs, career development and advancement, and other training opportunities and programs. The survey responses are being used to optimize our total rewards packages over time, and target the changes that are most preferred by our employees in alignment with our business. Our benefits help foster the health and financial security of employees and their families. Benefits vary by location, due to differences in

Note: GLOBALFOUNDRIES defines a lost work day case as any injury requiring one or more days away from work. For comparative purposes, we have provided Lost Day Case rates for "Semiconductor and related device manufacturing" (NAICS Code 334413) compiled by the U.S. Bureau of Labor Statistics.

international regulations and other aspects like health care delivery systems. Typical components may include health and dental care, retirement savings plans, life and disability insurance, paid vacation and holiday time, education assistance, and an employee assistance program. GLOBALFOUNDRIES' approach to parental leave for employees for the birth or adoption of a child is based on a combination of national and local leave entitlements implemented through our regional leave policies.

As shown in **TABLE 2**, 99% of employees who have taken a parental leave returned to work. The subsequent retention rate for employees following parental leave is approximately 97%, with small differences between return or retention rates for men and women.

Human Rights

GLOBALFOUNDRIES is strongly committed to protecting the fundamental rights of all people. We strive to maintain a fair and open workplace based on a culture of respect, dignity and integrity for all. As outlined in our Worldwide Standards of Business Conduct, GLOBALFOUNDRIES strictly forbids all forms of child labor and forced or compulsory labor in the operation of our business, and we require the same from our suppliers. We respect the rights of employees to associate freely, and have a zero-tolerance policy against harassment, including sexual harassment, and discrimination based on age, ancestry, color, marital status, medical condition, mental or physical disability, national origin, race, religion, political and/or third party affiliation, sex, sexual orientation, gender identity or veteran status.

Employee Education & Training

The strength of our workforce is determined not only by our commitment to recruit and hire exceptional people, but also to provide them with the opportunity and resources to enhance their knowledge, skills and capabilities. We use a variety of systems to deliver training, including a blend of on-line and instructor-led learning solutions. To further expand these opportunities, our global university offers more than 500 courses, videos, interactive simulations, and job aid education solutions available in English, German and Mandarin. Learning resources are mapped to leadership traits, values and functional areas by job level from individual contributors to senior executives. All employees are encouraged to work with their managers to incorporate learning plans as part of their annual performance goals and plans.

TABLE 2 Parental Leave Data (2013)

INDICATOR	TOTAL	WOMEN	MEN
Return to Work After Parental Leave	99%	96%	>99%
Retention Rate After Parental Leave	97%	91%	98%

08 COMMUNITY ENGAGEMENT

We strive to improve the quality of life in our communities, both through our employees' volunteer efforts and through direct financial support and promotion of education and local health and human service efforts. We demonstrate our commitment to our communities through the actions described below.

Community Development

As part of the development of the Fab 8 project, GLOBALFOUNDRIES has contributed a total of \$5 million to fund two charitable foundations: the GLOBALFOUNDRIES-Town of Malta Foundation and the GLOBALFOUNDRIES-Town of Stillwater Foundation. Both foundations are managed by an independent Board of Directors with representatives appointed by both GLOBALFOUNDRIES and the Towns, actively working with local organizations to improve our community.

The committed funding was paid into the two Foundations through installments, marked by key milestones in the successful construction and start-up of operations of Fab 8. In July 2009, the company made the first installment with a contribution of \$1 million to celebrate the groundbreaking of Fab 8. This initial funding was used in part to build the first phase of a new recreational sports field complex in the Luther Forest Technology Campus and to make improvements at the Round Lake baseball fields. The company made the additional installment payments over the last three years, culminating in the final installments of \$2.8 million delivered to the foundations in July 2012, as the company marked the third anniversary of the Fab 8 groundbreaking. Both foundations are now fully funded and are actively delivering grants to organizations, programs and projects that **ABOVE:** The GLOBALFOUNDRIES-Town of Malta Foundation supports local community improvement organizations.

provide tangible public benefits to a diverse set of community groups, including not-for-profit corporations, charitable organizations, community arts and theater groups, community historical sites, special events, education programs, and sports and recreation activities. >

O8 COMMUNITY ENGAGEMENT

Promoting STEM Education

For the last four years, students from the United Arab Emirates have gained valuable training in the semiconductor manufacturing industry through the AI Nokhba Internship Program, which has been conducted at GLOBALFOUNDRIES' Dresden, Singapore and Malta sites. The Abu Dhabi Education Council (ADEC), in cooperation with Mubadala Technology, sponsors the program aimed at developing and enhancing the skills of Emiratis in Abu Dhabi's high-tech industry, to advance economic development in the emirate and provide world-class educational opportunities. Nokhba is an Arabic word meaning "elite," representing the science and engineering students attracted to the program.

GLOBALFOUNDRIES is also working closely with the Masdar Institute to help spur Abu Dhabi's continuing development as a semiconductor R&D

KC Ang, Senior Vice President and General Manager of GLOBALFOUNDRIES Singapore, and Sander Hubbers, Senior Vice President of Human Resources, welcomed participants in the 2013 Al Nokhba Summer Internship Program.

and manufacturing center of excellence. In November 2012, we launched the Tech Valley Connection for Education and Jobs in cooperation with the Center for Economic Growth. The education initiative covers a 13-county area and is intended to be a pilot to facilitate, coordinate and communicate best practices between K-12 and higher education institutions and businesses in the region. This initiative will develop a world-class education pipeline that will enable the success of GLOBALFOUNDRIES and other high-tech businesses across the region. The launch event, hosted at the Hudson Valley Community College TEC-SMART Campus adjacent to the Fab 8 campus, provided a unique opportunity for educators, administrators, and student, teacher and business "ambassadors" to determine how to help develop curricula that will better position students for success.

Festive award ceremony for 2013 winners of the Saxon "Jugend forscht" contest with Saxon Minister of Education, Brunhild Kurth, and representatives of co-sponsoring companies. © AG Foto Gymnasium Klotzsche

For several years, GLOBALFOUNDRIES Dresden has co-sponsored Saxony's regional "Jugend forscht" (Young Scientists) contest, Germany's largest and best-known competition for top-talent students in engineering and physical sciences. In 2013, eligible 14- to 20-year-old students presented their projects in the disciplines of biology, chemistry, mathematics/information technology, physics, technology, geology/geography and the working environment to an expert jury. Winners of the regional contest represent Saxony at the national contest.

Partnership with the Masdar Institute

In October 2012, GLOBALFOUNDRIES announced an innovative partnership with the Masdar Institute to help spur Abu Dhabi's continuing development as a semiconductor R&D and manufacturing center of excellence.

Masdar students are conducting research on modeling and designing the chips of the future, supported by a team of highly skilled GLOBALFOUNDRIES engineers. This also gives graduate students the opportunity to apply for a three- to six-month internship at one of GLOBALFOUNDRIES' manufacturing sites.

O8 COMMUNITY ENGAGEMENT

"AT GLOBALFOUNDRIES, WE STRIVE TO BUILD STRONG RELATIONSHIPS WITH THE COMMUNITIES AROUND THE WORLD WE CALL HOME. WITH OUR NEW AND GROWING OPERATIONS IN NEW YORK, WE ARE PROUD TO MAKE INVESTMENTS OF TIME, MONEY, TECHNOLOGY AND VOLUNTEER EXPERTISE IN LOCAL ORGANIZATIONS, ESPECIALLY FOR OUR NEIGHBORS DIRECTLY AFFECTED BY THE HISTORIC AND DEVASTATING EFFECTS OF HURRICANE SANDY."

► ALEXIE LEE

CHIEF OF STAFF, OFFICE OF THE CEO

Helping People in Need

In 2012, GLOBALFOUNDRIES made a direct donation of \$50,000, and matched employee donations of \$17,225 (a combined total of \$84,450) to help the American Red Cross provide food, shelter, supplies and comfort to people in New York and New Jersey affected by the "Superstorm" Hurricane Sandy. The Adirondack Saratoga chapter of the Red Cross subsequently recognized us with the Philly Dake Humanitarian Award for our support of the regional relief effort.

GLOBALFOUNDRIES employees in Singapore raised \$20,500 for the Singapore Red Cross in support of the disaster relief efforts aiding Japan in its recovery from the devastating Great East Japan earthquake and tsunami in February 2011. GLOBALFOUNDRIES also made a corporate donation of \$25,000 to the U.S. Red Cross to support earthquake relief in Japan.

Our Singapore site has supported the Singapore Children Cancer Foundation's Hair for Hope campaign since 2006. This fundraising campaign encourages employees to shave their heads to support children with cancer and their families. Our employees contributed almost \$42,000 during the 2013 event.

For the last three years, our employees in the Silicon Valley region of California have contributed food and donations to the Second Harvest Food Bank in San Jose, CA. As part of the "GLOBALFOUNDRIES Gives Back" campaign, our employees participated in food sorting at Second Harvest, helping this local organization provide meals to people in need across the San Francisco Bay Area.

In 2013, our Fab 8 employees donated 8,000 pounds of food to the Regional Food Bank of Northeastern New York. The Food Bank distributes food to charitable agencies serving hungry and disadvantaged people in 23 counties of New York state. Fab 8 employees also donated more than 1,400 toys through the toy drive for Toys for Tots. •

GLOBALFOUNDRIES is committed to eco-efficiency in foundry operations. Producing advanced integrated circuits at ever-smaller geometries requires exacting manufacturing processes.

Semiconductor manufacturing operations must be both highly efficient and extremely flexible to deliver optimal results. We are committed to providing differentiated manufacturing services that value speed, accuracy and agility, to help ensure that our customers are consistently provided with the right technologies at the right time that meet or exceed their specifications for quality and reliability.

Leadership in Advanced Manufacturing

The completion of our newest, most advanced manufacturing facility, Fab 8 in Saratoga County, New York, strategically positions GLOBALFOUNDRIES as a foundry leader in globally distributed capacity. Fab 8 is a cornerstone of upstate New York's "Tech Valley" region and is the largest public-private sector industrial investment in New York State's history. Along with our manufacturing facilities in Singapore and Dresden, Germany, Fab 8 gives GLOBALFOUNDRIES manufacturing capabilities on three continents, offering our customers a flexible and secure longterm supply source that is unique in the pure play foundry industry.

The Fab 8 site includes a state-of-the-art 300 mm wafer manufacturing facility and two administrative buildings. In January 2013, we announced plans to begin construction of a Technology Development Center (TDC) at the site to support the transition to new technology nodes, as well as develop innovative capabilities beyond the traditional industry approach of shrinking transistors. The TDC project will increase the total approximate capital investment for the Fab 8 campus to more than \$8 billion. Since breaking ground on Fab 8 in 2009, GLOBALFOUNDRIES has created approximately 2,200 new direct jobs.

The Fab 8 campus integrates green building principles and practices as part of the site design, construction and operation. We partnered with government agencies like the New York State Energy Research and Development Authority (NYSERDA) and independent think tanks like the Rocky Mountain Institute to integrate energy-efficient features and practices into the building designs and operations. Some of the energy-efficient features include the use of high-efficiency equipment, smart controls, and innovative heat recovery systems. Our goal is to achieve LEED[™] (Leadership in Energy and Environmental Design[™]) certification for several projects at the campus. The Admin2 building achieved LEED[™] Gold[®] level certification in April 2014.

Fab 8 is an ideal home for GLOBALFOUNDRIES' leading-edge manufacturing and technology development activities. The proximity of the IBM Joint Development Alliance activities in East Fishkill and the College of Nanoscale Science and Engineering (CNSE) at the State University of New York at Albany, combined with the growing presence of technology development personnel on the Fab 8 campus, have helped make New York's Tech Valley a global center for nextgeneration technologies.

The significance of GLOBALFOUNDRIES' investment, and both its impact on the local economy and its importance to advanced manufacturing in the U.S., have been recognized by Governor Andrew Cuomo of New York, as well as the President of the United States. In May 2012, GLOBALFOUNDRIES helped host a visit to the Albany, New York Capital Region by U.S. President Barack Obama. The visit highlighted public and private investment in new advanced manufacturing, research and development, and education facilities. In addition to our campus and creation of direct jobs, the Capital Region has benefited from an estimated growth addition to thousands of construction-related jobs associated with the project. The region also has benefited from our support of local education through initiatives such as the Tech Valley Initiative for Education and Jobs. Launched in 2012, this regional initiative collects and builds upon innovative practices and ideas in education to help ensure that businesses have the talent to be successful into the future. These investments have helped revitalize the upstate New York region, making "Tech Valley" a major hub for the

Quality Management Systems

GLOBALFOUNDRIES has implemented quality systems to ensure that the products we manufacture meet or exceed customers' quality and reliability specifications. All of our in-house laboratories are equipped with advanced analytical tools, providing the necessary equipment and resources for engineering and Research & Development teams to continuously enhance product quality and reliability.

Our manufacturing facilities in New York, Singapore, and Dresden, Germany, are certified to the ISO 9001 standard for quality management systems. Fab 8 achieved ISO 9001 certification in 2012. Our Singapore fabs also are also certified to the ISO/TS 16949 standard, a comprehensive quality management standard for the automotive supply chain.

In 2012, Fabs 3E and 7 in Singapore achieved certification to ISO/IEC 15408, Common Criteria for Information Technology Security, by the Bundesamt für Sicherheit in der Informationstechnik (BSI), Germany's Federal Office for Information Security. ISO/IEC 15408 is a stringent international standard establishing the security environment of an organization handling secure products and data. Fabs 3E and 7 received the highest level of certification available to a wafer foundry and were the first wafer fabs to receive site-level certification from BSI. The certification enables Fabs 3E and 7 to manufacture chips approved for use in secure products such as nearfield communication devices, passports, credit cards and smart cards. Our quality management system certificates are available **here.**

Environmental Management Systems

Our Global EHS Standards form the foundation of integrated EHS management systems employed at all of our manufacturing sites. All of our manufacturing locations are certified to the ISO 14001 environmental management systems standard. Fab 8 achieved this certification in 2012. Our certificates are available **here.** In addition to ISO 14001 certifications, all of our operating fabs have either been certified under the Sony Green Partner program or maintain equivalent controls.

Our environmental commitment extends beyond manufacturing to locating and designing new facilities. We have developed a green building standard for GLOBALFOUNDRIES. which requires a construction sustainability plan for new construction projects. Among other requirements, the plan must include targets and measures to achieve the U.S. Green Building Council's LEED or other "green building" standards such as Estidama, established by the Abu Dhabi Urban Planning Council. Estidama is the Arabic word for sustainability. Our newest manufacturing facility. Fab 8. in Saratoga County, New York, has been designed as a "green fab." The fab and associated administrative and support buildings include many energy and water efficiency features. In April 2014, we

achieved LEED Gold® Level certification for the Admin2 building, and we are seeking LEED certification for additional projects at the Fab 8 campus.

Eco-efficiency in Foundry Operations

As integrated circuit manufacturing tolerances shrink and products become more complex with additional layers or masking steps, the intensity of chemical use per wafer often increases. Our operational strategy is to optimize manufacturing processes to minimize raw material use and waste. We work with equipment and material suppliers to reduce resource consumption and evaluate new chemistries. We support a precautionary approach to the materials that we use in our processes, and seek alternatives for hazardous materials that meet our quality and performance requirements.

We have developed these goals as part of our commitment to eco-efficient manufacturing:

- Reduce normalized electricity consumption by 10%
- Reduce normalized greenhouse gas emissions by 30% (Scope 1 & 2)
- Reduce normalized incoming water consumption by 10%

Each goal has a target year of 2016 and a baseline year of 2011. Each goal is normalized to our Manufacturing Index (MI), which is

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derived from the number of wafers manufactured, the number of masking steps in our fabrication processes, and the total area of wafers produced to normalize annual performance data to manufacturing levels. GLOBALFOUNDRIES participated in a SEMATECH working group seeking to develop common semiconductor industry Key Environmental Performance Indicators. The group developed a guidance document encouraging semiconductor manufacturers to report data using this common MI to drive transparency, effective benchmarking and further progress.

We measure our manufacturing and operational EHS performance using a defined set of corporate key performance indicators (KPIs). Our corporate EHS KPIs include resource consumption data, environmental emissions and waste data, occupational injury and illness data, and regulatory compliance indicators.

KPIs are collected quarterly from all of our manufacturing sites. The data is validated internally and annual reports are reviewed by the ESC. In addition, several strategic customers request EHS KPI data (especially energy, GHG, water and waste data), which is either reviewed in direct discussions or provided via on-line data portals. Each manufacturing facility collects site-specific data that is used to identify opportunities for improvement and to measure performance against site-specific goals. These operational EHS performance indicators are reported to site management.

FIG 3 ABSOLUTE AND NORMALIZED ELECTRICITY USAGE AND COMPARED TO 2011-2016 NORMALIZED GOAL

ENERGY CONSUMPTION

FIGURE 3 shows GLOBALFOUNDRIES' absolute and normalized electricity use for 2010 to 2013. The figure also shows current performance compared to our 2011-2016 goal for normalized electricity consumption. Installation of new process equipment and technology qualification in Fab 8 and continued growth in Fab 1 in Dresden resulted in a 23 percent increase in absolute consumption and a 12 percent increase in normalized energy use from 2011 to 2013. As Fab 8's significant new manufacturing capacity is ramped toward full production, electricity consumption will continue to increase while normalized usage will decrease. Excluding Fab 8 energy consumption in advance of volume manufacturing, normalized electricity consumption decreased 3% from 2011 to 2013. Fab 1 is powered by two specially designed, highly efficient trigeneration plants. Energy Centers I and II (EVC I and EVC II) burn natural gas to supply Fab 1 with electricity as well as heating and cooling energy. The new Fab 1 Annex cleanroom receives heating and cooling from EVC I and electricity from the Dresden public grid.

Waste heat from electricity production in the EVCs' trigeneration systems is used to provide heating and cooling energy to the manufacturing areas. As a result, trigeneration is much more efficient than conventional coal or natural gas power plants, which typically have efficiencies lower than 40%. In comparison, EVC I has achieved a total average lifetime efficiency of approximately 73 percent. In 2013, it achieved an average total efficiency of more than 76 percent. EVC II has achieved a total average lifetime efficiency of more than 84 percent, and in 2013 achieved an average total efficiency of 89 percent.

The EVCs' trigeneration systems offer multiple opportunities to balance energy flows to further increase efficiency and overall energy productivity. Beginning in 2010, waste heat from on-site production of oxygen, nitrogen and compressed air

was routed back to the EVCs, thereby eliminating the need to install additional electricity-powered cooling capacity. These improvements reduced demand by approximately 5 MW that would have been needed to meet cooling needs at full demand.

The Dresden site actively pursues energy conservation projects. In 2012 and 2013, we achieved combined savings of more than 33.5 Gigawatt hours (GWh) of electricity by implementing several projects, including:

- Clean Dry Air (CDA)
 - We retrofitted manufacturing tools to reduce CDA flow rates, thereby lowering the electricity needed to run CDA compressors.
- Ultra-pure Water (UPW) System
 - We introduced load management for several UPW pumps, thus reducing the amount of electricity needed to power the UPW system.
 - We replaced non-essential uses of ultra-pure water with lesser quality water, thereby saving the power that would have been needed to produce this portion of our total UPW demand.
 - We expanded our water recycling strategy by recovering a higher temperature last-rinse stream from process tools.

Process Cooling Water

• We transformed our Process Cooling Water (PCW) system from an open to a closed system, thereby conserving energy by reducing the static system height.

GLOBALFOUNDRIES facilities in Singapore receive electricity from the public utility grid. Our Singapore Facilities Engineering staff works closely with manufacturing engineers to identify and implement energy efficiency projects, also reducing associated GHG emissions. For example, we are completing a campus-wide high-efficiency chiller retrofit program which is projected to save 54 GWh annually. In 2013, we saved more than 72 GWh through these and other projects:

- Chiller plant upgrades at our Woodlands campus are expected to improve chiller energy efficiency by almost 40% and save more than 54 GWh annually when completed.
- We converted existing vacuum pumps to highefficiency pumps with variable speed drives.
- We retrofitted compact fluorescent fixtures with light emitting diodes (LED) lighting in some office and facility areas.

Successful energy efficiency initiatives at the Singapore site resulted in Ping Chay Soon from GLOBALFOUNDRIES' Facilities Engineering

KC Ang, Senior Vice President and General Manager of GLOBALFOUNDRIES Singapore; Desmond Chan, Senior Director of Facilities Engineering; Ping Chay Soon, Section Manager Facilities Engineering; and Lee Kim Fatt, Senior Engineer, Facilities Engineering, with the Excellence in Energy Management Award that GLOBALFOUNDRIES Singapore received in 2013

receiving a national award for "Outstanding Energy Manager of the Year" in 2012. In 2013, we received the "Excellence in Energy Management" award. Both awards were presented jointly by Singapore's National Environment Agency, the Energy Market Authority and the Economic Development Board. •

Global Resource Conservation Task Force

We formed the GLOBALFOUNDRIES Global Resource Conservation Task Force in 2012 to drive better cross-site collaboration toward more efficient use of resources and to reduce operating costs. The Task Force is comprised of facilities engineers and EHS staff who build on the legacy of resource conservation programs at each of our manufacturing sites.

The Task Force facilitates benchmarking and sharing best practices, and helping to set conservation-related goals on a global basis. "Our major stakeholders, including our customers, shareholders and regulatory authorities, expect us to use these resources as efficiently as possible to control costs and minimize our environmental impacts. Our goal is to take cost-effective measures to minimize the resources used to make each wafer," said Steve Groseclose, Director of Risk Management and Sustainability.

The Task Force's initial focus has been on water reuse and recycling, as well as energy characterization, optimization, upgrades and retrofits.

Examples of resource efficiency improvement projects and strategies include:

Global Fab Energy Surveys

Dresden, New York and Singapore conducted fab-wide and system-level energy consumption benchmarking to identify best-in-class performance and prioritize optimization projects. The study was conducted in collaboration with SEMATECH/ISMI, which enabled external benchmarking.

Water Recycle/Reclaim

All GLOBALFOUNDRIES manufacturing sites employ water recycle/reclaim technology. Typically, ultra-pure water (UPW) is recycled by returning final rinse water or last rinse drain (LRD) water to the UPW plant, while a lower quality reclaim water is fed to applications with less stringent water quality requirements, such as cooling towers and exhaust scrubbers. In 2013, our Singapore fabs achieved a water recycle rate of 62%.

Waste Heat Recovery

Our Singapore and Saratoga County facilities use waste heat for heating domestic water, UPW make-up water and fab make-up air. Waste heat recovery is also the primary feature that makes the Dresden trigeneration Energy Centers so efficient. We integrated numerous energy-efficient features in the design and construction of Fab 8 in New York. These features will help us maximize resource and cost savings over the life of the facility, and are estimated to save approximately 16 GWh annually. Some of the features include:

- High-efficiency motors, chillers, boilers, fan filters for the cleanroom, and vacuum pumps.
- An innovative system that uses heat recovery chillers to meet the fab's year-round base cooling load and recover the heat for site needs instead of removing it with cooling towers. The system met 40 percent of the site heating load with recovered heat, which translates to \$1.7M in natural gas cost reduction.
- Fab 8 is the first facility to implement a fab-wide (CVD/Etch/Diffusion) "green mode" strategy for the vacuum pumps and point-of-use abatement systems that support process tools. Green mode uses smart controls that place fab support equipment into an "idle mode" that lowers power and natural gas consumption during periods of inactivity. These controls are estimated to achieve savings of more than \$1M per year across the site. ▶

FIG 4 ABSOLUTE AND NORMALIZED WATER USE AND COMPARED TO 2011-2016 NORMALIZED GOAL

WATER USE

GLOBALFOUNDRIES uses water from public sources at all of our manufacturing facilities. More than 95 percent of the water consumed at our Singapore facilities is NEWater, which is reclaimed and treated wastewater supplied by the Singapore Public Utilities Board (PUB). Using NEWater supports Singapore's water conservation strategy to reserve high-quality potable water for domestic consumption. **FIGURE 4** shows absolute and normalized water consumption at our manufacturing facilities from 2010 to 2013. Increased production in our Dresden facility and the start-up of Fab 8 resulted in a 31 percent increase in absolute water use in 2013 compared to 2011, while normalized water use increased by 19 percent from 2011 to 2013.

We have extensive water reuse and recycling programs at each of our manufacturing facilities. In 2013, we achieved a combined corporate water reclaim rate of 68 percent compared to incoming water supply. "Reclaim" includes both water recycling and reuse. Some reclaimed water is used as a raw water supply to our ultra-pure water (UPW) plants (defined as "recycling") as well as for facility operations such as cooling towers and scrubbers (defined as "reuse"). In 2013, the average water recycling rate across our three fab sites was 45%, compared to incoming water. Our Singapore fabs, which operate in the region with the highest water constraints, achieved a 62 percent recycling rate in 2013.

We operate permitted wastewater treatment systems at each of our manufacturing sites for managing effluent from production areas. These facilities pre-treat the wastewater to meet regulatory requirements prior to discharge to municipal treatment facilities. In 2011, 2012 and 2013 we discharged 11.3, 13.4 and 15.6 million cubic meters, respectively, of pre-treated wastewater to municipal wastewater treatment facilities.

MATERIAL USE

A wide range of resources, including energy, water, chemicals and gases, is needed to manufacture

semiconductors. Chemical and gas usage ranges from bulk gases and bulk chemicals to specialty gases and chemicals used in smaller amounts. In addition, chemicals are needed to produce ultra-pure water and treat wastewater and exhaust.

A high-volume semiconductor fab may use more than 100,000 tons of materials per year. High-purity bulk gases (oxygen, nitrogen, helium and others) represent the largest share, followed by process chemicals. These include sulfuric acid, hydrogen peroxide, specialty chemicals like photoresists and developers used in photolithography or slurries for the chemical-mechanical planarization (CMP) process, and chemicals used in water purification and treatment. Specialty gases used in chemical vapor deposition (CVD) and plasma etching processes constitute a relatively small amount (less than 1% of the total).

GREENHOUSE GAS EMISSIONS

FIGURE 5 shows absolute and normalized direct (Scope 1) and indirect (Scope 2) greenhouse gas (GHG) emissions for 2010 to 2013. Absolute Scope 1 GHG emissions decreased by 3 percent in 2013 compared to 2011, primarily as a result of start-up in Fab 8 and expanding production in Fab 1, which is designed to produce very low emissions of PFC (perfluorocompound) gases used in semiconductor manufacturing processes like wafer etching and CVD chamber cleaning. Indirect emissions increased 9 percent in 2013 compared to 2011 as a result of increased production and the start-up >

FIG 5 ABSOLUTE AND NORMALIZED GHG EMISSIONS (SCOPE 1 AND SCOPE 2)

of Fab 8. Normalized total GHG emissions have decreased by 7 percent since 2011.

FIGURE 6 shows our absolute and normalized total PFC emissions from 2010 to 2013. Actual PFC emissions decreased by 3 percent in 2013 compared to 2010, while normalized PFC emissions decreased 21 percent. These decreases result from increased utilization of fabs with lower PFC emissions, such as Fab 1 in Dresden. Fab 8 in New York was also designed for extremely low emissions of PFCs. These fabs use low-emission gases in CVD chamber cleaning, coupled with near-universal use of ▶

Managing **Climate Change Impacts**

Global climate change is an increasingly important challenge impacting society and the global economy. As presented in this report, we monitor our energy consumption and GHG emissions to understand our climate impacts. We are managing our climate-related business risks through energy conservation, operational controls, and participation in initiatives to drive industry-wide improvements.

Risks associated with climate change are complex, ranging from regulatory initiatives to severe weather events such as droughts, flooding and extreme temperatures. Climaterelated risks, including supply or operational disruptions due to severe weather events, are evaluated as part of our risk management process. Our EHS team tracks the development of proposed climate legislation around the world that has the potential to impact our business, and we have implemented proactive measures that go well beyond regulatory requirements.

We are also active in industry-wide initiatives that drive reductions in GHG emissions. Fab 1 in Dresden participated in the industry-wide goal established by the World Semiconductor Council (WSC) to reduce PFC emissions 10 percent by 2010 compared to 1995. In 2011, the WSC announced that it had far surpassed its PFC reduction goal, and by 2012 WSC emissions were almost 40% below the 1995 baseline.

Similarly, Fab 1 participated in a goal established by ZVEI, a leading electronics industry organization in Germany, to achieve an 8 percent absolute reduction in PFC emissions by 2010 with a baseline of 1995. Germany's semiconductor industry, through a ZVEI working group chaired by Fab 1 EHS-Security Manager Rainhardt Russ, achieved an absolute reduction of 47 percent, surpassing the countryspecific goal five-fold and contributing significantly to achieving the worldwide goal of the WSC. Fab 1 was instrumental in achieving these goals by successfully applying best practices to minimize PFC emissions. Fab 1 is the largest fab in Europe for leading-edge technology, and yet it produces very low levels of PFC emissions.

FIG 6 ABSOLUTE AND NORMALIZED CORPORATE PFC EMISSIONS

point-of-use abatement equipment for PFC-using processes. Our Singapore fabs are also using lower-emitting chamber-clean gases.

AIR EMISSIONS

All of our manufacturing facilities operate within conditions permitted by local regulatory agencies. The primary air emissions from our wafer manufacturing facilities include corrosives (acids and bases) and volatile organic compounds (VOCs). We employ wet scrubbers to neutralize corrosive emissions and treat the scrubber water in on-site wastewater treatment systems prior to

discharge. Based on air emission measurements that we conduct at each fab. we estimate our fabs' combined corrosive emissions to be approximately 66,000 kg annually (54,000, 56,000 kg and 91,000 kg respectively, in 2011, 2012 and 2013, with the range in annual values being not only attributable to production changes, but also to timing of air emission measurements).

Fab 1 in Dresden and Fab 8 in New York utilize VOC control technology that utilizes rotary concentrators followed by thermal oxidation. This technology uses highly adsorbent zeolite materials to capture VOCs, which are subsequently desorbed, producing a low-volume exhaust stream with a higher concentration of VOCs. This more concentrated exhaust stream can then be treated with greater efficiency through a combustion process that destroys as much as 98% of the VOCs.

HAZARDOUS WASTE

FIGURE 7 shows actual and normalized hazardous waste generation for 2010 to 2013. Absolute hazardous waste generation more than doubled from 2010 to 2013, while normalized hazardous waste volumes increased 93 percent during the same time period. While we have significantly increased our manufacturing capacity over this time period, the rise in absolute and normalized hazardous waste generation is also due to the increased complexity associated with manufacturing integrated circuits at more advanced technology nodes. These complex circuits

FIG 7 ABSOLUTE AND NORMALIZED HAZARDOUS WASTE GENERATION

areconstructed using technologies that may involve hundreds of individual process steps, and the number of wafer cleaning steps continues to grow. The smaller feature dimensions of advanced technology nodes require more precise cleaning, resulting in increased use of UPW and cleaning chemicals such as sulfuric acid. We are actively investigating ways to reduce water and chemical use to ultimately reduce hazardous waste.

FIGURE 8 is a breakdown of the disposal methods for the hazardous waste we generated in 2013. Approximately 57 percent of the hazardous waste

FIG 8 2013 HAZARDOUS WASTE DISPOSAL METHODS

Recycled and Reused includes Fab 8 Hazardous Material Byproducts Beneficially Reused or Sold from 2012 on.

generated by GLOBALFOUNDRIES in 2013 was recycled or reused. We established a goal to increase the recycling and reuse rate to 65% in 2014.

NON-HAZARDOUS WASTE GENERATION

FIGURE 9 shows actual and normalized nonhazardous waste generation for 2010 to 2013. Expansion activities at the Dresden site in 2011 and the start-up of Fab 8 in 2012 caused absolute non-hazardous waste generation to more than double from 2010 to 2013, and normalized volumes to increase by more than 80 percent in 2013 as compared to 2010.

FIG 9 ABSOLUTE AND NORMALIZED NON-HAZARDOUS WASTE GENERATION

TOTAL NON-HAZARDOUS WASTE

- NORMALIZED NON-HAZARDOUS WASTE GENERATION

FIGURE 10 is a breakdown of the disposal methods for the non-hazardous waste we generated in 2013. Approximately 53 percent of the non-hazardous waste generated by GLOBALFOUNDRIES in 2013 was recycled or reused.

EHS COMPLIANCE

Through our Global Environmental, Health and Safety policy, we are committed to a "Beyond Compliance" approach, seeking to exceed the requirements of applicable regulations. We implement consistent and rigorous EHS standards, management systems, metrics, external reporting, and compliance assurance programs.

FIG 10 2013 NON-HAZARDOUS WASTE DISPOSAL METHODS

These are designed to protect the environment; to protect the safety, health and well-being of our employees, contractors and communities; and to ensure that we meet or exceed regulatory compliance requirements. Our manufacturing sites perform internal reviews as part of their EHS Management Systems and are routinely inspected by regulatory authorities. In 2013, inspections and regular compliance reporting across our global locations resulted in four notices of violation (NOV). The related issues were corrected to the satisfaction of the regulatory authorities. No fines or penalties have occurred from 2010 to 2013. •

10 PRODUCT STEWARDSHIP

We have a fundamental responsibility to reduce the potential health, safety, environmental and social impacts of the product lifecycle stages we control. Our customers rely on our broad range of technologies and manufacturing expertise to help them reduce their environmental footprint, cut energy costs, and remain competitive in the market.

Materials Management and Product Compliance

All GLOBALFOUNDRIES sites utilize our Chemical Information System to ensure only approved materials are brought on site for use in manufacturing. Our material qualification process assesses all materials relative to our banned, restricted and declarable substances specification, which includes both regulatory and customer-driven requirements. Our finished wafers are compliant with the EU Directive on restriction of the use of certain hazardous substances in electrical and electronic equipment, also known as the (recast) EU RoHS Directive. They do not contain lead or the other RoHS restricted heavy metals (cadmium, mercury and hexavalent chromium), and are halogen-free. We also provide our customers with information confirming that our finished wafers do not contain Substances of Very High Concern (SVHC), in accordance with the EU's REACH Directive.

Our specifications also require packing material suppliers to meet all applicable substance restrictions. GLOBALFOUNDRIES requires that all paper-based shipping materials contain more than 50 percent recycled content and are preferably sourced from sustainably managed forests. Packing material suppliers are required to meet all applicable substance restrictions.

Enabling Energy Efficiency

Semiconductors are a key enabling technology to improve energy efficiency and reduce energy consumption in a variety of products and processes that touch our lives daily. From improving the efficiency of the cars we drive to the technologies we use in our homes and offices, semiconductors help reduce the amount of energy we consume. Semiconductors also have enabled the rapidly expanding markets for mobile devices and communications. In mobile devices, integrated circuits and software work together as a system-level energy-saving function, reducing power consumption and extending battery life.

GLOBALFOUNDRIES offers a portfolio of manufacturing technologies that enable our customers to design more energy-efficient products. Smaller, faster and more power-efficient transistors are the building blocks for improving future performance and power consumption in end products. Our leading-edge manufacturing technologies enable shrinking transistors, lower power consumption, and lower leakage currents, particularly for mobile devices. We have integrated leading-edge wafer technology capabilities into our manufacturing processes that enable energy >

10 PRODUCT STEWARDSHIP

efficiency gains, such as HKMG, Strained Silicon, and FinFET transistors — lowering power requirements for the end products in which the chips are used.

In April 2014, Samsung Electronics Co., Ltd. and GLOBALFOUNDRIES announced a new strategic collaboration to deliver global capacity for 14 nanometer (nm) FinFET process technology. For the first time, the industry's most advanced 14nm FinFET technology will be available at both Samsung and GLOBALFOUNDRIES, giving customers the assurance of supply that can only come from true design compatibility at multiple sources across the globe. Developed by Samsung and licensed to GLOBALFOUNDRIES, the 14nm

Leading-edge water technology elements enabling energy efficiency gains

High-k Metal Gate

One critical materials system that has been introduced in leading-edge manufacturing technologies is High-k Metal Gate (HKMG). This system makes up the fundamental switching element of a transistor. HKMG technology allows the size of transistors to shrink while significantly minimizing leakage current, a key factor in reducing power consumption.

Strained silicon

Strained silicon is a substrate in which the atoms in the top layer are stretched beyond the atoms of the underlying semiconductor crystalline layers. The so-called strained silicon enables enhanced transport properties of the electrical charge carriers in the transistor. These carriers can transport electricity more quickly through the transistor, leading to better chip performance and lower energy consumption.

FinFETs (Fin-Shaped Field Effect Transistors)

Historically, transistors have been twodimensional (2-D) features in an integrated circuit. FinFETs are three-dimensional (3-D) transistors that have the intrinsic capability to operate at a lower voltage, which translates to improved energy efficiency and a longer battery life. This is a highly desired technology for performance-hungry mobile computing applications.

FinFET process is based on a technology platform that has already gained traction as the leading choice for high-volume, power-efficient system-onchip (SoC) designs. The platform taps the benefits of three-dimensional, fully depleted FinFET transistors to overcome the limitations of planar transistor technology, enabling up to 20 percent higher speed, 35 percent less power and 15 percent area scaling over industry 20nm planar technology. Our focus on technologies that enable energy efficiency is not limited to the leading-edge tech nodes. We offer semiconductor services for power-management integrated circuits (PMICs) and power converters. Our growing portfolio is

10 PRODUCT STEWARDSHIP

continuously expanding for higher voltages. GLOBALFOUNDRIES has developed a unique version of BiCMOS/DMOS named BCDlite™, which has become one of the key technology platforms for cost-effective power management and power converter solutions. This technology platform offers tremendous design flexibility for power management and high-voltage analog circuits.

Research & Development

GLOBALFOUNDRIES is driving advancements in semiconductor technology that challenge the current limits of manufacturing and materials development. Keeping pace with leading-edge technologies requires substantial investments in research and development.

Our Technology Development Center (TDC) will house a variety of semiconductor development and manufacturing spaces to support the transition to new technology nodes, as well as the development of innovative capabilities to deliver value to customers beyond the traditional approach of shrinking transistors. The overarching goal of the TDC is to provide a collaborative space for GLOBALFOUNDRIES to develop end-to-end solutions covering the full spectrum of silicon technology.

We collaborate with other leading companies such as IBM, Samsung and STMicroelectronics in Joint Development Alliances. We also engage with industry peers through industry R&D consortia, such as the Semiconductor Research Corporation (SRC), IMEC, SEMATECH and the G450C consortium, established to drive development of 450mm wafer tools and processes.

Through participation in industry research consortia, we assess key process and technology elements that use novel chemistries, materials or equipment. We evaluate EHS concerns at the early stages of development to identify improvement opportunities and ensure timely resolution of potential concerns. We have integrated EHS assessment with our stage-gate development process, ensuring that EHS criteria are addressed from exploratory research through release to high-volume manufacturing. Along with our industry peers, GLOBALFOUNDRIES professionals have played a leading role in setting industry strategy for environmental health and safety research. Through the SRC's Engineering Research Center, we are funding research at leading academic institutions like the University of California Los Angeles, the University of Arizona, the Massachusetts Institute of Technology and the University of North Carolina-Chapel Hill.

Understanding the Life-cycle Impacts of Wafer Manufacturing

In an effort to better understand the impact of our manufacturing activities, GLOBALFOUNDRIES conducted a pilot "carbon footprinting" project in 2010, applying the BSI PAS 2050:2008 standard, "Assessment of life-cycle greenhouse gas emissions of goods and services," to a semiconductor product manufactured at Fab 1 in Dresden, Germany. Our methodology was certified by the Carbon Trust as meeting the PAS 2050 standard, and we shared the results with our peers at the International High Technology Environment, Safety and Health (IHTESH) conference in 2010.

In our study, direct and energy-related GHG emissions accounted for more than 80 percent of the carbon footprint per functional unit, even considering GLOBALFOUNDRIES Fab 1, which has a low-carbon energy supply (natural gas based trigeneration) and minimal PFC emissions. We also shared a set of recommendations for the development of a common industry approach to carbon footprinting with our peers and industry associations. We continue to collaborate with peers and other stakeholders in an effort to build a broader semiconductor manufacturing carbon footprint model.

11 ABOUT THIS REPORT

The **GLOBALFOUNDRIES 2013 Corporate Responsibility Report** is our first comprehensive sustainability report. We used the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines (3.1) to guide report content. Operational data presented in this report is for calendar years 2010 through 2013. The data was compiled from facilities owned or operated by GLOBALFOUNDRIES and validated using our internal processes. Where practical, the data is measured directly or obtained from external sources, such as utility providers.

We value and encourage your feedback on this report.

Please send comments or questions to CSR@globalfoundries.com.

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GLOBALFOUNDRIES reviewed the disclosures in this report relative to the GRI G3.1 guidelines. Based on this review, we self-declare this report as meeting "Application Level B." Please refer to the Index table below which indicates how our disclosures address the GRI guidelines.

STANDARD DISCLOSURES PART I: PROFILE DISCLOSURES			
	1. STRATEGY AND ANALYSIS		
PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
1.1	Statement from the most senior decision-maker of the organization.	•	CEO Statement
1.2	Description of key impacts, risks, and opportunities.	•	Corporate Responsibility Strategy
	2. ORGANIZATIONAL PROFILE		
2.1	Name of the organization.	•	Company Profile
2.2	Primary brands, products, and/or services.	•	Company Profile
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	•	Company Profile
2.4	Location of organization's headquarters.	•	Company Profile
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	•	Company Profile
2.6	Nature of ownership and legal form.	•	Company Profile
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	•	Company Profile
2.8	Scale of the reporting organization.	•	Company Profile

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2. ORGANIZATIONAL PROFILE (CONTINUED)			
PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	•	Company Profile
2.10	Awards received in the reporting period.	•	Stakeholder Engagement (highlight box); Health & Safety; Eco-efficiency in Foundry Operations
	3. REPORT PARAMETERS		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	•	About This Report
3.2	Date of most recent previous report (if any).	•	CEO Letter
3.3	Reporting cycle (annual, biennial, etc.).	•	GLOBALFOUNDRIES intends to report sustainability information on an annual basis.
3.4	Contact point for questions regarding the report or its contents.	•	About This Report
3.5	Process for defining report content.	•	Corporate Responsibility Strategy
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	•	Company Profile
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	•	Company Profile
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	•	About This Report
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	•	About This Report

3. REPORT PARAMETERS (CONTINUED)			
PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	•	Not Applicable
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	•	This is GLOBALFOUNDRIES' first sustainability report using the GRI.
3.12	Table identifying the location of the Standard Disclosures in the report.	•	GRI Index Table
3.13	Policy and current practice with regard to seeking external assurance for the report.	•	About This Report
	4. GOVERNANCE, COMMITMENTS, AND ENGA	GEMENT	
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	•	Governance
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	•	Governance
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	0	Not Applicable
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	•	Governance
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	•	Governance
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	•	Governance

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4. GOVERNANCE, COMMITMENTS, AND ENGAGEMENT (CONTINUED)			
PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	•	Governance
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	•	Worldwide Standards of Business Conduct, Values, Global EHS Standards, HR Policies
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	•	Governance
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	•	Governance
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	•	Eco-Efficiency of Foundry Operations
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	•	Supplier Responsibility
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization: * Has positions in governance bodies. * Participates in projects or committees. * Provides substantive funding beyond routine membership dues, or * Views membership as strategic.	•	Industry Collaboration
4.14	List of stakeholder groups engaged by the organization.	•	Stakeholder Engagement
4.15	Basis for identification and selection of stakeholders with whom to engage.	•	Stakeholder Engagement
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	•	Stakeholder Engagement

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4. GOVERNANCE, COMMITMENTS, AND ENGAGEMENT (CONTINUED)			
PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	•	Stakeholder Engagement
	STANDARD DISCLOSURES PART III: PERFORMANCE	INDICATORS	
	ECONOMIC		
PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	ECONOMIC PERFORMANCE		
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	•	As a privately held company, financial data are not disclosed. See donation information in Community Engagement.
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	₽	Eco-Efficiency of Foundry Operations
EC3	Coverage of the organization's defined benefit plan obligations.	•	Compensation & Benefits
EC4	Significant financial assistance received from government.	0	Not Disclosed
MARKET PRESENCE			
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	0	Not Disclosed

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	MARKET PRESENCE (CONTINUED)		
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	0	Not Disclosed
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	0	Not Disclosed
	INDIRECT ECONOMIC IMPACTS		
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	•	Community Engagement
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	₽	Community
	ENVIRONMENTAL		
	MATERIALS		
EN1	Materials used by weight or volume.	•	Eco-Efficiency of Foundry Operations
EN2	Percentage of materials used that are recycled input materials.	0	Not Disclosed
	ENERGY		
EN3	Direct energy consumption by primary energy source.	•	Eco-Efficiency of Foundry Operations
EN4	Indirect energy consumption by primary source.	•	Eco-Efficiency of Foundry Operations
EN5	Energy saved due to conservation and efficiency improvements.	•	Eco-Efficiency of Foundry Operations
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	•	Eco-Efficiency of Foundry Operations

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PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	ENERGY (CONTINUED)		
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	•	Eco-Efficiency of Foundry Operations
	WATER		
EN8	Total water withdrawal by source.	•	Eco-Efficiency of Foundry Operations
EN9	Water sources significantly affected by withdrawal of water.	•	GLOBALFOUNDRIES uses water from public sources.
EN10	Percentage and total volume of water recycled and reused.	•	Eco-Efficiency of Foundry Operations
	BIODIVERSITY		
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	0	Not Disclosed
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	0	Not applicable to GLOBALFOUNDRIES operations.
EN13	Habitats protected or restored.	0	Not applicable to GLOBALFOUNDRIES operations.
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	0	Not applicable to GLOBALFOUNDRIES operations.
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	0	Not applicable to GLOBALFOUNDRIES operations.
	EMISSIONS, EFFLUENTS AND WASTE		
EN16	Total direct and indirect greenhouse gas emissions by weight.	•	Eco-Efficiency of Foundry Operations
EN17	Other relevant indirect greenhouse gas emissions by weight.	•	Eco-Efficiency of Foundry Operations
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	•	Eco-Efficiency of Foundry Operations

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	EMISSIONS, EFFLUENTS AND WASTE (CONTI	NUED)	
EN19	Emissions of ozone-depleting substances by weight.	•	GLOBALFOUNDRIES does not use ozone depleting substances in manufacturing processes.
EN20	NOx, SOx, and other significant air emissions by type and weight.	•	Eco-Efficiency of Foundry Operations
EN21	Total water discharge by quality and destination.	•	Eco-Efficiency of Foundry Operations
EN22	Total weight of waste by type and disposal method.	•	Eco-Efficiency of Foundry Operations
EN23	Total number and volume of significant spills.	•	A diesel fuel spill of approximately 1,400 gallons occurred at Fab 8 in New York in December 2013.
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	0	Not Disclosed
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	•	GLOBALFOUNDRIES discharges process wastewater to publicly owned treatment facilities.
	PRODUCTS AND SERVICES		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	•	Product Stewardship
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	0	Not Disclosed
COMPLIANCE			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	•	Eco-Efficiency of Foundry Operations

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	TRANSPORT		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	0	Not Disclosed
	OVERALL		
EN29	Total environmental protection expenditures and investments by type.	0	Not Disclosed
SOCIAL: LABOR PRACTICES AND DECENT WORK			
	EMPLOYMENT		
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	•	Our Workplace and People
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	0	Not Disclosed
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	•	GLOBALFOUNDRIES provides benefits to full time employees — see Compensation & Benefits.
LA15	Return to work and retention rates after parental leave, by gender.	•	Compensation & Benefits
	LABOR / MANAGEMENT RELATIONS		
LA4	Percentage of employees covered by collective bargaining agreements.	•	None
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	0	Not Disclosed

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	OCCUPATIONAL HEALTH AND SAFETY		
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	0	Not Disclosed
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	•	Health & Safety
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	•	Employee Education & Training; Health & Safety
LA9	Health and safety topics covered in formal agreements with trade unions.	0	Not Disclosed
TRAINING AND EDUCATION			
LA10	Average hours of training per year per employee by gender, and by employee category.	0	Not Disclosed
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	•	Employee Education & Training
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	•	Employee Education & Training
DIVERSITY AND EQUAL OPPORTUNITY			
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	0	Not Disclosed
EQUAL REMUNERATION FOR WOMEN AND MEN			
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	0	Not Disclosed

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PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	INVESTMENT AND PROCUREMENT PRACTI	CES	
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	0	Not Disclosed
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	•	Supplier Responsibility
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	•	Worldwide Standards of Business Conduct; Supplier Responsibility
NON-DISCRIMINATION			
HR4	Total number of incidents of discrimination and corrective actions taken.	0	Not Disclosed
	FREEDOM OF ASSOCIATION AND COLLECTIVE BA	RGAINING	
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	0	Not Disclosed
CHILD LABOR			
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	•	Human Rights; Supplier Responsibility
	FORCED AND COMPULSORY LABOR		
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	•	Human Rights; Supplier Responsibility

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PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	SECURITY PRACTICES		
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	0	Not relevant to GLOBALFOUNDRIES operations.
	INDIGENOUS RIGHTS		
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	0	Not relevant to GLOBALFOUNDRIES operations.
	ASSESSMENT		
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	•	Human Rights; Supplier Responsibility
	REMEDIATION		
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	0	Not Disclosed
	SOCIAL: SOCIETY		
	LOCAL COMMUNITIES		
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	•	Community Engagement
SO9	Operations with significant potential or actual negative impacts on local communities.	•	None
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	0	Not relevant to GLOBALFOUNDRIES operations.
	CORRUPTION		
SO2	Percentage and total number of business units analyzed for risks related to corruption.	0	Not Disclosed

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	CORRUPTION (CONTINUED)		
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	•	Worldwide Standards of Business Conduct
SO4	Actions taken in response to incidents of corruption.	0	Not Disclosed
	PUBLIC POLICY		
SO5	Public policy positions and participation in public policy development and lobbying.	•	Industry Collaboration
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	0	Not Disclosed
ANTI-COMPETITIVE BEHAVIOR			
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	•	None
	COMPLIANCE	1	
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	•	Eco-Efficiency of Foundry Operations
SOCIAL: PRODUCT RESPONSIBILITY			
	CUSTOMER HEALTH AND SAFETY		
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	•	Research & Development
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	•	None

PERFORMANCE INDICATOR	DESCRIPTION	REPORTED	CROSS-REFERENCE / DIRECT ANSWER
	PRODUCT AND SERVICE LABELING		
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	•	Materials Management & Product Compliance
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	•	None
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	•	Stakeholder Engagement
	MARKETING COMMUNICATIONS		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	0	Not Disclosed
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	0	Not Disclosed
	CUSTOMER PRIVACY		
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	0	Not Disclosed
	COMPLIANCE		
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	•	None

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