

Advanced Micro Devices (“AMD”)

Corporate Responsibility Website Download ([Link](#))

Updated as of October 2019



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1. CR@AMD ([Link](#))

At AMD, we develop greater technology for the greater good, creating high-performance semiconductor solutions that are designed to help solve some of the world's toughest challenges. This is our driving motivation – to enable the world's creators, researchers, inventors and explorers to transform the lives of those around them through immersive and instinctive computing.

Overview

The concept of responsibly developing and delivering cutting-edge technologies that enable a better world is deeply rooted in our culture. Corporate responsibility represents an important aspect of our business, which aims to generate shared value with our customers, suppliers, investors, employees and communities.

We look at corporate responsibility holistically through the lens of People, Planet and Purpose, which allows us to organize our work and put our values into action. CR is an important part of how we do business and is key to our employee value proposition. By aligning business success with societal value, we create benefits for AMD, our partners and millions of people around the globe.

This section of the website highlights details about our [company](#), including our corporate responsibility strategy, mission and vision, our [governance](#) and management approach, [stakeholder engagement](#), [volunteerism and philanthropy](#) and our [supply chain](#).

Message from our President and CEO

2019 marks AMD's 50th anniversary. Our commitment to pushing the boundaries of what is possible in high performance computing has never been stronger. AMD's innovative computing and graphics products are helping the best and the brightest tackle the world's toughest challenges. From medical advances and scientific breakthroughs to solutions for more efficient use of our natural resources, our products are transforming lives and our planet for the better.

At AMD, we strive to make a positive impact on our industry and our world. From Fortune 500 businesses to cutting-edge scientific research institutions to everyday consumers – users rely on AMD technology to make what was impossible, possible. We're not slowing down. There is always the next challenge to solve.

We are extremely proud of our history and are equally excited about what we will accomplish over the next 50 years for our communities and our planet.

*Dr. Lisa Su
President and CEO*

Who We Are

Since our founding in 1969, AMD has driven innovation in high-performance computing, graphics and visualization technologies — the building blocks for gaming, immersive platforms and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible.

We operate in over 40 locations in more than 20 countries, including R&D facilities, international sales offices and joint ventures with assembly/test manufacturing facilities in Malaysia and China. Check out our operational map and our value chain.

What We Make

- **GRAPHICS:** AMD combines breakthrough graphics architecture with cutting-edge software to build platforms that can handle the most challenging, important and graphics-intensive applications today, including gaming, creation, compute, AI and virtual and augmented reality.
- **COMPUTE:** AMD's high-performance microprocessors and chipsets deliver powerful, efficient performance for consumer and commercial devices like desktops, laptops and the datacenter.
- **SOLUTIONS:** AMD has leadership high-performance graphics and compute design capabilities, uniquely enabling us to differentiate solutions for customers and partners. From embedded products that power medical imaging devices and digital signage to semi-custom processors for leading game consoles and beyond, AMD technology is everywhere.

Our CR Strategy

We believe that companies must operate with a broader societal purpose as their foundation. We are proud of our record of achievement at AMD, which is possible due to our employees and partners worldwide. In all that we do, we know it is both a privilege and a responsibility to support society as a whole by creating important products consumers depend on, and we believe in inspiring our diverse employee base and operational teams to be mindful of their contributions and impacts. It is this broader [purpose](#) that allows us to generate sustainable long-term value generation for stakeholders.

AMD takes this commitment very seriously. We have a long-term strategy that is built on the core belief that business success and social value are not mutually exclusive; in fact, they are symbiotic, as illustrated by our CR vision, mission and guiding principles.

Guiding Principles:

- Align with societal expectations
 - Protect our “license to operate” in all markets
 - Identify, incorporate and manage the expectations of our stakeholders
- Enhance workplace culture
 - Ensure a collaborative and inclusive environment for employees and strategic partners
 - Represent the collective values of our company and share the sum total of our efforts
- Maximize and measure shared value
 - Collaborate with strategic partners to deepen mutually beneficial relationships
 - Create shared value in all communities in which we operate

2. Value Chain ([Link](#))

- DESIGN
 - AMD engineers design the circuitry for microprocessors, graphics, embedded devices and accelerated processing units.
- SILICON MANUFACTURING
 - AMD designs are manufactured on a silicon wafer. A typical wafer is made out of pure silicon that is formed into cylindrical ingots. These ingots are then sliced into wafers about 0.75 mm thick. Each wafer undergoes multiple steps in the fabrication process to produce an AMD—designed processor, or “die.” The working die from the silicon wafer is cut and sent to be assembled into a chip. AMD sources its chips from two world-class wafer foundry partners.
- ASSEMBLY AND TEST
 - In the assembly process, each die is attached to metal connectors so it can function with other devices on a circuit board. The die is then assembled into a protective package to dissipate heat and protect it from other elements. Once fully assembled, each chip is tested for functionality.
- PRODUCT SHIPPING
 - Qualified chips are then packaged for shipping to our customers. AMD works with channel partners to sell “processors-in-a-box” direct to the DIY computer enthusiast community as well as to Original Equipment Manufacturers (OEMs) that integrate
- END PRODUCT MANUFACTURING
 - AMD technology powers millions of intelligent devices made by our customers, including personal computers, game consoles and cloud servers. These devices are defining the new era of instinctive and immersive computing.
- CUSTOMER USE

- AMD solutions enable people everywhere to realize the full potential of their favorite devices and applications to push the boundaries of what is possible. The world's creators, researchers, inventors and explorers are using high-performance computing to tackle challenges in science, medicine, manufacturing and other areas in order to transform the lives of those around them.
- END OF LIFE
 - Proper reuse, recycling and disposal of electronic products is important in protecting the environment and moving toward a more circular economy. Engineering our products for long life, we work to reduce or eliminate problematic materials.

Learn More

[Mapping Corporate Responsibility Focus Areas to Steps in Our Value Chain](#)

3. Governance and Reporting ([Link](#))

Our products enable others to change the world. This comes with a responsibility to see that we are doing the right thing and conducting our business ethically.

Learn about our [Board of Directors](#) and our [corporate governance](#) structure.

Ethics and Compliance

The integrity of an organization begins with all employees' commitment to our core values and their responsibility to act in concert with those values.

We are committed to maintaining a high standard of ethics and compliance, to transparency and accountability, and to engaging our stakeholders in our corporate responsibility programs.

We implement processes to ensure that our practices are consistent with our policies, including the following:

- AMD's [Worldwide Standards of Business Conduct](#) support our commitment to ethical standards and compliance with laws, regulations and company policies. These standards apply to all members of AMD's Board of Directors and employees worldwide, and are one of the key components of the company's compliance and ethics program. They reiterate our values and outline guidelines on a broad range of workplace, business practice and conflicts of interest principles. All employees worldwide receive access to, and training on, the Standards.
- AMD's [Code of Ethics](#) supports the commitment of our corporate officers and key finance executives to ethical standards and compliance with laws, regulations and company policies

applicable to corporate financial transactions, reporting and disclosure.

- AMD's **Corporate Compliance Committee** is the internal group responsible for oversight of AMD's Worldwide Standards of Business Conduct and related policies/procedures (e.g., compliance with Foreign Corrupt Practices Act and conflict of interest rules). The committee provides regular ethics and compliance activity reports, as well as status updates to the Board of Directors.
- The [**AMD AlertLine**](#) is a multilingual web portal and telephone service that accepts anonymous reports about suspected illegal activity or violations of AMD's Worldwide Standards of Business Conduct, as permitted by law. The AMD AlertLine is available to all AMD employees worldwide, 24 hours a day and seven days a week. The Board of Directors receives summaries of all calls. Reports may also be submitted via the web at amd.alertline.com (for use by locations outside the European Union) or amdeu.alertline.com (European Union only).

Public Policy

As a global company, we believe corporate responsibility includes being an informed, active participant in the development of public policies that affect our business and our industry in the countries and communities in which we operate. Good public policy begins with diverse stakeholders participating in open and transparent proceedings to carefully examine issues and offer different perspectives that promote effective solutions.

AMD's commitment to public policy participation includes working with governments and authorities, NGOs, trade associations, and other groups to deepen our understanding of issues and diverse perspectives, as well as to share our experience and expertise as part of an informed public policy development process. We are actively engaged in a number of public policy efforts that are pertinent to our business, our industry, and users of AMD technology everywhere.

Some of these public policy priorities for AMD include:

- Secure Technology
- Competition and Market Access
- Energy Efficiency
- Workforce Talent
- Movement of Goods/IP
- Conflict Minerals
- Environmental Protection

For more information, please visit our [Public Policy page](#).

CR Governance and Management

As a semiconductor design company, we recognize that our customers have a vested interest in how we manage corporate responsibility issues, including human rights and environmental issues within our supply chain. Ensuring an ethical supply chain is paramount to our CR program.

Our CR Department, which focuses on social and environmental responsibility, reports to our Corporate Vice President of Public Affairs. Our Senior Vice President and General Counsel oversees the management of corporate responsibility-related policies, practices, and infrastructure, and delivers annual Corporate Responsibility updates to AMD's Board of Directors.

We have dedicated resources in our Public Affairs department as part of AMD's larger Legal organization. These resources handle issue identification and management, communications, CR related inquiries (investor questionnaires, ranking surveys, and customer or supplier requests), internal infrastructure, and external relationships. Our CR team also coordinates with other AMD departments such as sales, quality, and supply chain to help ensure we are effectively and efficiently managing environmental and social issues.

Corporate Responsibility Process

Our approach to CR includes the following processes:

- **Issue Management**
 - Review emerging or evolving issues to determine prospective importance to AMD and our stakeholders.
- **Materiality**
 - Conduct biennial process to confirm business critical issues. Learn about our latest [materiality assessment and the core issues](#) it defined.
- **Stakeholder Engagement**
 - Discuss issues on an ongoing basis with internal and external stakeholders and peers to determine relevance to our business and across those groups.
- **Performance Accountability**
 - Develop program or policy recommendation, support business function goal development, and review ongoing progress
- **Transparency and Disclosure**
 - Review progress against objectives and develop disclosure recommendations for corporate responsibility communications

Relevant Corporate Responsibility Policies

- [Climate Policy](#)
- [Conflict Minerals Policy](#)
- [Environment, Health and Safety \(EHS\) Policy](#)
- [Human Rights Policy](#)

Reporting Archive ([Link](#))

4. Stakeholder Engagement ([Link](#))

It's not just what our technology can do that matters to our stakeholders, but also how we responsibly develop it.

AMD's stakeholders include our workforce, customers, investors and analysts, local communities, suppliers, non-government organizations (NGOs) and others. Our success is inseparable from theirs and we strive to understand their interests, communicate clearly, be responsive and create shared value with them. And it's not just *what* our technology can do that matters to our stakeholders, but also *how* we responsibly develop it.

To have a sustainable enterprise in the long run, our stakeholders must perceive we are creating value with them; wherever possible, we look for ways to do so. For example:

Investors increasingly care about the long-term sustainability of a company and are evaluating how well a company's purpose is integrated with its value proposition, as well as the company's performance on environmental, social and governance issues. AMD is well positioned to participate in growing markets that provide important social benefits, while our size allows us to be nimble and responsive to the many opportunities in high-performance computing.

Employees want to work on compelling technology that simultaneously allows them to improve their own professional careers. We offer our employees the opportunity to work for a company that innovates and makes important contributions to the world, all while doing so ethically and with integrity. Learn more about how we engage with our employees in the [People](#) section.

Communities expect companies to contribute good jobs while being a good neighbor, an ideal we embrace in the 40-plus communities in more than 20 countries that host our facilities. More broadly, technology can enable successful communities, connecting remote locations and supporting smart cities, to name just a few examples. Our technologies can also help to bring together and support virtual communities, from gamers to doctors to scientists.

Customers are looking for more options and choice that will help them achieve their visions. AMD collaborates with our customers to co-create innovative products that meet emerging needs. Indeed, partnering with customers is how we bring to life our purpose: to enable the world's creators, researchers, inventors, and explorers to transform the lives of those around them through immersive and instinctive computing.

Suppliers help make AMD a strong business. In fact, our success is dependent on their success. We work with our suppliers to help them be their best. Learn more in the [Supply Chain](#) and [Human Rights](#) sections.

Stakeholder Panel

One of the most important ways we gain insight and understanding into our stakeholders' interests is through focused dialogue. Working with Ceres, an award-winning, non-profit group focused on business and sustainability, AMD has established a stakeholder advisory panel consisting of experts from industry partners, advocacy groups and socially responsible investment firms. We typically meet with the panel once to twice a year to share our progress against goals and to gain deeper understanding into how we can improve our corporate responsibility strategies, communication, and performance.

In December of 2018, Ceres brought together a group of technical leaders with AMD subject matter experts to have a frank conversation about the opportunities and risks presented by AI and blockchain technologies. The group discussed oversight measures, ethical considerations, energy efficiency, product security, industry partnerships and human rights as they relate to these innovative technologies. The discussion and subsequent internal reviews help to inform our ongoing strategies and considerations.

The stakeholders' input was helpful in a number of ways, particularly in identifying our salient human rights issue as freely chosen employment. Our follow-up to the panel's recommendations is discussed in the [Human Rights and Labor](#) section.

Collaboration: Punching Above Our Weight

AMD embraces collaboration and innovation in the technology sector. We recognize meaningful improvement in corporate citizenship requires collaboration on a global scale, which, when done well, can be transformative. Working with industry peers, government regulators, NGOs, and other groups allows for our collective efforts to exceed what any of us could do as individual organizations.

Community Affairs

For more than 35 years, AMD has invested money, time, and technology in organizations that help strengthen communities worldwide. Additionally, our workforce continues to make their communities a better place by donating their time, talent, and money to charitable causes. Since 1995, AMD has contributed more than \$18.2 million USD to charitable causes and our workforce has performed more than 210,000 hours of volunteer service.

AMD Foundation

AMD is built upon the value of putting people first — our customers, our employees, our neighbors, and our communities around the world. As a result, we have a longstanding heritage of investing our time, money, and technology with local organizations to help solve some of society's toughest challenges.

It is this legacy that inspired us to create the AMD Foundation to strengthen our philanthropic giving and provide focus for our more than 35-year history of community involvement.

5. Supply Chain Responsibility ([Link](#))

Our goal is to deliver high-quality products while ensuring that working conditions throughout our supply chain are safe, that workers are treated with respect and dignity, and that manufacturing processes are environmentally responsible.

AMD incorporates corporate responsibility expectations into the same business processes we use for all supplier performance – the supplier business reviews (SBRs). The SBR is the forum where senior leaders from both companies come together on a regular basis to discuss a broad range of topics relevant to our business relationship. Corporate responsibility is an integral part of these relationships and thus included in the SBR for all of AMD's manufacturing suppliers.

Manufacturing suppliers includes strategic suppliers who contribute materials that directly impact and become a part of AMD products. These include wafers, outsourced assembly and test (OSAT), direct materials (substrates, lids, capacitors, memory), and boards inclusive of components. To ensure our responsibility standards are being accomplished, we set clear expectations, ask our suppliers to report on their performance during SBRs, and review third-party audit information.

The potential for human rights and labor issues to arise in our supply chain has been identified as a core CR issue for AMD. Learn more about our perspective and how we assess and manage the issue in the [human rights](#) section.

AMD is a long-standing member of the [Responsible Business Association](#) (RBA). We have adopted the standards within the [RBA Code of Conduct](#) and expect our suppliers to conform to them. Each year, we [communicate our expectations](#) to our manufacturing suppliers for conformance to the Code, specific market regulations, and local law.

Learn more about our support for the [UN Guiding Principles](#).

Corporate Responsibility Risk Management

We track potential CR-related risks in our supply chain by five main categories: Environmental, Social, Governance, Safety and Conflict Minerals. We track all risk categories, but prioritize specific types of CR risk based on the operation, location and results of prior reviews. Our current CR risk management process covers approximately 80% of our total annual supply chain spend.

Environment, Health and Safety

AMD and our wafer Foundry suppliers have established “best-in-class” environmental, health and safety goals for AMD wafer production. The goals, which cover the bulk of AMD’s environmental footprint within our supply chain, were designed to significantly outperform industry averages across environmental and safety performance metrics.

The greenhouse gas and electricity goals are verified “science-based targets” by the Science-based Targets initiative, meaning they are aggressive enough to avoid the worst effects of climate change by helping keep global temperatures from rising more than 2 degree Celsius.

Quality Management

An extension of AMD’s customer-centric focus is the belief that customers should experience excellence when designing in, manufacturing with, or supporting systems that include AMD products.

We use a multidimensional and cross-functional approach to produce high-quality and highly reliable products. AMD’s quality management system incorporates supplier quality control, stringent raw material and manufacturing process control systems, and final testing to ensure operational consistency, efficiency, and the ability to meet customer requirements. World Class Supplier, World Class Manufacturing, customer-quality and other quality processes drive continuous improvement in all aspects related to developing, manufacturing, and supporting products.

Anti-Counterfeit

We understand the reliability and safety risks posed to end users by the presence of counterfeit semiconductors in the supply chain. Accordingly, we've established policies and practices to mitigate the introduction of suspect parts into the legitimate marketplace. This program includes enhanced supply chain security processes, authorized distribution requirements, ongoing cooperation with government and law enforcement communities in the detection and prevention of counterfeit products, and a comprehensive approach to brand protection.

Supply Chain Security

In order to safeguard product integrity AMD has established an extensive set of controls to ensure parts are securely manufactured, assembled, tested, uniquely tracked, marked, stored, and transported from manufacture to authorized distribution.

Authorized Distribution

AMD encourages purchases exclusively from authorized sources to ensure superior quality and reliability levels. After components are out of the authorized channel, there is no assurance that the component will be legitimate or functional. Any purchase of AMD parts on the open market carries with it the risk of acquiring substandard material. AMD recommends consumers and

businesses buy AMD processors only from authorized distributors and vendors. AMD's authorized locator can be found [here](#).

Government and Law Enforcement Support

AMD cooperates with governments and authorities providing support with interdiction, prosecution, and deterrence of product-related illicit activity worldwide.

Brand Protection Program

AMD's Product Investigations group manages the implementation of AMD's anti-counterfeit and anti-fraud strategies, which include measures to quickly identify, respond to, and deter illicit activity. AMD drives the 'design-in' of secured, tamper-evident product packaging along with online resources to educate consumers and advocate product authentication. AMD conducts continuous monitoring of the sales channel to ensure product and pricing integrity worldwide and enforcement of corrective actions and non-compliance protocols.

6. Core Issues ([Link](#))

AMD hired [SustainAbility](#) to support the company in updating its biennial materiality assessment to identify and prioritize environmental and social issues for its business and stakeholders. This issue prioritization project helped AMD refine its strategic focus and resource allocation, build a foundation for an updated strategy, and communicate effectively with key stakeholders.

The Issue

Like all companies, AMD has a wide range of issues that are critical to our business and to our stakeholders. It is important to focus our strategy on the issues that are especially significant to our operations – and to the impacts that we have on our customers and our communities.

In 2017, we updated our materiality assessment, which is aimed at prioritizing the most impactful environmental and social issues for our company. The process identified key areas of focus that will significantly impact the long-term sustainability of our company. The assessment helped us refine our strategic focus and resource allocation, build a foundation for an updated strategy, and communicate more effectively with key stakeholders.

While the analysis identified 12 material issues, it highlighted four core business issues to invest in.

AMD's Response

AMD updated our materiality assessment in 2017, prioritizing the most important environmental and social issues for our business and stakeholders. Defining our material issues

has enabled us to refine our strategic focus and resource allocation, build a foundation for an updated strategy, and communicate more effectively with our key stakeholders.

Overview and Key Outcomes

- Phase 1: Understand the Business
 - Landscape and business assessment
 - Internal stakeholder interviews
 - Benchmark of peer companies
 - List of issues
- Phase 2: Internal and External Engagement
 - External stakeholder interviews
 - Conduct internal interviews
- Phase 3: Materiality Meeting
 - Assessment and scoring of issues
 - Design and lead materiality meeting
 - Collate feedback
- Phase 4: Finalize Report
 - Revise and finalize materiality outputs

In **Phase 1**, the consultancy SustainAbility developed a landscape snapshot of the semiconductor sector and an overview of current sustainability action from several information technology industry companies, including Intel, Nvidia, Samsung, Marvell, and Xilinx.

This context informed the potential needs, risks, and opportunities of a sustainability strategy for our company. Issues included, but were not limited to, how digital transformation is driving changes in customer needs, the tech-specific competition for talent, and increasing stakeholder expectations for the technology sector to solve social and environmental challenges. The benchmark revealed competitors' and peers' relevant responses to addressing sustainability challenges in the field and informed the selection of a broad landscape of potentially material issues across three key areas: environment, social and governance, and tech-sector.

As a component of **Phase 2**, in November of 2016, Ceres hosted a stakeholder engagement session to gather feedback on our most critical business risks and opportunities and to prioritize material issues. The stakeholders outlined several additional potential material issues and confirmed several earlier Phase 1 findings. SustainAbility then conducted internal interviews with eight members of our executive team, including president and CEO Dr. Lisa Su, regarding the greatest sustainability opportunities and challenges as they relate to our core business. Executives highlighted several key insights during the conversations, including but not limited to growing supply chain risk and recognition of our company's size and scale relative to competitors as both an advantage (nimbleness) and a challenge (resource constraints). Executives also noted that customer expectations regarding energy efficiency, transparency, and overall sustainability performance are growing and will increasingly influence our success.

During **Phase 3**, the list of material issues was refined and consolidated to a final list of 12. SustainAbility drew on the Phase 1 research and interview findings as well as Phase 2 feedback from external stakeholders and additional desktop research, amounting to more than 30 reports and articles. SustainAbility developed a draft materiality matrix illustrating our priority issues based on stakeholder concern and impact on the business. SustainAbility then conducted a rigorous prioritization analysis of each issue according to relative business impact (reputational, operational, and financial) and stakeholder concern of relevant groups.

Results

Our material issues are noted below. All of the issues listed represent important areas that we need to manage. However, SustainAbility grouped the issues into categories to help us think through priority areas of focus that will have the biggest impact on the long-term financial sustainability of our company.

- **Core Business Issues to Invest in:**
 - Role of IT in Society
 - Data Privacy & Security
 - Human Rights & Labor Issues
 - Energy Efficiency & Climate Change
- **Key Issues for Long-term Success that Need Proactive Management:**
 - Innovation & IP Protection
 - Talent Acquisition & Retention
 - Diversity & Inclusion
 - Governance & Business Ethics
- **Areas for Stakeholder Engagement:**
 - Conflict Minerals
 - Product Lifecycle
- **Low-Risk Issues that Require Continued Attention:**
 - Water Use
 - Materials Sourcing

7. The Role of IT In Society ([Link](#))

Technology Enabling A Better World

AMD is Focused On:

- Making computing more accessible (digital access)
- Enabling more advanced research (supercomputing)
- Improving healthcare (enhanced graphics imaging/machine learning)
- Ushering a new era of data center (big data/machine learning)
- Encouraging STEM education (virtual reality)

- Strengthening the hardware/software security ecosystem (built-in secure processor features at the silicon-level)
- Reducing the operating costs and carbon footprint of computing

The Issue

We are in a new era of computing, coined by some as the Fourth Industrial Revolution, where information technology (IT) is rapidly changing many aspects of our lives. It's an era of machine learning, virtual reality, smart cities and other innovative technologies designed to improve both our lives and our communities. It offers empowerment through expanded computing access to millions of people around the world. It gives us the power to analyze massive data sets, predict outcomes, and potentially solve some of the greatest problems of our time.

Yet alongside the tremendous benefits, we are mindful that technology also brings the potential for abuse, misuse and unintended consequences. Hardware and software developers, for example, must be constantly vigilant about potential security vulnerabilities. As digital experiences become more engaging, they can foster addictive behaviors. And some innovations, such as blockchain, represent a step change in security and traceability but may come with increased energy usage.

AMD's Response

At AMD, we believe that our technology should promote and enable a more equitable, safe, and healthy world. At the same time, we make conscious efforts to prevent or minimize negative impacts from the manufacturing or use of our products. Our technologies (compute, graphics, and solutions) become the brains and engines powering the future. The opportunities for IT to enable a better world are immense, and at the core of this movement are the powerful central processing units (CPUs) and graphics processing units (GPUs) that drive breakthrough computing capabilities and visual renderings.

Because we believe our innovation is best used when it provides solutions to some of the world's toughest problems, our product developers focus on opportunities that are a good fit for our technology and customers. At the same time, we enable innovation and accelerate change by providing widespread, affordable access to high-performance computing through open architecture for application development. These approaches help us create shared value with our stakeholders.

With an estimated 20-30 billion connected devices by 2020¹, the need for secure, efficient processors is greater than ever. AMD is on-track to improve energy efficiency for mobile processing by 25x (based on 2014 levels) by 2020. And our work on heterogeneous computing (combining CPU and GPU capabilities) is bringing world-changing innovations to life — from artificial intelligence to immersive entertainment.

¹ <https://www.i-scoop.eu/internet-of-things-guide/connected-devices-2021/>

Our history is marked by a commitment to open-source innovation that's truly useful — putting the real needs of people ahead of technical one-upmanship to improve things such as healthcare, education, scientific research, commerce and entertainment. At the end of the day, it's the people behind our technology that makes AMD unique and innovative. We were founded on the principle that if you put people first, then products and profits will follow.

8. Data Privacy & Security ([Link](#))

The Issue

A confluence of changing conditions make data protection a top concern for organizations of every size and specialty. Innovations in network infrastructure have brought new capabilities through cloud computing and the Internet of Things, but have simultaneously expanded the attack surface and introduced potential vulnerabilities. At the same time, today's threat landscape continues to expand and evolve as cyber criminals devise new and better methods for exploiting security weaknesses or technological innovations.

AMD's Response

In response to the potential increase in security issues, it's no surprise that cybersecurity remains a top priority at AMD. This commitment extends across all tiers and work groups within our company—from policies that govern our corporate operations, to technologies and practices that keep our intellectual property and the information we hold safe, to products that support stronger protections for our customers.

Defending Data, Partners & Customers Against Risks

We respect and adhere to our data privacy policies and applicable laws, regulations, industry guidelines and commitments in third-party agreements. AMD's overarching policies are a cornerstone of our efforts to protect the personal information of our customers and employees, as well as the personal information we hold or process for business partners. We aim to protect our customers against unauthorized access, use or disclosure.

A continuously evolving approach to data security helps to protect assets at the IT level. We use a risk-based approach to assess AMD intellectual property and the information we hold, and apply appropriate safeguards to maintain confidentiality, integrity and availability. Advanced technologies are employed in an effort to secure proprietary and personal information wherever it resides—within physical datacenters, in the cloud or even in transit. Clearly defined training and procedures enable safe and productive collaboration across the organization worldwide.

This strategic philosophy extends to AMD engineers as well, in terms of product security. With “always-connected” computing devices and the increasing volume of valuable and protected data shared digitally, a trusted computing environment is an important fundamental necessity for any IT infrastructure. AMD strives for security-by-design in the interest of all our customers, up and down the product stack. Our processors incorporate security features at the silicon level as part of a comprehensive ecosystem of hardware and software solutions.

AMD’s Commitment to Privacy & Security

- **Data Privacy**
 - Policy level: Corporate philosophy and strategy
 - Commitment to privacy rules and best practices set forth in laws, regulations, industry guidelines and third-party agreements
- **Data Security**
 - IT level: Security operations and infrastructure
 - Risk-based approach to choice and implementation of safeguards for system and data confidentiality, integrity and availability
- **Product Security**
 - Design level: Security-by-design
 - Example: Integrated and dedicated on-chip security co-processor

9. Human Rights & Labor Issues ([Link](#))

The Issue

As a company with outsourced manufacturing resources and suppliers around the globe, we recognize the potential for human rights abuses within our supply chain. We believe these risks to be minimal within AMD’s own operations and within the two semiconductor foundries that produce wafers for us on a contracting basis and account for 65% of our supply chain spend.

Yet while our industry has made significant progress in understanding and addressing human rights issues across the value chain, we are keenly aware of the risks that persist, particularly for vulnerable populations employed by supply chain partners providing both direct and indirect materials and services to AMD². Globally, the tech sector employs hundreds of thousands of workers who may find themselves subject to potential human rights abuses, including forced or bonded labor, recruitment fees, and the retention of identity papers among migrant laborers.

AMD and many of our peer companies rely on material made from tin, tantalum, tungsten, and gold (3TG) in the manufacturing our products. These materials became known as “conflict

² AMD considers “direct” suppliers to be those companies that contribute materials that impact and become a part of AMD products, such as wafers, outsourced assembly and test (OSAT), materials (substrates, heat sinks, memory) and boards.

minerals” for being mined in areas rife with violence—first in the Democratic Republic of Congo and now in other regions under the control of armed groups.

We are also cognizant of the potential for human rights abuses once our products are in the hands of consumers. On the other hand, AMD technologies can help to enable the human rights of its end-users around the world.

Technology industry stakeholders are increasingly looking for greater transparency around human rights and labor risks within the supply chain, including results of audits and corrective actions taken to address any non-conformances.

AMD’s Response

At AMD, we strive to source our materials ethically and manage our supply chain responsibly. We aim to create high-performance semiconductor solutions while helping ensure that working conditions throughout our supply chain are safe, that workers are treated with respect, and that manufacturing processes are environmentally responsible.

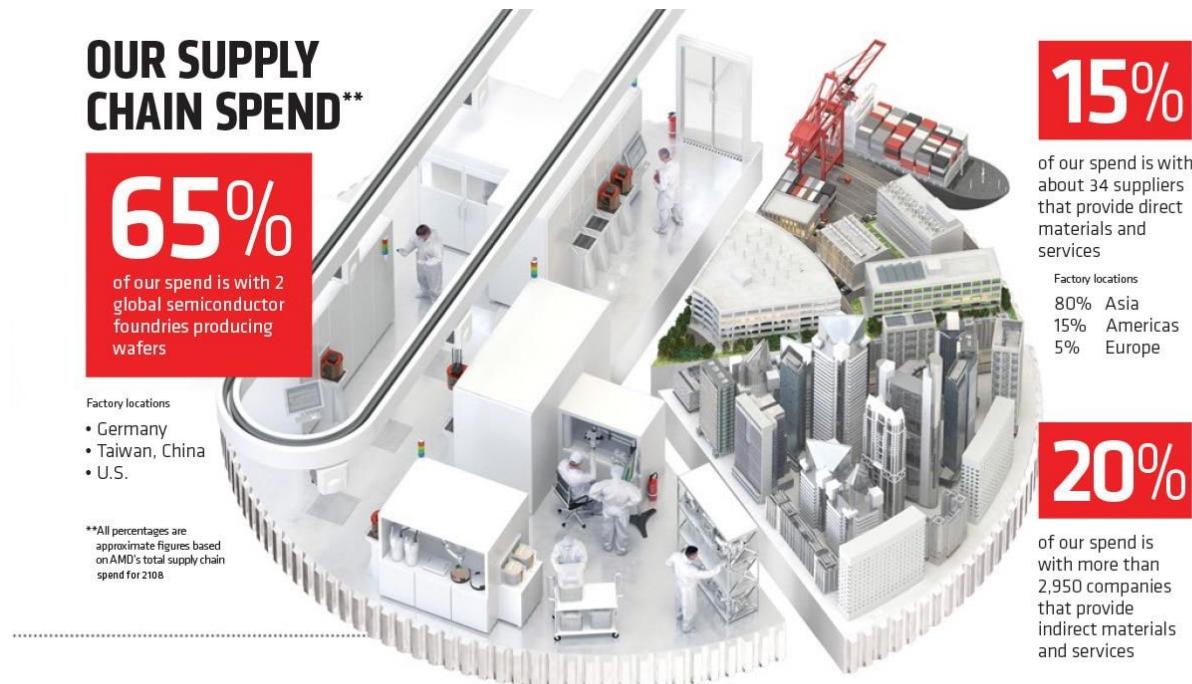
Our commitments extend to respecting the human rights of all individuals directly impacted by our company’s global operations and throughout our business relationships. We hold ourselves and our suppliers accountable for maintaining these high standards.

While our global supply chain model supports productivity and efficiency, we strive to ensure the breadth and complexity doesn’t obscure systemic issues regarding the organization and management of human workers. We have a vested stake in ensuring that our goods are produced in a humane manner—not just to meet consumers’ interest in responsible goods but also to help build sustainable economic models based on the values of human rights and global citizenship.

We work with our suppliers to focus on continuous improvement. Supplier business reviews provide a regular forum where senior leaders from both companies come together to discuss topics relevant to our business relationship. To ensure that our responsibility standards are being upheld, we ask our suppliers to extensively report on their performance, and review third-party audit information. Our base level expectation is that each supplier providing manufacturing materials and/or services to AMD will demonstrate conformance to the standards outlined in the [Code of Conduct](#) we [adopted](#), as well as any local labor, environmental, or health and safety regulations. We further expect that each supplier will, in turn, communicate to their suppliers the same expectations and implement reasonable mechanisms to monitor their compliance. Read our [Supplier Assurance Letter](#).

Our Supply Chain Spend

The graphic below highlights our supply chain spending. Learn more in the Value Chain page.



Our Responsibility

Our values and approach to human rights issues are guided by our Worldwide Standards of Business Conduct, which are intended to align with the Universal Declaration of Human Rights, the United Nations (UN) Guiding Principles on Business and Human Rights and the UN Global Compact Principles. In addition to the information provided in this section, we have prepared a response to the [UN Guiding Principles Reporting Framework](#).

Our membership in the Responsible Business Alliance (RBA) further augments our efforts. Our Corporate Responsibility and Supply Chain teams, which manage our supply chain responsibility program, meet regularly to review progress against goals and identify key concerns.

In late 2017, we identified freely chosen employment within our supply chain (e.g., no forced, involuntary or bonded labor) as a key human rights issue for focus with our suppliers in locations with a higher risk for these abuses, based on engagement with an external [stakeholder advisory panel](#) convened by the non-profit group Ceres. We recently began collecting data specific to freely chosen employment within our supply chain and plan to report on our findings.

As part of our overall business initiatives, AMD will continue to develop technologies that enable and improve more equitable access to [education](#), [digital inclusion](#), medical treatment, and advanced research, areas integral to the promotion and growth of human rights around the globe. Learn more in the [Purpose](#) section.

Learn more about [Our Approach](#).

Related Topics

California Slavery and Human Trafficking Law & U.K. Modern Slavery Act

The California Transparency in Supply Chains Act of 2010 (SB 657) (the “Act”) requires manufacturers and retailers doing business in the State of California to disclose information regarding their efforts to address the issues of slavery and human trafficking in their supply chains. AMD requires certain suppliers providing materials incorporated into our products to certify that those materials were not manufactured utilizing forced labor or illegally trafficked workers. In accordance with the requirements of the Act, AMD employs a due diligence program to identify and prevent human trafficking and slavery activities by our vendors.

The U.K. Modern Slavery Act of 2015 created two new civil orders to prevent modern slavery, established an Anti-Slavery Commissioner and made provision for the protection of modern slavery victims. AMD is supportive of these efforts to eradicate modern slavery and the summary below outlines our efforts to identify and prevent human trafficking and slavery in our supply chain.

See the [Core Issues](#) page for more information on AMD’s corporate responsibility focus.

[AMD’s Statement on Human Trafficking and Forced Labor](#)

10. Our Approach ([Link](#))

Setting High Ethical Standards

Our [Worldwide Standards of Business Conduct](#) outline our expectations for ethical conduct and human rights commitments, both for our own operations and for our suppliers. Training on these standards is required every two years for all AMD employees. Employees who manage supplier business relationships are required to take additional supply chain responsibility training courses.

In addition, we adopted the [Responsible Business Alliance's \(RBA\) Code of Conduct](#) and share those expectations with our manufacturing suppliers in our annual [Supplier Assurance Letter](#). The RBA’s Code of Conduct, which we formally adopted as our own supplier code, provides additional clarity on our expectations of our suppliers with regard to labor, health and safety, environmental, ethics and management systems.

Read our [RBA Code of Conduct Commitment Letter](#).

Human Rights Policy

Read about our hiring and related practices, as well as our anti-discrimination commitments, in our [Human Rights Policy Statement](#).

Forced Labor

As defined by the [International Labor Organization \(ILO\)](#), forced labor refers to situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as accumulated debt, retention of identity papers or threats of denunciation to immigration authorities. AMD does not permit the use of forced labor in providing our products or services, and we prohibit physical abuse or harassment and retaliation against employees reporting harassment. We strictly forbid child labor and forced/compulsory labor practices in any AMD operation or by our business partners and suppliers.

Read our statement on [Human Trafficking and Forced Labor](#) and learn more about our responses to the [California Transparency in Supply Chains Act of 2010](#) and the [U.K. Modern Slavery Act of 2015](#).

Conflict Minerals

AMD is also committed to breaking the link between the mineral trade and ongoing conflicts and human rights abuse in Central Africa. All conflict mineral smelters and refiners identified in our supply chain are either eligible, in-process or have already completed an independent audit as part of the Responsible Minerals Assurance Process (RMAP, formerly the conflict-free smelter program).¹ AMD's two primary silicon wafer foundries have all self-reported as "conflict-free".²

[Learn more about this issue.](#)

Our Process

AMD follows a "Plan-Do-Check-Act" framework to ensure that suppliers are adhering to our human rights codes of conduct.

PLAN	DO	CHECK	ACT
<ul style="list-style-type: none">• Share Expectations• Collect Data• Assess Risk	<ul style="list-style-type: none">• Engage Suppliers• Evaluate Response• Develop Corrective Action Plan	<ul style="list-style-type: none">• Monitor Corrective Actions• Analyze Effectiveness	<ul style="list-style-type: none">• Provide Feedback• Report Results

Our process includes the following elements:

Risk-based supplier assessments: As a part of our supplier management process, we assess our suppliers to evaluate their conformance to the RBA Code of Conduct. This approach includes preliminary risk assessments as well as more detailed supplier self-assessment questionnaires. The results of each method are scored utilizing the RBA scoring system to verify the suppliers' risk of non-conformance.

Supplier audits: Based on the results of the risk assessment, AMD may require a third-party on-site audit of supplier practices and management systems to evaluate supplier compliance with

applicable laws and regulations, as well as the RBA Code, including avoiding human trafficking and forced labor in our supply chain. These audits may be announced or unannounced depending on the circumstances.

Supplier assurance: Each year, AMD communicates with suppliers in writing to ensure our expectations are clear and up to date with regard to responsible social, ethical and environmental conduct. This letter establishes AMD's expectation that its suppliers comply with applicable laws and regulations, as well as the RBA Code of Conduct. Additionally, AMD's standard contractual terms and conditions for the procurement of goods and services require conformance to applicable laws and regulations, and reinforce our expectations regarding responsible social, ethical and environmental conduct.

Accountability: In addition to risk assessments and audits, AMD discusses conformance to the RBA Code of Conduct as well as related management systems with our suppliers during regular business reviews. Our supplier business reviews are the optimal venue for accountability with regard to responsible social, ethical and environmental conduct because senior management participates in these meetings and future business awards are at stake.

Training: 100% of AMD's supplier managers have completed RBA Supply Chain Responsibility training as of July 2018. AMD's suppliers have access to information and training regarding conformance expectations through the RBA's e-Learning Academy and other online resources. We also require employees who manage manufacturing supplier relationships to take specific training aimed at recognizing forced labor conditions.

AMD Standards of Business Conduct: AMD's Worldwide Standards of Business Conduct establish mandatory rules and guidelines for AMD's employees. These standards, which are substantially equivalent to the RBA Code of Conduct and specifically prohibit forced and compulsory labor practices, apply to all AMD employees. Every AMD employee has access to and receives mandatory training on these standards. In the event an employee violates these standards, AMD will take immediate and appropriate action, which may include termination of employment.

Read our Statement on [Human Trafficking and Forced Labor](#).

Supply Chain Data

Our goal is to deliver high-quality products while ensuring that working conditions throughout our supply chain are safe and that workers are treated with respect and dignity. These metrics were selected to demonstrate AMD's knowledge of our suppliers, understanding of areas for potential exploitation and the results of our risk management program.

Setting Expectations	
Manufacturing Suppliers ³ (#)	32
Manufacturing Supplier Facilities (#)	59
Supplier Assurance Letter Acknowledgements ⁴ (%)	100%
Suppliers Adopting the RBA Code of Conduct ⁵ (%)	97%
Supplier relationship managers completing RBA training ⁶	100%
Risk Management	
Self-Assessment Questionnaire ⁷ (SAQ) Completed (%)	99%
Supplier Facilities with RBA VAP Audits ⁸ (%)	39%
RBA Audit Priority Findings ⁹ (#)	1
Supply Chain Workforce Overview	
Total Workers at Manufacturing Suppliers ¹⁰ (#)	221,035
Student Workers (%)	0.5%
Young Workers ¹¹ (%)	0.9%
Foreign Migrant Workers, or FMW (%)	8.8%
Suppliers using 3 rd party Labor Brokers (#)	20 facilities/12 suppliers
SVAP Survey completion ¹² (%)	92%

AMD's supply chain risk assessment process did not identify any elevated risk for forced labor practices at our manufacturing supplier facilities in 2018.

Related Topics

³ "Manufacturing suppliers" includes suppliers who contribute materials that directly impact and become a part of AMD products.

⁴ AMD shares our expectations for supplier responsibility through an [annual assurance letter](#).

⁵ The Responsible Business Alliance (RBA) [Code of Conduct](#) is a set of social, environmental and ethical industry standards.

⁶ RBA [e-Learning Academy](#) Supply Chain Responsibility (SCR) training – parts 1, 2 and 3.

⁷ The RBA provides its members with a risk assessment template that they may use called the [Self-Assessment Questionnaire](#) (SAQ)

⁸ The RBA [Validated Assessment Program](#) (VAP) is the leading standard for onsite compliance verification and effective, shareable audits.

⁹ Where VAP audits uncover non-compliances to the protocol, those findings are rated by severity as "minor," "major" or "priority."

¹⁰ As reported by each manufacturing supplier through their annual SAQ.

¹¹ Any worker under the age of 18, but above the national minimum working age for the facility location.

¹² The RBA [Supplemental Validated Audit Process](#) (SVAP) is a program based exclusively on identifying the risk of forced labor at an Employment Site (e.g., factory) or Labor Provider (e.g., labor agent or recruitment agency).

California Slavery and Human Trafficking Law & U.K. Modern Slavery Act

The California Transparency in Supply Chains Act of 2010 (SB 657) (the “Act”) requires manufacturers and retailers doing business in the State of California to disclose information regarding their efforts to address the issues of slavery and human trafficking in their supply chains. AMD requires certain suppliers providing materials incorporated into our products to certify that those materials were not manufactured utilizing forced labor or illegally trafficked workers. In accordance with the requirements of the Act, AMD employs a due diligence program to identify and prevent human trafficking and slavery activities by our vendors.

The U.K. Modern Slavery Act of 2015 created two new civil orders to prevent modern slavery, established an Anti-Slavery Commissioner and made provision for the protection of modern slavery victims. AMD is supportive of these efforts to eradicate modern slavery and the summary below outlines our efforts to identify and prevent human trafficking and slavery in our supply chain.

- [California Transparency in Supply Chains Act of 2010](#)
- [U.K. Modern Slavery Act of 2015](#)

11. Energy Efficiency & Climate Change ([Link](#))

The Issue

Current global temperatures are rising at a rate unprecedented in recorded human history, largely due to greenhouse gases (GHGs) produced by human activities, with 17 of the 18 warmest years on record having occurred since 2001.¹³ Temperatures are rising 10 times faster than during previous periods of warming and they are predicted to rise 20 times as fast in the next century.¹⁴

The information and communication technology (ICT) sector has an important role to play to address concerns associated with GHG emissions. On one hand, it is estimated that the ICT sector contributes 2 to 2.5 percent of global GHG emissions. The industry, however, has significantly improved the energy efficiency of computing devices. Meanwhile, ICT-enabled solutions (for example smart grids, smart buildings, smart logistics and industrial processes) are helping to transform the world toward a more sustainable and energy-efficient future.

AMD’s Response

We envision a world where technology minimizes environmental impacts while advancing economic growth. We recognize the need to significantly reduce the energy consumption and GHG emissions that result from making and using technology devices. In addition, we envision

¹³ <https://climatechangetshirts.org/2019/02/14/nasa-the-last-5-years-hottest-on-record/>

¹⁴ <https://www.earthobservatory.nasa.gov/Features/GlobalWarming/page3.php/>

more technological solutions that help avoid more GHGs than they generate through greater efficiency of connected devices.

We see an important role for technology in the innovations required to develop and implement solutions at scale – from enabling a more energy-efficient economy to supporting sustainable approaches across geographies and value chains. As designers of microprocessors during a period of amazing growth in technology, we embrace the responsibility to protect our planet and the opportunity to help others save energy.

Building on over 20 years of advancing environmental protection and reporting, our ambitious 2020 climate goals span AMD's value chain and have been verified by the Science Based Targets Initiative.¹⁵ We are steadfast in our commitments to environmental stewardship—whether it's by sourcing renewable energy for our offices, demonstrating best-in-class manufacturing with wafer suppliers¹⁶, or efficiently powering millions of AMD-enabled devices. While we're very proud of the progress we've made, we believe the greatest advancements are still ahead. For example, if we achieved our 25x20 energy efficiency goal in 2020, that would mean an AMD-powered laptop would consume 1/5th the power and accomplish a task on average in 1/5th the time as one produced in 2014.¹⁷

Recognizing no company can effectively address climate change alone, we actively collaborate with industry, government, academic, and non-profit partners. Working together, we can help solve the world's climate challenges—by sharing what we learn, setting bold goals, and striving for continuous improvement.

For example, AMD supports global commitments and initiatives aimed at addressing climate change, including the United Nations' Sustainable Development Goal 13 to take urgent action to combat climate change and its impacts. In 2017, we pledged that "[We Are Still In](#)," signaling our support for the Paris Agreement to unite efforts to maintain the global temperature rise this century below 2 degrees Celsius above pre-industrial levels.

Looking forward, we aim to evolve our ambitions to support not just slowing climate change by reducing GHG emissions, but ultimately collaborating with the industry to help reverse the trends and lead towards a more stable climate. Many sectors – including those in both our supply chains and our customer markets – will have a role to play, and we consider this a potentially significant opportunity for our long-term business.

Achieving sustainability is not only attainable, it's imperative.

¹⁵ www.sciencebasedtargets.org/companies-taking-action

¹⁶ AMD has environmental, health and safety goals with our wafer foundry suppliers designed to significantly outperform industry averages (e.g., 40-75% better than average), based on a normalized manufacturing index (Sq. cm of silicon x masking layers x wafers per year).

¹⁷ See www.amd.com/25x20 for information on the calculation methodology.

Technology Enabling A Better World

A Clear Path - AMD'S 2020 Climate Commitments

Products: 25x improvement in performance-per-watt for mobile processors¹⁸

Operations: 20% reduction in GHG emissions (scope 1 & 2)¹⁹

Supplier Manufacturing: 75% lower GHG emissions (scope 1) and 40% lower electricity use annually, compared to industry average²⁰

12. Conflict Minerals ([Link](#))

AMD is taking steps to break the link between the trade in minerals and ongoing conflict and human rights abuses in Central Africa.

Overview

The Democratic Republic of Congo (DRC) has been the site of one of the world's worst humanitarian crises throughout the last decade. Illegal armed groups and some Congolese national military units regularly commit human rights abuses while being supported by the trade of minerals. Some have linked this egregious situation to the trade in raw minerals from the DRC, spotlighting the uses of minerals in everyday consumer products. Conflict Minerals generally consist of tin, tantalum, tungsten, and gold (collectively known as 3TG) determined to be financing conflicts in the DRC or an adjoining country. For the purposes of this policy, AMD uses the definition of "Conflict Minerals" found in the SEC conflict minerals rule.

AMD is committed to achieving conflict-free certified sourcing of materials used in products. AMD is a founder of the [Public-Private Alliance \(PPA\) for Responsible Minerals Trade](#), which is focused on helping the DRC and other governments in the region break the link between the illicit minerals trade and the ongoing violence and human rights abuses; and an active participant in the [Responsible Minerals Initiative](#) ("RMI"), which oversees independent third-party audits of smelters and refiner procurement and processing activities to determine if the smelter or refiner processes Subject Minerals originating from conflict-free sources.

AMD believes that an effective approach has three fundamental elements:

- A mineral certification program that enables the traceability and certification of minerals mined in the Democratic Republic of the Congo and adjoining countries (the "DRC region");

¹⁸ Typical-use Energy Efficiency is defined by taking the ratio of compute capability as measured by common performance measures such as Cinebench and 3DMark 11, divided by typical energy use as defined by ETEC (Typical Energy Consumption for notebook computers) as specified in Energy Star Program Requirements Rev 6.1 10/2014. See www.amd.com/25x20 for complete footnotes.

¹⁹ 2014 goal baseline GHG emissions (scope 1 and 2) are 52,183 MTCO2e, and 2020 GHG goal target is 40,289 MTCO2e

²⁰ AMD has environmental, health and safety goals with our wafer foundry suppliers designed to significantly outperform industry averages (e.g., 40-75% better than average), based on a normalized manufacturing index (Sq. cm of silicon x masking layers x wafers per year).

- A conflict-free smelter program that enables third-party validation of each smelter's sourcing practices and a determination of whether its sources are conflict-free; and
- Due diligence to verify that tin, tantalum, tungsten, and gold in AMD's finished products can be traced to a certified conflict-free smelter.

AMD adopted the Responsible Business Alliance's (RBA) Code of Conduct and shares those expectations with our manufacturing suppliers in our annual Supplier Assurance Letter. AMD suppliers shall not knowingly, through trade in Subject Minerals, directly or indirectly, finance or benefit armed groups in the DRC region.

[Read our Conflict Minerals Policy Statement.](#)

Multi-Stakeholder Dialogue on Conflict Minerals

AMD has been a leader in bringing together NGOs, companies, and socially responsible investors on the conflict minerals. We actively participate in the Responsible Minerals Initiative (RMI), and we were a founder and supporter of the Public-Private Alliance (PPA) for Responsible Minerals Trade. We have also engaged with the U.S. State Department on helping the DRC and other governments in the region reduce conflict and improve security. These efforts, combined with tracking materials through our supply chain, are aimed at helping to bring lasting peace and prosperity to this troubled region.

Current Status

AMD works with our suppliers to identify the smelters and refiners (SORs) of origin within our supply chain for Subject Minerals utilizing the standardized tracing processes developed by the RMI and to transition over to conflict-free sources. AMD collected 100% of Conflict Minerals Reporting Templates (CMRTs) from our active suppliers for 2018. AMD then compares the list of alleged SORs from its supplier submissions with the Responsible Minerals Assurance Process's (RMAP) list of [Conformant Smelters & Refiners](#). Given that SORs are several steps removed from AMD, full understanding of the conflict status of the Subject Minerals in our supply chain will take some time.

Minerals ²¹	Smelters or Refiners (#, %)
<ul style="list-style-type: none"> • Tantalum: 100% Compliant • Tin: 100% Compliant • Tungsten: 100% Compliant • Gold: 98% Compliant, <2% RMAP-eligible 	<ul style="list-style-type: none"> • RMAP Compliant: 241, 99% • RMAP Eligible: 1²², <1% • Total: 242, 100%

²¹ Based on information provided to AMD by our manufacturing suppliers and the Responsible Mineral Initiative (RMI) as of March 31, 2018

²² *Elemetal Refining, LLC: RMAP dispositioned as Non-Conformant on 4/18/2017 due to the facility ceasing operations with no indication of reopening operations. Non-conformance is the result the facility's failure to renew its audit status, because it ceased operations (not the result of discovering evidence that implies unethical sourcing contributing to conflict groups within the DRC and its adjoining countries).

100% of conflict mineral smelters or refiners identified in AMD's supply chain have been independently audited, are in-process, or are eligible to participate in the RMAP audit process.

AMD's primary silicon wafer foundries are conflict-free.²³

100% of conflict mineral smelters or refiners identified in AMD's supply chain have been independently audited, are in-process, or are eligible to participate in the RMAP audit process.

[Download AMD's 2017 Form SD Conflict Minerals Disclosure and Report](#)

Supplier Engagement

AMD suppliers shall not knowingly, through trade in Subject Minerals, directly or indirectly finance or benefit armed groups in the DRC region:

1. AMD suppliers shall have documented policies and procedures to demonstrate that the Subject Materials they procure are sourced in accordance with this policy; and
2. AMD suppliers, to the extent reasonably practicable, shall trace the Subject Minerals they supply to AMD to a smelter certified under the Responsible Mineral Initiative's [Responsible Minerals Assurance Process](#) (RMAP).

Dodd-Frank

In an effort to break the link between minerals trade and conflict in the DRC, a provision of the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") requires certain companies using any of four minerals (tin, tantalum, tungsten and gold) to identify their mine of origin. By tracking and publicly reporting this information, the public can choose products that have no link to the conflict in Central Africa (in other words, are "conflict-free"). Through transparency and market pressure, the goal of the policy is to reduce or eliminate funding to armed groups creating conflict in the DRC.

Regulatory Requirements

The Securities and Exchange Commission (SEC) issued a final rule for tracking conflict minerals on August 22, 2012. This rule sets out the due diligence and reporting requirements for U.S. public companies for tracing the sources of tin, tungsten, tantalum and gold that are necessary to the functionality or production of their products. If these conflict minerals are found to originate from the DRC or an adjoining country (the "DRC region"), companies may be required to file an independently audited report with the SEC.

13. People ([Link](#))

²³ Based on silicon wafers received from GLOBALFOUNDRIES and TSMC as of March 31, 2019

Overview

At AMD, our goal is to be an employer of choice, with passionate, innovative, fully engaged employees. To achieve this goal, we need a strong culture that reaches across all aspects of our business.

Our founder's guiding direction was "People first, products and profits will follow." And that remains true to this day. Our success as a company is dependent on the people who design and manufacture our technology, as well as the people who use it.

Our success also is linked to the success of the communities where our operations are based. For more than 38 years, AMD has invested money, time, and technology in organizations that help strengthen communities worldwide. Additionally, our workforce continues to make their communities a better place by donating their time, talent, and money to charitable causes.

Health & Safety

Our workforce injury and illness case rate has been steadily declining over the last several years, largely due to an increased focus on training and early reporting of injury and illnesses. Given our emphasis on reporting injuries, our rates are significantly better than the industry average. AMD's worldwide case rate for 2018 was 0.06 (per 100 workers) and OSHA's 2016 Private Industry case rate was 3.0, according to the CEB. The majority of employee injuries are ergonomic related and are the result of our high computer use. Priority has been given on prevention by training everyone on proper ergonomic principles and practices, identifying and addressing ergonomic issues, standardizing furniture, and ergonomic evaluations. [See our Health and Safety data.](#)

We also have established best-in-class health and safety goals for our two wafer foundry suppliers aimed at outperforming industry averages across safety performance metrics.

For more than a decade, our Global Environmental, Health and Safety (EHS) Standards have established excellence as the benchmark for AMD sites around the world. In addition to requiring all our facilities to meet applicable local, regional, and national requirements, our standards go beyond legal parameters and establish best-in-class practices to protect employee safety and health. Health and safety related areas addressed under the Global EHS Standards include injury and illness prevention, employee well-being, ergonomics, emergency preparedness and response, and electrical, equipment, and chemical safety.

Winning the Competition for Talent

Currently in the U.S. technology industry, there is intense competition for talent, with companies vying to attract and retain the skilled individuals who will help them achieve their long-term goals.

We support our employees with competitive benefits including excellent compensation, health care, health and wellness initiatives, employee assistance programs, tuition reimbursements and more. Investing in our employees and their career development is not only the right thing to do; it is the smart thing to do.

We provide a wide array of technical, management, and leadership training programs and have developed a pay-for-performance process that encourages, recognizes, and supports high-performing individuals and teams.

Under our pay-for-performance philosophy and guiding principles, we not only reward those team members who demonstrate the highest level of contribution to the company, we also reward those who continually improve their capabilities. This ensures that rewards are differentiated based on the impact the employee's performance has on the company as well as how they get their work done.

Our talent management activities support the complex and dynamic nature of our business, but our goal is simple: deliver our strategy by having the right talent in place now and in the future. Throughout the year, our CEO and senior executives hold cross-functional discussions about our top talent and the leadership and technology skills our business requires.

Surveying Our People

AMD employees are our most important stakeholder group. We know that employees are increasingly seeking employers with values matching their own. We periodically survey our employees worldwide to understand their overall satisfaction, specifically asking them about their impressions of our corporate responsibility programs. Our most recent survey was completed in 2018. We invited 100 percent of our employees to participate and 97 percent responded, up from 94 percent the previous year.

The survey consisted of 56 questions in seven areas:

- **Capability** – Are we directing engagement in the most positive way with the right enablers and tools?
- **Focus** – How successfully do we help employees see the connection between their work and AMD's goals?
- **Confidence** – What is the current state of energy, pride and optimism in our workforce?
- **Culture** – How well do we build capabilities in our culture to grow our business?
- **Leadership** – Are leaders engaging hearts and minds with day-to-day interactions and decisions?
- **Next 5%** – Are we driving continuous improvement and enabling innovation by encouraging employees to take appropriate risks and challenge the status quo?
- **Diversity & Inclusion** – How well do we respect and include voices from different backgrounds, talents, and perspectives in our day-to-day interactions?

According to survey results, 83 percent of respondents agreed with the statement “I am proud of my company’s involvement in the community and social causes,” up from the 79 percent the previous year. Employees report an inclusive culture, but there remains room to improve on feeling safe to take risks. We will continue to develop our culture so that employees feel safe to challenge the status quo, voice dissenting opinions, and take calculated risks.

Engaging Through Employee Resource Groups (ERGs)

ERGs encourage employee engagement and are an important part of our company’s culture. While we had affinity groups for years – most notably the AMD Women’s Forum – we introduced a corporate ERG policy in 2016 to clarify the process and encourage the formation of other groups.

Our ERGs include the following:

- **AMD Go Green** – AMD Green Teams, which have been formed in several locations, aim to educate and inspire AMDers around the globe to conserve resources, save money, and improve the environment.
- **AMD Pride** – The mission of the Lesbian, Gay, Bisexual, Transgender (LGBT) and Allies of AMD Pride is to promote a positive and inclusive environment for the entire workforce, regardless of sexual orientation or gender identity, through education, networking, and workplace collaboration.
- **AMD Women’s Forum (AWF)** – The AWF strives to build a respected and innovative company through the collaboration and contributions of women.
- **uAMD** – An online learning and development community for all AMDers to gain and share knowledge on industry practices, research, daily tasks and internal expertise.
- **AMD Caregivers** – The AMD Caregivers mission is for every needful individual to have the essential tools to alleviate the challenges of caring for a loved one or a pet.
- **AMD Salute** – Provide awareness and support to current and former military, transitioning military, military spouses, dependents, general supporters of the armed forces globally.
- **Impacto** – Provide an inclusive environment where Latin American/Hispanic members have the chance to develop their talents and have the tools that they need to thrive in the workplace.

Learn about our [Human Rights](#) policies.

Global Inclusion

Innovation, which is at AMD’s core, occurs when creative minds and diverse perspectives are drawn from all over the world. Diverse teams, when managed in a culture of inclusion, are more creative, more productive, better at problem solving, and ultimately more profitable.

AMD is a workplace where all voices can be heard, and our multi-voice initiative encourages and support all AMDers who champion, and when needed, challenge and change our company culture with their unique perspective. AMD is growing a diverse, inclusive workforce that

embraces different perspectives and experiences to foster innovation, challenge the status quo when needed, and drive business performance. Building a diverse talent pipeline, encouraging a culture of respect and belonging, and increasing inclusion of under-represented groups, makes AMD stronger. By encouraging others to bring their whole selves to work, we will elevate our talent and improve business outcomes.

We recognize the challenge of increasing representation of women in engineering and other roles. We will continue our efforts to recruit diverse talent and foster an inclusive and innovative culture, where the best ideas “win” regardless of the individual’s identity. Since 2016 AMD has published the gender composition of our engineering and management teams on a recurring basis. We are constantly striving to improve our gender and diversity numbers, as is the case across the technology sector. We have committed to this by working to reduce unconscious bias in the workplace, educating our global workforce to the power of multiple voices in the interviewing and promotions process, and ensuring that every AMDer across the globe has the opportunity to amplify their unique voice to contribute to AMD’s success.

See our gender, diversity, and other [employee-related data](#).

Equal Opportunity Employment

In compliance with applicable laws and regulations, AMD employee policies, processes, and decisions are developed and implemented to promote equal opportunity without regard to age, ancestry, color, marital status, medical condition, mental or physical disability, national origin, race, religion, political and/or third-party affiliation, gender, sexual orientation, gender identity, or veteran status.

Workplace Focus

Employee Education and Training

The AMD Competency Model, centered on the enduring AMD values, is the foundation for our training and development programs. This model matches business roles with needed competencies and behaviors for all levels of the employee population. We provide a wide array of technical, management, and leadership training programs. In addition to traditional instruction methods, employees have access to a variety of e-learning opportunities through internally and externally developed courses.

Employee Performance Management

AMD’s pay-for-performance process creates a work environment that encourages, recognizes, and supports high-performing individuals and teams. Under our pay-for-performance philosophy and guiding principles, we not only reward those team members who demonstrate the highest level of contribution to the company, we also reward those who continually improve their capabilities.

Talent Management

AMD's talent management activities support the complex and dynamic nature of our business, but our goal is simple: deliver our strategy by having the right talent in place now and in the future. Throughout the year, our CEO and senior executives hold cross-functional discussions about our top talent and the leadership and technology skills our business requires. When skill gaps are identified, we turn first toward developing our top talent because we know that building their skills ensures our future.

Total Rewards

Our vision is that AMD's total rewards offerings are well understood and motivating for employees. They are designed to complement and help advance the goals of the company as well as its shareholders. We strive to offer rewards that are market competitive and business driven. We differentiate by performance offering the greatest rewards to the high performers. Employee compensation is established in accordance with local laws, and often adjusted for talent in high demand. Global compensation programs include equity and bonus plans. AMD also promotes a learning environment through educational programs such as tuition assistance and internal employee and management development classes. The company's competitive portfolio of employee benefits includes country-specific program offerings, such as comprehensive healthcare coverage; retirement savings programs in which investments are directed by the employee and partially matched by the company; holiday and vacation time; life and disability insurance; and a variety of work/life balance programs including family care and global parental leave and alternative work plans. Our employees also benefit from various types of employee assistance programs to help resolve personal and professional issues. These employee benefits programs meet and often exceed the benefits required by applicable laws and regulations.

Health & Wellness

Our Wellness@Work program helps our employees and family members get and stay healthy. This program focuses on maintaining healthy weight, eating right, exercising more, and avoiding tobacco to improve quality of life and reduce healthcare costs.

14. Planet ([Link](#))

Overview

At AMD, we believe technology plays an important role in ensuring a clean and connected world for future generations. Achieving sustainability is not only attainable, it's imperative. We are steadfast in our commitments to environmental stewardship—whether it's by sourcing renewable energy for our offices, demonstrating best-in-class manufacturing with wafer suppliers, or efficiently powering millions of AMD-enabled devices.

As designers of microprocessors during a period of amazing growth in technology, we embrace the responsibility to protect our planet and the opportunity to help others save energy and reduce greenhouse gas (GHG) emissions. AMD's initiatives to manage [environmental performance](#) extend across our value chain, including [AMD operations](#), [supply chain manufacturing](#), and [product stewardship](#). We set ambitious goals, including verified science-based targets, and publicly report on our progress annually. The engagement and support from our suppliers, customers, investors, and [employees](#) worldwide are important to advancing our sustainability efforts.

[Learn more about our perspective on climate change and energy efficiency](#)

Our Goals and Progress

Value Chain Stage	2020 Goal		2018 Performance	Status
AMD Operations	Reduce absolute GHG emissions by 20% from a 2014 baseline (scope 1 & 2)		13% below 2014 baseline	●
Wafer Suppliers	GHG emissions (scope 1)	75% below SIA average per MI ²⁴	71% below SIA average per MI	●
	Electricity use	40% below SIA average per MI ¹⁶	20% below SIA average per MI	●
	Water use	40% below SIA average per MI ¹⁶	34% below SIA average per MI	●
	Hazardous waste recycling rate	65% or higher	54% recycling rate	◆
	Injury and illness rate	Reduce year over year	17% below 2017 rate	●
Product Use	Deliver at least 25x more energy efficiency in our processors for mobile products, from a 2014 baseline ²⁵		See trendline at www.amd.com/25x20	●

Key: ● On Track ● Challenged ◆ At Risk

²⁴Based on an industry-standard measure of production called a manufacturing index (MI = square centimeters of silicon x masking layers x wafers per year) by comparing the Semiconductor Industry Association (SIA) average MI to AMD's MI for 2018.

²⁵ See trendline and more information at www.amd.com/25x20

Managing AMD's Environmental Performance

AMD's commitment to environmental stewardship is reflected in our long-standing corporate values and culture. For over twenty years, AMD has been transparently reporting on our environmental initiatives and performance. While our business models and strategies have changed, our fundamental commitment to environmental stewardship remains consistent.

As a semiconductor design company with no manufacturing operations, AMD tracks and reports performance for our own operations as well as supply chain manufacturers, the latter of which represent the majority of AMD's overall value chain environmental impacts.

Learn more about how we manage environmental issues:

- [EHS Policy](#)
- [Climate Change Policy](#)
- [GRI Index](#)

Operations

AMD operates in over 40 locations in more than 20 countries, including R&D facilities, data centers, and international sales offices. Across our facilities and the local communities in which we operate, we strive to apply the highest level of integrity and stewardship for environmental performance.

When reporting performance for our operations, we note the last year-over-year change as well as a comparison to a 2014 baseline, which was the first year all environmental data from manufacturing AMD products was reported under supply chain due to a divestiture of AMD manufacturing operations.

Energy and GHG Emissions

Within our operations, our campuses and data centers account for the greatest energy use and associated GHG emissions. To manage related impacts, we source renewable energy and implement energy conservation projects, such as equipment upgrades or optimizations.

In 2018, performance against our 20% GHG reduction goal by 2020 continues to be strong, with scope 1 and 2 emissions 13% below the 2014 goal baseline, and 1% below 2017. We have reduced energy use by 19% since 2014 and 6% from 2017-2018. In 2018, AMD sourced renewable energy credits in the U.S. (Green-E certified wind), as well as in China (iRECs wind) which represented 27% of global energy use, enough to power approximately 3,328 homes in the U.S. for a year.²⁶

²⁶ Based on 27,000 MWh of renewable energy credits, and EPA Greenhouse Gas Equivalencies Calculator - <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Water

In 2018, water use in AMD's own operations increased by 3% since 2014 and by 25% since 2016. The majority of water use is due to datacenter load and cooling requirements, as well as higher temperatures at our sites and related irrigation use. AMD sites collect rainwater and reuse gray water at facilities in Austin, Texas, and Bangalore and Hyderabad, India.

Waste and Effluents

We manage effluents and waste at AMD operations, including water discharges and hazardous and non-hazardous waste. In 2018, wastewater was measured at one site with a wastewater permit, Austin, Texas, with volumes for the site decreasing by 10% since 2014 and increasing by 12% since 2017.

AMD's non-hazardous waste diversion rate, or the amount kept out of the landfill, was 65% in 2018, compared to 69% in 2017. A small amount of regulated hazardous waste, 2.5 metric tons, was generated in 2018, compared to 8 metric tons in 2017.

2018 Operational Performance Summary

Compared to 2014 baseline:

- Energy: 19% reduction
- GHG emissions: 13% reduction
- Water: 3% increase
- Non-hazardous waste diversion: 10 percentage points below (from 75% to 65%)

See [data tables](#) for time-series data and footnotes.

Supply Chain

Silicon wafer manufacturing represents the bulk of AMD's environmental footprint within our [supply chain](#). Starting in 2014, we partnered with our wafer suppliers to establish "best-in-class" environmental, health, and safety (EHS) goals for AMD wafer production. These goals were designed to significantly outperform industry averages across EHS performance metrics. Each quarter we track progress toward these goals, which cover energy, GHG emissions, water, hazardous waste recycling, and injury and illness rates.

Outsourced assembly and test (OSAT) facilities, located in China; Malaysia; Taiwan, China; Korea and other regions, also contribute to our supply chain footprint. AMD works with these suppliers annually to track and compare environmental impacts related to manufacturing AMD products.

AMD communicates our expectations to all suppliers that they meet all applicable laws and regulations, as well as the Responsible Business Alliance (RBA) Code of Conduct. Learn more in the [supply chain](#) section.

Energy and GHG Emissions

GHG emissions are generated at wafer manufacturing facilities directly from fuel use (scope 1) or indirectly from electricity generation (scope 2). In 2018, our foundry partners significantly outperformed industry averages for GHG emissions and electricity use by 71% and 20% respectively, based on a manufacturing index.²⁷

Water

Across AMD's value chain, the highest use of water and generation of effluents occur at the contracted wafer manufacturing stage. AMD works closely with our foundry wafer partners to understand water risks at the locations where AMD products are manufactured and to track and manage water use. This includes a public goal to maintain water use to 40% below the industry average based on a manufacturing index.¹⁶ In 2018, these foundries were 34% below the industry average.

Waste

To address our supply chain waste generation, we established a public goal to recycle 65% or more of hazardous waste at the wafer manufacturing stage. During 2018, our contract wafer manufacturers achieved a 53% recycling rate, compared to a 54% rate during 2017. AMD continues to work with the partner that did not meet the goal to implement improvement opportunities.

World-Class Manufacturing Performance

AMD's wafer manufacturing partners, TSMC and GLOBALFOUNDRIES, have received notable recognitions over 2017 and 2018. TSMC has been recognized for the 17th consecutive year as a member of the Dow Jones Sustainability Index, and was selected as one of the Global 100 Most Sustainable Companies by Corporate Knights.

GLOBALFOUNDRIES has achieved ISO 14001 for a global environmental management system, ISO 50001 certification for its energy management system at Fab 1 in Dresden, Germany, LEED Silver® certification for the Fab 8.1 fabrication facility in New York, as well as LEED Gold® certification at Fab 8 Admin 1 and 2 buildings.

Product Stewardship

²⁷ MI=Manufacturing Index: Sq. cm of silicon x masking layers x wafers per year.

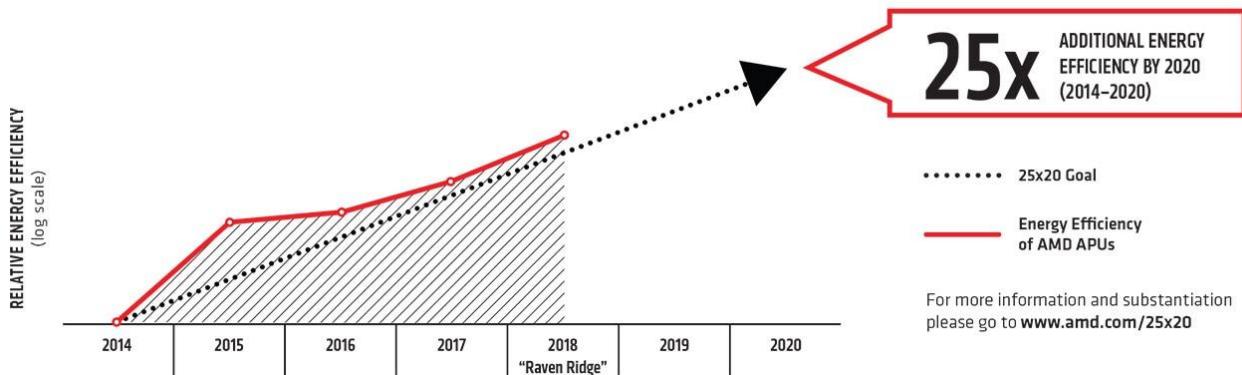
We design innovative technologies that power millions of intelligent devices, from personal computers to cloud servers and more. We strive to create products that improve people's lives while minimizing environmental impacts and energy use.

Product Energy Efficiency

Maximizing the computing performance delivered per watt of energy consumed is a vital aspect of AMD's business strategy. Our cutting-edge chip architecture, design, and power management features have resulted in unprecedented energy efficiency gains that outpace traditional industry trends.

Now we are taking it to a new level. With our aggressive goal of [25x20](#), we aim to exceed historic energy efficiency gains in our mobile processors by as much as 70% in the year 2020. Features from these innovative designs are utilized across other product categories, including graphics and servers. Our 25x20 goal means that, in 2020, if achieved, an AMD powered laptop will consume one-fifth the power and accomplish a task in one-fifth the time as an AMD powered laptop produced in 2014.

AMD remains on-track to meet this [goal](#), which has received multiple leadership [recognitions](#) in 2017-18 including the California Governor's Environmental and Economic Leadership (GEELA) Award, an Edison Award, and an Energy Manager Today Award.



"AMD's focus on improving typical-use power efficiency will likely yield significant consumer benefits, substantially improving real-world battery life and performance for mobile devices."

— [Dr. Jonathan Koomey](#), a world-renowned expert on computing efficiency

Reducing Hazardous Substances

AMD is committed to compliance with international laws and regulations and recognizes our role in protecting the environment by restricting the amount of hazardous substances in our products. AMD works with customers and suppliers to implement chemicals management, and

to address industry standards targeting lead, and other chemicals of concern for electronic products.

For more information please visit our [Product Environmental Compliance](#) page.

Product Packaging

Packaging can refer to the materials used to ship our products as well as the protective coating around a semiconductor chip. The focus of this section is on packaging materials used for shipping and handling our products. AMD specifies the packing materials used for our products, including recyclability of materials and use of recycled content. AMD offers packaging that meets the requirements of the EU Packaging Directive (94/62/EC), as amended. In 2018, 100% of our packaging was made of recyclable materials, such as paperboard. Our packaging designers continuously seek out environmentally preferable packing materials, including recycled materials and non-toxic dyes. In 2019, our redesigned packaging for select products reduces raw material usage by approximately 50 percent, as well as reduces shipping fuel use and emissions per unit.

Lifecycle Management

AMD products help extend the life of computing platforms, thus reducing electronic waste. In many cases, AMD chips are “backwards compatible” with previous generation AMD chips.

Developing an Innovative Packaging Solution

To celebrate the launch of the Ryzen™ processors, AMD engaged WOODCHUCK USA, a high-end custom wood products designer and manufacturer, to create a commemorative box to deliver to 500 reviewers. These sustainable, walnut boxes were the ideal packaging solution to present its new Ryzen™ 7 processors, along with motherboard and memory.

The box is part of WOODCHUCK USA's "Buy One. Plant One." Program where a tree is planted for every item the company makes and sells in order to promote forest growth and biodiversity. It takes about one adult tree to create 1,500 to 3,000 units of their various products, therefore they are replenishing forests at a rate up to 3,000 times their tree usage. As of July 2018, WOODCHUCK USA estimates this program has facilitated the planting of more than 1.3 million seedlings.²⁸

AMD was proud to work with WOODCHUCK USA on this project that is not only sustainable but also regenerative.

Employees and the Environment

²⁸ Estimate based on – <https://www.woodchuckusa.com/pages/buy-one-plant-one>

Our award-winning, global employee environmental program, Go Green, engages and inspires AMD employees to reduce their environmental impact and improve their quality of life through sustainable practices. AMD's Go Green program targets three areas where employees can make a difference and help the environment: at home, during their commutes to and from work, and in the workplace.

Home

AMD encourages employees to pursue sustainability at home through the annual Eco-Challenge in October (see below). For example, the AMD Employee Solar Program provides free home solar assessments, an online porthole for competitive bidding, and a \$1,000 discount on home solar system installations. Since launching in 2014, AMD employees have generated 357,000 kilowatt hours of solar power, equal to avoiding approximately 132,000 kilograms of GHGs from burned coal.²⁹

Commute

AMD encourages employees to use alternative transportation (i.e., rideshare, transit, cycling) when commuting to and from work and provides incentives such as discounts to bike shops, pre-tax purchases of transit and vanpool passes, carpool matching and parking, and telework. Each September, AMD promotes Commute Solutions Month to encourage AMDers around the globe to try sustainable commuting options. In addition, AMD's electric vehicle (EV) charging stations at North American sites support over 150 employee EV drivers and have generated 1 million kWh of charging since 2010, equivalent to avoiding 185,000 kilograms of GHG emissions from fuel use or planting 6,800 trees and letting them grow for 10 years.

Work

At the office, Go Green participants are encouraged to get involved in what AMD is doing as a company to advance sustainability and contribute as individuals. AMD supports the formation and development of employee-led Green Teams, now at approximately 15 sites worldwide. Each year, employee-led volunteer initiatives raise awareness and help the environment in the local communities where AMD operates. For the 4th Annual AMD Cares Day of Service in 2018, 2,350 AMD volunteers at 20 sites globally participated in community volunteer events including park and coastal clean-ups, tree plantings, recycling education events, e-waste drives, sustainable farm plantings, and more.

2018 results include:

- 224 bags of litter cleaned from the environment
- 17,250 trees and tree seedlings planted

²⁹ Electricity savings based on reported employee participation, and GHG savings based on EPA Greenhouse Gas Equivalencies Calculator - <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

- 5 parks improved through restoration projects

EcoChallenge

Each October, AMD employees participate in a global campaign called the Eco Challenge that encourages individuals to act to help the environment by adopting more sustainable practices. Team AMD participants commit to environmental actions such as eating local organic food, carpooling, recycling, and turning off equipment when not in use. Employees set goals, track actions, and share ideas with others. Hundreds of AMD employees across seven countries have completed over 6,000 actions, and AMD has reached 1st place among all participating businesses.

Measurable savings for 2016-18 include:

- 30,500 gallons of water saved
- 16,250 kilograms of CO₂ emissions avoided
- 19,000 kilometers of commutes traveled by carpool, bus, bicycle, or walking
- 4,700 plastic bottles and disposable cups diverted from landfills

15. Purpose ([Link](#))

Overview

In the Information Age, technology has transformed nearly every aspect of modern life while providing a powerful set of tools to respond to global challenges. Technology is empowering people to lift themselves out of poverty by providing access to information and opportunity. It is enabling us to better understand the natural world and humanity's place in it, including challenges and opportunities from improving equitable access to education to designing livable communities for a growing population.

As a provider of high-performance computing and graphics products, our success derives from the success of our customers and the ultimate users of their products. By promoting innovation and accelerating change, we help to create shared value with our stakeholders.

How AMD Creates Shared Value

Shared value is the concept of generating value in a manner that benefits a company's immediate stakeholders while simultaneously producing value for society beyond the products and services of any one company. We see this occurring, for instance, when we apply innovation to create products that enable positive impacts on people's lives and the natural resources we share while returning value to AMD's shareholders. Increasingly, those improvements come from harnessing the vast amounts of data created each day. By 2021, it is estimated that 3

zettabytes (billion petabytes) of data will be generated each year, nearly 3 times as much as generated in 2016.³⁰ But this data is only valuable if it can be utilized, providing information to people when and where they need it. We're now at a point where hardware and software capabilities are meeting to provide analytical and machine intelligence capabilities that can fulfill that promise, and that's a key area where AMD can generate shared value.

Learn more about how AMD creates shared value through our [case studies](#).

Creating Shared Value Through High Performance Computing

AMD is focused on instinctive and immersive computing and how that technology can unleash the power of machine learning and other high-performance computing applications to tackle important global challenges including the following:

- **Medical** diagnostics already rely heavily on various forms of imaging. AMD is working with customers to greatly improve image quality, helping doctors detect anomalies that could escape the human eye and improving the accuracy and timeliness of diagnoses. Learn more about [state-of-the-art medical imaging](#).
- **Education** is ripe for innovation through immersive and instinctive technologies. AMD has partnered with customers and K-12 schools to demonstrate the uses of [virtual reality in the classroom](#), to increase [access](#) to computers and [training](#), and to promote STEM curriculum through [immersive education](#).
- **Manufacturing** is increasingly more high-tech, using monitoring, sensing and data analysis to enhance process efficiency, use fewer resources, boost quality and improve worker safety. Learn more about [enabling the intelligent factory](#).
- **Scientific research** is entering an era of tremendous potential due to new compute capabilities. In 2017, for example, AMD was selected by the U.S. Department of Energy's Exascale Computing Project (ECP) to accelerate critical computing technology research for the development of the nation's first exascale supercomputers.³¹ The ECP seeks to address the nation's most pressing scientific challenges by advancing simulation-based scientific discoveries for diverse fields ranging from medical science to astrophysics to climate modeling.
- **Security** concerns are an inevitable part of 21st century life, and AMD works with others in the industry to prevent and [address vulnerabilities](#) (learn more in [Data Privacy and Security](#)). At the same time, technologies such as blockchain have the potential to provide unprecedented security and traceability for supply chains and transactions of all kinds.

³⁰ [The Zettabyte Era: Trends and Analysis](#), Cisco

³¹ <https://www.amd.com/en/press-releases/amd-selected-by-2017jun15>

AMD and the Sustainable Development Goals

We believe the UN Sustainable Development Goals (SDGs) provide an inspiring set of goals and targets that point the way to a world that is more sustainable, resilient and just. Complex issues are distilled into 17 overarching goals for the year 2030, ranging from industry and infrastructure to climate action and quality education. The SDGs are estimated to represent business opportunities of over \$12 trillion USD and 380 million jobs.³²

SUSTAINABLE DEVELOPMENT GOALS

Our company and the technology sector as a whole have a critical role to play in enabling the future that the SDGs aspire to create. At AMD, we were pleased to join a unique collaboration aiming to advance the role of business through development of the [Trucost SDG Evaluation Tool](#). Trucost is an affiliate of the S&P Dow Jones Indices and a primary gatherer of financial and environmental, social and governance (ESG) data that companies publicly report. They have formed an advisory council of investors, nonprofits, and approximately twelve participating companies to support the inaugural launch of the tool. The aim is to develop a practical and actionable way to quantify corporate risks and opportunities related to the SDGs, helping companies use the SDGs to inform their strategy, evaluate their progress toward relevant targets and identify opportunities to create shared value related to the SDGs.

Learn more about [AMD's perspective on the SDGs and the Trucost project](#).

Informed by the SDG evaluation, we mapped AMD's four focus areas to corresponding SDGs in order to identify how advancing our core issues helps to address global challenges.

Mapping AMD Core Issues to the SDGs

- AMD Core Issue
 - Primary Related SDG(s)
 - 2018 Update
- Data Privacy and Security
 - Industry, Innovation & Infrastructure
 - At AMD, security is a top priority and we are continually working to improve the safety of our users as new risks arise. Some AMD processors have security features included in the hardware, such as Secure Encrypted Virtualization (SEV).
- Energy Efficiency & Climate Change

³² <http://report.businesscommission.org/report>

- Climate Action
- Sustainable Cities & Communities
 - AMD's 2020 climate goals span supply chain, operations and product use, and are approved by the Science Based Targets initiative. In 2018, we designed the most energy efficient AMD mobile APU to date, sourced 27 million kwh of renewable of energy, and sustained supply chain energy and emissions well below industry averages.
- Human Rights & Labor
 - Decent Work & Economic Growth
 - We expanded supplier responsibility initiatives to reach 100% of direct suppliers, are proud to maintain our 100% Corporate Equality Index score from the Human Rights Campaign, and to be full members of the Responsible Business Alliance.
- Role of IT in Society
 - Good Health & Well-being
 - Quality Education
 - AMD technology advances education, healthcare, scientific research and more. In 2018, we launched ten new product families in emerging fields like machine learning, artificial intelligence and augmented / virtual reality.

Case Studies

AMD is a company that dares to imagine a better world and takes inspiration from our customers to deliver innovative solutions to the challenges and possibilities of our digital age. We don't create technology for technology's sake, we innovate for you and what you can achieve.

We have partnered with key customers to co-develop this set of case studies that provide examples of applications of our core technology that benefit society.

16. Community Affairs ([Link](#))

AMD in the Community

Across the globe, AMD, the AMD Foundation and our employees have been supporting our local communities for over 35 years. This takes the form of monetary support and, more importantly, the participation of AMD employees – from interns all the way up to the C-suite.

We encourage our employees to take time away from their busy days, team up with their colleagues and connect with their communities. This value has been enthusiastically embraced by many employees around the world, with more AMDers taking part in community service projects year-over-year.

	2012	2013	2014	2015	2016	2017	2018
Volunteer Hours	7,734	9,043	9,208	8,883	7,280	10,257	15,234
Number of Volunteers	1,202	1,185	1,331	1,802	2,084	2,451	2,838
Number of AMD Sponsored Events	196	146	119	120	127	138	154

All volunteer data is from AMD Community Affairs Global Summary 2012-2018.

Day of Service

Each spring AMD hosts our annual AMD Cares Day of Service with the goal of getting our employees out into their local communities for a company-wide celebration of community service. Since the program launched in 2015, over 6,000 global employees have volunteered more than 15,000 hours.

One of the great things about AMD Cares Day of Service is the diversity of causes we support. Our sites work with many organizations to choose events that work best for their local community such as cleaning up local parks, preparing meals for the homeless, teaching students to build computers and spending time with the elderly.

Volunteer Stories

Austin – Students Increase STEM Skills by Building Computers

A true passion of our employees is to foster learning in the next generation using our unique combination of technical know-how and care for the communities in which we live and work. Through a collaboration with [Communities in Schools of Central Texas](#), over forty technology-minded high school students visited the AMD Austin campus to immerse themselves in what it means to be AMDers. During a career talk session, students had a chance to ask employees questions like “what do you do in your job,” “what made you choose that career,” and “what did you have to do to get there?” Conversations like these can help students model their own potential educational and career paths. With their appetites for knowledge whetted, the students then got to have a hands-on experience building computers featuring AMD Ryzen™ processor and Radeon™ graphics technology. Working side-by-side with our executive team members, including CEO Lisa Su, the students had the opportunity to see and even touch the technology that could be part of their future careers. Beyond the career talks and computer build, there was also something intangible shared that day. “This is truly the type of experience that can change the trajectory of a young person’s life. You treated our students with tremendous care and respect, and we are so grateful for your generosity,” said Suki Steinhauer, Chief Executive Officer, Communities in Schools.

Shanghai – More than 400 AMDers Join the Run for Shanghai Baby Home

The AMD Shanghai team continually shares their time and talents with the community. Combining their community spirit for helping children with the team's love of physical activity, the Run for Shanghai Baby Home was born! The hundreds of AMD employees (and their families) who participated made a significant impact to raise awareness and support for an organization that helps babies receive needed medical treatment. From the group warm up, to the starting line, and eventually the finish line, the goal of benefiting children in the community was core to the day's activities. "Thanks AMD for helping the babies who have illnesses and need to have operations," said Mrs. Zhang from Shanghai Baby Home. "I saw all participants wearing green t-shirts today; green means hope. I am very glad AMD is doing this."

Hyderabad - Brightening the Lives of Hospice Patients

While everything we do for the community through volunteering is important, when the chance to help in the face of devastating circumstances presents itself, that's a uniquely powerful experience. At the Sparsh Hospice palliative care center, not only did AMD employees bring much needed donations for the medical staff, but they also spent time with the patients themselves, engaging in conversation, sharing news, and singing songs, all with the goal of bringing some brightness into the some of the most challenging days a person can face. Volunteers also walked through the admission and care initiatives with the staff, gaining a deeper understanding of what it takes to support those who are terminally ill. While this was a challenging day for our employees, one noted "it gives a great sense of satisfaction to know that there is someone who is taking care of them leaving them with a smile."

Markham – Riding a Big Bike for Heart & Stroke Awareness

They say you never forget how to ride a bike, but what about when the bike has 29 seats? AMD Markham took on this challenge during the Big Bike Ride in support of the Heart and Stroke Foundation of Canada. Even with rain coming down and thick parkas swaddling them, the team pedaled on, using their strength and voices to bring attention to the organization's mission. The opportunity to pair a fun, physical activity and fund raising with an important lifesaving cause is a great example of how AMD employees thread joy into the communities in which they live and work.

Santa Clara – Technovation: Girl's from Around the World Solving Tough Problems

Technology is an increasingly important focus area for students, but AMD strives to make that connection between students and the possibilities of technology deeply meaningful in the way we partner with the community. Through Technovation, the world's largest global technology entrepreneurship program for girls ages 10-18, students are given the opportunity to learn the skillsets they need to solve real-world problems through technology. It was an honor for AMD Santa Clara to host a special event for this organization as part of our ongoing commitment to the community and cultivating a diverse and inclusive culture. As the culmination of several

months' work by 2,000 teams made up of 19,000 girls from 113 countries, this event featured the final 12 teams who had developed mobile applications and business plans to address problems specific to their communities. AMD CEO Lisa Su shared some of her personal career journey in technology with this group of talented young women, encouraging them to "run toward the hardest problems" and find solutions.

Penang - A Tradition of Feeding the Homeless Continues

In the words of Anne Frank, "no one has ever become poor by giving." Guided by this concept, the AMD Penang team truly gave back at the Lighthouse Drop-In Centre, where those in need come to not only have a meal from the soup kitchen, but also to receive valuable social services. Through a day of hard work, the AMD team prepared traditional foods for afternoon tea and dinner service, serving these nourishing meals with an additional something special. "The main takeaway is that we need to continue to exhibit philanthropic behavior and treat the homeless community with dignity and respect," said an AMD volunteer. "We hope our socially responsible actions not only set a good role model within ourselves, but in fact we would like to instill this positive energy in every community we serve so that everyone can be inspired as to the importance of community service."

Singapore - Protecting the Environment One Tree at a Time

Protecting our environment is a key cause AMD employees rally around worldwide. In Singapore, volunteers turned out in a big way to plant trees at Yishun Park, dividing their time between learning about the various kinds of foliage and how they benefit the environment and planting over 75 trees at the site. Even through the rain, the team banded together to accomplish their goals. As a volunteer noted, "soon we realized that the tree planting initiative was not just an act of giving back, but also turned out to be a fun-filled learning and team building activity. That our employees get the chance to connect one another as they benefit the community around them is a wonderful side effect of volunteerism."

Taiwan, China – Bringing Technology to Rural Students

Supporting education through technology is a continuous theme through the work AMDers do in the community. The Taiwan, China team took this concept and ran with it, focusing on an area in the rural countryside that often experiences environmental threats from earthquakes and typhoons throughout the year. Since education can be interrupted by such disasters, the team saw the need in this resource restricted area, working with local AMD partners to not just provide much-needed equipment updates and technology demos, but to share a hands-on PC building experience with local students. For many students, this was their first experience seeing such technology and meeting the employees who might inspire their own futures. "It is our obligation to help students and younger generations who are our future to build up our communities. When we learned that Ming-Li elementary school students lack education equipment and access to technologies, we felt this is what we should do to help them. I'm more than happy when I feel AMD's technology ignites the students' dreams. I am also touched by our

employees contributing their time and knowledge in helping with the students. ‘Technology changes your life’ is not only a slogan, it’s our action!” said Lanzhi Wang, Sr. Sales Director, Taiwan Site Leader

17. AMD Foundation ([Link](#))

AMD is built upon the value of putting people first—our customers, our employees, our neighbors, and our communities around the world. As a result, we have a longstanding heritage of investing our time, money, and technology with local organizations to help solve some of society’s toughest challenges.

It is this legacy that inspired us to create the AMD Foundation to strengthen our philanthropic giving and provide focus for our more than 35-year history of community involvement.

AMD Foundation Mission

Enrich AMD communities worldwide through strategic investments, employee engagement, and disaster relief programs.

Board of Directors

- Susan Moore – President
- Ruth Cotter – Chairwoman
- Devinder Kumar – Treasurer
- Mark Papermaster
- Mark Fuselier

Major AMD Site Communities

AMD and its Foundation make community investments in basic needs and services, education, and the environment in major AMD site communities.

North America	Asia	Europe
Canada <ul style="list-style-type: none"> • Markham, Ontario • Toronto, Ontario United States <ul style="list-style-type: none"> • Austin, Texas • Boston, Massachusetts • Ft. Collins, Colorado • Santa Clara, California • Orlando, Florida • Bellevue, Washington 	India <ul style="list-style-type: none"> • Bangalore • Hyderabad China <ul style="list-style-type: none"> • Beijing • Shanghai Malaysia <ul style="list-style-type: none"> • Cyberjaya • Penang Singapore Taiwan, China <ul style="list-style-type: none"> • Taipei, Taiwan, China 	Germany <ul style="list-style-type: none"> • Munich

Contact Us

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18. Case Studies ([Link](#))



[Accelerating Drug Discovery](#)

A revolution in the quest for new treatments



[Learning In New Dimensions](#)

VR and AR Visualization Enriches Education



[Powering Environmental Research](#)

HPE+AMD Server Solution Enables Fast, Accurate Data Exploration



[Digital Inclusion](#)

Raising the standards of technology education



[State-of-the-Art Medical Imaging](#)

Enabling precision, where it's needed most



[Virtual Reality in the Classroom](#)

Connecting students to their education like never before



[**Immersive Journalism**](#)

Placing viewers inside today's news stories



[**Mapping the Universe**](#)

Charting the power of dark energy on cosmic expansion



[**Disrupting Software Engineering Education**](#)

Tuition-free, peer-to-peer and open to all



[**Virtual Reality Exposure Therapy**](#)

Serving those who served their country



Learning at Scale

Processing the largest computer lab in the U.S.



Immersive Inspiration

Powering a transformative experience with Dell



Exploring the Artistic Mind

Visualizing the creative process with GE



Immersive Education

Accelerating STEM education with zSpace

19. Data Tables ([link](#))

Labor Performance Indicators						
AMD's primary value, respect for people, is embodied in our employees and extends to our customers, partners, the environment, and the communities where we operate around the world. In this section, you will find information on AMD employees and illness and injury rates.						
	2013	2014	2015	2016	2017	2018
Employee Data						
Number of Employees	10,671	9,690	9,139	8,219	8,904	10,141
Americas	51%	45%	42%	52%	53%	54%
Asia-Pacific/China/Japan	46%	53%	56%	46%	45%	44%
Europe/Africa	3%	3%	2%	2%	2%	2%
Senior Management ¹						
Male	85%	88%	87%	88%	88%	87%
Female	15%	12%	13%	12%	12%	13%
Employee Total (Female)	28%	29%	29%	24%	24%	24%
Americas (Female)	20%	20%	20%	19%	19%	19%
Asia-Pacific/China/Japan (Female)	36%	36%	36%	29% ²	29%	30% ²
Europe/Africa (Female)	21%	22%	29%	35%	23%	21%
Employee Total (Age)						
Generation Y (born 1980-2000)	42%	44%	47%	48%	50%	52%
Generation X (born 1965-1979)	43%	42%	40%	40%	39%	37%
Baby Boomers (born 1946-1964)	14%	14%	13%	12%	11%	11%
Traditionalists (born 1927-1945)	<1%	<1%	<1%	<1%	<1%	<1%
Employee Type						
Exempt	84%	88%	85%	99%	99%	99%
Non-Exempt	16%	12%	15%	1%	1%	1%
Employee Change	3%	(9%)	(6%)	(10%) ²	8%	14%
Americas	(1%)	(11%)	(6%)	11%	10%	16%
Asia-Pacific/China/Japan	7%	(7%)	6%	(26%) ²	6%	12%
Europe/Africa	12%	(8%)	(45%) ¹	11%	12%	17%
Employee Turnover	16%	20%	19%	11%	8%	8%
Americas	8%	20%	20%	8%	6%	6%
Asia-Pacific/China/Japan	8%	21%	17%	13%	11%	11%
Europe/Africa	5%	17%	76% ³	33%	6%	5%
New Hires	2,061	1,030	1,211	1,607	1,414	2,141
Americas	38%	33%	26%	49%	52%	52%
Asia-Pacific/China/Japan	56%	65%	72%	49%	46%	46%
Europe/Africa	6%	2%	2%	2%	2%	2%
New Hires by Age						
Generation Y (born 1980-2000)	65%	67%	76%	69%	66%	69%
Generation X (born 1965-1979)	7%	25%	20%	25%	28%	25%
Baby Boomers (born 1946-1964)	8%	7%	4%	6%	6%	6%
Traditionalists (born 1927-1945)	0%	<1%	<1%	0%	0%	0%

Return to Work Rates After Parental Leave ⁴						
Male	95%	98%	100%	100%	100%	100%
Female	97%	91%	99%	86%	100%	100%
Well-Being ^{5,6}						
Worldwide Injury and Illness Case Rate (per 100 workers)	0.10	0.14	0.10	0.06	0.05	0.06
AMD U.S. Injury and Illness Case Rates (per 100 workers)	0.20	0.30	0.20	0.16	0.08	0/08
OSHA Case Rate - Private Industry	3.10	3.20	3.0	3.0	2.7	n/a
OSHA Case Rate - Computer/Electronic Product Mfg	1.20	1.30	1.1	1.1	1.0	n/a
OSHA Case Rate - Technical/Engineering Services	0.90	0.90	0.9	0.7	0.6	n/a
U.S. Lost Workdays Case Rate (per 100 workers) ⁷	1.10	0.00	0.00	0.00	0.0	0.0
Volunteerism ⁸						
AMD Volunteers	1,185	1,331	1,756	2,084	2,451	2,838
AMD Volunteer Hours	9,043	9,208 ⁹	8,883 ⁹	7,280	10,257	15,324
Number of Volunteer Events	146	119	122	127	138	154
Units of Blood Donated	1,219	908	366	460	486	818

FOOTNOTES:

n/a = not available.

Values shown in italics represent corrected data and are different from values shown in previous CR Reports.

1. Director level and above.
2. On April 29, 2016, AMD and Nantong Fujitsu Microelectronics Co., Ltd. (TFME) closed a semiconductor joint venture that gave TFME operational control of AMD's assembly, test, mark and pack (ATMP) manufacturing facilities in Penang, Malaysia and Suzhou, China, including approximately 1,700 employees and management team members.
3. Business closure in June 2015
4. Based on those who were on LOA Parental / Maternity with start date in 2016 & if termed after end date (with Vol, Family reasons)
5. Minor (first aid level) injuries are not included.
6. Our reporting guidelines are based on OSHA reporting criteria.
7. Lost days are calculated based on scheduled workdays.
8. Numbers include contributions from AMD employees and contractors.
9. Volunteer hours in 2014 and 2015 include individual employee volunteer hours in addition to hours recorded for company-sponsored volunteer activities. Numbers for prior years included company-sponsored events only.

Environmental Performance Indicators
AMD collects environmental data from company-owned and operated assembly and test, major research and development and major administrative/design sites worldwide. The following table provides data on our electricity use, water use, and waste generation.

	2013	2014	2015	2016	2017	2018
Climate						
Energy						
Absolute Energy Use (GWh)	210	149	126	124	129	121
Atlanta	10	18	22	23	25	15
Austin	67	25	22	22	24	23
Bangalore	4	3	3	3	3	4
Cyberjaya	8	10	8	9	9	8
Hyderabad	7	5	5	5	6	6
Markham	32	32	22	18	20	21
Santa Clara	n/a	n/a	n/a	n/a	n/a	5
Shanghai	7	6	6	6	8	7
Singapore	32	21	19	20	17	15
Sunnyvale	31	18	12	11	13	n/a
Others sites combined	12	11	6	6	5	5
Renewable Energy Use (GWh) ¹⁰	54	34	34	29	37	27
Atlanta	10	5	12	6	13	19
Austin	39	25	22	22	24	0
Shanghai	0	0	0	0	0	7
Other	<1	<1	<1	<1	<1	<1
Non Renewable Energy Use (GWh)	156	115	92	95	92	96
Total Energy/Revenue (KWh/\$)	0.040	0.027	0.032	0.029	0.024	0.019
Electricity (Indirect Energy, GWh)	196	142	118	118	122	116
Atlanta	10	18	22	23	25	25
Austin	61	25	22	22	24	15
Bangalore	3	3	3	3	3	3
Cyberjaya	8	10	8	9	9	8
Hyderabad	6	5	5	5	5	6
Markham	29	29	19	16	18	18
Santa Clara	n/a	n/a	n/a	n/a	n/a	4
Shanghai	7	6	6	6	8	7
Singapore	32	21	19	20	17	15
Sunnyvale	28	15	8	7	8	n/a
Others sites combined	34	31	23	6	5	5
Energy Use (Direct, GWh)	14	7	8	7	7	5
Atlanta	<1	<1	<1	<1	<1	<1
Austin	54	<1	<1	<1	<1	<1
Cyberjaya	<1	<1	<1	<1	<1	<1
Markham	3	3	3	3	2	3
Santa Clara	n/a	n/a	n/a	n/a	n/a	1
Singapore	<1	<1	<1	<1	<1	<1
Sunnyvale	4	3	4	3	5	n/a
Other sites combined	<1	<1	<1	<1	<1	<1
Scope 1 GHG Emissions (MTCO2e)	9,591	3,497	3,480	2,634	3,847	2,802
Atlanta	4	4	8	31	8	25
Austin	1,943	816	128	124	373	209
Bangalore	103	66	115	60	53	108

Cyberjaya	0	0	30	14	13	160
Hyderabad	359	42	48	34	20	15
Markham	591	658	633	495	469	541
Santa Clara	n/a	n/a	n/a	n/a	n/a	264
Singapore	5,953	1,353	1,881	1,234	2,088	1,455
Sunnyvale	633	556	638	602	822	n/a
All other sites combined	3	2	<1	1	<1	25
Scope 2 GHG Emissions (MTCO2e)	63,525	48,686	42,509	45,253	1,442	42,458
Atlanta	0	6,962	5,620	10,682	5,441	2,894
Austin	11,708	0	0	0	0	10,644 ¹
Bangalore	3,068	3,070	2,855	2,998	3,050	3,109
Cyberjaya	5,455	6,355	6,904	6154	5,576	5,508
Hyderabad	5,584	4,614	4,486	5,016	5,293	5,872
Markham	5,244	5,230	3,397	2,816	3,245	3,346
Santa Clara	n/a	n/a	n/a	n/a	n/a	843
Shanghai	5,123	4,413	4,217	4,747	5,589	0
Singapore	15,698	11,119	10,134	10,682	8,907	8,109
Sunnyvale	8,674	4,621	2,094	1,771	1,937	n/a
All other sites combined	3,161	3,085	2,802	2,730	2,403	2,114
Total Scope 1 and 2 GHG Emissions (MTCO2e)	73,116	52,183	45,990	47,887	45,896	45,260
Goal by 2020 (MTCO2e) ¹²	n/a	n/a	41,746	41,746	41,746	41,746
Goal Performance (% reduction from 2014) ¹²	n/a	n/a	13%	9%	12%	13%
GHG Emissions/Revenue (Scope 1 and 2 gCO2e/\$)	13.8	9.5	11.5	11.2	8.6	7.0
Estimated SCOPE 3 GHG Emissions (MTCO2e)¹⁴	527,349	1,576,205	876,513	810,266	906,431	922,000
Product Use ¹⁵	n/a	1,197,882	463,408	389,092	407,173	418,969
Contract Manufacturers ¹⁶	487,784	340,448	383,066	394,824	468,718	463,647
Business Travel	13,776	13,679	12,061	10,316	11,518	12,354
Employee Commutes	11,409	10,618	10,379	8,729	9,906	12,372
Product Logistics/Shipping	14,380	13,578	7,599	7,305	9,116	13,253
Water						
Water Use (million liters)	337	195	141	160	200	192
Atlanta	12	23	27	29	32	29
Austin	118	11	8	9	9	10
Bangalore	8	7	7	8	7	5
Cyberjaya	11	14	14	11	9	9
Hyderabad	n/a	n/a	n/a	7	7	8
Markham	53	41	26	33	53	83 ¹⁷
Santa Clara	n/a	n/a	n/a	n/a	n/a	27
Singapore	57	17	8	9	8	7
Sunnyvale	65	72	40	42	62	n/a
Other sites combined	<1	<1	<1	<1	<1	<1

Contract Manufacturing (million liters) ¹⁶	5,098	3,311	3,800	3,844	3,622	4,960
Water Use/Revenue (ML/\$)	63.6	35.3	35.3	37.5	37.5	29.7
Waste						
NHW Generated (metric Tons)	1,521	1,175	597	573	651 ¹⁸	639
Atlanta	n/a	n/a	n/a	1	8	<1
Austin	584	244	205	230	236	302
Bangalore	n/a	n/a	2	1	2	2
Hyderabad	n/a	n/a	3	2	4	9
Markham	256	349	154	152	157	199
Santa Clara	n/a	n/a	n/a	n/a	n/a	66
Singapore	130	90	59	50	50	53
Sunnyvale	551	493	174	129	187	n/a
Other sites combined	n/a	n/a	5	8	6	7
NHW Recycled (metric Tons)	1,215	881	427	406	455	415
NHW Landfilled (metric tons)	452	433	231	167 ¹⁸	203	225
NHW Landfill Diversion Rate (%)	80%	75%	72%	71%	70%	65%
Hazardous Waste (HW) Generated (Metric Tons)	1	1	5	5	8	3
Austin	<1	<1	<1	2	1	2
Markham	0	<1	3	<1	5	<1
Santa Clara	n/a	n/a	n/a	n/a	n/a	<1
Sunnyvale	<1	<1	2	2	1	n/a
Singapore	<1	<1	<1	<1	<1	<1
HW Recycled/Reused (metric tons)	0	0	1	2	1	<1
HW Treated Off-Site (metric tons)	1	1	3	1	<1	<1
HW Incinerated (metric tons)	<1	<1	<1	2	6	1
HW Landfilled (metric tons)	0	0	3	1	1	1
Total Waste Generated (NHW+HW)(metric tons)	1,522	1,176	602	57317	659	642
Total Waste Generated per Revenue (g/\$)	0.29	0.21	0.15	0.13	0.12	0.10
Contract Manufacturing HW Generated (metric tons) ¹⁶	18,196	14,805	13,840	10,261	12,156	14,310
Wastewater						
Wastewater Discharge ¹⁹ (million liters)	61	26	22	21	22	9
Austin	45	10	8	8	8	9
Sunnyvale	16	16	14	13	14	n/a
Wastewater generated per Revenue (ML/\$)	11.58	4.75	5.52	4.97	4.17	1.45
Air Emissions ²⁰						
Ozone Depleting Substances (MTCO2e)	6,934	2,140	2,009	1,402	2,488	1,802

Compliance						
Number of Environmental Non-Compliances	3	2	0	1	1	0
Number of Health or Safety Non-Compliances	0	0	0	0	1	0
Fines (USD)	2,801	0	0	0	0	0

FOOTNOTES

n/a = not available.

Values shown in italics represent corrected data and are different from values shown in previous CR Reports.

10. AMD procured 27 gigawatt hours of renewable energy in 2017, including US “green-e certified” wind renewable energy credits (RECs) and China International renewable energy credits (iRECs). The iRECs and RECs were applied to the scope 2 GHG emissions from our Shanghai research and design center, and our Atlanta, GA data center.
11. The increase in 2018 scope 2 emissions for Austin is due to an adjustment in the site distribution of renewable energy credits (RECs), namely U.S. RECs to Atlanta, Georgia and international RECs to Shanghai, China
12. AMD’s goal is to reduce scope 1 and 2 emissions by 20 percent by 2020, from a 2014 baseline of 52,183 MTCO2e. As of 2018, AMD’s scope 1 and 2 emissions from fuel use and electricity were 40,289 MTCO2e, achieving a 13% reduction from 2014.
13. 2014 goal baseline GHG emissions (scope 1 and 2) were 52,183 MTCO2e, and 2017 GHG emissions were 45,260 MTCO2e.
14. AMD estimates, and receives estimates from third parties, for several scope 3 GHG emission sources. Scope 3 are indirect emissions (not included in scope 2) that occur in AMD’s supply chain, product use, and travel activities.
15. Starting with 2014 reporting data, AMD estimates annual scope 3 GHG emission from the energy use of products sold. Annual estimates incorporate approximate typical energy use of the AMD notebook and desktop Accelerated Processing Units (APUs), the average US emission factor of electricity, the estimated years of service life, and the approximate number of units sold per year.
16. AMD receives estimated facility level data on energy use, GHG emissions, water use, hazardous and non-hazardous waste from our wafer foundries and outsourced semiconductor assembly and test (OSAT) providers.
17. AMD’s Markham facility had multiple Hub Room AC units that malfunctioned and had to be replaced, during which time the site had to use portable AC units that run off municipal water to cool the space.
18. NHW Generated includes operational waste from AMD buildings. In 2016, there was a one-time disposal of non-operational waste of 966 tons of non-hazardous soil and water from an AMD Superfund site in California. With this one-time disposal, the 2016 waste generated would be 1,539 metric tons, and the percentage of waste diverted from landfill would have been 26%.
19. All wastewater from sites are discharged into municipal wastewater treatment plants. All discharges were within permitted water quality limits and no violations were issued.
20. Fugitive emissions of greenhouse gases are included as part of total carbon equivalent emissions.

Economic Performance Indicators						
In this section, we provide information about AMD’s corporate revenues and our social investment.						
	2013	2014	2015	2016	2017	2018
Total Revenue (In millions) ²¹	\$ 5,299	\$ 5,506	\$3,991	\$4,319 ⁽²²⁾	\$5,253 ⁽²²⁾	\$6,475
Research & Development (In millions) ²¹	\$ 1,201	\$ 1,072	\$947	\$1,008	\$1,196	\$1,434
Net Income (loss) (In millions) ²¹	\$ (83)	\$ (403)	\$ (660)	\$ (498)	\$ (33)	\$ 337

Social Investment						
AMD Foundation	\$234,931	\$17,500	\$13,500	\$12,000	\$49,400	\$117,200
Cash and In-Kind Giving (USD)	\$351,539	\$224,553	\$117,048	\$159,474	\$158,716	\$149,050
Cash and In-Kind Giving by Region						
Americas	\$410,813	\$ -	\$103,548	\$122,114	\$178,069	\$225,538
Europe/Africa	\$ -	\$ -	\$ -	\$ -	0	0
Asia-Pacific/China/India	\$175,657	\$8,560	\$26,874	\$49,360	\$30,047	\$40,712
Cash and In-Kind Giving by Category						
Education	\$300,621	\$29,103	\$48,700	\$44,792	\$113,152	\$82,935
Community Development	\$285,849	\$195,450	\$82,348	\$126,682	\$94,964	\$183,315
AMD Political Action Committee (PAC)						
Disbursements ²³	\$ 2,000	\$2,500	\$1,500	\$0	\$0	\$500

FOOTNOTES

n/a = not available.

Values shown in italics represent corrected data and are different from values shown in previous CR Reports.

21. Economic data for current and past years is updated annually to reflect [AMD's most recent financial reports](#)
22. [ASC 606 Restatement](#)
23. Totals shown are U.S. disbursements made by the AMD PAC and available on the [FEC website](#)

20.GRI Table ([link](#))

[Download the full GRI Index](#)