

# Sustaining Intelligent Transformation

Lenovo







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# 1.0

## EXECUTIVE LETTERS

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- 6 A Message from John Cerretani, Our Chief Corporate Responsibility Officer



**A MESSAGE FROM  
YANG YUANQING,  
OUR CHAIRMAN  
AND CHIEF  
EXECUTIVE OFFICER**





At Lenovo, our nearly 60,000 employees live and work all over the world. They are traveling to and doing business in more than 180 markets for customers that are as diverse and global as we are.

This is why protecting our planet and actively searching for new ways to reduce Lenovo's impact and contribute to global change for good continues to be among our top priorities.

As a global technology leader, we have a critical role and responsibility in the world today and a belief, in line with the World Economic Forum's objectives, that in our shared digital future no one should be left behind. We have a responsibility **to operate a globally sustainable business**. This not only extends to the products we make and how we operate, but also to the people behind our technology and those in front using it. Without healthy, happy lives for our employees and customers everywhere, what we do would be in vain.

That is why we:

- Announced our first-ever global **Diversity and Inclusion report**. Being able to stretch and adapt to the values, policies, and culture of the countries where we do business and to understand the once-in-a-lifetime opportunity technology presents to us, is critical in creating a greater and more inclusive society for us all.
- Equally, we need to not only inspire future generations about technology but also give them **access to education** so they can thrive in a digital world — something we do through our newly launched Lenovo Foundation. Our first global foundation launched in October 2018 and already has had a total, global charitable impact of \$14M USD.

Just as important is Lenovo's focus on improving how we create, how we do business, and where we place our investments in driving future growth — growth that is sustainable not only from a business perspective but also environmentally.

- We are proud to provide innovative packaging solutions **using biodegradable materials made from bamboo and sugar cane**, packaging that is lighter

and reduces the overall package size for select notebook products, resulting in a 6.7 percent efficiency improvement in transportation CO<sub>2</sub> emissions.

- Lenovo **prioritizes using environmentally preferable materials whenever possible**, releasing a much more expansive list of products made from closed-loop post-consumer recycled content (CL PCR). We started using this material which is sourced from used IT and electronics equipment in two products in 2017, and in FY 2018/19 we expanded this program to 21 additional products. Since this program began in 2017, we have used over 2500 metric tons of closed loop materials that may have otherwise been landfilled.

For these efforts, Lenovo was recognized among FORTUNE's Most Admired Companies and ranked by Thomson Reuters as one of the Top 100 Global Tech Leaders. Even more, we were listed on the Corporate Knights 2018 100 Most Sustainable Corporations in the World and received an AA rating on the 2018 Hang Seng Corporate Sustainability Index.

I am pleased to share Lenovo's progress in these efforts and more in this year's annual Sustainability Report. As you will see shortly, many break-through efforts were realized, and the continued year-over-year improvement of long-standing initiatives are now driving incredible results.

As I look ahead to the next decade for Lenovo it will be our success in each of these areas that truly differentiates us a global citizen, committed to the well-being of our planet and the care-taking of future generations. Our mission is to **deliver smarter technology for all so that we can play our part in building an inclusive, trustworthy and sustainable digital society — for everyone, everywhere**.

Thank you for taking part in these efforts, and I look forward to accomplishing even more together as we grow our sustainability efforts.

**Yang Yuanqing**  
*Chairman and Chief Executive Officer*  
**Lenovo**

**A MESSAGE FROM  
JOHN CERRETANI,  
OUR CHIEF  
CORPORATE  
RESPONSIBILITY  
OFFICER**





As Lenovo's Vice President, Deputy General Counsel and Chief Corporate Responsibility Officer, I am pleased to share this update on Lenovo's progress in environmental and social responsibility performance. Our sustainability strategy is built on a system of core beliefs, which help us make a significant impact in the communities where we live and work.

As we are in the thirteenth year of Lenovo's annual Sustainability Report, we work to meet the needs of our stakeholders through our sustainability and corporate social initiatives. Our annual Sustainability Report provides an update on progress over the past year, a transparent overview of current programs, and describes contributions to our mission to **deliver smarter technology for all**.

Some examples of these accomplishments include:

- **Achieving a 92 percent reduction in greenhouse gas emissions relative to FY 2009/10.** Lenovo exceeded our goal to reduce our global Scope 1 and 2 greenhouse gas emissions by 40 percent by 2020 (versus a FY 2009/10 baseline). Not only did we meet our target one year early, but we exceeded the goal and achieved a 92 percent reduction globally in FY 2018/19. In addition, we carbon balanced 100 percent of our Scope 1 and 2 emissions in China. This was accomplished via our three-tiered strategy of energy efficiency projects, installation of solar power, and the purchase of renewable energy commodities. Our overall achievements in this area were recognized by CDP, formerly known as the Carbon Disclosure Project, who awarded Lenovo the "2018 CDP China Influence Award on Climate Change Mitigation" in Beijing in March 2019.
- **Supporting STEM education through the Lenovo Foundation.** Lenovo demonstrated its commitment to STEM education, empowering diverse and under resourced populations, while delivering 'smarter technology for all'. The Lenovo Foundation's campaign united employees around the world in a global message to "Love on", an anagram of the Lenovo brand. The Foundation's strategic giving, employee engagement, and disaster response mechanisms represent the closely overlapping roles of corporate citizenship and sustainable development of the communities where we work and live.
- **Creating resilient and sustainable technology for all.** Lenovo believes that technological progress is key to finding lasting solutions that will benefit humanity and the planet. We're pushing the boundaries of innovation

and helping to transform cancer research through the use of augmented reality (AR) and artificial intelligence (AI). We've developed a pilot project using an AR head mounted display and AR glasses to help doctors identify melanoma and help doctors differentiate between diseased and disease-free tissue using Simultaneous Localization and Mapping (SLAM) technology. In Peru, the non-profit Feelsgood is using the Lenovo Mirage Solo with Daydream Virtual Reality headset to help cancer patients experience the world and lessen their stress and anxiety.

- **Innovation in packaging design.** Innovation doesn't stop with the design of our products, we're also changing the way we design our packaging and are eliminating one-time-use plastic tape from the bottom of our ThinkPad packaging. As a result, we have already avoided the use of over 3 kilometers of tape and 9 tons of plastic film and anticipate these savings increasing as we roll this innovation out to more products and facilities.
- **Reaffirming our commitment to creating a safe and healthy work environment.** Safety and health is a fundamental right of everyone at Lenovo. During FY 2018/19 we delivered health and safety programs and process excellence throughout our global manufacturing facilities. Numerous local governments in China recognized Lenovo manufacturing sites in Chengdu, Shanghai, Shenzhen, and other locations for our dedication to safety. In North Carolina the Department of Labor awarded our Morrisville and Whitsett sites with "Gold Awards" for Outstanding Health and Safety.

Through all of these efforts, Lenovo maintains its commitment to strong corporate governance as exemplified in the "2018 Platinum Award in Corporate Governance" and "Sustainability and Social Responsibility Reporting Award" from the Hong Kong Institute of Certified Public Accountants. Our unwavering commitment to sustainability is clear, and is vital to delivering smarter technology for all. Through innovative product design and a strong commitment to corporate citizenship, we will not only deliver smarter technology, but will become smarter ourselves in the process.



**John Cerretani**  
*Vice President, Deputy General Counsel and  
Chief Corporate Responsibility Officer*  
**Lenovo**





# 2.0

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# INTEGRATING SUSTAINABILITY

## REPORT PARAMETERS

### ABOUT THIS REPORT

This is Lenovo's 13th annual sustainability report. It covers the Fiscal Year 2018/19 (April 1, 2018 through March 31, 2019). The most recent report prior to this was published in August 2018 for the Fiscal Year 2017/18. This and previous reports are available at: [www.lenovo.com/sustainability](http://www.lenovo.com/sustainability).

This report is considered a companion document to Lenovo's annual and interim reports. Those can be viewed at: <https://investor.lenovo.com/en/publications/reports.php>. The [Fiscal Year 2018/19 Annual Report](#) contains a CSR/Sustainability Overview on pages 127-140.

### SCOPE OF THE REPORT

This report covers Lenovo's global operations, including previously reported joint ventures and acquisitions, except where noted. All references, unless otherwise noted, are to Lenovo's fiscal year, which ends March 31st.

Our operations:

- Corporate headquarters in Hong Kong
- Primary operational hubs in Beijing, China; and Morrisville, N.C., USA
- Major development and manufacturing facilities are described in the Manufacturing and Supply Chain Operations section
- Call centers in North America, South America, Europe, Asia and Australia

### REPORT CONTENT

The content of this report is informed by the Environmental, Social and Governance (ESG) Reporting Guide set out in the rules governing the listing of securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange"), the Global Reporting Initiative (GRI) Standards and the needs of Lenovo's stakeholders. Lenovo has complied with all "comply or explain" provisions as set out in the Hong Kong Stock Exchange's ESG Guide. This report has been prepared in accordance with the GRI Standards: Core option. More information about Lenovo's material topics can be found in the Materiality and Stakeholder Engagement section.

### NOTES

Notes in the Consolidated Metrics, FY 2018/19 Performance and FY 2019/20 Objectives and Targets sections apply to all places throughout the document where that data is used.

### EXTERNAL ASSURANCE

Accredited third parties have provided verification services for certain energy, greenhouse gas (GHG) emissions, waste and water data in this report. Please see the Planet chapter for more details.



## BASIS OF CALCULATIONS

All financial data is denoted in U.S. dollars.

- Lenovo may in some instances face various challenges when measuring its performance. If there are contingencies associated with the data provided, those contingencies will be noted in the documentation.
- Lenovo continues to strive for excellence in measuring and improving its performance by adding new indicators. When new indicators are added, it may take time to deliver

trending information. Therefore, we may not always provide information publicly until we are certain that this data can be delivered in a high-quality and consistent manner.

## CONTACT INFORMATION FOR THIS REPORT AND FEEDBACK

For questions or other information about this report or to offer feedback, please contact:

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Email: [environment@lenovo.com](mailto:environment@lenovo.com)

# MATERIALITY AND STAKEHOLDER ENGAGEMENT

## MATERIALITY

Lenovo's integration of sustainability impact concerns into its strategy, planning, implementation and reporting activities begins with an assessment of material topics. We believe identification of material concerns related to sustainability is integral to achieving our business goals of minimizing risk and maximizing growth and returns on capital while fulfilling our commitment to outstanding corporate citizenship.

Lenovo regularly conducts assessments to identify and categorize all material concerns through its Enterprise Risk Management (ERM) framework, including sustainability related issues. Material concerns are further clarified and addressed through company management systems. Lenovo's environmental management system (EMS), for example, provides a framework for assessment of significant environmental aspects (SEA), regularly scheduled audits, measurement of key performance indicators and continuous improvement. This SEA evaluation process and the ERM process provide valuable input into Lenovo's overall sustainability materiality assessment process. Other benefits of the EMS include monitoring our progress on

previously identified material concerns and more quickly spotting emerging issues. In addition to these corporate level risk management programs, individual business units such as the Global Supply Chain organization manage their own risk management processes that feed into the corporate level programs and disclosure.

Lenovo's annual Sustainability Report provides a full accounting of the Company's environmental and social responsibility performance for the previous fiscal year. We determine the scope of the report by a Sustainability Materiality Assessment, a process where Lenovo evaluates and determines the significant, or material, economic, environmental and social sustainability topics. This assessment was carried out in early 2019.

Lenovo acknowledges that a variety of external perspectives are relevant to identifying material issues. We regularly engage with a variety of stakeholders and consider their feedback as we affirm what is material to our business, develop our sustainability strategy, set our goals and report on our progress.

## SUSTAINABILITY MATERIALITY ASSESSMENT: MATERIAL TOPICS

Business Ethics  
Climate Change (emissions)  
Community Outreach  
Corporate Governance  
Digital Inclusion  
Diversity and Equal Opportunity  
Economic  
Energy Use  
Environmental Management System  
Health and Safety  
Human Rights  
Labor Standards and Practices  
Packaging  
Philanthropy  
Privacy  
Procurement Practices  
Product End-of-Life Management  
Product Energy Use  
Product Materials  
Product Responsibility  
Supply Chain Environmental Performance  
Supply Chain Labor Practices  
Talent Management  
Transportation  
Waste  
Water Use

## STAKEHOLDER ENGAGEMENT

Lenovo actively manages its relationships with customers, employees, suppliers, investors, regulators, members of the communities in which it operates, and other stakeholders whose actions can affect the Company's performance and value. We engage our stakeholders in several ways, including:

- Customer focus groups, surveys, and direct customer interaction

- Employee surveys and Lenovo-organized community service events
- Supplier audits, conferences, and quarterly business reviews
- Phone conferences and meetings with industry trade groups on regulatory issues
- Ongoing interactions with local communities
- Responding to investor, analyst, and nongovernmental organization (NGO) surveys and inquiries

In addition to these and other formal stakeholder interactions, we talk with individual stakeholder groups on an ad-hoc basis as needed. Each section of this report contains examples of Lenovo's engagement with stakeholders.

The results of the Sustainability Materiality Assessment also guide us with evaluating and prioritizing stakeholder inputs. Our environmental, quality and other management systems have defined processes for obtaining and analyzing stakeholder input to help improve our performance as well as manage risk. Lenovo's network of geographic, environmental and sustainability focal points engage with local sales teams and customers on a regular basis. This is done through detailed responses to customer questions and meetings at customer locations or at Lenovo's briefing centers. These meetings allow Lenovo to get direct feedback on our environmental programs. Examples of feedback include information on ecolabel preferences, requests for packaging optimization and requests for further information which may contribute to internal customer education.



We are also heavily engaged with our suppliers to drive enhanced transparency and compliance, and we promote the use of reporting tools such as Lenovo's full materials disclosure declarations and Responsible Business Alliance (RBA), Responsible Minerals Initiative (RMI), and the Responsible Minerals Assurance Process (RMAP) for auditing/certifying of identified smelters. This is done via regular interactions with our suppliers, including communications, regular reviews and report cards. Local stakeholder engagement at the site level is primarily done through Lenovo's Community Relations (see the People section) and communications teams, who work with Lenovo's Global Sustainability Organization.

Key sustainability issues addressed through Lenovo's engagement with stakeholders in the past fiscal year include concerns about conflict minerals, protecting human rights in the supply chain, climate change mitigation and impact, recycling, and product certifications. Lenovo's responses to these concerns included:

- Reaffirmed our commitment to achieve a 40% reduction in our greenhouse gas emissions by 2020 (relative to our FY 2009/10 baseline).
- We continued our expansion of solar projects in our facilities in Morrisville and Whitsett, NC, USA, and Wuhan, China. These projects represent almost 6 MW of potential solar electric generation capacity.
- Employed the RBA Conflict Minerals Reporting Template (CMRT) for Reasonable Country of Origin Inquiry (RCOI) efforts across 95% of our procurement spend and our supply chain, and the Responsible Minerals Assurance Process (RMAP) for auditing/certifying of identified smelters.
- Reported carbon emissions data and strategies to the 2018 CDP (formerly Carbon Disclosure Project). Lenovo scored a 'B' — "Management Level" on CDP's climate questionnaire, and an 'A' on the CDP Supplier Leadership Engagement Rating (see the Environmental Impact of Lenovo Operations section for more details).
- Supported the transition from a linear economy to a circular economy by expanding our use of innovative forms of post-consumer recycled content and using closed loop materials sourced from end-of-life information technology equipment (ITE) and products. In FY 2018/19, we increased the number of these products by 950% (from 2 products in FY 2017/18 to 21 products in FY 2018/19).
- Started identifying and developing our third generation environmental targets, submitted preliminary 2020 and beyond targets to the Science Based Targets Initiative.
- Provided free consumer recycling option in many geographies (see the Recovery and Recycling Trends in the Planet section).

# LENOVO AND THE U.N. GLOBAL COMPACT



Lenovo became a signatory of the United Nations Global Compact in 2009 and supports the U.N. Sustainable Development Goals (SDG). The multi-year strategy of the U.N. Global Compact is to drive business awareness and action in support of achieving the Sustainable Development Goals by 2030. The SDG are based on Ten Principles of the U.N. Global Compact and are derived from fundamental responsibilities in the areas of human rights, labor, environment, and anti-corruption.

By incorporating the Ten Principles of the U.N. Global Compact into strategies, policies and procedures, and establishing a culture of integrity, Lenovo is upholding our basic responsibilities to our stakeholders and the planet, while setting the stage for long-term success.

Lenovo has established action-oriented platforms and goals that support SDG implementation throughout our business and in the markets we serve, following our long-standing commitment to ethical corporate citizenship and promoting sustainability in our activities. There are aspects of our business, projects, programs and activities that we can readily identify as directly and indirectly contributing toward achieving SDG. Examples include:



Lenovo's [‘Make a Difference’ partnership with the XBillions Skills Lab in India](#) allowed Lenovo to train workers in roles that will yield higher living wages, helping India's disadvantaged with skills and training that helps them rise from poverty to India's growing middle class.



Lenovo's [philanthropic and social investments](#) are focused on STEM (science, technology, engineering, math) education and empowering diverse and under-resourced populations, themes that are integral to the success of our business. [Our network of programs](#) helps provide direct access to technology education, and to date has impacted more than 5,000 students at 118 public high schools across the U.S.



Lenovo's ThinkPads are being used as a research assistant by [Hivemind, a research company that is redefining agriculture by studying the declining bee population around the world](#). This important work is helping to address the implications of the declining bee population for the global agricultural industry. Hivemind researchers chose Lenovo's ThinkPad for their satellite beehive monitoring system because of its strong and durable capabilities.



Lenovo's [Women's Leadership Development Program \(WLDP\)](#) supports our global corporate initiative for advancing high potential female directors into executive roles. Women now represent 18.8 percent of Lenovo executives. By 2020, we're focused on taking the efforts needed to achieve 20 percent global female executive representation.



[Lenovo was recognized by the International WELL Building Institute \(IWBI\)](#) in 2018, for making a profound impact on both industry and culture at our headquarters in Morrisville, North Carolina, USA. Also In 2018, Lenovo's headquarters was awarded the Leadership in Energy and Environmental Design — [LEED Platinum Certification](#) by the U.S. Green Building Council (USGBC).



[Lenovo's Desktop Development team partnered with RDC Environment \(a subsidiary corporation of Intertek\) to identify a Product Water Footprint by utilizing the Instant Life Cycle Assessment \(LCA™\) Electronics Tool](#). Lenovo is now looking at innovative solutions which may have the biggest impact on reducing the product water footprint.





During FY 2018/19 Lenovo continued the expansion of solar projects in our facilities in Morrisville and Whitsett, NC, USA; and in Wuhan, China. These projects represent almost 6 MW of potential solar electric generation capacity. Lenovo has a target of achieving 30 MW of owned or leased renewable energy generation capacity globally by 2020.



[Lenovo's Mosaic Leadership Development Program \(MLDP\)](#) identifies men and women with various dimensions of diversity, including underrepresented groups, and who have been identified as ready for the next step in their careers, to advance to high-potential directors.



As a signatory to the U.N. Global Compact, Lenovo supports and respects the protection of internationally proclaimed [human rights](#) through policies and programs covering Lenovo operations and its [supply chain](#). We strive to manage our operations consistent with the intent of the [U.N. Universal Declaration of Human Rights and the International Labor Organization \(ILO\) Declaration on Fundamental Principles and Rights at Work](#).



[Lenovo's Global Week of Service](#) exemplifies Lenovo's collaborative global culture. Regional teams enrich each other's partnerships in different geographies, combining employee volunteer talent across business units, and scaling Lenovo's focus on empowering diverse populations to offices around the world.



[Lenovo announced it had invented a low temperature solder \(LTS\)](#), which uses tin as an alternative during high heat manufacturing. Lenovo is now working with the International Electronics Manufacturing Initiative, or iNEMI, to deploy this technology in the industry in 2019.



[Lenovo offers a full complement of ENERGY STAR® qualified laptop, desktops, workstations, monitors and servers](#). Many Lenovo notebook, desktop, workstation, server and monitor products satisfy and even exceed the current ENERGY STAR® requirements.



Lenovo is aligned with the global scientific community's recommendations for maintaining global warming below two degrees Celsius

over the 21st century relative to pre-industrial levels. [Lenovo's interests include reducing global emissions](#) by 40 to 70 percent between 2010 and 2050, and attaining zero emissions by year 2100.

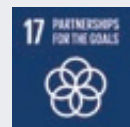


[Lenovo's Code of Conduct](#) is an integral part of its ethics and compliance program, and applies to all Lenovo employees worldwide. Our

suppliers are expected to comply with the [Supplier Code of Conduct](#) — and are assessed in procurement decisions.



Many Lenovo products contain recycled content materials made with [closed-loop post-consumer recycled content \(CL-PCR\)](#), which [supports the reduction of pollution found in the planet's oceans, seas and marine environments](#).



Lenovo's ThinkSystem SD650 high density server was developed in partnership with Intel and Leibniz Supercomputing Centre (LRZ)

in Munich, Germany. The [direct-water cooled design enables 85 to 90 percent heat recovery](#). Because liquid cannot be used to cool everything in a data center, LRZ and Lenovo are in the process of expanding alternative cooling by converting the hot water "waste" into cold water that can be reused to cool the rest of the data center.



Lenovo began using [100% recycled packaging material](#) in 2008. The new packaging material, made from 100% recycled thermoformed

cushions, enables PCs to be stacked together and requires less packaging material.







# 3.0

## PRACTICING ETHICAL BUSINESS

Corporate Governance  
Business Conduct

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# PRACTICING ETHICAL BUSINESS

## CORPORATE GOVERNANCE

Trust and integrity form key cultural foundations for Lenovo. Lenovo promotes a culture that demands the highest ethical standards of business conduct and a commitment to compliance with all laws and regulations wherever it operates. For many years, the Company has had an integrated approach for internal control that is consistent with the Committee of Sponsoring Organizations of the Treadway Commission (COSO) internal control framework. Its policies and programs align with its objective to operate ethically in all Lenovo business activities.

Lenovo has an Ethics and Compliance Office (ECO) that works in partnership with its business units across the globe to ensure they operate within legal and ethical obligations. Led by Lenovo's Vice President, Deputy General Counsel and Chief Corporate Responsibility Officer, Mr. John Cerretani, ECO plays a critical role in providing the resources and information employees need to make well-informed choices and decisions.

The ECO continually reviews and assesses Lenovo's internal policies and procedures, conducts in-person training sessions, and provides communications to our business teams to improve employee education on ethics and compliance issues. Additionally, the ECO maintains

and monitors confidential reporting lines that employees and third parties may use to report misconduct. The ECO also leads Lenovo's efforts to conduct ethics and reputational due diligence on Lenovo business partners.

Lenovo's [Code of Conduct](https://www.lenovo.com/us/en/social_responsibility/) is an integral part of its ethics and compliance program, and applies to all Lenovo employees worldwide. The Code establishes clear expectations for employee compliance with policies related to lawful and ethical business conduct and behavior. We make the Code available to employees in nine languages and accessible on Lenovo's website along with other corporate policies at [https://www.lenovo.com/us/en/social\\_responsibility/](https://www.lenovo.com/us/en/social_responsibility/). Regular training on the Code and related policies is provided to reinforce the Company's commitment to compliance and conducting business with integrity.

Lenovo expects the highest standards of ethical conduct from its employees and has a clear no-retaliation policy that protects employees who seek guidance on ethical or compliance issues or report any information pertaining to potential violations of law, Company policy, or the Code of Conduct. Lenovo provides formal, confidential mechanisms for reporting such concerns, all of which are addressed and tracked to resolution.

Throughout the fiscal year ended March 31, 2019, the Company has complied with the code provisions of the Corporate Governance Code and Corporate Governance Report (the “CG Code”) set out in Appendix 14 to the Rules Governing the Listing of Securities on [The Stock Exchange of Hong Kong Limited](#) (the “Stock Exchange”) (the “Listing Rules”), and where appropriate, met the recommended best practices in the CG Code, with the exception that the roles of the chairman of the Board (the “Chairman”) and the chief executive officer of the Company (the “CEO”) have not been segregated as recommended by code provision A.2.1 of the CG Code.

## BOARD STRUCTURE

The Board is the highest governing body in the organization and is responsible for overseeing the overall strategy of the Company and directing and supervising its affairs in a responsible and effective manner. As of the date of this report, there are eleven Board members consisting of one executive director, namely Mr. Yang Yuanqing, two non-executive directors, namely Mr. Zhu Linan, Mr. Zhao John Huan, and eight independent non-executive directors, namely Mr. Nicholas C. Allen, Mr. Nobuyuki Idei, Mr. William O. Grabe, Mr. William Tudor Brown, Ms. Ma Xuezheng, Mr. Yang Chih-Yuan Jerry, Mr. Gordon Robert Halyburton Orr, and Mr. Woo Chin Wan Raymond. The Board diversity mix is shown on page 56 of the [FY 2018/19 Annual Report](#), while the detailed biographies and snapshot of the Board’s experience are available at <https://investor.lenovo.com/en/cg/directors.php>.

At the date of this report, the Company has preserved three Board committees (the “[Board Committees](#)”) with defined terms of reference (which are posted on the Company’s website and the [Hong Kong Exchange website](#)) — Audit

Committee, Compensation Committee, and Nomination and Governance Committee. The structure, size and composition (including, for example, gender, age, and length of service) of the Board is reviewed from time to time by the Nomination and Governance Committee to ensure that the Board has a balance of skills and expertise for providing effective leadership to the Company and meeting the needs of the Company.

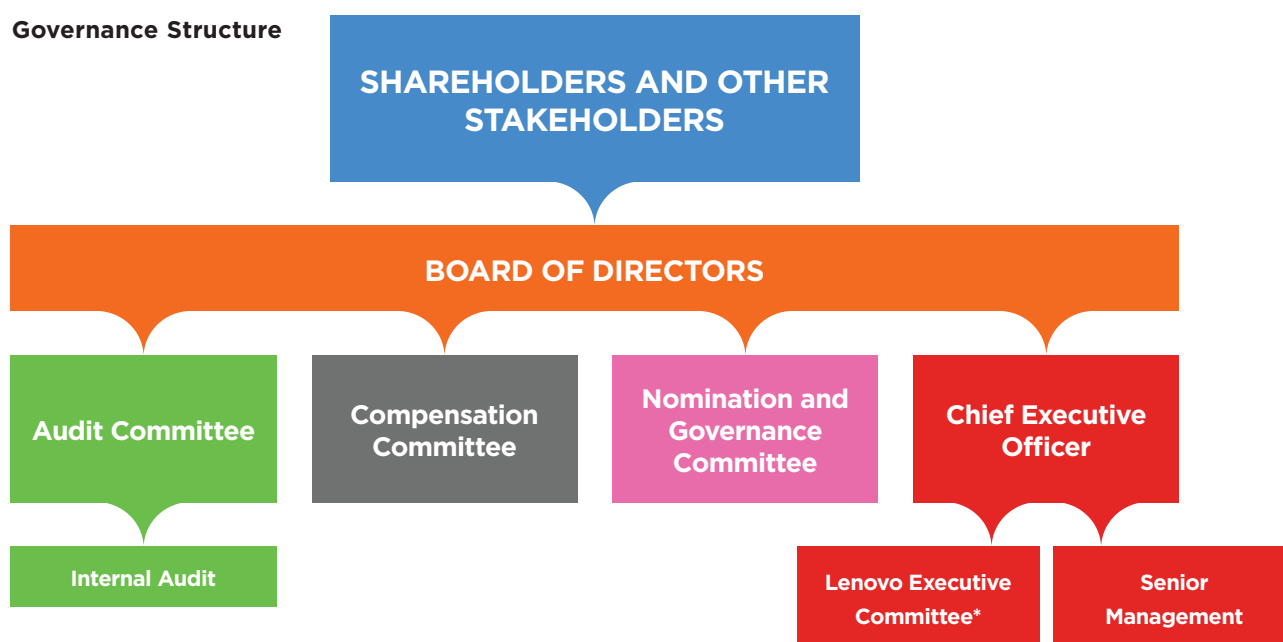
During the year, the Board adopted a Nomination Policy that guides the Nomination and Governance Committee and the Board on nomination of candidates for the Board. This Policy sets out the selection criteria, the tenure, the election/re-election requirements and the nomination procedure, details of which are set out on page 58 of the [FY 2018/19 Annual Report](#).

The Board values diversity as a factor in selecting candidates to serve on the Board, and believes that the diversity existing in its composition provides significant benefits to the Board and the Company and forms an important part of the Nomination Policy. The Board believes that a key success factor of an effective Board is that it comprises a range and balance of skills, experience, knowledge and independence, with individuals that work as a team. The Board Diversity Policy that relates to the selection of candidates for the Board was adopted to ensure that diversity in its broadest sense continues to remain a feature of the Board. All Board appointments are made on merit, in the context of the skills and experience the Board as a whole requires being effective. The details of the appointment process can be found on page 59 of the [FY 2018/19 Annual Report](#). The Nomination and Governance Committee has been delegated with the responsibilities for the review of the Board Diversity Policy on an annual basis.



The Board has established a clear governance structure and the overall approach has been designed to support and work within our organizational structure to meet the challenges of the future. Further details on the composition, responsibilities and main activities of the Board Committees in FY 2018/19 are included on pages 76–79 of the [FY 2018/19 Annual Report](#).

## Governance Structure



\* A management committee comprising the CEO and certain members of the senior management

## BOARD RESPONSIBILITIES

The Board has a coherent framework with clearly defined responsibilities and accountabilities designed to safeguard and enhance long-term shareholder value and provide a robust platform to realize the Company's strategy. A summary of leadership responsibilities of the Company and those of the Lead Independent Director is set out on page 55 of the [FY 2018/19 Annual Report](#).

The Company is controlled through the Board who is responsible for steering the success of the Company by overseeing the overall strategy and directing and supervising its affairs in a responsible and effective manner. The Board also sets the Company's core values and adopts proper standards to ensure that the Company operates with integrity and complies with the relevant rules and regulations.

The Company has a formal schedule of matters specifically reserved to the Board and those delegated to management. The management is responsible for the daily operations and administration function of the Company under the leadership of the CEO. The Board has given clear directions to management as to the matters that must be approved by the Board before decisions are made on behalf of the Company or entering into any commitments on behalf of the Company. The types of decisions to be delegated by the Board to management include implementation of the strategy and direction determined by the Board, operation of the Company's businesses, preparation of financial statements and operating budgets, and compliance with applicable laws and regulations. These arrangements will be reviewed periodically to ensure that they remain appropriate to the Company's needs. A list of senior management and their biographies are set out on pages 151 to 153 of the [FY 2018/19 Annual Report](#).



Finally, Directors have a statutory duty to avoid situations in which they have or may have interests that conflict with those of the Company. The Board has a set procedure and guidance to deal with the actual or potential conflicts of interest of directors. Under the [Articles of Association](#), directors are also required to declare their direct or indirect interests, if any, in any proposal, transaction, arrangement or contract that is significant in relation to the Company's business and the director's interest or his/her associate's interest or the interest of the entity connected with the director is material, as set out on page 62 of the [FY 2018/19 Annual Report](#).

## SUSTAINABILITY MANAGEMENT

Excellence in sustainability starts at the top, with the support and endorsement of the Chairman and CEO, Mr. Yuanqing Yang. We define sustainability as a system of core beliefs, and also as a management discipline — one with increasingly sophisticated tools and processes for measuring corporate performance.

Evidence of our commitment comes through our board-approved Enterprise Risk Management (ERM) framework and our Sustainability Materiality Assessment, which guide our sustainability reporting. As one of the largest advanced-

manufacturing companies globally, our focus on sustainability helps make a significant impact in markets around the world.

Lenovo uses its ERM framework and process to regularly evaluate and address sustainability and corporate social responsibility risks. The Company's Board of Directors and management team across all major functions of the Company use this same process. Lenovo's corporate governance framework includes a Corporate Sustainability Policy, signed by Chairman and CEO, Mr. Yuanqing Yang, which outlines the social, environmental, and economic principles that guide the Company's operation. The policy is available at: [https://www.lenovo.com/us/en/social\\_responsibility/sustainability\\_policy/](https://www.lenovo.com/us/en/social_responsibility/sustainability_policy/)

At the executive level, sustainability is led by the Vice President, Deputy General Counsel and Chief Corporate Responsibility Officer (CRO), Mr. John Cerretani, who reports directly to the Chief Legal Officer. The CRO meets with the Board at least twice a year, and reviews and discusses global environmental, social and governance (ESG) risk and compliance; sustainability highlights; plans for achieving key performance objectives and targets, and sustainability policies and matters requiring Board review and approval.

## COMMUNICATION WITH SHAREHOLDERS AND OTHER STAKEHOLDERS

The Company is committed to safeguard shareholders' interests and believes that effective communication with shareholders and other stakeholders is essential for enhancing investor relations and investor understanding of the business performance and strategies of the Company. To achieve this, the Company has established the shareholders communication policy (the "Shareholders Communication Policy") setting out various formal channels of communication with shareholders and other stakeholders for ensuring fair disclosure and comprehensive and transparent reporting of the Company's performance and activities. The Nomination and Governance Committee of the Company reviews the Shareholders Communication Policy on a regular basis to ensure its effectiveness.

### COMMUNICATION CHANNELS WITH SHAREHOLDERS AND OTHER STAKEHOLDERS

Teleconferences  
and webcasts  
for analysts and  
media briefings

Publication  
of financial  
reports,  
announcements,  
circulars and  
press releases

Shareholders'  
meetings

Investment  
community  
communications  
such as  
roadshows,  
site visits and  
annual analyst  
roundtable

Company's  
website





The annual general meeting and other general meetings of the Company provide a valuable opportunity to discuss the Company, its corporate governance and other important matters. Notice of the annual general meeting and related papers are sent to shareholders at least 20 clear business days prior to the date of the annual general meeting. The information sent to shareholders includes a summary of the business to be covered at the annual general meeting, where a separate resolution is prepared for each substantive matter. The Company arranges a question and answer session in the annual general meeting for shareholders and media to communicate directly with the Chairman and senior management.

## INVESTOR RELATIONS

Lenovo is devoted to developing an effective two-way communication with shareholders, investors and equity analysts to enhance the transparency of the Company. The investor relations team is committed to maintaining interactive communications with the capital market to facilitate better understanding by investment community regarding Lenovo's Intelligent Transformation strategy, business operations, investments in responding to market opportunities and our initiatives in improving corporate governance. The team also proactively reaches out to the market and engages with investors to ensure timely, clear and reliable updates.

During the fiscal year 2018/19, the Company continued to facilitate effective communications with its shareholders, investors and analysts through multiple channels including investor day, lab tours, investor conferences, roadshows, one-on-one and group meetings, teleconferences, company visits, Investor Relations website, social media, IR newsletters and IR alerts.

Further information about Lenovo's 2019 general meetings and investor relations activities is available on pages 91-93 in the [FY 2018/19 Annual Report](#).

## BUSINESS CONDUCT

Lenovo has a global ethics and compliance program, which is guided by Lenovo's Code of Conduct. The Company's Ethics and Compliance Office (ECO) oversees ethics and compliance across the organization, working in partnership with our business units to see that we achieve our business goals while meeting the letter and spirit of the legal and regulatory framework in which we operate. Our ethics and compliance program promotes an organizational culture that encourages the highest ethical standards of business conduct and a commitment to compliance with the law.

The ECO is committed to raising awareness about the importance of ethics and compliance in the workplace and plays a critical role in providing employees with the guidance, resources and information they need to make informed and appropriate choices and decisions. We describe clear expectations for employees and hold them accountable for their behavior.

Our Code of Conduct helps to ensure that employees understand the Company's expectations. The Code applies to all employees worldwide and is an integral part of our ethics and compliance program. The Code also demonstrates Lenovo's commitment to a culture of uncompromising integrity and assists employees in making well-informed decisions. In addition, the Code helps employees determine when to seek advice and where to obtain it. Regular training on the Code and related policies is provided to reinforce the Company's commitment to compliance and conducting business with integrity.

The Code, Policies and additional ethics and compliance-related materials are provided on the Company's intranet and through periodic communications.

## BUSINESS PRACTICES

Lenovo's Code of Conduct and policies strongly support ethical and responsible business practices:

### Anti-Bribery and Anti-Corruption

Lenovo has developed and implemented an Anti-Bribery and Anti-Corruption Policy, which reinforces provisions in the Code of Conduct and provides additional specific guidance regarding compliance with rules and laws related to bribery and corruption.

### Anti-Competitive Practices and Fair Competition

Lenovo competes fiercely for business, but always fairly. Lenovo's Code of Conduct forbids employees from entering into an agreement or discussion that would result in setting prices, limiting the availability of goods or services on the market or agreeing to boycott a customer or supplier.

### Intellectual Property

Lenovo respects the intellectual property rights of others. It is the Company's policy to avoid any infringement of copyright or other intellectual property rights of other companies and individuals in the conduct of its business. Employees are expected to obtain and abide by licenses or other permissions as appropriate and as required.

### Audits

Lenovo conducts internal audits and advisory projects each year to ensure that its ethical business policies and practices are being followed. The Audit Committee oversees the actions of management and monitors the effectiveness of the established controls, assisted by assurance provided by the external and internal auditors. On average, Lenovo's internal audit team conducts about 40–45 projects annually. More information can be found on pages 83–85 and 173–178 of the [FY 2018/19 Annual Report](#).

## RAISING QUESTIONS OR CONCERNS

Lenovo provides guidance to its employees regarding how to raise questions or concerns about any aspect of their work at Lenovo and has established clear processes and reporting channels. Employees are directed to report to their managers or other resources, including but not limited to human resources, the Ethics and Compliance Office, internal audit, corporate security or the Lenovo legal department, any information pertaining to:

- Fraud by or against Lenovo
- Unethical business conduct
- Violation of legal or regulatory requirements
- Substantial and specific danger to health and safety
- Violation of Lenovo's corporate policies and guidelines, particularly our Code of Conduct

In addition, Lenovo provides formal, confidential ways to report when potential violations of law, company policy or the Code of Conduct occur. These include postal mail, email and [our LenovoLine](#), which is a confidential reporting system that is accessible 24 hours a day, seven days a week by secure website or toll-free telephone with translators available. Where allowed by law, employees may report concerns about business practices anonymously if they choose.

The LenovoLine and other resources are also available to help provide guidance to employees who may have questions or concerns.

Reports of inappropriate behavior, policy violation or alleged retaliation will, to the extent permitted by law and consistent with an effective investigation, be kept anonymous and confidential. Lenovo regards any suspected violation of law, policy or the Code as a serious matter and is committed to following up on all reported concerns, which are addressed and tracked to resolution.

Lenovo has a clear non-retaliation policy, which is a part of our Code of Conduct. The company will not tolerate harassment, retaliation, discrimination or other adverse action against an employee who:

- Makes an internal report in good faith
- Provides information or assists in an investigation regarding such a report

Managers are required to report and help resolve any suspected violation of the non-retaliation policy. Complaints of alleged retaliation will be promptly addressed and investigated.

Questions about anything relating to ethics and compliance may be sent by email to Lenovo's Ethics and Compliance Office at [ethics@lenovo.com](mailto:ethics@lenovo.com). Lenovo also provides detailed information about its internal controls framework and enterprise risk management, including ethics and compliance, in its Corporate Governance Report, which begins on page 52 in the [FY 2018/19 Annual Report](#).

## PUBLIC POLICY

Lenovo maintains good relationships with local governments around the world and seeks to be a responsible corporate citizen in the countries in which it operates. Lenovo requires its employees to be truthful and accurate in all communication with all government authorities. The Company strives to adhere to the highest standards of integrity and accountability when dealing with government rules and regulations. From time to time, Lenovo engages in lobbying, as appropriate, and usually through industry trade associations to ensure that its voice is heard on matters of importance to the Company and its stakeholders.

## TAX APPROACH

Lenovo is committed to conducting business legally, ethically and with integrity, and this commitment extends to our approach on tax strategy, operations and compliance.

Information about Lenovo's FY 2018/19 tax position can be found in our [FY 2018/19 Annual Report](#) in the "Notes to the Financial Statements", on pages 232-234.

## PRIVACY

Lenovo recognizes the great importance of privacy to individuals everywhere — customers, website visitors, product users, employees ... everyone. The responsible use and protection of personal and other information under the Company's care is a core value.

To ensure adherence to Lenovo privacy policies, principles and processes, the Company maintains a global Privacy Program led by the Legal Department and a cross-functional Privacy Working Group comprised of key partners drawn from Information Security, Product Security, Product Development, Marketing, E-Commerce, Service and Repair, Human Resources, and other groups. Key projects of the Privacy Program include:

- Engagement with Lenovo's business teams on privacy due diligence and application of key privacy principles
- Development and governance of internal and external privacy policies
- Hold pre-launch privacy review processes for products, software, websites, marketing programs, internal applications, and vendor relationships
- Host employee privacy awareness and training initiatives
- Support for contracts
- Tracking and application of legal requirements and industry best practices
- Audit and assessment
- Incident response planning and processes

Questions or concerns about Lenovo's privacy policies and programs can be addressed to [privacy@lenovo.com](mailto:privacy@lenovo.com).







# 4.0

## PRODUCT RESPONSIBILITY

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Lenovo Innovation Making a Difference

# PRODUCT RESPONSIBILITY

## SUSTAINABLE QUALITY MANAGEMENT

### QUALITY MANAGEMENT

Lenovo delivers superior quality products and is committed to ensuring that its products are safe throughout their life cycle. Product Life Cycle Assessment (LCA) principles guide Lenovo in ensuring that every stage of the product's life is taken into consideration, including development, manufacturing, transportation, installation, use, service and recycling. This enables Lenovo to gain deep insight into opportunities for risk and cost minimization as well as uncover new opportunities for enhancing and increasing product quality to meet the needs of an informed public.

Corporate strategies, policies and guidelines have been designed to support Lenovo's commitment to product safety. Lenovo strives to ensure that our products meet all applicable legal requirements as well as voluntary safety and ergonomics practices to which Lenovo subscribes, wherever our products are sold.

Lenovo's global Quality Management System (QMS), which has earned ISO 9001 (International Organization for Standardization) certification, ensures the continual delivery of design improvements into current and future products. Lenovo strongly embraces the ISO 9001 commitment to an effective quality management system and is dedicated to exceeding industry standards for product quality and reliability.

## CROSS-ORGANIZATIONAL QUALITY ASSURANCE



To maintain this quality level, Lenovo employs an active closed-loop process with various feedback mechanisms. These feedback mechanisms provide quick resolution of customer issues. When product issues are discovered, we perform root cause analysis and feed the results back into manufacturing, development and test organizations ensuring that similar issues do not arise with current or future products.

Because Lenovo products fail less often and have a longer lifespan, fewer resources are required for their upkeep and end-of-life management. Lenovo's comprehensive product development process includes prototype development, product testing and focus groups to ensure the Company meets the diverse needs of global customers.

For example, Lenovo proactively elicits input on design and product features from customers and partners. Prototypes are extensively evaluated, and final products undergo rigorous testing to ensure

they meet stringent standards specific to their application and use before they are cleared for shipment.

Lenovo's Technical Evaluation Center provides information and recommendations to Lenovo engineering, and Lenovo's Lessons Learned feedback loop contributes to the refinement and maturation of our processes and elimination of recurring problems. As a result, Lenovo's product repair action rates are among the lowest in the industry.

Lenovo leaders are responsible for establishing objectives and measuring results to drive continual improvement in quality and customer satisfaction. All Lenovo employees are expected to contribute to this continual improvement as an integral part of our quality management system. Lenovo's corporate Quality Policy is available at: [www.lenovo.com/us/en/lenovo/about/quality](http://www.lenovo.com/us/en/lenovo/about/quality).

## CUSTOMER-FOCUSED TESTING

Once the product development phase is completed, Lenovo products undergo a series of customer-driven tests prior to production. Testing includes ongoing customer simulation evaluations and customer simulation audits to evaluate product quality by removing systems from the box and setting them up in typical customer configurations. Additionally, extended customer simulation tests are conducted on a sample basis with various configurations of product options and software. The last evaluation simulates the performance of the product through various standard customer applications.

Lenovo has continued to enhance our customer-focused program by sending technical teams to support on-site installations for customers. During and after the installation, there is ongoing dialogue between the customer and Lenovo to ensure timely feedback on installation progress. This allows corrections to be quickly put in place, and for the team to preempt potential issues.

This has proven to be highly advantageous during new product releases, as potential issues can be promptly addressed to minimize the impact on all customers.

## SAFETY AND ERGONOMICS

Lenovo is committed to ensuring that our products are safe throughout their life cycle, including manufacturing, transportation, installation, use, service and disposal. Corporate strategies, policies and guidelines have been designed to support this commitment to product safety. Each employee bears a personal responsibility to advance the following objectives:

- Meet all applicable legal requirements, as well as voluntary safety and ergonomics practices to which Lenovo subscribes, wherever we sell products.
- Select suppliers that demonstrate a similar commitment to safety.
- Provide customers with adequate information to enable them to safely use Lenovo's products.

- Foster employee involvement and provide appropriate resources to develop and implement successful product safety initiatives.
- Continually improve product safety initiatives.
- Investigate product safety incidents and take prompt remedial actions to protect Lenovo's customers and employees.
- Report safety initiatives and incidents to senior executive management.

The following table shows the product life cycle stages in which the health and safety impacts of products are assessed for improvement. All significant Lenovo products are subject to these assessments.



## HARDWARE SAFETY ASSESSMENT REQUIREMENTS AT LIFE CYCLE POINTS

Development of Product Concept	No <sup>1</sup>
R&D	Yes
Certification	Yes
Manufacturing and production	Yes
Marketing and promotion	No <sup>2</sup>
Storage distribution and supply	Yes
Use and service	Yes
Disposal, reuse or recycling	Yes

<sup>1</sup> Too early at this stage

<sup>2</sup> Not relevant at this stage

With a focused emphasis on product safety and quality, Lenovo is achieving high customer satisfaction and delivering quality products, solutions and services. Lenovo promptly investigates and responds to any potential safety or quality issue associated with our products. When needed, Lenovo works with governmental safety agencies to respond to customer allegations of a safety related incident. In the rare event a product recall is required, Lenovo will work with the appropriate safety authorities to communicate the issue and remedy to the public. In FY 2018/19 there were no product recalls for any Lenovo product.

Lenovo's Product Safety and Ergonomics Policy is available at: [https://www.lenovo.com/us/en/social\\_responsibility/Lenovo-Policy-Product-Safety-and-Ergonomics.pdf](https://www.lenovo.com/us/en/social_responsibility/Lenovo-Policy-Product-Safety-and-Ergonomics.pdf).

## ACCESSIBILITY

Lenovo is committed to providing people with disabilities greater access to information and technology. We are widely recognized for our focus on human factors and ergonomics and have a long-standing commitment to deliver world-class products and services that can be used by everyone. Smart design and intuitive functionality benefit everyone who uses technology, including those with disabilities. Lenovo products are developed to ensure compliance with best practices and are tested with a variety of Assistive Technologies (AT), including screen readers, screen magnifiers and speech recognition software spanning different price ranges.

Lenovo has established and maintains an accessibility policy for our products and services that includes a closed-loop process to ensure compliance. Lenovo considers accessibility throughout the design cycle and consults with persons with disabilities for further input on our products.

For more detailed information on how Lenovo provides assistance to users who have hearing, vision and mobility limitations and helps them get the most out of their computer experience, please visit [www.lenovo.com/accessibility](http://www.lenovo.com/accessibility).

## COMPLIANCE

Lenovo has established compliance systems to ensure our products comply with the laws and regulations in each country to which we ship. Lenovo products are designed, tested and approved to meet worldwide standards for product

safety, electromagnetic compatibility, wireless homologation, environmental ergonomics and other regulatory requirements when used for their intended purpose. More information on compliance as well as product compliance documents can be found at [www.lenovo.com/compliance](http://www.lenovo.com/compliance).

## LENOVO INNOVATION MAKING A DIFFERENCE

### EMPOWERING AN INDUSTRY WITH LOW TEMPERATURE SOLDER

Lenovo believes that technological progress is key to finding lasting solutions to both economic and environmental challenges. Lenovo's engineers are committed to reducing our impact on the environment, and eagerly seek to find solutions that lower emissions in our own operations while providing products to our customers that have a lower carbon footprint.

Our innovative breakthroughs — like our low temperature solder (LTS) solution — reflect this commitment. This technology enables Lenovo to lower the heat required to make our ThinkPads by 70°C, from 250°C to 180°C. After announcing this initiative in our FY 2016/17 Sustainability Report, we spent much of that year testing LTS in different facilities and process lines, as we modified our quality management to fit LTS requirements, enabling us to reduce our CO2 emissions by 59 metric tons in the first year, with plans to increase to over 5,000 metric tons.

LENOVO PLANS TO REDUCE ANNUAL  
CO2 EMISSIONS BY  
**>5,000 METRIC  
TONS**

WHAT DOES IT MEAN?

4

**Greenhouse Gas Equivalencies**



**14,274,481**

Miles driven by an average car



**1,890**

Tons of waste recycled instead of landfilled



**670,192**

Gallons of gasoline consumed



**154,357**

Tree seedlings grown for 10 years

1-3: Greenhouse gas emissions from  
4: Carbon sequestered by

Source: EPA Greenhouse Gas Equivalencies Calculator

Over two years of research and rigorous testing resulted in a 'significant' solution for a decade old problem in the electronics industry. For Lenovo, the solution is 'significant' because it yields multiple benefits which include:

- Reduction in energy and heat in the process — thus less CO<sub>2</sub> emissions
- Reduction in manufacturing fallout
- Easily implemented into existing manufacturing equipment
- No increase in operating costs
- Improved long-term product reliability

However, the greatest benefit is the impact that this open innovation will have on the entire technology industry, and ultimately on the environment. After investing so much of themselves in finding the solution, they knew they needed to do more. Lenovo's engineers did not want to keep the new manufacturing process a secret. In fact, they wanted to do something uncommon in the industry — something different. They wanted to make the industry and world better by sharing their knowledge and solution. When the patents were granted in 2017, Lenovo proactively shared this innovative technology via technical papers and consortiums with other electronic manufacturers — partners and competitors alike.

At the end of 2018, Lenovo had 10 surface mount technology (SMT) lines with two ovens per line using the LTS process — enabling an estimated annual reduction of 2466 metric tons of CO<sub>2</sub>. Lenovo's goal is to transition more SMT lines to LTS process by 2020. Because this technology can be easily implemented into our existing manufacturing equipment, transitioning just 10 additional lines (for a total of 20 LTS lines) may result in an incremental reduction of approximately 5,000 metric tons of CO<sub>2</sub> emissions annually. To put this into perspective, the estimated equivalent reduction in CO<sub>2</sub> emissions is equal to the consumption of more than 600,000 gallons of gasoline per year.







# 5.0

## MANUFACTURING AND SUPPLY CHAIN OPERATIONS

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In-house Manufacturing Operations

Supply Chain Operations

# MANUFACTURING AND SUPPLY CHAIN OPERATIONS

## IN-HOUSE MANUFACTURING OPERATIONS

Lenovo's manufacturing business model combines both Company-owned manufacturing capabilities with original design manufacturer (ODM) partnerships and joint-venture manufacturing. This hybrid model gives us a competitive advantage that allows us to bring new innovations to market faster while maintaining strong control over product development and supply chain operations. It also allows us to directly control our sustainability footprint. Given our global manufacturing operations, we can tailor our products to regional markets.

All Lenovo global manufacturing locations are ISO 9001 (Quality), ISO 14001 (Environmental) and OHSAS 18001 (Health and Safety) certified. As required by these globally accepted standards, we implement objectives and targets annually at each Lenovo manufacturing facility for continual improvement and a safe and healthy work environment for our employees. In addition, Lenovo encourages its suppliers to achieve these certifications.

Bureau Veritas Certification, as a global certification partner with Lenovo, had provided many years' verification and audits for Lenovo Group in accordance with OHSAS 18001:2007 occupational health and safety management system requirements.

*"Over the past years, we found Lenovo had established robust processes and programs to identify OH&S hazards, evaluate risks and manage all kinds of business activities across all of their manufacturing sites. Lenovo top management paid much more attentions on OH&S management and had established a continual enterprise safety culture. Their OH&S management team also took a conscious effort to put into place OH&S planning, monitoring, verifications and validations to ensure operational activities OH&S risks are fully and sufficiently addressed and controlled."*

— Bureau Veritas,  
Lenovo's Global Certification Partner  
for OHSAS 18001

## OCCUPATIONAL HEALTH AND SAFETY

Our corporate policy, [Responsibility for Employee Health and Safety](#) — highlights the framework for a safe and healthy work environment for all of our employees worldwide. This policy encompasses our core values for ensuring a safe and healthy work environment. Each employee and contractor is expected to comply with the policy and must report any safety or health concerns to management.

We understand the challenges of running operations globally and are well positioned to operate consistently as one team. We deliver health and safety programs and process excellence throughout our global manufacturing facilities. Maintaining a safe and healthy work environment is a value enforced by everyone from the top of the management chain to new employees.

The Lenovo OHS Management System ensures we meet our health and safety goals. Our management system is established in accordance with OHSAS/ISO Standards and consists of: detailed planning, hazard prevention, established controls, checking, and a commitment to continual improvement. As we expand our global footprint, new facilities are fully integrated and consistently evaluated to meet this high performance standard.

### Health and Safety Performance

Our health and safety programs are designed to meet regulatory requirements and are the foundation for ensuring a safe and healthy work environment for our employees. There were no significant accidents involving fires, property damage or regulatory violation during this reporting period at any of our manufacturing facilities in which we conduct business.

Lenovo's dedicated OHS team of professionals, are self-driven to continuous improvement and heightened awareness across the company through a robust training and auditing program. All of our global manufacturing locations are OHSAS 18001 certified by a leading independent certification body. In particular, all of our manufacturing locations in China are certified to the nation's *Work Safety Standardization* regulation.

Safety Committees at our manufacturing and selected field locations meet regularly and cover a range of safety topics, giving all participants the opportunity to engage and be a part of the company's corrective action process.

As part of our commitment to social responsibility, we have implemented the Responsible Business Alliance (RBA) Code of Conduct at our operations and with our suppliers. We perform rigorous health, safety and environmental assessments at all internal global manufacturing locations and key outsourced manufacturing suppliers to ensure regulatory and external management systems compliance. In addition, many of our manufacturing facilities received RBA audits in this reporting cycle.

## Recognition and Awards

Lenovo's OHS and environmental performance has been recognized with numerous awards from customers and governing authorities at our global manufacturing locations. In FY 2018/19, examples of these recognitions include:

- Lenovo Chengdu, China received the “2018 Recognition of Safety Culture Demonstration Enterprise” award from the Chengdu Government.
- LCFC (Lenovo's manufacturing site in Hefei, China) received the “2018 Hefei Safe and Peaceful Enterprise” award from Economic and Information Commission, Hefei, China.



- Lenovo Huiyang, China received the “2018 Safety Standardization” certification award from the Huiyang Government.
- LCFC received the certificate of “2018 Work Safety Standardization” from Provincial Association of Work Safety, Anhui Province and an award for “2018 Safety Management Standardization Model Team”, Hefei, China.





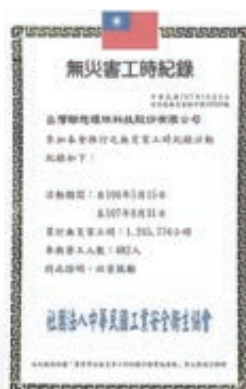
- Lenovo's Wuhan site in China received the "2018 Safe and Peaceful Enterprise" award from the District level Government in Wuhan, China.



- Morrisville, North Carolina, Research and Development received its fifth consecutive "Gold Award" from the North Carolina Department of Labor for Outstanding Health and Safety.



- Shanghai, China received their third consecutive "Safety Pioneer Unit" award from the local government.
- Lenovo, China LIPC received the "2018 Safety Standardization" certification award from the local government.
- Taiwan Development Center recognized with the "Certificate of Zero Injury" award by the Industrial Safety and Health Association in Taiwan after completing 1.2 million work hours without an incident.



- Whitsett, N.C., received its eleventh consecutive "Gold Award" from the North Carolina Department of Labor for Outstanding Health and Safety.
- Morrisville, North Carolina, Headquarters received its fourteenth consecutive "Gold Award," from the North Carolina Department of Labor for Outstanding Health and Safety.



## Training

We ensure our employees receive detailed health and safety training as well as site-specific safety information. Annually, our manufacturing employees take part in health and safety training that is compliant with local governmental regulations. Field location employees receive health and safety tips and information, which include workstation ergonomics and emergency procedures.

Our specialized safety training includes industrial vehicle handling, comprised of a rigorous part classroom, part hands-on training class. This training is mandatory for all forklift operators with a refresher training required every three years. We invite our contractor partners to participate in our health and safety training.



Employees participate in internal safety compliance training at Lenovo's Chengdu plant.



Lenovo employees participate in First Aid Training at the Huiyang plant in China.



Employees at Lenovo's Chengdu plant participate in Safe Forklift Operation competition.

## EMPLOYEE WELLNESS

Lenovo values the well-being of our employees and provides opportunities to maintain a productive and healthy lifestyle in and out of the workplace, and we offer a number of comprehensive initiatives that support the wellness of our employees. A few examples include on-site medical screenings; immunization clinics; eye, ear, and dental examinations; diet and nutrition; exercise; and smoking cessation programs. Health information and resources are available to assist employees on a variety of disease prevention and wellness matters. Lenovo also offers these opportunities to our contractors on an as-needed basis.

## SMART WORKPLACE TRANSFORMATION

Lenovo's Workplace Transformation Initiative has been deployed at multiple sites worldwide. The initiative implements progressive strategies to improve the way we work by creating a workplace optimized for our employees. We are transforming office layouts to contain more activity-based workspaces (ABWs). Whether seeking a collaborative setting for a project kickoff or a secluded space free of distractions, ABWs will allow us to match our tasks, state of mind, and environment.

Beyond changes in layout, the workplace will be optimized for wellbeing by improving features like natural light and fresh air. Furthermore, the workplace design will strengthen the Lenovo commitment to sustainability by minimizing environmental impact through thoughtful material selection and energy efficient design.



## WELL BUILDING CERTIFICATION

To demonstrate our commitment to employee health and wellbeing, we obtained WELL Certification for Building 6 in the North American Headquarters. This is a "performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and wellbeing".

In order to achieve the certification, we met stringent requirements to demonstrate that the space offers our occupants high-quality air, nourishing foods, opportunities for physical fitness, ergonomic design, and more.

# SUPPLY CHAIN OPERATIONS

Lenovo is committed to corporate social responsibility with our direct suppliers and their supply chains. Therefore, we have systems in place to help ensure compliance with all applicable labor, environmental, health and safety, and ethics standards. Our practice is to continually improve results to meet and exceed marketplace expectations.

In support of these goals, Lenovo has strong supplier contractual requirements, a comprehensive Supplier Code of Conduct and extensive supplier

validation programs. This includes formal efforts for the RBA Code of Conduct implementation, respect for human rights, environmental impact reduction, responsible sourcing of materials, and financially stable suppliers. On most of our procurement, we require direct and independent validation of supplier compliance. Overall supplier stability and sustainability performance is tracked and reported to senior management. Finally, education and capability building practices are in place.

We take great effort to eliminate sustainability risk in our supply chain through responsible partners and program coverage. Following are some key metrics on procurement spend (unless otherwise indicated) and program components:

### Overall Sustainability Indicators

- o 98 percent of our procurement spend is with fewer than 100 very large companies who typically have robust sustainability programs where we can concentrate and optimize compliance.
- o These suppliers are measured across 25 key sustainability indicators.
- o 95 percent of our supplier spend is independently audited and covered in our direct validation efforts.
- o 93 percent are tracked with real-time financial/business stability tools, as strong companies are more sustainable companies.
- o 90 percent are ISO 9001/ISO 14001/OH&S Certified (Quality, Environmental, and OHS).
- o 81 percent of our suppliers issue formal public sustainability reports with most using the Global Reporting Initiative (GRI) reporting standards and addressing Human Trafficking.
- o 67 percent of suppliers are formal members of the Responsible Business Alliance (RBA).
- o Lenovo has long-term relationships with suppliers, many measured in decades, engendering stability in the communities in which we operate. About 30 percent of our procurement spend is with suppliers who have been working with Lenovo for more than 20 years.

- o Our program efforts directly engage substantial coverage of Tier 2 and Tier 3 supplier business volume.
- o Lenovo's Supplier Code of Conduct, contracts and semi-annual supplier communications explicitly address anti-corruption, anti-bribery concerns and business integrity.

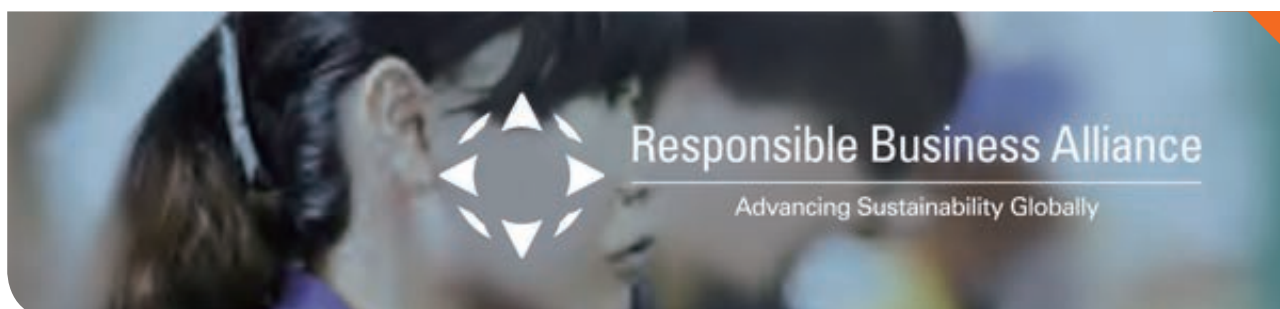
### CONTRACTUAL STIPULATIONS

Lenovo's standard purchase order (PO) terms and conditions stipulate supplier compliance with environmental specifications, hazardous material avoidance, ozone-depleting substance elimination, product safety, personal data privacy, liability insurance and full compliance with all applicable laws, including export and import and product safety. Suppliers must also implement and certify documented quality and environmental management systems.

Furthermore, our standard legal contract for suppliers further expands the standard purchase order (PO) terms, including full audit rights, and all standard legal protections and responsibilities for Lenovo and the supplier. It also requires that suppliers cannot discriminate against employees based on race, color, gender, religion, age, nationality, social or ethnic origin or any other legally protected class. Any deviation to the terms requires approval from our legal department, and certain high-risk terms requires senior procurement and business unit management approvals.

Finally, both PO's and contracts require compliance to our comprehensive Supplier Code of Conduct covering many topics including anti-corruption, anti-bribery and business integrity. More information is available at: [https://www.lenovo.com/us/en/pdf/social\\_responsibility/Supplier\\_Code\\_of\\_Conduct.pdf](https://www.lenovo.com/us/en/pdf/social_responsibility/Supplier_Code_of_Conduct.pdf)





## RBA COMPLIANCE

We contractually require a full Responsible Business Alliance (RBA) program with a majority of our suppliers and directly validate compliance with formal assessment reporting and independent audits. Lenovo is itself a formal RBA member and we significantly exceed the membership requirements of assessments and audits.

Following are key program elements:

- 95 percent coverage of suppliers by spend are in the program. We take a conservative approach and consider most suppliers high-risk sustainability suppliers.
- All must conduct formal self-assessments annually using RBA templates and reporting tools.
- All must conduct independent, 3rd party audits with RBA approved auditors every 24 months regardless of their self-assessment results.
- We drive for the most rigorous RBA Validated Audit Program (VAP) audits — 75 percent of our supplier audits are VAP based.
- Tier 2 and Tier 3 roles are also directly covered in our programs. About 60 percent of suppliers by spend may act in a Tier 2 role and are in our program — about 30 percent of our suppliers may act in a Tier 3 role and are in our program.
- Program status (open assessments, audits, action plans, and closure of action items) is comprehensively reported monthly to senior management.
- Overall summary and details of audit scores is reported quarterly.
- Suppliers are measured across 15 RBA specific key indicators (i.e. timeliness, scores, etc.) for supplier report cards.
- All outsourced development and contract manufacturers were ISO 9001, ISO 14001 and OHSAS 18001 certified.

## Working Hours/Time Off and Other Labor Standards

Like many companies doing business in China, we recognize the need to monitor the practices suppliers use to ensure proper working hours and time off for employees. When there are audit findings, we ensure closure of supplier action plans, and we track suppliers for two subsequent quarters to verify sustained improvement and compliance. We request that suppliers use the formal RBA working-hours template to demonstrate their compliance. Furthermore, we conduct quarterly deep-dives and internal reporting on these issues.

While we take great efforts to smooth out supply/demand volumes and to ensure proper volume capacity, we know we must take more proactive efforts. In FY 2019/20, we will start having our outsourced manufacturing suppliers provide actual working hours data to ensure compliance.

With respect to other labor standards, Lenovo implements the RBA program over the SA8000 certification because the latter only focuses on labor and the former encompasses the same labor concerns along with Environmental and OHS concerns. Lenovo recognizes the issue of living wages is a growing topic of concern and is making efforts to establish policies, programs, and baselines.

### FY 2018/19 RBA Audit Compliance Results

Our overall average audit performance is noted below. Each year represents approximately 50 percent coverage of our overall procurement spend. Scores are based on a weighted 200-point system where priority and major findings have significant weighting. Our quantitative targets are to achieve audit scores greater than 170 and zero priority findings in every audit.

Section	All Suppliers					Outsourced Mfg. 2018
	2014	2015	2016	2017	2018	
Total	110	130	155	143	148	154
Labor	141	145	159	153	156	159
Health & Safety	143	151	169	158	167	170
Environmental	168	176	183	181	184	186
Ethics	178	183	191	191	191	192
Mgmt. System	168	175	185	183	188	191
Priority findings	1.3	0.8	0.6	0.6	0.7	0.5
Major findings	9.5	8.4	4.8	6.3	4.8	4.4



## HUMAN RIGHTS IN LENOVO'S SUPPLY CHAIN

Lenovo respects human rights in all its activities, including those involving its supply chain. We strive to manage all operations consistent with U.N. Universal Declaration of Human Rights and the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work. We also have been a signatory to the U.N. Global Compact since 2009. As a signatory, we support and respect the protection of internationally proclaimed human rights.

We strive to uphold these standards and to demonstrate our commitment to them with our supply chain social responsibility programs. As previously noted, we conduct a full RBA Code of Conduct implementation within our supply chain where the Code covers extensive human rights and labor concerns. Furthermore, our comprehensive Lenovo Supplier Code of Conduct upholds our values and includes provisions prohibiting corruption, bribery, human trafficking, discrimination and retaliation to worker complaints. Lenovo requires our suppliers to have formal grievance mechanisms.



## RESPONSIBLE SOURCING OF MATERIALS

Lenovo recognizes the importance regarding the sourcing of raw materials when sourced from regions experiencing political and social conflict, which may include the conflict minerals of tin, tantalum, tungsten and gold ("3TG") from the Democratic Republic of the Congo (DRC) or surrounding countries. We accept responsibility even though we do not source materials directly from the area and they come from sources that may be over 10 supply chain tiers away where we have little to no control. Therefore, Lenovo adheres to the following efforts since 2012 and expects our suppliers to do the same:

- o US Securities and Exchange Commission (SEC) "Dodd-Frank 1502 Rule"
- o Organization for Economic Cooperation and Development (OECD) Due Diligence Guidelines for Responsible Sourcing Materials from Conflict-Affected and High Risk Areas
- o RBA Responsible Minerals Initiative (RMI) programs

In particular, the RMI is the world's leading organization for risk identification, risk assessment and risk mitigation efforts for responsible sourcing companies. Its membership consists of over 350 of the world largest companies, and we all use the same programs.

Lenovo believes in responsible sourcing and not participating in boycotts in the DRC or other areas as the RMI and other entities drive new efforts. Some companies have engaged in boycotts, but boycotts do not improve the situation in the local communities. Similarly, some companies have actively filtered their efforts to address only materials in their products. Lenovo believes these efforts are avoiding the problem and not taking ownership.

Lenovo fully supports efforts of the RMI to address materials beyond 3TG. In this past year, we piloted due diligence efforts on [cobalt](#) and look to institutionalize the program in FY 2019/20. We will coordinate with the RMI as they conduct risk profiles on other materials, assess their content in our products and develop due diligence efforts to mitigate supply chain risk. These efforts have already started with RMI's coordination with the Drive Sustainability organization as they have already developed risk profiles on over 30 materials in technology and automotive products.

### Program Components

- o Having a comprehensive public [conflict minerals policy](#)
- o Defined management owners, systems and autonomous working groups
- o Contractually require supplier participation and compliance with our Supplier Code of Conduct
- o Ensure suppliers have responsible sourcing of materials policies and due diligence programs via the RBA Code of Conduct audits

- o Utilizing the following RMI programs for 95% of our procurement spend:
  - Conflict Minerals Reporting Template (CMRT) for Reasonable Country of Origin (RCOI) to conduct risk identification of who are the smelters of 3TG in our supply chain
  - Smelter Information Exchange (SIE) to conduct risk assessment of smelters which have been audited and certified as being conflict-free
  - Responsible Minerals Assurance Process (RMAP) to audit smelters
- o Participating in the RMI Smelter Engagement Team (SET) to identify smelters and their status
- o Reporting the program status to Lenovo's Vice President, Deputy General Counsel and Chief Corporate Responsibility Officer
- o Publicly reporting a formal [Conflict Minerals Report](#) (CMR) and a list of the smelters in our supply chain

### FY 2018/19 Program Performance

- Overall conflict-free status improved to 90 percent from 82 percent and individual improvement was:
  - Tantalum maintained 100 percent conflict-free status
  - Tin improved to 92 percent from 87 percent
  - Tungsten improved to 95 percent from 92 percent
  - Gold improved to 82 percent from 72 percent



- 80 percent of our suppliers have public conflict minerals policies with 50 percent doing public conflict minerals due diligence reports
- 100 percent Response Rates from CMRT surveys
- Approximately 67 percent of our procurement spend are formal RMI members
- Conducted cobalt pilot survey on 65 percent of our procurement spend, including all battery suppliers
  - Working with the RMI as they develop audit protocols and practices to institutionalize [cobalt](#) with [Conflict Minerals programs](#)

Full details and statistics about our programs, efforts and results are in our Conflict Minerals Report are available at: [https://static.lenovo.com/www/docs/sustainability/Lenovo\\_Conflict\\_Minerals\\_Update.pdf](https://static.lenovo.com/www/docs/sustainability/Lenovo_Conflict_Minerals_Update.pdf)

## GREENHOUSE GAS EMISSIONS, WATER USAGE AND WASTE GENERATION

Lenovo continues to drive for accurate reporting and reduction of greenhouse gas emissions, water usage and waste generation across our supply chain. We ask our suppliers every year to formally report their environmental impact data via RBA on-line reporting tools. Several suppliers use the CDP reporting platforms, as they are the leading global organization with the most comprehensive reporting framework for environmental impact.

Our greatest challenge regarding reducing absolute supplier emissions and environmental impact is not individual supplier performance, but the growth in our business and procurement spend which has increased 180 percent since 2010.

## FY 2018/19 Program Highlights

- Lenovo received a top score by the CDP Supplier Leadership Engagement Board.
- The CDP recognizes that organization's average upstream emissions are around 5.5 times greater than their direct operations.
- The award demonstrates Lenovo's effectiveness in engaging our suppliers on climate change.
- CDP assesses performance on supplier engagement using a company's response to selected questions on governance, targets, Scope 3 emissions, and value chain engagement in the CDP climate change questionnaire.
- Supplier GHG Emissions (Scope 3) receive 3rd Party Verification from Bureau Veritas.
- 95 percent of our procurement spend is surveyed/tracked annually.
- 80 percent of our suppliers have public greenhouse gas reduction goals and 3rd Party Verification.
- 72 percent formally report to CDP.
- 70 percent have public water and waste reduction goals.
- 50 percent have ISO 50001 Energy Management certifications.
- 30 percent reduction in emissions intensity since 2010 at the same time our overall spend has increased 180 percent.

- 23 percent have publicly committed to 100 percent renewable energy.
- Over 200 percent increase in water recycling and renewable energy.
- Suppliers are measured across six related environmental key indicators (i.e. reductions, CDP Scores, 3rd Party Verification, etc.) for supplier report cards.

We are in the process of establishing our next generation of climate change goals and anticipate setting a Science Based Target related to supplier emissions intensity reductions by 2030 relative to 2019. This next generation goal should better drive suppliers to achieve decreases in absolute emissions.

## ENVIRONMENTAL RISK MANAGEMENT

While Lenovo conducts several programs associated with environmental risk, there are situations where incremental due diligence efforts are needed to prevent and mitigate potential risks. In these situations, we use a categorization method to define risk where additional practices and contractual stipulations are noted below.

- o Category 1 suppliers are those from whom Lenovo purchases off-the-shelf goods, or uses processes or services produced or offered commercially that are consistent with the supplier's normal business activities.
  - Lenovo does not increase environmental liability due to special requirements.
  - Most Lenovo suppliers are in this category and no further actions are needed.

- o Category 2 suppliers are those where Lenovo may provide materials, equipment, processes affecting their normal environmental practices.

- In these cases, additional controls associated with Category 3 suppliers may be required.
- Very few suppliers are in this category and do not need further actions.

- o Category 3 suppliers are those who handle hazardous waste, special waste and product end-of-life management services.

- These suppliers require pre-audits, additional contractual stipulations, semi-annual product volume reporting, and on-going audits.

It is important to note that most Category 1 and 2 suppliers are separately covered in our RBA practices where Environmental is one of the key elements of compliance. Supplier category status is reviewed and audit status is reported to the senior management team quarterly.

## SUPPLIER STABILITY RISK MANAGEMENT

Lenovo's recognizes that strong and stable companies have better sustainability programs, have greater positive impact in the communities in which they operate and are lower risks to the supply chain. We also know long-term supplier relationships support stable communities in which our supply chain operates and provides the foundation for compliance to social, ethical and environmental requirements. Most of our supplier relationships have been in place for decades, and we strive to develop and maintain these relationships.

Therefore, we use Dun & Bradstreet's Supplier Risk Manager Tool to provide risk management services in the evaluation of new and current suppliers. The application allows Lenovo to track multiple risk indicators, receive real-time alerts and take action before impacts occur.

## SUPPLIER PERFORMANCE EVALUATION AND BUSINESS REVIEWS

Lenovo's programs regarding supplier performance are to measure performance to specific core and sustainability criteria, provide regular scorecard feedback and engage suppliers in business reviews and conferences. Typically we cover 95 percent of our procurement spend with these programs. These activities serve as the foundation for mutual discussions on improving business relationships, standards compliance and future business volumes.

### Supplier Performance Evaluation

Following are Lenovo practices for supplier report cards:

- Core performance is measured and quantified across Quality, Delivery, Technology, Cost and Service with numerous sub-criteria which tends to be about 25 total components of evaluation.
- Sustainability performance is also quantified with about 25 key indicators across RBA, environmental impact, conflict minerals and sustainability reporting factors.
- Sustainability is then applied as an overall penalty/credit multiplier across the approximately 175 supplier report cards issued each quarter.

### Supplier Business Reviews and Engagements

Lenovo conducts three efforts on supplier performance, expectation and initiatives.

- Quarterly top and core suppliers typically receive face-to-face reviews on their performance.

- Semi-Annually a Lenovo Supplier Advisory Council meets where Lenovo brings together executives from the top 40 suppliers. Lenovo executive participation includes our CEO, business unit executives and senior vice presidents from supply chain, research and technology, and development organizations. These suppliers are considered our critical suppliers.
- Annual supplier conference where top executives from suppliers and Lenovo meet to build relationships and discuss overall performance and key initiatives for the next year.

## TRAINING AND CAPABILITY BUILDING

We conduct numerous education and communication activities throughout the year with all global supply chain personnel and suppliers as noted below. Education packages, subject matter experts and targeted training are available on-demand.

- CSR Newsletters (Monthly)
- Overall CSR/RBA/Environmental Specific/Conflict Minerals Training (Semi-Annually)
- Master Supplier Sustainability Score Card 25 Key Indicators (Semi-Annually)
- Supplier Report Card penalties and credits (Semi-Annually)
- Employee communications on ethical, anti-bribery, anti-corruption expectations (Annually)

## External Capability Training

As noted above, a substantial portion of our suppliers are large national and international suppliers with their own existing and substantial corporate social responsibility programs, and they are engaged directly with our programs. Therefore, the need for direct capability training is greatly minimized. Additionally, since a large percentage of our procurement spend are RBA members, they have access to the comprehensive E-Learning Academy with modules on all programs, guidance and tools. We do however provide:

- Semi-annual communications on the RBA, environmental impact, conflict minerals, and Supplier Code of Conduct expectations
- Ad-hoc education as necessary

## SUPPLIER DIVERSITY

Lenovo is dedicated to diversity and inclusion and believes in providing equal opportunity for all suppliers while developing and advocating a diversified supplier base. We seek to provide each diverse supplier with practical opportunities to provide goods and services while also creating a sustainable, mutually beneficial relationship. To that end, Lenovo is committed to maximizing the inclusion of Minority, Women, Veterans, Service Disabled Veteran, Disabled, Lesbian — Gay — Bisexual — Transgender (LGBT) owned businesses as well as businesses located in Historically Underutilized Business Zones (HUBZones) and Small Businesses within our procurement activities.

Lenovo recognizes the importance of supplier diversity and is committed to ensuring that it is an integral part of our strategic sourcing and procurement processes. We believe that the success of the organization and society depends on enabling Diverse Business Enterprises to share in the nation's economic growth. Our commitment is to maximize Diverse Business Enterprises' participation through the development of mutually beneficial business relationships with these firms.

Lenovo is committed to providing opportunities to certified Diverse Business Enterprises to participate as partners and suppliers of goods and services as part of our corporate procurement process. Equally important, we must demonstrate in action how we are advancing this evolution. Our policy of encouraging and assisting minority-owned and women-owned enterprises is a reflection of our commitment to diversity and the communities where we work and live. This commitment is emphasized by the highest levels of management and is communicated to all employees.

Lenovo recognizes the impact that supplier diversity has on the community. Therefore, we understand that when diverse-owned businesses flourish and prosper, the communities they serve share the benefits. And when our communities succeed, we all win.



To facilitate supplier identification and program development, Lenovo partners with a variety of national and regional organizations such as the National Minority Supplier Development Council (NMSDC) and the Women's Business Enterprise National Council (WBENC). Lenovo is also active in local and regional events aimed at promoting and creating opportunities for and celebrating diverse suppliers.

*"Lenovo's supplier diversity program is just one piece of our broader commitment to diversity and inclusion. We're proud to demonstrate a dedicated and enthusiastic culture whose concern is making a difference in the communities where we live and work."*

— Jonathan Wilkins,  
Supplier Diversity Program Manager for Lenovo

#### In FY 2018/19, Lenovo achieved:

- Spend with small businesses exceed **\$200M USD** total — 11.8 percent of total spend.
- Spend with diverse businesses exceed **\$420M USD** total — 17.7 percent of total spend.
- Lenovo was awarded the Carolinas/Virginia Supplier Development Council (CVMSDC) Total Impact Award.
- Lenovo nominated for Corporation of The Year through the National Minority Supplier Development Council (NMSDC).

For more information, please visit our Supplier Diversity webpage at: [https://www.lenovo.com/us/en/global\\_procurement/supplier\\_diversity.shtml](https://www.lenovo.com/us/en/global_procurement/supplier_diversity.shtml)



# 6.0

## PEOPLE

56

67

Lenovo Employees  
Social Investments

# PEOPLE

## LENOVO EMPLOYEES

### OUR CULTURE AND OUR PEOPLE

At Lenovo, we strongly believe that technology is our great equalizer. It holds the power to make our world, our communities, and our company more diverse and inclusive. When we combine it with what makes Lenovo unique, it enables transformation, and we are driven to respond to the challenges of such a dynamic world.

Our global nature is our greatest strength. It also is our greatest challenge because designing vital systems, structures and processes is not one size fits all at Lenovo. By creating global frameworks that are often operationalized locally, we achieve business objectives, while also allowing for local customization and flexibility.

The “We Are Lenovo” cultural principles of Customer Focus — Teamwork and Trust — Entrepreneurship — and Innovation are the heart of Lenovo’s management practices. Our leaders throughout the world are committed to these principles, and are driven by a sense of long-term responsibility. To convey our commitment in these areas, Lenovo published our first Global Diversity and Inclusion Report in November 2018. Read our [2018 Diversity and Inclusion Report](#) to learn more.

### CODE OF CONDUCT

Lenovo is committed to the highest standards of integrity and responsibility when working with all stakeholders. Lenovo provides guidance to employees on a wide range of ethical issues, such as reporting unlawful or inappropriate conduct, respecting and protecting intellectual property, trading in securities and complying with governmental relations through our [Employee Code of Conduct](#).

Our Code of Conduct applies to all Lenovo employees worldwide and communicates our belief in treating each other with respect and dignity. It is an integral part of our ethics and compliance program. As part of the Code of Conduct, we judge all applicants and employees by their qualifications, skills, and achievements without regard to race, color, religion, gender, gender identity or expression, national origin, ethnicity, sexual orientation, sex, age, disability, veteran status, marital status or any other characteristic protected by local law. For more information about our Code of Conduct, please see the section Corporate Governance.



## LABOR PRACTICES AND HUMAN RIGHTS

Lenovo's Human Rights policy communicates our respect for human rights in all that we do and how we extend those rights to our employees and business partners. Lenovo's Human Rights policy upholds and supports the universal human rights identified in the U.N. Declaration on Human Rights and the U.N. Global Compact. Lenovo does not permit the use of child labor, forced labor or coercion, including physical punishment, in any Lenovo operation.

Since 2009, Lenovo has been a signatory and active participant in the U.N. Global Compact, a public-private strategic policy initiative for businesses committed to aligning operations and strategies with 10 universally accepted principles of human rights, labor, the environment and anticorruption. As a signatory, we support and respect the protection of internationally proclaimed human rights, including the right to freedom of association and collective bargaining. For more information, please see Lenovo's Human Rights Policy.

To confirm that Lenovo manages all operations consistent with the spirit and intent of the U.N. Universal Declaration of Human Rights and the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, we perform due diligence across the value chain to identify risks and avoid complicity in human rights violations. We provide access to grievance mechanisms, investigate allegations and escalate known cases of human rights abuse to senior leadership. We also incorporate training and accountability for respecting human rights across the business and the supply chain. Lenovo manufacturing sites undergo regular audits for compliance with RBA, OHSAS 18001, and other standards and requirements. Working hours and consecutive days worked were flagged as major and minor issues in FY 2018/19 audits. Corrective actions implemented to address these issues include: (i) close monitoring of supply/demand volumes to try to ensure proper volume capacity; (ii) digital tools to more closely monitor and alert employees and managers in "real time" as overtime limits are approached; and (iii) education of employees and managers as to the importance of taking time off. Subsequent audits have shown improvement, although we recognize this continues to be an ongoing challenge in certain geographies.

Lenovo's continuous improvement process engages internal and external stakeholders to address common challenges and advance human rights practices. For more information on how Lenovo protects human rights in its supply chain, please see the section [Human Rights](#) in Lenovo's Supply Chain and the [Lenovo Anti-Slavery and Human Trafficking Statement](#).

**Our 57,000 employees and contractors speak more than 100 languages and live in more than 60 countries around the world. This diversity of background, language, and life experiences enhances Lenovo's competitive advantage.**



## TECHNOLOGY IS THE CATALYST FOR INCLUSION

People around the world recognize technology as a powerful enabler of diversity and inclusion (D&I). Lenovo recently conducted a global survey of 5,000 people in five countries — China, the U.S., the UK, Germany, and Brazil — of varied age, gender, and cultural backgrounds. We chose these countries because they reflect where more than 70 percent of our employees are located. Their views diverged on a range of subjects, and on the topic of D&I itself. Universally, however, the people we engaged with around the globe see technology as a positive force in advancing D&I and bringing the world closer together — professionally, socially, and culturally. Among our other key findings: In all five countries, survey respondents recognized the critical importance of D&I.

In many cases, D&I ranked just below issues such as employment, healthcare, and education. Respondents acknowledged that society is making progress in D&I, but also note there's room for improvement. They identified technology as



having a positive impact on society by making it more inclusive. Overall, our research makes clear a major shift in values. D&I is now seen more as an opportunity to build community, and less about the achieving of metrics alone. Diversity as a standalone value is declining in importance. Rising in importance is the value of inclusion, or the need for a collective sense of belonging, to be accepted, and to be treated equally, regardless of background or personal differences. When certain values become more important and others drop, it signifies real change in both attitudes and behaviors.

Lenovo has always pursued a path of inclusion. With deliberate intent, we've built a culture where all can belong. Now, with the findings of our global study, we recognize the need to do more. We recognize that the world around us is evolving rapidly, and that the systems and processes we once used to guide our D&I commitments must evolve as well — in some cases, be overhauled and created anew.

Technology companies, in particular, need to be D&I leaders. We make the products that break down barriers, and that can help empower people everywhere to be equal and belong. Lenovo welcomes this responsibility to be a catalyst for inclusion and create social equity.

## DIVERSITY AND INCLUSION

As a uniquely global business, diversity and inclusion are among Lenovo's greatest strengths. Our leaders throughout the world hold a deep commitment to innovation and a far-reaching mindset fueled by a sense of our long-term responsibility. A diverse business model starts at the top. We believe that a global workforce should reflect the global customers that it serves, and this begins with leadership that is representative of the various cultures and ethnicities that comprise our internal talent.

Lenovo is committed to advancing and growing our inclusive culture with an ongoing focus on diversity. We are placing a growing emphasis on inclusion to leverage our diverse talent. Research consistently shows that diversity improves business outcomes and results when inclusion lies at the core of the culture.

We believe that as a truly global technology company, we have an even greater responsibility in advancing diversity and inclusion globally. We're bringing awareness about inclusion to all our leaders and all our employees in a variety of ways.

## EMBEDDING DIVERSITY AND INCLUSION IN EMPLOYEE DEVELOPMENT

Our approach to growing employees' D&I capabilities is to embed D&I within each of our employee development programs. While the concepts of D&I look different across the various programs, they're all anchored by our corporate cultural elements of innovation, entrepreneurship, and customer centricity.

**Management Development** — Diversity of thought is celebrated by encouraging managers to seek out diverse candidates when hiring and through the use of the DiSC assessment to better learn about people's behavioral styles within manager training. Participants in director training learn to expand their global awareness by becoming anthropologists, and not tourists, when learning about other cultures.

**Leadership Development Programs** — Both the global Women's Leadership Development Program (WLDP) and U.S. Mosaic Leadership Development Program (MLDP) develop high potential talent for the executive ranks. Women and members of historically under-represented groups in the U.S., including African American, Alaska Native and Native American, Asian, Hispanic/Latino, Individuals with Disabilities, LGBT, Two or More Races, and Veterans are the candidates for these respective programs.

**Organizational Interventions** — We're focused on working with internal organizations that have gaps as demonstrated in our Lenovo Listens employee engagement survey and supporting these organizations with relevant D&I learning solutions.

**Anti-Harassment** — Globally, employees and managers are encouraged to take part in a biennial program and take an anti-harassment course to promote positive behaviors that foster an inclusive workplace. This is a requirement for employees in non-manufacturing roles.

**New Employee Orientation** — In New Employee Orientation in the U.S. and China, a portion is dedicated to Lenovo's diversity, including an overview of Employee Resource Groups, our D&I Commitment, and our Code of Conduct.

**Global Awareness Tool** — Finally, since our customers are represented in more than 160 markets, we've invested in a tool for global awareness. It allows employees and managers to better understand themselves, their teams, and other cultures across elements like communication and status. All employees are invited to create their free culture profile in the system and explore self-guided training. This tool also contains information about every country, including cultural customs and pronunciations of common greetings.

## RECOGNIZING DIVERSITY AT ALL LEVELS

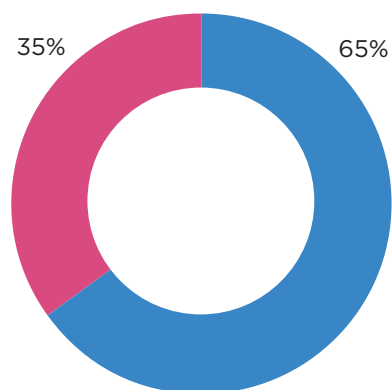


We recognize the value of diverse leadership at all levels. Lenovo recognized the importance of diversity and established the role of Chief Diversity Officer after it expanded outside of China in 2005. In our more than 14 years as a global company, we have structured ourselves to support diversity and inclusion. Lenovo's 11-member Board of Directors is the highest governing body in the organization and responsible for overseeing the company's strategy and supervising its actions. The Lenovo Executive Committee (LEC) is Lenovo's top management committee that governs our business across functions, geographies, and business units. Our top 14 leaders include three women and represent nine different nationalities. Among our top 100 executives, 20 different nationalities are represented.



## Workforce Composition by Gender

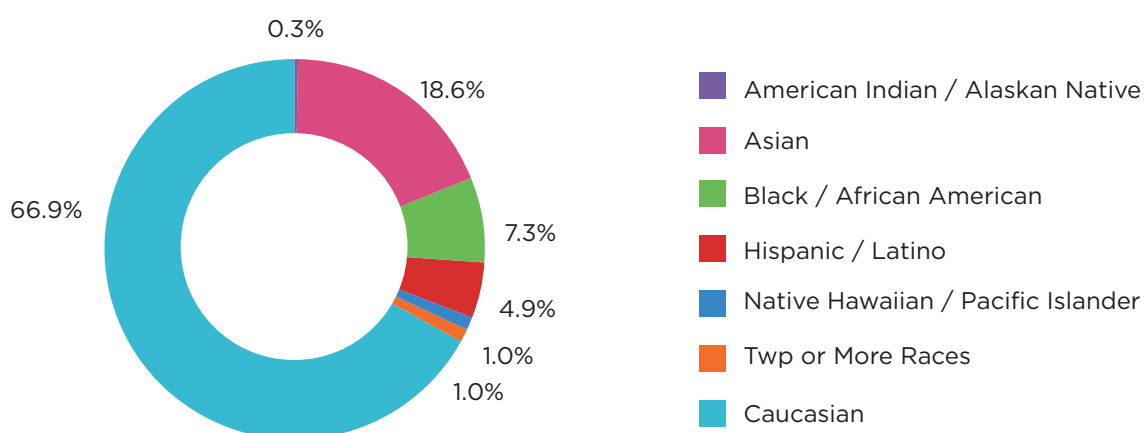
September 30, 2018



■ Women ■ Men

## U.S. Workforce Composition by Race

September 30, 2018



## Employee Resource Groups

Our global Employee Resource Groups (ERGs), guided by our Diversity and Inclusion Office, play an instrumental role in advancing the employee experience. We strive to make sure that one or two local executive sponsors support each ERG. Our current ERGs are:

- **Women in Lenovo Leadership (WILL):** Provides networking and development opportunities globally across 40 markets
- **Diversitas:** Provides training, networking, and career development in Bratislava, Slovakia for individuals with disabilities, LGBTQ, women, and early career employees
- **New and Expectant Mothers Outreach (NEMO):** Provides information, coaching, and support for expectant and new mothers in the U.S.
- **Black Leaders Achieving Success in Technology (BLAST):** Provides mentorship, leadership development, networking, and community service in the U.S.
- **Hispanics of Lenovo Association (HOLA):** Provides training, networking, and career development in North America



**WLDP** brainstorming session in Beijing, China. January 2018



**WILL** International Women's Day Forum, March 2018



Lenovo's Women in Tech panel discussion at Accelerate 2018 addresses STEM and diversity issues.



Diversitas members supporting LGBT Pride Parade in 2018

## COMPENSATION, BENEFITS AND PERFORMANCE

We strive to create a personalized and supportive working environment for our 57,000 employees around the world by giving them the flexibility to manage their unique life needs and their work. To ensure we can attract and retain high-quality talent in the competitive technology marketplace, we offer a variety of benefits for employees and their families.

Benefits packages follow these strategic guidelines:

- Position Lenovo competitively within the local marketplace
- Align with and support Lenovo's business and culture strategy
- Emphasize Lenovo's commitment to wellness and families

To achieve these goals, Lenovo must be flexible and consider varying customs, practices, legal requirements, and employee expectations around the world to design impactful benefits programs. Our employees are our most valuable strategic resource, and we focus on creating benefit plans that recognize their talents and contributions.

Our Total Rewards approach consists of five elements: compensation; benefits; work-life balance; performance and recognition; and development and career opportunities. These five elements are critical for us to attract, motivate, and retain our most valuable strategic resource — our people.

We pay for performance because exceptional performance drives business performance. Each employee's "Key Performance Indicators" (KPIs) link to the overall business strategy. We continually monitor and evaluate market trends and industry practices in our workplace locations to ensure our salaries are competitive, and we react quickly to changes.

Our performance management program allows all Lenovo employees worldwide to set their goals for the year, receive feedback on their performance and development needs, be evaluated on their performance, and, if eligible, receive a performance bonus. Formal assessments occur once or twice a year for all employees, and managers are expected to provide ongoing feedback throughout the year. We track completion of employee performance reviews at the end of the performance review cycle to make sure every employee gets feedback.

We design competitive compensation programs to attract, motivate, and retain talent, including a mix of base pay and short-term and long-term incentive plans. Given our global business demands, our global policy allows employees to work remotely when it makes sense.

Globally we offer flexible benefits in multiple markets (China, Mexico, Hong Kong, and the UK) to provide employees with a range of choices for benefits that fit their needs at various stages in their life. Choices vary by geography depending on the local market, but often include the opportunity to add additional insurance coverage (life/disability/critical illness/dependent health care) or to purchase some "lifestyle" type benefits like pet insurance, home, or auto insurance at discounted rates.

### Growing our Talent

Equality is more than a visual representation of diversity — it also means ensuring equal opportunities for growth and development. Through numerous internal programs, Lenovo is committed to growing our diversity of talent and fostering leaders of the future.

**Women's Leadership Development Program (WLDP):** Founded in 2014, the WLDP serves as a global corporate initiative for building a pipeline of global female executives. Partnering with Linkage Inc., annual cohorts of 20–25 high-potential female Directors undergo a nine month development series designed to enhance critical skills and amplify visibility to senior leadership.



**Mosaic Leadership Development Program (MLDP):** Following the successes of the Women's Development program, in 2017 Lenovo launched a new program designed for advancing future U.S. executives from historically under-represented race and ethnic groups. The "Mosaic" program represents men and women across various dimensions of diversity, including Asian, Black, and Hispanic heritage, military veterans, individuals with disabilities, and LGBTQ employees.

**Early Career Development:** Lenovo's University Recruiting Program is part of a global strategic initiative to drive business transformation by fostering early career talent growth across the organization. These programs are designed to engage talented students and recent graduates to jump-start their careers, with a special focus on diversity and inclusion. We hire more than 500 Early Career Hires across all geographies and business units as either regular entry-level, full-time roles, or as a part of specific rotational programs. To learn more about our early career development programs, please go to:

<https://www.lenovo.com/us/en/about/diversity/programs>

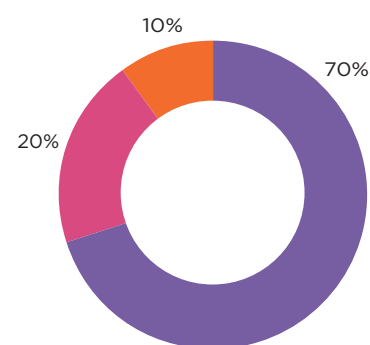
## TRAINING AND DEVELOPMENT

Lenovo invests in talent development, taking a robust and systematic approach to employee management and executive development. Our approach targets building the capabilities of our people and our organization in three ways:

**Experiences on the Job** — learning while doing. We design 70 percent of career development to happen on the job.

**Colleague Relationships** — mentors, guides, coaches, managers. Employees learn through sharing their successes and failures with others and by seeking guidance and advice. We aim for 20 percent of learning to happen this way.

**Education** — formal training in the classroom or online that teaches key principles and skills. We design 10 percent of our learning opportunities to be formal education.



- On-the-job career development
- Guidance and advice from mentors, managers
- Formal education online and in classrooms



We combine these three methods to maximize learning in a systematic approach, including formal employee and leadership education programs, targeted people planning and global rotations, employee network group forums, mentoring circles, executive coaching, structured feedback, and a variety of additional assessment and development tools.

Lenovo's training includes regular and online courses for employees on the Code of Conduct, Information Security, and Privacy Basics. Lenovo employees with computer access receive ongoing training in areas such as culture, compliance, and performance management.

**Grow@Lenovo** is Lenovo's learning management system. It hosts almost 3,000 different online and instructor-led training courses organized by topic or career stage. The content consists of e-learning across a variety of topics including diversity, business skills, professional skills, leadership, and many other different types of learning. Lenovo develops its own training content for sales, product, and process training. Managers can find e-learning content to support the progressive instructor-led leadership development track. Since 2015, Lenovo has deployed training to more than 30,000 users across eight languages.

## EMPLOYEE COMMUNICATIONS

Lenovo actively fosters open communication among employees, as well as communication between employees and the company. To ensure our employees are effective and informed "brand ambassadors," Lenovo holds regular employee (All Hands) meetings in each of its business units and functions, typically on a quarterly basis. Employees attend in person when possible, with remote participation enabled through a combination of web stream and conference calls. These meetings feature ample opportunities for employees to ask questions, interact with each other and their senior

leaders and hear the latest on Lenovo's strategy and mission. Guest speakers help employees deepen their knowledge about other areas of the company. Meetings may be recorded for later playback to ensure employees can review anything they may have missed. Lenovo's goal is to ensure that our employees are fully informed on the strategic direction of the company and that they have firsthand access to our senior leaders.

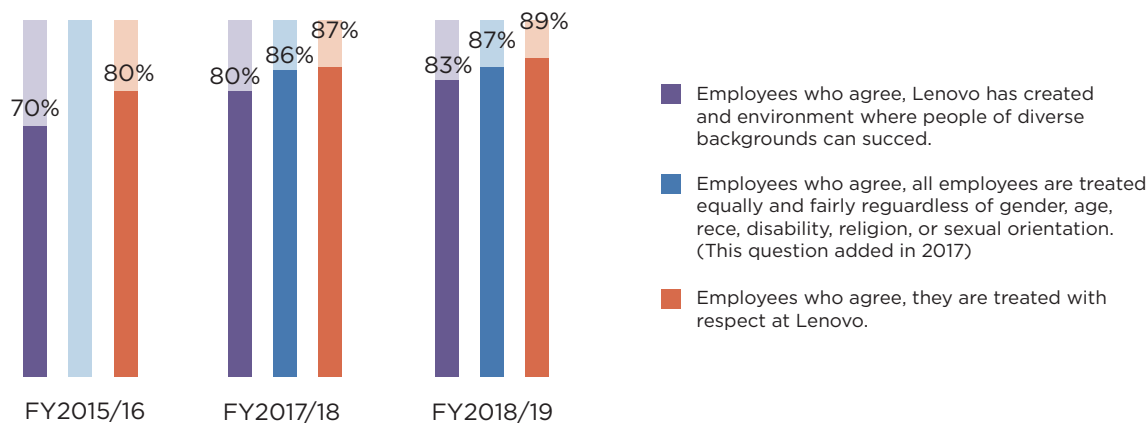
## "Lenovo Listens" Employee Engagement Survey

Lenovo seeks the insights of its employees worldwide through its Lenovo Listens employee engagement survey. This survey is designed to gain insight on how Lenovo employees view their jobs, their management, their teams, their rewards and the company as a whole. Lenovo Listens is an important measure of employees' pride, motivation and commitment to staying at Lenovo. Research shows that measures of employee engagement can be used to predict the amount of effort that employees are willing to invest in their jobs as well as employee retention. In addition, employee engagement can be tied to important measures of organizational performance, including financial results, customer satisfaction and operational efficiency.

Survey responses are analyzed by a third party survey vendor and reported back to Lenovo in aggregate format, ensuring no individual responses can be identified. Managers of all levels are encouraged to use their results to identify areas where they can improve and create meaningful action plans.

Post-survey focus groups are also conducted to better understand employee input and drive action planning at the management and corporate level for continuous improvement. Lenovo Listens is conducted annually to enable an agile, continual listen-respond mechanism.

In our FY 2018/19 annual 'Lenovo Listens' employee engagement survey, employees reported the following:



Comparison since FY 2015/16

## OPERATIONAL CHANGES

Lenovo provides advance notice of significant operational changes in accordance with local requirements and collective bargaining agreements in the locations in which we operate. We meet regularly with employees and provide information on business changes. In cases where operational changes are required, we take steps to mitigate negative impacts.

Lenovo has regular employees, supplemental employees and contract workers. From time to time, the company decides to move work from one country or region to another in support of the business strategy and objectives. We take great care when these decisions are made to notify affected employees and non-employees as required by local and/or country laws and provide severance and career and training assistance where possible and as required by local/country laws.

## SOCIAL INVESTMENTS

Lenovo's social investments are focused on STEM education and empowering diverse and under resourced populations, themes that are integral to the success of our business. Lenovo annually commits up to one percent of its pretax income to global social investment programs and initiatives. Lenovo's investments are executed through giving from both the business and the Lenovo Foundation, a U.S. 501c3 non-profit that operates as Lenovo's global charitable giving arm. Business and Foundation assets are managed by a central team that is focused on collaborating across business units and geographies to maximize the impact of Lenovo's giving. Highlights from Lenovo's FY 2018/19 philanthropy include:

- In April, Lenovo Foundation led Lenovo's second annual global service event, "**Make a Difference Week**". The project grew by 22 percent in number of projects from its inaugural 2017 event.
- Lenovo expanded its 11-year-old partnership with **Women's Forum for the Economy and Society into a global partnership**, engaging employees around the world in Women's Forum's mission to inform, influence, and empower women and men to break down gender inequities.
- In October 2018, Lenovo formally launched **the Lenovo Foundation**, engaging employees and external followers around the world in a challenge to "Love On", an anagram of the Lenovo brand.
- From October 2018 to January 2019, Lenovo Foundation held its **first Love on Mini Grant round**, giving \$150,000 USD to charitable organizations around the world to support projects aligned to Lenovo Foundation's mission.



By focusing on the social investment objectives below, Lenovo meets the diverse needs of the communities where Lenovo employees and consumers live and work.

### LENOVO'S SOCIAL INVESTMENT OBJECTIVES

- Partner with charitable organizations, educational institutions and civic organizations to amplify the impact of Lenovo's social investments around STEM education and empowering diverse and under-resourced populations.
- Engage employees in volunteerism, sharing the value of their expertise and talent with community members.
- Connect with civic and community leaders to strategically enhance Lenovo's charitable giving mission, while providing disaster response and recovery on a global scale.



## GLOBAL DISASTER ASSISTANCE

Natural disasters are projected to increase in frequency and severity as a result of climate change, straining response and relief organizations and resources around the world. To address this increased need, Lenovo developed a matrixed process in order to consistently respond to natural disasters based on impact and local alignment. The new process was deployed to help manage disaster response through the combined contributions from employees, the Lenovo Foundation, and our partnerships. See the consolidated metrics section for the Lenovo Foundation FY 2018/19 contribution report.

### August 2018 — Kerala Flooding (India)

Employees responded locally with \$3,600 USD in supplies and relief efforts.

### August-September 2018 — Hurricane Florence (Southeast, United States)

\$115,000 USD response in monetary and product donations to American Red Cross to assist with communication efforts.

### August-November 2018 — California Wildfires (United States)

\$6,570 USD given through a donation of computer equipment to the Butte County Office of Education to mitigate effects of students' disrupted school year during California's most deadly and destructive wildfire season.

### September 2018 — Typhoon Mangkhut (Philippines)

\$100,000 USD given to Save the Children from the Lenovo Foundation to help with disaster response efforts.

### September 2018 — Sulawesi earthquake and tsunami (Indonesia)

\$15,000 USD given to Save the Children from the Lenovo Foundation to help with disaster response efforts.

### December 2018 — Sunda Strait Tsunami (Indonesia)

\$20,000 USD given to local organizations to assist with recovery after tsunami.

Lenovo and Lenovo Foundation are grateful for our partners at American Red Cross, Save the Children, and grassroots response organizations in local regions who enable our ability to respond to natural disasters.

## EMPLOYEE ENGAGEMENT AND VOLUNTEERISM

### Employee Volunteerism

Lenovo's global employee volunteerism was strengthened by the second annual global service event, Make a Difference Week. Continuing momentum from the first global service event in 2017, **Make a Difference Week** was held in April 2018 and brought together nearly 2,000 employees in 38 Lenovo offices around the world, performing 9,700 volunteer hours in an effort to give back to their communities. It is estimated that the combined effort of all events impacted approximately 32,500 individuals around the globe.



## 2018 MAKE A DIFFERENCE WEEK METRICS

**9,700**  
volunteer hours

**2,000**  
employees  
participated

**38**  
Lenovo  
offices  
participated

**32,500**  
people  
impacted

Lenovo was proud to announce a global volunteer benefit for all full-time employees in FY 2018/19. See the consolidated metrics for the estimated value of the employee volunteering program. The Lenovo Philanthropy team will report on the impact of this benefit in the FY 2019/20 Sustainability Report.

### Employee Giving

In addition to its volunteer initiatives, Lenovo grants employees in North America a 50 percent match for their charitable donations. In FY 2018/19, Lenovo matched North America employee contributions made through payroll deductions, offline gifts, and donations of time and talent with \$380,854 USD to benefit organizations supported by employees in the U.S. and Canada. Lenovo is pleased to see the employee matching gift program expand to other geographies, and in support of the expansion donated \$59,775 USD to matching campaigns outside of North America. See the consolidated metrics for the estimated value of employee giving.

Through partnerships with various non-profit organizations, Lenovo also makes contributions which strengthen the impact of employee donations to organizations in other regions. For example, Lenovo employees in the Belgium/Netherlands/Luxembourg region donated €39,000 to Save the Children by auctioning display products to employees during the holidays. The Lenovo Foundation matched their donation in order to make an even greater impact. More examples of Lenovo's global charity activities are included in the Charitable Giving by Geography section.

In addition to the employee matching program above, the Lenovo Philanthropy Board extended the matching gift benefit to the Lenovo Board of Directors. This matching gift program is available to all Directors who support organizations that meet Lenovo's giving guidelines.

### CHARITABLE GIVING BY GEOGRAPHY

#### North America

Lenovo donated more than \$1 million USD in North America (United States and Canada) in FY 2018/19. Major partnerships are outlined below.

#### NAF and the Lenovo Scholars Network

Now in its fifth year, the Lenovo Scholar Network offers more than 6,000 students at 133 public high schools across the United States the opportunity to learn how to develop mobile applications. Lenovo and NAF created the annual Mobile App Development Competition in 2014 to engage underserved high school students in STEM, while also providing entrepreneurial and technology skills needed to pursue careers in computer science, programming and engineering. In the summer of 2018, Lenovo also hired more than 62 NAF high school students as interns at the Morrisville headquarters.



### Boys and Girls Clubs of America

Lenovo partnered with the Boys and Girls Clubs of America to create a computer science curriculum “App Lab” and series of Hackathons in clubs across the United States. The support engaged 203 students in a ten-week computer science course provided through the MIT App Inventor Platform. Apps resulting from the curriculum were showcased at Hackathons across the country, including clubs near Lenovo’s North Carolina headquarters in May 2018.

### Wake Technical Community College

Lenovo supports diversity in STEM in every part of the talent pipeline through its support of Wake Technical Community College. Lenovo Foundation and Lenovo support Wake Technical Community College with an endowed scholarship (benefitting four students each year), equipment donations, and paid work-based learning opportunities. Lenovo has maintained a track record of hiring 1 in 4 students that participate in its programs into full time jobs at Lenovo. In addition to support for students, Lenovo has provided building sponsorship for the school’s new campus in Research Triangle Park.

### Illinois Science and Technology Institute and the STEM Challenge

Over the past six years, Lenovo’s Motorola Mobility headquarters in Chicago, Illinois has participated in the Illinois Science and Technology Institute’s STEM Challenge. The Challenge matches Illinois high schools with industry partners, challenging

high school students to solve a real-life industry problem. Students are mentored by industry professionals over five month period, learning important 21st century skills and gaining a better understanding of the modern workplace.

## CHINA

### Firefly project

Lenovo China philanthropy is addressing the needs of impoverished populations in mountainous regions of Western China through the Firefly project through programming, volunteerism and fundraising.

- In July 2018, Lenovo hosted 20 students from the Ulanhob province in Beijing for a week-long Science and Technology Summer Camp. The camp provided children with access to science and technology concepts, mentorship from Lenovo employees, and a visit to the China Science and Technology museum in Beijing.
- On September 16, 2018, in tandem with the Beijing Marathon, employees conducted fundraising efforts for the Firefly project during “Love on Running Charity with Lenovo”. The company donated 10 CNY for every kilometer that employees ran during both the Beijing Marathon, as well as an offsite running event. The fundraiser raised \$2,500 USD after employees ran a total of 1,773.7 kilometers.



### Smart Classroom Donations in Sichuan Province

In March 2019, Lenovo donated 13 sets of Smart Classrooms in Liangshan, Sichuan Province. The Smart Classrooms included software, hardware, training, and services for educators. The smart classrooms benefitted 6,000 teachers and students in poor and underserved areas by providing access to technology. The value of the donation was ~\$289,000 USD.

### Beijing TianYun Hearing and Speech Rehabilitation Organization

Lenovo China has created a special partnership with TianYun organization to benefit children with speech and hearing disabilities in China. Through fundraising and donations, as well as volunteerism, Lenovo is increasing access and resources for children, many of whom not only suffer from speech and hearing loss but are also from poor backgrounds.

- In September 2018, Lenovo participated in 'Tencent's 99 Charity Day' with their own "Double your love" campaign. 1,564 individual donors donated 40,000 CNY (~\$5,781 USD), which was matched by Lenovo Corporate with 100,000 CNY (~\$14,450 USD) to benefit the TianYun Organization.
- Lenovo China Volunteer Association created a volunteer partnership with TianYun organization on November 18, 2018. By establishing the partnership, Lenovo volunteers are able to volunteer at TianYun organization on an ongoing basis. The formalization of volunteerism was paired with a donation of clothes, books and volunteer time with the children.
- TianYun's relocation to a new site caused a loss of affordable heating during the wintertime. Lenovo employees and Lenovo China helped to offset costs of electric heating with an employee donation (10,600 CNY), which Lenovo matched with 26,000 CNY. This resulted in a total donation of 36,600 CNY (~\$5,290 USD), covering the costs of heating from December to April.



### Science Toolbox Donation in Rural China

- In March 2019, Lenovo donated 652 sets of science toolboxes to 122 primary schools in Huangzhong County, Qinghai Province. Each toolbox set provided STEM education materials for 12 students in each class and grade of a rural school. The reuseable contents will benefit more than 12,300 primary and secondary school students directly and provide experimental equipment in lower grades of primary and secondary schools in Huangzhong. The estimated value of this donation is nearly 600,000 CNY (~\$87,000 USD).

## ASIA PACIFIC

### Lenovo/Motorola Skills Academy

In order to address the rising demand for field technicians and skilled labor in the smart phone and computer repair market, Lenovo and Motorola have developed a Skills Academy for individuals across India in Tier I, II, and III cities. The program provides access to training and improves opportunities for better income for unemployed youth and women in India. Lenovo philanthropy has invested \$100,000 USD in the program, which offers counseling, training, assessments of skill, and placement for candidates who complete the program. In its first year of functioning, the Lenovo/Motorola Skills Academy trained 1,931 technicians in the field, positively impacting communities and the technology industry through a strategic pipeline of talent.



### Waliku Project with Save the Children

Toward the end of FY 2018/19, Lenovo began collaborating with Save the Children on the Waliku project. The Waliku Project is based in Indonesia, and leverages mobile technology to enhance the education experience for children through better tracking, reporting, and communication between parents and teachers. The project enabled the collaboration with 45 teachers, impacting 1,256 students throughout Indonesia. By leveraging technology's real-time offerings, teachers and parents will be able to better monitor students' school performance metrics, curriculum, and most importantly, health. The Waliku Project's mobile application will help with the early detection and reporting of critical illnesses, helping to reduce child morbidity and save lives through improved information sharing.

## EUROPE, MIDDLE EAST AND AFRICA (EMEA)

In FY 2018/19, Lenovo invested over \$225,000 USD in its Europe, Middle East and Africa geography. Lenovo's two geography-wide partnerships are highlighted below.

### United Way Europe & Middle East Region

2018 was the fourth year of Lenovo's regional partnership with United Way, enabling strategic charitable partnerships in France, Israel, Romania, Poland, Spain and Russia. Lenovo's partnership with United Way targets disadvantaged children and young people to provide technology and education which they would otherwise not have had access to. It provides computer equipment and volunteer resources to these vulnerable populations for digital skill development. In 2018, the partnership increased access for 7,000 people across the region through 5,000 workshops/classes, 184 Lenovo devices, and 74 employees who facilitated programming.



### Women's Forum for the Economy and Society

Since 2006, Lenovo has been the technology sponsor for Women's Forum for the Economy and Society, an annual series of global events to elevate the voices and perspectives of women. In FY 2018/19, Lenovo expanded its historically Europe-based partnership around the world to engage employees in Toronto and Singapore in the event's beneficial programming. The signature event in Paris, France, remained Lenovo's stronghold through our guest speaker attendance and product donations to the event.



## LATIN AMERICA

### Laboratoria

Lenovo is proud to partner with Laboratoria's Peru, Chile, and Mexico offices to provide product and support for Laboratoria's mission to help Latin American women be trained in technology careers and diversify the technology industry. In FY 2018/19, Lenovo philanthropy provided \$70,000 USD in support for Laboratoria's programming. Laboratoria's curriculum has been proven, as 80% of their 1,000 graduates have gone on to careers in technology.



### FeelsGood Project

In 2018, Lenovo Latin America began a project with FeelsGood to create more effective hospital treatment by leveraging augmented and virtual reality headsets. Virtual reality has been shown to help patients relax and rest during long-term treatment, easing stress by helping to distract them. By providing ~\$10,000 USD in product and support to FeelsGood in Peru, Lenovo assisted in the research and development of this science, while also challenging students to code special applications to be used in the AR/VR headset.



### A note on the Lenovo Foundation

The Lenovo Foundation is committed to uniting Lenovo's global workforce around the focus areas of access to STEM education and empowering diverse and under resourced populations. By uniting teams around the world through these common themes, Lenovo Foundation provides tangible evidence of Lenovo's commitment to the "different is better" culture. Lenovo Foundation is based in Chicago, Illinois, USA and is governed by a board of directors comprised of global Lenovo executives. For more information about the Lenovo Foundation, visit [www.lenovofoundation.com](http://www.lenovofoundation.com).

Lenovo Philanthropy Board of Directors for FY 2018/19

#### Yolanda Lee Conyers, President

*Lenovo Chief Diversity Officer, President Lenovo Foundation & VP HR Partner*

#### John Cerretani, Secretary

*Lenovo VP, Deputy General Counsel, and Chief Corporate Responsibility Officer*

#### Xiaolin Liu, Director

*Lenovo VP, Foundation, ICAC*

#### Barry Au, Treasurer

*Lenovo SVP and Group Controller, CFO GEO & LCIG*

#### Torod Neptune, Director

*Lenovo VP Global Corporate Communications*

#### Catherine Ladousse, Director

*Lenovo Executive Director, EMEA Region Marketing*







# 7.0

## PLANET

76  
80  
93  
107

Lenovo's Environmental Commitment  
Environmental Impact of Lenovo Operations  
Environmentally Conscious Products  
Product End-of-Life Management (PELM)



# PLANET

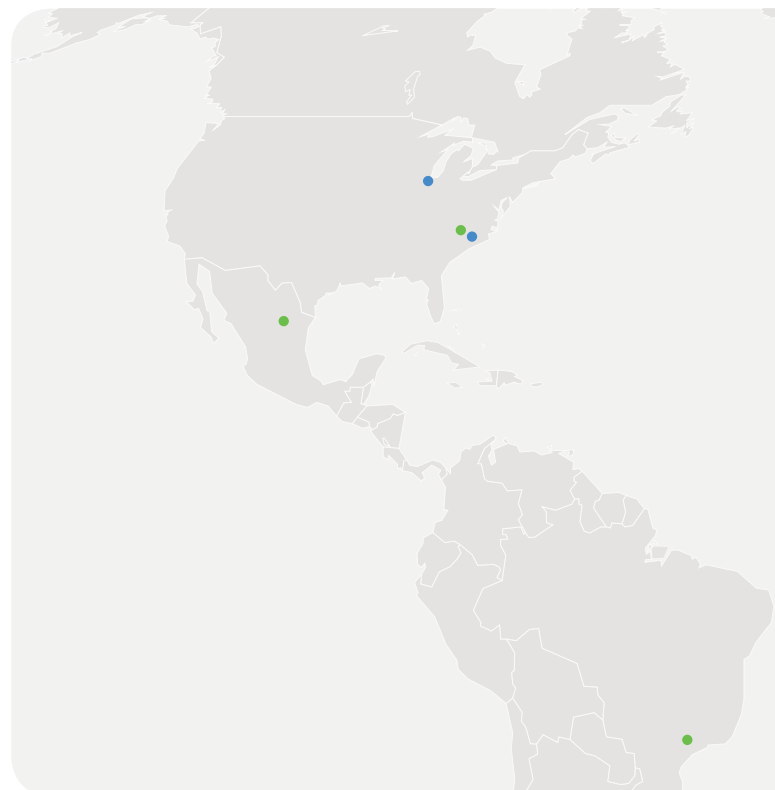
## LENOVO'S ENVIRONMENTAL COMMITMENT

### LENOVO'S ENVIRONMENTAL MANAGEMENT SYSTEM

Lenovo manages the environmental elements of its operations through a global environmental management system (EMS) that covers Lenovo's worldwide product development and manufacturing operations for personal computers, workstations, servers, storage, mobile device hardware, smart devices, monitors and accessories. The scope encompasses these same activities when performed by our subsidiary and/or affiliate companies.

All Lenovo sites in the EMS scope are ISO 14001:2015 certified.

[Click here](#) to view Lenovo's Global ISO 14001 registration certificates.





## ISO 14001 Registered Manufacturing & Development Facilities

The below sites might have multiple functions but are listed by the primary function.

### Development

- No. 10, Building No. 2 Court Yard Xibeiwang West Road, Beijing, China
- 696 Songtao Road, Shanghai, China
- 7A, 9A, 10A, 11A, Zhangjiang Building, No. 289 Chunxiao Road, Zhangjiang Technology Zone, Shanghai, China
- 16 Nanyi Road, Shenzhen, China
- No. 999 Qishan North 2nd Road, Xiamen, China
- 3-6-1 Minatomirai, Nishi-ku, Yokohama, Japan
- Am Zehnthof 77, Essen, Germany, 45307
- 4F, 5F, 8F, No. 66, San Chong Road, Nan Gang District, Taipei City, Taiwan
- 222 W Merchandise Mart Plaza, Chicago, IL, U.S.
- 8001 Development Drive, Morrisville, N.C., U.S.

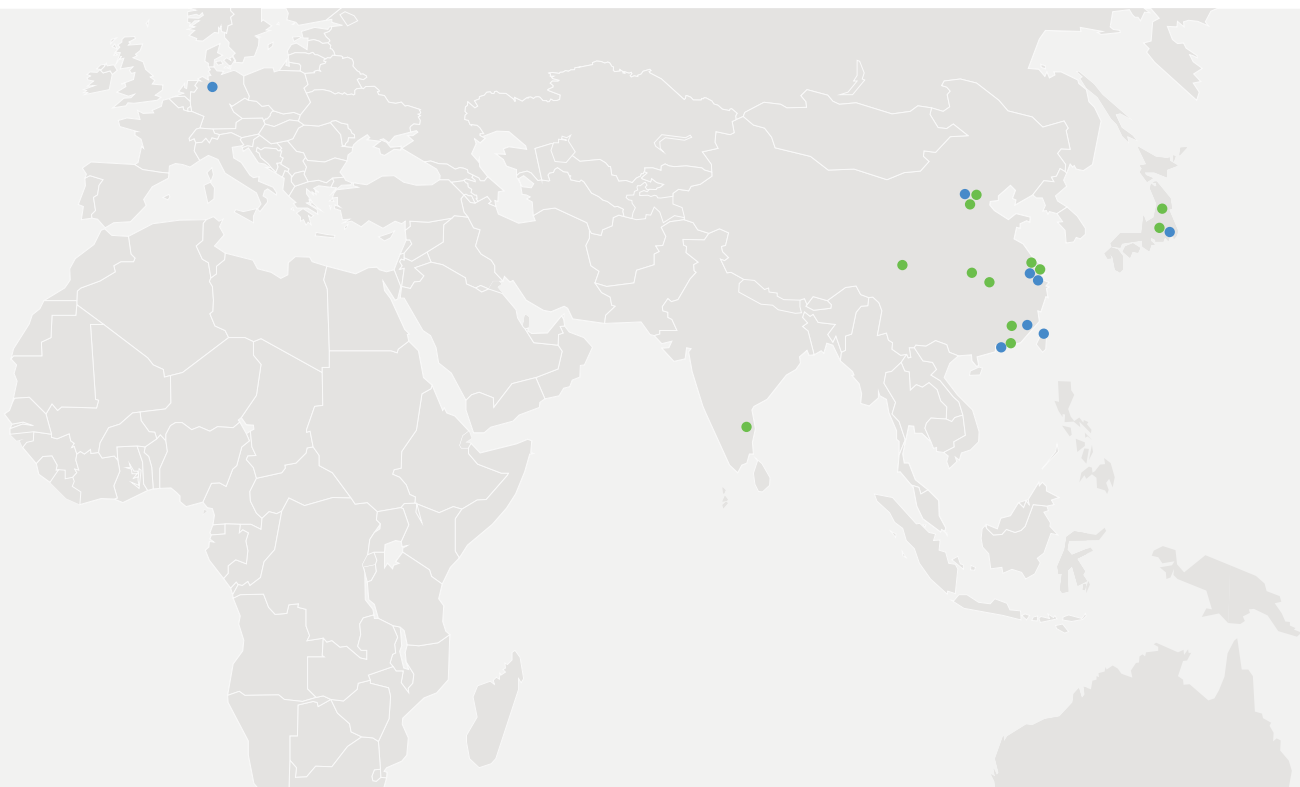
### Manufacturing and Fulfillment Center

- 6540 Franz Warner Parkway, Whitsett, N.C., U.S.

### Manufacturing

- Estrada Municipal Jose Costa de Mesquita, 200 — Chacara Alvorada — Indaiatuba/SP, Brazil
- No. 2 Building, No. 8 Chuangye Road, Beijing, China<sup>1</sup>
- No. 88 Tianjian Road, Chengdu, China
- No. 3188-1 Yungu Road, Hefei, Anhui Province, China
- Lenovo Science & Technology Park, Huiyang, China
- No. 68 Building, 199 Fenju Road, Shanghai, China
- No. 2 Building, 955 Shangfeng Road, Shanghai, China
- No. 30 Tao Hua Road, Shenzhen, China
- No. 19 Gaoxin 4th Road, Wuhan, Hubei, China
- No. 316 Boulevard Escobedo, Apodaca, NL, Mexico
- RS No. 19/1A & 2A Cuddalore Main Rd., Edayar Palayam Village, Pondicherry, India
- 32 Nishiyajima-cho, Ohta-shi, Gunma, Japan
- 6-80, Shimohanazawa 2-Chome, Yonezawa, Japan

<sup>1</sup> Manufacturing — Administration



Within the framework of our EMS, Lenovo annually identifies and evaluates the aspects of our operations that have actual or potential significant impacts on the environment. Metrics and controls are established for these significant environmental aspects. Performance relative to these metrics is tracked and reported on an ongoing basis. Performance improvement targets are established for select environmental aspects annually, taking into consideration performance relative to the environmental metrics, the Environmental Policy, regulatory requirements, customer requirements, stakeholder input, environmental and financial impact, and management directives.

During FY 2018/19 our significant global environmental aspects included:

- Product materials — including use of recycled plastics and environmentally preferable materials
- Product packaging
- Product energy use
- Product end-of-life management
- Site air emissions
- Site energy consumption
- Supplier environmental performance
- Product transportation
- Waste management
- Water management

See the [FY 2018/19 Performance in the Consolidated Metrics section](#) to see Lenovo's FY 2018/19 global environmental performance against its objectives and targets.

Lenovo's energy, GHG emission (Scope 1 and 2), waste and water data is externally verified to a reasonable level of assurance. Lenovo's GHG emission (Scope 3) data is externally verified to a limited level of assurance.

Visit [www.lenovo.com/climate](http://www.lenovo.com/climate) and follow the link to see the [FY 2018/19 GHG and Energy Verification Statements](#).

Visit [www.lenovo.com/waterandwaste](http://www.lenovo.com/waterandwaste) to find links to the [FY 2018/19 Waste Verification Statement](#) and the [FY 2018/19 Water Verification Statement](#).

## ENGAGING WITH STAKEHOLDERS ON COMPLIANCE

Lenovo's commitment to environmental stewardship is based on a foundation of a commitment to compliance. This includes compliance with both regulatory requirements and voluntary standards established by associations and standards organizations to which Lenovo subscribes. Lenovo actively engages with a wide variety of stakeholders as part of its processes for managing environmental risk, driving improvements in environmental performance, ensuring compliance and meeting customer expectations. Examples include:

### Associations

- [DIGITALEUROPE](#)
- [Responsible Business Alliance](#) (RBA, formerly Electronic Industry Citizenship Coalition (EICC))
- [Information Technology Industry Council](#) (ITI)
- [Consumer Technology Association](#) (CTA)

### Green Programs (Eco-Labels)

- [IEEE 1680.1](#) Standard for Environmental Assessment of Personal Computer Products
- [ENERGY STAR](#)®
- [GreenGuard](#)
- [TCO Certified](#)
- [TCO Certified Edge](#)

## Programs, Workgroups and Initiatives

- [Call2Recycle](#)
- [CDP](#) (formerly Carbon Disclosure Project)
- [ECMA-370 — The Eco Declaration Standard](#)
- [EcoVadis](#)
- [Electronic Product Stewardship Canada](#)
- [Global Reporting Initiative](#) (GRI)
- [Green Freight Asia](#) (GFA)

## International Standards

- [ISO 14001, Environmental Management Systems](#)
- [ISO 50001, Energy Management](#)
- [Leadership in Energy and Environmental Design](#) (LEED)
- [Product Attribute to Impact Algorithm \(PAIA\) Project](#)
- [R2](#)
- [United Nations Global Compact](#)
- [World Resources Institute](#) (WRI)
- [World Business Council for Sustainable Development](#) (WBCSD)

Lenovo recognizes the importance of environmental leadership in China and has participated in numerous environmental initiatives in the country, including:

- China Energy Conservation Program (CECP)
- China Environmental Labeling Product (CELP)
- PC+ China Energy Label (CEL)
- Energy Saving Work Association of the Chinese Institute of Electronics
- China RoHS Standard Working Group
- China WEEE Working Group
- China MIIT EPR (extended producer responsibility) Recycling Pilot Project
- China ePCF Project
- China MIIT Eco-Design Pilot Enterprises Program
- Green Manufacturing Association of China
- China MIIT Green Manufacturing System Project
- China MEE GEF POPs Project
- China Medium and Low Temperature Solder Association

# ENVIRONMENTAL IMPACT OF LENOVO OPERATIONS

## ENERGY AND CLIMATE CHANGE

Lenovo recognizes that human activities are contributing to climate change and concurs with the findings of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) – “Climate Change 2014”. Lenovo also recognizes that if left unchecked, current trends in climate change present serious economic and societal risks and agrees that specific actions are needed to stabilize atmospheric greenhouse gas levels and hold global average temperatures to acceptable increases. Proposed actions supported by Lenovo include:

- Reducing global emissions from 40 to 70 percent between 2010 and 2050
- Aligning with the global scientific community’s generally accepted recommendations for maintaining global warming below two degrees Celsius over the 21st century relative to pre-industrial levels

We are working both internally and externally to minimize and mitigate climate risks. Lenovo is committed to continually reducing the global carbon footprint of all of its business activities. Lenovo has demonstrated its commitment by:

- Implementing a corporate Climate and Energy Policy
- Executing a long-term comprehensive Climate Change Strategy
- Setting aggressive corporate-wide objectives and targets which support the Policy and Strategy
- Showing continual year-to-year progress in achieving those objectives and targets.

To drive climate actions external to Lenovo’s operations, we monitor, support and in some cases participate in the development of voluntary carbon reduction programs, climate change regulations, renewable energy portfolio standards and product carbon footprint and labeling requirements both globally and regionally.

Reducing energy consumption and associated carbon emissions is the primary focus of our climate change programs and strategy. Management of energy and carbon emissions reduction activities and programs is carried out within the scope of Lenovo’s global EMS. Lenovo is achieving its energy and carbon management goals through improvements in operational and logistical energy efficiency, reductions in energy consumption, switching to renewable energy sources where practicable, supporting an increase in renewable energy available via the grid, and purchasing renewable energy credits and carbon offsets.

Over the past several years, Lenovo has experienced organic growth in conjunction with operational consolidation. In addition, significant structural changes and external market factors have presented unique challenges to staying on the course of achieving our climate change goals. We overcame these challenges by engaging internal teams and external partners to identify opportunities to reduce energy consumption and carbon emissions. The identified opportunities were then subjected to a project approval hierarchy that favors energy efficiency first, use of renewable energy second and finally, the purchase of renewable energy credits or carbon offsets. This process continues to lead to the identification and implementation of projects that support Lenovo’s goal of maintaining a sustainable balance among social, economic and environmental impacts.



Visit [www.lenovo.com/climate](http://www.lenovo.com/climate) for more information on Lenovo's Climate and Energy Policy, strategy, objectives and targets.

## OPERATIONAL ENERGY EFFICIENCY

Given that one of Lenovo's most significant environmental aspects is emissions associated with energy consumption, Lenovo's goal is to continually improve the energy efficiency of its operations. Lenovo initiatives for energy reduction include activities such as installation of low-energy lighting and related electrical equipment, energy-efficiency improvements to HVAC systems, eliminating or improving usage of transformers and air compressors, manufacturing area optimization, manufacturing-line optimization, improving computer server room energy efficiency, consolidation of operations, and employee education.

For more information on our performance relative to energy efficiency, please see the Energy Reductions in Operations section.

## RENEWABLE ENERGY

### *Photovoltaic Solar Panels*

Lenovo is committed to installing local renewable energy generation sources where feasible. In support of this commitment we continue to expand our use of on-site solar energy.

Lenovo's renewable energy installations include solar hot water generation facilities in Beijing and Huiyang and solar electric generation plants in Shanghai and Hefei. The current solar capacity of all these projects is over 6 MW.

During FY 2018/19 we either initiated, discussed or approved solar projects in our facilities in Morrisville and Whitsett, NC, USA; and Wuhan, China. These projects represent almost 6 MW of potential solar electric generation capacity.



Solar panel installation at Lenovo Whitsett, North Carolina facility — March 2019.

Lenovo has a target of achieving 30 MW of owned or leased renewable energy generation capacity globally by 2020.

In 2018, Lenovo was again recognized by the U.S. Environmental Protection Agency (EPA) as a Top 30 Tech & Telecom Green Power Partner for its purchase of renewable energy. Please click here for more information: <https://www.epa.gov/greenpower/green-power-partnership-top-30-tech-telecom-0>.

## RENEWABLE ENERGY CREDITS AND CARBON OFFSETS

Where actual direct energy reductions or use of renewable energy sources are not technically or economically feasible, Lenovo chooses to purchase Renewable Energy Credits (REC), International Renewable Energy Credits (I-REC), Guarantees of Origin (GO) and carbon offsets.

For FY 2018/19 Lenovo purchased renewable commodities that supported 100 percent renewable energy projects in Brazil (wind), China (wind), India (wind), Mexico (solar), Europe (wind) and the United States (wind).

To view the certificate for RECs, I-RECs, GOs and carbon offsets retired by Lenovo in 2019, visit [www.lenovo.com/climate](http://www.lenovo.com/climate) and follow the links from there.

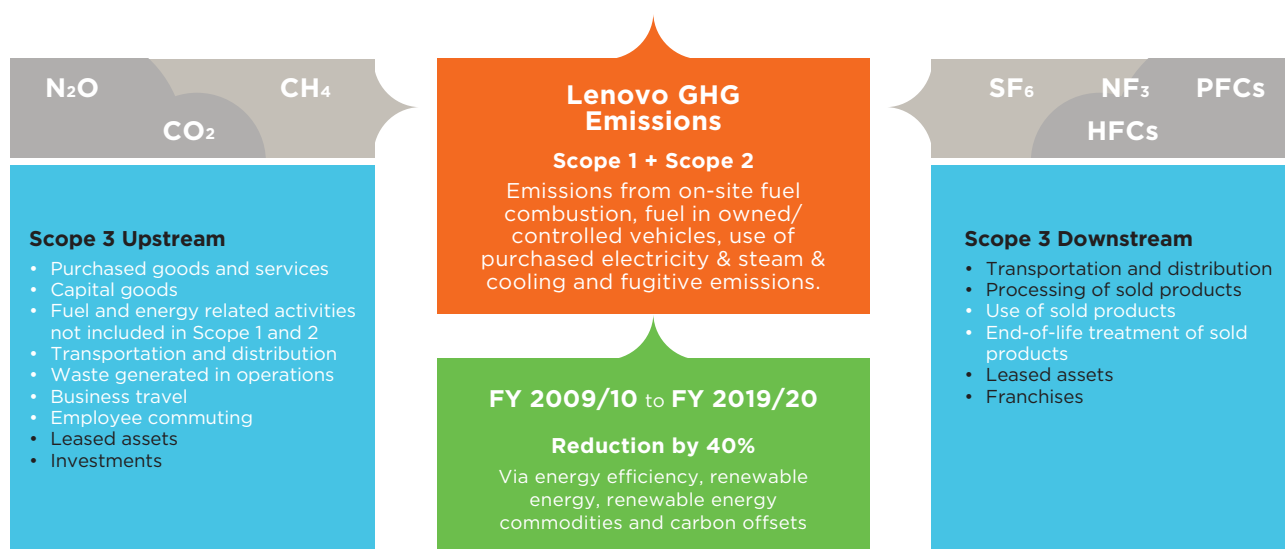
## CLIMATE CHANGE RISK/OPPORTUNITIES MANAGEMENT

Climate change risks and opportunities are identified and evaluated as part of two processes within Lenovo's business management systems. These include our global annual risk registration process and our annual environmental significant aspect evaluation. These two processes are connected, meaning that if climate change risks are identified in the global risk registration, they are considered in the environmental aspects analysis — and vice versa.

1. Lenovo's formal risk management process includes, among other sustainability factors: environmental risk categories such

as environmental incidents, catastrophic weather conditions, supply chain disruptions and other elements. Each business unit is required to identify risks and assess their impacts on Lenovo's strategy execution, then develop mitigation plans for select identified risks. This process is managed by Lenovo's Enterprise Risk Management team.

2. Climate change risks are also evaluated, and the results of this evaluation are considered in the annual risk registration process described above. Energy consumption, the associated greenhouse gas emissions and climate change are identified as significant environmental aspects and impacts for Lenovo. As such, associated risks and opportunities are evaluated and prioritized annually based on Lenovo's significant aspect methodology in accordance with the requirements of our environmental management system. Per these requirements, climate change is evaluated relative to its actual and potential influence on the environment and the business. This process is managed by Lenovo's Global Environmental Affairs team.



Notes: Scope 3 categories in white are tracked and evaluated and in some cases actions are being taken to drive emissions reductions  
Scope 3 categories in black are not relevant to Lenovo

As a demonstration of Lenovo's long-term approach to risk management in this area, in May 2014, Lenovo's Board of Directors (BOD) and Executive Committee (LEC) acted to increase Lenovo's GHG emissions reduction commitment from 20 percent to 40 percent by FY 2019/20, relative to FY 2009/10 (see graphic above). We have met this commitment through investment in on-site renewable generation, energy efficiency and renewable energy credits or offsets.

We are identifying and developing our third-generation targets after 2020. We reviewed and evaluated Science Based Targets Initiative's methodology to determine the best approach for Lenovo that will align with the science based reduction pathways for limiting global temperature rise. In August 2018 we submitted Lenovo's science-based targets commitment letter to Science Based Targets initiative which indicated that we will work to set a science-based emission reduction target in next 24 months. Lenovo's commitment was recognized on [sciencebasedtargets.org](https://sciencebasedtargets.org) website. We committed to submit Lenovo's science-based targets proposal of emission reduction targets for Scope 1, 2 and 3 for official evaluation by Science Based Target initiative by December 31, 2019.

Lenovo's commitment to addressing climate change extends to supporting global initiatives such as [We Mean Business](#), a coalition of businesses and investors supporting a transition to a low carbon economy. Lenovo's case study on our climate change actions have been featured on [We Mean Business website](#).

Lenovo also committed to reduce emissions in our operations as part of [Race to Zero](#) campaign.

## MINIMIZING THE ENVIRONMENTAL IMPACT OF LENOVO'S LOGISTICS

Lenovo continues to drive optimization in our logistics programs and strives to ship products in the most environmentally responsible manner. Lenovo's Global Logistics team continues to look for ways to reduce carbon emissions from practices, including network optimization, green procurement, improving packaging and recycling. Our accomplishments in FY 2018/19 include:

- Starting from FY 2018/19, Lenovo is partnering with EcoTransIT for emissions calculation of our product transportation. EcoTransIT is one of the world's best developed carbon foot-print calculators for logistics. The reporting scope includes all international air, ocean and rail transportation globally as well as China domestic transportation.
- Engaging with key carriers to report their own CO<sub>2</sub> footprint and ensure they have effective sustainability programs in place.
- Beginning the use of electric trucks for delivery in China in FY 2018/19, which accounts for over 10 percent of total trucks used by Lenovo. In addition, 50 percent of our fork lift trucks in Lenovo's China distribution centers are electric.
- Promoting environmentally friendly modes of transportation is becoming a key decision driver across global logistics.
  - i. The Global Logistics team proactively favored rail transportation for shipments from China to Europe, and shipped over 2800 containers per quarter in FY 2018/19 to Europe by rail, which is approximately a 58 percent increase compared with FY 2017/18.

- ii. For domestic shipping in China, approximately 62,000 cubic meters were shipped by rail, which is 7 percent of our total China transportation volume.

With the goal of reducing carbon emissions, the Global Logistics team continues to explore ocean transport consolidation opportunities to reduce the number of containers shipped out of China manufacturing sites.

Lenovo participates in regional initiatives that seek to disseminate best practices in transportation. In Asia Pacific, Lenovo is a founding member of Green Freight Asia (GFA). GFA's goal is to promote and improve fuel-efficient freight transport and decrease air pollution in Asia for both shippers and carriers. Lenovo also encourages our key carriers to join GFA. In FY 2018/19, four carriers in China and one carrier in India became members of GFA.

Lenovo also is an approved U.S. EPA SmartWay partner. [The SmartWay Transport Partnership](#) is an innovative collaboration between the freight industry and the U.S. Environmental Protection Agency that promotes fuel efficiency improvements while significantly reducing greenhouse gas emissions.

## FY 2018/19 ENVIRONMENTAL PERFORMANCE

### ENERGY REDUCTIONS IN OPERATIONS

Improving operational energy efficiency is a fundamental element of Lenovo's strategy to meet its GHG reduction targets. Since establishing climate change objectives and targets, Lenovo has implemented more than 170 operational energy-efficiency projects worldwide. All sites continue to strive to identify and implement energy-efficiency projects and evaluate the opportunity to employ the use of renewable energy. Throughout the organization, these activities are driven by site energy champions who lead energy teams that help implement energy reduction projects.

Some of the projects implemented during the year included:

- Energy efficient light systems in Beijing and Huiyang, China and Bangalore, India
- Improvements in HVAC and air compressor efficiency in Beijing, Shenzhen and Chengdu, China
- Installation of sunscreen curtains in Beijing, China

We are planning to expand our Energy Management System (EnMS) to the East part of our headquarters in Beijing, China and obtain ISO 50001 certification in June 2019.



## ENERGY CONSUMPTION

Lenovo's direct and indirect energy consumption by primary energy source for FY 2018/19 is detailed below.

### Energy Consumption by Primary Energy Source

Energy Type	GJ
Fuel	111,257
Electricity	979,486
Steam	144,240
Cooling	9,016
TOTAL	1,243,999

### Direct Energy Consumption by Source (Fuel Detail)

Fuel	GJ
Gas/diesel oil (stationary combustion)	10,321
Natural gas (stationary combustion)	94,476
Liquefied petroleum gas (LPG) (stationary combustion)	2,550
On road diesel fuel (mobile combustion)	955
Gasoline/petrol (mobile combustion)	1,703
Liquefied petroleum gas (LPG) (mobile combustion)	188
Jet Kerosene (mobile combustion)	1,064
TOTAL	111,257

## GHG EMISSIONS PERFORMANCE

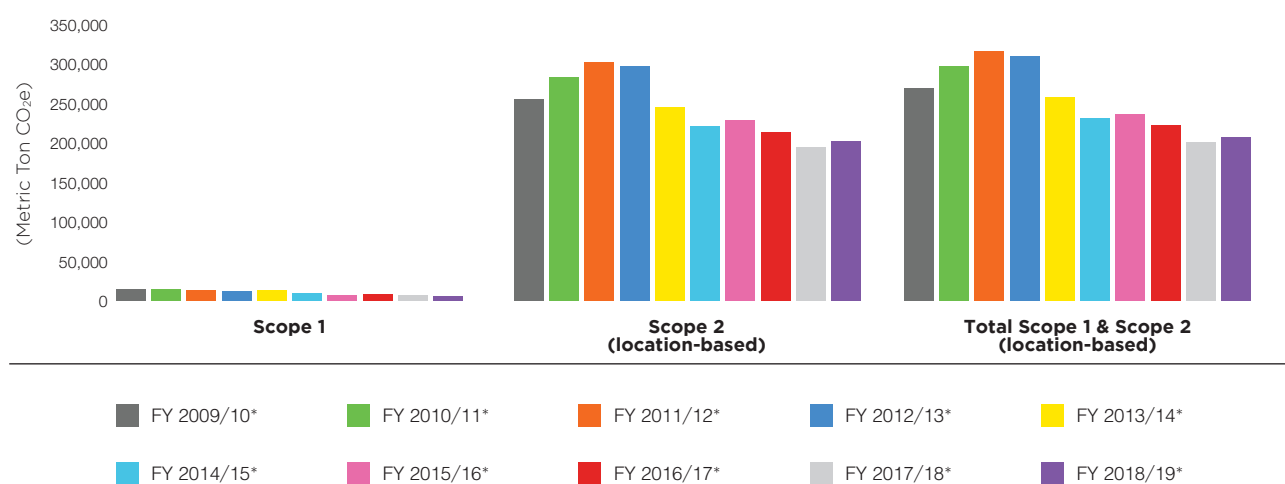
Lenovo reports GHG emissions and tracks performance relative to our fiscal year, which runs from April 1 through March 31. Lenovo's GHG objectives and targets are set and tracked relative to a base year of FY 2009/10.

## A. Lenovo's Global Scope 1, 2, 3 GHG Emissions

Lenovo's Scope 1 and 2 (location-based) CO<sub>2</sub>e Emissions Inventory from our base year is detailed below. Lenovo's Scope 3 CO<sub>2</sub>e Emissions Inventory from our last ten fiscal years is also below. The table in the Consolidated Metrics section of this report includes Scope 1, 2 (location-and market-based) and 3 emissions for Lenovo's global operations.

Note: Lenovo started to report location-and market-based Scope 2 from FY 2015/16 to comply with the GHG Protocol Scope 2 Guidance.

### Lenovo's GHG Emissions — Scope 1 & 2 (location-based)<sup>1</sup>



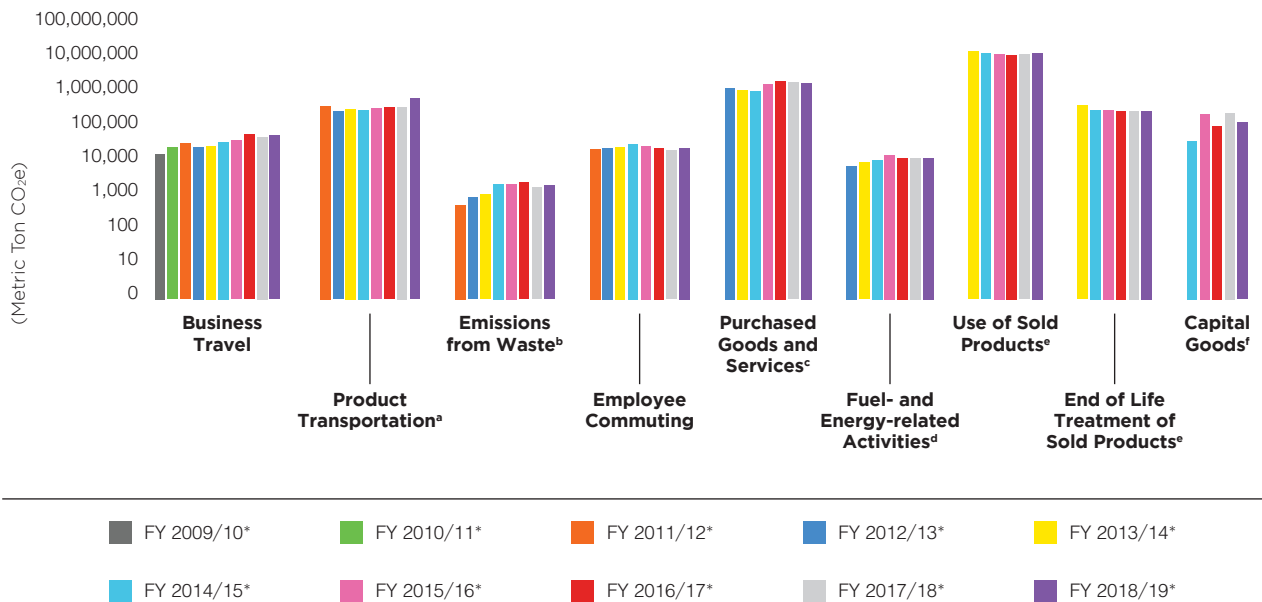
#### Notes:

<sup>1</sup> Scope 1 GHG emissions are calculated based on the purchased quantity of commercial fuel and added refrigerants and using published emission factors from DEFRA, U.S. EIA, EPA and 2006 IPCC Guidelines for National Greenhouse Gas Inventories. The guidance from worksheets of World Resources Institute's GHG Protocol Tool for Mobile Combustion and the GHG Protocol Tool for Stationary Combustion were used for making the calculations. The tools and guidance were developed by World Resources Institute (WRI) and copyrighted. They are available at [www.ghgprotocol.org](http://www.ghgprotocol.org).

Scope 2 GHG emissions are associated with the purchase of electricity from the grid, steam and cooling. Information on emissions from all Lenovo facilities worldwide is included in this report. For facilities solely owned or operated by Lenovo, emissions were calculated using actual quantities of purchased electricity, steam and cooling and the international emission factors for the relevant country or region (provinces in China, states in the U.S.). Lenovo emissions from shared facilities were calculated using the floor area occupied by Lenovo and international electricity emission factors for the relevant country. World Resources Institute's GHG Protocol Tool for Stationary Combustion was used as guidance for calculating emissions associated with purchased electricity. The Similar Building/Facility Estimation Method was used for facilities that are partially occupied by Lenovo operations.

\* At the end of FY 2012/13, Lenovo adjusted its historical CO<sub>2</sub>e emissions data to account for the acquisition of Medion in Germany and our joint venture with NEC in Japan. At the end of FY 2015/16, Lenovo adjusted historical CO<sub>2</sub>e emissions to account for acquiring System x and Motorola Mobility.

## Lenovo's GHG Emissions – Scope 3<sup>2</sup>



<sup>2</sup> Scope 3 GHG emissions are estimated based on the guidance of the Greenhouse Gas Protocol's Value Chain (Scope 3) Accounting and Reporting Standard and its supplement named the Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions (version 1.0).

- a Product transportation emissions include key upstream suppliers representing a majority of global logistics spend. Note: Upon examining the GHG Protocol standard, we decided to re-categorize this to upstream from downstream transportation (from FY 2016/17, previous years were adjusted accordingly).
- b Emissions from waste include nonhazardous waste, hazardous waste and wastewater from all manufacturing, R&D locations and some large/small offices. No product waste is included.
- c Emissions from purchased goods and services include suppliers covering 90 percent of direct global suppliers spend.
- d Emissions not included in Scope 1 and Scope 2 from fuel-and-energy related activities include transmission and distribution losses from worldwide used electricity and natural gas.
- e Lenovo used the current Product Attribute to Impact Algorithm (PAIA) notebook, desktop, monitor, tablet, all-in-one, thin client and server tool for calculating emissions of Lenovo's typical notebook, desktop, monitor, tablet, all-in-one, thin client and server. The calculated results show emissions distribution by different parts and also for use, packaging, transportation and end-of-life treatment categories. The emissions associated with use and end-of-life treatment of sold products were estimated on a "narrow" baseline for the typical notebook, desktop, monitor, tablet, all-in-one, thin client and server multiplied by sold/shipped product volumes.
- f Emissions from capital goods were estimated based on capital goods purchased in a given year. All capital goods were converted to the common currency unit and categorized to align with industry codes. Emission factors for different types of capital goods were taken from *2012 Guidelines to Defra GHG Conversion Factors for Company Reporting*, Annex 13, adjusted for inflation rate and exchange rate.

## Lenovo's GHG Emissions Inventory Specifics

Base Year	FY 2009/10	April 1, 2009 — March 31, 2010
Boundary	Organizational	Operational control approach
	Operational	Scope 1, 2 and 3 in worldwide manufacturing, research and development sites and office locations
Scope	Scope 1 (direct GHG emissions)	On-site fuel combusted, operation of controlled vehicles and fugitive emissions
	Scope 2 (indirect GHG emissions)	Purchased electricity, steam and cooling
	Scope 3 (other indirect GHG emissions)	Business travel, product transportation, employee commuting, emissions from waste, purchased goods and services, fuel- and energy-related activities, use of sold products, end-of-life treatment of sold products and emissions from capital goods
Greenhouse Gases	All GHG covered by the Kyoto Protocol	CO <sub>2</sub> , SF <sub>6</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs and NF <sub>3</sub>

Please go to the Consolidated Metrics section to see more of Lenovo's global environmental data.

Lenovo's Scope 1 absolute emissions decreased and Lenovo's Scope 2 absolute emissions increased during FY 2018/19 period. Lenovo emissions inventory, normalized by total revenue, employee population and floor area decreased, and unit of production increased in comparison with the previous year.

Overall Scope 3 emissions increased. Lenovo's reporting categories included: business travel, emissions associated with product transportation, site waste, employee commuting, purchased goods and services, fuel- and energy-related activities not included in Scope 1 or 2, emissions from use of products, emissions from end-of-life of products and emissions from capital goods.

## B. Lenovo's Global Scope 1 and 2 (location-based) GHG Emissions by Markets<sup>3</sup>

Market	Total Scope 1	Total Scope 2 (location-based)
Brazil	20	1,997
China	3,860	161,087
Germany	1,047	1,761
India	45	3,058
Japan	268	5,047
Mexico	80	3,462
Taiwan	177	2,231
United States	254	18,615
Rest of the World	279	4,062

<sup>3</sup> Brazil, China, Germany, India, Japan, Mexico, Taiwan and United States represent manufacturing and R&D sites in these markets. "Rest of World" represents all sites managed by Lenovo's Real Estate organization (non-manufacturing) across the world (small and large — except the ones in regions listed above).



### C. Lenovo's GHG Emissions Objectives and Targets

During FY 2018/19, Lenovo achieved a 92 percent emissions reduction relative to FY 2009/10. The Scope 1 and Scope 2 reductions were accomplished by implementing energy efficiency projects, using solar sources at sites and purchasing renewable energy certificates from renewable projects in the United States, international renewable energy certificates from renewable projects in Brazil, China, India and Mexico, Guarantees of Origin in Europe and carbon offsets in China. As a result, we achieved 100 percent carbon balanced Scope 1 and 2 emissions in China.

Energy and GHG emissions data for all ten years included in our reporting (beginning with the baseline year FY 2009/10) was third-party verified. [Click here](#) to view the FY 2018/19 GHG Emissions and Energy Verification Statements, or visit [www.lenovo.com/climate](http://www.lenovo.com/climate) and follow the link from there.

Lenovo began disclosing GHG emissions, climate change strategies and climate change risks and opportunities assessments through the voluntary public reporting system CDP (formerly Carbon Disclosure Project) in 2009. In the 2018 CDP Climate Change questionnaire, Lenovo was rated at the Management Level with a score of B, and we were honored with the 2018 CDP China Influence Award on Climate Change Mitigation in March 2019. Additionally, we received a score of A on the 2018 CDP Supply Chain survey which is Leadership Level in Supplier Engagement Rating, along with being featured on the Supplier Engagement Leader Board. Lenovo's annual GHG disclosures are publicly available at [www.cdp.net/reports](http://www.cdp.net/reports).

### D. Emissions Trading System

Lenovo was selected for a pilot emission trading system in China. It was determined by the Beijing Municipal authority in 2013 that Lenovo Beijing is a significant energy consumption enterprise since we consumed more than 5,000 MT coal-equivalent electricity (CO<sub>2</sub> emissions over 10,000 MT/year) and as such must meet an emissions trading requirement for our Beijing sites. Our server plant in Shenzhen is also listed as a significant carbon emission enterprise, but released emissions do not exceed allocated allowance so reductions are not required. Lenovo is closely monitoring other provinces where this pilot program has been imposed since our sites in Shanghai, Huiyang, Xiamen, Chengdu and Wuhan could be impacted in the future.

The newly implemented China national ETS covers high energy consumption industries such as power, cement and steel. Because Lenovo is classified as an IT industry, the China national ETS requirements have not been imposed on our sites in China at this time.

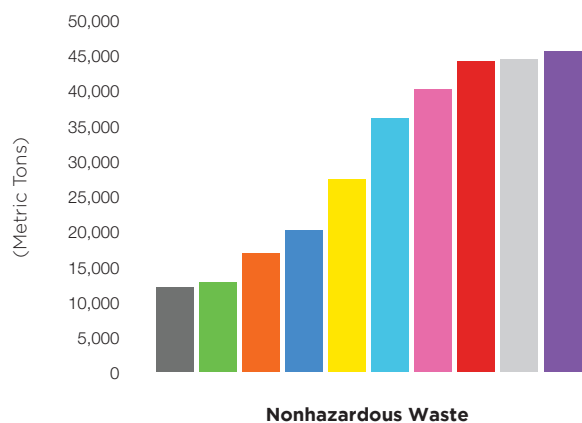
Lenovo has a climate and energy policy and strategy in place and is working on reducing our carbon emissions globally as well as at our Beijing sites. Primary activities in support of this goal include: establishing a comprehensive energy/carbon system for Beijing sites including energy efficiency and renewable project identification and implementation (e.g., optimizing equipment control systems, installing energy-efficient lighting systems, and installing solar hot water systems), implementing energy verification and energy management audit and purchasing carbon offsets. This is the fifth year for Lenovo to be a part of this scheme and since our business is developing constantly, we are expecting a need to purchase allowances. The above-implemented energy efficiency projects will help us meet the emissions reductions requirements.

## OPERATIONAL WASTE MANAGEMENT

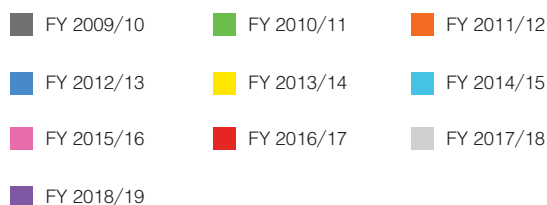
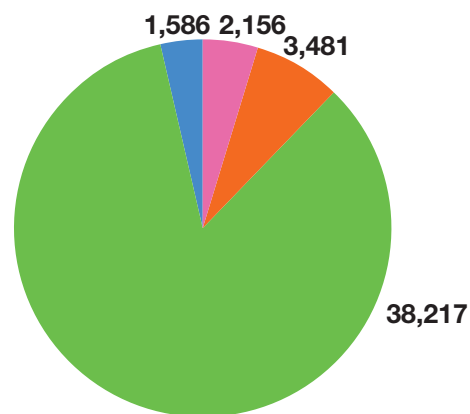
### MANAGING NONHAZARDOUS SOLID WASTE

One of Lenovo's primary environmental objectives for operational facilities involves minimizing solid waste and maximizing recycling and reuse. Lenovo manufacturing and R&D facilities, and some large office locations worldwide, achieved a reuse/recycling rate of 87.6 percent during FY 2018/19. Detailed below is the generation of solid waste during the last ten fiscal years and disposition of solid waste in FY 2018/19 from these facilities.

#### Nonhazardous Waste



#### Nonhazardous Waste Disposition (Metric Tons)

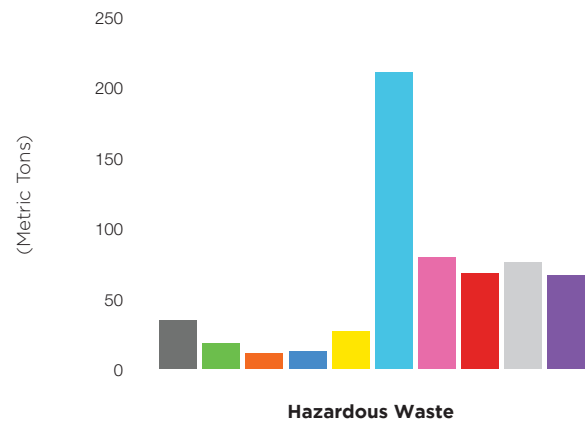


## MANAGING HAZARDOUS WASTE

Lenovo operations generate minimal quantities of hazardous waste. Hazardous waste generated at operational facilities includes oils, coolants, organic solvents, batteries, fluorescent light bulbs and ballasts. All are disposed of in accordance with local environmental regulations with reputable vendors that are approved through a stringent Lenovo audit process. During FY 2018/19, Lenovo neither imported nor exported any hazardous waste. During this reporting year, there were no significant spills. The spike in hazardous waste volume in FY 2014/15 was due to a one-time disposal event associated with the closure of facilities in Brazil.

[Click here](#) to see the FY 2018/19 Waste Verification Statement, or visit [www.lenovo.com/waterandwaste](http://www.lenovo.com/waterandwaste) and follow the link from there.

## Hazardous Waste



## OTHER ENVIRONMENTAL ASPECTS

### WATER RESOURCES

Lenovo's manufacturing and product development operations do not have any wet processes. Since Lenovo withdraws water only from municipal sources and only for human support, we have minimal impact on local water resources. As such, there are minimal opportunities to reuse and recycle water, but this metric is tracked. We do, however, identify and implement opportunities to reduce and recycle the amount of water we consume. Detailed in the chart below is water

withdrawal at Lenovo's manufacturing and R&D facilities and select large office locations over the past ten years.

Lenovo does not engage in any intentional discharge of wastewater other than into municipal wastewater disposal systems. There were no significant accidental releases of wastewater, fuel, chemicals or other potentially harmful substances at Lenovo facilities during the fiscal year.

### Water Withdrawal and Discharge<sup>5</sup>



FY 2009/10  
  FY 2010/11  
  FY 2011/12  
  FY 2012/13  
  FY 2013/14  
 FY 2014/15  
  FY 2015/16  
  FY 2016/17  
  FY 2017/18  
  FY 2018/19

[Click here](#) to see the FY 2018/19 Water Verification Statement, or visit: [www.lenovo.com/waterandwaste](http://www.lenovo.com/waterandwaste) and follow the link from there.

<sup>5</sup> Water data includes manufacturing, research & development sites and some large offices. Lenovo started to verify waste and water data in FY 2011/12. Beginning in FY 2015/16, IBM's System X Server and Motorola Mobility data is included in water data.

### OTHER AIR EMISSIONS

Lenovo prohibits the use of ozone-depleting substances in our products and manufacturing processes except in HVAC and fire-suppression equipment as permitted by law. Ozone-depleting substances used in HVAC and fire-suppression

equipment are managed in accordance with local regulations, and intentional releases are prohibited. Lenovo requires the reporting of releases of chemical substances as an environmental incident, including unintentional releases. During FY 2018/19, there were no incidents of refrigerant releases. Lenovo does not have significant direct air emissions such as NO<sub>x</sub> and SO<sub>x</sub>. In addition, Lenovo has no wet chemical or industrial processes that use volatile organic compounds (VOC) and thus has no point sources of VOC. Household and cleaning products that contain small quantities of VOC are used at some of our facilities but associated fugitive emissions are minimal and are not quantified.



## ENVIRONMENTALLY CONSCIOUS PRODUCTS

Lenovo has long been committed to designing and building durable, energy-efficient products that are environmentally benign. Our comprehensive Environmentally Conscious Products Program, launched in 2005, ensures Lenovo remains a green product leader year after year. Supported by Lenovo's Global Environmental Affairs team, the program is implemented by a network of Environmentally Conscious Product engineers and green product teams within each business unit.

### PRODUCT MATERIALS

Lenovo's product development process is focused on integrating environmentally preferred materials into our products. Incorporating post-industrial recycled content (PIC) plastics, post-consumer recycled content (PCC) plastics and closed loop post-consumer recycled plastics (CL PCR)

continues to be instrumental to our development strategy.

### Use of Recycled Plastics

Starting in 2007, as new grades of recycled plastics with PCC became available, Lenovo's product development teams began to use these environmentally preferred materials to satisfy corporate environmental objectives and targets and meet new customer requirements. Using these engineered plastics not only saves the natural resources and energy that would have gone into manufacturing new plastics, but also diverts both PCC and PIC from landfills. These environmental benefits are achieved while still creating a product that meets Lenovo's high-performance standards.

### Usage of PCC in Products Released in FY 2018/19

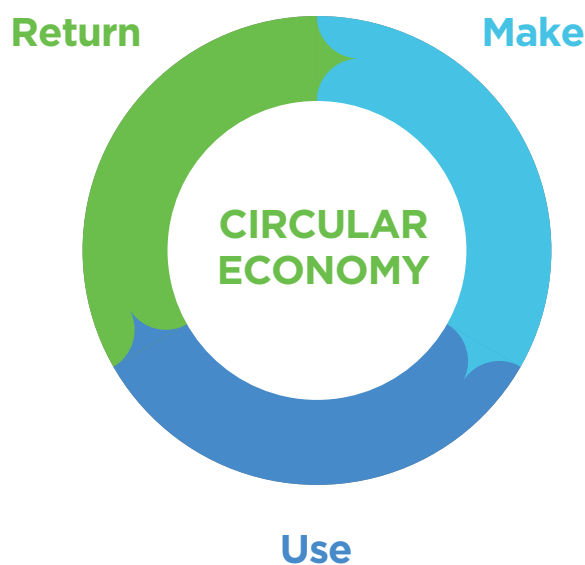
1-10% PCC	> 40% PCC	> 50% PCC
Select Notebooks, Desktops, AIO, Accessories	ThinkCentre M920z ThinkCentre M820z	ThinkVision T24i-10, ThinkVision T24m-10, ThinkVision P32u-10, ThinkVision P27q-10, ThinkVision P27u-10

## Driving Innovation with Recycled Content Materials

In FY 2018/19, Lenovo continued supporting the transition from a linear economy to a circular economy by expanding the use of post-consumer recycled content and using closed loop materials sourced from end-of-life information technology equipment (ITE) and products, with a total of 21 products — a significant increase from 2 products in the previous reporting year. It is reported that electronics waste (E-waste) is currently the fastest growing waste stream. It is complex and expensive to treat in an environmentally sound manner.

Responsible management of e-waste continues to be a challenge in both developed and developing economies. Lenovo is especially proud to participate in closed loop post-consumer recycled (CL PCR) activities by connecting Lenovo's recycling suppliers with recovered and recycled plastic manufacturers for reuse in the manufacture of new Lenovo and non-Lenovo products. Lenovo's CL PCR is implemented by a network of environmentally conscious product engineers within our product teams in each business unit. The Global Environmental Affairs (GEA) team focuses on reducing hazardous substance during product design, while manufacturing evaluates ease of disassembly and recycling solutions as it applies to the 'circular economy' concept. Lenovo's research and development teams work with material suppliers and the third party certification body, TÜV Rheinland, to build Lenovo's CL PCR supplier and material work process, including the "Approved Recycling Standard", the "Quality Assurance Operation Requirements", and the "Recovery Ratio" to validate their sources of waste and control processes using a hierarchical waste-product traceability scheme. This work process can then be used to satisfy the traceability requirements for CL PCR materials. TÜV Rheinland conducted the first CL PCR third party validation for Lenovo and its recycled material suppliers.

To overcome the continuing challenges of using recycled content in the design and manufacture of smart connected devices, especially notebooks, tablets and smartphones, Lenovo's team of engineers works closely with our PCC suppliers to develop and qualify new grades of plastic resins previously unavailable to the IT industry. Using PCC in IT products presents significant challenges due to the unique structural, performance and cosmetic requirements associated with these applications. Depending on the final application requirements, the plastic resins contain between 10 and 85 percent PCC. Some plastic resins also contain up to 20 percent PIC. These materials receive environmental and performance qualifications prior to their approval and use in Lenovo product applications.



## Recycled Content Usage to Date

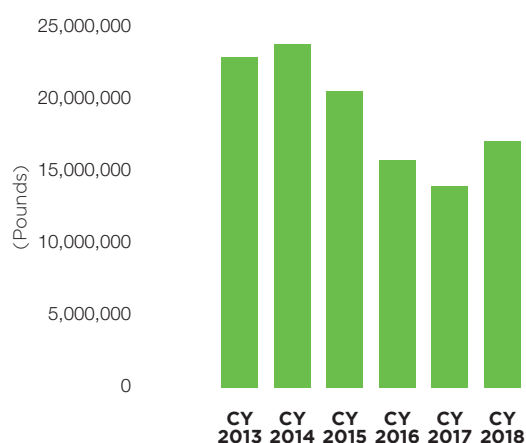
Since early 2005, Lenovo has used over 220 million pounds (gross) of plastic materials containing PCC and/or PIC in its products, with net PCC of over 110 million pounds and net PIC of more than 1 million pounds. In 2018, Lenovo used nearly 17 million pounds (gross) of recycled plastics with net PCC of over 12 million pounds.

Please see Objectives and Targets section for Lenovo's recycled content usage targets for FY 2019/20.

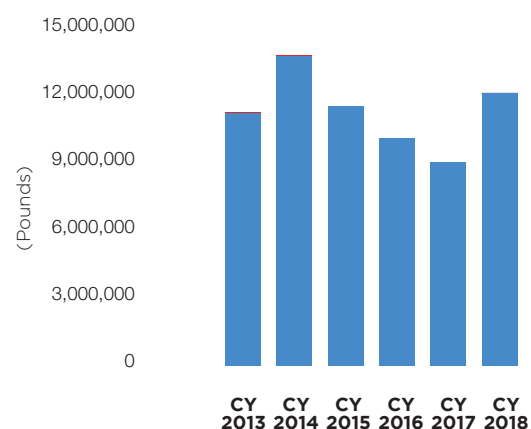


The following graph shows Lenovo's annualized use of PCC and PIC plastics over the past five years. The decline reflects a decreasing use of plastics overall, which is resulting from successful efforts to make products thinner and lighter.

### Use of Plastics Containing Recycled Content



### Use of Recycled Plastics in Products



■ Plastics Containing Recycled Content (PCRC)

■ Net Post-Industrial Recycled Content (PIC)

■ Net Post-Consumer Recycled Content (PCC)

## Repurposed Art with a Purpose

While some people see used pallets, wood scraps, or other discarded materials as trash, there are some who have a unique vision and can see ‘possibilities’ in these materials. Many Lenovo employees have unique perspectives and some use their talents to inspire all of us to consider our role in the preservation of our planet. Garry Emmons is one of those employees who has combined his vision and talent to create treasures from trash. Garry works in the maintenance department at our Whitsett, North Carolina manufacturing facility. Garry’s repurposed artwork can be seen throughout the Whitsett facility, and includes podiums, awards, frames, trophies, door signs, and many more creations. When asked what inspires him to create these imaginative and functional works of repurposed art, he shared the following:

*“I have always had a passion for repurposing and creating. What others view as junk or trash, I see as ‘ideas’ and ‘opportunities’. I have always been told that I have a very eccentric way of thinking — which in this situation, works to my advantage. The experience of creating something from materials that would have otherwise been discarded, inspires me to find a purpose for it. The creation process brings me peace and is personally rewarding — especially when I am creating something that will help others. I get great satisfaction from using my hands and my mind to bring something into existence that can be useful, or that incites happiness or curiosity in others. Equally important is that I am contributing to the preservation of our planet by diverting materials that may otherwise be sent to a landfill. If you ask me, my repurposed art has a triple benefit — my personal satisfaction, the joy it brings others, and the benefit to our planet.”*





## OTHER MATERIALS OF INTEREST

### Supporting a Precautionary Approach

Lenovo's corporate-wide environmental standards and specifications require the designers of all Lenovo IT products to consider certain environmentally conscious design practices to facilitate and encourage recycling and minimize resource consumption. Our priority is to use environmentally preferable materials whenever applicable. In adhering to this precautionary approach, Lenovo supports restricting the intentional addition of materials that are potentially concerning when economically and technically viable alternatives exist. These restrictions may also include implementing concentration limits for incidental occurrences.

For materials where economically and technically viable alternatives do not exist, Lenovo collects data on usage above the defined concentration limit. This data can then be reported to customers or other stakeholders. Lenovo continues to actively search for environmentally preferable materials that can be used as substitutes. We also expect our partners and suppliers to demonstrate the same commitment to environmentally sound practices. Our supplier specifications are available at: [https://www.lenovo.com/us/en/social\\_responsibility/social\\_responsibility\\_resources/](https://www.lenovo.com/us/en/social_responsibility/social_responsibility_resources/).

Lenovo restricts the use of environmentally sensitive materials in our products. This includes the prohibition of ozone-depleting substances in all applications; the restriction on the use of persistent organic pollutants (POPs) under the Stockholm Convention; and the elimination of materials covered under European Union (EU) Restriction on Hazardous Substances (RoHS) and Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), even beyond those jurisdictions where regulatory requirements exist. Lenovo's implementation strategy and requirements are consistent with the requirements specified in the EU's RoHS Directive and REACH Regulation.

Lenovo supports phasing out<sup>1</sup> brominated flame retardants (BFRs) and PVC and is committed to driving its supply chain toward this goal. Lenovo has made significant progress toward the elimination of BFR and PVC from our systems. We continue to focus on eliminating halogen from our top-selling products and across as many commodities as possible. Each product group completes a low halogen scorecard for each new product developed. The product groups have committed to improve the generation-to-generation low halogen score for at least one mainstream high-volume product released during FY 2018/19<sup>2</sup>.

Among our achievements:

- Lenovo has also made significant progress in phasing out halogen in many commodities across several product lines, including all plastic enclosures, most components and connectors (with the exception of printed board laminates); all mechanical plastic parts such as product covers, housings and bezels; many hard disk drives, optical disk drives, solid state drives; LCD screens; memory, CPUs, chipsets, and communication cards; and other commodities with offerings that meet the INEMI definition of low halogen.
- Large plastic component meet low halogen Br<1000ppm, Cl<1000ppm, all plastic parts > 25 grams meet low halogen requirement. Printed circuit boards, cables, wiring, fans, and electronic components are excluded.

<sup>1</sup> Lenovo supports the definition of "BFR/PVC free" as defined in the "INEMI Position Statement on the 'Definition of Low-Halogen' Electronics (BFR/CFR/PVC-Free)".

<sup>2</sup> To support this activity, all BUs shall include a requirement for the evaluation of low halogen components (including raw card PCBs) in the development marketing requirements document and RFI/RFQs. Qualified low halogen parts available at cost parity shall be used.

- Elimination of most BFR and PVC from ThinkPad notebooks. BFRs are used in power cords, cables, AC adapters, planar ASMs, subcards, connectors and some modular parts. PVC is only used in power cords and cables. In addition, all ThinkPad notebooks have low halogen printed circuit boards.
- Many Lenovo commercial monitors meet the iNEMI definition of low halogen exception for their PCBA and external cables.

Lenovo has completely phased out the use of BFR/PVC in all mechanical plastic parts (such as external covers, housings, etc.) across all Lenovo product lines. Lenovo currently prohibits the following from intentional addition to any Lenovo parts:

- Polybrominated Biphenyls (PBBs)
- Polybrominated Diphenyl Ethers (PBDEs)
- Deca-Brominated Diphenyl Ethers

Lenovo plans to use additional BFR-and PVC-free parts and materials across the Think and Idea family of products as acceptable alternative materials become available, working toward the goal to phase out the use of these materials across all newly introduced products. We continue to work with our suppliers to pilot new BFR-and PVC-free applications. Lenovo recognizes that the phase-out of these materials is dependent upon the availability of suitable alternatives that meet Lenovo's technological, quality, environmental, health and safety requirements.

Lenovo has identified a list of materials and substances of environmental interest. These substances may be candidates for further restrictions in the future. Lenovo holds suppliers accountable for reporting the use of these materials through Supplier Material Declarations. An industry standard IPC 1752A XML Full Material Disclosure (FMD) form, submitted via the Green Data Exchange (GDX), is the preferred format for confirmation of compliance to the restrictions and for reporting when substances in question are above the specified concentration levels.

### Big Data Set for Materials and Substances

As of the end of FY 2018/19, Lenovo's full material disclosures (FMD) system has accumulated more than 50,000 parts of full material information, forming a big data set for materials and substances. This big data set is a tool that can aid structural design and optimization, analyzing materials and mechanical properties and improving product reliability.

Only 2.4 percent of component suppliers do not provide full material disclosure, usually for security or intellectual property reasons. Lenovo does not exempt any of its suppliers; though we do allow considerations for confidential information. We will continue the progress on full material disclosure. Those who do not provide full material disclosure are requested to ensure their components' compliance with its own format of material disclosure, IEC 62474 declaration, test report or self-declaration.

Each product has detailed data of 200–300 pieces of similar parts, which is an important basis for Lenovo's design and R&D work, especially for the analysis of material environmental health and safety. In FY 2018/19, Lenovo continued a global eco-design program to reduce POPs for personal computer products, including notebooks, desktops, all-in-ones and monitors. The program includes conducting joint research with institutions and industry associations, making our materials and substances big data set an important tool for them.

We inform our customers about the environmental attributes of our products and compliance with applicable laws and regulations through an industry standard IT Eco Declaration form. Declarations for newly released products are posted on Lenovo's environmental website at: [www.lenovo.com/ecodeclaration](http://www.lenovo.com/ecodeclaration)

Consistent with our precautionary approach, we continuously analyze the regulatory environment and consider input from our customers, nongovernmental organizations (NGOs) and other stakeholders in evaluating the potential health and environmental impacts of our products. We weigh these inputs to determine the restricted substances, as well as the substances of interest to be tracked for reporting and for consideration of future restrictions.

## PRODUCT ENERGY EFFICIENCY

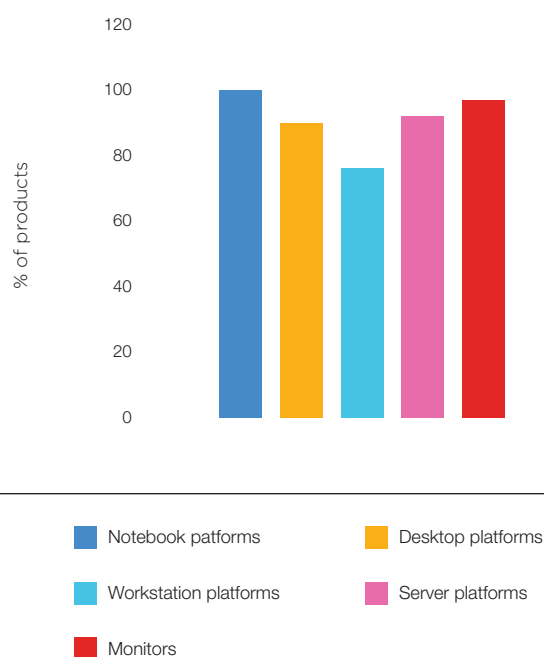
Product energy efficiency remains a core focus for Lenovo. Through collaboration with other original equipment manufacturers (OEM), as well as industry stakeholder work groups, existing and proposed global IT product energy efficiency policies, regulations and requirements are vetted against current and future technology. The results of this effort are leveraged to develop leading edge products with much improved operating efficiencies. Ongoing activities include updates to the ENERGY STAR® program specifications, U.S. Department of Energy (DOE) Appliance and Equipment standards, California Appliance Efficiency Program requirements, China CEL and CECP standards, EU Ecodesign (ErP) requirements and many other emerging protocols and regulations.

To further improve product energy efficiency for desktops, workstations and servers, Lenovo certifies internal power supplies to CLEAResult Plug Load Solutions' 80 Plus program for power supply efficiency. 80 Plus certified power supplies are independently tested and verified to the program's rated efficiency criteria; i.e., Bronze, Silver, Gold and Platinum. Lenovo desktop, workstation and server products equipped with 80 Plus power supplies are significantly more energy efficient than systems equipped with typical power supplies.

The energy consumption and performance of Lenovo products meet the efficiency requirements of China, Japan, the United States, Europe and other jurisdictions. Many Lenovo notebook, desktop, server and monitor products satisfy and even exceed the current ENERGY STAR® requirements. The ENERGY STAR® qualified models are listed at [www.energystar.gov](http://www.energystar.gov). For more information about Lenovo's energy-efficient products, go to: [www.lenovo.com/energy](http://www.lenovo.com/energy).



### Availability of ENERGY STAR® Certified Products



### Product Energy Management Features

Lenovo offers innovative tools for taking control of PC and server power consumption, determining energy savings and reporting on the energy performance of building management, equipment and IT devices.

PC Tool	Benefit
"Lenovo Settings" app in Windows	Provides power management features for the user (i.e., Connected Standby)
Adaptive Thermal Management	Adjusts system power and fan speeds based on ambient levels
Active Directory and LANDesk®	Supports remote deployment of power schemes and global settings to allow administrators the ability to control and enforce ThinkPad® energy savings company-wide
Lenovo EasyResume	Gives quick recovery from computer lid close, balancing low power state by suppressing CPU usage at lid close
Intelligent Cooling	Balances thermal performance to adjust settings to provide a cooler surface for comfort while optimizing product energy performance
Energy Saving Power Supply Unit	When the system detects the power loading is low, PSU turns off the internal fan to save energy consumption.



Server Tool	Benefit
The “New Customer WebUI” app [ThinkServer management model]	Provides power management features for the user
Supports remote deployment of power schemes and global settings [ThinkServer management model]	Allows administrators the ability to control and enforce ThinkPad energy savings company-wide
Power Manager™ [other operating systems]	Helps optimize energy used by a running machine and saves up to 30 percent on energy consumption
Lenovo ASHRAE Management	Adjusts processor and fan speeds based on ambient levels
Rack Planner	Helps users better plan for rack efficiency by increasing rack density and calculating power consumption based on specific configurations
Smart Grid	Helps users monitor and manage the power consumption and temperature of ThinkServers with Intel Node Manager. Smart Grid can save power, increase rack density and avoid data center hotspots
PSU smart-on	When the system detects that the power loading is low in redundant PSU configuration, it can transfer the loading from 2 PSU to 1 PSU to get higher power efficiency and save power
Diagnostics	Capabilities and Easy OS installation (LEPT) embedded
80 PLUS Titanium™ server power supplies or PSUs [available for select System x servers]	By improving the efficiency of the server PSUs, energy efficiency improvements can be cascaded up through the data center for both power and cooling
Liquid cooling solutions	Can reduce the facility demands for data center chillers, resulting in facility infrastructure savings
Lenovo Efficiency Mode™ (LEM)	Works in cooperation with the operating system to fine tune the operating efficiency of the server. LEM can boost performance per watt efficiency by up to 11 percent compared to a server that is not using LEM
Intelligently managing power consumption	Unused devices embedded in System x servers are either powered down or placed into very low power state automatically during boot time and/or dynamically at run time. Devices include CPU cores, memory channels and DIMMs, PCI express ports, QPI links, SATA and SAS storage controllers, network controllers, serial ports, USB controllers and voltage regulatory devices (VRDs)

## PRODUCT CARBON FOOTPRINT

Lenovo is engaged with members of the information and communication technology (ICT) industry and academia in the development of a tool to simplify and expedite determination of the Product Carbon Footprint (PCF) for ICT products through the Product Attribute Impact Algorithm (PAIA) project. Lenovo's product development groups currently use the PAIA notebook, desktop, monitor, all-in-one, tablet, thin clients, servers and network switch products PCF calculation tools, and are engaged in development of a tool for storage and an on-line platform.

There are numerous and substantial challenges to calculating an accurate carbon footprint for Information and Communications Technology (ICT) products, especially if the intent is to use the data for product-to-product comparisons. These challenges include:

- Collecting and compiling dependable emissions data across a long and complicated supply chain,
- Accurately allocating emissions from facilities across different geographies providing numerous products and services to multiple customers,
- Maintaining current data with a continuously evolving and rapidly changing ICT product portfolio,
- Ensuring consistency of results in an environment where multiple and varying calculation methodologies are available.

For Lenovo, determining PCF has been effort-intensive for ICT products given the long supply chain and rapid product changeover. We were in search of an efficient and credible way to calculate our product footprints, but we also wanted to understand the impacts and to be able to credibly disclose environmental information about our products. With these challenges, we joined the Product Attribute to Impact Algorithm (PAIA) Project, an ICT sector-wide pre-competitive

collaboration led by Quantis and Massachusetts Institute of Technology (MIT), to streamline footprints for ICT products. To help address these challenges, Quantis and MIT developed PAIA, an easy-to-use online platform that allows companies, like Lenovo, to significantly reduce the time and cost of environmental impact calculations. With a suite of simplified online tools, PAIA delivered a methodology for ICT product footprints which originated from a multi-stakeholder initiative of ICT companies that share insights and best practices.

The PAIA Tools help to more efficiently calculate PCF for a wide range of products and configurations. Using PAIA to calculate product footprints has significantly reduced the time and cost of calculating environmental footprints. The quality and accuracy of the calculations allowed us to confidently communicate this information with customers and other stakeholders.

The company shares these results with enterprise customers and publishes them publicly on [Lenovo Product Carbon Footprint \(PCF\) Information Sheets](#). By participating in PAIA, Lenovo is helping to drive a sector-wide streamlined methodology that will be key to transforming ICT companies into sustainable businesses. To learn more about this study and PAIA, [click here](#).

While there are voluntary standards available to guide practitioners in compiling PCF, these standards are not designed to establish comparative values between products. The degree of flexibility written into the standards can produce variations in results for the same products when the same standard is applied by different practitioners. Compiling PCF using these standards is also a very lengthy and resource intensive process. Commonly used standards include British Standards Institute's PAS 2050, WRI/WBCSD's GHG Protocol Product Lifecycle Accounting and Reporting Standard and International Standards Organization's ISO 14040 & ISO 14044 — Life Cycle Assessment and ISO 14067 — Carbon Footprint of Products.

To download PCF sheets for specific Lenovo products, visit [www.lenovo.com/ecodeclaration](http://www.lenovo.com/ecodeclaration). These information sheets are generated using the streamlined PAIA life cycle analysis and include manufacturing, transportation, use and end-of-life. For more information about Lenovo's work on calculating product carbon footprints, visit [www.lenovo.com/climate](http://www.lenovo.com/climate).

## GREEN CERTIFICATION FROM AROUND THE GLOBE



## DURABLE PRODUCTS ARE ENVIRONMENTALLY RESPONSIBLE

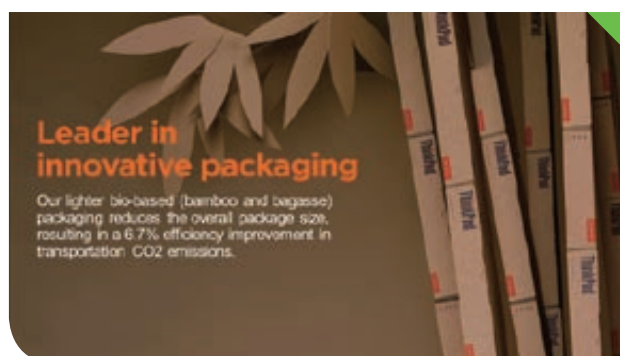
The longer a product lasts, the longer it stays out of the waste stream. Lenovo designs its products to maximize their product lifecycle and offers three-year standard warranties and five years of replacement parts availability on many of our top selling commercial PC products to support this extended lifecycle. Three-year warranties are offered as the base warranty on many top-selling Think-branded products, including all commercial monitors, notebooks, desktops and others. In addition, customers can purchase warranty upgrades to extend the base warranty by one or two years for many products. Base warranties for Lenovo consumer (Idea) products vary by product type and geography, but typically start at one to two years for the base warranty with the option for many products to purchase an extended warranty. For more details on Lenovo's warranties, please visit <http://www3.lenovo.com/us/en/services-warranty/>.

Lenovo is continuously designing innovative features for our products to help extend their useful life. For example, Lenovo's Longevity Battery Technology extends notebook battery cycle life through key technologies, including:

- **Increased use of lithium polymer cells:** Used in notebooks and tablets with embedded batteries, these cells typically provide longer life cycles than lithium ion cylindrical cells.
- **Longer lifespan batteries:** Many Lenovo embedded batteries are designed to last two to three times longer than standard batteries. Lenovo Services offers three-year warranty upgrades on many embedded batteries. The longer lifespan is made possible with carefully designed selected cells and charge algorithms.
- **Dual mode charging algorithms:** These technologies are used on most notebook batteries and adjust charge voltage and current over time to prolong the battery's lifespan. The feature is implemented in the hardware and as part of the battery firmware so it is not operating system or application dependent and works with any software load.
- **Field updateable battery firmware:** Customers can download a firmware update utility which allows them to apply firmware fixes to batteries in service, eliminating the need to replace batteries due to firmware problems. This program allows customers to apply fixes quickly and at no cost, even on batteries outside of warranty.

## PRODUCT PACKAGING

Packaging has been identified as a significant environmental aspect of Lenovo's operations, and as a result is a significant environment aspect under Lenovo's Environmental Management System (EMS). By using bio-based materials, like bamboo and sugar cane, we are able to reduce our packaging consumption, waste, and carbon emissions levels. Over the past several years, Lenovo continues to focus on increasing the use of recycled and recyclable materials in packaging, reducing the size of packaging, and expanding the use of bulk and reusable packaging solutions.





Bamboo fiber packaging is a revolutionary technology which launched a new age of eco-friendly packaging materials, while also enhancing customer experience. The innovative packaging suggests many favorable features, including:

- Sleek & Robust design
- Light-weight
- 100% rapidly renewable
- 100% compostable
- A pure 'closed-loop' ecosystem

In FY 2018/19, Lenovo's packaging objective was to "minimize the consumption of packaging material while driving the use of environmentally sustainable materials." Lenovo supported this objective by transitioning all ThinkPad series to 100 percent recycled cushioning materials. The material is 100 percent biodegradable, lighter than previous packaging, and has design characteristics that reduce overall package size. For example, a 0.4 percent reduction in an individual carton size is equivalent to 18 percent increase in pallet density, which can enable a 6.7 percent efficiency improvement in transportation CO<sub>2</sub> emissions. ThinkPad product shipping boxes are certified to contain a minimum of 70 percent post-consumer fiber content, and are required to use the maximum available PCC where adequate supplies exist without compromising required packaging performance characteristics, while the printing on boxes is done via flexography with water-based, non-toxic, RoHS-compliant inks. Since 2008, Lenovo has eliminated 3,100 tons of packaging consumption by weight. In FY 2018/19 alone, the Packaging Team reduced packaging consumption by 350 tons.

Lenovo is also intent on reducing the size of our packaging to minimize the amount of materials used, while maintaining adequate protection for our products. This journey includes increasing the use of recycled content materials in product packaging by 10 percent — based on shipping volumes relative to FY 2017/18. Smaller packages also contribute to increased pallet density, enabling Lenovo to increase pallet density by over 33 percent in many cases. In our own operations, Lenovo uses reusable bulk packaging for the transportation of chassis to manufacturing locations. In addition, bulk packaging and reusable bulk packaging may be available for many of Lenovo's products for customers in many regions. Other successful packaging objectives include the implementation of using packaging made from 70 percent recycled content ratio with all new phone products, and achieving a 5 percent weight reduction in volume for at least one product by other business units.

Lenovo's ThinkPad packaging team is always looking for environmentally friendly solutions which may improve their packaging engineering efforts. In FY 2018/19, the team was quite proud of a successful achievement that demonstrated their dedication to packaging innovation. The team developed an ingeniously designed packaging which allows the carton to lock with more stability and security. The specially constructed box has a unique self-lock structure at the bottom with two tongues and matching lock holes, creating a greener package by eliminating the need for sealing tape. An additional benefit is that assembling a self-lock bottom carton is more efficient as compared with assembling cartons with snap-lock bottoms.



With the current elimination of the packaging sealing tape, the team estimates the following environmental benefits to date:

3.3  
Kilometers

Tape consumption  
saving per year  
by length

9  
Tons

Plastic film  
consumption saving  
per year by weight

As the team phases in the new tapeless design to more products, the estimated environmental benefits are:

19,500  
Kilometers

Tape consumption  
saving per year  
by length

53.6  
Tons

Plastic film  
consumption saving  
per year by weight

Lenovo discourages the use of polystyrene packaging wherever possible, and encourages the use of molded pulp, fiber and low-density polyethylene (LDPE). For more information about the process for making and recycling LDPE thermoformed cushions, go to [www.lenovo.com/packaging](http://www.lenovo.com/packaging).

Please see the Consolidated Metrics, Objectives and Targets section for Lenovo's performance against its FY 2018/19 packaging targets.

### Reuse

In select geographies, Lenovo provides the end customer an optional returnable packaging service, where the packaging materials can be sent back to Lenovo after receiving the products and reused for new shipments by Lenovo. Lenovo is also devoted to the reuse of incoming component packaging, especially in the return of chassis packaging.

### Packaging Specifications

Lenovo communicates packaging environmental requirements to suppliers via a series of packaging specifications. These specifications include requirements for minimum amounts of recycled content, marking for proper recycling, banned materials, and other requirements. All corrugated container (box) packaging should use a minimum of 50% post-consumer recycled fiber and all paperboard packaging should contain a minimum of 45% post-consumer recycled fiber and 100% recovered fiber. In addition to meeting these specifications, many Lenovo packaging suppliers provide Forest Stewardship Council (FSC) certified products for Lenovo packaging. Lenovo is currently in the process of assessing the global availability of FSC certified packaging to support manufacturing facilities in all geographies.

## PRODUCT END-OF-LIFE MANAGEMENT (PELM)

At Lenovo, PELM includes the reuse, refurbishing, de-manufacturing, dismantling, reclamation, shredding, recycling, treatment and disposal of products, parts and peripherals when they are taken out of service, reach end-of-life and/or are scrapped. This includes the recovery and reuse of products, parts subassemblies and components. Lenovo-branded and non-branded products owned or accepted by Lenovo (including customer returns or take back) are included in this definition.

As a part of our efforts to improve Lenovo's supplier base around the globe, we have made available our "[Lenovo Environmental Electronics End of Life Standard](#)." This document details what is required to become a Lenovo end-of-life partner. Where available, we continue to require our global supplier base to have R2 or e-Stewards certification or encourage them to start the process to obtain certification

Lenovo supports efforts to reduce the volume of end-of-life electronic products being disposed of in landfills, as well as efforts to reduce the need for new raw materials by increasing the beneficial reuse of products and parts, or recycling of materials.

### PRODUCT TAKE-BACK PROGRAMS

As a global company, Lenovo offers end-of-life recycling and management programs for both consumer and business customers in many countries around the world. Offerings are tailored to the specific location and business need and include programs for recycling products as well as packaging and batteries in many geographies.

In many European countries, Lenovo offers customers free-of-charge waste electrical and electronic equipment (WEEE), batteries, and packaging recycling options through local recycling systems. With support of our Europe/Middle East/Africa (EMEA) compliance partner 1cc, Lenovo managed over 50 direct take-back programs for WEEE, batteries, and packaging in more than 20 countries. In FY 2018/19, we managed more than 34,000 tons of equipment.

With this engagement, Lenovo financed takeback activities in Europe totaling more than €6 million Euros in FY 2018/19. Lenovo will continue to play an active role in the EMEA recycling landscape and has work in progress to extend coverage of Lenovo take-back systems to regions in Eastern Europe and other countries outside of the EU.

Customers can obtain information about Lenovo's recycling programs and details on offerings by country at: [www.lenovo.com/recycling](http://www.lenovo.com/recycling).

For our business customers, Lenovo offers Asset Recovery Services (ARS) in numerous countries. Customer-access information for these programs in the Americas, Asia Pacific and EMEA can also be obtained at: [www.lenovo.com/recycling](http://www.lenovo.com/recycling).

## MANAGEMENT OF LENOVO'S PELM SUPPLIERS

Lenovo maintains a program for ensuring that recycling, disposal, and disposition of end-of-life products owned by Lenovo or returned by customers are accomplished in an environmentally conscious and legally compliant manner. This program includes Lenovo onsite environmental evaluations and approvals in accordance with Lenovo's stringent auditing protocol. Some of the critical evaluation requirements include:

- Supplier completion of Lenovo's initial supplier evaluation form declaring their processing capabilities and controls, environmental, health and safety management systems, and legal compliance.
- Supplier downstream disclosure of facilities involved with receiving equipment or waste; reusing equipment as a product, part or material; and disposing of waste and ensuring all facilities maintain compliance.
- Successful Lenovo onsite environmental and services audit of facilities and processes prior to their use, and documentation of audit findings and recommendations in a final report.
- Review of all audit documentation and recommendations by Lenovo's Geographic Environmental Managers, and final approval by Lenovo's Director of Environmental, Sustainability, and Compliance.
- Maintain Lenovo Corporate Approved Supplier Facility listing by geography and approved services for use by all Lenovo organizations, sites and programs worldwide in Lenovo's internal database.
- Establishment of a Lenovo contract with suppliers with specific environmental terms and conditions related to expected environmental performance and reporting.

Suppliers include asset recovery services, legal and voluntary product take-back providers, field services, dismantlers, recyclers, disposal and other related vendors. All recovered products and parts are required to be data wiped, refurbished, tested for function, labeled as refurbished and resold where they will be used as originally intended without further refurbishing before use. Suppliers are required to use Lenovo-approved recyclers for the disposition of non-working products and parts and waste generated from their refurbishing processes. Lenovo prohibits the shipment of hazardous waste to non-OECD countries.

Additionally, Lenovo incorporates specific environmental terms and conditions into contracts and agreements with all PELM suppliers. Approved and contracted facilities are required to submit regular environmental reports documenting the total quantities of equipment and e-waste collected and processed on behalf of Lenovo and Lenovo customers, including the identification of methods of disposition and their percentages. Periodic follow-up audits are also completed to ensure continued compliance to legal and Lenovo environmental requirements.

## RECOVERY AND RECYCLING TRENDS

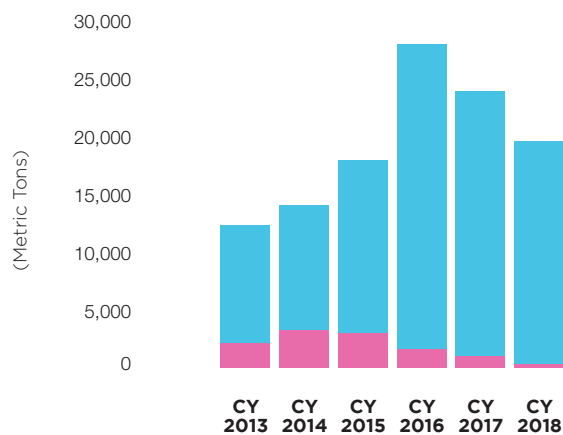
During the 2018 calendar year, Lenovo financed or managed the processing of 40,300 metric tons of Lenovo-owned and customer-returned computer equipment. Of this total, 2.8 percent was reused as products or parts, 91.7 percent was recycled as materials, 3.2 percent was incinerated with waste-to-energy recovery, 1.1 percent was incinerated as disposal treatment, and 1.2 percent was disposed of by landfill. As part of Lenovo's continual improvement activities, we look for opportunities to maximize reuse and recycling.

Since its launch as a global company in May 2005, Lenovo has processed more than 247,300 metric tons of computer equipment through our contracted service providers. PELM and PTB



trends for the most recent six calendar years are illustrated below:

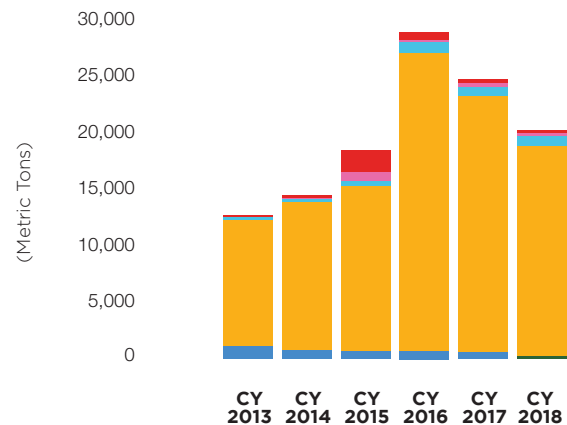
### Recovery and Recycling Trends (PELM)



Other PELM

Product Take Back (PTB)

### Product End-of-Life Management (PELM) Disposition



Resold

Reused

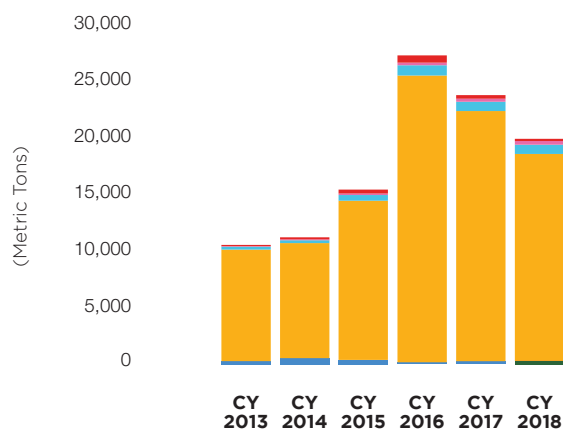
Recycled

Waste to Energy (WTE)

Incinerate

Landfill

### Product Take-Back (PTB) Disposition



Resold

Reused

Recycled

Waste to Energy (WTE)

Incinerated

Landfill

Our customers have shown considerable interest in our recycling programs. In 2018, customer returns constituted more than 19,900 metric tons. Our 2018 performance includes data from Lenovo's Asset Recovery Services offered to large enterprises, along with data from Lenovo's other voluntary and legally required product take-back programs for consumers and businesses.



# 8.0

## CONSOLIDATED METRICS, OBJECTIVES AND TARGETS

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FY 2018/19 Consolidated Metrics

FY 2018/19 Performance

FY 2019/20 Objectives and Targets

# CONSOLIDATED METRICS, OBJECTIVES AND TARGETS

## FY 2018/19 CONSOLIDATED METRICS

### General Data

	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Revenue</b> (Millions USD)	\$46,296	\$44,911	\$43,035	\$45,350	\$51,038
<b>Revenue by Geography</b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Americas	26%	30%	30%	31%	32%
EMEA (Europe, Middle East, Africa)	28%	26%	26%	28%	25%
Asia Pacific (excluding China)	14%	16%	16%	16%	19%
China	32%	28%	28%	25%	24%
<b>Revenue by Business Group<sup>1</sup></b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
IDG — PCSD	72%	69%	70%	71%	75%
IDG — MBG	20%	19%	18%	16%	13%
DCG	6%	10%	9%	9%	12%
Others	2%	2%	3%	3%	—
<b>Research and Development</b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Expenditures/Sales	2.64%	3.32%	3.16%	2.81%	2.48%



**Employees, Health and Safety**

<b>Number of Employees</b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19<sup>2</sup></b>
<b>Total</b>	50,348	48,975	46,163	45,754	57,000
<b>Number of Employees by Region</b>					
Americas	25%	15%	15%	16%	25%
Asia Pacific (excluding China)	8%	8%	9%	9%	15%
China	59%	69%	66%	66%	49%
EMEA (Europe, Middle East, Africa)	8%	8%	9%	8%	12%
<b>Percentage of Employees by Gender</b>					
Males	64%	66%	65%	65%	64%
Females	36%	34%	35%	35%	36%
<b>Hours of training per manufacturing employee</b> (including part-time employees)	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
	35	35	35	35	35
<b>Incident Rates</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
Recordable Rate	0.13	0.1	0.07	0.09	0.03
Lost-Time Rate	2.20	2.69	0.5	1.5	0.03
Number of employee fatalities (work-related)	0	0	0	0	0
Number of contractor fatalities (work-related)	0	0	0	0	0
<b>Number of OHSAS 18001 registered facilities</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
	10	10	10	10	14

## Communities and Philanthropy

	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Corporate Cash and Product Donations<sup>3</sup></b>					
Lenovo Foundation and Donor advised funds	\$590,000	\$404,000	\$75,000	\$819,000	\$799,372
China	\$289,000	\$411,000	\$300,000	\$378,516	\$308,274
North America	\$692,216	\$1,080,000	\$1,852,000	\$1,375,000	\$1,319,070
Latin America <sup>3</sup>	—	\$319,000	\$15,000	\$111,000	\$155,674
EMEA (Europe, Middle East, Africa) <sup>4</sup>	\$165,000	\$205,000	\$114,000	\$107,000	\$159,621
Asia Pacific (excluding China) <sup>4</sup>	\$166,808	\$222,000	\$126,000	\$570,709	\$148,500
Global Disaster Response				\$1,714,000	\$260,350
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Employee Volunteering Hours (through efforts sponsored by Lenovo)</b>					
North America	>5000	>5,000	1,266	19,296	28,242
Rest of World	16,000	19,000	26,205	10,704	9,072
Estimated Value of Employee Volunteer Hours				\$1,300,000	\$1,616,794
	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Employee Giving</b>					
Lenovo Match of North America Employee Donations	\$259,431	\$281,778	\$352,654	\$339,000	\$380,854
Lenovo Match of China and EMEA campaigns (Lenovo and Lenovo Foundation)					\$59,775
<b>Total Contribution to Communities<sup>5</sup></b>					\$3,516,039
<b>Estimated value of community impact through philanthropy and volunteerism</b>					\$5,170,146

## Environmental Data

	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>GHG Emissions<sup>6</sup></b> (metric tons CO <sub>2</sub> equivalent — MT CO <sub>2</sub> e)					
<b>Scope 1</b>	8,996	7,068	8,294	6,371	6,031
<b>Scope 2</b> (location-based)	221,406	228,493	213,637	193,760	201,321
<b>Total Scope 1 &amp; Scope 2</b> (location-based)	230,402	235,561	221,931	200,131	207,352
<b>Scope 2</b> (market-based)	221,406	203,041	185,400	176,800	26,029
<b>Scope 3</b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Business Travel	34,600	39,000	58,000	49,000	53,500
Product Transportation	293,102	326,840	351,100	359,000	633,000
Emissions from Waste	2,138	2,149	2,390	1,700	1,920
Employee Commuting	30,700	26,300	23,800	20,100	23,600
Purchased Goods and Services	1,054,683	1,646,141	2,054,900	1,855,000	1,795,000
Fuel-and-Energy Related Activities (not included in Scope 1 or 2)	10,737	14,664	12,300	11,900	12,100
Use of Sold Products	12,800,000	12,000,000	11,600,000	11,847,000	12,885,000
End of Life Treatment of Sold Products	300,000	290,000	280,000	271,000	273,500
Capital Goods	37,700	227,700	101,000	246,000	127,500
<b>Emissions Intensity: GHG Emissions — Scope 1 &amp; Scope 2 (location-based)<sup>6</sup></b> (metric tons per \$ million revenue)	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
	4.98	5.25	5.16	4.41	4.06
<b>Operational Energy Intensity Use — Scope 1 &amp; Scope 2 (location-based)<sup>6</sup></b> (MWh per \$ million revenue)	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Fuel Combustion	0.72	0.74	0.94	0.77	0.61
Purchased Energy (electricity, steam, cooling)	4.66	6.97	6.74	6.57	6.20
<b>Operational Energy Use — Scope 1 &amp; Scope 2 (location-based)<sup>6</sup></b> (MWh)	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Fuel Combustion	33,201.65	33,363.16	40,257.94	34,733.55	30,904.82
Purchased Energy (electricity, steam, cooling)	215,753.86	313,027.41	290,112.63	298,019.77	316,482.68

## Environmental Data

	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Renewable Energy<sup>6</sup></b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
Solar Energy (MWh)	201	221	1,607	3,713	3,938
Generation Capacity (MW)	0.3	0.3	5.5	5.5	12.42
<b>Water<sup>7</sup></b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
(in Cubic Meters)					
Water Withdrawal	1,202,689	1,366,829	1,429,610	1,385,080	1,391,300
Waste Water Discharge Values	1,127,164	1,298,427	1,351,405	1,260,986	1,256,400
Wastewater Exceedances	0	0	0	0	0
<b>Waste<sup>8</sup></b>	<b>FY 2014/15</b>	<b>FY 2015/16</b>	<b>FY 2016/17</b>	<b>FY 2017/18</b>	<b>FY 2018/19</b>
(in Metric Tons)					
Non-Hazardous Waste	35,944.75	40,041.55	44,032.69	44,377.44	45,439.49
Hazardous Waste	210.29	78.90	67.65	75.27	66.11
<b>Recovery and Recycling Trends</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
(in Metric Tons)					
Product End-of-Life Management (PELM) <sup>9</sup>	14,587	18,600	29,075	24,872	20,036
Product Take Back (PTB) <sup>9</sup>	11,252	15,487	27,392	23,868	19,704
<b>Product End-of-Life Management (PELM)</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
<b>Disposition</b>					
(in Metric Tons)					
Reused	788	778	710	619	11
Recycled	13,209	14,620	26,569	22,808	18,678
Waste to Energy (WTE)	251	507	907	826	823
Incinerate	78	804	233	284	327
Landfill	256	1,891	656	336	197
Total	14,587	18,600	29,075	24,872	20,036



## Environmental Data

	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19
<b>Product Take Back (PTB) Disposition</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
(in Metric Tons)					
Reused	534	375	164	261	11
Recycled	10,205	14,128	25,445	22,194	18,348
Waste to Energy (WTE)	251	502	906	826	823
Incinerated	78	134	233	270	326
Landfill	184	348	644	318	196
Total	11,252	15,487	27,392	23,868	19,704
<b>Use of Recycled Plastics in Products</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
(in Pounds)					
Plastics Containing Recycled Content (PCRC)	23,850,027	20,597,606	15,802,979	13,994,678	12,207,609
Net Post Consumer Recycled Content (PCC)	13,883,806	11,622,364	10,204,469	9,112,367	17,102,170
Net Post Industrial Recycled Content (PIC)	18,739	6,724	0	0	0
<b>ENERGY STAR® Certified Products</b>					
<b>Availability</b>	<b>CY 2014</b>	<b>CY 2015</b>	<b>CY 2016</b>	<b>CY 2017</b>	<b>CY 2018</b>
(% of product)					
Notebook Platforms	98%	100%	98%	100%	92%
Desktop Platforms	82%	90%	94%	99%	97%
Workstation Platforms	71%	76%	78%	78%	80%
Server Platforms	94%	92%	91%	91%	90%
Monitors	97%	97%	98%	100%	98%

## FOOTNOTES:

1. In the Spring of 2018, the Intelligent Devices Group (IDG) was created through a combination of the PC & Smart Devices Group (PCSD) and Mobile Business Group (MBG). As a result of this change, the Intelligent Devices Group (IDG), Data Center Group (DCG) now comprise the company's three major business units. Please see the FY 2018/19 Annual Report for more details.
2. Lenovo employs approximately 28,000 direct labor employees at the corporate level reported in this line.
3. In FY 2018/19, corporate and in-region philanthropy giving were consolidated into one table to simplify reporting and represent the centralization of global philanthropy at Lenovo through the Lenovo Philanthropy Board and Lenovo Foundation.
4. All Geographies in-region and corporate budgets from years past were consolidated into one figure, in alignment with the simplification described in footnote 1.
5. Total contribution to communities through cash contributions and matches, and product donations refers to employee donations. While estimated value of community impact through philanthropy and volunteerism refers to the cost of employee's time being spent on volunteering.

6. **Lenovo's GHG Emissions and Energy Inventory Specifics:**  
 Lenovo started to verify energy and GHG emissions data in FY 2009/2010.  
 At the end of FY 2012/13 Lenovo adjusted its historical Scope 1 and 2 CO<sub>2</sub>e emissions data to account for acquiring Medion in Germany and creating joint venture with NEC in Japan. At the end of FY 2015/16 Lenovo adjusted historical Scope 1 and 2 CO<sub>2</sub>e emissions data to account for acquiring System x and Motorola Mobility.  
 Lenovo started to report location-and market-based Scope 2 from FY 2015/16. Base year's and consecutive years' Scope 2 totals are the same for location and market-based method as product and supplier-specific market-based data were not available in the base year and consecutive years so the location-based results has been used as a proxy for the market-based method. Beginning in FY 2015/16, System x and Motorola Mobility data are included in energy and Scope 3 emissions data. Approximately less than 1% of purchased energy (electricity) is estimated based upon energy use at similar Lenovo facilities with metered usage.  
 Product transportation emissions include key upstream suppliers representing majority of global logistics spend. Note: Upon looking into GHG Protocol standard we decided to re-categorize this to upstream from downstream transportation (from FY 2016/17, previous years were adjusted accordingly).  
 Emissions from waste include nonhazardous waste, hazardous waste and waste water from all manufacturing, R&D locations and some large offices. No product waste is included.  
 Purchased goods and services include suppliers covering 90% of direct global suppliers spend. The RBA Carbon and Water Reporting Tool was used for collection of supplier data. Data was allocated based on revenue.  
 Fuel-and energy-related activities (not included in Scope 1 or 2) include transmission & distribution (T&D) losses from Lenovo's worldwide purchased electricity and natural gas. A World Bank database and Energy Star Performance Rating document were used for determining T&D loss rates.  
 Lenovo used the current Product Attribute Impact Algorithm (PAIA) notebook, desktop, monitor, tablet, all-in-one, ThinClient and server tool for calculating emissions of Lenovo's typical notebook, desktop, monitor, tablet, all-in-one, ThinClient and server. The calculated results show emissions distribution by different parts and also for use, packaging, transportation, and end-of-life treatment categories. The emissions associated with use and end-of-life treatment of sold products were estimated on a "narrow" baseline for the typical notebook, desktop, monitor, tablet, all-in-one, ThinClient and server multiplied by sold/shipped product volumes.  
 Emissions from capital goods are based on purchased capital goods in a given year. The 2012 Guidelines to Defra GHG Conversion Factors for Company Reporting, Annex 13 was used for emission factors for different type of capital goods adjusted for inflation rate and exchange rate.  
 Renewable energy generation capacity includes electric solar panels in Shanghai, Hefei and Wuhan China; Morrisville and Whitsett, NC, USA and hot water solar panels in Beijing, China.
7. **Water data includes manufacturing, research & development sites and some large offices.**  
 Lenovo started to verify waste and water data in FY 2011/12.  
 Beginning in FY 2015/16, System x and Motorola Mobility data are included in water data.  
 In FY 2017/18, the term "water use" was replaced with "water withdrawal," however, what is being measured is unchanged.
8. **Waste data includes site waste from manufacturing, research & development sites and some large offices.**  
 Waste data includes processes and operations waste; product waste is reported separately.  
 Lenovo started to verify waste and water data in FY 2011/12.  
 Beginning in FY 2015/16, System x and Motorola Mobility data are included in waste data.
9. **Lenovo's Product End-of-Life Management (PELM) and Product Take Back (PTB) includes materials from customers and Lenovo-owned customer returns, manufacturing and R&D scrap, and employee equipment from real estate sites.**

## FY 2018/19 PERFORMANCE

### Product

Target Type	Objective	Key Performance Indicator(s)	Target(s)	Status
Packaging	Minimize packaging material consumption while driving the use of environmentally sustainable materials.	Availability of bulk packaging	Support bulk packaging for DCG products and/or options.	Target met
		Availability of reusable packaging design	Support development of reusable rack crate design for servers.	Target met
		Amount of PCC used	Increase use of 100% PCC by 10% based on shipping volumes relative to previous year.	Target partially met
		Weight or volume reduction	Achieve 5% reduction in weight or volume for at least 1 product.	Target met
		Biodegradable/compostable packaging	Identify one new Lenovo product for which to implement use of 100% biodegradable/compostable packaging.	Target partially met
	Increase recycled content of packaging.	% Recycled content	Packaging box material recycled content must be at least 60% or greater for all new phone products released in FY18/19.	Target met

Target Type	Objective	Key Performance Indicator(s)	Target(s)	Status
Product energy consumption	Drive reduction in product energy use.	Energy efficiency	New products must show improved energy efficiency relative to the previous generation of the product. <sup>1</sup>	Target met
			Enable industry best practices to reduce energy waste and improve efficiency on new products where technically and financially feasible.	Target met
			Identify at least one energy efficiency improvement metric for product category by September 30, 2018 in support of development of science-based targets.	Target met
		Regulatory and voluntary energy standard compliance	Ensure all products are compliant with regulatory requirements and select products are compliant with preferred energy standards.	Target met
		Lowest Power Mode limits	For products requiring IEEE 1680.1 registration, ensure applicable product meets Lowest Power Mode limits per the requirements and exceptions allowed in the IEEE 1680.1 standard.	Target met
	Quantify lifecycle CO <sub>2</sub> e emissions associated with the use of Lenovo products.	PCF (kg CO <sub>2</sub> e)	Continue to support external development of PCF methodologies and standards through membership and participation in key organizations.	Target met
			Ensure product carbon footprint is published for all new Lenovo products. <sup>2</sup>	Target met
			Begin calculating PCF for representative sample of newly released network switch by December 31, 2018.	Target met
			Perform LCA (life-cycle assessment) for one Lenovo selected product by March 31, 2019.	Target NOT met

Target Type	Objective	Key Performance Indicator(s)	Target(s)	Status
Product materials <sup>1, 3, 4, 5</sup>	All products across all business units shall contain some Post Consumer Recycled Content (PCC) Plastic.		All newly released DT, AIO, workstation, notebook, tablet, visual and accessory products shall contain a minimum of 2% PCC in product.	Target met
		% PCC in product/external enclosure	Explore opportunities for PCC usage for MBG products.	Target NOT met
			All newly released server products shall contain minimum of 10% PCC in external enclosure. <sup>6</sup>	Target met
		Closed-loop PCC supplier, material, usage in products	Develop and approve PC+ABS closed-loop PCC supplier and material.	Target met
			Explore opportunities for closed-loop usage for DT, AIO, workstation, notebook, tablet, visual and accessory products.	Target met
	Sustain technological advances and maintain portfolio relative to low halogen products. Monitor and respond to market requirements in this area.	Low halogen parts	For products requiring IEEE 1680.1 registration, ensure each plastic part in the product exceeding 25 g shall not contain greater than 1000 ppm chlorine or greater than 1000 ppm bromine at the homogeneous level per the requirements and exceptions allowed in the IEEE 1680.1 standard.	Target met
			For notebook and desktop products requiring IEEE 1680.1 registration, assess flame retardants and plasticizers in plastic parts > 25 g to GreenScreen Benchmark per the requirements and exceptions allowed in the IEEE 1680.1 standard.	Target met
			Upon customer request make available external PVC-free cable.	Target met
Site Location				
Site air emissions	Absolute reduction in CO <sub>2</sub> e emissions from Lenovo operations worldwide.	Metric tons CO <sub>2</sub> e	Reduce Lenovo's global Scope 1 + Scope 2 GHG emissions by 40% by March 31, 2020, relative to FY 2009/10. <sup>7</sup>	Target exceeded
			LME, GRE, LCRE and GEA will establish global action plans to reduce combined Scope 1 and Scope 2 GHG emissions by 40% by March 31, 2020, relative to FY 2009/10. The plan will be reviewed and updated annually, at a minimum. <sup>7</sup>	Target met
		Science-based targets criteria evaluation	Evaluate Lenovo's readiness to establish science-based targets for GHG emissions reduction targets after 2020.	Target met



Target Type	Objective	Key Performance Indicator(s)	Target(s)	Status
Site energy consumption	Maximize energy efficiency and minimize CO <sub>2</sub> e emissions associated with the development, manufacture and delivery of Lenovo products.	Renewable energy generation capacity (MW)	Achieve 30MW of Lenovo owned or leased renewable energy generation capacity globally by 2020.	Target partially met — Progress being made but significant challenges exist to achieve 2020 target.
		% total energy from RE sources	Achieve a YTY increase in energy purchased from renewable generation sources globally, relative to the previous FY. <sup>8</sup>	Target met
		Energy consumption in kWh per million US\$ revenue	Achieve YTY improved energy intensity <sup>9</sup> index at manufacturing sites globally, relative to the previous FY.	Target met
		Electricity consumption in kWh per employee	Achieve YTY improved electricity intensity <sup>10</sup> at R&D and office sites globally, relative to the previous FY.	Target NOT met
Waste management	Minimize environmental impacts associated with solid waste generated from Lenovo operations and products.	% nonhazardous solid waste recycled	Maintain a global nonhazardous waste recycling rate > 90% (+/-5%). <sup>11</sup>	Target met
Water management	Minimize environmental impacts associated with water use and water discharge from Lenovo operations and products.	m <sup>3</sup> water	Total global water withdrawal will be +/- 5% of FY 2017/18.	Target met
		m <sup>3</sup> wastewater	Total global wastewater generation will be +/-5% of FY 2017/18.	Target met
Supply Chain				
Product end of life management	Provide product recycling programs and recycling related information that meets or exceeds local legal requirements wherever we do business.	Geo readiness for registration to new IEEE 1680.1 standard	For geos requiring IEEE 1680.1 product registrations, ensure requirements for end-of-life processing are met with required documentation in place by end of FY18/19.	Target partially met
			Develop and implement standardized reporting format for identification of materials and components requiring selective treatment for products covered under IEEE 1680.1.	Target met

Target Type	Objective	Key Performance Indicator(s)	Target(s)	Status
Supplier environmental performance	Monitor and drive environmental impact reductions in the Lenovo supply chain.	Climate change reduction targets	Require climate change reduction targets for at least 85% of Lenovo direct suppliers based on procurement spend.	Target met
		Emissions (Scope 1+2) per million US\$ procurement spend	Reduce the supplier emission intensity 25% by 2025 relative to a 2015 base year.	Target met
		Environmental criteria in supplier sustainability scorecard	Strengthen environmental criteria in Lenovo's sustainability scorecard for our suppliers year to year.	Target met
	Minimize potential environmental impact of Lenovo's suppliers.	% audits	Complete 90% RBA audits of identified suppliers on time per Lenovo requirements.	Target met
		Completion on time	Complete Categories 1, 2 and 3 environmental audits per Lenovo requirements.	Target met for Categories 1 and 2 Target NOT met for Category 3
Transportation	Drive reductions in Lenovo international product transport carbon emissions.	Climate change reduction targets	Continue DHL Carbon Dashboard reporting for RoW carriers and share results across GSC to influence MoT decisions and; start collecting and reporting for domestic China deliveries.	Target met
			Drive Tier 1 carriers to reduce carbon emissions by establishing carbon emission reporting process and mechanism (including baseline, reduction target, initiatives, actions and tracking mechanism, mechanism).	Target met

**FOOTNOTES:**

1. An exemption from targets in this area may be requested where the BU can clearly demonstrate achieving the target places the Lenovo product at a large price disadvantage against its competition or is not technically feasible.
2. For products for which a PAIA tool exists.
3. Availability of PCC plastics can be determined through consultation with environmental affairs and/or suppliers on the Lenovo Approved PCC Supplier list.
4. To drive increased usage of PCC all BUs shall include a requirement for the identification of applications for the use of PCC in MRD and RFI/RFQ. PCC shall be used when technical specifications and cost parity are met.
5. PCC percentage is calculated using EPEAT methodology.
6. If product not being registered to EPEAT, PM2 is N/A. If product is being registered to EPEAT, exemptions allowed per EPEAT requirements.
7. These goals may be accomplished through energy efficiency, installation of onsite renewable generation, entry into power purchase agreements (PPA) with power providers, and/or the purchase of renewable energy credits and carbon offsets.
8. This goal may be accomplished through, installation of onsite renewable energy generation, entry into power purchase agreements (PPA) with power providers and/or the purchase of renewable energy credits.
9. Energy intensity index is energy consumption in kWh per million US\$ revenue.
10. Electricity intensity is electricity consumption in kWh per employee.
11. Percent of nonhazardous solid waste disposed of through reuse, recycle or incineration with energy recovery.

## FY 2019/20 OBJECTIVES AND TARGETS

### Product Aspects

Target Type	Objective	Target(s)
Packaging	Minimize packaging material consumption while driving the use of environmentally sustainable materials.	Support bulk packaging for DCG products and/or options.
		Achieve 5% reduction in weight or volume for at least one product.
		Move packaging corrugated box material recycled content to more than 50% in MTY MX.
	Increase more eco-friendly content of packaging.	Introducing HRC (high recycled content) PE 1.7 PCF material to more products and options WW.
		Increase use of 100% PCC cushion by 10% based on shipping volumes relative to previous year.
		Identify one new Lenovo product for which to implement use of 100% biodegradable/compostable packaging.
Product Energy	Drive reduction in product energy use.	Packaging box material recycled content must be at least 60% or greater for all new phone products released in FY 2019/20.
		New products must show improved energy efficiency relative to the previous generation of the product. <sup>1</sup>
		Enable industry best practices to reduce energy waste and improve efficiency on new products where technically and financially feasible.
		Finalize Scope 3 (use of sold products) science based targets for submission by September 30, 2019 in support of establishment of Lenovo's science based targets.
	Quantify lifecycle CO <sub>2</sub> e emissions associated with the use of Lenovo products.	Ensure all products are compliant with regulatory requirements and select products are compliant with preferred energy standards.
		For products requiring IEEE 1680.1 registration, ensure applicable product meets Lowest Power Mode limits per the requirements and exceptions allowed in the IEEE 1680.1 standard.
		Continue to support external development of PCF methodologies and standards through membership and participation in key organizations.
		Ensure product carbon footprint is published for all new Lenovo products. <sup>2</sup>
		Begin calculating PCF for newly released servers by April 1, 2019. <sup>3</sup>
		Perform LCA (life-cycle assessment) for one Lenovo selected product by September 1, 2019.

Target Type	Objective	Target(s)
<b>Products Materials</b> <sup>1, 4, 5, 6</sup>	All products across all business units shall contain some Post-Consumer Recycled Content (PCC) Plastic.	All newly released DT, AIO, workstation, notebook, tablet, visual and accessory products shall contain a minimum of 2% PCC in product.
		Explore opportunities for PCC usage for MBG products.
		All newly released server products shall contain minimum of 10% PCC in external enclosure. <sup>7</sup>
		Each BU <sup>8</sup> to implement use of closed loop PCC in at least one product by March 31, 2020.
	Sustain technological advances and maintain portfolio relative to low halogen products. Monitor and respond to market requirements in this area.	For products requiring IEEE 1680.1 registration, ensure each plastic part in the product exceeding 25 g shall not contain greater than 1000 ppm chlorine or greater than 1000 ppm bromine at the homogeneous level per the requirements and exceptions allowed in the IEEE 1680.1 standard. Upon customer request make available external PVC-free cable.
<b>Location Aspects</b>		
<b>Site Air Emissions</b>	Absolute reduction in CO <sub>2</sub> e emissions from Lenovo operations worldwide.	Reduce Lenovo's global Scope 1 + Scope 2 GHG emissions by 40% by March 31, 2020, relative to FY 2009/10. <sup>9</sup>
		LME, GRE, LCRE and GEA will establish global action plans to reduce combined Scope 1 and Scope 2 GHG emissions by 40% by March 31, 2020, relative to FY 2009/10. The plan will be reviewed and updated annually, at a minimum. <sup>9</sup>
		Submit Lenovo's science-based targets proposal for official evaluation by Science Based Target Initiatives by December 31, 2019.
<b>Site Energy Consumption</b>	Maximize energy efficiency and minimize CO <sub>2</sub> e emissions associated with the development, manufacture and delivery of Lenovo products.	Achieve 30MW of Lenovo owned or leased renewable energy generation capacity globally by 2020.
		Achieve a YTY increase in energy purchased from renewable generation sources globally, relative to the previous FY. <sup>10</sup>
		Achieve YTY improved energy intensity <sup>11</sup> index at manufacturing sites globally, relative to the previous FY.
		Achieve YTY improved electricity intensity <sup>12</sup> at R&D and office sites globally, relative to the previous FY.
<b>Waste Management</b>	Minimize environmental impacts associated with solid waste generated from Lenovo operations and products.	Maintain a global nonhazardous waste recycling rate > 90% (+/- 5%). <sup>13</sup>
<b>Water Management</b>	Minimize environmental impacts associated with water use and water discharge from Lenovo operations and products.	Total global water withdrawal will be +/-5% of FY 2018/19.
		Total global wastewater generation will be +/-5% of FY 2018/19.



Target Type	Objective	Target(s)
<b>Supply Chain Aspects</b>		
<b>Product End of Life Management</b>	Provide product recycling programs and recycling related information that meets or exceeds local legal requirements wherever we do business.	For geos requiring 1680.1 product registration, ensure requirements for end-of-life processing are met with required documentation in place.
<b>Supplier Environmental Performance</b>	Monitor and drive environmental impact reductions in the Lenovo supply chain.	Require climate change reduction targets for at least 85% of Lenovo direct suppliers based on procurement spend.
		Reduce the supplier emission intensity 25% by 2025 relative to a 2015 base year.
		Drive improvements in supplier ISO 14001, ISO 50001 and EMS reporting to support BUs in obtaining optional IEEE 1680.1 points.
<b>Transportation</b>	Minimize potential environmental impact of Lenovo's suppliers.	Complete RBA and Cat 3 environmental audits on time per Lenovo requirements.
		Enhance logistics global GHG emission measurement to have trackable achievements.
	Drive collaborative environmental efforts in Lenovo's global logistics.	Drive internal decision making & external carrier engagement to build Lenovo logistics green leadership.
		Drive network optimization and technical solutions from packaging & recycling to reduce emissions.

## FOOTNOTES:

1. An exemption from targets in this area may be requested where the BU can clearly demonstrate achieving the target places the Lenovo product at a large price disadvantage against its competition or is not technically feasible.
2. For products for which a PAIA tool exists.
3. For general purpose products. Hyperscale products have exemption.
4. Availability of PCC plastics can be determined through consultation with environmental affairs and/or suppliers on the Lenovo Approved PCC Supplier list.
5. To drive increased usage of PCC all BUs shall include a requirement for the identification of applications for the use of PCC in MRD and RFI/RFQ. PCC shall be used when technical specifications and cost parity are met.
6. PCC percentage is calculated using EPEAT methodology.
7. If product not being registered to EPEAT, PM2 is N/A. If product is being registered to EPEAT, exemptions allowed per EPEAT requirements.
8. Optional for servers and phones.
9. These goals may be accomplished through energy efficiency, installation of onsite renewable generation, entry into power purchase agreements (PPA) with power providers, and/or the purchase of renewable energy credits and carbon offsets.
10. This goal may be accomplished through, installation of onsite renewable energy generation, entry into power purchase agreements (PPA) with power providers and/or the purchase of renewable energy credits.
11. Energy intensity index is energy consumption in kWh per production volume.
12. Electricity intensity is electricity consumption in kWh per employee.
13. Percent of nonhazardous solid waste disposed of through reuse, recycle or incineration with energy recovery.



# 9.0

## APPENDIX

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Lenovo Reference Documentation

Material Topic Boundaries

GRI Content Index

The U.N. Global Compact

Hong Kong Stock Exchange Environmental, Social and Governance  
(ESG) Reporting Guide Content Index

# APPENDIX

## LENOVO REFERENCE DOCUMENTATION

Lenovo has posted extensive sustainability information on its website. Below are hyperlinks to some of those pages. If you are reading this as a printed document, you may get to these links by opening this Sustainability Report on Lenovo's website at [www.lenovo.com/sustainability](http://www.lenovo.com/sustainability). Lenovo maintains current copies of many of the policies, certifications, verification statements and other documents mentioned in this report online. Please visit [https://www.lenovo.com/us/en/social\\_responsibility/social\\_responsibility\\_resources/](https://www.lenovo.com/us/en/social_responsibility/social_responsibility_resources/) to access these resources.

### Lenovo Sustainability Web Pages

- Product: [www.lenovo.com/us/en/social\\_responsibility/product/](http://www.lenovo.com/us/en/social_responsibility/product/)
  - › Think Green Products — Energy: [www.lenovo.com/energy](http://www.lenovo.com/energy)
  - › Think Green Products — Materials: [www.lenovo.com/materials](http://www.lenovo.com/materials)
  - › Think Green Products — Packaging: [www.lenovo.com/packaging](http://www.lenovo.com/packaging)
  - › Think Green Products — Recycling: [www.lenovo.com/recycling](http://www.lenovo.com/recycling)
  - › Compliance Information: [www.lenovo.com/compliance](http://www.lenovo.com/compliance)
  - › Accessibility Information: [www.lenovo.com/accessibility](http://www.lenovo.com/accessibility)

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- Environment: [www.lenovo.com/environment](http://www.lenovo.com/environment)
  - › Think Green — Climate: [www.lenovo.com/climate](http://www.lenovo.com/climate)
  - › Think Green — Waste and Water: [www.lenovo.com/waterandwaste](http://www.lenovo.com/waterandwaste)
- Social: [www.lenovo.com/csr](http://www.lenovo.com/csr)
- Global Supply Chain: [www.lenovo.com/supply\\_chain](http://www.lenovo.com/supply_chain)
- Sustainability Reports: [www.lenovo.com/sustainability](http://www.lenovo.com/sustainability)

# MATERIAL TOPIC BOUNDARIES

Note: This Material Topic Boundaries table includes references to [Lenovo's FY 2018/19 Annual Report](#).

Materiality Topic	Why Topic Is Material	Stakeholders Especially Impacted (see stakeholder list on page 12)	Lenovo Relationship to Impact
Business Ethics	pp 20-27	Employees, shareholders and investors, customers, communities in which we operate, suppliers	Direct and indirect
Climate Change (emissions)	pp 80-89	All	Direct
Community Outreach	pp 67-73	Communities in which we operate	Direct
Corporate Governance	pp 20-24	Shareholders and investors	Direct
Digital Inclusion	p 59	Communities in which we operate, customers	Indirect
Diversity and Equal Opportunity	<a href="#">2018 Diversity and Inclusion Report</a>	Employees	Direct
Economic Performance	Lenovo FY 2018/19 Annual Report: pp 4-5	Employees, shareholders and investors, suppliers	Direct
Energy Use	pp 84-85	Communities in which we operate	Direct
Environmental Management System	p 78	Communities in which we operate, customers	Direct
Human Rights	pp 47, 48-57	Employees, suppliers	Direct
Labor Standards and Practices	pp 47, 48-57	Employees	Direct
Packaging	pp 104-107	Communities in which we operate, customers	Direct
Philanthropy/Disaster Relief	pp 67-73	Communities in which we operate	Indirect
Privacy	p 27	Customers, employees	Direct
Procurement Practices	pp 47-50	Suppliers	Direct
Product End-of-Life Management	pp 107-109	Customers, communities in which we operate	Direct
Product Energy Use	pp 99-103	Customers, communities in which we operate	Direct
Product Materials	pp 93-96	Customers, communities in which we operate	Direct
Product Responsibility	pp 30-35	Customers	Direct
Supply Chain Environmental Performance	pp 49-51	Communities in which we operate	Indirect
Supply Chain Labor Practices	pp 47-49	Communities in which we operate	Indirect
Talent Management	pp 63-66	Employees	Direct
Transportation	pp 82-84	Customers, communities in which we operate	Direct
Waste	pp 90-91	Communities in which we operate	Direct
Water Use	p 92	Communities in which we operate	Direct



# GRI CONTENT INDEX

Note: Our GRI Content Index below includes references to [Lenovo's FY 2018/19 Annual Report](#).

General Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 102: General Disclosures 2016</b>		
<b>Organizational profile</b>		
102-1 Name of the organization	Lenovo Group Limited	
102-2 Activities, brands, products, and services	Lenovo, Motorola, Medion, System x, NEC-PC, Stoneware, LenovoEMC	
102-3 Location of headquarters	p 10	
102-4 Location of operations	p 10	
102-5 Ownership and legal form	Lenovo FY 2018/19 Annual Report: p 186	
102-6 Markets served	Lenovo FY 2018/19 Annual Report: pp 9-11	
102-7 Scale of the organization	pp 112-113	
102-8 Information on employees and other workers	pp 60-61	
102-9 Supply chain	pp 43-53	
102-10 Significant changes to the organization and its supply chain	No significant changes during the reporting period.	
102-11 Precautionary Principle or approach	pp 97-98	
102-12 External initiatives	pp 15-17, 70-73, 78-79	
102-13 Membership of associations	pp 78-79	
<b>Strategy</b>		
102-14 Statement from senior decision-maker	pp 4-7	
<b>Ethics and integrity</b>		
102-16 Values, principles, standards, and norms of behavior	pp 20, 25-27	
102-17 Mechanisms for advice and concerns about ethics	pp 26-27	

General Disclosures		
Disclosure	Response	Reason for Omission
<b>Governance</b>		
102-18 Governance structure	pp 21-22	
102-19 Delegating authority	pp 22-23	
102-20 Executive-level responsibility for economic, environmental, and social topics	p 23	
102-21 Consulting stakeholders on economic, environmental, and social topics	pp 11-12, 24	
102-22 Composition of the highest governance body and its committees	p 22	
102-23 Chair of the highest governance body	p 22	
102-24 Nominating and selecting the highest governance body	pp 23-24, Lenovo FY 2018/19 Annual Report: p 55	
102-25 Conflicts of interest	p 23	
102-26 Role of highest governance body in setting purpose, values, and strategy	p 23, Lenovo FY 2018/19 Annual Report: pp 54-55	
102-27 Collective knowledge of highest governance body	p 23, Lenovo FY 2018/19 Annual Report: pp 147-151	
102-28 Evaluating the highest governance body's performance	p 23, Lenovo FY 2018/19 Annual Report: p 55	
102-29 Identifying and managing economic, environmental, and social impacts	p 23	
102-30 Effectiveness of risk management processes	p 25, Lenovo FY 2018/19 Annual Report: p 32	
102-31 Review of economic, environmental, and social topics	p 23	
102-32 Highest governance body's role in sustainability reporting	p 23	
102-33 Communicating critical concerns	p 26	
102-35 Remuneration policies	Lenovo FY 2018/19 Annual Report: pp 62, 68	

General Disclosures		
Disclosure	Response	Reason for Omission
<b>Stakeholder engagement</b>		
102-40 List of stakeholder groups	p 12	
102-41 Collective bargaining agreements	p 57	
102-42 Identifying and selecting stakeholders	p 12	
102-43 Approach to stakeholder engagement	pp 11-12, 22	
102-44 Key topics and concerns raised	p 12	
<b>Reporting practice</b>		
102-45 Entities included in the consolidated financial statements	p 10	
102-46 Defining report content and topic Boundaries	pp 10-12	
102-47 List of material topics	p 12	
102-48 Restatements of information	p 118	
102-49 Changes in reporting	p 112,118	
102-50 Reporting period	p 10	
102-51 Date of most recent report	p 10	
102-52 Reporting cycle	p 10	
102-53 Contact point for questions regarding the report	p 11	
102-54 Claims of reporting in accordance with the GRI Standards	p 10	
102-55 GRI content index	pp 131-142	
102-56 External assurance	pp 79, 89, 91	

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 201: Economic Performance 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	p 131	
103-2 The management approach and its components	pp 25, 54, Lenovo FY 2018/19 Annual Report: p 85	
103-3 Evaluation of the management approach	Lenovo FY 2018/19 Annual Report: p 85	
201-1 Direct economic value generated and distributed	p 115, Lenovo FY 2018/19 Annual Report: pp 4-5, 179-185	
201-2 Financial implications and other risks and opportunities due to climate change	pp 83-84	
<b>GRI 203: Indirect Economic Impacts 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 11-12, 131	
103-2 The management approach and its components	pp 80-84	
103-3 Evaluation of the management approach	pp 20, 27, 46	
203-2 Significant indirect economic impacts	pp 68-73, 113	
<b>GRI 204: Procurement Practices 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 11-12, 131	
103-2 The management approach and its components	pp 43-54, 82-83, 85	
103-3 Evaluation of the management approach	pp 13, 43-44	
204-1 Proportion of spending on local suppliers	pp 48-49	
<b>GRI 205: Anti-corruption 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	p 131	
103-2 The management approach and its components	pp 26, 44	
103-3 Evaluation of the management approach	pp 26, 44	
205-1 Operations assessed for risks related to corruption	p 26	

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 206: Anti-competitive Behavior 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	p 26	
103-2 The management approach and its components	p 26	
103-3 Evaluation of the management approach	p 26	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	p 26	
<b>GRI 301: Materials 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	p 131	
103-2 The management approach and its components	pp 79, 93	
103-3 Evaluation of the management approach	pp 93, 121-123	
301-1 Materials used by weight or volume		Confidentiality Constraints — Lenovo chooses not to disclose materials used by weight or volume due to concerns about confidentiality related to our manufacturing and development processes.
301-2 Recycled input materials used		Confidentiality Constraints — Lenovo chooses not to disclose materials used by weight or volume due to concerns about confidentiality related to our manufacturing and development processes.



Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 302: Energy 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 80-84	
103-2 The management approach and its components	pp 80-84	
103-3 Evaluation of the management approach	pp 115-116	
302-1 Energy consumption within the organization	pp 85, 115-116	
302-4 Reduction of energy consumption	pp 84-85	
<b>GRI 303: Water 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 92, 115-116	
103-2 The management approach and its components	p 92	
103-3 Evaluation of the management approach	pp 115-116	
303-1 Water withdrawal by source	p 92	
303-2 Water sources significantly affected by withdrawal of water	p 92	

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 305: Emissions 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 86-89	
103-2 The management approach and its components	pp 86-89	
103-3 Evaluation of the management approach	pp 86-89	
305-1 Direct (Scope 1) GHG emissions	pp 86-89	
305-2 Energy indirect (Scope 2) GHG emissions	pp 86-89	
305-3 Other indirect (Scope 3) GHG emissions	pp 86-89	
305-4 GHG emissions intensity	p 115	
305-5 Reduction of GHG emissions	pp 86-89	
305-6 Emissions of ozone-depleting substances (ODS)		Not Applicable — Lenovo does not manufacture, import or export ozone-depleting substances. Lenovo prohibits the use of ozone-depleting substances in our products and manufacturing processes except in HVAC and fire-suppression equipment as permitted by law.
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Not Applicable — With the exception of CO <sub>2</sub> e related to energy use, Lenovo does not have any significant discharges or emissions to air or water. Lenovo has no wet chemical or industrial processes that use volatile organic compounds (VOC) and thus has no point sources of VOC.

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 306: Effluents and Waste 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 90-91	
103-2 The management approach and its components	pp 90-91	
103-3 Evaluation of the management approach	pp 115-116	
306-1 Water discharge by quality and destination	pp 92, 115-116	
306-2 Waste by type and disposal method	p 92	
306-3 Significant spills	pp 92, 115-117	
306-4 Transport of hazardous waste	pp 90-91	
306-5 Water bodies affected by water discharges and/or runoff	p 92	
<b>GRI 307: Environmental Compliance 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 82-83	
103-2 The management approach and its components	pp 80-84	
103-3 Evaluation of the management approach	pp 115-117	
307-1 Non-compliance with environmental laws and regulations	Lenovo FY 2018/19 Annual Report: p 32	
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 47-51, 131	
103-2 The management approach and its components	pp 47-51	
103-3 Evaluation of the management approach	pp 47-51	
308-1 New suppliers that were screened using environmental criteria	pp 47-51	
308-2 Negative environmental impacts in the supply chain and actions taken	p 46	
<b>GRI 401: Employment 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 56-66	
103-2 The management approach and its components	pp 56-66	
103-3 Evaluation of the management approach	pp 56-66	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	pp 56-66	

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 403: Occupational Health and Safety 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 38-43	
103-2 The management approach and its components	pp 38-43	
103-3 Evaluation of the management approach	p 113	
403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	p 113	
403-3 Workers with high incidence or high risk of diseases related to their occupation	pp 38-43	
<b>GRI 404: Training and Education 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 60-65	
103-2 The management approach and its components	pp 60-65	
103-3 Evaluation of the management approach	pp 60-65	
404-1 Average hours of training per year per employee	pp 60-65, 113	
404-2 Programs for upgrading employee skills and transition assistance programs	pp 60-65	
404-3 Percentage of employees receiving regular performance and career development reviews	pp 60-65	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	<a href="#">2018 Diversity and Inclusion Report</a>	
103-2 The management approach and its components	<a href="#">2018 Diversity and Inclusion Report</a>	
103-3 Evaluation of the management approach	<a href="#">2018 Diversity and Inclusion Report</a>	
405-1 Diversity of governance bodies and employees	<a href="#">2018 Diversity and Inclusion Report</a>	

Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 408: Child Labor 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 16, 20, 57	
103-2 The management approach and its components	pp 20 ,57	
103-3 Evaluation of the management approach	p 57, <a href="#">2018 Diversity and Inclusion Report</a>	
408-1 Operations and suppliers at significant risk for incidents of child labor	p 57	
<b>GRI 409: Forced or Compulsory Labor 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 16, 57	
103-2 The management approach and its components	p 57	
103-3 Evaluation of the management approach	p 57	
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	p 57	
<b>GRI 412: Human Rights Assessment 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 16, 20, 56-66	
103-2 The management approach and its components	pp 16, 20, 56-66	
103-3 Evaluation of the management approach	pp 16, 20, 56-57	
412-2 Employee training on human rights policies or procedures	pp 56-66	
412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	pp 56-66	
<b>GRI 414: Supplier Social Assessment 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 43-53	
103-2 The management approach and its components	pp 43-53	
103-3 Evaluation of the management approach	pp 43-53	
414-1 New suppliers that were screened using social criteria	pp 43-53	



Material Topic Disclosures		
Disclosure	Response	Reason for Omission
<b>GRI 416: Customer Health and Safety 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 30-35	
103-2 The management approach and its components	pp 30-35	
103-3 Evaluation of the management approach	pp 30-35	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	pp 30-35	
<b>GRI 417: Marketing and Labeling 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	pp 26, 56	
103-2 The management approach and its components	pp 26, 56	
103-3 Evaluation of the management approach	pp 26, 56	
417-1 Requirements for product and service information and labeling	pp 30-35	
<b>GRI 418: Customer Privacy 2016</b>		
<b>GRI 103: Management Approach 2016</b>		
103-1 Explanation of the material topic and its Boundary	p 27	
103-2 The management approach and its components	p 27	
103-3 Evaluation of the management approach	p 27	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Lenovo is vigilant about investigating possible leaks, thefts, or losses of customer data. During FY 2017/18, no customer data incident rose to the level of notification to individuals or authorities	

# THE U.N. GLOBAL COMPACT

The U.N. Global Compact is a public-private strategic policy initiative for businesses committed to aligning operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment, and anti-corruption. Lenovo became a signatory to the U.N. Global Compact in 2009 and our Chairman and CEO, Yang Yuanqing, continues to fully endorse and support its principles.

This report serves as Lenovo's 2018/19 Communication on Progress.

## HUMAN RIGHTS

- **Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights *[see pages 15-17]*.
- **Principle 2:** make sure that they are not complicit in human rights abuses *[see pages 15-17]*.

## LABOR

- **Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining *[see pages 15-17]*.
- **Principle 4:** the elimination of all forms of forced and compulsory labor *[see page 15-17]*.
- **Principle 5:** the effective abolition of child labor *[see page 15-17]*.
- **Principle 6:** the elimination of discrimination in respect of employment and occupation *[see pages 15-17]*.

## ENVIRONMENT

- **Principle 7:** Businesses should support a precautionary approach to environmental challenges *[see pages 15-17]*.
- **Principle 8:** undertake initiatives to promote greater environmental responsibility *[see pages 15-17]*.
- **Principle 9:** encourage the development and diffusion of environmentally friendly technologies *[see pages 15-17]*.

## ANTI-CORRUPTION

- **Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery *[see pages 15-17]*.

Click here to see Lenovo's UN Global Compact Participant Information:

<https://www.unglobalcompact.org/what-is-gc/participants/6103-Lenovo>

# HONG KONG STOCK EXCHANGE ESG REPORTING GUIDE CONTENT INDEX

General Disclosures and KPIs		Page Numbers	Comments/Explanation If Not Reported
<b>Environmental</b>			
<b>Aspect A1: Emissions</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and nonhazardous waste	80-89	See also: <a href="https://www.lenovo.com/us/en/social-responsibility/climate_policy/">https://www.lenovo.com/us/en/social-responsibility/climate_policy/</a> <a href="https://www.lenovo.com/us/en/social-responsibility/environmental_policy/">https://www.lenovo.com/us/en/social-responsibility/environmental_policy/</a>
KPI A1.1	The types of emissions and respective emissions data	80-89, 115-117	
KPI A1.2	Greenhouse gas emissions in total and, where appropriate, intensity	80-89	
KPI A1.3	Total hazardous waste produced and, where appropriate, intensity	90-91	
KPI A1.4	Total nonhazardous waste produced and, where appropriate, intensity	90-91	
KPI A1.5	Description of measures to mitigate emissions and results achieved	80-109, 115-117	
KPI A1.6	Description of how hazardous and nonhazardous wastes are handled, reduction initiatives and results achieved	90-91	

General Disclosures and KPIs		Page Numbers	Comments/Explanation If Not Reported
<b>Aspect A2: Use of Resources</b>			
General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials	80-109	See also: <a href="https://www.lenovo.com/us/en/social-responsibility/environmental_policy/">https://www.lenovo.com/us/en/social-responsibility/environmental_policy/</a>
KPI A2.1	Direct and/or indirect energy consumption by type in total and intensity	80-89, 115-117	
KPI A2.2	Water consumption in total and intensity	92, 115-117	
KPI A2.3	Description of energy use efficiency initiatives and results achieved	80-89, 115-117	
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	92	
KPI A2.5	Total packaging material used for finished products and, if applicable, with reference to per unit produced	104-107	Lenovo does not report total packaging materials used for finished products, rather Lenovo tracks packaging on a per product basis and reports examples of accomplishments. Tracking on a per product basis allows Lenovo to drive improvements in generation-to-generation product packaging designs resulting in quantifiable environmental benefits. The amount of total packaging used would be mainly dependent on sales volumes, so it is not the most appropriate metric for Lenovo to use to drive real improvements in packaging design. By setting our packaging improvement goals at the product level, we are able to drive and measure improvements in design that are not dependent on overall product sales volumes.
<b>Aspect A3: The Environment and Natural Resources</b>			
General disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources	80-109	See also: <a href="https://www.lenovo.com/us/en/social-responsibility/environmental_policy/">https://www.lenovo.com/us/en/social-responsibility/environmental_policy/</a>
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	80-109	

General Disclosures and KPIs		Page Numbers	Comments/Explanation If Not Reported
<b>Social</b>			
Employment and Labour Practices			
<b>Aspect B1: Employment</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	47, 57, 60, 63	
KPI B1.1	Total workforce by gender, employment type, age group and geographical region	61, 113	
KPI B1.2	Employee turnover rate by gender, age group and geographical region		Lenovo does not report this information.
<b>Aspect B2: Health and Safety</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards	39-43	See also: <a href="https://www.lenovo.com/us/en/Lenovo-Health-and-Safety-Policy.pdf">https://www.lenovo.com/us/en/Lenovo-Health-and-Safety-Policy.pdf</a>
KPI B2.1	Number and rate of work-related fatalities	113	
KPI B2.2	Lost days due to work injury	113	
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	39-43	
<b>Aspect B3: Development and Training</b>			
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work; description of training activities	60-64	
KPI B3.1	The percentage of employees trained by gender and employee category		Lenovo does not roll up gender and employee category training data on a global level.
KPI B3.2	The average training hours completed per employee by gender and employee category		Lenovo does not roll up gender and employee category training data on a global level.



General Disclosures and KPIs		Page Numbers	Comments/Explanation If Not Reported
<b>Aspect B4: Labour Standards</b>			
General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour	26, 47, 57	
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour	26, 47, 57	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	26, 62-65	
Operating Practices			
<b>Aspect B5: Supply Chain Management</b>			
General Disclosure	Policies on managing environmental and social risks of the supply chain	48-53	
KPI B5.1	Number of suppliers by geographical region		See: <a href="https://www.lenovo.com/us/en/social_responsibility/supplier-list.pdf">https://www.lenovo.com/us/en/social_responsibility/supplier-list.pdf</a>
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	48-53	
<b>Aspect B6: Product Responsibility</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress	30-35	
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	30-35	
KPI B6.2	Number of products and service related complaints received and how they are dealt with		Lenovo does not roll up product- and service-related complaints on a global level.
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights	26, 56, 98	
KPI B6.4	Description of quality assurance process and recall procedures	30-35	
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	27, 30-35	

General Disclosures and KPIs		Page Numbers	Comments/Explanation If Not Reported
<b>Aspect B7: Anti-corruption</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering	26, 51	
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases		Lenovo does not report this information.
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	26	
Community			
<b>Aspect B8: Community Investment</b>			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	67-73	
KPI B8.1	Focus areas of contribution	67-73	
KPI B8.2	Resources contribute to the focus area	67-73	



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