



SUSTAINABLE IMPACT REPORT

2019

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In this report, "we", "us", "our", "company", "HP", and "HP Inc." refer to HP Inc. (formerly Hewlett-Packard Company) and its consolidated subsidiaries.

Letter from President and CEO

“I believe all companies must continue to find new ways to lead with purpose, and positively impact the planet, people and communities they serve.”



Fifty years ago, a remarkable group of people came together to celebrate the very first Earth Day. Their goal was simple: to unite the world behind “the common cause of saving life.”

Today, we remain committed to that same common cause. And as we work to safeguard our planet and respond to this ongoing pandemic, we are fighting to protect the health and wellbeing of people everywhere.

The profound impact COVID-19 has had on the lives and livelihoods of people across the globe has served as a powerful reminder that our fates are inextricably linked. Because we’ve seen that many of the threats we face—from a changing climate to a spreading virus—transcend borders and put all of us at risk.

That’s not to say these challenges affect all of us equally. They don’t. COVID-19 and climate change both disproportionately impact communities of color and lower income households around the world. These crises have laid bare the need to address the systemic racism and deep inequalities—from health and education to economic opportunity and the environment—that have been a stain on society for far too long. And we are acting with urgency on all fronts.

Since the onset of the pandemic, HP has protected its employees while marshalling resources to support communities in need. From 3D printing medical supplies for hospitals to equipping teachers, students, and families with the technology and content they need for continued remote learning, I’m proud of the way our teams have stepped up.

Our response reflects the values that guide our company—not simply in moments of crisis, but as a normal course of business. And we must continue to find new ways to positively impact the planet, people, and communities we serve.

This isn’t just the right thing to do—it’s also good for our bottom line. In 2019, our Sustainable Impact work helped drive more than US\$1.6 billion in new sales—a testament to the high-performance, purpose-driven culture that unites our people and our partners.

It also reflects the changing role of corporations in society. We must not only create value for our shareholders, but also create a brighter future for all our stakeholders.

In this report, we have outlined the progress we are making as well as the areas where we need to do better. Here are some of the highlights:

- We sourced more than 1 million pounds of ocean-bound plastic for use in our products, and we are on track with our plans to increase recycled content in our products to 30% by 2025. We also intend to eliminate 75% of single-use plastic from our packaging over the next five years.
- We are more than halfway to achieving our science-based goal of reducing product use greenhouse gas emissions intensity by 30% by 2025. And we were one of only eight companies to receive a triple-A rating from CDP for our work across climate change, forests, and water security.
- We continue to move toward a sustainable future for printing that is forest positive, carbon neutral, and supportive of a circular economy. For example, through the Sustainable Forests Collaborative, we are working to protect, restore and manage more than 200,000 acres of forests in Brazil and China.
- We have now reached more than 28 million students, teachers, and adult learners through our educational programs and partnerships—and we are tracking toward our goal of enabling better learning outcomes for 100 million people by 2025.

- We continue to foster a culture of diversity and inclusion. HP has the most diverse Board in the U.S. technology industry, and 63% of our U.S. hires in 2019 were from underrepresented groups. But we must do much more—particularly when it comes to the number of Black employees hired and retained at HP. That’s why we plan to double our number of Black and African American executives by 2025. And we are committed to doing the hard work needed to help stamp out systemic racism and discrimination in all its forms.

While the road ahead will be difficult, I’m confident in our ability to drive meaningful and lasting change.

My confidence comes from the incredible people I work with at HP—people with a shared commitment to empowering humanity through technology, standing up for what we believe in, and leaving the world better off than we found it.

But HP can’t do it alone. No company can. Which is why it is encouraging and inspiring to see so many companies, governments, and NGOs finding new ways to work together on shared solutions.

Ultimately, that’s how we will overcome the challenges we face and create a more sustainable, equitable, and just society. And there has never been a better time for all of us to not only imagine the future we want to create, but to start building it together.

Saludos,

Enrique Lores
President and CEO

About HP

OUR STRATEGY



Personal systems

- Reinvent computing experiences
- Grow lifetime value
- Accelerate services and solutions

Graphics and 3D printing

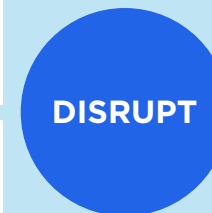
- Accelerate shift to digital
- Expand graphics and 3D solutions

Office and home printing

- Drive print innovation
- Maximize value of installed base
- Evolve business models

Capitalize on IP

- Unlock new sources of value from microfluidics



TRANSFORM

Simplify and prioritize customer experience

Optimize our cost structure

Become more digitally enabled

KEY FACTS

Enrique Lores

President and Chief Executive Officer, HP Inc.

Chip Bergh

Chairman of the Board

- Incorporated in the State of Delaware, United States

- Fortune 100 company

- Ticker symbol HPQ on the New York Stock Exchange

- Corporate headquarters Palo Alto, California, United States

- Approximately 56,000 employees globally¹

FISCAL YEAR 2019 HIGHLIGHTS

\$58.8

 BILLION

in net revenue

\$4.7

 BILLION

of net cash provided by operations, \$3.4 billion of which was returned to stockholders in the form of share repurchases and dividends

27,000+

registered patents²

250,000

channel partners

\$1.5

 BILLION

R&D spend

See our [full financial performance](#).



How we deliver value

INPUTS IN 2019

HUMAN

Skills, expertise, competencies, and capabilities of HP's approximately 56,000 employees globally³

11,000 supplier factory workers engaged in skills-building and wellbeing programs

INTELLECTUAL

\$1.5 billion invested in R&D
Market and customer insights

FINANCIAL

Total assets: \$33.5 billion⁴
Long-term debt: \$4.8 billion⁵

MANUFACTURED

HP manufacturing plants
100's of production suppliers

NATURAL

557,345 MWh of electricity used in global operations, including 43% renewable electricity use⁶

1.02 million tonnes of materials in our products and packaging⁷

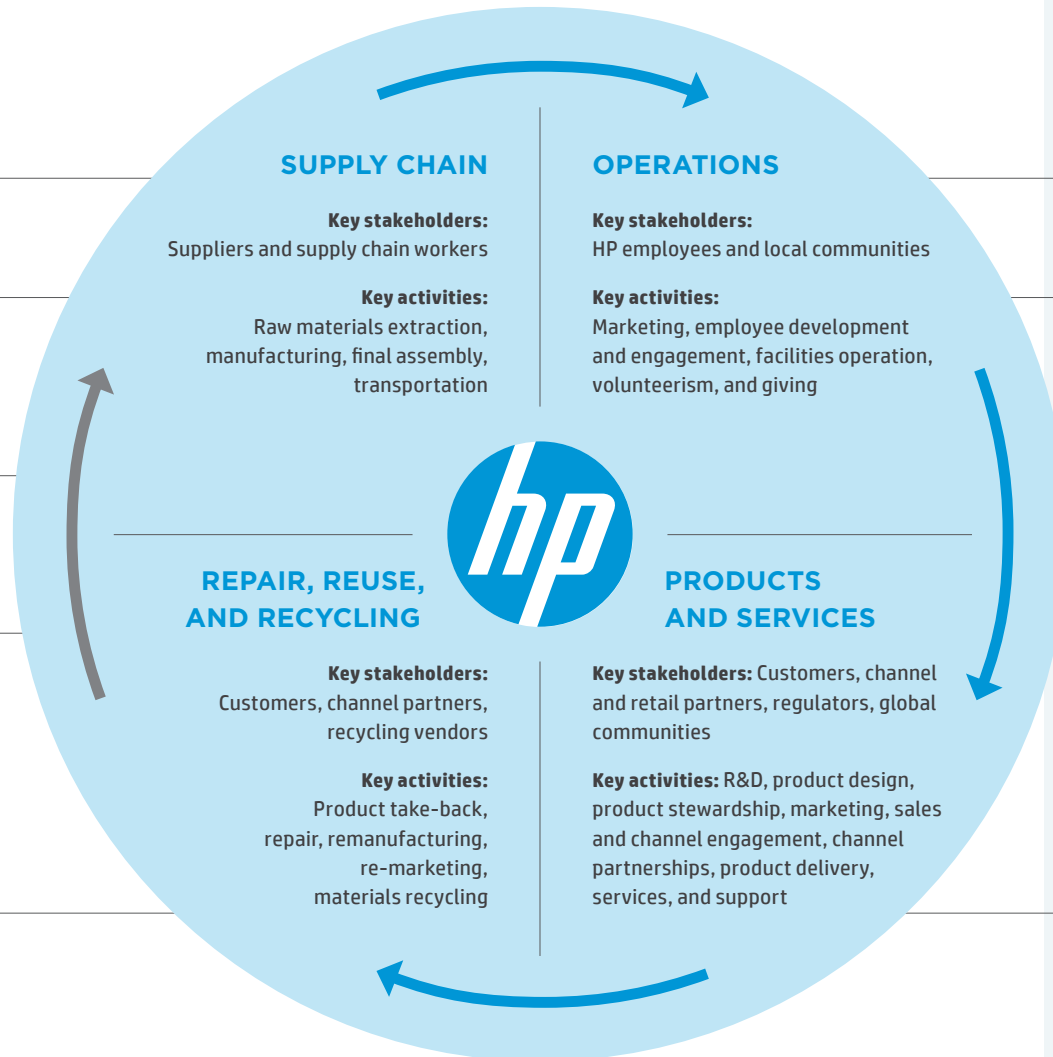
25,560 tonnes of postconsumer recycled content plastic used in HP products

SOCIAL AND RELATIONSHIP

Employee, supplier, and partner codes of conduct and engagement

\$4.77 million in HP cash and product contributions⁸

145,000 employee volunteer hours



VALUE CREATED IN 2019

HUMAN

92% of employees feel HP values diversity⁹
1.60 million training hours, an average of 29 hours per employee
75% engagement rate among HP employees¹⁰

INTELLECTUAL

27,000+ patents¹¹

FINANCIAL

Net revenue: \$58.8 billion
Net earnings: \$3.2 billion
Net cash provided by operations: \$4.7 billion
Share re-purchases and dividends: \$3.4 billion

MANUFACTURED

Millions of products delivered each year
ECO declarations covering 93% of revenue¹²

NATURAL

44% decrease in Scope 1 and 2 GHG emissions, since 2015
4.62 million units of hardware repaired
1.21 million units of hardware remarketed/reused
133,100 tonnes of hardware and supplies recycled

SOCIAL AND RELATIONSHIP

Customer, partner, and supplier retention and satisfaction
Better learning outcomes for more than 28.7 million students and adult learners through 2019
Improved resilience in communities where we live, work, and do business

Sustainable Impact

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Sustainable Impact strategy

Sustainable Impact is HP’s commitment to create positive, lasting change for the planet, its people, and our communities. This serves as a guiding principle for delivering on our corporate vision—to create technology that makes life better for everyone, everywhere.

Sustainable Impact is a business imperative and key differentiator for HP, helping drive more than \$1.6 billion in sales wins¹ in 2019. The businesses that will thrive over

the long term are those that can decouple growth from consumption, grow through an inclusive culture, and offer solutions to some of the greatest challenges that face business and society. Through our focus on Sustainable Impact, we are able to capitalize on what we do best, and anticipate and prepare for the next wave of global challenges to deliver lasting value through the power of technology.

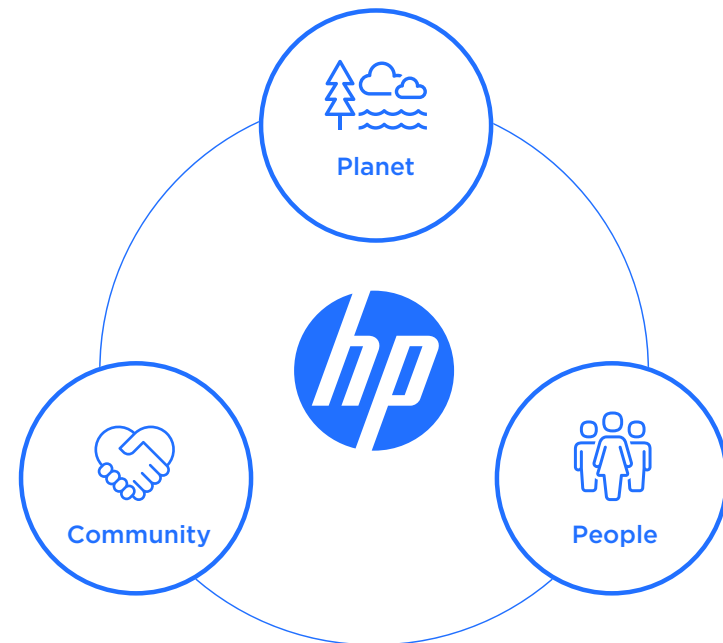
Winning the right way

At HP, how we do things is as important as what we do. We work every day to earn the trust of our stakeholders and uphold our reputation for integrity and ethical leadership. Guided by our employee code of conduct, known as Integrity at HP, we apply strong ethics and anti-corruption principles within our operations, across our value chain, and in our communities. We combine strong internal governance with clear communication so that everyone at HP understands our principles and can put them into practice. Through robust policies, protocols, and controls, we protect the privacy of our customers and employees. To increase our impact across the industry and beyond, we advocate for public policies that drive progress and sustainable impact.

In 2019, 99.4%² of employees, including senior executives, completed Integrity at HP training, as well as all members of our Board of Directors.

Our Sustainable Impact pillars

We are driving Sustainable Impact across three pillars—[Planet](#), [People](#), and [Community](#).



This strategy is informed by our analysis of [megatrends](#), [materiality assessment](#), ongoing engagement with [stakeholders](#), and alignment with our [core businesses](#).

Planet

Our mission

Transform our entire business to advance a more efficient, circular, and low-carbon economy.

Enable our customers to invent the future through our most sustainable portfolio of products and services.

How we're driving progress

We adhere to robust sustainable design principles, pursue a strategic shift toward circular, service-based business models, and continue to offer robust product repair, reuse, and recycling programs. As a result, we are designing and delivering our most sustainable portfolio—keeping materials in use at their highest value state for as long as possible, continuing to drive greater materials and energy efficiency at all stages, and helping to drive a more sustainable Fourth Industrial Revolution.

The impacts of climate change will have consequences for all businesses and

geographies. The science is clear, and the need to act is evident. We are working to reduce our carbon footprint across the entire value chain through ambitious, science-based greenhouse gas (GHG) emissions reduction goals, investment in renewable electricity, and advances in product energy efficiency. Even more broadly, we continue to support multi-sector actions that aim to address the threat of a warming planet.

We also apply our expertise, scale, and resources to help regenerate the natural systems on which we all depend. Building on decades of expertise in closed-loop recycling, we have sourced more than one million pounds (over 450 tonnes) of ocean-bound plastics for use in our supplies and hardware—since 2017 and through September 2019. We are working collaboratively within our industry and beyond to help grow the market for ocean plastics, keeping it out of the ocean and in the economy. We've eliminated deforestation from our paper supply chain and are 80% of the way toward doing the same for our paper-based packaging.³ And, through [HP Sustainable Forests Collaborative](#), we are restoring, protecting, and improving over 200,000 acres of forest in Brazil and China.

Sustainable Impact goals

Goal	Progress in 2019	UN SDGs
PRODUCTS AND SERVICES		
Use 30% postconsumer recycled content plastic across HP's personal systems and print product portfolio by 2025. ⁴	During 2019, we used 25,560 tonnes of postconsumer recycled content plastic in HP personal systems and print products, 9% of total plastic used. Learn more.	12, 14
Eliminate 75% of single-use plastic packaging by 2025, compared to 2018. ⁵	Through 2019, we achieved a 5% reduction. Learn more.	12, 14
Reduce HP product use GHG emissions intensity by 30% by 2025, compared to 2015. ⁶	Through the end of 2019, we achieved an 18% decrease. Learn more.	7, 12, 13
Recycle 1.2 million tonnes of hardware and supplies by 2025, since the beginning of 2016.	Reached 528,300 tonnes recycled through the end of 2019. Learn more.	12
SUPPLY CHAIN		
Achieve zero deforestation associated with HP brand paper and paper-based product packaging by 2020. ⁷	100% achieved for HP brand paper in 2016 and maintained that performance through 2019. Reached 80% for paper-based product packaging. Learn more.	13, 15
Reduce first-tier production supplier and product transportation-related GHG emissions intensity by 10% by 2025, compared to 2015. ⁸	Through December 2018 (the most recent year data is available), GHG emissions intensity remained flat compared to 2015. Learn more.	13
Help suppliers cut 2 million tonnes of carbon dioxide equivalent (CO ₂ e) emissions between 2010 and 2025. ⁹	Through 2019, suppliers avoided 1.26 million tonnes of CO ₂ e emissions. Learn more.	13
OPERATIONS		
Use 60% renewable electricity in global operations by 2025.	HP's global operations procured and generated 240,398 MWh of renewable electricity and attributes, equivalent to 43% of our global electricity consumption. Learn more.	7, 13
Use 100% renewable electricity in global operations by 2035.		
Reduce Scope 1 and Scope 2 GHG emissions from global operations by 60% by 2025, compared to 2015.	HP's global operations produced 215,800 tonnes of Scope 1 and Scope 2 CO ₂ e emissions, 44% less than our 2015 baseline. Learn more.	13
Reduce potable water consumption in global operations by 15% by 2025, compared to 2015.	Exceeded water goal six years early. Potable water consumption equaled 2,630,000 cubic meters globally, 18% less than in 2015. Learn more.	12, 13, 15



People

Our mission

Enable all people who help bring our products to market to thrive at work, at home, and in their communities.

Embed diversity and inclusion in everything we do.

How we're driving progress

Better innovation and business growth come from diverse, empowered people and teams. We champion respect for human rights in our operations, supply chain, and in relation to our products. Using our scale and influence, we promote positive changes so that business and society can thrive.

Through our supply chain responsibility program, we focus on improving labor conditions within supplier factories, tackling industry-wide challenges such as forced labor and conflict minerals, and building essential worker and management skills and capabilities.

Within our business and across our value chain, fostering diversity and inclusion is a

business imperative and essential to serving our global customers. We embed diversity and inclusion into everything we do. Our Board of Directors is the most diverse of any U.S. technology company. We encourage our suppliers and partners to commit to diversity and inclusion goals and invest in programs and partnerships that build the pipeline for diverse talent. Furthermore, we are committed to creating inclusive technology that affirms human dignity, promotes independence, and unleashes creativity.

Our investments in human capital development help to make HP the best place for employees to grow and develop. Fueled by the talent, diversity, and drive of our employees, we invest in their career growth and are passionate about supporting the inclusive culture and growth mindset on which our success depends. Changing demographics, socioeconomic conditions, and expectations around the role of corporations are radically altering workforce and customer requirements and influencing how we create and deliver products and services. Leading as a purpose-driven brand and investing in the development of our employee base are critical to attracting, retaining, and developing a diverse and engaged workforce.

Sustainable Impact goals

Goal	Progress in 2019	UN SDGs
Develop skills and improve wellbeing of 500,000 factory workers by 2025, since the beginning of 2015.	266,400 supplier factory workers have participated in programs since the beginning of 2015. ¹⁰ Learn more.	8, 10
Double factory participation ¹¹ in our supply chain sustainability programs by 2025, compared to 2015.	Factory participation increased by 53% compared to 2015. Learn more.	8, 10
Maintain greater than 99% completion rate of annual Integrity at HP training among active HP employees and the Board of Directors.	99.4% of employees, including senior executives, completed Integrity at HP training, as well as all members of our Board of Directors. Learn more.	16

HP's response to COVID-19

The COVID-19 pandemic has challenged all of us—businesses large and small, local and national governments, families, and individuals—in ways few of us could have imagined.

The wellbeing of our employees, partners, customers, and their families is our number one priority, and we have taken a wide range of actions across our business to keep people safe. We swiftly took action to protect our people in line with public health guidance. Additional measures HP has implemented during this time include assisting our hourly employees and certain contingent workers with continued pay and other supporting benefits, deferring workforce reduction notifications, and offering employees virtual office hours with our in-house medical doctor. And, we moved quickly to help our employees and customers stay safely connected to work and to one another through the power of technology.

At the same time, we remain committed to supporting communities around the world. HP and the HP Foundation contributed financial resources to support affected communities. Together with nonprofit partners, we launched and promoted several initiatives aimed at supporting teachers, students, and school districts through a range of digital and printed educational resources. [Learn more.](#)



Community

Our mission

Unlock educational and economic opportunity through the power of technology.

Improve the vitality and resilience of our local communities.

How we're driving progress

HP has a global footprint, with operations around the globe and customers, partners, and suppliers worldwide. We embrace the opportunity and responsibility to positively impact the communities where we live, work, and do business.

Our employees contribute time, resources, and skills to help build vibrant, resilient, healthy communities. When disasters strike, we are there to assist—HP, our employees, and the HP Foundation¹² along with our strategic partners provide support for affected communities. Our aim is to support thriving communities with greater equality, opportunity, and sustainability for everyone, everywhere.

Through corporate, Foundation and employee giving, we support quality education programs around the world. Access to education is a fundamental human right, and technology can be the great equalizer, connecting communities to a world of opportunity. Everywhere that learning happens, whether in the classroom, the faculty lab, the workplace, or the home, teaching and learning methods must be lean and flexible to prepare students for the future. It is also imperative for businesses and educational institutions to embrace perpetual learning and leverage new technologies and platforms to make learning a continuous cycle from classroom to boardroom.

Through our products and solutions, global programs, and strategic partnerships, we are helping deliver quality technology-enabled learning that engages students, empowers educators, and unlocks economic opportunity. With a focus on women, girls, and underserved and marginalized populations, HP's targeted programmatic investments aim to address some of the key barriers to a truly inclusive economy.

Sustainable Impact goals

Goal	Progress in 2019	UN SDGs
Enable better learning outcomes for 100 million people by 2025, since the beginning of 2015.	More than 28.7 million students and adult learners have benefited from HP's education programs and solutions that advance quality learning and digital literacy, and enable better learning outcomes, since the beginning of 2015. Learn more.	4, 5
Enroll 1 million HP LIFE users between 2016 and 2025.	214,000 users have enrolled in HP LIFE courses since 2016. Learn more.	4, 5, 8
Contribute 1.5 million employee volunteering hours by 2025 (cumulative since the beginning of 2016).	HP employees have contributed 429,000 volunteer hours to local impact projects through 2019. Learn more.	11, 17
Contribute \$100 million in HP Foundation and employee community giving ¹³ by 2025 (cumulative since the beginning of 2016).	Giving from the HP Foundation and employees reached \$35.17 million through 2019. Learn more.	11, 17

HP Megatrends

Success in our everchanging world requires a growth mindset, clear strategy, and adaptable business model. Looking to the future, we track four big megatrends that will impact and transform our business as well as society: rapid urbanization, changing demographics, hyper globalization, and accelerated innovation. Impact points are where disruptive technologies meet megatrends to drive impact. These insights help us understand where the world is headed, giving us the opportunity to adapt, chart, and reinvent our own future, and in turn create new opportunities for HP and our customers and partners. Megatrends and technology are shaping our world in many ways.

See the [HP Megatrends 2020 Refresh](#).




HP Megatrends

Rapid urbanization	Changing demographics	Hyper globalization	Accelerated innovation
IMPACT POINTS			
<p>SHAPING THE PLANET: Established companies and new start-ups are looking to provide more sustainable solutions, as consumers and businesses alike put more consideration into how their actions affect the planet.</p>		<p>SHAPING BUSINESS: New business models will continue to emerge in response to new technologies and changing consumer preferences, while digital platforms and ecosystems are reshaping the business landscape, forcing companies to constantly reinvent themselves before they are disrupted.</p>	
<p>SHAPING CITIES: Rapid urbanization will put additional stress on city infrastructure and natural resources, shaping our cities, homes, and workplaces of the future and creating opportunities for smarter, more sustainable products and services targeted at urban consumers.</p>		<p>SHAPING WORK: Megatrends impact every aspect of where and how we work. From smaller and shared workspaces, to a multigenerational workforce with varying needs and expectations, to an increasing desire to work anytime, anywhere. Digital advances are leading to new, immersive ways of working that blend the physical and digital, augment workflows, and make work smarter and more automated.</p>	
<p>SHAPING MARKETS: Growing cities of all sizes, megaregions, changing demographics, and shifting consumer preferences will give rise to new opportunities fueled by new markets and a massive number of new consumers entering the world economy, especially in Asia.</p>		<p>SHAPING LIFE: Our physical and mental capabilities, our privacy (or lack thereof), how we communicate, and what we eat, not to mention the homes we live in and the way we move from place to place, will be transformed.</p>	
<p>SHAPING INDUSTRIES: The impact of megatrends will be felt across industries, including retail, manufacturing, and education. Retail will become increasing omnichannel, manufacturing will become smarter and more sustainable, and education will shift and change as technology enables new learning models.</p>		<p>SHAPING HEALTH: An aging population and unhealthy lifestyle habits are putting more demand on healthcare and forcing us to try and find new ways to provide better, more personalized healthcare outcomes, move from treatment to prevention, and allow healthcare to happen anywhere.</p>	

United Nations Sustainable Development Goals



HP supports the United Nations (UN) Sustainable Development Goals (SDGs), and remains committed to driving progress on select goals that are closely aligned to our Sustainable Impact strategy.

Goal	HP's contribution
	<p>HP is building effective and innovative education technology solutions. We deploy breakthrough technology solutions that support engaging, personalized educational experiences; partner to develop scalable models for digital inclusion and lifelong learning; and deliver insights that help governments create effective education and human capital development policies and programs. We aim to enable better learning outcomes for 100 million people by 2025, since the beginning of 2015, with a targeted focus on women and girls, and underrepresented and otherwise marginalized groups.</p> <p>See : Community giving and volunteerism; Global education programs</p>
	<p>HP works to grow the pipeline of diverse talent and to recruit and develop female and diverse talent across all levels of the company. We also use our scale to influence our suppliers and partners, encouraging them to prioritize diversity and inclusion within their own operations. In our communities, our programs and partnerships aim to empower and support gender equality and address some of the barriers to full participation in society.</p> <p>See: Diversity and inclusion; Community giving and volunteerism; Global education programs</p>
	<p>HP is investing in energy efficiency across our product portfolio and operations, and shifting toward less GHG-intensive energy sources to power our global facilities, including on- and off-site renewable power. We aim to reach 100% renewable electricity use in our global operations by 2035.</p> <p>See: Supply chain responsibility: Environmental impact; Our facilities</p>
	<p>HP believes that all workers deserve fair treatment, safe working conditions, and freely chosen employment. We forbid any forced, bonded, or indentured labor, involuntary prison labor, slavery, or trafficking of persons within our supply chain, and have adopted a broad approach to responsible minerals sourcing to help ensure there is no connection between the materials used in HP products and armed violence or human rights abuses. Safeguarding and empowering workers helps to create the conditions in which individuals and economies can thrive and grow.</p> <p>See: Human rights, Supply chain responsibility; Community giving and volunteerism</p>
	<p>HP strives to uphold fundamental rights and freedoms of all people. We promote a welcoming, diverse, and inclusive culture and do not tolerate discrimination of any kind. Through our policies, programs, and partnerships, we aim to promote social and economic inclusion for all people across our supply chain and operations and in our communities—regardless of race, ethnicity, gender, nationality, ability, military status, religion, generation, sexual orientation, or views.</p> <p>See: Human rights, Supply chain responsibility; Diversity and inclusion; Community giving and volunteerism</p>
	<p>Through contributions from HP, the HP Foundation, and our global employees, we aim to make a positive local impact on the communities where we live, work, and do business. We provide financial support for communities affected by natural disasters and emergencies, and work with expert partners to speed recovery and reconnect vital networks. HP employees also contribute their talents, passions, and resources to support inclusive, safe, resilient, and sustainable communities worldwide.</p> <p>See: Community giving and volunteerism</p>
	<p>HP is transforming our entire business to drive progress toward a more efficient, circular, and low-carbon economy. We aim to develop products and solutions that keep materials in use at their highest state of value for the longest possible time, grow the market for recycled content, and offer robust repair, reuse, and recycling programs for our products worldwide. In addition, we are investing in disruptive technologies such as 3D printing that will help drive a more sustainable and inclusive Fourth Industrial Revolution.</p> <p>See: Advancing a circular and low-carbon economy; Products and solutions portfolio</p>
	<p>We are reducing GHG emissions by setting science-based emissions reduction targets for our operations and our product portfolio and investing in the use of renewable energy to power our operations. We work with our supplier partners and encourage them to set their own goals and to use renewable energy whenever possible. We continue to support coordinated global action to combat climate change, including continued action in line with Paris Climate Accord commitments and as a signatory to We Are Still In.</p> <p>See: Footprint; Supply chain responsibility: Environmental impact; GHG emissions; Our facilities; Advancing a circular and low-carbon economy</p>
	<p>HP is committed to driving positive, local impact in the communities where we live, work, and do business. Each community faces different challenges and requires different solutions. By working closely with local partners, corporate peers, nonprofits, local governments and others, we tailor our approach to address the unique needs and challenges of each community to help them thrive.</p> <p>HP supports the UN SDGs, the UN Global Compact, the Global Reporting Initiative, and other global efforts to advance sustainable development.</p> <p>See: Stakeholder engagement; Human rights; Supply chain responsibility; Diversity and inclusion; Community giving and volunteerism; Global education programs</p>



Recognition

HP is recognized as one of the world's most sustainable companies.



Named for the 4th year in a row to Global 100 Most Sustainable Corporations in the World list



One of the 2020 World's Most Ethical Companies®***



One of only five companies globally to rank on the CDP Climate, Forests, and Water "A" Lists and make the Supplier Engagement Leaderboard



Listed 1st in inaugural ranking



With 2019 rating, listed on the World Index for the 8th time in a row



Placed 5th in ranking of 100 Best Corporate Citizens—1st in the Climate Change pillar



One of the first companies to receive a Platinum CSR rating



Ranked 12th on 2020 list with a perfect 10/10 for environment, social, and governance performance



Recognized for efforts to advance diversity and inclusion for 5th year in a row



Ranked 6th on the 2020 list of the 100 Most Sustainable U.S. Companies



Recognized for continued commitment to delivering product energy efficiency for 3rd year in a row



Received SmartWay Excellence Award for the 6th year in a row



Ranked 11th on list, with 5 stars in social responsibility



Included on the FTSE4Good Index every year since 2003



Named to Forbes list for the 2nd year in a row



Recognized as a leading company by Working Mother magazine



Recognized on 2020 DiversityInc Top 50 Companies for Diversity list



Received a score of 100% on the Human Rights Campaign 2020 Corporate Equality Index



Included in the 2019 Top Veteran-Friendly Companies list



Scored 100% for 4th year in a row



Named a Top 50 Employer by Woman Engineer Magazine in 2020

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Stakeholder engagement

We gain valuable insight through our regular engagement with a range of stakeholders—including employees, investors, suppliers, customers, peer companies, public policymakers, industry bodies, nongovernmental organizations (NGOs), sector experts, and others. These interactions (including our updated [materiality assessment](#) in 2019) build our collective intelligence, help us prioritize critical issues, and provide insights on emerging opportunities and risks.

Individual functions across the company drive our decentralized approach, engaging in ways that are most relevant to their objectives and operations. These include partnerships, sponsorships, collaboration on industry initiatives, customer and supplier education, supplier capability-building programs, supplier audits and assessments, conference participation, employee surveys, mentoring, and more. We identify appropriate stakeholders based on factors such as expertise, willingness to collaborate, reputation, location, and sphere of influence.

Examples include:

- **Circular economy:** Through the Ellen MacArthur Foundation Circular Economy 100, we collaborate to drive progress toward a more circular materials- and energy-efficient future. See [Advancing a circular and low-carbon economy](#); [Regenerate natural systems](#); [Products and solutions portfolio](#).
- **Climate change:** We engage in initiatives focused on increasing support for clean energy and combating climate change, including [Renewable Energy Buyers Alliance](#), [RE100](#), [CDP Supply Chain](#), [WWF Climate Savers](#), and the [Step Up Declaration alliance](#). See [Footprint](#); [Supply chain responsibility: Environmental impact](#); [Our facilities](#); [Create a low-carbon future](#).
- **Data and product security:** HP participates in cybersecurity organizations, boards, and/or advisory boards, including IEEE, ISA, ISACA, (ISC)2, ISSA, NIST, SANS. See [Product security and privacy](#).
- **Diversity and inclusion:** We partner with [UN Women](#) to advance education for

- women and girls, as well as supporting Human Rights Campaign’s [Business Coalition for the Equality Act](#) related to LGBTQ+ workplace rights and the United Nations Human Rights Office [Standards of Conduct for Business](#). See [Diversity and inclusion](#).
- **Human rights:** We engage in multi-stakeholder collaborations, including the [Responsible Business Alliance](#), the Leadership Group for Responsible Recruitment, and the Advisory Board of Social Accountability International, to advance progress in this area. See [Human rights](#) and [HP 2019 Human Rights Progress Report](#).
- **Paper and printed material:** We engage through the [HP Sustainable Forests Collaborative](#) to protect, restore, and improve responsible management of forests (among other objectives), and work with WWF’s Global Forest & Trade Network-North America (GFTN-NA), the Forest Stewardship Council®, and our suppliers to ensure the fiber we use is responsibly sourced. See [Regenerate natural systems](#) and [Paper and forestry products](#).

- **Privacy:** Our privacy and government relations teams work with policymakers to support robust and globally interoperable privacy and data protection regulations. See [Government relations](#).
- **Sustainable product design:** We share our leading practices across the industry, including by contributing to standards development that impact product sustainability. HP serves on the EPEAT® Advisory Council and helped lead the working group to revise IEEE 1680.1, the standard used by EPEAT for PCs and displays that took effect in 2018. See [Product certifications and disclosures](#).
- **Sourcing and supply chain labor practices:** HP takes a leading role through collaborations such as Responsible Business Alliance, Responsible Labor Initiative, and Responsible Minerals Initiative to elevate supply chain best practices and tackle shared challenges. See [Supply chain responsibility: External collaboration](#).

Many other examples of HP’s stakeholder engagement are included throughout this report.

Governance

We embed Sustainable Impact at all levels of the company.

Our executive leadership team, led by our CEO, retains overall responsibility for Sustainable Impact as part of our business strategy. All members of the executive leadership team oversee Sustainable Impact targets relevant to their organizations and are evaluated annually against objectives related to Sustainable Impact, including diversity and inclusion. Performance against these and other business objectives is tied to total compensation.

The HP Board of Directors' [Nominating, Governance and Social Responsibility \(NGSR\) Committee](#) oversees the company's policies and programs relating to global citizenship and the impact of HP's operations; provides guidance and recommendations to the Board on legal, regulatory, and compliance matters relating to political, environmental, global citizenship, and public policy trends; and reviews the annual Sustainable Impact Report. The Committee receives regular updates on Sustainable Impact strategy, metrics, results, and key risks and opportunities. The NGSR Committee provides guidance, and in some cases approval, on strategic priorities and investments.

The performance and compensation of both our VP & Head of Sustainability and Product Compliance and our Chief Sustainable Impact Officer are directly associated with the management of HP Sustainable Impact and the achievement of related targets and metrics, both public and internal. Several other HP directors and managers have a component of total compensation (salary and bonus) based on responsibility for, and effective implementation of, corporate initiatives to address climate change.

In 2018, all three of our businesses—Personal Systems, Print, and 3D Printing—developed and approved their own Sustainable Impact strategies. These strategies are being managed and driven by dedicated representatives within those businesses, and report to executive leadership on progress. The Sustainable Impact Steering Committee provides additional oversight and is made up of representatives from across HP's business units and global functions.

Materiality

We periodically conduct materiality assessments to review relevant environmental, social, and governance issues, reconfirm our long-standing areas of focus, and clarify and shape our Sustainable Impact strategy, investments, and disclosure. This enables us to focus our efforts in the areas where we can have the greatest positive impact, determine any gaps in our approach, and identify relevant trends and leadership opportunities for our business. We have set aggressive goals related to several of our most material issues, to manage performance and drive long-term progress.

Approach

In 2019, we engaged SustainAbility, an ERM Group company, to conduct a materiality assessment. Prior to this, our last full materiality assessment was conducted in 2015, with a refresh in 2017. During this latest materiality assessment, we undertook a robust analysis and refined our process

to further integrate the perspectives of customers, investors, and our business leaders, and to better reflect business risks and opportunities.

As well as internal and external interviews, we incorporated the results of an HP employee survey, which invited participants to rank a broad range of social and environmental issues. More than 1,400 employees responded—of which just over 10% indicated that the majority of their role is dedicated to Sustainable Impact programs and initiatives.

The process also took leading reporting frameworks into account, including the Global Reporting Initiative (GRI) Sustainability Reporting Standards, and the Sustainability Accounting Standards Board (SASB) Technology and Communications Hardware Standard.

Based on these inputs, issues were evaluated and ranked, and results were validated in two workshops—reflected in a new materiality matrix.

Key findings

Our new materiality assessment reflects the rapidly evolving landscape of sustainability and social impact topics. By integrating inputs from outside of the core sustainability function, we gained fresh insights into the nature of our material issues, their relative importance to our business success, and where we have the greatest ability and opportunity to effect change. While no wholly new issues surfaced, we refined and, in some cases, broadened the scope of issue definitions. In other instances, we disentangled topics to uncover new insights.

Five prominent themes emerged from the stakeholder engagement process, as shown at right.

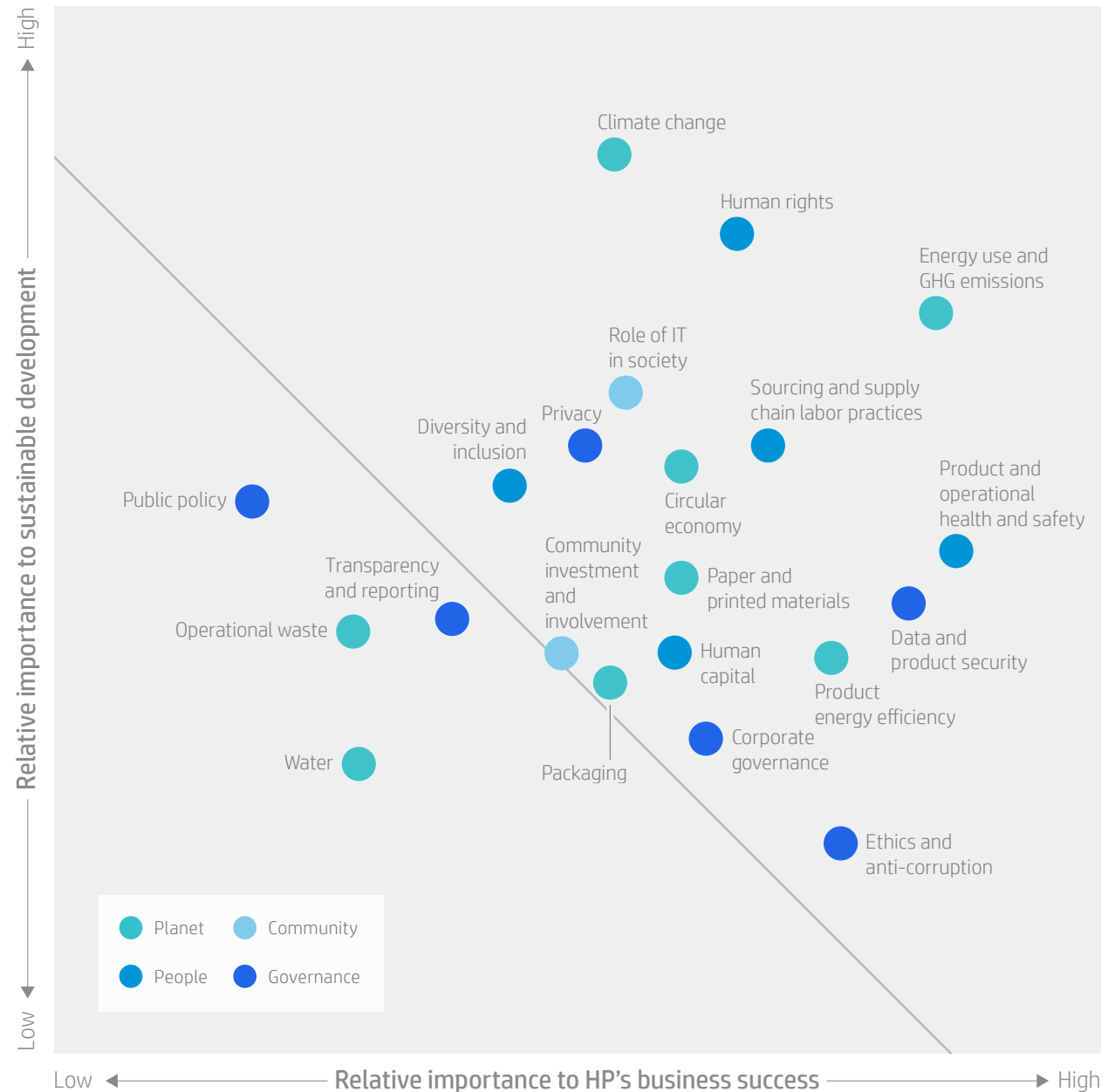
Prominent themes

<p>ENERGY ACROSS THE VALUE CHAIN</p>	<p>In an effort to drive down their own carbon footprint, customers are demanding more energy-efficient technology offerings, which presents a clear opportunity for HP to differentiate. Stakeholders also identified the importance of addressing energy use and GHG emissions in the supply chain, including through renewable energy programs. At the same time, there is significant opportunity for the private sector to lead on the broader issue of climate change and increasing risks if it does not.</p>
<p>CIRCULAR ECONOMY AND PLASTICS</p>	<p>Stakeholders identified the importance of broad collaboration in this area, and the potential for HP to drive industry leadership with respect to sustainable products, packaging, and services. HP’s leading innovations related to closed-loop manufacturing, 3D printing, and our ocean-bound plastics initiative hold the potential for compelling communication and collaboration with customers, consumers, and the public.</p>
<p>ROLE OF INFORMATION TECHNOLOGY IN SOCIETY</p>	<p>Society’s increasing reliance on technology can spark skepticism or fear as well as optimism and opportunity. Applied responsibly and effectively, technology can play a critical role in stemming climate change and the depletion of our natural resources, enabling new products and business models designed for next-generation workers and aging urban consumers, delivering better and more personalized healthcare, and connecting people everywhere with high-quality education opportunities.</p>
<p>DIVERSITY AND INCLUSION IN TECHNOLOGY</p>	<p>Better innovation comes from teams of diverse people contributing their unique skills and perspectives. But fostering diversity and inclusion must be an active process, driven by employee recruitment and retention strategies, engagement and support activities, and broader pipeline development—including through support for science, technology, engineering, and math (STEM) and other education-related opportunities. By communicating our commitment to diversity and inclusion to customers, investors, and our future workforce, we can strengthen relationships and uncover new ways to partner.</p>
<p>HUMAN RIGHTS RISKS IN THE SUPPLY CHAIN</p>	<p>Protecting and empowering our people starts with ensuring their foundational human rights. An increasing focus on labor practices both within a company and throughout its supply chain from customers, policymakers, and investors presents an opportunity for better communication and transparency. Industry collaboration is required to address shared priorities and challenges in this area.</p>

Materiality matrix

The matrix resulting from our materiality assessment maps issues by relative importance to sustainable development and to HP's business success. Issues above the diagonal are considered material for the purpose of this report. Items below the materiality threshold are not covered in as much detail, but remain important to HP. Our [material issues](#) list includes definitions, corresponding GRI Standards Topics, and the boundary of each Topic.

HP 2019 materiality matrix





Footprint

19 Carbon and climate impact

20 Water

22 Data

The manufacturing, delivery, and use of HP products and solutions requires a substantial amount of natural resources and energy use. As part of our commitment to protecting the planet, HP measures our environmental footprint across the value chain to prioritize areas for improvement. We were the first company in the IT industry to publish a full carbon footprint and one of the first to disclose a complete water footprint. Our carbon and water footprints cover our entire global value chain, from suppliers' to our operations and millions of customers worldwide. The insights we gain through this process help us to continually improve and create positive and sustainable impact on the planet, our people, and the communities where we live, work, and do business.

The science in these areas is clear, the need to act is urgent, and the role of business is critical. This is why we have set ambitious GHG emissions reduction goals across the value chain to drive progress. Our Scope 1, Scope 2, and Scope 3 GHG emissions



reduction goals have been validated by the [Science Based Targets initiative](#), including classification of our Scope 1 and 2 target as consistent with levels required to keep global warming to 1.5°C.

We also provide suppliers incentives to set and meet their own goals. The environmental criteria we use for supplier management include science-based GHG emissions reduction targets and third-party verification of GHG emissions. To extend our influence within and beyond our industry, we join leading companies in GHG goal-setting and reduction efforts, including [Renewable Energy Buyers Alliance](#), [RE100](#), [CDP Supply Chain](#), and [WWF Climate Savers](#).

Carbon and climate impact

We strive to reduce the climate impact of our supply chain, operations, and products and solutions. HP's carbon footprint in 2019 equaled 46,785,800 tonnes of CO₂e, 5% more than in 2018. A 12% increase in product manufacturing emissions—due largely to business growth and changes in the mix of key personal systems products and components—more than offset a 3% reduction in product use phase emissions driven by improved [product energy efficiency](#).

See also:

- [Full list](#) of our GHG emissions reduction goals and progress.
- [Full carbon footprint data](#) for 2015–2019.
- Description of our methodology in the [HP carbon accounting manual](#).
- GHG emissions reduction initiatives across our business: [Supply chain](#), [Our facilities](#), and [Products and solutions](#).

HP carbon footprint, 2019

46,785,800 tonnes CO₂e



*See [additional detail](#) about GHG emissions from product use.

Triple CDP “A” score and supplier engagement leadership

HP has achieved a triple “A” score for transparency and action on climate, forests, and water, and has also been recognized as a CDP Supplier Engagement Leader. We were named to the CDP Climate “A” list for the sixth year in a row, for our actions to cut emissions, mitigate climate risk, and develop the low-carbon economy. For the second time, we achieved an “A” score for our initiatives to address water security and forest commodity risk. Our inclusion on the CDP Supplier Engagement Leaderboard is for the fourth consecutive year. [Learn more.](#)

Governance

Our Board of Directors’ Nominating, Governance, and Social Responsibility (NGSR) Committee is responsible for overseeing HP’s sustainability initiatives. The NGSR may review, assess, report, and provide guidance to management and the Board regarding HP’s policies, programs, and goals relating to sustainability issues, including those related to climate change. [Learn more.](#)

Strategy

Transforming our business to drive a more efficient, circular, and low-carbon economy addresses the imperatives presented by climate change and is central to HP’s Sustainable Impact strategy. Alongside setting GHG emissions reduction [goals](#)

to drive progress toward lowering the impact of our business, HP faces and is addressing a range of climate-related risks and opportunities across our value chain. The table on page 21 provides examples of our approach, including adapting how we design and make our products and solutions, manage our operations, engage with and incentivize suppliers, and serve customers.

In late 2019 and early 2020, we undertook a company-wide climate risk assessment, including climate scenario analysis. The scenario analysis looked out to 2030 and 2050, utilizing business-as-usual¹ and 1.5°C mean temperature increase² scenarios based on a combination of data sources. Gauging the potential impact to our business of physical and transition risks and opportunities, this assessment will inform our strategy and management practices moving forward. In 2020, we are engaging

business stakeholders to review the assessment findings and determine relevant actions. We plan to provide more information on the identified risks and opportunities, our actions to address them, and the impact on our business in future reporting.

Risks and opportunities

HP includes climate change among other environmental, social, and business risks considered in our annual Enterprise Risk Management process. We manage climate-related risks and opportunities on an ongoing basis as part of relevant functional risk assessment and management activities throughout the company.

See the table on page 21.

Water

Many parts of the world grapple with the availability and quality of water, and HP is committed to calculating, disclosing, and reducing water use across our global value chain. In 2019, our water footprint equaled 249,030,000 cubic meters, 3% less than 2018.¹ This resulted from a

reduction in indirect water consumption from electricity generation and paper production associated with HP product use as well as, to a lesser degree, reduced water consumption associated with HP’s global operations (see [Create a low-carbon future](#) and [Our facilities](#)). Product use phase reductions were driven by improved energy efficiency, use patterns including duplexing rates and print volumes, and a shift toward smaller form factor desktops.

See also:

- [Full water footprint data](#) for 2015–2019.
- Description of our methodology in the [HP water accounting manual](#).
- Water use reduction initiatives across our business: [Supply chain](#), [Our facilities](#), and [Products and solutions](#).

Addressing climate-related risks and opportunities

Risk	Description	Identification, assessment, and management ³
Transition risks in technology and markets	Changing customer expectations and requirements	<p>HP's Design for Sustainability program ensures that factors impacting environmental performance, including product energy efficiency and carbon footprint, are considered in the product design phase.</p> <p>HP prioritizes and pursues product eco-label certifications to maintain market access, meet customer requirements, and pursue competitive advantage.</p>
Transition risks in regulations	Impact of current or potential product energy efficiency regulations or standards as well as carbon pricing and energy cost	<p>HP tracks and reviews current and emerging product regulations, standards development, and regulatory trends to inform our product development roadmap and policy advocacy agenda. We engage in policy advocacy and standards development and take a proactive approach to making products that meet or exceed product energy efficiency regulations and standards to maintain market access.</p> <p>In our operations, HP tracks fuel/energy and carbon pricing regulations and analyzes related impacts on our business. We generate an annual inventory of energy consumption and GHG emissions across all facilities and hold quarterly reviews to assess both progress toward our goals and opportunities for improvement. We invest in new processes and technology to mitigate higher energy costs through energy efficiency and renewable energy.</p> <p>HP engages with suppliers and product transportation providers to track, report, and reduce GHG emissions, improve energy and fuel efficiency, set goals, and improve broader environmental performance.</p>
Acute physical risks	Impact of extreme weather-related events on HP, supplier operations, and transportation infrastructure/networks	<p>HP incorporates preparation for business impacts from extreme weather events into its business continuity planning and testing.</p> <p>HP's Supply Chain Visualization tool monitors our global operations and supply chain in real time for acute risks and disruptions, including climate-related extreme weather, earthquakes, political upheaval, and other risks. This tool enables rapid situational assessment, faster response, and improved business resilience.</p>
Chronic physical risks	Impact on HP facilities, workforce, and suppliers from long-term changes in mean temperature, mean precipitation, sea level, etc.	<p>HP uses climate risk analytics software to assess acute and chronic physical risks to HP facilities, our workforce, and final assembly suppliers, and to identify hot spots and key risk drivers. This information informs initiatives in workforce planning, facilities management, and supplier engagement.</p> <p>We conduct additional annual water risk assessments across our global operations and supply chain to identify sites exposed to risks related to water scarcity, quality, availability, and access, stemming from climate change.</p> <p>HP applies LEED v4 Gold standards and pursues other locally equivalent green building certifications to improve facility efficiency and resiliency.</p>
Opportunity	Description	Identification, assessment, and management ³
Business resilience	Increase energy efficiency and use of renewable energy in HP and supplier operations	<p>HP initiatives and investments—in energy and fuel efficiency, increased use of renewable energy and electric vehicles, and reduction of GHG emissions, water, and waste—increase the resilience of our business operations and improve our readiness for the transition to a low-carbon economy.</p> <p>HP engages with suppliers and product transportation providers to track, report, and reduce GHG emissions, improve energy and fuel efficiency, set goals, and improve broader environmental performance.</p>
Products and services	Increased demand for products and services with lower GHG emissions	<p>HP develops products and services that have lower GHG emissions through research and development (R&D), Design for Sustainability, and innovations that advance progress toward a circular economy. In addition to energy efficiency, circular design innovations in increased use of closed loop and recycled materials, product-based services, and improved product repairability across our portfolio support significant energy, resource, and carbon efficiency gains and reduce life cycle GHG emissions.</p>
Markets	Expand or create solutions to access new markets	<p>The shift from analog to digital production in the publishing, packaging, and manufacturing sectors presents opportunities to reduce waste, physical inventories, and GHG emissions associated with traditional technologies. HP has expanded its industrial printing solutions to food packaging and textiles and continues to innovate to increase productivity while decreasing printing-related waste. In additive manufacturing, HP is leveraging its long-standing leadership in 2D printing to deliver 3D printing at production scale, helping to transform entire industries and foster a more sustainable, low-carbon Fourth Industrial Revolution with digital manufacturing.</p>

Data

Carbon footprint (Scopes 1–3)*

	2015	2016	2017	2018	2019
GHG emissions from operations** [tonnes CO ₂ e]	388,700	328,400	249,200	229,600	215,800
Americas	274,400	174,500	54,700	51,500	49,600
Europe, Middle East, and Africa	60,700	60,900	65,700	66,200	57,900
Asia Pacific and Japan	53,600	93,000	128,800	111,900	108,300
GHG emissions intensity*** [tonnes CO ₂ e/ \$ million of net revenue]	7.6	6.8	4.8	3.9	3.7
GHG emissions by scope [tonnes CO ₂ e]					
Scope 1					
Scope 1 emissions, by region	66,900	60,700	66,200	65,900	61,900
Americas	54,800	48,700	52,000	48,800	47,100
Europe, Middle East, and Africa	10,600	10,100	13,100	15,300	13,400
Asia Pacific and Japan	1,500	1,900	1,100	1,800	1,400
Scope 1 emissions, by type					
Natural gas	28,800	28,100	29,400	29,300	23,800
Americas	23,300	22,600	23,500	22,200	20,500
Europe, Middle East, and Africa	4,400	3,900	5,300	5,700	2,200
Asia Pacific and Japan	1,100	1,600	600	1,400	1,100
Diesel/gas/oil/LPG****	800	200	400	100	200
Americas	700	200	200	100	200
Europe, Middle East, and Africa	0	0	0	0	0
Asia Pacific and Japan	100	0	200	0	0
Transportation fleet†	32,700	29,600	31,400	32,200	33,300
Americas	26,400	23,200	23,700	22,700	22,800
Europe, Middle East, and Africa	6,000	6,100	7,400	9,100	10,200
Asia Pacific and Japan	300	300	300	400	300

	2015	2016	2017	2018	2019
Refrigerants (hydrofluorocarbons (HFCs))††	1,700	100	400	600	1,100
Americas	1,500	0	0	100	100
Europe, Middle East, and Africa	200	100	400	500	1,000
Asia Pacific and Japan	0	0	0	0	0
Perfluorocarbons (PFCs)	2,900	2,700	4,600	3,700	3,500
Americas	2,900	2,700	4,600	3,700	3,500
Europe, Middle East, and Africa	0	0	0	0	0
Asia Pacific and Japan	0	0	0	0	0
Carbon dioxide (CO ₂)					24,000
Nitrous Oxide (N ₂ O)					0
Methane (CH ₄)					0
Scope 2 (market-based method)†††					
Scope 2 emissions, by region	321,800	267,700	183,000	163,700	153,900
Americas	219,600	125,800	2,700	2,700	2,500
Europe, Middle East, and Africa	50,100	50,800	52,600	50,900	44,500
Asia Pacific and Japan	52,100	91,100	127,700	110,100	106,900
Scope 2 emissions, by type	321,800	267,700	183,000	163,700	153,900
Purchased electricity for operations	321,800	267,700	182,100	162,400	152,900
Americas	219,600	125,800	2,700	2,700	2,500
Europe, Middle East, and Africa	50,100	50,800	52,600	50,900	44,500
Asia Pacific and Japan	52,100	91,100	126,800	108,800	105,900
District cooling and heating (purchased) for operations	0	0	900	1,300	1,000
Americas	0	0	0	0	0
Europe, Middle East, and Africa	0	0	0	0	0
Asia Pacific and Japan	0	0	900	1,300	1,000

	2015	2016	2017	2018	2019
Scope 2 (location-based method)					
Scope 2 emissions, by region	298,200	221,000	265,100	252,300	226,400
Americas	206,400	90,900	80,000	71,600	67,100
Europe, Middle East, and Africa	39,700	39,000	69,300	61,600	48,300
Asia Pacific and Japan	52,100	91,100	115,800	119,100	111,000
Scope 2 emissions, by type	298,200	221,000	265,100	252,300	226,400
Purchased electricity for operations	298,200	221,000	264,200	251,000	225,400
Americas	206,400	90,900	80,000	71,600	67,100
Europe, Middle East, and Africa	39,700	39,000	69,300	61,600	48,300
Asia Pacific and Japan	52,100	91,100	114,900	117,800	110,000
District cooling and heating (purchased steam) for operations	0	0	900	1,300	1,000
Americas	0	0	0	0	0
Europe, Middle East, and Africa	0	0	0	0	0
Asia Pacific and Japan	0	0	900	1,300	1,000
Scope 3 ^{††††} [tonnes CO ₂ e]	36,250,000	35,860,000	40,770,000	44,470,000	46,570,000
Materials extraction through manufacturing (category 1; also see Greenhouse gas emissions on page 42)	15,300,000	14,700,000	16,500,000	18,600,000	20,900,000
Capital goods (category 2)	200,000	200,000	200,000	200,000	300,000
Upstream energy production (category 3) [*]	100,000	100,000	100,000	100,000	100,000
Transport (categories 4 and 9; also see Product transportation on page 43) ^{**}	1,300,000	1,300,000	1,500,000	1,800,000	2,300,000
Waste generated in operations (category 5)	De minimis ^{***}	De minimis	De minimis	De minimis	De minimis
Business travel (category 6) [†]	50,000	60,000	70,000	70,000	70,000
Employee commuting (category 7)	200,000	200,000	200,000	200,000	200,000
Upstream leased assets (category 8) ^{††}	De minimis	De minimis	De minimis	De minimis	De minimis
Processing of sold products (category 10)	De minimis	De minimis	De minimis	De minimis	De minimis

	2015	2016	2017	2018	2019
Product use (category 11) ^{††††, †††}	19,100,000	19,300,000	22,000,000	23,300,000	22,500,000
Energy use					11,200,000
Printing consumables					11,300,000
Product end of service (category 12) ^{††††}	De minimis	De minimis	200,000	200,000	200,000
Buildings leased to others (category 13)	De minimis	De minimis	De minimis	De minimis	De minimis
Franchises (category 14)	N/A	N/A	N/A	N/A	N/A
Investments (category 15)	De minimis	De minimis	De minimis	De minimis	De minimis

* To calculate Scope 1, Scope 2, and Scope 3 emissions, HP has followed the principles outlined in the Greenhouse Gas Protocol. Additional details on calculations and methodology can be found in the [HP carbon accounting manual](#). Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years relates to supply chain, operations, and products and solutions associated with the business units that are now a part of HP Inc. HP selected 2015 as its baseline because it provided a year-over-year comparison for HP Inc. when it first reported as a separate company for 2016 following the separation of Hewlett-Packard Company in November 2015. 2015 continues to serve as base year for several HP goals as well. Scope 1 GHG emissions include CO₂, CH₄, N₂O, HFCs, and PFCs. No biogenic emissions are present in this category. Scope 2 GHG emissions include CO₂, CH₄, and N₂O. No biogenic emissions are present in this category. Scope 3 GHG emissions:

- Materials extraction through manufacturing (Category 1), Transport (Categories 4 and 9), Product use (Category 11), and Product end of service (Category 12) include CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃, and represented approximately 99% of our Scope 3 emissions in 2019. Biogenic emissions are present and captured in the life cycle assessment of paper consumed during customer printer use (Category 11).
- Capital goods (Category 2), Waste generated in operations (Category 5) and Upstream leased assets (Category 8) include CO₂, CH₄, N₂O, and HFCs, and represented 0.6% of our Scope 3 emissions in 2019.
- Upstream energy production (Category 3) includes CO₂, CH₄, N₂O, HFCs, and PFCs, and represented 0.1% of our Scope 3 emissions in 2019.
- Business travel (Category 6) includes CO₂, CH₄, and N₂O, and represented 0.10% of our Scope 3 emissions in 2019.
- Employee commuting (Category 7), Buildings leased to others (Category 13), and Investments (Category 15) include CO₂, and represented 0.4% of our Scope 3 emissions in 2019.
- Processing of sold products (Category 10) is de minimis.
- Franchises (Category 14) is not applicable.

** Total includes HP's reported values for Scope 1 and Scope 2 market-based method emissions in table.

*** Emissions-intensity values were calculated using HP's annual revenue as characterized in financial reporting and Scope 1 and Scope 2 GHG emissions.

†††† HP does not estimate or extrapolate diesel use for nonreporting sites.

† CO₂e emissions associated with CH₄ and N₂O account for less than 1% of total CO₂e emissions in this category.

†† For 2015 and 2016, we calculated ozone-depleting substances emissions by tracking sites that reported refrigerant replacement due to leakage, and applied an intensity factor (based on those actual quantities) for nonreporting sites. In 2017, HP transitioned to a system that tracks all refrigerant invoices company-wide, directly accounting for facilities' refrigerant leakage and use and eliminating the need for extrapolation.

††† Data in this section uses the market-based method. Due to the availability and feasibility of acquiring the data, the company only obtained supplier-specific emission rates for its Boise, Idaho; Indianapolis, Indiana; and Palo Alto and San Bernardino, California, United States, sites.

†††† See [additional detail](#) about GHG emissions from product use. Data from 2017–2019 better reflect average laser printer paper usage. This represented the majority of the increase compared to 2015 and 2016.

^ Scope 2 GHG emissions used to calculate this category were determined using the location-based method.

** These figures are based on product life cycle assessment-based estimates. They use a combination of HP-specific and industry data, and include additional upstream and downstream transport related to our products. This data may differ from data reported by product transportation suppliers that HP contracts to deliver our products, as presented on [pages 43 and 51](#).

*** De minimis values are less than 0.25% of total Scope 3 emissions.



*HP's global travel agency provides values which take into account the type of aircraft, passenger load, cabin class, and miles traveled for each ticketed trip. This data also includes rail travel carrier and distance traveled. Although these values fall below our quantitative reporting threshold of 0.25% of total Scope 3 emissions and could be reported as de minimis, we choose to report this category due to our ability to directly track this data, our level of influence over these emissions, and stakeholder expectations in this category.

** All facilities are accounted for in Scope 1 and 2. Leased furniture and equipment are included in capital goods (Category 2).

*** In 2016, we added commercial and industrial graphics printing solutions, which use large amounts of paper, to our product use footprint calculations. Total GHG emissions from product use in 2017 and 2018 differ by less than 1% from the values reported on [page 106](#), due to rounding. Total GHG emissions from product use in 2019 differ by less than 1.5% from the values reported on [pages 82](#) and [106](#), due to rounding. Data for 2017 through 2019 better reflect average laser printer paper usage. Scope 3 emissions from inkjet and LaserJet printers that HP manufactures for sale and service by other original equipment manufacturers is excluded from this data. In 2019, these printers represented less than 2.4% of HP printers manufactured in the reporting year and consequently, their associated emissions represented less than 3.7% of the product life cycle emissions of all HP manufactured printers. Scope 1 and 2 emissions from the manufacturing of these printers at HP operated facilities is captured in the Scope 1 and 2 data reported in this year's report.

**** HP changed its calculation methodology beginning in 2017 to avoid netted emissions from product recycling.

Water footprint*

	2015	2016	2017	2018	2019
Water consumed by HP suppliers in their operations** [cubic meters]	13,900,000	12,600,000	13,400,000	15,000,000	15,100,000
Water consumption associated with the generation of electricity used by HP suppliers [cubic meters]	34,800,000	31,800,000	34,300,000	38,400,000	38,600,000
Water consumption in HP operations [cubic meters]	3,953,000	3,534,000	3,243,000	3,406,000	2,930,000
Water consumption associated with the generation of electricity used in HP operations [cubic meters]	3,100,000	2,600,000	2,800,000	2,600,000	2,400,000
Water consumption associated with the generation of electricity used by HP products*** [cubic meters]	106,900,000	103,300,000	96,400,000	106,100,000	99,900,000
Water consumption associated with the manufacturing of paper used by HP customers with HP products**** [cubic meters]	46,800,000	52,900,000	84,900,000	88,700,000	87,100,000

* Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years relates to supply chain, operations, and products and solutions associated with the business units that are now a part of HP Inc. Additional details on calculations and methodology can be found in the [HP water accounting manual](#).

** This metric reports the amount of water consumed by HP's multi-tier supply chain, and not the amount withdrawn by first-tier suppliers as reported on [page 51](#). Because water withdrawn can also be returned, water consumption is inherently lower.

*** Indirect water consumption from inkjet and LaserJet printers that HP manufactures for sale and service by other original equipment manufacturers is excluded from this data. In 2019, these printers represented less than 2.4% of HP printers manufactured in the reporting year and consequently, their associated indirect water consumption during product use represented less than 3.5% of the product life cycle water consumption of all HP manufactured printers. Water consumption from the manufacturing of these printers at HP operated facilities is captured in the direct water consumption data reported in this year's report.

**** In 2016, we added commercial and industrial graphics printing solutions, which use large amounts of paper, to our footprint calculations. Data from 2017–2019 better reflect average laser printer paper usage. This represented the majority of the increase compared to 2015 and 2016.

Integrity and human rights

26 Ethics and anti-corruption

28 Human rights

30 Privacy

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Ethics and anti-corruption

We expect everyone at HP to meet the highest ethical standards and to treat others with integrity, respect, and fairness. A strong commitment to our values underpins our efforts, reinforced by in-depth training and communication, and upheld through targeted policies and strong governance.

HP is committed to complying with all applicable laws and regulations everywhere we operate. We require ethical conduct by our suppliers and partners, and use our scale and influence to drive progress across the broader IT industry. See [Human rights](#) and [Supply chain responsibility](#).

Ethics

Training and communication

Our annual training on Integrity at HP, our employee code of conduct, covers key policies, procedures, and high-risk issues that employees might face, and incorporates scenarios based on actual investigations. Each year, all employees are required to complete this training, including content on anti-corruption, conflicts of interest, accurate business records, and anti-retaliation. In 2019, we added manager-specific content to ensure that managers are

aware of their responsibilities in reinforcing HP's commitment to ethical behavior. During the year, all members of HP's Board of Directors received Integrity at HP content relevant to their position and certified that they had read it.

ETHICS TRAINING GOAL

Maintain greater than 99% completion rate of annual Integrity at HP training among active HP employees and the Board of Directors

PROGRESS IN 2019

99.4%¹

of employees, including senior executives, completed Integrity at HP training, as well as all members of our Board of Directors

Regular training, newsletters, and coffee talks help to reinforce the values and content outlined in Integrity at HP. Employees can also access Integrity Central, a comprehensive library of ready-to-use collateral on key ethics topics, with toolkits, posters, infographics, training materials, and scenarios. In 2019, the Ethics Office continued to expand the content available in Integrity Central, adding scenarios for use in training materials, and growing the library of translated toolkits and infographics. The Office also recognized

Ethics and compliance governance at HP

Board of Directors*

The Board of Directors is responsible for overseeing ethics and compliance at HP. The board consists of 12 directors, and Chip Bergh is the Chairman. All members are independent directors, excluding Enrique Lores, President and Chief Executive Officer, HP Inc.



Board of Directors Audit Committee

Provides non-executive input and guidance to the Ethics and Compliance Office.

Ethics and Compliance Committee

Composed of HP executives, and provides oversight and guidance on the design and implementation of our ethics and compliance program.

Ethics and Compliance Office (within Global Legal Affairs)

Manages ethical issues across our global operations. Specific responsibilities include oversight of Integrity at HP, coordination of the company's Compliance Assessment Program, management of anti-corruption and privacy, and the design and management of processes that prevent, mitigate, and remediate all related business impacts.

*As of January 31, 2020.

See [Governance](#) information online, including the board's composition, committees and charters, as well as our company bylaws and [Corporate Governance Guidelines](#).

three Ethics Champions—employees who showed outstanding ethical leadership and modeled HP values.

Reporting concerns

We make it easy for our employees and third parties to ask questions or report ethics concerns about the broad range of environmental, social, and governance issues. Reporting avenues include email, an internal online form, a global 24-hour toll-free phone line with translation, text (in the United States), mail, or in person. We offer anonymous reporting options where allowed by law. At any time, employees can also reach out to their supervisor or more senior

managers under HP's Open Door Policy, seek advice from internal ethics and compliance experts, or consult local Integrity at HP teams or Integrity at HP liaisons. HP does not tolerate retaliation against anyone who raises a concern or question in good faith.

In 2019, HP launched a new ethics case reporting and management tool that provides centralized and automated case workflow, greater visibility to live data, and opportunities to interact with the investigation team where appropriate. As of January 2020, this is the main mechanism for employees and third parties to report integrity concerns within HP.



HP has been recognized as one of the [2020 World's Most Ethical Companies](#)^{®*} by the Ethisphere Institute. The in-depth assessment includes more than 200 questions on culture, environmental and social practices, ethics and compliance activities, governance, diversity, and

initiatives to support a strong value chain. This honor validates that our shared values are lived out through our commitment to people, planet, and community, and always putting integrity first. It demonstrates that conducting business with integrity is the core of HP's culture.

At HP, we believe that good ethics is good business. Ethisphere has found that companies awarded the [World's Most Ethical Companies](#) designation have on average outperformed the market.

* "World's Most Ethical Companies" and "Ethisphere" names and marks are registered trademarks of Ethisphere LLC.

Items reported to HP global Integrity at HP team or other compliance functions in 2019

percentage of total

Total number of reported items in 2019: 172

	2019
Human resources	23%
Anti-corruption*	11%
Misuse of assets	11%
Fraud	10%
Theft	10%
Brand protection/channel	8%
Conflicts of interest	7%
Financial and public reporting	6%
Inaccurate records	5%
Confidentiality	4%
Workplace security	3%
Competition	1%
Customer	1%
Total	100%

* Includes allegations of commercial bribery, kickbacks, and Global Business Amenities Policy violations, as well as alleged corruption related to foreign public officials.

Investigating concerns

Suspected violations of our [code of business conduct](#) damage trust in HP. We take all alleged violations seriously, respond quickly, and take disciplinary or remedial actions when appropriate, including additional coaching, written warnings, and in serious

cases, termination. Serious violations may have significant impact on an employee's Total Rewards package (subject to local labor laws and where legally permissible).

When needed, representatives from our legal, controllership, and human resources teams conduct local investigations. Escalated allegations are passed to a dedicated global integrity investigations team. HP's investigation process continues to evolve, with improved resources and technology to perform investigation-related functions in-house and deal with concerns promptly. Additionally, our new global case management tool (outlined above) enables us to identify emerging trends in ethics violations and determine where additional controls may be needed.

Anti-corruption

Corruption disrupts fair competition and is at odds with HP values. We do not tolerate corrupt behavior of any kind, including bribery and kickbacks.

Our [Anti-Corruption Policy](#) and compliance program require our employees, partners, and suppliers to comply with all applicable national laws and regulations including the U.S. Foreign Corrupt Practices Act and the UK Bribery Act. Although HP is not certified to an anti-corruption management system, all of our operational sites and subsidiaries are required to follow HP's Anti-Corruption

Policy and related program and procedures (or a comparable subsidiary-level policy and compliance program).

Risk assessment, third-party due diligence, and audits

HP conducts regular internal assessments of corruption-related risks across 100% of our global operations, including detailed reviews of the company's global policies and processes applicable to all business units and global functions worldwide. HP also uses internal data and Transparency International's Corruption Perceptions Index to detect high-risk regions and assess risks related to our business. In 2019, we adopted new data analytics tools and processes to help HP better monitor and mitigate potential risk from its public sector business.

HP also periodically retains outside experts to assess our anti-corruption policies and programs; the last such external assessment was performed in 2017. We benchmark our approach against peer companies to identify best practices in areas including operational procedures, employee education, and supplier and partner training and monitoring.

Complementing these assessments, HP conducts regular audits focused on potential

corruption risks, including audits of our own operations. These involve end-to-end review of compliance policies and processes with appropriate testing.

We also perform ongoing risk-based due diligence of third parties that support HP's business, including channel partners, sales intermediaries, suppliers, and lobbyists.

Training and communication

We deliver comprehensive anti-corruption content to all employees, through annual Integrity at HP training, and also to all members of the Board of Directors. We also communicate year-round to reinforce policies, controls, and training.

In addition, we provide targeted anti-corruption training to employees who may pose a corruption risk to the company, including those that support HP's public sector business. In 2018, over 18,000 employees (99% of the at-risk employees assigned) completed this training: 32% were in the Americas, 39% in Asia Pacific and Japan, and 29% in Europe, Middle East, and Africa. To better align HP's internal training schedule, we postponed the targeted anti-corruption training that was originally scheduled for September 2019 to January 2020. In 2019, we delivered 20 face-to-face

and virtual sessions on anti-corruption to select employees.

More than 3,100 employees (nearly 92% of the relevant employee base) also received training in 2018 on the requirements of doing business with the U.S. government. This training was again conducted in March/April of 2020.

In 2019, HP managed the integration of newly acquired businesses and employees into HP's anti-corruption program, which included online anti-corruption training for over 350 new employees.

We communicate HP's anti-corruption standards and requirements to 100% of our business partners and suppliers—and other third parties such as consultants—through contractual terms and conditions as well as our [Partner Code of Conduct](#) and [Supplier Code of Conduct](#). Generally, all HP partners and suppliers are required, respectively, to meet HP's Partner and Supplier Codes of Conduct. Partners determined to represent higher risk receive training in addition.

Requirements for mitigating anti-corruption risk associated with charitable giving are communicated to employees through the [HP Global Charitable Contributions Policy](#), and risks are mitigated through the grant-making process.

Human rights

HP's stance on upholding human rights is clear and uncompromising. We champion respect for human rights in our operations, supply chain, and in relation to our products. Using our scale and influence, we promote positive changes so that business and society can thrive.

Empowering our employees and protecting their [safety](#) and [health](#) are core priorities. Paying HP employees [fairly and equitably](#), regardless of their gender, race, or other protected characteristics, is equally fundamental to who we are.

[Diversity and inclusion](#) is essential to delivering transformational business results. In our workplace, industry, and the communities where we live, work, and do business, we promote a welcoming, diverse, and inclusive culture and do not tolerate discrimination or harassment of any kind.

HP recognizes the fundamental importance of [privacy, security, and data protection](#) to our employees, customers, and partners worldwide. We focus on providing protections that exceed legal minimums and on deploying consistent, rigorous policies and procedures, giving people confidence when sharing information with us and using our products.

HP ranked third among the 40 information and communications technology (ICT) manufacturing companies assessed in the [2019 Corporate Human Rights Benchmark \(CHRB\)](#), which evaluated approximately 200 of the largest publicly traded companies in the world on a set of human rights indicators. Our score of 42 out of 100 exceeded the average scores of 18 in our sector and 24 for all participating companies. However, we continue working to improve our program and aspire to be ranked among the other non-ICT industry leaders in the future.

Through our [supply chain responsibility](#) program, we focus on improving labor conditions within supplier factories, tackling industry-wide challenges such as forced labor and conflict minerals, and building essential skills and capabilities.

Education is a fundamental human right. Our [global education programs](#) are designed to enable better learning outcomes for millions through technology, including marginalized and underserved communities. When [disaster strikes](#), we work fast to support recovery by connecting our employees and communities to critical services.

We monitor emerging human rights expectations and best practices to continue leading in this area. We are committed to ensuring that everyone is treated with dignity, respect, and fairness—within our own company and throughout our value chain.

Policies and standards

Through our policies and programs, we insist that all workers across our value chain have fair treatment, safe working conditions, and freely chosen work.

Our [Sustainable Impact and Human Rights Policy](#) states our commitment to embedding human rights within our business policies and practices, as well as protecting and upholding human rights in collaboration with our suppliers and partners. It includes our commitment to due diligence, worker voice and grievance mechanisms, and investigation and remedy of adverse impacts when these arise.

Our policies reflect international standards, including respecting the rights in the [United Nations \(UN\) Universal Declaration of Human Rights \(UDHR\)](#), the [UN Guiding Principles on Business and Human Rights](#), the [OECD Guidelines for Multinational Enterprises](#), and the [UN Global Compact](#).

Governance

The Nominating, Governance and Social Responsibility (NGSR) Committee of the HP Board of Directors oversees human rights across HP, including reviewing the results of the annual human rights assessment and approving HP's annual company-wide modern slavery statement. The Human Rights Office then works with our local senior management team, in consultation with the boards of our subsidiary entities, as appropriate, to develop, adopt, and approve statements that are responsive to local requirements.

HP's Chief Supply Chain Officer oversees implementation of our human rights commitments (found within our Sustainable Impact and Human Rights Policy) and the design of processes to prevent, mitigate, and remediate related impacts, including any relating to modern slavery and human trafficking.

We also convene a Human Rights Council biannually to review the results of our human rights assessment and to devise a plan of action for continuous improvement. It is chaired by the head of the Human Rights Office, and includes senior management from Ethics and Investigations, Global Indirect Procurement, Human Resources, Privacy, Supply Chain Responsibility, and Technical Regulations.

Approach

Human rights impact assessment: During 2019, we evaluated seven global corporate functions¹ that have a role in respecting the human rights of workers against the UDHR, to identify salient risks² across our value chain. These risks were further evaluated against HP's policies, processes, and practices to determine any gaps. This process was informed by desk research related to the industry, as well as interviews with internal and external leaders. The assessment highlighted several salient risks that we are now addressing through our human rights program:

- Indicators of modern slavery such as retention of identity documents and charging of recruitment fees.
- Risk of unsafe working conditions and excessive working hours at supplier sites.
- Risk of forced labor, child labor, and armed group conflict associated with raw minerals extraction.

Learn more about how we address our salient risks in the [HP 2019 Human Rights Progress Report](#).

In addition, we identified several cross-cutting themes related to human rights that affect HP's activities and business relationships and warrant ongoing dialogue and collaboration. We are working to integrate these themes into our planning, programs, and training methodologies.

Cross-cutting themes

Themes	HP's approach
Health	<ul style="list-style-type: none"> • Product safety by design through testing and certification programs. • Supply chain due diligence relevant to the HP Supplier Code of Conduct. Learn more.
Privacy	<ul style="list-style-type: none"> • Respecting human rights in the context of personal data processing and communication interactions. See Privacy section at right.
Gender equality	<ul style="list-style-type: none"> • Diversity and inclusion initiatives with employees. • Supplier diversity program • Expectations stated in the HP Supplier Code of Conduct, and supplier capability-building programs.
Education	<ul style="list-style-type: none"> • Programs and initiatives to support better learning outcomes for all people. • Inclusive technology to ensure products and services are easier to access and simpler to use for people with disabilities and age-related limitations.
Environment	<ul style="list-style-type: none"> • Programs to improve environmental performance and reduce impacts in our supply chain, operations, and products and solutions.

Due diligence and audits: Our due diligence process aims to address actual and potential adverse impacts in our operations and supply chain. This process is risk-based and commensurate to the severity and likelihood of the impact. It focuses on three key aspects: embedding responsible business conduct; ceasing, preventing, or remedying the impact; and reporting on implementation and results. Learn more about our due diligence program in the [HP 2019 Human Rights Progress Report](#).

Grievance mechanisms: We offer multiple channels for our employees and third

parties to ask questions and report concerns without fear of retaliation. [Learn more.](#)

Training: In 2019, 99.4%³ of employees (including senior executives), as well as all members of our Board of Directors, completed annual Integrity at HP training, which includes content related to human rights. We also provide annual training for relevant procurement staff. This covers the context of forced labor and slavery, identification of forced labor conditions, company policies and standards to combat modern slavery, whom to contact for help, and how to report related information.

Reporting: In addition to our annual Sustainable Impact Report, we also provide information through our standalone [HP 2019 Human Rights Progress Report](#), and the [HP Modern Slavery Transparency Statement](#) regarding our due diligence in combating modern slavery.

Collaboration

Our global reach provides us the opportunity to drive human rights progress worldwide. This includes engaging in public forums and multi-stakeholder partnerships, such as:

- Chairing the steering committee (through 2019) of the [Responsible Labor Initiative](#), a cross-industry collaboration of the [Responsible Business Alliance](#) focused on workers vulnerable to forced labor.
- Membership of the steering committee of the [Leadership Group for Responsible Recruitment](#), a group promoting sustainable hiring through labor agent training and certification.
- Sitting on the [Advisory Board of Social Accountability International](#), creator of the [TenSquared program](#) that improves worker health and safety.

Privacy

HP recognizes the fundamental importance of privacy, security, and data protection to our employees, customers, and partners worldwide. This commitment is a critical pillar of brand trust and increasingly a source of competitive advantage in an era of accelerated innovation, global data proliferation, and fast-changing regulatory frameworks. We build privacy and data protection into the design and development of our products, services, and operations. We strive to provide protections across all of our operations that exceed legal minimums, and to deploy consistent, rigorous policies and procedures to give our customers, employees, and partners confidence when sharing information with us and using our products and services. See our [Privacy website](#) for additional information.

Approach

Our rigorous policies and standards are designed to keep personal data safe and respect privacy:

- [Our Privacy Statement](#) describes our privacy practices, and the choices users can make and the rights they can exercise in relation to personal data.
- We maintain internal policies and standards to align with international

Privacy by Design

HP's Privacy by Design approach requires that HP products, services, websites, systems, and applications processing personal data be designed and implemented only after thoughtful consideration of privacy implications. HP teams developing or making substantial changes in these areas must have a fully formed development plan; fill out a Privacy by Design questionnaire and provide any follow-up documentation; follow the appropriate documentation requirements based on type of personal data involved; consult with HP Cybersecurity on appropriate security measures, as required; and develop appropriate notice language with the Privacy Office. Our formal review process focuses on privacy as a default setting, incorporating key principles of data minimization, transparency of purpose, and technical and organizational safeguards.

See [Product security and privacy](#).

data protection and privacy principles worldwide that cover the data life cycle, and continually strengthen privacy protections to meet the requirements of changing regulations and evolving circumstances. This includes implementing enhanced internal policies and procedures to address our obligations as a data controller and processor and to ensure data subject rights are respected.

- Our privacy accountability and compliance framework outlines our procedures and organizational controls for assessing and managing risks associated with collecting and handling personal data. It is based on requirements for accountability as defined by global laws and regulations.

- Our Data Protection Officer, together with HP's Privacy and Data Protection team, provides oversight and leadership for compliance, working closely with appointed privacy leads in business teams throughout the company.
- HP's HIPAA Compliance Office oversees compliance with Health Insurance Portability and Accountability Act (HIPAA) laws where they are triggered by our commercial services engagements.

Privacy was included in our mandatory Integrity at HP annual refresher course in 2019, completed by 99.4%¹ of HP employees. In addition, in 2019 privacy principles training was required for more than 18,000 employees across the company,

with roles involving the processing of personal data. During the year, we also offered access to online courses that provide additional topic and role-based training opportunities.

To enhance our privacy accountability and compliance framework, we continued to implement new data management and record-keeping tools in 2019. We also continued to strengthen our well-established global privacy program by enhancing overall program governance through conducting internal and third-party assurance, formalizing privacy by design, and streamlining privacy impact assessment processes.

Privacy and data protection compliance

HP complies with worldwide privacy and data breach notification laws and regulations, tracks the number of substantiated complaints from third parties, and maintains an internal incident reporting process. Once a potential breach of personal data is identified, a core team—including representatives from privacy, cybersecurity, legal, and communications—is responsible for the management and communication of potential data breaches, including any commercial or legal obligations to notify customers.

Substantiated complaints regarding breaches of customer privacy and losses of customer data at HP*

	2016	2017	2018	2019**
Substantiated complaints from outside parties (including customers)	5	2	4	14
Substantiated complaints from regulatory or other official bodies	0	2	3	1

* Breaches of customer privacy cover any noncompliance with existing legal regulations and voluntary standards regarding the protection of customer privacy related to data for which HP is the data controller. Substantiated complaints are written statements by regulatory or similar official bodies addressed to the organization that identify breaches of customer privacy, or complaints lodged with the organization that have been recognized as legitimate by the organization.

** We believe that the increase in substantiated complaints from outside parties was likely caused by an increase in data subject awareness and empowerment in exercising their rights as provided by law.

Global standards and regulatory environment

The secure movement of data is essential to our business, and as legislation continues to evolve, our privacy and government relations teams work with governments worldwide to develop robust and globally interoperable privacy regulations. See [Government relations](#) for more detail.

When developing and updating our privacy program, we consider global and domestic principles and frameworks, including:

- [Asia-Pacific Economic Cooperation Privacy Framework](#)
- [EU General Data Protection Regulation](#)
- [Madrid Resolution on International Privacy Standards](#)
- [Organisation for Economic Co-operation and Development \(OECD\) Guidelines on the Protection of Privacy and Transborder Flows of Personal Data](#)
- [California Consumer Privacy Act](#)

HP relies on lawful mechanisms for data transfer to drive accountability across the organization. HP remains among fewer than 140 companies worldwide² recognized by EU data protection authorities for our binding corporate rules, reflecting our high standard of data protection policies and procedures and enabling global data transfer within our company. HP is also self-certified under the EU/US Privacy Shield, and we comply with the Asia-Pacific Economic Cooperation's Cross-Border Privacy Rules.

We are among fewer than 140 companies worldwide recognized by EU data protection authorities for our binding corporate rules for data protection.

Cybersecurity

In our industry, hostile attempts to acquire personal and financial information are constant. HP works to block these attempts through robust internal controls and external partnerships. Our Cybersecurity Organization provides and maintains the guidance, governance, processes, resources, and IT partner and vendor relationships necessary to identify unwanted access, security threats, and cyberattacks, and shield our customers' and employees' information.

Everyone at HP has a role and responsibility to help ensure information security. Our incident response processes and playbooks support security rigor and apply to a range of evolving industry threats. Our internal Cybersecurity Policy Suite provides a framework for the organization, governance, and implementation of information security across the company. Based on the Policy Suite and other information, we communicate with and educate employees about regulatory requirements, emerging threats, and new security practices, among other items.

Our online [Security Bulletins](#) support HP's commitment to provide customers and others prompt notification and remediation of any vulnerabilities related to HP products and services.

HP's Chief Security Advisor (CSA) belongs to the company's external [Security Advisory Board](#) and works with our security business unit, R&D team, HP Labs, business units, product teams, and global functions to advance HP's leadership role in security. The CSA also leads efforts to educate HP and clients about security, conduct security risk assessments, perform analytics to establish security baselines,³ and create roadmaps to continually improve performance and establish new baselines. We conduct both internal and external audits of HP cybersecurity systems, and annual risk assessments of HP cybersecurity systems and processes, including our information security management system (ISMS).

HP's risk-based ISMS maintained ISO 27001 certification during 2019, providing assurance that HP meets the international standard for security of information systems.⁴ In addition, we are continuing work to bring our client services into alignment with ISO 27001, expanding our certification scope in offerings such as Managed Print Services and Device as a Service.

In 2019, we continued working to understand the techniques used by hostile actors, and how to further improve existing security controls and measures. During the year, we added a new system of record that helps support our company and customers to drive good cyber hygiene and to have

solid controls that align to regulatory and compliance requirements, such as the Health Insurance Portability and Accountability Act, the Payment Card Industry Data Security Standard, and various privacy laws. We held our first HP-led and hosted Client Security Advisory Council in September 2019. The Council works to drive security awareness and education, and provides a forum for collaboration and knowledge-sharing with our clients.

HP did not experience any cybersecurity events that required disclosure during 2019.⁵ When incidents do occur, the Cybersecurity Organization responds swiftly and regularly reports related activities to the relevant leadership.

We conduct and participate in cybersecurity research to continue to uncover and identify cybersecurity trends and risks, and to drive cybersecurity innovation in our products, devices, services, and solutions. HP participates in cybersecurity organizations, boards, and/or advisory boards, including IEEE, ISA, ISACA, (ISC)2, ISSA, NIST, SANS, and others.

See also [Product security and privacy](#) and [Summary of HP Security Measures](#).

Government relations

Geopolitics drives governments around the world to consider new policy approaches on issues ranging from global trade to regulation of emerging technologies. Related decisions could affect technology companies in new ways, particularly regarding market access and ensuring level playing fields for global competition. HP advocates for public policies that reflect our business priorities and core values. We encourage policies that promote innovation to benefit our customers and company.

- Responsible stewardship of [personal data](#).
- [Security](#) of end-point devices.
- Competitive [tax structures and economic incentives](#).
- Transparent [public procurement practices](#).
- Adoption of [additive manufacturing](#) through public-private partnerships and workforce development.
- Advancement of HP core values, including [social responsibility](#), [environmental sustainability](#), and [diversity and inclusion](#).

Policy priorities

Our global Government Relations team leads our engagement with policymakers, regulators, trade associations, and peer companies to advance public policies aligned with HP's interests and values. HP encourages policies that support:

- [Market access](#) through elimination of trade barriers.
- Strong protection of [intellectual property](#) rights, with a focus on printing supplies.

Political engagement

We conduct all political engagements, including contributions to candidates, in a transparent, legal, and ethical manner and in accordance with [HP's Political Contributions Policy](#) and code of business conduct, Integrity at HP. Our U.S. Public Sector Code of Conduct guides ethical business interactions with federal, state, and local officials.

Through corporate contributions and the HP Employee Political Action Committee (PAC), we support candidates for elected office using established criteria, such as site representation and issue alignment. We post [detailed lists](#) of HP Employee PAC and corporate contributions twice annually. HP does not make political contributions outside of the United States. We also disclose [U.S. lobbying expenditures](#) and [membership in U.S. trade associations](#) that engage in lobbying activity. HP did not make any in-kind political donations in 2019.

In 2019, for the second year in a row, we earned a perfect score and tied for first place overall among S&P 500 companies in the [CPA-Zicklin Index of Corporate Political Disclosure and Accountability](#).

100% score

and tied 1st place for corporate political disclosure and accountability on the CPA-Zicklin Index

	2017	2018	2019
HP corporate political contributions			
State and local candidates and groups	\$299,500	\$300,000	\$111,900
Total U.S. federal lobbying expenditures (reported quarterly under the Lobbying Disclosure Act)	\$2,789,600	\$1,890,000	\$1,620,000
HP employee PAC contributions			
Federal and state candidates, party committees and PACs supporting diverse candidates	\$42,500	\$87,000	\$85,500



Supply chain responsibility

35 Approach

37 Labor

38 Health and safety

39 Responsible minerals sourcing

41 Supplier diversity

42 Environmental impact

45 Audit results

50 Data

Approach

HP relies on one of the IT industry's largest supply chains, made up of hundreds of production suppliers and thousands of nonproduction suppliers.¹ An ethical, sustainable, and resilient supply chain protects our business and brand, strengthens customer relationships, and creates opportunities to innovate.

We insist that all workers receive [fair treatment](#), [freely chosen employment](#), and [safe working conditions](#). To reduce environmental impact, we collaborate with suppliers to decrease [GHG emissions](#), [water use](#), and [waste](#).

We engage with suppliers in a wide range of ways to promote responsibility. Suppliers representing 95% of HP's total production

supplier spend have gone through a social and environmental assessment, and suppliers representing 56% of production supplier spend have completed on-site social and environmental audits.

The strength of our supply chain responsibility program enables us to meet and exceed customer expectations. In 2019, more than \$3.6 billion in retained, existing, and new sales took supply chain responsibility into account.²

For an overview of our management approach in this area, including areas such as risk assessment, policies and standards, continuous improvement, capability building, external collaboration, and reporting, see [Our approach to a sustainable supply chain](#).

Our supply chain is complex, and we work to address a broad range of social and environmental topics.

Supply chain responsibility

Improving the lives of the people who make our products and strengthening the communities where they live and work



[Labor](#)



[Health and safety](#)



[Responsible minerals sourcing](#)



[Supplier diversity](#)



[Environmental impact](#)

Driving Sustainable Impact throughout the supply chain

PRIORITY

Put workers at the center of our program by offering worker empowerment programs

GOAL

Develop skills and improve wellbeing of 500,000 factory workers by 2025, since the beginning of 2015

PROGRESS IN 2019

11,000

supplier factory workers participated in seven programs at supplier sites in five countries during 2019, bringing the total to 266,400 workers trained since the beginning of 2015, 53% of the way to our goal³

PRIORITY

Enable suppliers to develop and strengthen their policies, management systems, and mechanisms to take ownership for meeting social and environmental compliance requirements and elevate performance

GOAL

Double factory participation⁴ in our supply chain sustainability programs by 2025, compared to 2015

PROGRESS IN 2019

↑53%

increase, compared to 2015

We will continue to collaborate with local organizations to strengthen factory workers' awareness and skills, through programs focused on women's leadership, peer advice, use of personal protective equipment, and other areas. Capability building for workers has been integral to our supply chain responsibility program for over a decade.

In 2019, the factory participation rate was up 53% compared to our baseline. This increase reflects the launch of a supplemental program to audit health and safety conditions within various suppliers. We will continue to focus on increasing participation—deepening engagement with suppliers who already have strong management systems and coaching smaller spend and sub-tier suppliers to improve the maturity of their sustainability management.

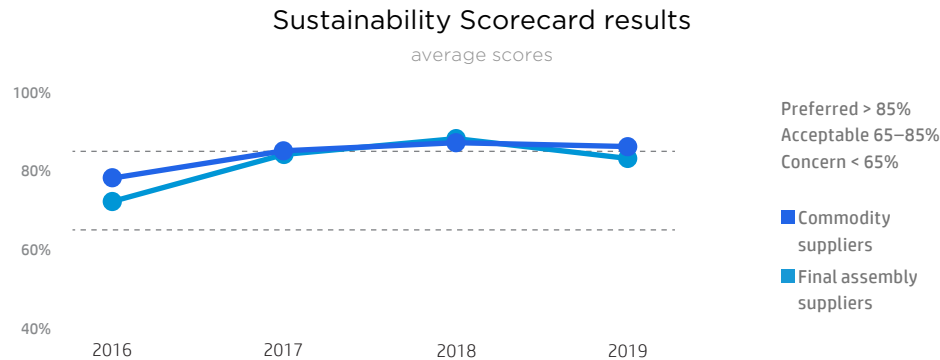
Transparency

From PCs to printers, HP's products rely on a vast network of suppliers spanning six continents. Approximately 700 production suppliers make the products we sell and several thousand nonproduction suppliers support our operations. We [disclose the names and locations of the production suppliers](#) that represent approximately 95% of our manufacturing spend. Our products are manufactured in countries and territories worldwide, but over half of our manufacturing suppliers are based in the Asia Pacific region.

In addition to this report, we disclose information about our supply chain responsibility and human rights performance through our annual [SEC Conflict Minerals Report](#), [Modern Slavery Transparency Statement](#), [Report on Cobalt](#), and [CDP Supply Chain disclosures](#). We also provide tailored supply chain information to our customers and channel partners to help them achieve their supply chain sustainability goals.

Sustainability Scorecards

We summarize supplier performance across multiple dimensions using our Sustainability Scorecards. These are intended to incentivize suppliers and drive improved performance through consistent, comprehensive, and actionable feedback. This tool provides suppliers a score that encompasses audit performance; environmental governance, transparency, goal setting, and performance; conflict minerals management; and other social and environmental topics. The results contribute to a supplier's overall procurement score, which impacts the supplier's relationship with HP and ongoing business. Suppliers discuss their scorecard with HP as part of regular business performance evaluations and receive additional points if they demonstrate sustained improvement. We continue to expand the scope of the scorecard and have started implementing new criteria that increase expectations as well as raising the thresholds for the Preferred and Acceptable levels. In 2019, average scores decreased due to the addition of several new suppliers to the program. During the year, the Sustainability Scorecard applied to suppliers representing 78% of our production spend—up from about 60% the prior year.



External collaboration

HP takes a leading role through collaborations focused on elevating supply chain best practices and tackling shared challenges.

Key relationships include:

- [CDP Supply Chain program](#)
- [Clean Electronics Production Network](#)
- [Green Freight Asia](#)
- [Leadership Group for Responsible Recruitment](#)
- [National Minority Supplier Development Council](#)
- [Responsible Business Alliance](#)
- [Responsible Labor Initiative](#)
- [Responsible Minerals Initiative](#)
- [Social Accountability International](#)
- [U.S. EPA SmartWay®](#)
- [WWF Climate Savers](#)

Capability building

In collaboration with NGO partners and other external organizations, we provide programs designed to help suppliers continually improve along their sustainability journey. During 2019, we reached 11,000 workers through our capability-building programs.

Examples of the trainings and opportunities we provide are listed below, seven of which ran during the year. In 2019, we launched a two-year program in collaboration with

Verité, an international nonprofit that promotes safe, fair, and legal working conditions in global supply chains. This program supports worker wellbeing by strengthening health and safety knowledge and equipping workers with the tools and skills needed to grow professionally and personally. During the year, we completed assessments at three factories, developed an implementation plan, and administered a two-day ambassador training on-site. The worker wellbeing program will directly reach 2,300 workers, with the potential to reach more than 10,000 workers.

<p>Focus area: Baseline conformance with HP standards</p>	<p>Examples of trainings and opportunities:</p> <ul style="list-style-type: none"> • EHS awareness training • Foreign migrant worker training • RBA Code of Conduct training
<p>Focus area: Ongoing engagement in key areas</p>	<p>Examples of trainings and opportunities:</p> <ul style="list-style-type: none"> • Turning Policy into Action workshop • Science Based Targets workshop (with WWF and CDP) • Supplier Sustainability Summit
<p>Focus area: Leadership above and beyond HP's requirements</p>	<p>Examples of trainings and opportunities:</p> <ul style="list-style-type: none"> • Zero waste to landfill training • Worker wellbeing program

Labor

We continually deepen our understanding of the social and economic factors that lead to labor concerns, and then focus on areas of risk where we can have the most influence. We collaborate with organizations and government agencies with local expertise to promote long-term, scalable solutions. Our primary focus areas continue to be combating forced labor, protecting workers' rights, and worker health and safety, including safe use of process chemicals.

Combating forced labor¹

As part of our commitment to addressing modern slavery, we start with our own operations and suppliers while striving to collaborate more broadly in ways that drive positive change. Modern slavery, as defined in guidance under the UK Modern Slavery Act, can manifest itself in different ways, including through debt bondage, forced labor, and human trafficking.²

HP is uncompromising in our expectations of ethical behavior by our employees, partners, and suppliers. In our [Modern Slavery Transparency Statement](#), we discuss our efforts to address modern slavery during the fiscal year ended October 31, 2019.

Working with U.S. truckers to fight human trafficking

[Truckers Against Trafficking \(TAT\)](#) sees individual truckers as vital eyes and ears in the fight against human trafficking. TAT helps to combat trafficking in the United States by educating and mobilizing members of the trucking and busing industries and coordinating with law enforcement agencies.

We support innovative and effective initiatives such as TAT to combat forced labor wherever it exists. Most of HP's U.S. trucking vendors have signed up to the TAT initiative, and several are sponsors. We are one of the few shippers that participate directly and are committed to ensuring that all carriers moving HP products in the United States take the training.

Where significant risks are identified, we work with suppliers and partners to address challenges and enact risk mitigation plans. As an example, in 2019 we launched a partnership with [ISSARA Institute](#), an NGO that helps tackle issues related to human trafficking and forced labor, to support the monitoring of recruitment processes in Myanmar.

Protecting workers' rights

We communicate openly with workers and management in our supply chain to identify and understand workers' questions, concerns, and priorities. We train our procurement teams, supplier managers, and other employees to be vigilant and report instances of practices that violate our standards.

We collaborate with workers and suppliers to ensure they understand their rights and responsibilities. In 2019, in collaboration with Verité, we held a customized workshop for three suppliers in Taiwan with potential foreign migrant worker risk. The workshop strengthened management's understanding of ethical recruitment and hiring processes.

Health and safety

HP aspires to a world where our products and operations use materials and chemicals that cause no harm. We take a science-based approach to assessing the potential human health and environmental impacts of substances used in making HP products.

We continue to engage with our suppliers to strengthen knowledge and best practice in health and safety. For example, in 2019 we held an environment, health and safety (EHS) summit with suppliers in China. As well as covering important [environmental aspects](#), these focused on the health, safety, and welfare of workers, including discussions around compliance, training, and emergency preparedness.

Process chemicals

Suppliers are required to follow the manufacturing process chemical use restrictions outlined in the [HP General Specification for the Environment \(GSE\)](#). Additionally, our Supplier Code of Conduct requires suppliers to employ robust management systems to catalog and evaluate process chemicals, eliminate or manage hazardous substances, demonstrate that analyses of safer alternatives were conducted when a hazardous chemical is being used, and provide workers with essential personal protective equipment (PPE) and training.

In situations where the use of hazardous chemicals is currently unavoidable, we help suppliers identify preferable alternatives through our [alternative materials assessment program](#). To drive progress across the industry, we are a founding member of the [Clean Electronics Production Network \(CEPN\) Green America program](#),

whose members aim to move toward zero exposure of workers to toxic chemicals in the electronics manufacturing process.

This collaborative effort is focusing on developing a program to assess the use of process chemicals, strengthen the culture of worker safety and engagement, reduce worker exposure to identified priority process chemicals, substitute those chemicals with safer alternatives within members' own manufacturing processes, and ultimately reach deeper into their supply chains.

Within CEPN, HP, along with other stakeholders and leaders in the industry, is developing effective shared tools for the entire sector that will allow for identification of safer substitutions, data collection on process chemical use, and worker engagement in improvements to workplace health and safety.

Responsible minerals sourcing

Any connection between the materials used in HP products and armed violence or human rights abuses is unacceptable. To ensure our products are made responsibly, we have adopted industry-leading policies and monitoring practices and are broadening our vigilance beyond conflict minerals to a wider range of minerals and geographies. Through collaborative efforts, we aim to expand the market for responsibly sourced minerals, including those originating from conflict-affected and high-risk areas.

Conflict minerals¹

Across our complex, global, multi-actor supply chain, we have the most influence over our direct suppliers. However, in the case of trace and precious minerals, we recognize that we must work to influence the practices of those much deeper in the supply chain.

Approach

While conflict minerals are rarely used in large volumes in any one IT product or by one company, the 3TG metals produced from them are found in relatively small amounts in virtually all electronic products. However, we are typically 4–10 supply chain stages removed from the smelters that purchase

and process the ore into metals. For this reason, HP works with peers across the IT industry to collectively engage the entire supply chain in efforts to eradicate minerals that may have directly or indirectly supported armed groups and to promote responsible sourcing of minerals regardless of origin.

We do not support de facto embargoes of minerals from Democratic Republic of Congo (DRC) and adjoining countries, nor from other conflict-affected regions. We believe it is more effective to use our leverage (as a company and within cross-industry collaborations) to address issues and promote positive change. This helps to protect people in those regions while maintaining their economic opportunities. We are actively involved in the [Responsible Minerals Initiative \(RMI\)](#) and support its efforts to engage with government stakeholders.

Eliminating conflict-related risks from our supply chain

Promoting best practices by smelters is the most direct way to address the risk of conflict minerals entering our supply chain. We require our suppliers to source 3TG for HP products only from smelters that comply with the RMI's Responsible Minerals Assurance Process (RMAP), which requires a third-party sourcing audit. Presence on

the RMI conformant list demonstrates a smelter's conflict-free status.

However, our relatively small use of these metals decreases our influence, so we need all industries that use these materials to demand conflict-free 3TG. We will continue to work with our suppliers and across industries to drive demand for conflict-free sourcing, regardless of whether the minerals originate in the DRC or elsewhere.

We promote conflict-free minerals in our supply chain by:

- Encouraging all smelters that purchase and process mineral ores to undergo third-party sourcing audits.
- Requiring our production suppliers of goods containing 3TG ("3TG suppliers") to require their smelters to undergo third-party sourcing audits.
- Supporting multi-stakeholder collaboration to establish secure, conflict-free sources of 3TG ores from the DRC.

Suppliers

HP sets clear requirements of 3TG suppliers in our [Supply Chain Social and Environmental Responsibility Policy](#) (which includes our Conflict Minerals Policy), [General Specification for the Environment](#), and [Supplier Code of Conduct](#). We assess these

suppliers' responses to the RMI Conflict Minerals Reporting Template, which gives companies a common format for sharing information about 3TG sources with business partners and suppliers across the supply chain. We request corrective action from suppliers where needed and provide them training upon request. If any 3TG supplier reports sourcing from a smelter that triggers one of our potential risk indicators, we work with the supplier to establish whether unverified material is potentially used in HP products. When we identify a risk of this occurring, we request the supplier to remove the smelter from our supply chain. If a supplier is non-responsive, we use our procurement leverage to engage the supplier and improve performance.

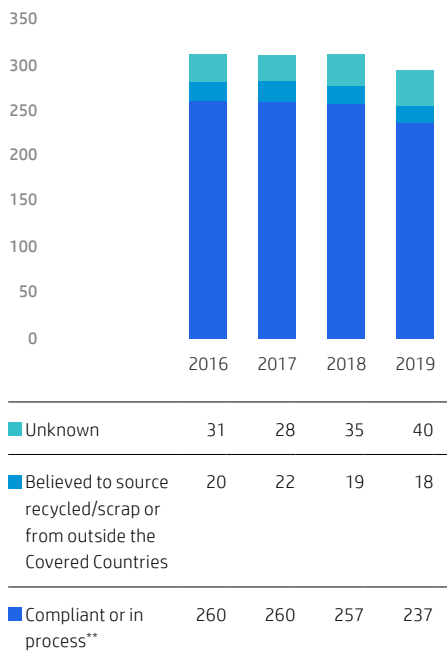
Smelters

To identify and disclose the [smelters and refiners](#) in our supply chain, between January and December 2019 HP surveyed suppliers that contributed material, components, or manufacturing for products containing 3TG. Each smelter or refiner reported was identified in at least one of the RMI Conflict Minerals Reporting Templates we received.

Performance

In 2019, we received acceptable responses to RMI Conflict Minerals Reporting Templates from suppliers representing about 98% of our 3TG procurement spend, including both final assembly and commodity suppliers. These responses detailed 295

Status of all supplier-reported 3TG facilities*



* As of March 2020.

** Smelters or refiners listed by RMI as currently RMAP compliant (including certification or accreditation by similar independent assessment programs cross-recognized by RMAP such as the Responsible Jewellery Council's (RJC) Chain-of-Custody Certification Program or the London Bullion Market Association's (LBMA) Responsible Gold Programme) or in the process of becoming RMAP compliant.

3TG facilities, 86% of which were compliant or in process to become compliant with an independent assessment program, and/or that we reasonably believe exclusively source conflict minerals from recycled or scrap sources or from outside of the Covered Countries (as of March 2020).

Progress toward DRC Conflict-Free, 2019

Type of facility	Total	Progress toward DRC Conflict-Free*	Percentage
Tantalum	39	39	100%
Tin	55	48	87%
Tungsten	47	45	96%
Gold	154	123	80%
Total	295	255	86%

* Number of total 3TG facilities in HP Conflict Minerals Report 3TG facility list that were either RMAP compliant or in process to become compliant, and/or that we reasonably believe exclusively source conflict minerals from recycled or scrap sources or from outside of the Covered Countries (as of March 2020).

U.S. Securities and Exchange Commission (SEC) Conflict Minerals Report

In May 2020, we filed our Form SD and Conflict Minerals Report with the U.S. SEC disclosing our due diligence efforts and results. See our [SEC Conflict Minerals Report](#).

Other regions and minerals

Learning from our experience combating conflict minerals in the DRC and surrounding countries, we are expanding our efforts. This aligns with growing awareness of minerals sourcing issues beyond the DRC and surrounding countries covered by the U.S. Dodd-Frank Act. The EU Conflict Minerals Regulation, which covers EU imports of 3TG minerals from all regions of the world, requires all large EU 3TG metal importers and smelters to become “responsible importers” consistent with the OECD Due Diligence Guidance. Although HP’s operations are not within the scope of the EU regulation, we are aligning our policy and approach to the extent practicable and preparing to support our customers’ requirements consistent with the regulation.

We support RMI’s work to help smelters identify conflict-affected and high-risk areas (CAHRAs), including outside of DRC and Covered Countries. We also supported RMI’s gap assessment work with the OECD, which led to revised protocols for smelters to responsibly source 3TG from CAHRAs worldwide. We engage smelters to ensure they are prepared to meet the updated expectations, and we encourage our suppliers and customers to do the same.

Our minerals due diligence and reporting also include cobalt, which has been linked to

human rights risks. We expect our battery suppliers to have policies addressing cobalt, to report to HP the names of the cobalt refiners they use, and to join us in encouraging these refiners to complete an RMI audit. Additionally, we encourage these suppliers to engage in collaborative industry action through RMI. See our [Report on Cobalt](#).

Multi-stakeholder initiatives

Sourcing minerals responsibly requires globally coordinated efforts across sectors and industries. We collaborate widely with businesses, NGOs, government agencies, and our production suppliers to advance the use of responsibly sourced minerals.

Through RMI, we help develop and share trainings, templates, and white papers to build the capabilities of the IT industry and beyond. We also support broader policy efforts through participation in RMI and its Due Diligence Practices Team and Smelter Engagement Team.

Additionally, we collaborate through external forums, including [European Partnership for Responsible Minerals](#), [Kemet Partnership for Social and Economic Sustainability](#), and [Public-Private Alliance for Responsible Minerals Trade](#).

Supplier diversity

A strong commitment to fostering [diversity and inclusion](#) underpins everything we do, including our business relationships with suppliers. Through our purchasing decisions and business relationships, we help to foster greater opportunity, equality, and representation throughout our supply chain and in the communities where we live, work, and do business. Diverse perspectives and experiences drive innovation, fortify our business, and strengthen local economies.

In 2019, we continued to develop our global supplier diversity program in the United States and South Africa. To accelerate our efforts, we work with the National Minority Supplier Development Council, Georgia Minority Supplier Development Council, Women’s Business Enterprise National Council, and industry groups such as tech:Scale.

We encourage small businesses and companies owned by women, minorities, veterans, service-disabled veterans, LGBTQ+

individuals and aboriginal or indigenous individuals to compete for our business. In 2019, we spent \$322 million with small businesses in the United States and \$123 million with minority- and women-owned businesses (see additional [data](#)).

In South Africa, we support Broad-Based Black Economic Empowerment (B-BBEE) initiatives through our supplier purchasing, to advance distribution of wealth across a broad spectrum of disadvantaged groups.

During 2019, we spent:

- R167.7 million (\$11.9 million) with all B-BBEE compliant businesses (74.4% of HP’s total spend with suppliers in South Africa in 2019).
- R123.3 million (\$8.8 million) with large B-BBEE compliant businesses (54.7% of total spend).
- R44.4 million (\$3.2 million) with small and medium-sized businesses (19.7% of total spend).
- R114.3 million (\$8.1 million) with firms with at least 51% black ownership (50.7% of total spend).
- R46.3 million (\$3.3 million) with firms with at least 30% black women ownership (20.5% of total spend).
- R15.9 million (\$1.1 million) with youth-owned firms or firms owned by people with disabilities (7.0% of total spend).

In 2019, HP in South Africa was rated as a Superior Level 1 contributor to B-BBEE, the highest rating possible, which measures the company’s performance in this area.

To improve the diversity of our suppliers’ workforces, we run initiatives such as those with our main advertising agencies and U.S. law firm partners. See [Diversity and inclusion](#) for details.

Economic impact summary of HP supplier diversity program, 2019

\$698 million overall economic impact*

\$374 million

Spending with small and diverse suppliers

\$268 million

Incomes earned by employees in the jobs supported by HP’s supplier diversity program purchases

4,400+

Jobs supported through HP’s spending with diverse suppliers**

\$226 million

Federal, state, and local personal and corporate taxes generated

* Goods and services produced by HP’s diverse suppliers and their supply chains.

** Including professional services, scientific services, technical services, computer and electronic manufacturing, real estate, and numerous other industries.

Environmental impact

Our production and nonproduction suppliers are essential partners as we work to drive low-carbon and resource-efficient transformation throughout the value chain.

For more than a decade we have worked closely with our suppliers to improve their environmental programs and report progress transparently. Our Sustainability Scorecard is central to our efforts to set expectations, evaluate our suppliers' performance, and drive ongoing improvement. See [more detail](#) about results.

We periodically raise our expectations to motivate ongoing improvement. These include supplier environmental management criteria such as science-based GHG emissions reduction targets, third-party verification of GHG emissions, and publication of a GRI-based sustainability report, as well as transparent reporting through CDP of key environmental information, including GHG emissions, energy consumption, renewable energy use, and water management.

We request 98% of our production suppliers, by spend, as well as strategic nonproduction suppliers, to disclose key qualitative and quantitative information about

environmental management and impacts through HP's CDP Supply Chain membership. Requested information includes GHG emissions and goals, total and renewable energy use, water withdrawal, climate and water risks, and governance.

To understand and manage our impacts, we calculate supply chain GHG emissions and water consumption in two ways:

- In this section of the report, we include data reported by our first-tier production suppliers, product transportation suppliers, and nonproduction suppliers. This data reflects the volume of HP's business with each organization. Through engagement with suppliers, we can better understand and influence improvements in performance year over year.
- The supply chain-related data included in our [carbon and water footprints](#) are derived from product life cycle assessment-based estimates. This analysis is intended to provide as complete an understanding as possible of impacts across the multiple levels of our supply chain, from materials extraction through manufacturing and product use, as well as retail and storage. These calculations use a combination of HP-specific and industry methods and data.

Greenhouse gas emissions

In 2008, HP was the first major IT company to publish aggregated supply chain GHG emissions data. We continue working to drive progress in this area, including through our goals (see below). Our goal to reduce supply chain GHG emissions intensity is one of HP's three value chain goals validated by the Science Based Targets initiative. WWF has publicly supported this goal,¹ confirming the rigor of our goals-setting process.

GHG EMISSIONS INTENSITY REDUCTION GOAL

Reduce first-tier production supplier and product transportation-related GHG emissions intensity by 10% by 2025, compared to 2015²

PROGRESS THROUGH 2018

GHG emissions intensity remained flat through 2018, compared to 2015

GHG EMISSIONS REDUCTION GOAL

Help suppliers cut 2 million tonnes of carbon dioxide equivalent (CO₂e) emissions between 2010 and 2025³

PROGRESS THROUGH 2019

Suppliers avoided

1.26 million tonnes

of CO₂e emissions

Although GHG emissions intensity remained flat between 2015 and 2018 when calculated as a three-year rolling average, yearly GHG emissions intensity values (not calculated as a rolling average) decreased by 13% during that timeframe. Since 2010, HP has decreased first-tier production supplier and product transportation-related GHG emissions intensity by 24%. To help reach our goal, we focus our suppliers' attention on improving energy management and efficiency, using renewable energy, and setting science-based targets.

Production suppliers

Approach

Through our Sustainability Scorecard (see page 36), we set requirements for our production suppliers, including requirements related to energy use and GHG emissions performance and disclosure.

During 2019, we conducted a Supplier Environmental Summit in China. Involving CDP, WWF, and other experts, the event covered the latest climate science, the process for setting science-based targets, best practices related to energy efficiency and renewable energy, and HP's Sustainability Scorecard supplier environmental management expectations. Eighty representatives from 37 suppliers attended. Also during the year and in collaboration with CDP and WWF, we

For the fourth consecutive year, HP was named by CDP as a Supplier Engagement Leader for the company's actions and strategies to reduce emissions and manage climate risks in its supply chain. [Learn more.](#)

delivered a focused workshop in Taiwan on climate science and science-based targets for 15 large suppliers representing more than three-quarters of final assembly spend.

Our Energy Efficiency Program in China and Southeast Asia, implemented in collaboration with NGOs such as BSR, the World Resources Institute, and WWF, helps suppliers to build capabilities, identify ways to improve energy efficiency, and explore the use of renewable energy. In the Strategic Energy Management Program, HP collaborated with [Natural Resources Defense Council \(NRDC\)](#), the [China National Institute of Standardization](#), local agencies, and suppliers in Suzhou to enhance operations, technology, continuous improvement processes, and overall energy management, with a goal to establish best practices and national guidelines for facility energy management across China's broader IT sector. When available, results of this program may be used to develop future supplier capability-building programs.

Since 2010, participants in these and other programs have avoided 1.26 million tonnes of CO₂e emissions and saved a cumulative 847 million kWh (\$109 million) of electricity, including 54 million kWh (\$6.9 million) in 2019.

More broadly, through CDP our production suppliers reported savings of 17.1 million tonnes of CO₂e and \$727 million from reduction initiatives implemented in 2018.⁴ This demonstrates the scale of ongoing GHG emissions reduction activities throughout our production supply chain, regardless of whether driven by HP's engagement.

Performance

In 2018, the most recent year that data is available, the suppliers that make HP products generated 2.9 million tonnes of Scope 1 and Scope 2 CO₂e emissions attributable to HP, 3% more than in 2017. This reflects business growth, which exceeded reductions in supplier GHG emissions. However, the intensity of these emissions per HP annual revenue in 2018 decreased 8% compared to the prior year. We expect suppliers to set science-based targets and reduce absolute emissions over time.

We engaged 98% of our first-tier production suppliers, by spend, to help reduce their environmental impact. Overall, 94% reported having GHG emissions reduction-related goals. We also encourage suppliers to use renewable energy. By spend, 78% reported doing so in 2018, with 47% reporting renewable energy use goals.

Supplier GHG emissions performance



- Production supplier Scope 1 and Scope 2 emissions*
- Product transportation
- Nonproduction supplier Scope 1 and Scope 2 emissions*

* 2018 is the most recent year data is available.

See additional [data](#) and HP's [2019 carbon footprint](#).

Product transportation

Approach

To improve efficiency, cut costs, and reduce negative environmental impacts, we work to optimize our logistics network by consolidating shipments, identifying new routes, and shipping directly to customers or local distribution centers.

We require our product transportation suppliers to use the [Global Logistics Emissions Framework](#) to standardize emission calculations. This system, which HP helped to develop in 2016 with the Global Logistics Emissions Council (GLEC),

provides more specific, fuel-based or other GLEC-compliant data that accounts for variation in different locations. To drive progress across the industry and beyond, we are working with the Clean Cargo Working Group, Green Freight Asia, the United Nations Climate & Clean Air Coalition, and the U.S. Environmental Protection Agency (EPA) SmartWay program.

We continue to use SmartWay partners for 100% of our products shipped by truck in the United States and Canada. The program aims to help improve road transportation efficiency and reduce GHG and other emissions. In 2019, HP won the U.S. EPA

SmartWay Excellence Award for the 6th year in a row, demonstrating leadership in freight supply chain energy and environmental performance for the “Large Shipper” category in the United States.

Performance

Product transportation resulted in 1.46 million tonnes of CO₂e emissions in 2019, up 12% from the prior year. This rise was due primarily to increased use of air freight related to new tariffs. In 2019, we avoided 25,000 tonnes of CO₂e emissions by moving shipments from air to ocean between Asia and the Americas, Europe, and other countries within Asia. Reducing packaging size and weight also decreases emissions. See [Packaging](#).

Nonproduction suppliers

Approach

We purchase a wide range of goods and services not related directly to product manufacturing, such as staffing, telecommunications, and travel. We prioritize collaboration with nonproduction suppliers based on geographical risk and industry, and provide training to help improve reporting and reduce GHG emissions.

Performance

In 2018, the most recent year data is available, our nonproduction suppliers reported 210,000 tonnes of Scope 1 and Scope 2 CO₂e emissions attributable to HP. During that year, the percentage of HP nonproduction strategic suppliers that produced environmental reports increased to 77%, from 75% in 2017. We believe this improvement in disclosure is partly due to our engagement with nonproduction suppliers through the CDP Supply Chain program.

Water

Approach

Many of our suppliers operate in regions where water stress is a growing threat. We work with production suppliers to improve water management in their operations.

To identify supplier sites located in water-stressed areas, we use water risk assessment tools such as the [World Resources Institute’s Aqueduct Water Risk Atlas tool](#). We also identify sites that manufacture relatively water-intense product types and use this information to assess overall water stress risks and opportunities. We ask our suppliers to

report water risk, use, and management information through the CDP Supply Chain program. This drives suppliers’ awareness of water security issues and allows us to assess suppliers’ current water management strategies in the context of local environments and communities. We work with suppliers to improve water reporting and, when appropriate, we also work with suppliers to enhance water management practices, through use of best practice frameworks. To further drive improvements, we include water stewardship criteria in our supplier Sustainability Scorecard. Suppliers are scored for transparently reporting quantitative water withdrawal as well as for having a public company-wide policy or governance structure for water at the board of directors or top executive level.

Performance

In 2018, the most recent year data is available, production suppliers withdrew 30 million cubic meters of water associated with HP, 7% more than in 2017, primarily due to business growth. However, the intensity of water withdrawals normalized to HP annual revenue in 2018 decreased 8% compared to the prior year. Stronger supplier water accounting practices also contributed to year-over-year variations in data. By the end

of 2018, 93% of our suppliers, by spend, had set water management goals.

See [HP’s 2019 water footprint](#).

Waste

Approach

We work with production suppliers to encourage waste measurement and reporting, reduce waste volumes, and drive progress toward a [circular economy](#). HP requests our suppliers report on waste using the [Responsible Business Alliance \(RBA\) environmental survey](#).

Performance

During 2018, the most recent year data is available, our suppliers generated 144,000 tonnes of nonhazardous waste associated with HP, a 17% increase from 2017, and 56,000 tonnes of hazardous waste, also up 17% compared to the prior year. This was due primarily to HP's business growth as well as more complete waste data. By the end of 2018, 72% of our production suppliers, by spend, had set waste-related goals, up from 59% the prior year.

Building on a successful [zero waste to landfill project in Brazil](#), we launched a similar pilot project in 2017 at a site of a major supplier in China, with the objective of diverting more than 95% of waste from landfill through reduction, reuse, and recycling. This supplier received third-party zero waste certification in 2019. We are exploring expanding this program to additional suppliers.

Supply chain transparency

Much of our production supplier base is in China, so we have a particular focus in that area. The [Corporate Information Transparency Index](#), developed by the Institute of Public and Environmental Affairs (IPE) and NRDC, evaluates the environmental practices of global brands' supply chains in China. In 2019, HP ranked #10 among global IT companies and #40 overall, of 438 brands assessed. On the Supply Chain Climate Action Index, developed by IPE and CDP, HP ranked #9 of 440 brands.

During 2019, we continued encouraging our suppliers to submit inventories of substances released through IPE's public pollutant release and transfer register system.

Also during the year, we cross-checked supplier sites representing 95% of our spend against IPE's public database of environmental violations. We also collaborated with first-tier manufacturing suppliers in China to determine whether sub-tier suppliers complied with local environmental laws. This review of over 300 sub-tier suppliers identified 13 reported violations. We continue working with the relevant first-tier suppliers and IPE to address and resolve these issues.

Audit results

Our supplier audit process is an essential component of our risk assessment framework and a key mechanism for identifying opportunities for sustained improvement with our suppliers. Supplier audits measure conformance with all provisions of the [HP Supplier Code of Conduct](#) in the areas of labor, health and safety, environmental, ethics, and management systems. See [Our approach to a sustainable supply chain](#) for detail about the audit process.

In 2019, we worked with our final assembly suppliers to confirm they are auditing companies in their own supply chains that represent approximately 80% of their spend, based on the RBA Code of Conduct.

In addition to the audit process, we engage with suppliers through:

- **The supplier self-assessment questionnaire (SAQ).** This includes detailed questions around social and environmental management and practices. As well as assisting HP to evaluate risk, identify areas for improvement, and determine a firm's inclusion in our audit program,

In 2019, we broadened our audits and assessments across nonproduction suppliers that support our services and operations. In addition to our work with suppliers, we also plan to complete audits of 100% of HP manufacturing operations every two years and began this process during 2019. See data in the table on [page 46](#).

HP has undergone Social Accountability International's (SAI) Social Fingerprint® Supply Chain Management Assessment to measure and improve social performance in both the company and our supply chain. This uses self-assessment and independent evaluation of eight key categories of supply chain management: policies, risk assessment, monitoring, integration, communication, tracking/remediation, and complaint management. The most recent 2019 Social Fingerprint result placed HP among the highest-scoring SAI corporate members. The findings from this benchmark have reinforced HP's continued efforts to support capability-building programs that focus on worker engagement and wellbeing.

Sustainability audits, 2019*

	Initial audits	Follow-up audits	Full re-audits
Product supply chain			
Production suppliers	22	41	43
Product transportation suppliers	17	0	0
Product reuse and recycling vendors	4	0	30
Nonproduction suppliers			
Suppliers supporting HP manufacturing (on HP premises)	25	0	0
Suppliers supporting HP offices (on HP premises)	20	0	0
Service suppliers (at third-party premises)	19	0	0
HP operations			
HP manufacturing sites	6	0	0
HP offices	6	0	0

* Audits of production suppliers, product transportation suppliers, suppliers supporting HP manufacturing, and HP manufacturing sites followed the RBA Code of Conduct Audit Protocol 6.0. Product transportation supplier audits included four initial audits that in past years would have been categorized as trucking assessments. We contract with Environmental Resources Management (ERM) to audit product reuse and recycling vendors for conformance with the following policies and vendor standards: [Export of Electronic Waste to Developing Countries Policy](#), [HP Supplier Code of Conduct](#), and [Reuse and Recycling Standards](#). See [Product repair, reuse, and recycling](#) for detail. Audits of nonproduction suppliers supporting HP offices, off-site third-party nonproduction suppliers, and HP offices focused on labor, health and safety, and ethics.

self-assessment helps suppliers become more familiar with HP’s expectations of conformance to our Supplier Code of Conduct and is a core part of our onboarding processes. During 2019, 235 production suppliers and 44 nonproduction suppliers completed SAQs.

- **Coaching, specialized training, data collection, and ongoing dialogue.** Using these mechanisms, we aim to help

suppliers develop robust management systems to address root causes of key risks and challenges; for more detail see [capability building](#).

- **Key performance indicator (KPI) monitoring program.** We collect data from high-risk suppliers weekly on key issues such as working hours, day of rest, and student workers, and collaborate to drive ongoing improvement. [See results](#).

Production supplier sustainability assessments, 2019

Health and safety assessments	22
Onboarding assessments	21
Vulnerable worker group (student and foreign worker) assessments	11
KPI validation assessments	6

Performance

In 2019, we completed 187 audits of production, nonproduction, and product transportation suppliers, and 60 other assessments of production suppliers. During the year, 91% of production supplier audits were third-party certified RBA Validated Assessment Program (VAP) audits.

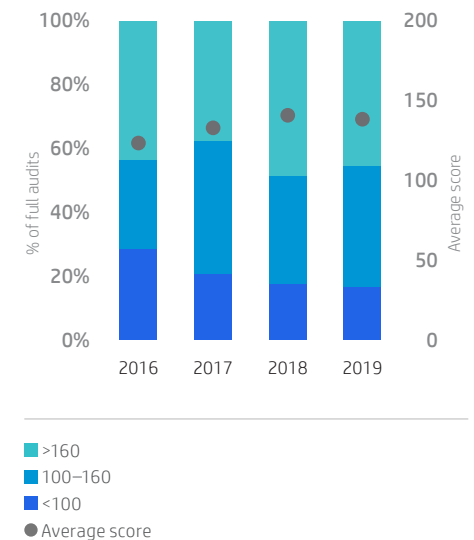
We see a wide range of maturity levels in our audits, which are scored on a scale of 0–200. In the RBA Factory LEAD Certification Program, suppliers with scores from 160–180 are eligible for a Silver certification, and scores above 180 for a Gold certification (including 23% of supplier facilities audited in 2019).

From 2017 to 2019, the percentage of production supplier initial audits and full re-audits that scored above 160 increased from 38% to 45%. The average score during that period rose from 135 to 140. Twelve of those audits were of final assembly supplier sites. Of these, 67% scored over 160, 17% scored between 100 and 160, and 17%

scored under 100.¹ The other 53 audits were of commodity supplier sites. In 2019, 40% of commodity suppliers scored over 160, 43% scored between 100 and 160, and 17% under 100.

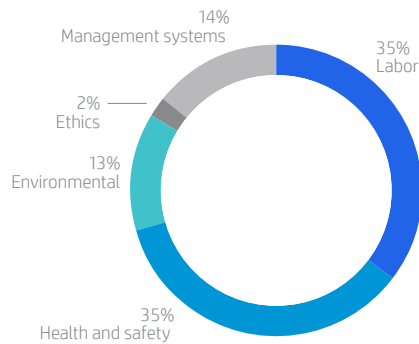
We periodically increase our expectations of suppliers, so suppliers must continually improve to maintain a consistent audit score. For example, in 2018 we adopted version 6.0 of the RBA Code of Conduct, which includes requirements related to worker voice and training, pregnant and nursing women, process chemicals, and water management. During that year, we also added [new environmental requirements](#) to our Sustainability Scorecard.

Distribution of scores of initial audits and full re-audits



Distribution of major nonconformances by section of HP Supplier Code of Conduct, 2019*

percentage of total



* Data is from initial audits and full re-audits of production suppliers conducted in 2019. Due to our two-year audit cycle and changes to HP's supplier base, data typically does not represent the same supplier sites as the previous year.

Immediate priority findings

Immediate priority findings² are the most serious type of supplier nonconformance and require immediate action. In 2019, we identified six immediate priority findings, equivalent to 0.092 findings on average for each initial audit and full re-audit of

Detailed analysis of audit results

A major nonconformance is a significant failure in the management system that affects a company's ability to ensure that conditions conform to the HP Supplier Code of Conduct or General Specification for the Environment. A minor nonconformance is not a systemic problem, but typically an isolated finding. The data in this section focuses on major nonconformances.

production suppliers conducted. Four issues related to fire exits, one related to emergency drill preparedness, and one related to personal protection equipment. We required the issues to be immediately addressed and are working with the suppliers to complete remediation and implement corrective actions to adjust their management systems.

Other findings

For audits conducted in 2019, suppliers were in full conformance (no major nonconformances identified) for the following provisions: risk of child labor, risk of discriminatory practices, and intellectual property. Sixty-five initial audits and full re-audits of production suppliers conducted in 2019 identified 455 major nonconformances, equivalent to 7.0 per audit on average.

Six provisions (see table on next page) out of 45 total represented 59% of all major nonconformances identified. We focus on these and other areas that have the greatest potential for improvement.

HP requires suppliers to provide a detailed corrective action plan addressing all identified nonconformances within 30 days of receipt of the site audit report (except immediate priority findings, which are addressed expeditiously), and have processes in place to monitor progress and subsequent closure of nonconformances. For details, see the [RBA VAP Operations Manual](#) and [Our approach to a sustainable supply chain](#).

Issues with lowest rates of conformance of sites audited, 2017 and 2019*

Issue	Rate of conformance, 2017**	Rate of conformance, 2019**	HP's approach
Working hours	26%	22%	Excessive working hours remains the single largest labor challenge in our supply chain, especially around times of peak production and labor shortages. Workers often voluntarily work long hours to earn more money and suppliers may lack effective management systems in this area. Among suppliers in our KPI program (about 62 at the end of 2019 representing approximately 94,983 workers), 95% met our requirements related to working hours in 2019, up from 94% in 2018.*** HP is supporting suppliers to improve their forecasting ability, track shifts and working hours more accurately, and hire workers directly instead of by contract. Suppliers have also implemented IT systems to better manage shifts, and some have dedicated lines for student and juvenile workers to facilitate conformance with overtime or night shift requirements. We provide training to student workers and their managers about our requirements and their rights.
Emergency preparedness	40%	52%	Nonconformances in this area involve items such as blocked exit doors, missing or poorly lit exit signs, lack of fire exit instructions, and missing or defective emergency equipment. Most of these can be remedied with straightforward corrective actions. However, sometimes a change takes more time; for instance, replacing all fire exit doors. We supplement our audits with specific health and safety assessments that help us evaluate and improve understanding of our policies and standards.
Occupational safety	62%	51%	Major nonconformances related primarily to presence of current safety permits and first aid response reporting. Suppliers are required to have a tracking mechanism and keep documentation of remediation and compensation provided to workers involved in an incident. A supplier with a nonconformance must also prove that training has been or will be conducted within 180 days. We believe that the decreased conformance rate between 2017 and 2019 reflects expanded Code of Conduct requirements for this provision related to documented management systems.
Wages and benefits	66%	62%	In countries without a set minimum wage, the industry prevailing wage applies. The most common issue in wages and benefits is suppliers not paying appropriate social insurance. More broadly, corrective actions in nonconformances related to wages and benefits include documentation of pay stubs, communication to workers, and records of employer contributions to worker insurance schemes. In 2019, we continued to work directly with suppliers that had nonconformances related to social insurance to help them fully understand our requirements and resolve the issues.
Hazardous substances	72%	72%	Suppliers must properly label and store all hazardous substances in their facilities. Corrective actions may include development of inventory management systems, a list of approved chemicals, use of auditor-verified vendors, and education on legal restrictions related to material use. During 2019, we continued to work directly with suppliers that had nonconformances in this area to help them fully understand our requirements and resolve the issues. We also addressed issues such as process chemicals management through HP and industry capability-building programs, including an environment, health, and safety summit we hosted in China, as well as our collaboration with the Clean Electronics Production Network. See Process chemicals .
Dormitory and canteen	68%	74%	Workers are to be provided with ready access to clean toilet facilities, potable water, and sanitary food preparation, storage, and eating facilities. Worker dormitories provided by the supplier or a labor agent are to be maintained clean and safe. Most corrective actions in this provision are straightforward, such as ensuring exit signs are properly illuminated, maintaining fire extinguishers in all appropriate areas, and having food samples available for quality and safety testing.

* Data is from initial audits and full re-audits of production suppliers conducted in 2017 and 2019. Due to our two-year audit cycle and changes to HP's supplier base, data typically does not represent the same supplier sites as the previous cycle.

** Percentage of sites with no major nonconformances identified.

*** The HP key performance indicator program measures the performance of HP production lines at participating supplier facilities, and not the overall performance of those facilities.

Rates of conformance of sites audited, 2017 and 2019 *

HP Supplier Code of Conduct section/provision	Rate of conformance of sites audited, 2017**	Rate of conformance of sites audited, 2019**
Labor	83%	84%
Freely chosen employment management systems	81%	80%
Risk of forced labor	96%	91%
Young worker protection management systems	83%	94%
Risk of child labor	100%	100%
Working hours	26%	22%
Wages and benefits	66%	62%
Humane treatment	96%	98%
Nondiscrimination management systems	89%	92%
Risk of discriminatory practices	98%	100%
Freedom of association	96%	98%
Health and safety	75%	78%
Occupational safety	62%	51%
Emergency preparedness	40%	52%
Occupational injury and illness	74%	78%
Industrial hygiene	85%	88%
Physically demanding work	89%	92%
Machine safeguarding	94%	97%
Dormitory and canteen	68%	74%
Health and safety communication	91%	91%
Environmental	85%	89%
Environmental permits and reporting	85%	95%
Pollution prevention and resource reduction	92%	92%
Hazardous substances	72%	72%
Wastewater and solid waste	94%	95%
Air emissions	91%	80%
Storm water management	68%	91%
Energy consumption and GHG emissions	92%	94%

HP Supplier Code of Conduct section/provision	Rate of conformance of sites audited, 2017**	Rate of conformance of sites audited, 2019**
Ethics	98%	98%
Business integrity	100%	98%
No improper advantage	98%	97%
Disclosure of information	98%	94%
Intellectual property	100%	100%
Fair business, advertising, and competition	96%	98%
Protection of identity and nonretaliation	98%	98%
Responsible sourcing of minerals	96%	98%
Privacy	100%	98%
Management systems	92%	93%
Company commitment	92%	98%
Management accountability and responsibility	91%	92%
Legal and customer requirements	89%	86%
Risk assessment and risk management	94%	94%
Performance objectives with implementation plan and measures	89%	91%
Training	96%	95%
Communication	96%	97%
Worker feedback and participation	100%	97%
Audits and assessments	92%	92%
Corrective action process	92%	97%
Documentation and records	92%	97%
Supplier responsibility	77%	75%

* Data is from initial audits and full re-audits of production suppliers conducted in 2017 and 2019. Due to our two-year audit cycle and changes to HP's supplier base, data typically does not represent the same supplier sites as the previous cycle.

** Percentage of sites with no major nonconformances identified. 2017 data refers to the RBA Code of Conduct Audit Protocol 5.0. 2019 data refers to the RBA Code of Conduct Audit Protocol 6.0.

Data

Supply chain responsibility*

	2016	2017	2018	2019
Suppliers publishing sustainability reports using the GRI framework [% of production supplier spend]	86%	82%	88%	91%
Capability building				
Number of capability-building programs	14	15	10	7
Workers reached through capability-building programs**	45,700	119,900	12,000	11,000
Workers' rights				
Suppliers' employees working fewer than 60 hours per week on average***	89%	92%	94%	95%
Suppliers' employees receiving at least one day of rest each seven-day workweek***	96%	98%	98%	99%
Suppliers in China with student workers representing 20% or less of total employees***	98%	100%	99%	99%
Immediate priority audit findings (immediate action required) related to the ILO Declaration on Fundamental Principles and Rights at Work: freedom of association; forced, bonded, or indentured labor; child labor; or discrimination†	2	2	6	0
Immediate priority audit findings (immediate action required) related to occupational safety, emergency preparedness, or industrial hygiene†	2	0	2	6
Workers at sites audited†† [total]	96,400	162,300	244,700	198,300
Sustainability audits and other assessments [total]				
Initial audits	58	47	17	103
Follow-up audits	67	39	45	41
Full re-audits	30	30	55	43
Assessments	29	34	43	60
Sustainability Scorecard average score – Commodity suppliers	78%	85%	87%	86%
Sustainability Scorecard average score – Final assembly suppliers	72%	84%	88%	83%
Rates of conformance of sites audited, 2017 and 2019 (see page 49)				

*Data in this table for 2018 is specific to production suppliers, except the following included in Sustainability audits and other assessments: five initial audits, two full re-audits, three onboarding assessments, and seven supplier assessments of nonproduction suppliers; and four assessments of product transportation suppliers. Data in this table for 2019 is specific to production suppliers, except the following included in Sustainability audits and other assessments: 64 initial audits of nonproduction suppliers and 17 initial audits of product transportation suppliers. Data is not included in this table for product reuse and recycling vendors. See [page 81](#) for information about our programs and performance in that area.

**With the exception of train-the-trainer programs, HP only accounts for workers directly reached by our capability-building programs. Number of workers reached each year depends on the programs executed; some programs address issues broadly across suppliers and workers; other programs focus more narrowly on individual supplier sites or specific vulnerable worker groups.

***Based on production-line workers at final assembly and select commodity sites participating in the HP KPI program. We continue to expand the list of suppliers in the KPI program based on business risk, country risk, and identified nonconformances.

† See [page 47](#) for detail.

†† These totals are the number of workers as of the date of the site visit according to production supplier initial audit and full re-audit reports. HP's UK Modern Slavery Act (MSA) Transparency Statement for 2017 reported that we had identified 199,432 workers based on audits conducted at many of our suppliers' sites. HP learned, after finalizing its UK MSA, that the reported data overstated the number of workers by inadvertently including audit reports from 2016 in addition to 2017. In 2017, there were 162,300 workers at the sites for which we are reporting audit performance information in this report.

HP's spend with U.S. diverse suppliers, 2019*	\$ millions	% of qualified spend
Small businesses	\$322	25.7%
Minority-owned businesses**	\$78	6.0%
Women-owned businesses**	\$45	3.5%
Veteran-owned businesses, service-disabled veteran-owned businesses, HUBZone businesses, and others***	\$18	1.5%

*Data is for the 12 months ending September 30 of the year noted. Figures are for purchases in the United States and Puerto Rico from U.S.-based businesses. 2019 data reflects a refined calculation methodology. Data for prior years are not comparable, and therefore not included in this report.

**Suppliers are categorized as minority-owned or women-owned, not both. These categories include all sizes of businesses.

***These categories include all sizes of businesses.

Environmental impact[#]

	2015	2016	2017	2018	2019
First-tier production supplier and product transportation-related GHG emissions intensity^{*,**} [tonnes CO ₂ e/\$ million of HP net revenue]	76.7	79.4	80.1	76.4	
Production supplier GHG emissions^{***} [tonnes CO ₂ e]					
Scope 1 and Scope 2 emissions ^{**}	3,000,000	2,600,000	2,800,000	2,900,000	
Scope 3 emissions ^{***,****}	9,800,000	11,500,000	7,800,000	13,200,000	
Production suppliers with GHG emissions reduction-related goals [% of spend]	93%	94%	94%	94%	
Product transportation GHG emissions[†] [tonnes CO ₂ e]	1,280,000	1,200,000	1,250,000	1,300,000	1,460,000
Road (includes rail)	330,000	350,000	350,000	410,000	400,000
Ocean	200,000	150,000	160,000	180,000	90,000
Air	750,000	700,000	740,000	710,000	970,000
Nonproduction supplier Scope 1 and Scope 2 GHG emissions^{**,**††} [tonnes CO ₂ e]	240,000	270,000	230,000	210,000	
Production supplier energy use^{†††} [MWh]		6,400,000	5,400,000	5,800,000	
Production supplier renewable energy use [% of total energy use]		15%	22%	23%	
Production suppliers that reported using renewable energy^{**} [% of spend]	47%	54%	77%	78%	
Production supplier water withdrawal for use^{**,††††} [cubic meters]	44,000,000	31,000,000	28,000,000	30,000,000	
Production suppliers with water-related goals [% of spend]	80%	80%	92%	93%	
Production supplier nonhazardous waste generation^{**^} [tonnes]	121,000	121,000	123,000	144,000	
Production supplier hazardous waste generation^{**^} [tonnes]	495,000	51,000	48,000	56,000	
Production suppliers with waste-related goals [% of spend]	57%	62%	59%	72%	

[#] In some cases, data from prior years is updated to reflect improved data; for example, revised supplier information.

^{*} Intensity is calculated as the portion of first-tier production and product transportation suppliers' reported GHG emissions attributable to HP divided by HP's annual revenue. This method normalizes performance based on business productivity. Intensity is reported as a three-year rolling average to decrease the impact of variance year over year and highlight longer-term trends. Production supplier GHG emissions include Scope 1 and Scope 2. Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years uses HP revenue and spend associated with the business units that are now a part of HP Inc. The year 2018 is the most recent for which data is available.

^{**} We believe that variation in this data reflects both changes in actual performance and inconsistency in reporting practices.

^{***} Emissions are calculated based on suppliers' reported emissions and their dollar volume of HP's business compared to their total revenue. The majority of these companies report on a calendar-year basis. Data reported here reflects extrapolation to 100% of first-tier production suppliers. Data collected for 2018 represented 95% of HP production spend. The World Resources Institute defines Scope 1, 2, and 3 GHG emissions in its [Greenhouse Gas Protocol](#). This data differs from the product life cycle assessment-based estimates for materials extraction through manufacturing presented on [page 23](#), which are based on a different calculation methodology and use a combination of HP-specific and industry data. Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years uses production spend associated with the business units that are now a part of HP Inc. The year 2018 is the most recent for which data is available.

^{****} Suppliers may not report all Scope 3 categories. The number of categories reported by suppliers and the completeness of reporting varies year-to-year.

[†] The figures for product transportation GHG emissions are based on data reported by product transportation suppliers that HP contracted to deliver products (for 2015, before the split of Hewlett-Packard Company, calculations are adjusted to reflect emissions attributable to HP's current business units). They may differ from the product life cycle assessment-based estimates presented on [page 23](#), which are based on a different calculation methodology, use a combination of HP-specific and industry data, and include additional upstream and downstream transportation related to the company's products.

^{††} Emissions are estimated based on suppliers' emissions and their dollar volume of HP business compared to their total revenue. The majority of these companies report on a calendar-year basis. The year 2018 is the most recent for which data is available. Data reported here reflects extrapolation to 100% of strategic nonproduction suppliers. Data collected for 2018 represented 46% of HP nonproduction spend. Accounting for the separation of Hewlett-Packard Company on November 1, 2015, the calculation uses nonproduction spend associated with the business units that are now part of HP Inc. In cases where spend for 2015 cannot be disaggregated, 2016 spend is used as an estimate.

^{†††} Total energy includes purchased energy (electricity, etc.) and generated energy (fuel use, etc.). Energy use data is calculated based on suppliers' reported energy use and their dollar volume of HP's business compared to their total revenue. Data reported here reflects extrapolation to 100% of first-tier production suppliers. Data collected for 2018 represented 94% of HP production spend.

^{††††} This metric reports the amount of water withdrawn by suppliers, not the amount consumed by our multi-tier supply chain as reported in our water footprint on [page 24](#). Because water withdrawn can also be returned, this footprint is inherently larger. Refers to first-tier suppliers for manufacturing, materials, and components. Withdrawal is estimated based on suppliers' reported water withdrawal and their dollar volume of HP business compared to their total revenue. The majority of these companies report on a calendar-year basis. The year 2018 is the most recent for which data is available. Data reported here reflects extrapolation to 100% of first-tier production suppliers. Data collected for 2018 represented 91% of HP production spend. Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years uses production spend associated with the business units that are now a part of HP Inc.

[^] Waste data is estimated based on suppliers' waste data and their dollar volume of HP business compared to their total revenue. The majority of these companies report on a calendar-year basis. The year 2018 is the most recent for which data is available. Data reported here reflects extrapolation to 100% of first-tier production suppliers. Data collected for 2018 represented 74% of HP production spend for nonhazardous waste and 65% for hazardous waste. Taking into account the separation of Hewlett-Packard Company on November 1, 2015, calculation for all years uses production spend associated with the business units that are now a part of HP Inc.



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Our employees

Every day, HP's approximately 56,000 employees' worldwide shape our future and bring our vision to life. They power our innovation, contributing unique perspectives and a growth mindset to create breakthrough technologies and transformative solutions. We are committed to fostering a diverse and inclusive workplace that attracts and retains exceptional talent. Through ongoing [employee development](#), [comprehensive compensation and benefits](#), and a focus on [health and safety](#) and [employee wellbeing](#), we help our employees succeed so they can do their best work, every single day.

Diversity and inclusion

Innovation at HP springs from the diverse perspectives, knowledge, and experiences of our employees. We strive to create an inclusive workplace where people can bring their whole selves to work. Diverse teams create transformative solutions that better serve our customers and advance how the world works and lives. To find and keep the very best people, we embrace and celebrate our differences, and take a stand for equity and belonging.

Our commitment extends beyond our own employees to our relationships with [suppliers](#), partners, and communities worldwide. As part of our purpose to connect people everywhere to the power of technology, we also address [accessibility and aging challenges](#) through our products and services. Respecting [human rights](#) is a core value at HP, and we are uncompromising about the rights, freedom, and equity to which everyone is entitled.

A strong policy framework supports our efforts and includes our [Nondiscrimination Policy](#), [Harassment-Free Work Environment Policy](#), and [Open Door Policy](#).

We also collaborate and partner externally. For example, we have [signed an agreement with UN Women](#) to advance education, entrepreneurship, and digital learning for

women and girls in five priority countries: Democratic Republic of Congo, Morocco, Nigeria, Senegal, and South Africa. We also support the Human Rights Campaign's [Business Coalition for the Equality Act](#) related to LGBTQ+ workplace rights, as well as the UN Human Rights Office [Standards of Conduct for Business](#).

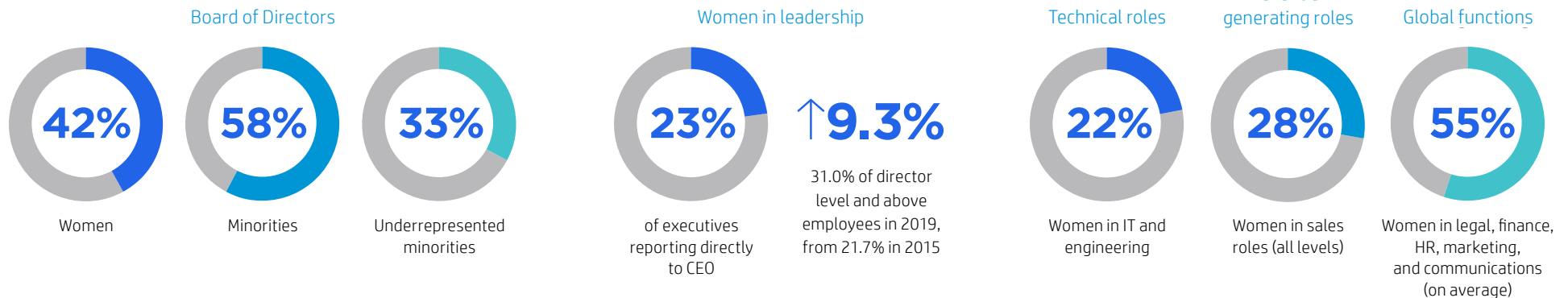
In 2019, HP received recognition from *Working Mother*, *Minority Engineer*, *U.S. Veterans*, and AnitaB.org, in addition to more than 20 other external organizations. [Learn more](#) about recent awards and recognitions.

SCORE IN THE DISABILITY EQUALITY INDEX

100%

4th consecutive year

HP demographics*



* Board of Directors data as of November 1, 2019. Other data as of October 31, 2019. Employee data refers to regular full-time and part-time employees.

Our commitment starts at the top

HP's [Board of Directors](#) is the most diverse of any U.S. technology company. We are also among the top technology companies for women in executive positions. Women represent 30.6% of the company's full-time vice president positions, up from 18.3% in 2015,² and 30.9% of full-time directors, compared to 22.7% in 2015.^{3,4}

See detailed employee demographics [data](#).

Our Global Diversity Advisory Board (GDAB) is composed of leaders from across our regions, functions, and businesses. It helps influence and drive our strategy and holds our leaders accountable to action. In 2019, the GDAB engaged with stakeholders across business groups and markets to establish strategic priorities and build teams at the business and local levels to accelerate progress.

Diversity and inclusion is a key part of leadership discussions, and is a standard item on leadership quarterly business reviews. Our executive leadership team members are evaluated on their actions to support diversity and inclusion.

We are committed to increasing representation of women overall, as well as in leadership and technical roles globally, and of minorities in the United States. In 2019, women represented 53% of employees participating in HP's Building Innovative Leaders program.

We are also expanding our efforts related to representation of employees with disabilities. In 2016, HP committed to hiring 150 veterans or military spouses over the course of five years. Through 2019, we hired 215 veterans, exceeding our target by 43%.

As part of the [CEO Action for Diversity & Inclusion](#), the largest CEO-driven business commitment to advance diversity and inclusion in the workplace, in February 2020 our new CEO repeated the pledge already taken by his predecessor on behalf of HP.

Embedding diversity and inclusion across HP

Our Belong, Innovate, and Grow (BIG) strategy embeds diversity and inclusion across all parts of our businesses and functions, and into talent acquisition and development, culture, mentoring, training, and events. HP has seen a positive trend in employee survey results related to diversity and belonging (see data opposite).

As of October 31, 2019, we have 113 Business Impact Networks (BINs) in 29 countries, open to all employees and representing the following constituencies: Black/African American, Disabilities, Hispanic/Latino, LGBTQ+, Multicultural,

Employee survey results* Diversity and inclusion

I feel HP values diversity



I can be myself at work



I feel a sense of belonging at work



■ 2017 ■ 2018 ■ 2019

* Data refers to the percentage of HP 2017, 2018, and 2019 Voice Insight Action (VIA) employee survey respondents who strongly agreed or agreed with each statement.

Pan Asian, Veterans, Women, and Early Career. In addition to leading many community outreach programs, BINs promote diversity in pipeline development, local hiring, talent programs, and mentoring. They leverage our global diversity strategy to execute campaigns such as International

Women's Week and ALLIES@HP, a workshop for LGBTQ+ allies that launched as part of our HP Pride Month initiatives.

Overcoming unconscious bias

We want HP to be the employer of choice among women and underrepresented groups. Our [Reinvent Mindsets video series](#) shines a light on unconscious bias and builds empathy by presenting scenarios through the lens of women and underrepresented groups.

Building on the work we did in 2018 to address unconscious bias, we integrated our training on this topic into our Belong at HP development and sponsorship program. A 3.5-hour facilitator-led workshop focuses on promoting inclusive mindsets and behaviors, including in our recruitment processes. In 2019, nearly 1,000 employees attended events run by the Belong at HP program. During the year, 63.3% of U.S. hires were from underrepresented groups, including women, U.S. ethnicities, veterans, and people with disabilities (compared to 57.2% in 2018).

Raising standards and practices across the marketing industry

We encourage our suppliers and partners to prioritize diversity and inclusion within their own operations. In 2016, we challenged our top five U.S.-based marketing agencies to significantly increase the number of women and U.S. minorities in top creative and strategic planning roles on HP account

Diversity at HP's top five U.S.-based marketing agencies

percentage of total

	2017	2018	2019
Overall HP account team			
Women	61%	62%	79%
Underrepresented minorities	24%	36%	44%
Overall HP account senior roles*			
Women	51%	55%	55%
Underrepresented minorities	19%	28%	20%
Non account resources			
Women	45%	58%	57%
Underrepresented minorities	33%	36%	29%

* Senior roles are defined as: creative directors and above (creative department); chief strategy officer, heads of account planning, group planning directors (planning department); senior account directors and above (account management); group executive producers and above (production department); department heads and above (all other departments).

teams. During 2019, we saw strong improvements compared to 2018 for women and underrepresented minorities working on HP account teams.

Moving forward, we will continue to challenge our marketing agency partners to identify underrepresented groups in order to set specific goals, plans, and measurement that help increase diverse creative talent across HP account and senior leadership roles.

Promoting diversity with our legal partners

Our legal team is also focused on improving diversity among our U.S. law firm partners and withholds up to 10% of all invoicing of those partners who fail to meet or exceed diverse minimal staffing on work for us.

Law firms are asked to staff at least one underrepresented minority or one woman partner and one racially/ethnically diverse attorney, each performing at least 10% of the billable hours on HP business. Firms are required to track and share data quarterly. As of the end of 2019, 94% of firms met the requirements, up from 46% in early 2017 when this initiative was launched. Women represented 43% of team members—up from 23% in early 2017.

The number of underrepresented minority partners increased to 30% at the end of 2019—up from 21% in early 2017. Overall, 84% of HP's outside counsel teams were led by a diverse partner at the end of 2019—up from 73% the prior year.

In our communities

We continue to engage with several leading industry organizations and conferences that promote women, minority, veteran and LGBTQ+ representation and causes in technology, including Professional Business Women of California, Grace Hopper Celebration (United States and India), the European Women in Technology Conference, Out & Equal, and others. During 2019, we

became one of the founding members of Qorporate, a program for companies committed to improving opportunities for LGBTQ+ people and other underrepresented groups throughout the global tech industry. Our people often provide thought leadership by delivering keynotes, leading workshops, and participating on panels.

As part of our [Women in Technology](#) program, in 2019 HP jointly hosted a roundtable discussion in the UK that drew upon an [independent HP-commissioned study](#) about why the tech industry struggles to attract women and how this can be improved. The event was attended by representatives from government, business, and media.

To inspire more girls and minority students to consider science, technology, engineering, and mathematics (STEM) careers, we grew our participation in the [Hour of Code](#) initiative, and in collaboration with [Girl Rising](#) and [UN Women](#), created access to technology-enabled learning opportunities for women and girls across multiple priority countries. Additionally, we maintained our partnerships with organizations such as AnitaB.org, Black ComputeHER, Black Girls Code, Breakline, and the YWCA's Curated Pathways to Innovation.

Our [HBCU \(Historically Black Colleges and Universities\) Business Challenge](#) is a business school competition, with the National HBCU Business Deans Roundtable and the [National Society of Black Engineers \(NSBE\)](#). This provides students the

opportunity to solve business problems, gain industry experience, and earn technology products. In 2019, 30 schools participated, including the winning team, from North Carolina Central University. Since 2017 and through February 2020, we've brought on 10 summer interns from the HBCU challenge, four of whom took on full-time positions at HP.

HP and the Information Technology Senior Management Forum (ITSMF) have continued a partnership to train and develop IT leaders in ITSMF's annual Management Academy. To date, we have sponsored 12 HP employees in this program. Seven have graduated, two will graduate in June 2020, and three will be part of the 2021 graduating class. Eighty-eight percent have moved to a new role or been promoted into management at HP.

HP re-established our partnership with the NSBE in 2019 as a member of its Board of Corporate Affiliates. We sent several representatives to the 2019 NSBE Fall Conference to engage with top talent.

Recognizing that traditional hiring practices can screen out qualified and talented applicants with autism, in 2019 we launched our Spectrum Success program partnership with Vocational Rehabilitation and PROVAIL, focusing on recruitment, hiring, and retention. Of the five participants during the first year, two accepted internships. [Watch video.](#)

Employee engagement

During the year, we continued to drive engagement in three focus areas:

- Improving the way we work: Enhancing tools and processes to increase employee productivity and effectiveness.
- Developing our people: Bolstering learning and development programs that maximize career growth opportunities.
- Building our future: Driving innovation, agility, and employee alignment with HP's strategy and direction.

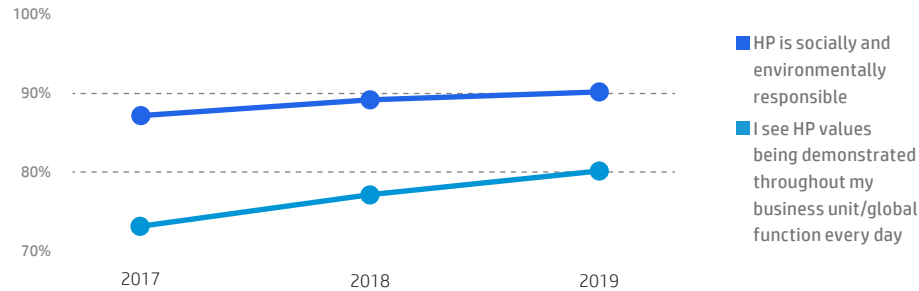
We regularly collect feedback to better understand and improve the employee experience and identify opportunities to continually strengthen our culture. In 2019, 94% of employees participated in our annual Voice Insight Action (VIA) survey. Overall, employee engagement was at 75%, up from 73% in 2018 and 67% in 2017, reflecting improvements in all regions.

If improved, the following dimensions have the greatest opportunity to positively affect engagement at HP:

- Tools and processes—60% favorable
- Performance-driven focus—63% favorable
- Agility—68% favorable

These dimensions align closely to our reinvention journey.

Employee survey results*
Sustainable Impact
percentage of employees



* Data refers to the percentage of HP 2017 VIA, 2018 VIA, and 2019 VIA employee survey respondents who strongly agreed or agreed with each statement.

Employee survey results*
Areas of greatest improvement

Dimension Category*	Survey Item	2019	Change from 2018
Quality	We do a good job of balancing schedules, costs, and the quality of our products and services.	71%	+4
Employer of Choice	I feel HP values diversity (e.g., gender, race, ethnicity, language, religion, age, sexual orientation, gender identity and expression, disability, ideas, and perspectives).	92%	+4
Growth Mindset	My business unit/global function actively supports the learning and development of its employees.	77%	+4
Integrity at HP	I can report an instance of unethical conduct without fear of retribution from anyone.	87%	+4

* Data refers to the percentage of HP 2019 VIA employee survey respondents who strongly agreed or agreed with each statement.

Employee development

Human capital development underpins our efforts to reinvent and regenerate HP, creating the best place for employees to grow and develop. Fueled by the talent, diversity, and drive of our employees, we invest in their career growth and are passionate about supporting an inclusive culture and practicing a growth mindset on which our success depends.

HP is a company of high performers. Our employees are constantly learning, exploring opportunities, driving innovation, and creating new value. Taking risks and finding opportunities to grow daily is critical. In our 2019 VIA survey, 81% of employees stated that their team shared ideas and learned from failure.⁵

Personalized development

Employees participate in a wide range of development, including face-to-face, virtual, social and self-directed learning, mentoring, coaching, and external development. We offer a variety of collaborative learning experiences, connection to a network of subject matter experts, and a social learning platform where employees share their own insights.

In 2019, 98.4% of employees participated in learning and development activities. Employees completed 1.52 million formal learning sessions, which totaled 1.60 million hours, equivalent to 29 hours per employee.

HP continues to invest in new learning systems, and in line with emerging trends, we increasingly offer tools for employees to shape their own learning. Our focus is to provide personalized learning plans for every HP employee and resources to develop skills aligned to business needs, personal interests, and career goals. We are investing in new development applications that offer personalized digital and social learning content, to enable employees to set performance goals, track progress, and gain regular feedback and recognition.

Leadership development and talent

We use a multi-tiered leadership curriculum to develop leadership skills across all levels of HP. Our leadership programs combine self-directed learning with experiential workshops to enable shared learning and networking.

We offer development to 100% of people managers at all levels of leadership, from newly promoted managers through senior executives. During 2019, we delivered more than 250 leadership development experiences to over 3,000 people managers.

Our strategy is to develop the leadership pipeline by investing in emerging and underrepresented talent through formal programs, mentoring, and sponsorship. Our leadership development priorities also focus on team development, the future working environment, new business models, and opportunities to deepen inclusion and growth mindset practices.

For example, HP Catalyst is an 18-month development experience for emerging talent to strengthen leadership capabilities through monthly peer mentoring, coaching, and guidance from senior sponsors. Fifty-seven percent of participants have been promoted or moved into new roles through the program. The HP Leadership Experience develops an external focus in emerging future senior leaders through a six-month blended development experience working directly with the HP Executive Leadership Team and external experts on business strategy, scenario planning, immersion exercises, and authentic leadership.

Digital skills

As technology transforms the world, it is essential to accelerate future skills development in areas such as artificial intelligence, machine learning, design thinking, creativity, and problem-solving. We continue to develop employees with job-specific skills in critical roles, including

engineering, sales, customer service, and supply chain, while also building a digital curriculum across HP to fuel our long legacy of product development and technology innovation. In 2020, we will launch a digital literacy campaign along with deeper certification programs. Employees can assess their digital knowledge and complete personal learning plans with a digital fitness app, to accelerate HP's digital transformation initiative.

Career pathways

In 2019, we launched our Power Your Possible platform to help employees identify new learning and pathways to support their career plans and enable future job opportunities. We also launched an app during the first part of 2020 to digitize the onboarding process and welcome and support new employees more effectively. It includes targeted content for students and graduates.

We encourage employees to continue to develop skills internally. Additionally, the HP Degree Assistance Program provides funding to more than 500 employees worldwide each year to invest in and transform their careers through higher education degrees.

In 2019, 33% of job vacancies at HP were filled by our own employees, while 100% of senior executive roles were filled by internal leaders.

We are working to make the connection between performance management, talent reviews, and career development clear to managers and employees, and continue enhancing our managers' capabilities to enable and empower all employees. We advocate that employees own their careers and have access to a wide range of development opportunities.

Performance management and feedback

HP continues to develop a strong feedback-based approach to performance management through an annual review cycle and ongoing discussions between individual employees and their managers. During 2019, managers provided performance input to 99% of eligible employees. All employees receive multidimensional and objective-based performance evaluations. These interactions are reflected in employees' individual annual development plans, and result in ongoing development experiences, stretch projects, and advancement to new roles. In our 2019 VIA survey, 84% of employees stated they believe they are having check-in conversations with their manager frequently enough to meet their needs.⁶ This demonstrates the commitment HP managers make to connect with employees regularly.

People development strategy

As we look to 2020, we will continue to make significant investments in the development of employees, leaders, and emerging talent, with a specific focus on:

- Developing a strong pipeline of innovative and inclusive leaders.
- Supporting career advancement for employees across all regions.
- Building on our high-performance team-based culture.
- Developing an organization that delivers on strategic priorities, inspires team performance, and enables employees to innovate.
- Implementing our digital skills strategy.

We will measure our impact through employee engagement, retention, internal employee promotion and progress, speed to fill internal future digital skill gaps, customer innovation, and business improvement.

Compensation and benefits

HP offers a comprehensive Total Rewards package that is both performance based and market competitive. Total Rewards include salaries, bonuses, incentive programs, and a range of benefits designed to meet our employees' diverse needs while enhancing their wellbeing and that of their families.

Valuing and rewarding employees drives higher engagement and better performance and helps us attract and retain top talent. Compensation and benefits are reviewed periodically for market competitiveness.

HP sponsors a [global wellness program](#) designed to enhance physical, financial, and emotional wellbeing for all of our employees around the world. Other benefit programs vary by country to reflect local market practice and employee needs. Depending on location, these may include:

- Retirement and savings plans
- Healthcare benefits
- Wellness programs
- Insurance protections (e.g., life and disability)
- Time-off programs (vacation, holidays, parental leaves, etc.)
- Discount programs
- Flexible work arrangements
- Stock purchase plan
- Other benefits

Executive compensation

The HR and Compensation Committee discharges the HP Board of Directors responsibilities related to the compensation of our executives and directors and provides general oversight of our compensation structure, including our equity compensation plans and benefits programs. See page 29 of the [HP 2020 Proxy Statement](#) for detail.

HP is committed to pay equity

Treating HP employees fairly and equitably is core to who we are. It also benefits our business, by helping HP attract and retain brilliant people in a fiercely competitive market for talent. We believe people should be paid for what they do and how they do it, regardless of their gender, race, or other personal characteristics. [Learn more about our approach and performance in 2019.](#)

In accordance with U.S. Securities and Exchange Commission (SEC) rules, we recently reported our CEO pay ratio for fiscal year 2019. Our CEO's annual total compensation for fiscal 2019 was \$19,317,972.⁷ Our median employee's annual total compensation was \$75,013, resulting in a CEO pay ratio of 258:1. For more detail, see page 71 of the [HP 2020 Proxy Statement](#).

Health and safety

We strive to keep our employees safe and healthy so they can do their best work. Our environmental, health, and safety (EHS)

leadership team uses our global injury and illness reporting system to assess trends regionally and worldwide as a part of quarterly reviews. We have internal targets to keep lost workday case rates below 0.5 and recordable incidence rates under 1.0 (see [definitions](#) of these rates). Managers assess progress against those targets annually.

Supervisors of employees injured at work are required to complete injury and illness investigations for all reportable incidents and work with EHS points of contact to assess serious or complex cases.

Worldwide, we maintained below-average accident and injury rates in 2019, with a lost workday case rate of 0.08 and a recordable incidence rate of 0.21,⁸ compared to 2018 average rates of 0.09 and 0.23, respectively, in the U.S. Computer and Peripheral Equipment Manufacturing industry (NAICS Code 33411). Our manufacturing facilities continue to represent our most significant health and safety risks, due to higher potential exposure to chemicals and machinery related hazards. Managing and reducing risks at these plants remains a focus, and injury rates continue to be low.

See more information about our [environmental, health, and safety management system](#).

See [Data](#).

Wellbeing

The physical health, financial wellbeing, and life balance of our employees is vital to HP's success. Our Well Beyond employee wellbeing program is designed to serve the needs of our evolving workforce and culture.

Throughout the year, we encourage healthy behaviors through regular communications, voluntary progress tracking, fun challenges, and incentives. Depending on location, U.S. employees and spouses/domestic partners can each receive incentives of up to \$550 a year for activities such as completing a wellness assessment or making a tobacco-free pledge. As of October 2019, 71.5% of eligible employees in the United States, and 55.1% worldwide, had joined the Well Beyond program.



HP was honored in 2019 as one of America's 100 healthiest employers, assessed for its corporate vision, culture and engagement, learning, expertise, metrics, and technology.

Highlights from 2019 included:

- **Physical health:** We recorded 25 billion employee steps through our Well Beyond platform worldwide, equivalent to more than 12 million miles. As part of our Global Wellness Challenge, we created a Global Community Cookbook, which included pictures submitted from employees around the world.
- **Financial wellness:** More than 2,000 employees took part in Financial Wellness Month at our U.S. sites. We held a live panel discussion with an award-winning personal finance author, HP's Chief Human Resources Officer Tracy Keogh, and a senior vice president from Fidelity Investments. We also offered follow-up and on-demand workshops as well as targeted financial newsletters.
- **Life balance:** To promote healthy life balance, we offered a webinar highlighting the latest sleep science. We also rolled out a digital sleep therapy tool to employees in Singapore, Spain, and the United States. Employees who participated saw an average sleep increase of 3.5 hours per week.

Our facilities

At our 174 sites in 60 countries around the world, we are taking action to reduce our greenhouse gas (GHG) emissions, energy and water consumption, and waste generation. While GHG emissions associated with HP's operations represent just 1% of our overall [carbon footprint](#), it is the area where we have the greatest control and influence, and therefore the greatest ability to make immediate impact. By modeling sustainable operations, we also demonstrate our values in action, and highlight industry-leading practices as an example to employees, customers, suppliers, visitors, and others.

Environmental, health, and safety management

HP owns and leases facilities around the world. Our [Environmental, Health, and Safety \(EHS\) Policy](#) and EHS management system (which has been implemented in all of HP's operational sites) help manage our environmental impact, improve worker safety, verify progress toward our goals and adherence to internal standards, and document compliance with all applicable laws and regulations. We investigate all allegations that our facilities failed to comply

with applicable laws and take corrective action when needed.

Every year, we perform risk assessments at all of our chemical-intensive high- and medium-risk locations (including all manufacturing sites), as well as at low-risk sites when required by law. Internal audits are conducted annually at complex locations,¹ and at least once every three years at high-risk sites. During 2019, all nine HP manufacturing sites were audited through either on-site visits by HP EHS auditors or self-audits. Management reviews the findings of all audits, and any deficiencies are identified and action plans are developed.

When feasible, we pursue environmental management and green building certifications at HP owned and leased facilities worldwide. As of the end of 2019, 21 facilities (including all HP manufacturing sites) were certified to ISO 14001 (the most recent version), with 17 as part of our global ISO 14001 certificate. As of the end of 2019, seven facilities (including 29% of HP manufacturing sites) were certified to ISO 45001/OHSAS 18001 for occupational health and safety.

As of 2019, 18 sites had achieved LEED certification or local equivalent; two locations had achieved SITES certification,

HP locations with green building certifications



● SITES for landscaping ● LEED/BREEAM for building
● TRUE zero waste

and one site had achieved TRUE certification.² All new build-outs target the LEED v4 Gold Standard or a local equivalent such as BREEAM as the basis for design. In support of these objectives, HP has developed the HP Green and Smart Construction Playbook for project managers. This provides guidance on an integrated design process that covers key principles ranging from energy use, indoor air quality, water consumption, and waste recycling, to smart building technology and the user experience.

To drive improvement in health and safety, our EHS management system aligns with the American National Standards Institute ANSI Z10 standard and the International Organization for Standardization (ISO) 14001 standard. As part of our management system process for improving health and safety, we have procedures for

reviewing workplace hazards and employee injuries. Using this system, we identify the root cause of a hazard and why an injury occurred, and implement solutions to address the core issues. Additionally, all locations must proactively implement company-wide health and safety standards. These specify that any new equipment and chemicals, along with any changes to the work environment, are reviewed for safety and environmental issues, and any issues addressed accordingly.

About our operational data

All environmental data reported in this section refers to HP operations through October 31, 2019. At that time, we owned or leased 174 sites in 60 countries. HP directly tracked data for 2019 from invoices and other documents representing 92% of total electricity use, 86% of total natural gas use, 88% of total water consumption, and 100% of total hazardous waste. HP also directly tracked data from invoices and other documents for 100% of nonhazardous waste from 25 of our largest sites.³

All HP facilities have assigned technical EHS personnel, and our global EHS team provides guidance and oversight. We regularly talk to our employees about relevant policies, processes, and regulatory compliance. In 2019, nearly 4,300 employees took part in 227 instructor-led courses and 17,000 enrolled in web-based EHS training.

Promoting a culture of environmental responsibility

We recognize the vital contribution our employees worldwide make to improving our environmental performance and to supporting corporate efforts to tackle global issues such as plastic waste.

Employee engagement initiatives enable HP's global workforce to directly contribute to our Sustainable Impact goals and vision. More than 2,000 HP employees from 43 sites took part in the Northwest Earth Institute EcoChallenge, which invites people to take up a three-week personal sustainability challenge. Out of more than 800 teams worldwide (from HP and other organizations), our sites in India, Malaysia, Poland, and Puerto Rico earned the top spots in the competition. Around 1,500 HP employees and their families volunteered for shoreline cleanup events at 27 sites to support World Oceans Day, World Environment Day, and HP Foundation's

40 Days of Doing Good campaign. Over 9 tonnes of trash were collected. We plan to continue this initiative annually.

On Earth Day and World Environment Day, HP employees held events at 53 sites worldwide, with a focus on decreasing single-use plastics and promoting promoting our #ReinventReuse campaign. Employees hosted on-site education booths and pledged to swap out single-use plastic in favour of reusables. The campaign generated 25,000 pledges and interactions on Yammer (HP's internal social site), and employees purchased and pledged to use over 6,000 reusable water bottles. In collaboration with our on-site cafeteria and catering vendors, we are also working to offer more reusable options for HP employees and events, with the goal of reducing waste from single-use plastic across the company. For example, we eliminated single-use plastic beverage containers and plastic straws and utensils at our Palo Alto, California, headquarters, and in India we eliminated 4 million single-use paper cups across all 15 sites.

Greenhouse gas emissions⁴

Most of our GHG emissions from operations are related to the energy used to power our facilities. To save money, drive progress toward our goals, and reduce our climate impacts, we:

- Aggressively reduce energy consumption through optimization and efficiency projects.
- Increase on-site generation of renewable power.
- Procure off-site renewable power, including renewable energy credits (RECs), utility supplier green power options, and power purchase agreements (PPAs).

Our global operations produced 215,800 tonnes of Scope 1 and Scope 2 CO₂e emissions during 2019, a 44% decrease compared to 2015, making progress toward

GREENHOUSE GAS EMISSIONS REDUCTION GOAL

Reduce Scope 1 and Scope 2 GHG emissions from global operations by 60% by 2025, compared to 2015

PROGRESS IN 2019

HP's global operations produced 215,800 tonnes of Scope 1 and Scope 2 CO₂e emissions

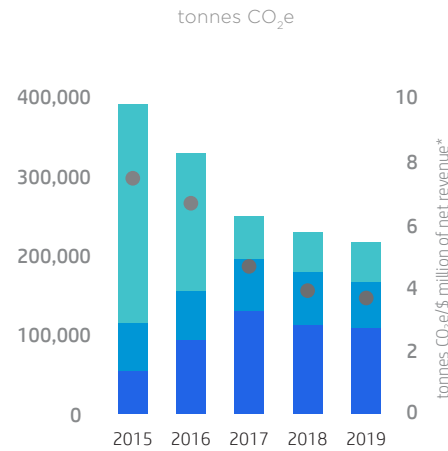
↓44%

less than our 2015 baseline

our science-based goal of a 60% reduction by 2025. GHG emissions intensity equaled 3.7 tonnes of CO₂e per \$ million of net revenue in 2019, a 5% reduction from 2018. The main drivers for GHG emissions reduction included decreases in energy use through efficiency projects and site consolidation, and renewable energy purchases.

Learn more about how we reduce GHG emissions across our value chain in [Supply chain responsibility: Environmental impact](#) and [Products and solutions](#).

Scope 1 and Scope 2 GHG emissions from operations



■ Americas
 ■ Europe, Middle East, and Africa
 ■ Asia Pacific and Japan
 ● GHG emissions intensity (tonnes CO₂e/\$ million of net revenue)*

* Historical emissions-intensity values were calculated using HP's annual revenue as characterized in financial reporting and Scope 1 and Scope 2 GHG emissions.

See our [full carbon footprint](#) for 2015–2019, [HP carbon accounting manual](#), and [CDP climate submissions](#).

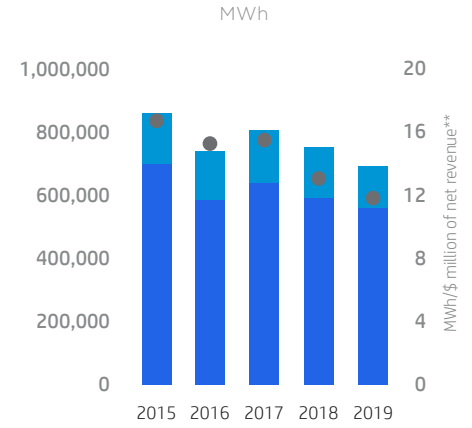
Energy efficiency

Energy use is a significant operating expense for HP and the main driver of our climate impact from operations. Our operations consumed 695,420 MWh of energy in 2019, 8% less than in 2018. Global electricity use decreased by 5% compared to 2018, due to the implementation of energy conservation projects and real estate consolidation. Energy intensity equaled 11.8 MWh per \$ million of net revenue in 2019, 9% less than in 2018.

During 2019, our main tactics to reduce energy use included a multi-site chiller plant optimization initiative, compressed air optimization, smart building initiatives, retro-commissioning, conversion to LED lighting, and lighting control upgrades. Our energy team collaborates with site operations teams that are replacing end-of-life equipment, to confirm that new high-efficiency equipment is being installed. All new construction will comply with the HP Green and Smart Construction Playbook and the LEED v4 Gold Standard.

In 2019, we implemented 29 projects at 18 locations, projected to save 8,700 MWh annually. Projects included multi-site chiller plant optimization to ensure that these large, energy-intensive air conditioning systems will continuously operate at peak

Energy use from operations



■ Stationary combustion (natural gas and diesel)
 ■ Electricity*
 ● Energy intensity (MWh/\$ million of net revenue)**

* Includes purchased electricity and electricity generated on-site.
 ** Historical energy-intensity values were calculated using HP's annual revenue as characterized in financial reporting and direct and indirect energy use.

efficiency. A smart building retrofit project at our Palo Alto, California, headquarters includes digital lighting controls, continuous retro-commissioning, and app-based climate controls. At our facility in Israel, more efficient chillers reduced associated energy use by 27% and the savings will pay for the upgraded equipment in less than two years.

For 2020, we are focusing on operational and efficiency upgrades for facility equipment replacement projects.

Renewable energy

By 2035, we aim to use 100% renewable electricity to power our global operations. In 2019, we procured and generated 240,398 MWh of renewable electricity globally (92% wind, 4% solar, and 4% hydro). Renewables accounted for 43% of our global electricity consumption, compared to 47% in 2018. Sources of renewable electricity in 2019 included RECs and IRECs (86.0%), direct purchases (12.4%), and renewable energy generated on-site and on-site PPAs (1.6%). Through these purchases, we once again achieved our objective to use 100% renewable electricity in the United States and helped to advance the global market for renewables.

RENEWABLE ELECTRICITY GOAL

Use 60% renewable electricity in our operations by 2025 and achieve 100% by 2035

PROGRESS IN 2019

HP's global operations procured and generated 240,398 MWh of renewable electricity and attributes, equivalent to

43%

of our global electricity consumption



on Green Power Partnership Top 30 Tech & Telecom list (ranking released October 21, 2019)

In 2019, as part of Palo Alto, California's CLEAN (Clean Local Energy Accessible Now) program, HP built a 1.4 MW solar power project (enough to offset the equivalent of 408 tonnes of CO₂e annually). All the available roof space at our Palo Alto headquarters is now solar-covered, including an 85-space car port. [Learn more.](#)

To help drive further action across our industry and the private sector, we are part of several global and national coalitions:

- In early 2019, we were among the first companies to sign the [Renewable Thermal Energy Buyers' Statement](#).
- In 2018, we became one of the largest green power users among technology and telecommunications partners within the [U.S. EPA's Green Power Partnership Program](#).
- In 2016, we joined [RE100](#) led by The Climate Group.
- In 2015, we signed the [Corporate Renewable Energy Buyers' Principles](#).

Business travel, commuting, and auto fleet

In 2019, employee business travel generated 70,000 tonnes of CO₂e emissions, flat from 2018. Commuting generated 200,000 tonnes of CO₂e emissions, also the same as the prior year. Our company fleet accounted for 33,300 tonnes of CO₂e emissions, an increase of 3% compared to 2018, due to a 10% increase of the overall fleet size.

By 2025, we aim to reduce GHG emissions from HP owned or leased auto fleet vehicles by 10%, compared to 2015.

To reduce emissions, we provide employees low impact travel choices through collaboration with travel providers, planning tools, and transportation alternatives such as the Zipcar vehicle share program at our headquarters in Palo Alto mentioned above. Car sharing decreases the need for employees to own a vehicle. HP is one of 10 founding members of EV100, a Climate Group initiative launched in 2017 to accelerate adoption of electric vehicles (EVs) worldwide. In support of this effort, we have committed to install EV infrastructure at all feasible sites worldwide by 2040. In 2019, we offered EV infrastructure at 32% of the 85 target sites, including Barcelona, Spain; Geneva, Switzerland; Palo Alto, California; and Houston, Texas. Wherever feasible, we require new building constructions and leases to include EV infrastructure. In

December 2019, we launched an EV fleet pilot at five locations across Spain, the Netherlands, Belgium, and France.

Water

Water consumption associated with our operations makes up 2% of our total water footprint. This is roughly evenly split between direct consumption as described in this section (mainly for use in buildings, cooling, landscaping, and production of high-purity water for manufacturing) and indirect consumption associated with generation of the electricity we use in our facilities.

We use the [World Resource Institute's Aqueduct Water Risk Atlas tool](#) to assess the risk of sites and prioritize water-stressed locations. To decrease and recycle water used at our facilities, we employ capital practices, sustainable landscaping, infrastructure upgrades, and greywater

WATER CONSUMPTION GOAL

Reduce potable water consumption in global operations by 15% by 2025, compared to 2015

PROGRESS IN 2019

Exceeded water goal six years early. Potable water consumption equaled 2,630,000 cubic meters globally,

↓ 18%

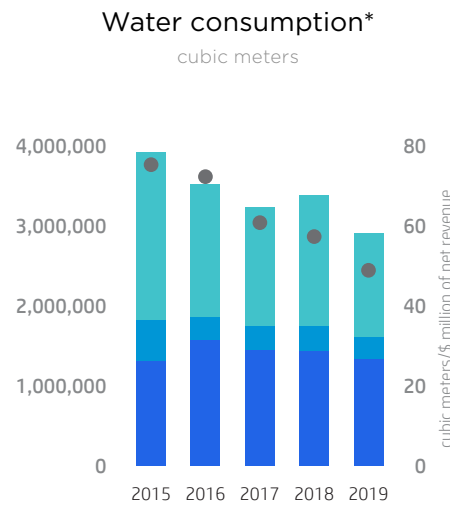
less than in 2015

reuse. We engage internally and externally to develop creative approaches to addressing water challenges at the company. For example, in 2020 we plan to host sessions with stakeholders in Corvallis, Oregon, and Penang, Malaysia—our highest water-consuming sites, categorized respectively as “moderate risk” and “extremely high risk” through a World Resources Institute assessment.

In 2019, we consumed 2,930,000 cubic meters of water overall, a 14% decrease compared to 2018. This reduction was due to water efficiency projects (see below) and the resolution of a leak at our Corvallis, Oregon site. This leak at our largest water-using site, which we resolved within one month of detection in September 2018, artificially elevated water usage during that year. To decrease the risk of similar events moving forward, we have improved coordination with the municipal water provider and are exploring the possibility of implementing smart water metering at our Corvallis location.

Water consumption intensity per \$ million of net revenue decreased by 15% between 2018 and 2019. We reduced potable water use by 18% in 2019 compared to 2015, exceeding our goal six years early of a 15% reduction by 2025.

HP reused 301,000 cubic meters of water^s globally during 2019 for landscaping and indoor plumbing fixtures. This



■ Americas
■ Europe, Middle East, and Africa
■ Asia Pacific and Japan
● Water consumption intensity (cubic meters/\$ million of net revenue**)

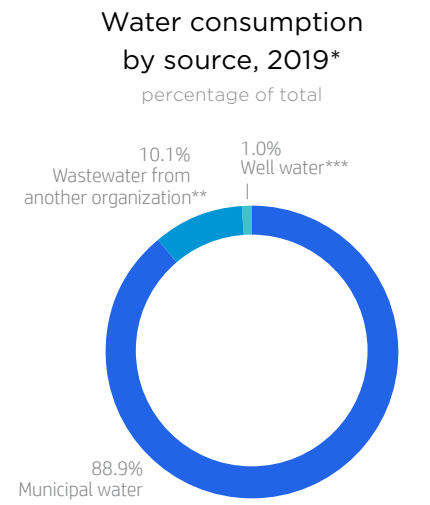
*HP reports all water withdrawn from municipal sources for use in its operations as consumed.

**Historical consumption-intensity values were calculated using HP’s annual revenue as characterized in financial reporting and water consumption.

was equivalent to 10% of total water consumption. The company also captured and used 1,000 cubic meters of rain water for cooling towers during the year.

Water-saving projects completed during 2019 included:

- Palo Alto, California: We deployed a smart water management service for landscaping that saved 3 million gallons of irrigation water, a 42% reduction



* Direct use of surface water is insignificant and not included in data reported. Rain water is about 0.03% of total so is not visible on the graph.

**NEWater: ultra-purified wastewater used in manufacturing operations in Singapore.

***This category includes groundwater.

compared to 2018. We are exploring additional installations at key high-consuming and high-risk sites for 2020.

- Corvallis, Oregon: Our facility became the second corporate campus worldwide to achieve certification to the USGBC Sustainable SITES Initiative v2 rating system, the most comprehensive program for designing, developing, and maintaining sustainable landscapes. This builds on the success of our Boise, Idaho, site, which became the first USGBC Sustainable SITES certified campus globally in 2017. We plan to launch a

similar project in 2020 at our campus in Barcelona, Spain.

- Barcelona, Spain: We installed a new rain water capture system for irrigation usage as part of our LEED v4 Gold project.
- Multiple U.S. locations: Water efficiency projects decreased domestic water use from fixtures by approximately 30% at our Palo Alto headquarters as well as at our sites in Boise, Idaho; Rio Rancho, New Mexico; and Corvallis, Oregon.
- Europe, Middle East, and Africa region: Our new smart water metering systems reduced domestic indoor water usage by 20% across 13 sites, compared to 2018.

See [detailed data](#) for 2015–2019, the [HP water accounting manual](#), and our [CDP water submissions](#).

Wastewater

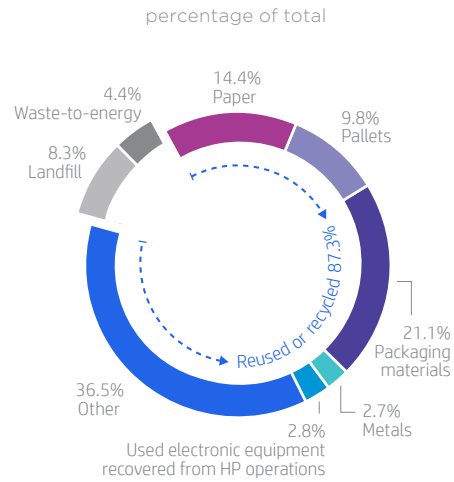
Wastewater is not a significant environmental risk at HP’s operations. Our imaging and printing product manufacturing facilities generate process effluents that are pre-treated, strictly monitored, and discharged under government-issued permits to municipal wastewater plants for further treatment. We implement procedures to prevent unauthorized discharges of chemicals to our facility wastewater systems and ensure that these sites do not discharge wastewater directly to surface water or to groundwater.

Waste

Although our facilities do not generate large amounts of waste, we employ a global policy of “reduce, reuse, and recycle” that supports our company-wide shift toward a circular economy. HP generated 13,000 tonnes of nonhazardous waste in 2019, as well as 400 tonnes of used electronic equipment recovered from HP operations. This data is not comparable to the data reported for 2018, since it is based on an updated methodology.⁶ We achieved a 91.8% landfill diversion rate globally, and only use disposal as a last resort. We reuse electronic equipment when possible or recycle it responsibly through the same programs we offer customers. See [Product repair, reuse, and recycling](#).

TRUE Zero Waste certification is a whole systems approach that aims to change how materials flow through society. In 2017, our Palo Alto headquarters became the first technology campus in the state and

Composition of nonhazardous waste and used electronic equipment recovered from HP operations, 2019*



* HP sites report nonhazardous waste volumes and disposition based on information provided by our waste disposal vendors. For sites unable to directly track nonhazardous waste, we estimate volumes and disposition using intensity factors based on similar operations.

the second globally to achieve Gold TRUE certification. We are pursuing certification at additional campuses worldwide. In 2019, we also implemented a centralized trash program that removed deskside bins at 26 campuses worldwide and added recycling and composting at more locations. This led to a 15–30% reduction in recycling contamination and an increase in employee awareness about sorting properly. We also [engaged employees](#) in campaigns to reduce single-use plastics and paper cups.

The main hazardous waste we generate is liquid from ink manufacturing facilities. These manufacturing sites prioritize waste management options with low environmental impacts and only use disposal as a last resort. Although ink manufacturing is a source of hazardous waste, HP ink cartridges used by customers and in our offices can be recycled and are considered nonhazardous in many of our major markets. We generated 4,660 tonnes of hazardous waste in 2019.

See [detailed waste data](#) for 2015–2019.

See HP’s [latest disclosure](#) for the U.S. Environmental Protection Agency Toxics Release Inventory.

HP is conducting environmental investigations and/or remediation at several current or former operating sites. Some historic manufacturing activities of HP and predecessor companies used chemicals now known to have contaminated soil and groundwater. We are also involved in the cleanup of sites affected by the improper disposal and recycling of HP’s wastes by third parties. HP is committed to addressing these chemical releases and proactively works to implement a variety of remediation activities in cooperation with regulatory agencies.

Community giving and volunteerism

By leveraging our scope and scale, together with strategic local partnerships, we aim to connect our communities to greater economic and social opportunity through technology and protect our shared environment. We create positive local impact in the communities where we live, work, and do business, through corporate contributions, the work of the HP Foundation,¹ and employee giving and volunteerism. See HP's [Global Charitable Contributions Policy](#). By deploying our technology to help solve global challenges, we create shared value for HP, our customers, and society at large. See [Global education programs](#).

FOCUS AREAS

Technology-enabled education and skills-building

Environmental stewardship, resilience, and disaster recovery

Inclusion and empowerment for underrepresented and marginalized people



HOW WE SUPPORT OUR COMMUNITIES

COMMUNITY GIVING GOAL

Contribute \$100 million in HP Foundation and employee community giving² by 2025 (cumulative since the beginning of 2016)

PROGRESS THROUGH 2019

Reached

\$35.17 million

in HP Foundation and employee community giving

Corporate giving

\$4.77 million in 2019

HP Foundation giving

\$4.40 million in 2019

Employee giving

\$2.13 million in 2019

Employee volunteerism

145,000 hours contributed by 8,850 employees in 2019

HP Foundation programs

HP LIFE: Learning and employment opportunities for aspiring entrepreneurs

To bridge the “digital divide” and build skills for the future, the HP Foundation provides core business and IT skills training free of charge for start-ups, students, and small businesses through [HP LIFE \(Learning Initiative for Entrepreneurs\)](#). The program offers global access to 32 free courses in seven languages, with a focus on providing highly accessible and usable content. New courses added to the portfolio during the year included Growth Engines for Your

HP LIFE GOAL

Enroll 1 million HP LIFE users between 2016 and 2025

PROGRESS THROUGH 2019

Enrolled

214,000

since 2016

Business and Customer Relationship Management. During 2019, we offered HP LIFE content offline for the first time, enabled by Learning Equality's Kolibri platform, which is being used globally by HP partners including UN Women.

We enrolled nearly 800,000 new HP LIFE users from 2012 through 2019, including 49,000 during the most recent year. The greatest uptake occurred in Brazil, Egypt, India, Morocco, Nigeria, Saudi Arabia, Tunisia, and the United States.

The United Nations Industrial Development Organization (UNIDO), HP, and the HP Foundation signed a memorandum of understanding in 2017 renewing our partnership to further foster entrepreneurship and employment opportunities in developing economies, including expanding our work into Africa

[HP is committed to enabling better learning outcomes for 100 million people by 2025, since the beginning of 2015, through application of our technology, training, R&D, and financial contributions. We invest in programs and provide technology solutions that meet learners where they are and take them where they want to go. See how our products and partnerships are enabling better learning outcomes.](#)

(see below). In 2018, HP announced a new commitment to reach 100,000 learners across Africa over the next three years through HP LIFE. As a knowledge partner of UNIDO's Learning and Knowledge Development Facility, we continue to share our HP LIFE platform and have contributed to a collection of learning materials on future industrial skills with a course on 3D printing.

See [HP LIFE success stories](#).

Supporting learners globally through HP LIFE and HP LIFE Centers

New HP LIFE Center, Johannesburg, South Africa

In December 2018, we opened a new HP LIFE Center in Johannesburg, to support local entrepreneurs. With the HP LIFE program at its heart, the center is a technology-enabled hub that provides free, innovative learning experiences to help participants from the community acquire new skills, start or grow a business, or improve their employment prospects. During 2019, the center served as a focal point for collaborations with local organizations including Umlambo Foundation and Ashoka Southern Africa. HP LIFE also visited Thubelihle High school in Soweto to raise awareness of the free courses and learning opportunities provided by the program.

Increasing digital opportunities for women and girls across Africa

We are partnering in the UN Women's Second Chance Education program, which serves marginalized and underrepresented populations with learning and employment pathways—whether to re-enter formal education or build new vocational and entrepreneurship skills. Our efforts are focused on addressing gender disparities and using HP LIFE to increase female access to digital learning opportunities in five priority countries: Democratic Republic of Congo, Morocco, Nigeria, Senegal, and South Africa.

Expanding access to learning in Mexico

Also in collaboration with the UN Women's Second Chance Education program, as well as the BHP Foundation, we launched three new HP LIFE centers in Mexico in 2019. These centers, located in the states of Jalisco and Mexico, delivered online entrepreneurial learning courses in digital classrooms to more than 6,000 women during 2019, and are expected to reach thousands more across Mexico in the future.

Supporting skills development in Costa Rica

HP is working in Costa Rica to support local people to build digital skills and overcome barriers to education through programs facilitated by HP LIFE, the dedication of

nearly 200 HP volunteers, HP Foundation grants, and public sector involvement. After 27 weeks learning basic computer skills, students progress to HP LIFE courses, to be completed over 36 consecutive weeks. Students also visit an HP Innovation Lab to learn about design thinking and develop a business idea to present to the group. The Science, Technology and Telecommunications Ministry of Costa Rica provides a certificate to all students who complete the 30-course program with a satisfactory grade. Ninety-four people received certificates for basic computer courses in 2019, ranging in age from 15 to 55 years, and 84% were women. More than 60 people went on to start HP LIFE courses.

BeChangeMaker (BCM): Empowering social entrepreneurs

HP LIFE hosts an annual BCM social entrepreneurship business pitch competition program, in partnership with WorldSkills International. In 2019, 270 teams entered from 38 countries, and 30 teams representing 24 countries were selected as semi-finalists. HP employees served as team mentors and judges. Teams used HP LIFE courses and webinars to generate social venture ideas, create a viable business model, and pitch their concept to the judges. The five [winning teams](#) proposed solutions for food security, plastic waste, energy poverty, air quality, and sustainable fashion. The latter idea, from a team in Morocco,

involved using fish waste to make handmade products. Since the competition, the Seaskin team from Morocco has been commissioned to create a fashionable laptop sleeve for HP in that country.

Student Entrepreneurship Challenge: Solutions for Sustainable Impact

In 2019, the HP Foundation and the National Association for Community College Entrepreneurship (NACCE) launched a competition for community college students across the United States—the Student Entrepreneurship Challenge: Solutions for Sustainable Impact. A team from Pellissippi State Community College in Knoxville took first place with its business idea for a tutoring app to connect high school students in Eastern Tennessee with qualified tutors, to help improve reading, writing, and math skills. Students from Kauai Community College in Hawaii achieved second place for the idea to provide affordable housing for teachers who might otherwise leave the island.

Imagine Grants

Through the HP Foundation Imagine Grants, HP leaders and country managers have discretion to allocate a cash grant to approved organizations working to bring technology-related learning experiences to underserved and underrepresented communities. In 2019, we made \$1.02 million in Imagine Grants worldwide.

Disaster recovery and resilience

HP, our employees, and the HP Foundation together provide financial support for communities affected by natural disasters and emergencies. In 2019, we supported response efforts for the California Wildfires and the Government Shutdown Response Fund and worked with expert partners, including the [American Red Cross](#), [Feeding America](#), and the [Information Technology Disaster Resource Center \(ITDRC\)](#), to speed recovery and reconnect vital networks.

HP Connection Spot: Mobile disaster relief

The HP Connection Spot provides emergency connectivity to people in the contiguous United States who are unable to communicate due to a natural disaster. The custom-built trailer is equipped with

HP laptops, chromebooks, printers, and an Internet hot spot. Staffed by HP volunteers, the HP Connection Spot is also available for first responders and nonprofit personnel involved in disaster relief efforts.

Employee volunteerism

HP taps into the talents, passions, and entrepreneurial spirit of employees to make a difference in our communities. In 2019, 8,850 employees contributed about 145,000 hours to local volunteer efforts in 51 countries, with a value of \$5.43 million.³ HP employees are granted four hours paid volunteer time per month. In addition, HP's Time Off Community Support Grant allows employees to apply for a week of paid volunteer time to support more intensive engagements and travel service projects.

EMPLOYEE VOLUNTEERING GOAL

Contribute 1.5 million employee volunteering hours by 2025 (cumulative since the beginning of 2016)

PROGRESS THROUGH 2019

Reached

429,000

employee volunteering hours

40 Days of Doing Good

Our annual 40 Days of Doing Good campaign takes place each year in May and early June. In 2019, 2,980 HP employees in 27 countries volunteered 2,150 hours on approximately 200 projects. Among the many activities were a digital literacy project

40 Days of Doing Good results, 2019

% change compared to 2017, the program's first year



161% increase

in volunteer projects



80% increase

in countries



132% increase

in volunteers



22% increase

in grants



216% increase

in volunteer hours logged



79% increase

in organizations receiving grants

in [Costa Rica](#), skills workshops in Lagos, Nigeria, and mentoring at an HP Science Fair in Vancouver, Washington.

The HP Foundation complemented these efforts with grants totaling \$0.45 million to support the work of education and technology-related learning charities nominated by our employees. In addition to their time, U.S. employees also donated \$2.13 million in cash to qualifying organizations during 2019 through our HP Inspires Giving program. The HP Foundation contributed \$1.96 million in matching funds.

See [Data](#) for detailed figures.

Volunteering spotlight: Using Virtual Reality for Human Rights Education

During 40 Days of Doing Good, HP employees from Guadalajara, Mexico, partnered with A Toda Voz A.C., a local NGO with a mission to promote inclusive culture and the protection of human rights through art, design, and technology.

HP employee Ricardo Rincón developed a virtual reality (VR) app prototype to take viewers through a virtual museum gallery featuring artwork depicting various aspects of human rights. HP volunteers, led by project lead Mariano Ramirez, then

hosted an educational workshop for local school children, using the VR app to bring the human rights curriculum to life. Along with other hands-on activities, the children created posters to demonstrate their newfound knowledge.

Leveraging a grant from the HP Foundation, A Toda Voz will further develop and improve the VR app and continue offering these workshops to reach even more students throughout Mexico.

CodeWars

HP has hosted [CodeWars](#), a programming competition for high school students, for more than 20 years. CodeWars is part of HP's continuing drive to engage students everywhere in STEM and strengthen the future pipeline of innovators. It is now the world's largest high school STEM competition held by private industry, with events in locations across the United States, Europe, and Asia. HP engineers craft exciting challenges to test the ingenuity of student teams. In Houston, Texas, where the largest CodeWars event took place in 2019, more than 700 teens gathered (17% of participants were girls). At CodeWars Barcelona, the percentage of girls who took part jumped from 18% of all participants to nearly 30%.

Hour of Code

[Hour of Code](#) is a global effort to introduce students to the basics of computer science and coding. HP employees volunteer to teach coding in schools and community organizations around the world, with a goal to reach underserved student communities, particularly young women and ethnic minorities. These Hour of Code sessions focus on introducing students to valuable skills, increasing interest in computing and technology, and building the future pipeline of diverse talent for HP. In 2019, nearly 1,600 HP volunteers from 37 company sites participated in Hour of Code in 286 schools and communities worldwide, reaching more than 26,000 students.



Project organizer Mariano Ramirez with a student visiting the virtual museum gallery

Data

Our employees*

	2019
Women employees [% of total]	
Americas	34.4%
Asia Pacific and Japan	37.5%
Europe, Middle East, and Africa	38.6%
Worldwide	36.6%
Women managers** [% of total]	
Americas	32.0%
Asia Pacific and Japan	23.3%
Europe, Middle East, and Africa	30.5%
Worldwide	28.7%
U.S. employees, by ethnicity [% of total]	
White	64.7%
All minorities	27.2%
Black/African American	3.8%
Hispanic/Latino	8.7%
Asian	12.1%
Native American	0.5%
Hawaiian/Pacific Islander	0.2%
Two or more races	1.9%
Not disclosed/available	8.1%

	2019
U.S. new hires, by ethnicity [% of total]	
White	56.1%
All minorities	40.1%
Black/African American	4.8%
Hispanic/Latino	12.7%
Asian	17.0%
Native American	0.9%
Hawaiian/Pacific Islander	0.3%
Two or more races	4.3%
Not disclosed/available	3.8%
Global new hires, by gender [% of total]	
Women	40.2%
Men	57.1%
Not disclosed/available	2.7%

** Includes all management categories (supervisors, managers, directors, and executives).

Employees (regular full time and part time) by region and gender, 2019*	Men	Women	Undeclared/Unknown	Total
Americas	12,539	6,594	21	19,154
Asia Pacific and Japan	14,317	8,648	71	23,036
Europe, Middle East, and Africa	6,713	4,341	206	11,260
Total	33,569	19,583	298	53,450

* This table does not include 2,672 employees of certain majority-owned, consolidated subsidiaries, for which data was not available.

World workforce (regular full time and part time) by age group, 2019	% of total
30 and under	18.3%
31-50	63.3%
51 and over	18.4%

Employees (regular full time and part time) by employment type and gender, 2019*	Women	%	Men	%	Undeclared	%	Total
Full time							
Executives**	96	30.6%	217	69.1%	1	0.3%	314
Directors	316	30.9%	706	68.9%	2	0.2%	1,024
Managers***	1,301	28.1%	3,316	71.7%	7	0.2%	4,624
Professionals	12,808	35.4%	23,096	63.9%	255	0.7%	36,159
Other	4,704	43.1%	6,165	56.5%	33	0.3%	10,902
Subtotal	19,225	36.3%	33,500	63.2%	298	0.6%	53,023
Part time							
Executives**	1	50%	1	50%	0	0%	2
Directors	3	100%	0	0%	0	0%	3
Managers***	8	88.9%	1	11.1%	0	0%	9
Professionals	313	82.8%	65	17.2%	0	0%	378
Other	33	94.3%	2	5.7%	0	0%	35
Subtotal	358	83.8%	69	16.2%	0	0%	427
Total	19,583	36.1%	33,569	63.5%	0	0%	53,450

* This table does not include 2,672 employees of certain majority-owned, consolidated subsidiaries, for which data was not available.

** Based on business unit, this includes up to four levels from the CEO.

*** This refers to people managers below a director level.

* Employee data refers to regular full time and part time employees. Data is as of October 31 of the year reported. Employees self-identify gender and race.

Health and safety	2016	2017	2018	2019
Lost workday case rate*				
Global	0.16	0.08	0.09	0.08
Americas	0.12	0.11	0.16	0.15
Europe, Middle East, and Africa	0.36	0.13	0.12	0.06
Asia Pacific and Japan	0.06	0.03	0.02	0.04
Leading causes of lost workdays [% of total]				
Slips, trips, and falls	34%	32%	24%	16%
Automobile accidents	26%	10%	20%	16%
Struck by/against/cut by	22%	22%	25%	20%
Ergonomics—materials handling	11%	21%	14%	22%
Overexertion—not materials handling	3%	11%	2%	0%
Other	4%	4%	15%	24%
Recordable incidence rate**				
Global	0.22	0.17	0.23	0.21
Americas	0.23	0.30	0.33	0.33
Europe, Middle East, and Africa	0.43	0.18	0.52	0.34
Asia Pacific and Japan	0.07	0.06	0.03	0.04
Leading causes of recordable incidents (with and without lost time) [% of total]				
Struck by/against/cut by	35%	33%	26%	30%
Slips, trips, and falls	27%	33%	27%	19%
Automobile accidents	13%	7%	13%	13%
Ergonomics—materials handling	11%	12%	17%	21%
Ergonomics—office environment	6%	3%	2%	4%
Other	8%	12%	15%	13%
Lost time injury severity rate***				
Global	2.88	3.08	1.91	2.00
Americas	3.42	6.04	4.86	5.15
Europe, Middle East, and Africa	4.21	2.00	0.98	0.42
Asia Pacific and Japan	1.52	1.10	0.50	0.25

* Lost workday case rate is the number of work-related injuries that result in time away from work per 100 employees and contractors that HP manages working a full year. Rates are calculated globally using Occupational Safety and Health Administration (OSHA) definitions for recordability and OSHA calculation methodologies. The figures are based on employees working an average of 2,000 hours during a full year. The U.S. average in 2018 for the Computer and Peripheral Equipment Manufacturing industry (NAICS #3341) was 0.10. Data for 2016 are fiscal year. Data for 2017–2019 are calendar year.

** Recordable incidence rate is the number of all work-related injury cases requiring more than first aid per 100 employees and contractors that HP manages. Rates are calculated globally using OSHA definitions for recordability and OSHA calculation methodologies. The figures are based on employees working an average of 2,000 hours during a full year. The U.S. average in 2018 for the Computer and Peripheral Equipment Manufacturing industry (NAICS #3341) was 0.70. Data for 2016 are fiscal year. Data for 2017–2019 are calendar year.

*** Lost time injury severity rate is the number of days lost due to injury per 100 employees and contractors that HP manages. Rates are calculated globally using OSHA definitions for recordability and OSHA calculation methodologies. The figures are based on employees working an average of 2,000 hours during a full year. Data for 2016 are fiscal year. Data for 2017–2019 are calendar year.

Our facilities (also see [Carbon footprint](#))*

	2015	2016	2017	2018	2019
Energy use [MWh]	859,620	739,682	807,122	758,898	695,420
Energy intensity** [MWh/\$ million of net revenue]	16.7	15.3	15.5	13.0	11.8
Direct energy use in operations (corresponds to Scope 1 emissions)*** [MWh]	162,620	155,682	165,138	164,075	133,851
Natural gas	159,273	154,822	162,716	161,653	131,551
Americas	128,691	124,601	129,715	122,564	113,385
Europe, Middle East, and Africa	24,426	21,596	29,448	31,262	12,342
Asia Pacific and Japan	6,156	8,625	3,553	7,828	5,824
Renewable (generated on-site)	232	134	960	1,731	1,536
Diesel/gas/oil/LPG ****	3,116	726	1,462	691	763
Indirect energy use (corresponds to Scope 2 emissions) [MWh]	697,000	584,000	641,983	594,823	561,569
Electricity (purchased)	697,000	584,000	638,023	589,217	557,345
Americas	472,000	301,000	260,392	229,653	230,723
Europe, Middle East, and Africa	131,000	93,000	149,301	132,578	119,243
Asia Pacific and Japan	94,000	190,000	228,330	226,986	207,379
Voluntary purchases of renewable energy†	7,000	4,000	231,526	255,797	231,561
Voluntary purchases of no/low-carbon energy	0	0	0	0	0
Supplier-specific renewable energy	24,000	18,000	78,182	18,416	7,301
District cooling and heating (purchased)	0	0	3,960	5,606	4,224
Americas	0	0	0	0	0
Europe, Middle East, and Africa	0	0	0	0	0
Asia Pacific and Japan	0	0	3,960	5,606	4,224
Water consumption, by region [cubic meters]	3,952,000	3,535,000	3,243,000	3,406,000	2,930,000
Americas	2,121,000	1,670,000	1,476,000	1,648,000	1,306,000
Europe, Middle East, and Africa	520,000	297,000	319,000	307,000	277,000
Asia Pacific and Japan	1,311,000	1,568,000	1,448,000	1,451,000	1,347,000

	2015	2016	2017	2018	2019
Water consumption, by source** [cubic meters]	3,953,000	3,534,000	3,243,000	3,406,000	2,930,000
Municipal water	3,205,000	2,751,000	2,627,000	2,938,000	2,599,000
Wastewater from another organization††† (NEWater)	746,000	725,000	533,000	407,000	301,000
Tanker water††††	2,000	0	0	0	0
Rain water	0	0	1,000	2,000	1,000
Well water	0	58,000	82,000	59,000	29,000
Reused treated sewage treatment plant water[^] [cubic meters]	25,000	1,000	15,000	8,000	0
Recycled or reused water^{^^} [% of total water consumption]	13.7%	25.5%	17.1%	12.2%	10.2%
Nonhazardous waste, by region^{***} [tonnes]	28,100	27,800	28,400	30,700	13,000
Americas	16,000	15,900	15,000	12,300	7,000
Europe, Middle East, and Africa	7,400	8,000	8,400	5,800	3,900
Asia Pacific and Japan	4,700	3,900	5,000	12,600	2,100
Nonhazardous waste, by type [tonnes]			28,400	30,700	13,000
Recycled			23,400	26,800	11,300
Landfilled			2,700	2,900	1,100
Waste-to-energy			2,300	1,000	600
Used electronic equipment recovered from HP operations[^] [tonnes]			1,100	1,300	400
Nonhazardous waste and used electronic equipment recovered from HP operations landfill diversion rate [% of total produced]					
Global	90.9%	90.1%	90.9%	90.9%	91.8%
Americas	91.6%	91.2%	91.6%	91.6%	91.2%
Europe, Middle East, and Africa	85.5%	85.4%	87.4%	87.4%	89.9%
Asia Pacific and Japan	97.2%	95.1%	94.6%	94.6%	96.9%
Hazardous waste^{**} [tonnes]		5,560	5,410	7,620	4,660
Americas		1,600	1,750	990	1,100
Europe, Middle East, and Africa		2,370	2,280	1,090	1,570
Asia Pacific and Japan		1,590	1,380	5,540	1,990

	2015	2016	2017	2018	2019
Ozone depletion potential of estimated emissions^{***} [kg of CFC-11 equivalent]	52	24	10	5	19
Americas	34	5	0	2	18
Europe, Middle East, and Africa	1	18	10	0	1
Asia Pacific and Japan	17	0	0	4	0
Number of violations of legal obligations/regulations^{****}	0	0	0	4	1
Fines/penalties related to the above [\$]	\$0	\$0	\$0	\$0	\$0

* See [About our operational data](#).

** Historical energy intensity values were calculated using HP's annual revenue as characterized in financial reporting and direct and indirect energy use.

*** Fuel consumption from HP's transportation fleet is not included in the Direct energy use in operations figures.

**** Diesel is mostly used at HP for testing generators. In limited cases, diesel is also used for long-term on-site energy generation.

† Renewable energy and renewable energy credits, excluding renewable energy provided by default in the power grid.

†† "Water consumption" includes municipal water, wastewater from another organization, tanker water, rain water (beginning in 2017), and well water. Direct use of surface water is insignificant and not included in data reported. Water consumption does not include reused treated sewage treatment plant water.

††† NEWater is ultra-purified wastewater used in manufacturing operations in Singapore.

†††† Tanker water is well water that is delivered to the site by tanker truck.

† This water is used for landscaping and toilets.

†† This includes NEWater (ultra-purified wastewater used in manufacturing operations in Singapore) as well as recycled or reused water reported by sites globally. Grey water is included, rain water is not.

††† To provide additional transparency, this report presents used electronic equipment recovered from HP operations as a separate category. That data was included with nonhazardous waste data in prior years. Data for 2017 and 2018 are restated.

† We reuse electronic equipment when possible or recycle it responsibly through the same programs we offer customers. See [Product repair, reuse, and recycling](#).

†† Accounting for the separation of Hewlett-Packard Company on November 1, 2015, it was not feasible to include hazardous waste data specific to HP Inc. for 2015. Americas hazardous waste data for 2018 was updated to include all waste not sent to a municipal solid waste or recycling facility, similar to the other years reported. This conservative approach classifies all waste managed by our hazardous waste vendor as hazardous, unless we can definitively determine it to be nonhazardous.

††† For 2015 and 2016, we calculated ozone-depleting substances emissions by tracking sites that reported refrigerant replacement due to leakage, and applied an intensity factor (based on those actual quantities) for nonreporting sites. For 2017, HP transitioned to a system that tracks all refrigerant work orders company-wide, directly accounting for facilities' refrigerant leakage and use and eliminating the need for extrapolation. R22 is the refrigerant included in this calculation. We use various tools and sources for global warming potential and ozone depletion values including the Greenhouse Gas Protocol's GHG Emissions from Refrigeration and Air Conditioning tool, IPCC Second Assessment Report (1995).

†††† This data represents safety or environmental violations from a federal or state agency.

Community giving and volunteerism

	2016	2017	2018	2019
Social investment* [\$ million]	\$6.31	\$7.60	\$15.76	\$14.60
Company cash contributions	\$1.06	\$0.55	\$2.15	\$2.89
HP Foundation cash contributions	\$1.93	\$2.82	\$4.34	\$4.40
Products**	\$1.91	\$0.73	\$4.97	\$1.88
Services***	\$1.41	\$3.50	\$4.30	\$5.43
Social investment [% of net earnings]	0.30%	0.30%	0.30%	0.46%
Contributions to Cash Matching Program [\$ million]				
U.S. employee contributions to Cash Matching Program	\$1.13	\$1.70	\$2.07	\$2.13
HP Foundation contributions to Cash Matching Program	\$0.99*	\$1.66	\$1.89	\$1.96
Employee volunteer hours	54,800	89,500	140,000	145,000

* Social investments include all grants made to nonprofit organizations from HP, plus the valuation of employee volunteer hours. Data excludes contributions to the HP Foundation and employee donations but includes HP's matching contributions and contributions from the HP Foundation to other organizations.

** Product donations are valued at the Internet list price. This is the price a customer would have paid to purchase the equipment through the HP direct sales channel on the Internet at the time the grant was processed.

*** "Services" equals the valuation of HP employee volunteer hours. Valuation rates are based on CECP standards.

HP education programs and solutions	2015	2016	2017	2018	2019
Students and adult learners benefiting from HP's education programs and solutions*	4,604,000	5,097,000	5,435,000	6,044,000	7,597,000
HP LIFE users enrolled**	n/a	53,000	56,000	57,000	49,000

* Data from 2015–2018 was revised to allocate HP Digital Schools Awards data to each of those years, compared to the HP 2018 Sustainable Impact Report which included the program to date total in 2018. HP LIFE data from 2015 is excluded from that total for the reason described in note **.

** HP LIFE users are also included in the overall students and adult learners data above. HP LIFE data from 2015 was tracked using a different system and is not included due to lack of comparability.



Products and solutions

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Advancing a circular and low-carbon economy

At HP, we help our customers invent the future. By applying rigorous sustainable design principles, we help to drive progress toward a circular and low-carbon economy through our portfolio of [Personal Systems](#), [Home and Office Printing Solutions](#), [Industrial Printing](#), and [3D Printing](#) products and solutions. Across our portfolio, we maintain high standards in product safety, privacy, and security, while partnering to unleash the social benefits of technology, enable better learning outcomes, improve access to quality healthcare, and support diverse and resilient communities.

[See how HP is partnering to advance a more circular and inclusive economy in Europe.](#)



We innovate to mitigate the effects of climate change and accelerate the transition to a circular and low-carbon economy—for the sake of our planet, the health, wellbeing and prosperity of people and global communities, and the resilience of our business and that of our customers and partners. Four key strategies guide our progress (see graphic). We implement these through the design and delivery of our products and solutions, and through global partnerships that are focused on strengthening natural systems.

These strategies help to transform industry business models and decouple business growth from resource consumption. This supports our efforts to shrink our environmental footprint and that of our customers, and to drive long-term sustainable impact.



Sustainable product design

Design plays a critical role in determining a product's environmental impacts. We apply rigorous design principles to improve the environmental performance of our products across the life cycle.

In 1992, we developed our [Design for Sustainability program](#) (originally Design for the Environment) to formally consider factors impacting sustainability performance throughout the product design and development phases.

We use a science-based approach to evaluate our products, identify and prioritize improvement opportunities, and set goals. Among our main design priorities, we work to increase the use of [recycled](#) and [renewable](#) materials and replace [materials of concern](#); enhance [repairability](#); continually improve [product energy efficiency](#); and build in [accessibility features](#). Our program has continually evolved in response to technological and scientific developments, changes to our supply chain, and customer demand.

Product design and development operations for our Home and Office Printing Solutions and Personal Systems product groups are ISO 14001 certified. We conduct internal compliance audits and benchmark against industry best practices on an ongoing basis.

Relevant products undergo a range of [external certifications](#).

The analog-to-digital shift

HP industrial printing and 3D printing technologies are driving an analog-to-digital shift. These technologies can enable cost-efficient short runs that reduce inventory and waste and enable companies to engage with customers in new and exciting ways, including through customized and quicker-to-market products.

Our industrial printing solutions have continued to deliver benefits to customers in the publishing, packaging, and labeling sectors, including production efficiency, waste reduction, and the ability to deliver customized and quicker-to-market products. During 2019, we have extended our technology and expertise into [food safe packaging printing](#) and [textiles printing](#).

HP's [3D printing technologies](#) are at the forefront of digital transformation in the manufacturing sector. With 3D printing (also known as additive manufacturing), parts and products can be [designed, prototyped, and manufactured](#) in a fraction of the time needed by conventional manufacturing technologies and processes. In an increasingly connected world, digital manufacturing processes enable product design and build files to be sent

anywhere around the globe, bringing manufacturing closer to the consumer, accelerating product delivery, and reducing transportation carbon footprints.

Across the rest of our portfolio, we offer several solutions that apply digital technology to provide additional benefits to traditionally analog processes. For example, HP has worked closely with customers across product design, architecture, engineering, training, healthcare, and location-based entertainment to better understand their unique insights and apply virtual reality (VR) technology to solve key pain points. HP's VR solutions for businesses can be applied to product development, employee training, walk-through simulation, and immersive experiences. Augmented reality (AR) and VR in employee training can [replace classroom-style learning](#) for a more engaging experience, or they can be used to train for specific manual tasks, such as performing surgery or building machinery. In fact, VR-based training has a 75% retention rate compared to 10% for lectures and 5% for reading.¹

Life cycle assessment

HP uses life cycle assessment (LCA) and product carbon footprinting (PCF)² to quantify the environmental impacts of our products, analyze possible alternatives, and target product performance improvements that deliver value to our customers and

our business. We have conducted LCAs and PCFs of hundreds of products over the last several years, covering our product portfolio. As we develop and expand our service-based models (which we refer to as circular business solutions), we will continue to study and quantify the potential they have to reduce environmental impacts and drive progress toward a circular and low-carbon economy. In 2019, we:

- Completed three LCAs of commercial and consumer circular business solutions, [HP Device as a Service \(DaaS\)](#), [HP Managed Print Services \(MPS\)](#), and [HP Instant Ink](#). These groundbreaking studies demonstrated that each solution improved performance compared to transactional sales in all LCA impact categories.³ See our white paper, [Assessment Shows Service-Based Models Deliver Positive Environmental Impact](#), for more detail.
- Conducted or updated 18 LCAs of HP desktop, DesignJet, and enterprise printers, in addition to a peer-reviewed LCA of HP LaserJet printers with comparable products from Brother and Kyocera.
- Completed 76 PCFs of new business HP desktops, notebooks, tablets, workstations, thin clients, all-in-one computers, and displays to better understand performance and inform ongoing design improvements.

During the year, we also commissioned an LCA to examine the impacts of replacing several traditionally manufactured metal parts, used in the production of HP DesignJet T3600 large format printers, with plastic parts created using HP Jet Fusion 3D printers. The plastic parts, which use PA 12 nylon, may result in up to 74% less GHG emissions compared to metal parts. The climate impacts of the metal parts were due almost entirely to embedded energy in the materials, whereas the GHG emissions associated with 3D printed parts related to the materials as well as manufacturing

energy. As a result, converting to renewable energy for 3D printing of the plastic parts may further reduce GHG emissions to up to 87% compared to metal parts.

We follow LCA standards ISO 14040 and ISO 14044. For PCF, we use International Electrotechnical Commission Technical Report 62921, a streamlined methodology for assessing the carbon footprint of computer and display products. We continually update our LCA and PCF tools to ensure that they provide current and accurate information.

Product certifications and disclosures

Product certifications help drive performance across the industry by providing comprehensive information that enables customers to make more sustainable product choices. In 2019, HP tracked approximately \$6 billion in new sales in which it met customer requirements for registered product eco-labels (see table).⁴

We share extensive product safety and environmental information online and contribute to the development of new standards. Between 2014 and 2018, HP participated in the standard development process of IEEE 1680.1-2018, which is used

to register PCs and displays to EPEAT®. When the registry went live in 2019, HP achieved several [industry firsts](#).

See also:

- [Eco-labels](#)
- [ECO Declarations](#): In 2019, HP provided ECO Declarations for product groups representing 93% of revenue
- [HP Carbon Footprint Calculators](#)
- [HP product carbon footprint reports](#)
- [Product compliance declarations and certifications](#)
- [Safety Data Sheets](#)

Eco-labels across our portfolio

% models, for products shipped in 2019*

Products	EPEAT® identifies high-performance, environmentally preferable products				ENERGY STAR® recognizes products with superior energy efficiency	China SEPA recognizes energy-saving and environmentally preferable models	TCO recognizes various ergonomic and environmental features related to visual displays	Blue Angel recognizes criteria in product design, energy consumption, chemical emissions, noise, recyclable design, and take-back programs
	EPEAT (all)	EPEAT Gold registered	EPEAT Silver registered	EPEAT Bronze registered				
Personal systems	72%**	21%**	51%**	0%	91%	56%	43%	NA
Printers	81%	10%	70%	2%	94%	95%	NA	66%

*EPEAT data for personal systems is for models registered worldwide and for printers is for models registered in the United States. ENERGY STAR data for personal systems (versions 7.0 or 7.1) is worldwide and for printers (version 3.0) is for products sold in the United States. China SEPA data applies only to products registered in China. TCO data is for commercial desktops, notebooks, all-in-ones, and displays shipped in Europe. Blue Angel applies only to products registered in Germany. All data is for models shipped anytime during fiscal year 2019.

** The new EPEAT standard IEEE 1680.1-2018 for computers and displays went into effect January, 2019. HP made significant efforts to update its products to the more stringent requirements, but did not re-register some older products near the end of their shipping life. As a result, the percent of EPEAT-registered models shipped during 2019 decreased compared to 2018.

Keep products and materials in use

We design our products to last, and make them easy to repair, so they stay in use for as long as possible. Innovative service-based solutions, such as HP Device as a Service and HP Managed Print Services, reduce environmental impacts through extended life, device optimization, and easy take-back. When customers return end-of-service products, our repair, reuse, and recycling programs help to cycle products and materials back through the economy.

Durability and repairability

HP products are rated highly for durability and repairability. We offer refurbishment services for products returned to us, which extend product life, capture more value from natural resources, and reduce environmental impact.

In 2019, HP repaired 4.62 million units of hardware (22,500 tonnes) and remarketed/reused 1.21 million units (6,200 tonnes). See [Product repair, reuse, and recycling](#) for detail.

HP provides free service documentation for most products, supplemented with service options and warranties, including through [HP Care Pack Central](#). The [HP Customer Self Repair](#) web page includes information in that area, and the [HP Parts Store](#) sells PC and printer parts.

Personal systems

We test the quality and durability of our Pro and Elite business notebooks, Elite business desktops and all-in-ones, and select thin clients using the rigorous MIL-STD-810G standard. For further details, see our technical white paper about [testing the business ruggedness and reliability of HP Business PCs](#).

Among the personal systems products that received high scores from the iFixit product repair site are the HP EliteBook 840 G6, scoring 10 out of 10 in [iFixit's repairability assessment](#)—which noted easy access and removal of the RAM, SSD, and battery—and the HP EliteBook 830 x360 G6, which scored 9 out of 10.

The HP EliteOne 1000 G2 Base Desktop PC, our most serviceable all-in-one,⁵ is our first desktop with an upgradeable PC base and display. This enables customers to upgrade and reconfigure flexibly by keeping their display from the G1 series.

Home and office printing solutions

Many of HP's home and office printers adhere to relevant eco-label standards for extending product life and conserving materials, including EPEAT® specifications based on IEEE standard 1680.2 as well as Blue Angel environmental criteria.

Through modular design, we increase upgradeability and enable many of our printers to be easily disassembled for repair or recycling. Customers can exchange parts and have access to a range of repair options. Our printers conform with design requirements to increase the reusability of components and assemblies. Spare parts are available until at least five years after a printer has ceased production.

Industrial printing

HP Indigo and PageWide digital presses are major capital investments for our customers and are designed for upgradeability. Our PageWide Industrial web presses were first placed with customers in 2009, and more than 98% are still in operation. Almost three-quarters of Indigo presses have been in use for more than five years, over half for greater than seven years, and nearly one-third for more than ten years. To support repair, refurbishment, and upgrades, HP provides a wide range of services to customers.

3D printing

3D printing facilitates on-demand manufacturing of a limitless inventory of spare parts, with the potential to transform the parts supply chain and support extended product use. Using HP Multi Jet Fusion technology, we are ramping up spare parts production in our own business. This enables us to provide spare parts to customers all over the world at low volumes and low cost, extending the life of HP products. [Watch video](#).

Circular business solutions

HP's service-based solutions deliver better value to customers with reduced environmental impact and capital costs. Customers can access the latest technology, while HP manages the fleet, and an ongoing relationship provides valuable insights on end user behavior and needs. Our service offerings include regular maintenance, which keeps hardware products in use for longer and reduces waste. Decreasing individual product shipments and customer store visits also reduce GHG emissions. At end of service, we recapture value from materials through a range of [product repair, reuse, and recycling](#) options. During 2019, we conducted three LCAs to quantify the environmental benefits of circular business solutions compared to transactional product purchases (see [page 78](#)).

Personal systems

Our expanding [Device as a Service \(DaaS\)](#) offering provides customers the latest HP technology while improving cost predictability and enabling a better employee experience. Business customers can upgrade their products to the most current and efficient models, with the purchasing and consumption model that works best for them. Compared with transactional sales, an LCA we conducted shows that DaaS reduces GHG emissions by 25%, improves resource efficiency by 28%, decreases ecosystems impacts by 28%, and reduces human health impacts by 29% for a notebook PC. These improvements are mainly due to keeping PCs in use for multiple life cycles, which avoids manufacturing of additional devices and extends the life of high-value materials.

Home and office printing solutions

[HP Managed Print Services \(MPS\)](#) helps clients manage and optimize their printer fleets and digital workflows by combining hardware, supplies, software, and consulting and management services. By servicing and maintaining printer fleets, and refurbishing and redeploying units as feasible, we keep printing equipment in use for longer. Preparation for remarketing includes testing and secure data cleansing, while nonfunctional equipment is recycled responsibly in accordance with [HP policies](#). We conducted an LCA which demonstrates that compared to purchased printers, MPS reduces

[See our white paper, *Assessment Shows Service-Based Models Deliver Positive Environmental Impact*, for more detail about the benefits of circular business solutions compared to transactional product purchases.](#)

GHG emissions by 12%, improves resource efficiency by 13%, and decreases ecosystems impacts by 12% for a multifunction color laser printer. Key drivers include improved device efficiency and reduced materials use (higher duplexing rates and decreased paper waste). The study also shows that electricity use during printing only contributes a small percentage of overall life cycle impacts. This analysis did not consider potentially higher reuse rates through MPS, which would further increase benefits.

[HP Instant Ink](#) helps home users and microbusinesses in 18 countries remain productive by ensuring they never run out of ink.⁶ The service anticipates when ink is running low and sends replenishments and new recycling envelopes straight to our customers' doors. Customers using this service save up to 50% on ink.⁷ In addition to these benefits, an LCA we conducted determined that Instant Ink on average decreases the carbon footprint of ink purchase and distribution by 73%, while reducing energy use by 69% and lowering water use by 70%, compared with cartridge purchase and recycling through traditional

retail channels.⁸ Key factors include reduced materials use (higher capacity cartridges, less packaging, and higher recycling rates) and simplified distribution (bulk shipping and avoided trips to the store).

Industrial printing

HP offers print-as-a-service in our industrial printing portfolio with the Indigo click-charge, cost per-print business model. This model includes consumables, which enables us to provide them to our customers in the most resource efficient way possible.

[HP Print OS](#) is a cloud-based print production operating system that helps our customers get more out of their HP presses and printers. It makes it easy to manage any number of print jobs from submission to shipment, increasing press utilization, automating production, and delivering accurate color consistently between runs, across presses, and across sites.

HP also provides services to repair, refurbish, and upgrade our industrial printing presses as well as consumables recycling and end-of-service solutions.

Product repair, reuse, and recycling

We design HP products [to use resources efficiently](#) and [to last a long time](#). When our products eventually reach the end of their service, our robust repair, reuse, and recycling programs help to ensure that products and materials are repurposed, which keeps them at their highest value state for as long as possible. This circular flow avoids waste and can give materials and products renewed life. These efforts support our transformation toward a more materials-efficient circular model.

PRODUCT RECYCLING GOAL

Recycle 1.2 million tonnes of hardware and supplies by 2025, since the beginning of 2016

PROGRESS THROUGH 2019

Recycled

528,300
tonnes

A broad approach to capturing value at product end of service

Design for recovery
(upgradeability, reusable parts, ease of disassembly, recyclable/reusable materials, minimized materials of concern, etc.)

Repair, remanufacture, and reuse to extend the life of products

Recycle materials into new products

Customer take-back programs

HP provides take-back programs in 76 countries and territories worldwide⁹ through a global network of [reuse and recycling vendors](#). These offerings vary by location.

HP global take-back programs for customers*

Program	Description	Progress in 2019
Repair, remarketing, and reuse		
<p>Hardware</p> <p>Our remanufacturing programs help to extend hardware lifespan, reducing environmental impacts from replacing products that still have useful life.</p> <p>We provide customers guidance about how to repair their own HP product. See Durability and repairability.</p> <p>HP Device Recovery Service provide customers reverse logistics, data sanitization with a certificate if they purchase that service, and remarketing for used personal systems products.</p>	<p>Our Hardware Reuse Standard outlines our requirements for vendors and subvendors who provide reuse, remanufacturing, or remarketing services for HP.</p>	<p>4.62 million units of hardware repaired (22,500 tonnes)</p> <p>1.21 million units of hardware remarketed and reused (6,200 tonnes)</p> <p>4% overall repair, remarketing, and reuse rate of relevant HP hardware sales worldwide**</p>
Recycling		
<p>Hardware</p> <p>Available in 64 countries and territories</p> <p>HP recycles hardware that cannot be economically repaired or reused.</p> <p>We belong to compliance systems to comply with producer responsibility requirements of the European Union (WEEE) Directive*** and end-of-life legal obligations in countries across our Americas, Asia Pacific and Japan, and Europe, Middle East, and Africa regions.</p> <p>Consumers, home office, and commercial users have various recycling options for used equipment, including HP recycling vendors that provide take-back and recycling services or free drop-off for our products in many countries.</p> <p>In the United States, customers can drop off hardware at Best Buy stores through our closed-loop recycling program as well as Staples locations. U.S. customers can also use the HP Consumer Buyback Program to exchange equipment for money or purchase credits.</p>	<p>HP Recycling Services offers custom recycling programs for commercial and enterprise customers, that include reverse logistics and data sanitization with a certificate if they purchase that service.</p> <p>Watch our video showing the recycling process.</p> <p>Recycling vendors must comply with the Hardware Recycling Standard.</p> <p>We publish disassembly instructions for use by end-of-life recyclers or treatment facilities.</p>	<p>117,400 tonnes of hardware recycled</p> <p>91% of total volume of products and materials taken back in 2019 was reused or recycled by HP or by a third party</p> <p>17% overall recycling rate of relevant HP hardware sales worldwide****</p>
<p>Ink and toner cartridges</p> <p>Available in 66 countries and territories</p> <p>HP provides free and convenient ways to recycle used HP ink and toner cartridges and Samsung toner cartridges.</p> <p>Home and commercial customers can return HP ink and toner cartridges for free to 17,500 authorized sites worldwide. Free pickup and mail-back options are available in most countries.</p>	<p>HP's groundbreaking closed-loop recycling program uses plastic from recycled Original HP cartridges plus recycled bottles and hangers to create new Original HP cartridges.</p> <p>See how we recycle ink cartridges and toner cartridges.</p> <p>Recycling vendors must comply with the HP Printing Supplies Recycling Policy.</p>	<p>14,300 tonnes of HP LaserJet toner cartridges recycled</p> <p>1,400 tonnes of HP ink cartridges recycled</p> <p>83% of materials recovered used in other products, and 0% went to landfill</p> <p>74% of materials recovered used in other products, and 0% went to landfill</p>

We also offer responsible processing for [batteries](#) and recycling for [large format media/supplies](#), [3D printing supplies](#), and [packaging](#).

* Descriptions of offerings in this table are as of report publication. Performance data is as of October 31, 2019. Availability of offerings varies by location. View [full list](#) of reuse and recycling programs by country.

** The repair, remarketing, and reuse rate is based on the weight of hardware products returned for repair, remarketing, and reuse compared to the weight of our product sales during the year.

*** During 2019, 46,600 tonnes of waste electronic equipment was collected on HP's behalf to comply with producer responsibility requirements of the EU WEEE Directive, compared to 110,300 tonnes of HP electronic equipment placed on the relevant markets during the year. Data includes EU countries in which the authorities or the legislative system provide visibility of the recycling volume allocated to HP. Take-back volumes related to non-EU legislation are excluded.

**** The recycling rate is based on the weight of hardware products returned for recycling compared to the weight of our product sales from seven years ago (the estimated average lifespan of our products). It is impractical for HP to report the recycling rate by product category, as materials are not typically sorted at collection points. This rate also does not include packaging recycling due to limited data available from recyclers.

Personal systems life cycle management

When HP personal systems products reach end of use, we support responsible collection and processing to recover and reuse as much material as possible and reduce negative impacts on the environment and communities. Through [HP Recover and Renew Services](#), business customers can securely recover, repurpose, or recycle HP or non-HP devices¹⁰ when they reach end of use.

- **HP Device Recovery Services:** We buy used devices securely to give them new purpose, extend their lifespans, and reduce negative environmental impact. Customers receive residual value, a certificate of data sanitization, a report detailing the environmental benefits, and peace of mind that relevant requirements and regulations governing disposal have been met. See the [HP hardware reuse standard](#).
- **HP Sanitization Services:** Confidential data is securely erased according to the NIST 800-88 standard, or the storage media is destroyed, before removing or recycling customers' old devices.
- **HP Recycling Services:** Devices are recycled securely, giving the materials a new life. Customers receive a certificate of data sanitization if they purchase

that service. We help customers make a smooth transition to new devices, adhering to customer policies for device end of use and supporting social initiatives and environmental directives. See the [HP hardware recycling standard](#).

Through our closed-loop recycling program for hardware, customers can return used electronic products to any Best Buy store in the United States. [Learn more](#).

See additional examples of [Eco Solutions personal systems products](#).

HP ink and toner cartridge recycling and workplace sustainability

[Research conducted on behalf of HP in 10 countries globally revealed that printer ink cartridges are not recycled in 40% of workplaces included in the survey.¹¹ HP makes it easy and free for customers to recycle Original HP ink and toner cartridges through our HP Planet Partners program, so those cartridges can be used to make new products.](#)

Product refurbishment and recycling in industrial printing

HP Indigo helps customers reduce environmental impacts through product refurbishment and recycling. During 2019, we refurbished 301 tonnes of HP Indigo presses and reused 219 tonnes of spare parts (about 56% of parts returned), in addition to recovering 485 tonnes of binary ink developer (BID) components and 1,584 tonnes of supplies for recycling.

This complemented our efforts to reduce virgin materials use. Approximately 17% of all plastic used in HP Indigo manufactured products during the year contained postconsumer recycled plastic content, primarily in our BID components and photo imaging plate capsules.

We reduced the amount of imaging oil needed for HP Indigo press operation through onboard recycling and reuse systems. In addition, we saved 1,013 tonnes of materials through reduced packaging for our concentrated inks.

Material reusability and recycling in 3D printing

HP Jet Fusion 3D printers enable industry-leading surplus material reusability of up to 80%¹² for plastics.

Complementing our HP Planet Partners program, which offers free recycling of 3D print cartridges in select countries, the nylon materials HP PA 11 and HP PA 12, as well as HP PA 12 GB (PA 12 with glass beads), used in our printers also offer the potential for recycling of printed parts as the technology scales. We have worked with several customers to develop and prove the capability to recover and recycle scrap 3D printed parts from customers into materials for injection molding. Moving forward, we are focused on expanding these efforts in the United States, the European Union, and other regions.

Product reuse and recycling vendors

We work with a global network of vendors to provide product reuse and recycling services to customers around the world.

During 2017, to promote transparency and drive social and environmental standards in the electronics industry supply chain, we published a [detailed list](#) of our recycling vendor sites globally, an IT industry first. In the current list, we also added reuse vendor sites. This reflects our confidence in HP's vendor network and addresses customer and stakeholder expectations about disclosure. We update that list annually, including in 2019.

Vendor audits

Our specialized reuse and recycling vendors are required to follow environmentally responsible processing techniques and comply fully with relevant regulations. HP prefers our vendors to attain third-party certification (R2, e-Stewards, or WEEELABEX) in line with EPEAT® and HP Recycling Standards. In addition, we commission third-party audits to monitor vendor conformance with our high standards and ensure that returned items are processed appropriately. We contract with Environmental Resources Management (ERM) to audit vendors for conformance with the following policies and vendor standards:

- [Export of Electronic Waste to Developing Countries Policy](#)
- [HP Supplier Code of Conduct](#)
- [Reuse and Recycling Standards](#)

Audits assess vendors' environmental, health, and safety practices and performance, and ensure there is no "leakage" of materials to facilities outside our approved vendor network. Vendors with identified nonconformances must submit corrective action plans within 30 days and address those items within 90 days. In extreme cases, we

will cease business with vendors that lack sufficient transparency or are unwilling to make the changes we require.

Through ERM, HP audited 34 vendor facilities in 24 countries during 2019. This included repeat audits of 30 vendor facilities to evaluate their efforts to improve performance. Because 12% of major nonconformances occurred at sites audited for the first time, HP's engagement brought best practices, enabling immediate performance improvements. HP has closed investigations of 100% of the major nonconformances identified in 2019. Most sites with major nonconformances will be re-audited the following year to determine whether improvements are sustained.

Immediate priority findings¹³ are the most serious type of vendor nonconformance and require immediate action. During a site audit in 2019, we identified one immediate priority finding, related to water management. We worked closely with the vendor to resolve this finding within 30 days, and will re-verify closure during our next site audit in 2020.

Read a [statement from ERM](#).

Reuse and recycling vendor audits

	2017	2018	2019
Initial audits	9	13	4
Repeat audits	23	28	30
Countries	15	20	24
Major nonconformances identified	45	55	59
Major nonconformances resolved*	100%	100%	100%
Immediate priority findings	1	2	1

* As of April 2020.

Categories of major nonconformance

percentage of total

	2018	2019
Health and safety	36%	34%
Environment	18%	14%
Hazardous substance/ emergency response	11%	10%
Insurance	11%	5%
Subvendor use and audits	8%	3%
Other*	16%	34%

* Includes site security and controls, management systems, labor, data destruction, transboundary shipments, and approved dispositions of processed materials. Findings related to data destruction were limited gaps in processes, not breaches of data security.

Create a low-carbon future

The energy consumed by our products during use is one of the largest contributors to our [carbon and water footprints](#). To help our customers decrease energy consumption and GHG emissions, we design for energy efficiency and offer convenient and more sustainable service-based solutions. We use multiple metrics to assess progress and drive improvement.

HP was recognized as an ENERGY STAR® Partner of the Year in 2019, and again in 2020.

Product energy efficiency

Personal systems

Since 2010, the energy consumption of our personal systems products dropped by 50%, on average, despite the general increase in software power demands during that period. This included average reductions in energy consumption of 54% in desktops, 38% in notebooks, and 38% in workstations.¹⁴

Ongoing design improvements in 2019, including more efficient CPUs and power supplies, contributed to continued reductions in typical energy consumption of

Reduction in energy consumption of HP personal systems products*

% decrease since 2010

	2010	2015	2016	2017	2018	2019
Desktops	0%			49%	47%	54%
Notebooks	0%			32%	34%	38%
Workstations	0%			36%	34%	38%
Overall	0%	25%	34%	43%	44%	50%

* The average energy consumption of HP products was estimated annually between 2010 and 2019 using high-volume product lines representative of the overall shipped product volume. The high-volume personal systems product lines include notebook and desktop computers, tablets, all-in-ones, workstations, thin clients, and displays. 2019 Desktops, Notebooks, and Workstations data are averages of performance data for multiple product lines weighted by units sold. 2017 and 2018 Desktops, Notebooks, and Workstations data are non-weighted averages of performance data for multiple product lines. Data in the "Overall" row for all years stated is weighted by units sold.

our desktops, notebooks, and workstations. A continued shift toward smaller form factor desktops, which tend to use less energy, was also a factor.

Between 2011 and 2019, we reduced the annual energy consumption of HP EliteBook 840 or equivalent by 47% and HP EliteDesk 800 small form factor desktops by 40%. In 2019, 15 Elite Displays made the ENERGY STAR® most efficient list. During the year, 100% of HP business desktops used high-efficiency (ECOVA 80+) internal power supplies.

Home and office printing solutions

Through ongoing innovations such as improved fuser technology, increased print speeds, and enhanced power management,

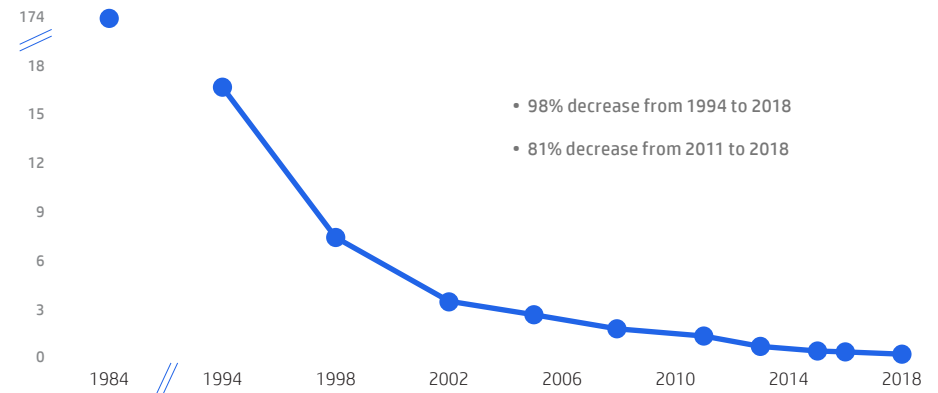
we have driven a multiple decade trend to improve the energy efficiency of HP LaserJet products. This helps our customers reduce energy use in their homes and offices.

During 2019, we continued to achieve energy efficiency gains in our LaserJet products and saw an ongoing shift in the inkjet printer portfolio mix toward more efficient models.

Other technological breakthroughs have expanded on these gains. For example, HP A3 PageWide printers and multifunction printers consume up to 70% less energy¹⁵ than comparable laser printers and reduce carbon footprint by up to 45%.¹⁶ These savings are primarily due to use of a fixed printhead (so that only the paper moves in the printer) as well as exceptionally low sleep mode power use.

Energy efficiency of selected high-volume HP LaserJet printers, 1994–2018

watts/page printed



During 2019, 94% of our home and office printer models shipped were ENERGY STAR certified. We continue to shift our portfolio to ENERGY STAR 3.0, a mark of top performing imaging equipment. For example, HP Color LaserJet and LaserJet Enterprise printers are ENERGY STAR 3.0 certified. Original HP Toner cartridges with JetIntelligence deliver energy-efficient printing of premium-quality pages and a lower carbon footprint. Printers that use HP EcoSmart lower-melt black toner consume 21% less energy, on average, than the previous generation of printers using JetIntelligence cartridges did when the printers were released.¹⁷

Product use carbon and water footprints

GHG emissions from product use equaled 22,500,000 tonnes of CO₂e in 2019, 48% of our overall carbon footprint. The decrease of 3% in absolute emissions from product use compared to 2018 was due to a 5% combined decrease in PC and printer electricity consumption of models shipped in 2019 and a 2% reduction in emissions associated with print consumables such as paper and cartridges.

Fifty percent of product use GHG emissions was due to electricity use. Paper used by customers in HP printers represented 41%, while consumption of ink, toner, and resin supplies accounted for another 9%. HP is

taking steps to make paper use in printing more efficient, through product design features such as pull printing and automatic two-sided printing. New [carbon neutral printing](#) and [sustainable forestry](#) initiatives are also helping to reduce or avoid emissions through carbon offsets and sequestration.

PRODUCT USE GHG EMISSIONS INTENSITY REDUCTION GOAL

Reduce HP product use GHG emissions intensity by 30% by 2025, compared to 2015¹⁸

PROGRESS THROUGH 2019

↓ **18%**

decrease achieved

Product use represented 76% of our water footprint, due to the considerable amounts of cooling water required during electricity generation as well as water use related to paper production. Indirect water consumption related to product use equaled 187,000,000 cubic meters, 4% lower than the prior year, due to the same factors that decreased GHG emissions (see [page 82](#)).

See product use carbon and water footprint [data](#).

Design out waste and use materials responsibly

To create a circular and low-carbon economy, we must gain the most value possible from the materials we use. Waste is an opportunity for ongoing improvement. We work to eliminate waste through innovative design, and use materials thoughtfully and responsibly so that they can safely and efficiently circulate through the economy.

HP is a signatory to the [Ellen MacArthur Foundation New Plastics Economy Global Commitment](#) to eliminate plastic pollution at its source. The three key principles of its framework—eliminate, innovate, and circulate—underpin our broad approach to all materials used in our products and packaging.

Replace materials of concern

We aspire to a world where our products and operations use materials and chemicals that cause no harm. For more than two decades, we have worked to move the electronics industry toward safer alternatives to chemicals of concern. See key milestones in our [Green Chemistry Timeline](#).

The [HP Materials and Chemical Management Policy](#) guides how we specify materials and

Eliminate

- Restrict chemicals of concern for products, packaging, and manufacturing processes
- Eliminate unnecessary packaging materials and space
- Eliminate hard-to-recycle plastic for packaging

Innovate

- Increase materials efficiency
- Require sustainable fiber (certified or recycled) for packaging and paper
- Increase use of recycled plastics and metals for products

Circulate

- Generate demand for recycled content by setting targets to increase its use in our products and packaging
- Choose materials with higher recycling rates worldwide
- Enable circularity by using safer chemical alternatives in products and packaging

Key milestones

- In October 2019, we [announced](#) a \$200 million commitment over five or more years to further develop water-based solutions for printing digitally on corrugated packaging and textiles. This builds on HP's efforts to accelerate more sustainable printing technologies.
- We continued to expand our full materials disclosure program, which requires suppliers to report an ingredients list and the amount of each material used, with provisions to protect confidential business information. During 2019, we collected an inventory of more than 90% of the substances used by our suppliers by product weight for EPEAT® 2019-registered commercial personal systems products.
- As part of our process chemicals management, we continued to gather chemical data from our suppliers, and identified and confirmed implementation of corrective actions.
- In the [2019 CFP survey](#), HP was ranked #3 out of 31 participating companies overall, and shared our answers and scores publicly.
- As of year-end 2019, 98.5% of the total mass of HP products consists of chemicals and materials that are considered safer alternatives.¹⁹

chemicals for use in products, packaging, and manufacturing processes. This policy applies to all HP employees and businesses worldwide and extends to our suppliers. Our approach includes:

- Proactively identifying and evaluating materials used in our products and throughout our supply chain, and publicly providing information on the [material content of typical HP personal systems and printers](#).
- Prioritizing materials for replacement by assessing published lists of substances of concern, customer preferences, new or upcoming legal requirements, and sound scientific analysis that reveals a potential impact on human health or the environment. See HP's [General Specification for the Environment \(GSE\)](#).
- Working with and guiding our suppliers on replacing substances of concern with environmentally preferable alternatives.

When exploring safer alternatives to materials currently in use, we follow a precautionary approach and use the National Academies of Science publication *A Framework to Guide Selection of Chemical Alternatives* and incorporate the GreenScreen® for Safer Chemicals methodology. We screen all of our ink ingredients using the GreenScreen methodology. For more information on our progress toward safer alternatives, see our [Green Chemistry Timeline](#).

HP contributes to standards, legislation, and improved approaches to materials use in the IT sector. As a participating member of [Green America's Clean Electronics Production Network \(CEPN\)](#), during 2019 we helped CEPN create a chemical prioritization framework, and provided input on a green chemistry screening process and conformance assurance program. We are also involved in several projects under Clean Production Action, including the [Business-NGO Working Group \(BizNGO\)](#) and the Chemical Footprint Project (CFP).

Learn about our approach to [responsible minerals sourcing](#), which helps ensure there is no connection between the materials used in HP products and armed violence or human rights abuses.

Increase materials efficiency

We work to continually reduce the volume of materials in new products to lower the impacts associated with raw materials extraction and manufacturing. In 2019, we used 1.02 million tonnes²⁰ of materials in our products and packaging, of which 398,000 tonnes (39%) were renewable²¹ and sustainably sourced.

Materials use intensity (tonnes/\$ millions of net revenue) rose by 8% for personal systems, compared to 2018, due partly to an increase in the average size of displays.

Estimated materials use intensity for HP high-volume personal systems and home and office printers*

tonnes/\$ millions of net revenue

	Personal systems					Home and office printers				
	2015	2016	2017	2018	2019	2015	2016	2016	2018	2019
Metal	3.3	2.7	2.3	2.5	2.7	15.4	17.6	17.0	19.4	19.2
Plastic	1.4	1.5	1.3	1.3	1.5	30.9	33.8	31.6	36.8	38.9
Wires/cables	0.6	0.6	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.4
PCAs	0.5	0.5	0.5	0.5	0.5	1.7	2.0	2.3	2.7	2.5
LCDs	1.1	1.6	1.2	1.2	1.4	0.0**	0.0**	0.0**	0.0**	0.0**
Batteries	0.1	0.1	0.0**	0.0**	0.0**	0.0**	0.0**	0.0**	0.0**	0.0**
Total	7.0	7.0	5.8	6.0	6.5	48.4	53.9	51.3	59.2	61.0

* Personal systems and home and office printers values are based on individual product data. Estimates for home and office printers volumes do not include graphic arts, industrial, web press printers, scanners, or ink or toner cartridges. Product data for personal systems is based on calendar year for 2015 and 2018, and fiscal year for 2016–2017 and 2019. Personal systems data for 2015–2018 are updated to reflect tonnes and not U.S. tons. Product data for home and office printers is based on calendar year for 2015 and fiscal year for 2016–2019. Home and office printers data for 2018 are updated to correct a calculation error. Net revenue data is based on HP's fiscal year. In some cases, segments do not add up to total due to rounding.

** This value is stated as 0.0 due to rounding.

Despite that change, materials use intensity in 2019 was 7% lower than in 2016, due to a shift toward thinner and lighter notebooks as well as a move toward ultra-small form factors for desktops and workstations.

Materials use intensity in home and office printers increased by 3% between 2018 and 2019, due to modest average selling price declines for printers. Moving forward, we plan to evolve our materials use intensity metrics for printers to reflect the entire printing system as well as customer use of our products.

HP designs its printing supplies to help customers reduce materials use. We provide options such as high-yield cartridges, continuous ink or toner systems (CISS or CTSS), HP Instant Ink, and HP Managed Print Services, which decrease the amount of printer cartridge material used per page printed and help customers be productive with a lower environmental footprint.

In partnership with industry-leading companies, we continue to innovate and expand our [portfolio of materials](#) for 3D printing properties that answer customer needs for strong, lightweight, flexible, and functional parts across an increasing range of applications. In 2019, we added BASF Ultrasint® and Lubrizol ESTANE® TPU powders to our portfolio.

Increase recycled content

We are both a supplier and user of recovered materials, incorporating increasing amounts of recycled and recyclable content into new HP products. This helps to accelerate global market development for recovered and recycled materials, to support progress toward a circular economy. Our primary focus is on recycled plastic. During 2019, we used a total of 25,560 tonnes of postconsumer recycled content plastic in HP products. We are also working to increase our use of recycled metals (see sidebar at right).

HP's strategy to use plastics responsibly is to:

- Eliminate plastic—for example, making our products smaller and lighter and removing plastic from [packaging](#) where possible.

- Substitute plastic with more sustainable, alternate materials—as we are doing in our [packaging initiatives](#), swapping plastic foam for molded pulp.
- Replace virgin plastic with recycled plastic—in line with our goal to use 30% postconsumer recycled content plastic in our personal systems and print products by 2025.
- Source recycled plastic from locations where HP can have positive environmental and social impact—for example, we have developed an [ocean-bound plastics supply chain in Haiti](#).
- Invest in take-back and recycling and encourage our customers to take action with us – for example, our [HP Planet Partners program](#) is available in 76 countries and territories worldwide.

[Learn](#) how we are helping to tackle the problem of ocean-bound plastics and generating social and economic value for people in Haiti.

POSTCONSUMER RECYCLED CONTENT PLASTIC GOAL

Use 30% postconsumer recycled content plastic across HP's personal systems and print product portfolio by 2025²²

PROGRESS IN 2019

9%

achieved

Ink and toner cartridges

Through the HP Planet Partners recycling program, our customers in 66 countries and territories worldwide return used HP Original ink and toner cartridges. We disassemble or shred cartridges into their component parts, combine recovered plastic with other postconsumer plastic (such as hangers and plastic bottles) or new plastic, and [cycle it back into the supply chain](#) for use in new HP supplies. See how HP recycles [ink cartridges](#) and [toner cartridges](#).

Reducing the environmental impacts of metals

In 2019, metal represented 41% of materials used in personal systems products and 31% in home and office printers. Aluminum and magnesium are two of the main metals we use, primarily for thin and light notebook enclosure parts. Although these metals contain an amount of recycled content when purchased on commodity markets, it is significantly less than the metals we are working to develop—up to 90% post-industrial recycled content magnesium and up to 75% post-industrial recycled content aluminum—that meet the demanding industrial design requirements of our products. This decreases environmental impacts associated with mining virgin materials and reduces embodied energy and associated GHG emissions. We plan to introduce these metals in selected HP products during 2020.

Postconsumer recycled content plastic used in HP products

tonnes

	2015	2016	2017	2018	2019
Personal systems	N/A	N/A	8,080	8,360	9,650
Home and office printers	N/A	N/A	1,260	4,790	6,760
HP ink cartridges	6,282	5,517	5,901	5,354	5,384
HP toner cartridges	2,437	3,493	2,921	2,746	3,565
Large format printers	N/A	N/A	N/A	N/A	200
Total			18,160*	21,250	25,560*

*Segments do not add up to total due to rounding.

Through 2019, we manufactured over 4.6 billion HP ink and toner cartridges using more than a cumulative 72,000 tonnes of recycled plastic. This has kept 875 million HP cartridges and an estimated 114 million apparel hangers and 4.69 billion postconsumer plastic bottles out of landfills, instead upcycling these materials for continued use. More than 82% of our Original HP ink cartridges contain 45–70% postconsumer recycled content, and 100% of Original HP toner cartridges contain 5–45% postconsumer or post-industrial recycled content.²³

Printers

In 2019, we used 6,760 tonnes of postconsumer recycled content plastic in our home and office printers, 4.0% of total plastics use. Through our closed-loop recycling program for hardware, customers can return used electronic products to any Best Buy store in the United States. Customers who return printers receive a 15% discount on any new HP inkjet printer. Best Buy recyclers process returned hardware and recover recycled plastic resin for HP to use in new printers.

[HP Tango Terra](#), the world's most sustainable home printing system,²⁴ is made with more than 30% recycled content by weight of plastic. Our [HP Sprocket Select](#) printer is made with more than 50% recycled plastic by weight.²⁵

Personal systems

We continue to expand use of postconsumer recycled content plastic in our [personal systems](#)—9,650 tonnes in 2019, 15.5% of overall plastic. Our business PCs and displays include 21.5% postconsumer recycled content plastic, on average.²⁶

Two new personal systems products are milestones in our efforts to increase recycled plastic use across our portfolio while building circular, more responsible supply

Sustainable accessories

[The HP Renew series of laptop bags is designed with the environment in mind. The series includes a backpack, tote, topload, and slim briefcase that are made from recycled materials, including recycled PET from plastic bottles. The largest bag is made with the equivalent of 13.6 recycled 16.9 ounce bottles. The HP Renew Sleeve, a laptop protector also made from recycled plastic bottles, is knitted to shape, minimizing manufacturing waste. The sleeve is made with the equivalent of 8 recycled 16.9 ounce bottles.](#)

chains that prevent plastics from reaching our oceans. The [HP Elite Dragonfly](#), launched in 2019, is the world's first notebook with ocean-bound plastics. Its speaker enclosure component is made with 50% postconsumer recycled content plastic, including 5% ocean-bound plastics. Our HP EliteDisplay E273d is also manufactured with ocean-bound plastics, another world first. [Read more.](#)

Learn how we gain more value from materials through our [product repair, reuse, and recycling programs](#).

Paper and forestry products

The paper used by our customers in HP products represents about 20% of our carbon footprint and 35% of our water footprint. We help customers print more responsibly by designing printers and software to optimize paper use, defaulting many print fleets to double-sided printing, reducing paper waste through HP Managed Print Services, and improving the recyclability of paper by developing solutions for paper de-inking.

Through the [HP Sustainable Forests Collaborative](#) we aim to protect and restore 200,000 acres of forests. This amount of forest would typically produce more paper than used by HP's consumer printers annually.

Rated a global leader for addressing deforestation

[For the second time, HP has been named to the CDP Forest "A" List for our programs to protect forests and address deforestation risk. \[Learn more.\]\(#\)](#)

In 2016, we set a goal to eliminate deforestation from our paper and paper-based packaging supply chain. Since 2016, we have met our zero deforestation goal for HP brand paper (which represented 58% of HP fiber tonnage in 2019), as it is derived entirely from certified and recycled sources.²⁷ In 2019, the amount of Forest Stewardship Council® (FSC®)-certified fiber in HP brand paper continued to exceed 55%, by weight.

Paper-based product packaging represented the remaining 42% of HP fiber tonnage. As of April 2020, all packaging from our first-tier packaging suppliers meets our zero deforestation requirement, and we continue to work with sub-tier packaging suppliers to meet this requirement by the end of 2020.

ZERO DEFORESTATION GOAL

Achieve zero deforestation associated with HP brand paper and paper-based product packaging by 2020²⁸

PROGRESS THROUGH 2019

100%

achieved for HP brand paper in 2016 and maintained that performance through 2019. Reached 80% for paper-based product packaging

HP's [Sustainable Paper and Wood Policy](#)²⁹ was the first forestry policy published by an IT company. We require our suppliers and licensees to follow this policy for the paper, packaging, and wood incorporated into HP products that they provide.

All HP brand paper, paper-based packaging, and wood in products must be derived from recycled and certified sources. We continue to give preference to FSC-certified fiber where available. Programme for the Endorsement of Forest Certification (PEFCTM) certification or relevant national certification schemes can also be used if they comply with our paper policy. We work with [WWF Global Forest & Trade Network \(GFTN\) – North America](#), [FSC](#), and our suppliers to determine the source of virgin fiber and to increase the amount of certified fiber. HP reports progress annually to the WWF GFTN and CDP forests program.

We analyze our supply chain to understand areas of specific risk (due to weak regulation

or ecosystem vulnerability) and create specific strategies as needed. To further support our goal related to packaging, in 2019 we worked with WWF to develop a conformance assurance program. This complements fiber certification and enhances due diligence by identifying high-level country risks, including deforestation, corruption, and illegal harvesting or trading of timber.

Packaging innovation

Our sustainable packaging strategy focuses on three areas, with the objective to enhance customer experience while driving progress toward a circular and low-carbon economy:

- **Eliminate** unnecessary packaging material, space, and hard-to-recycle materials such as plastic foam.
- **Innovate** packaging designs to use materials with lower environmental impact, such as sustainable fiber and recycled plastics.
- Improve **circulation** of materials by using recycled content and choosing materials with higher recycling rates worldwide.

During the first half of 2020, we introduced a goal to eliminate 75% of single-use plastic packaging by 2025, compared to 2018. We are also making progress toward our goal to produce 100% of paper-based product packaging from certified and recycled sources by 2020 (see [Paper and forestry products](#) for progress). To address packaging at end-of-life, we offer take-back services, and regularly update the [Recycle your HP](#)

OUR GOAL

Eliminate 75% of single-use plastic packaging by 2025, compared to 2018³⁰

PROGRESS IN 2019

5%

reduction, from 221 grams/unit in 2018 to 209 grams/unit in 2019

[packaging guide](#) to help consumers avoid sending packaging materials to landfill.

Key initiatives in 2019

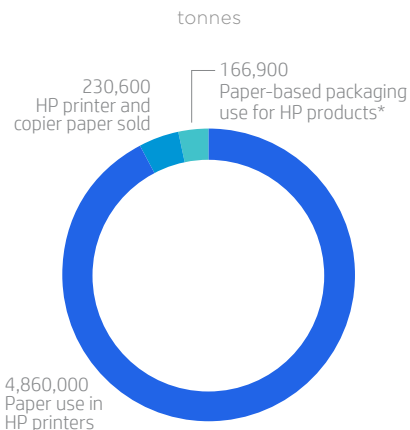
Below is a selection of the many packaging innovation projects completed and underway at HP to advance the circular economy. In 2019, we completed 40 packaging innovation projects that reduced environmental impact, up from 30 the prior year. These projects avoided 1,780 tonnes of CO₂e emissions and saved HP \$3 million.

Elimination

HP is shifting away from plastic, foam, and other hard-to-recycle materials, which have been traditionally used in packaging for most personal systems and printing products. For example:

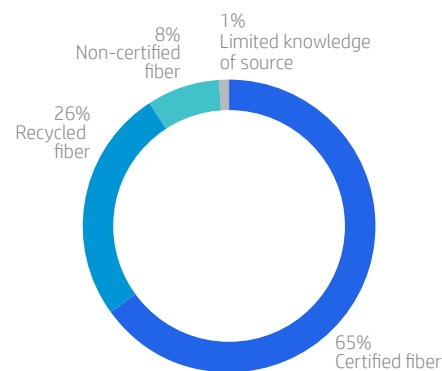
- **Personal systems:** In 2019, we shipped more than 6.8 million units of personal systems products in molded fiber packaging, which eliminated 934 tonnes of hard-to-recycle expanded plastic foam.
- **Printing:** By redesigning the LaserJet M1005 MFP package, we reduced plastic foam by 40% and eliminated over

HP paper impacts, 2019



* Does not include packaging for commercial and industrial graphics printing solutions, or documentation for any products.

HP brand paper and packaging fiber sourcing, 2019



95 tonnes of the material in 2019. In addition, HP avoided more than 24 tonnes of plastic composite material in our inkjet printer supplies packaging.

Innovation

The HP Tango Terra is our first printer with zero plastic packaging, using a combination of molded fiber cushions and glassine paper to replace the typical plastic foam and bag. The new paper pack includes 40% recycled content, is 100% curbside recyclable, and also reduces weight and CO₂e emissions associated with materials.

To meet enterprise customer demands for more sustainable packaging, we have begun shipping notebooks and desktop PCs in multi-unit bulk packs (in which several products share one package). This reduces GHG emissions associated with packaging materials and product transportation and improves shipping density and inventory efficiency. Bulk packaging also reduces customer costs related to shipping, security in storage, and waste disposal. In 2019, we shipped more than 540,000 bulk-packaged HP notebooks and desktops to enterprise customers, reducing packaging material by 51 tonnes.

Circulation

During 2019, we continued the rollout of fiber-based packaging cushions in HP notebook and desktop PCs as well as commercial displays. Close to 7 million

Using 3D printing to advance molded fiber packaging

Molded fiber packaging offers significant environmental advantages compared to plastic. However, creating and maintaining the three-dimensional molds (known as “tools”) used to produce this packaging can be time- and labor-intensive. 3D printing can accelerate and simplify this process while making it much easier to create custom shapes for irregular packaging needs.

HP notebook, desktop, and display units were shipped in 2019 using more than 1,960 tonnes of easily recyclable fiber-based packaging cushions, which typically contain 100% recycled content. We plan to accelerate this shift in 2020.

We also continued to use recycled material for pallets. In 2019, we used 52,000 pallets made from over 2,450 tonnes of [straw](#) from China that would otherwise have been burned as agricultural waste. HP continued its recycled pallet program in North America, using more than 622,000 recycled pallets during 2019.

Planned improvements in 2020

In 2019, HP developed packaging solutions that will deliver sustainability improvements in 2020. Following our move to more fiber-based packaging, we redesigned our A3 printer supplies packaging and expect to eliminate 82 tonnes of plastic packaging in 2020. Using HP Clearview packaging for palletized products, which replaces cardboard paneling with a significantly lighter cardboard frame enclosed with plastic film, the HP PageWide XL large format printer will reduce both cardboard and plastic packaging use, by a total of 173 tonnes. During 2020, we will eliminate an estimated 280 tonnes of documentation from commercial notebooks, replacing it with digital content that can be accessed by QR code with a smartphone.

Regenerate natural systems

In contrast to the “take-make-waste” linear model, a circular economy is regenerative by design and aims to gradually decouple growth from the consumption of finite resources. However, to address the tremendous environmental challenges that we face, we must look beyond our value chain to actively strengthen the natural systems that support us all. This requires true collaboration within and across industries, and between businesses,

governments, NGOs, academics, and others, to achieve the scale necessary. Technology is essential to these efforts, and to driving progress toward a more circular and low-carbon future.

Tackling ocean plastics

In 2016, HP launched an ambitious program in Haiti to help tackle the growing challenge of ocean-bound plastics. In partnership with the First Mile Coalition and our supplier partners, we have now built a fully functioning ocean-bound plastics supply chain.

Through September 2019, we collected more than 35 million plastic bottles to be upcycled into HP print cartridges and hardware products—that’s more than one million pounds (over 450 tonnes) of ocean-bound plastics that might otherwise have washed into the Caribbean Sea.

Through this initiative, we have opened a new market opportunity, providing a steady revenue stream for local collectors, enabling safer working conditions, and supporting local educational opportunities.

We are proud of our progress and recognize that this challenge is bigger than any one company or organization can address. To further advance our progress, in 2018 HP joined [NextWave Plastics](#), a global consortium of worldwide businesses committed to scaling the use of ocean-

bound plastics by developing the first global network of ocean-bound plastics supply chains.

HP was [announced](#) in January 2020 as a founding member of The Ocean Plastics Leadership Network, a membership community dedicated to accelerating collaborative action to address the ocean plastic pollution challenge.

In January 2020, HP also joined [Project STOP](#), which collaborates with governments and communities in Southeast Asia to create effective waste management systems that eliminate plastics leakage into the ocean and provides solutions that can be replicated in other cities. As a technical partner, we are supporting the organization's work to create a circular waste management system in East

Java, Indonesia. The Project STOP materials recovery centers in the province will not only collect, manage, and recycle plastic waste, but also provide income-generation opportunities, including for local people working in the informal waste sector.

HP Sustainable Forests Collaborative

Today, nearly 50% of global forests are under threat due to deforestation and forest degradation. According to WWF, [the planet is losing 18.7 million acres of forest each year](#)—the equivalent of 27 soccer fields per minute. In 2016, HP committed to [eliminating deforestation](#) from our paper and packaging supply chains. However, we recognize that to truly address the global challenges related to forest loss, we must

In 2019, HP launched the world's first notebook and display with ocean-bound plastic material. The [HP Elite Dragonfly speaker enclosure](#) is made with 50% postconsumer recycled plastic, including 5% ocean-bound plastics.³¹ The HP E273d display contains more than 80% recycled plastic, including 5% ocean-bound plastics, the equivalent of more than three 16 ounce recycled plastic water bottles.³² [HP Tango Terra](#), the world's most sustainable home printing system,³³ is made with more than 30% recycled content and the Original HP 64 ink cartridges it uses are made with 48–73% recycled content, including ocean-bound plastics.³⁴

look beyond our own supply chain and partner to protect and help regenerate these valuable natural systems.

In November 2019, we launched the [HP Sustainable Forests Collaborative initiative](#), realizing the value to business and nature of accelerating forest and biodiversity protection and setting targets informed by science. The Collaborative's objectives are to:

- Maintain HP's long-standing commitment to sustainable fiber sourcing through supply chain management.
- Support the development of science-based targets for forests, which includes estimating carbon and nature co-benefits of forest restoration and improved forest management.
- Protect, restore, and improve responsible management of forests.
- Collaborate across HP and with our industry, partners, and customers, using collective influence to inspire action.
- Drive the development of innovative printing technologies that reduce paper waste and improve the efficiency of paper consumption.

In partnership with WWF, the first projects of the Sustainable Forests Collaborative will focus on restoring and improving the management of nearly 200,000 acres (over

80,000 hectares) of forests in Brazil and China, an area equivalent to the size of New York City, by the end of calendar year 2024. The area of forest that will be under these projects would produce enough paper to run through all HP consumer printers over four years.

The first phase of work includes outreach and consultation with local communities, landowners, government authorities, NGOs, academia, and other stakeholders to support these forest conservation actions on the ground. As part of this process, over 1,200 acres (500 hectares) of native forest lands in the Upper Parana and/or Serra do Mar areas of Brazil's Atlantic Forest will be mapped for on-the-ground forest restoration activities over the next five years, with the first round of forest restoration planting planned for the end of calendar year 2020.

In addition to these activities, HP is supporting the development of a Forest Stewardship Council® (FSC®) Consumer Marketplace. This will give consumers an easy-to-use, comprehensive way to find all FSC retail partners and FSC-certified brands as well as a means to purchase certified products. This project will build awareness about the importance of responsibly managed forests and generate demand for FSC-certified products.

Product responsibility

We are committed to the safety, security, and privacy of our customers when they use HP products. The company maintains high standards in these areas and continues to innovate across our portfolio.

Product safety

HP products are designed to operate safely. All HP branded electrical products undergo evaluations and testing to ensure that they meet our safety standards and the external standard IEC 62368-1. We work to identify opportunities for ongoing improvement in this area. We share extensive product safety information online to support our customers' informed purchasing decisions.

Regardless of where they are sold, all HP branded products conform to international electrical safety and electromagnetic compatibility standards. View [Declarations of Conformity](#) for European Union requirements. Contact HP's product compliance customer support at techregshelp@hp.com regarding declarations for other countries.

[Safety Data Sheets](#) are available for HP formulated products, including inks, toners, and 3D powders and bonding agents. The information includes physical, chemical and toxicological properties, regulatory details,

and recommendations for safe handling. Many HP products also qualify for eco-labels and other certifications that cover health and safety as well as environmental aspects.

Home and office printing solutions

Indoor air quality

HP voluntarily designs and tests its printing systems¹ to prevent emissions that exceed eco-label guidelines, and are compliant with

Blue Angel and EPEAT® indoor air quality (IAQ) criteria. Original HP toner cartridges are designed and tested with health in mind.

HP commissioned Fraunhofer Institute WKI to perform a study that tested the emission rates of volatile organic compounds, ozone, dust, benzene, styrene, and ultrafine particles of different cartridge brands used in a popular HP laser printer. The study found that 96% of imitation toner cartridges and 100% of remanufactured toner cartridges tested failed basic Blue Angel IAQ tests.² Subsequently, HP asked Intrinsik, an international toxicology consultancy specializing in consumer product and

pharmaceutical safety, to assess the potential health impacts associated with the resulting emissions data. The [assessment](#) found that emissions from non-HP toner cartridges may contribute to increased health risk.³ For further context, see [U.S. EPA Introduction to indoor air quality](#).

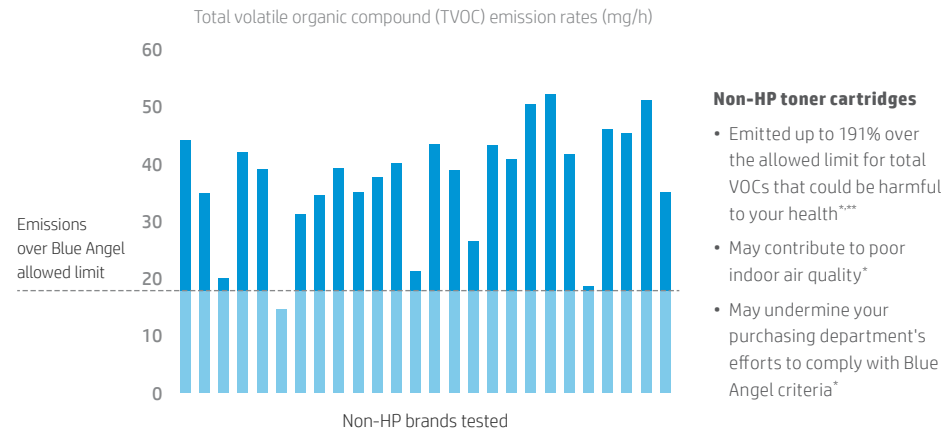
Industrial printing

Safety compliance in sensitive applications

As worldwide requirements for materials used in food packaging are not well harmonized, HP has used regulations and guidance plus requirements from leading food manufacturers to develop an industry-leading safety assessment and qualification process for the indirect-contact food package printing solutions we offer with our Indigo, PageWide Industrial, and Specialty Printing Systems technologies. In summary, we:

- Review carefully each chemical in the process to determine its safety and its suitable purity for food packaging applications—including not intentionally added substances (NIAS).
- Perform migration testing to ensure the safe use of HP's products in this application.
- Provide a Statement of Composition to customers detailing the regulatory compliance status of the substances, good manufacturing practices (GMP), and details of the representative use case evaluated.

96% of non-HP toner cartridges failed indoor air quality tests*



* Nov 2019 WKI Blue Angel Indoor Air Quality study, commissioned by HP, in compliance with DE-UZ 205: 21 imitation and five remanufactured toner cartridge brands compatible with HP Color LaserJet Pro MFP M477fdw (sku# CF410A, 411A, 412A, 413A) purchased in EMEA, LA and NA regions. See HP.com/go/IAQnonhpWKI2019.

** Nov 2019 Intrinsik risk evaluation commissioned by HP. Based on 2019 Blue Angel indoor air quality compliance study, which included VOCs emitted from imitation and remanufactured toner cartridges in accordance with DE-UZ 205 and health-based screening levels established by USEPA (2019) and Cal/EPA Department of Toxic Substances Control (2019a). See HP.com/go/IntrinsikNonHPtoner2019.

Recognizing that we are only one part of the packaging supply chain, we are committed to transparent communication and we support additional qualification testing by our customers—both in food packaging printing and other sensitive applications.

For our textile printing solutions, which include [HP Stitch](#) printers, HP conducts a hazard and regulatory assessment for each substance in the ink formulation to determine its suitability for the application. To ensure HP is meeting customers' sustainability requirements, we also review the formulations against restricted substances lists from individual brands as well as the manufacturing restricted substances list developed by Zero Discharge of Hazardous Chemistries, an industry-wide consortium. We go further on third-party safety certification by obtaining the Eco Passport by Oeko-Tex, an independent certification for chemicals and colorants used in the manufacturing of textiles, which supports customers who wish to obtain the Oeko-Tex STANDARD 100 certification for their textile products.

Product security and privacy

Cybersecurity is an increasing concern of our customers worldwide. We continually enhance HP products, solutions, and services to offer industry-leading resiliency capabilities that anticipate an ever-evolving attack and threat landscape.

We follow security and privacy by design principles for all our products, from design through customer use, refurbishment, and recycling. We build protection, detection, and recovery into the device, not just the software, providing customers with separate, auditable mechanisms for managing security risks. To protect against the malware of the future, PCs and printers must have hardware-level security that integrates seamlessly with the customers' broader IT network security infrastructure. This is the foundation of our strategy.

HP's Security Management Review Committee oversees our portfolio-wide approach to security and provides the resources needed to support HP's continued leadership. Our Security Advisory Board, consisting of several HP leaders as well as three external members with broad backgrounds in offensive and defensive security, advises us on the ever-changing threat landscape, augmenting our other work and research through HP Labs. All three

members have first-hand expertise in the world of hacking and the latest developments in security technology and strategies.

We continually conduct threat analysis on emerging attack vectors, which in turn helps guide product security development efforts. We employ cybersecurity specialists and conduct cybersecurity architecture reviews, penetration testing, code reviews, and automated code scanning using industry-leading tools. When issues arise, we take appropriate actions to remediate reported security vulnerabilities.

In 2018, we adopted the industry best practice [Coordinated Vulnerability Disclosure](#) approach, which describes how we work with partners, industry, and the security community to address vulnerabilities. When notified about a suspected vulnerability, we investigate thoroughly and, if confirmed, work with the submitter on remediation and a coordinated public release of information.

The HP supply chain security group works to ensure that our products can resist attacks throughout the supply chain life cycle, from component sourcing and manufacturing to transportation, service, and take-back. Our HP Product Cybersecurity Standard for Suppliers, enforced through periodic audits, contractually holds relevant suppliers to requirements that mitigate the risks of counterfeits, malware, and tampering.

Personal systems

HP produces the world's most secure and manageable PCs and workstations.⁴ Our commercial PCs with HP Sure Start meet and exceed the National Institute of Standards and Technology's (NIST) [Platform Firmware Resiliency Guidelines](#).

The HP Endpoint Security Controller is our foundation and has been certified by a third-party lab. It establishes a Hardware Root of Trust and is physically isolated from the machine's CPU and operating system, providing resiliency to the PC.

[HP Proactive Security](#) is the world's most advanced endpoint security service.⁵ The managed service helps small and medium-sized businesses defend against cyberattacks without changing user behavior or increasing IT workload.

HP Sure Click Enterprise, powered by Bromium,⁶ is the world's most advanced hardware-enforced endpoint application isolation and containment solution,⁷ protecting enterprise endpoints from even the most sophisticated of attackers while providing detailed, real-time threat intelligence to security teams.

Learn more about [security solutions](#) and [Sustainable Impact](#) in our personal systems.

Printers

HP's printers and multifunction printers offer the industry's strongest security features,^a and our FutureSmart printers meet and exceed the NIST [Platform Firmware Resiliency Guidelines](#). HP FutureSmart printers automatically self-heal and recover from attacks, following four unique and automated steps. [Learn more](#).

Through our bug bounty program, we offer rewards for highly trained, geographically diverse ethical hackers who expose flaws in our print technology. The program leverages deep, hard-to-find technical skills to find obscure, previously unidentified vulnerabilities in our devices before they are released to market.

[HP JetAdvantage Security Manager](#) is the industry's only comprehensive policy-based printer security compliance tool that assesses and remediates HP printer fleets.

[HP Print Security Services](#) combines credentialed security experts and trained print specialists to assess customers' printing environments, address compliance requirements, develop and implement plans, provide ongoing management, and proactively identify gaps in defenses.

Learn more about [security solutions](#) and [Sustainable Impact](#) in our printers.

Social impact

HP's commitment to creating positive, lasting change for people and communities around the world extends to how we design and deploy products, solutions, and services to meet the unique business needs of key verticals and industries. Our portfolio of education products, partnerships, and programs are helping to enable better learning outcomes for millions of people worldwide. HP's purpose-built [healthcare](#) portfolio is designed with clinicians in mind to streamline patient care, optimize clinical workflows, and deliver customized solutions. A strong focus on [inclusive design](#) helps to ensure that everyone can access the benefits of our technology.

Global education programs

Access to a quality education is a fundamental human right. This belief is at the core of our global education programs and solutions, which emphasize access for all and deliver educational opportunities to girls, women, and some of the world's most vulnerable and marginalized communities. Whether learning takes place in school, on campus, outside of the classroom, or at work, technology is essential to providing equitable

access to education and preparing people with critical skills needed for the future.

HP is creating conditions for better learning outcomes for all people, to advance inclusion, foster equity and equality, and accelerate economic opportunity. Our education programs and initiatives are either funded by our business groups or the HP Foundation.

OUR GOAL

Enable better learning outcomes for 100 million people by 2025, since the beginning of 2015

PROGRESS THROUGH 2019

28.7 million+

students and adult learners have benefited from HP's education programs and solutions that advance quality learning and digital literacy, and enable better learning outcomes, since the beginning of 2015

Campus of the Future

HP's Campus of the Future framework creates vibrant, secure environments for teaching, learning, research, and collaboration. As part of this initiative, HP is working with more than 20 elite colleges and universities, providing cutting-edge technologies alongside financial and technical support. These collaborations are exploring the types and uses of 3D printing (additive manufacturing), virtual reality (VR), and augmented reality (AR) to identify the technologies with the greatest potential for teaching, learning, and research. For example:

- At the University of Nebraska–Lincoln, the Johnny Carson Center for Emerging Media Arts is unleashing technologies such as 3D Design, VR, and AR to inspire student imagination. Using equipment provided by HP, media arts, medical, and computer science and engineering faculty are collaborating to develop custom VR software designed to assist people with autism spectrum disorder and cerebral palsy.
- Columbia University's Emerging Technology Consortium is sharing information and disseminating advanced technological tools provided by HP across the campus, such as VR, AR, and machine learning. These tools are being used to foster collaboration and to help faculty and researchers develop next-generation applications, improve research outcomes, strengthen expertise, and transform teaching and learning.

We partnered with MIT SOLVE during 2019 on its [Circular Economy Challenge](#) by co-hosting a Solveathon design-thinking workshop at our Palo Alto, California, headquarters. This brought together creative, like-minded thinkers in the Bay Area community to ideate on solutions that could help shift supply chains from linear to circular in order to reduce waste and improve lives. The workshop explored approaches to creating products that use renewable materials and are reusable, repairable, and recyclable. Key themes included the elimination of ocean-bound plastics through closed-loop processes, the transformative potential of 3D printing, and shorter, simpler supply chains. Overall, MIT SOLVE generated more than 300 solutions to the Circular Economy Challenge.

Classroom of the Future

HP has continued to focus on inclusive access to technologies, tools, and materials that advance quality education and promote opportunities for people everywhere. In 2019, HP Learning Studios brought state-of-the-art educational technology into more than 100 schools across North America, Europe, the Middle East, Australia, and New Zealand. See page 94 for detail on HP Learning Studios for refugees and displaced populations.

We offer tools and technologies that boost teachers' vital contributions. Every Windows 10-based HP Education Edition PC ships pre-loaded with HP Classroom Manager. Through one console, teachers can cultivate a collaborative learning environment, monitor student activities, and evaluate progress in

real time. With co-molded industrial rubber, pick-proof keys, and other rugged features, these PCs are built to last in the classroom and tested in a laboratory environment that simulates a school setting.

[HP shipped 6.3 million PCs to schools in 2019.](#)

Education as a foundation for an inclusive Fourth Industrial Revolution

The Fourth Industrial Revolution is a profound, technology-enabled transformation that is set to reinvent how goods are designed, created, and delivered. While still in its early stages, studies indicate

it could lead to the creation of millions of new jobs,¹ including in positions that may not yet exist today.

This presents an urgent need to educate current and future generations so that they can make a successful transition, and so that we can help to ensure a diverse and inclusive Fourth Industrial Revolution. This includes programs to serve those displaced by automation, educational systems to retrain those with transferrable skills, and preparation for the next generation.

At HP, we are implementing best practices in workforce training to develop the next generation of diverse talent, working with partners to develop 3D printing engineering curriculum, and fostering collaboration with governments to address skills of the future. For example:

- The HP-NTU Digital Manufacturing Corporate Lab in Singapore, founded with the National Research Foundation Singapore, supports the university's efforts to democratize digital manufacturing on a global scale. It is the first public-private partnership of its kind in Asia.
- We are working on curriculum modules for higher education, offer design for additive manufacturing training and workshops for professionals, and published the HP Multi Jet Fusion Engineering Handbook to help designers create parts for production using HP 3D printing technologies.

Building future skills at the local level

Little Makers Challenge, Malaysia

In line with the Malaysian Ministry of Education's focus on introducing technology and play-based learning while decreasing reliance on textbooks, we launched the Little Makers Challenge for parents, teachers, and 5 to 12-year-old children to play and learn together. Centered on the use of printers and digital print media to inspire creative learning, the campaign invited children to submit their projects in arts, geography, biology, astronomy, and other topics. Over 18,600 entries were submitted, representing an estimated 90,000 hours of play and learning activity. The winning school, SK Saujana Utama in Sungai Buloh, Malaysia, generated the highest number of entries for all eight challenges and won PC and print equipment from HP.

New Asian Learning Experience, Indonesia and Singapore

Following HP's National Education Readiness survey conducted in Bogor, Indonesia, we launched the HP New Asian Learning Experience, which revealed how young children learn through experiences and technology. We hosted a Family Day for 30 families to show how children can learn better through both print and digital mediums and brought the message to schools in four Indonesian cities.

In Singapore, building on insights from the survey conducted in Indonesia, we delivered an interactive learning experience to 200 parents and their young children. At Fort Canning Park, the families took an immersive journey through history, enabled by print innovation from HP.

Modular Tech Hubs, Southeast Asia

To help meet the demand for technology in educational settings, we are providing HP Modular Tech Hubs to schools in Southeast Asia, enabling students to use HP PCs to learn coding and Microsoft Office skills. The program also includes training to support teachers to improve learning outcomes through technology. We plan to launch 20 hubs by the end of 2020, with the aim of reaching a total of 10,000 students. As of December 2019, we launched six hubs and reached more than 3,500 students.

Digital Schools Awards, Europe

Digital Schools Awards (DSA) is an HP-led initiative to cultivate, encourage, and recognize use of technology in schools to support improvements in teaching, learning, and assessment. At the end of 2019, 49% (3,630) of primary and secondary schools in Ireland, Northern Ireland, and Scotland were registered in the program, up from 42% in 2018. Approximately 885,000 students have benefited from the program since it started in 2014, including an additional 175,000 in 2019.

In Scotland, we also introduced DSA to 44 early years (ages 2–5) and special education schools in 2019, and launched the cyber-resilience and Internet safety badge in Northern Ireland and Scotland. During the year, we received the backing of the European Commission to extend DSA to additional countries, and plan to launch the program in Lithuania, Serbia, and Slovenia in 2020.

HP National Education Technology Assessment (NETA)

The HP NETA program—which uses a combination of macroeconomic analysis, hyper-local insights, and predictive analytics—supports policymakers and governments to create education technology programs that teach skills employers need. In Idaho, United States, in partnership with Idaho Business for Education, we carried out an [extensive, statewide study on education and the economy](#). With contributions from more than 1,800 Idaho businesses, teachers, school leaders, and government representatives, the study showed that education system performance and vibrant growth are intrinsically linked. The final report highlighted recommendations for Idaho’s government and education leaders, as well as guidance for the private sector, focusing on long-term education and economic competitiveness.

HP School Cloud

HP School Cloud is a hybrid cloud appliance enabling students and teachers in rural, poor, and marginalized communities to access free, high-quality open source educational resources—even without an Internet connection. Featuring the HP Open Learning Platform and in partnership with OpenStax, HP School Cloud provides access to millions of e-textbooks and thousands of lessons on reading, science, mathematics, and more. Resources align with international curricular and instructional standards from UNESCO, OECD, and others. See below for

details on HP School Cloud for refugees and displaced populations.

Refugees and displaced populations

We work with the United Nations High Commissioner for Refugees (UNHCR) and other partners to enable refugees and displaced populations to learn in-demand skills to enhance employment opportunities. Examples include:

- **Uganda:** HP School Cloud was piloted with partners including Education Cannot



Refugees living in the Azraq Camp in Jordan designed the structure and interior of their own HP Learning Studio, including its accessibility features. As part of this process, the two Learning Studios that were originally planned were combined into a single, larger facility. Using this experience, the refugees went on to explore ideas for making other accessible structures in the camp and also took HP LIFE courses to further their business skills. Photo credit: Schaumberger/InZone

Wait (a global fund of UNICEF), UNHCR, and Learning Equality. The technology is currently being used in 12 secondary schools across Uganda (both rural and urban) with high concentrations of refugees—reaching over 6,000 refugee students as well as their Ugandan peers and teachers during 2019. [Watch video.](#)

- **Lebanon:** HP is partnering with the Clooney Foundation for Justice, UNICEF, and Google.org to improve educational opportunities for thousands of Syrian refugees and Lebanese students. For example, in the Fern El Chebbak middle school, the principal instigated a mandatory IT period to tackle basic digital literacy. After gaining confidence, students moved on to the next level of skills, including text editing and Internet search.
- **Jordan/Lebanon:** We launched three HP Learning Studios in Lebanon in early 2020. This follows the two HP Learning Studios launched in Jordan, in the Azraq Refugee Camp and Amman.

Gender equality

More than 130 million girls around the world lack access to education, and women account for two-thirds of the 750 million adults without basic literacy skills. To improve gender equality in education, on International Day of the Girl in October 2019, we announced with nonprofit Girl Rising the launch of new curriculum and technology solutions that will equip up to

10 million students and teachers. The multi-year partnership extends to communities in the United States, India, and Nigeria. HP will include Girl Rising’s teacher training modules focused on youth empowerment and life skills in HP Education Edition PCs. Targeted toward primary and secondary schools, we will also deploy a suite of curricula and a library of content to accompany the HP School Pack, a suite of software pre-loaded onto HP’s EHP Education Edition PC.

HP is also collaborating with UN Women to advance education, entrepreneurship, and digital learning for women and girls in five

HP LIFE

[HP LIFE \(Learning Initiative for Entrepreneurs\) is a free e-learning program from the HP Foundation that is advancing education, promoting entrepreneurship, and supporting development of the next generation of female leaders. HP LIFE offers 32 free courses in seven languages, available both online and offline, hosted on the Learning Equality platform, Kolibri. The program has enrolled nearly 800,000 new HP LIFE users from 2012 through 2019. See \[Community giving and volunteerism.\]\(#\)](#)

[Discover more about HP technologies to advance learning.](#)

priority countries: Senegal, South Africa, Nigeria, Democratic Republic of Congo, and Morocco.

Through Hour of Code and CodeWars, volunteers from HP teach coding in schools and community organizations around the world in order to reach underserved student communities, particularly ethnic minorities and young women. See [Community giving and volunteerism.](#)

HP World on Wheels mobile learning labs

HP is bringing self-contained, Internet-enabled, solar-powered mobile learning labs to rural areas of India. The HP World on Wheels (WOW) program supports digital literacy, education, entrepreneurship, and citizen services, aiming to provide access to more than 15 million people across 6,400 Indian villages by 2022. Each 20-seat WOW vehicle is equipped with HP computing and printing technology, as well as software and e-learning tools. Since the rollout of 43 WOW mobile learning labs in rural India during 2017, we have provided access to WOW resources to an estimated 3.5 million people across more than 1,400 villages.² HP WOW complements other HP initiatives—including

HP LIFE, HP Future Classroom 2.0, and HP Common Service Lab—and demonstrates how we apply our technology to overcome power, space, infrastructure, and equipment challenges in rural communities.

Healthcare

From our healthcare portfolio of PC and printing solutions to personalized 3D-printed prosthetics, HP innovations focus on meeting specific challenges in the sector. Our solutions are designed to help clinicians improve patient outcomes, boost efficiency, and increase access for underserved populations.

HP Healthcare Edition Portfolio

New innovations in our healthcare portfolio are designed to address the most pressing issues facing the healthcare industry today, including patient safety, care coordination, clinical efficiency, and security. Developments announced in 2019 included:

- Sanitizable keyboards and touch-enabled control panels through nitrile, latex, and surgical gloves—to help prevent the spread of infection.³
- Certified printers that reduce electromagnetic interference to sensitive patients and equipment.⁴
- Secure patient wristbands to increase the accuracy of patient identification.

- Solutions built through collaborations with Cerner and Biscom to reduce care provider burnout and improve care coordination.⁵

In addition, HP provides the world's most secure PCs⁶ and printing solutions⁷ to protect patient privacy and security.

Learn more about HP solutions for [healthcare](#) and our [Healthcare Edition Portfolio](#).

3D printed anatomical models and prosthetics

The promise of personalized medicine is catalyzing rapid adoption of 3D printing across the industry as it enables uniquely customized medical models. At Rady's Children Hospital in Southern California, HP Multi Jet Fusion technology is helping medical teams to improve pre-operative planning and outcomes. Color anatomical models produced on the HP Jet Fusion 580 Color 3D printer allow surgeons to explore new parts of patient anatomy, helping physicians to decrease surgical times and reduce the amount of fluoroscopy radiation the patient receives. [Watch video](#).

3D printing is also heralding a new era in prosthetics, with devices that are highly personalized and functional, better-fitting, and more comfortable. Four out of five of the estimated global population of 30 million amputees who need prosthetics live in developing economies—many with

no access to devices.⁸ Traditionally made, a new prosthetic leg can cost anywhere between \$5,000 to \$50,000, and high-end options can cost up to \$100,000. In a sector where production volumes are low, HP Multi Jet Fusion technology can unlock the full potential of 3D printing by reducing both cost and lead times.

Companies such as [Unlimited Tomorrow](#) in the United States recognize the potential to take 3D printed prosthetics to a large-scale, industrial level. The organization's mission is to deliver prosthetics globally to enhance the quality of lives of amputees, and it helps make advanced artificial prosthetics [accessible to underserved populations](#).

The company uses a pair of HP Jet Fusion 580 color 3D printers to produce precisely shaped, custom artificial prosthetic devices at an affordable price. Unlimited Tomorrow is aiming to go to market in 2020, selling its devices at a price between \$5,000 and \$10,000 per unit—roughly one-tenth of the cost of similarly advanced prosthetic arms. The devices are remotely fitted, enabled by artificial intelligence, and have a multi-day battery life. The limbs can be printed to match any skin tone and in the exact shape and size to match recipients' bodies. And with 3D printing, each arm weighs only about one and a half pounds (0.7 kg) whereas traditional prosthetic arms can weigh eight pounds (3.5 kg) or more.

[See more case studies](#).

Microfluidics and cancer detection

HP has decades of experience in manipulating fluids at the microscopic level, which we are applying to the detection of cancers. A team in our Print Adjacencies and Microfluidics Lab is working to develop a new method for isolating rare cancer cells. This research deploys a combination of hydrodynamic and electric fields to separate cells based on electrical properties. This approach has the potential to result in a new tool for liquid biopsies that is cheaper and more accurate than existing methods. [Learn more](#).

Inclusive design

Inclusive technology affirms human dignity, promotes independence, and unleashes creativity. Every person's access needs are diverse and individual, and can be situational, acquired, temporary, or lifelong. Customer requirements for accessible products continue to increase, especially to support the rapidly aging population globally. We are committed to ensuring that the benefits of our innovative technology empower people worldwide.

We track design and evaluation guidance for requirements in worldwide accessibility standards such as Web Content Accessibility Guidelines (WCAG) 2.1 (levels A and AA), U.S. Revised Section 508, and the E.U. EN 301 549.

This supports our efforts to consider inclusive design early in product development, in addition to incorporating feedback from the global disability community.

HP enhances the customer experience and inspires people with elegant, easy-to-use products. For example, we incorporate easy-to-use voice technology in our web-enabled consumer printers such as HP Tango, and offer the HP Accessibility Assistant—our secure voice and screen reader accessory—in a wide range of office printers. We design our PCs to be compatible with popular assistive technology, including the HP All-in-One product line, which is a favorite among seniors and individuals needing an easy-to-use PC.

HP contributes to accessibility conversations and initiatives by regularly sponsoring, attending, and speaking at conferences and government forums. We are a recognized voice in a range of industry and government efforts to advance worldwide standards and policies that improve the accessibility of information and technology for everyone.

Visit the [HP Office of Aging and Accessibility](#) for more information.

Products and solutions portfolio

HP aims to deliver technology that improves lives and enables our customers and consumers to achieve more, safely and with less environmental impact. Through our portfolio of products and services, we create shared value for planet, people, and the communities where we live, work, and do business.

- From laptops and workstations to gaming and VR devices, we design our [personal systems](#) products and services to provide customers the security, durability, and energy and materials efficiency they expect and depend on.
- As the global leader in [home and office printing solutions](#), we continue to redefine

the marketplace, delivering sustainable next-generation solutions and service-based models to meet the needs of our customers globally.

- Our [industrial printing solutions](#) are driving the analog-to-digital revolution, transforming our customers' supply chains, and better matching supply with demand across the 2D printing and publishing industries, as well as other commercial and industrial sectors such as packaging and labeling.
- HP [3D printing technology](#) is driving transformation across sectors, changing how whole industries design, make, and distribute products for a more sustainable Fourth Industrial Revolution



Investing in R&D

HP is reinventing the future through transformative technologies that will disrupt industries and economies around the world.

In 2019, HP spent \$1.5 billion on ongoing product development and creating the transformative and disruptive technologies of the future. We invest in areas where we can make the greatest impact, and we integrate sustainability into our research agenda. Read more at hpmegatrends.com.

The majority of our R&D spending is focused on inventions and development for products that will be released in the next one to two years. The rest is dedicated to HP Labs and the business units for new business creation (including 3D printing and microfluidics) and for developing technologies that will mature over the following three to seven years.

At [HP Labs](#), we focus on new technologies that will either result in new business creation, fundamental breakthroughs in science, or new product categories. Key areas of research include:

- Artificial intelligence and emerging compute
- Print adjacencies and microfluidics
- Security
- 3D printing
- Digital manufacturing

As of October 31, 2019, HP's worldwide patent portfolio included over 27,000 patents.

See [Personal systems](#), [Home and office printing solutions](#), [Industrial printing](#), and [3D printing](#) for examples of innovation in each of our product groups.

Personal systems

Driven by customer insights, HP Personal Systems is aiming to create the world's most exciting and sustainable portfolio, built on intelligent services and innovative solutions. Central to these efforts, we are accelerating our shift away from virgin materials and increasing use of recycled content. At the same time, we design our notebooks, desktops, and workstations for quality and durability, to keep valuable materials in use for a long time. Leveraging the power of IT, our products support education solutions and programs to strengthen the workforce and empower communities worldwide.



HIGHLIGHTS

↓ **8%**

in materials use intensity since 2016

9,650 TONNES

of plastic in our personal systems products (15.5% of the total) was postconsumer recycled content¹

21.5%

of plastic, on average, in our business PCs and displays was postconsumer recycled content

934 TONNES

of hard-to-recycle expanded plastic foam eliminated by shipping more than 6.8 million units of personal systems products in molded fiber packaging

ASSURED SECURITY

HP produces the world's most secure and manageable PCs and workstations²

51 TONNES

of packaging material avoided through innovative bulk packaging solutions

91%

ENERGY STAR[®] certified products—more than any other manufacturer

50%

reduction in portfolio energy consumption since 2010:

- 54% for desktops
- 38% for notebooks
- 38% for workstations

HP LEARNING STUDIOS

brought state-of-the-art educational technology into more than 100 schools across North America, Europe, the Middle East, Australia, and New Zealand in 2019

MORE EPEAT[®] GOLD AND SILVER PRODUCTS

in more countries than any other PC vendor³ and 1st manufacturer to bring EPEAT 2019 Gold and Silver products to market

SUSTAINABLE IMPACT PRODUCT INNOVATIONS

HP EliteBook 840 G6

- ENERGY STAR® certified.
- EPEAT® 2019 Gold.⁴
- TCO certified.
- iFixit Score 10 out of 10 for repairability.
- Designed to pass military standard MIL-STD-810G testing for durability.
- 37% decrease in energy consumption compared to the EliteBook 840 G1 Notebook PC.

HP Elite x2 G4*

- ENERGY STAR certified.
- EPEAT 2019 Gold.⁵
- TCO Certified.
- iFixit Score 9 out of 10 for repairability.
- Designed to pass military standard MIL-STD-810G testing for durability.
- 5% smaller footprint than previous generation.

HP workstations

Making new PCs out of old ones

- The HP Z4 G4, Z6 G4, and Z8 G4 workstations are the first products in our portfolio to use IT equipment closed-loop plastic.
- These are also the first products to claim the ITE-derived closed-loop plastic optional point on the new EPEAT 2019 registry.

HP EliteDisplay E273d*

World's first display with ocean-bound plastics

- More than 80% recycled plastic.⁶
- Includes 5% ocean-bound plastics, the equivalent of more than three 16 ounce recycled plastic water bottles.⁷
- 100% fiber recyclable packaging (with no foam cushions).¹⁰

HP Elite Dragonfly*

World's first notebook with ocean-bound plastics

- Speaker box made with 50% postconsumer recycled plastic, including 5% ocean-bound plastics.⁸
- Over 80% of all mechanical parts in the HP Elite Dragonfly are made from recycled material.⁹
- EPEAT 2019 Gold.¹⁰
- The world's lightest compact business convertible,¹¹ weighing less than 1 kg.¹²

HP Device as a Service

(DaaS)

- [Our DaaS offering](#) for commercial PCs delivers hardware, analytics, management, and life cycle services to help customers optimize assets and IT resources.
- Life cycle assessment has shown that compared with transactional sales, DaaS reduces GHG emissions by 25%, improves resource efficiency by 28%, decreases ecosystems impacts by 28%, and reduces human health impacts by 29% for a notebook PC. [Learn more.](#)



HP Elite Dragonfly



HP Elite x2 G4



HP EliteDisplay E273d



HP EliteBook 840 G6

* Recognized in CES Innovation Awards 2020. For the HP EliteDisplay E273d, we were recognized in the Sustainability, Eco-Design & Smart Energy category.

Home and office printing solutions

Our vision for sustainable printing builds on long-term goals and progress in responsible sourcing of forest products, climate action, circular economy innovation, and health and safety. Through partnerships and investments, we are driving progress toward a forest positive future for print and moving beyond zero deforestation to focus on protecting, restoring, and improving the management of forests around the world. To reduce our environmental impact and that of our customers, we are advancing carbon neutral printing through design innovation and service-based solutions, while increasing use of postconsumer recycled content plastic in hardware and supplies. At the same time, we are working toward 100% paper packaging and reducing single-use plastic by 75%. While striving towards these goals, we also work to ensure that all of our printing solutions can be used safely by our customers.



HIGHLIGHTS

Partnering to restore, protect, and conserve

200,000

ACRES of forests in China and Brazil through the [HP Sustainable Forests Collaborative](#)

15,700 TONNES

of HP ink and toner cartridges recycled in 2019

HP CONSUMER PRINT IS ON TRACK

to be forest positive by 2025¹³

1ST HP PRODUCT CERTIFIED AS CarbonNeutral:

[HP Tango Terra](#), the world's most sustainable home printing system¹⁴

BY 2025

HP Instant Ink and HP Managed Print Services to be carbon neutral¹⁵

40%

Reduction of plastic foam in our LaserJet M1005 MFP package

220+ TONNES

of ocean-bound plastics used in HP ink cartridges through 2019

HP'S PRINTING SYSTEMS¹⁶

are designed and tested to ensure emissions do not exceed eco-label standards and guidelines. 96% of non-HP toner cartridges and 100% of remanufactured toner cartridges tested failed basic Blue Angel indoor air quality tests¹⁷

[Learn more](#)

INDUSTRY'S STRONGEST SECURITY FEATURES

in HP's printers and multifunction printers¹⁸

SUSTAINABLE IMPACT PRODUCT INNOVATIONS

Service-based solutions

- [HP Managed Print Services \(MPS\)](#) reduces GHG emissions by 12%, improves resource efficiency by 13%, and decreases ecosystems impacts by 12% for a multifunction color laser printer. [Learn more.](#)
- [HP Instant Ink](#) on average decreases the carbon footprint of ink purchase and distribution by 73%, while reducing energy use by 69% and lowering water use by 70%, compared to traditional cartridge purchases. [Learn more.](#)

HP Color LaserJet Managed E75245dn

A printing system backed by sustainable design

- ENERGY STAR® 3.0 certified.
- EPEAT® Registered Silver.²²
- JetIntelligence toner technology: high-quality pages; high-yield options and page maximizer; intelligent tracking of toner levels.
- Original HP EcoSmart lower-melt black toner: helps enable an average 21% energy savings²³ and lower carbon footprint.
- Due to quality, performance, and reliability, these business printers are widely used in our Managed Print Services offering.

HP Tango Terra

The world's most sustainable home printing system¹⁹

- Made with more than 30% recycled content by weight of plastic.
- First HP product certified CarbonNeutral.²⁰
- Delivered with Forest Stewardship Council®-certified paper and plastic-free packaging.²¹
- Accompanied by a subscription to HP Instant Ink, using HP Original Ink cartridges that contain 48–73% recycled plastic, including ocean-bound plastics.

HP Neverstop

World's first cartridge-free laser printer²⁴

- Made with more than 25% recycled content by weight of plastic. The toner reload kit is made with 75% recycled plastic (based on empty weight).
- ENERGY STAR certified.
- HP voluntarily designs and tests its printing systems²⁵ to prevent emissions that exceed Blue Angel eco-label guidelines. HP Neverstop laser with Original HP Toner Reload Kit is designed and tested with your health in mind.²⁶
- Up to a 16% CO₂ reduction in environmental footprint over its life²⁷ versus standard laser printers, due to its continuous toner supply system (CTSS)²⁸ and recycled content.²⁹



HP Neverstop



HP Color LaserJet Managed E75245dn

Industrial printing

HP offers a wide range of industrial printing systems for the commercial printing, packaging, textile, and large format markets. We continue to invest and innovate to extend our print solutions to even more applications. HP announced in October 2019 that it has committed \$200 million over five or more years to further develop water-based solutions for printing digitally on corrugated packaging and textiles. And in 2020 HP Indigo will introduce a new platform, LEP X, that will maximize productivity while minimizing printing wastes.

Learn about the sustainability advantages of digital compared to analog printing.

As part of HP's program to accelerate more sustainable solutions for our customers and the entire industry, we have a robust safety assessment process for new product development in combination with ongoing technical and regulatory support to qualify customer solutions. Moving forward, we will continue to enable and advance a truly circular economy for industrial printing.

PRODUCT SPOTLIGHT

DesignJet XL 3600 printer

- Designed to deliver immediate results through the fastest page out in the market while also reducing environmental impact and running costs.
- First EPEAT® Gold³⁰ certification for HP large format printers.
- ENERGY STAR® certified.
- Operates silently in office environments with maximum noise levels of only 42 decibels.
- Winner of a world-renowned [iF Design Award 2020](#).

Consumes up to

10 TIMES

less energy than comparable toner light-emitting diode (LED) printers

25%

postconsumer recycled plastic content



SUSTAINABLE IMPACT PRODUCT INNOVATIONS

Large format printing

DESIGN AND RENDERING • PHOTO AND FINE ART • SIGN AND DISPLAY DECORATION • SOFT SIGNAGE • TEXTILE

- The most recent generation of [HP's Latex inks](#) are now able to print on rigid substrates, further extending the application of these versatile water-based inks. They have UL Ecologo certification for environmentally preferable inks as well as Greenguard Gold certification, which stipulates that printed materials and other everyday products must meet rigorous standards for chemical emissions. This market, traditionally dominated by UV ink, now has a better alternative not reliant on reactive chemistries.
- In 2019, we announced the [HP Stitch textile printer series](#), our water-based digital textiles solution. The HP Stitch S400 and S500 achieved EPEAT® Silver³¹ and ENERGY STAR® certifications. The water-based inks meet the Oeko-Tex EcoPassport criteria and the printed material meets Greenguard Gold for indoor air quality.



Commercial printing

PUBLISHING • MARKETING COLLATERAL • PHOTO DIRECT MAIL AND INFO PRINTS

- HP provides solutions for high-volume commercial printing with both its [Indigo](#) and [PageWide Industrial](#) (PWI) presses.
- HP's digital printing solutions avoid many of the safety issues that can be associated with older analog printing technologies, by reducing the potential for chemical exposures and other physical hazards. [Learn more.](#)
- HP promotes the use of sustainable media by including them in our qualification processes and highlighting them in our [Media Solutions Locator](#).



Labels and packaging

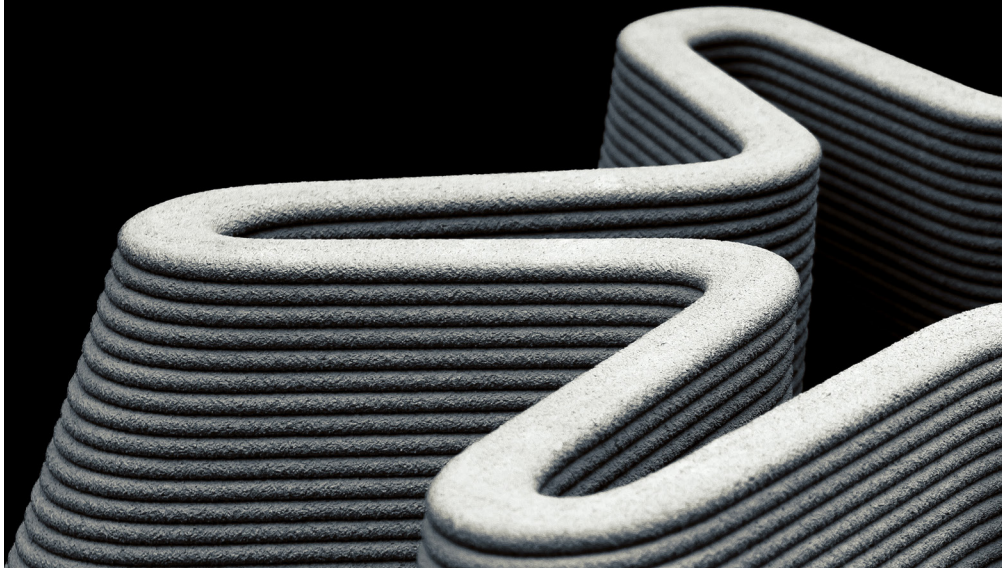
LABELS • FOLDING CARTON • FLEXIBLE PACKAGING • CORRUGATED PACKAGING

- [HP Indigo presses](#) provide [food safe package printing solutions](#) for labels, flexible packaging, and folding cartons.
- [HP PageWide Industrial presses](#) provide food safe packaging printing solutions for corrugated packaging. In addition, the inks and primers used are UL Ecologo certified.
- HP packaging solutions have been certified to ensure that the inks used will not interfere with the recycling of packaging materials. In addition, the Indigo inks have been certified for use on compostable labels and flexible packaging.^{32, 33}



3D printing

During the next 10 to 15 years, socioeconomic forces, design and production innovation, and highly automated printing processes will intersect to transform manufacturing. 3D printing is a vital engine of this Fourth Industrial Revolution and a key enabler in the shift toward a more circular, sustainable, and inclusive economy. HP Jet Fusion 3D printing solutions, based on disruptive HP Multi Jet Fusion technology, will help to reinvent design. Parts can be made to optimize materials use while delivering fine detail combined with strength. 3D printing brings production closer to the point of consumption, which simplifies supply chains and drives reductions in carbon emissions and waste. To learn more, read our document [Transforming Design and Manufacturing](#).



HIGHLIGHTS

Up to

80%

surplus 3D printing powder reusability³⁴ of HP PA 12 nylon material for HP Jet Fusion 3D Printing

Up to

74%

less GHG emissions from the 3D printing of parts using nylon material than traditional manufacturing using metal ([see detail](#))

LOWER CARBON FOOTPRINTS

compared to injection molding³⁵

HIGH OUTPUT

per energy consumed using HP Multi Jet Fusion technology³⁶

INCORPORATING 3D PRINTED PARTS

into our own products has in test cases lowered our impacts by up to:

- 95% carbon footprint reduction³⁷
- 93% weight reduction³⁸

HELPING DESIGNERS

create 3D printed parts, by publishing the HP Multi Jet Fusion Handbook, as part of our education efforts to widen skills needed for the Fourth Industrial Revolution

3D PRINTING, COMPARED TO TRADITIONAL MANUFACTURING, can drive lower GHG emissions and waste throughout the product life cycle.

DESIGN

- Innovative designs including complex/lightweight components
- Materials optimized to avoid wasted resources

PRODUCT DEVELOPMENT

- Customization and innovation
- Faster iteration and less tooling

DISTRIBUTION

- Reduced product transportation and associated impacts

MANUFACTURING

- Simplified supply chains and more local production
- Short, fast, cost-efficient runs
- Better matching of supply and demand and reduced waste
- Decreased inventory cost

USE

- Unlimited availability of spare parts

SUSTAINABLE IMPACT PRODUCT INNOVATIONS

Transforming orthodontics and recapturing used 3D printing materials

In partnership with leading teledentistry and aligner therapy company SmileDirectClub, HP is recycling excess 3D printing material and already-processed plastic mouth molds, to convert into pellets for traditional injection molding.

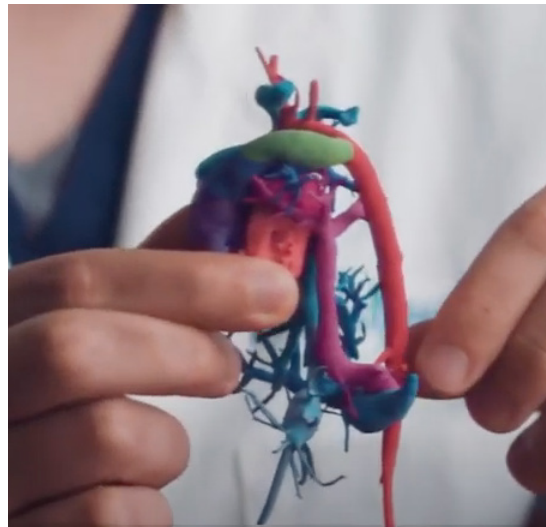
[Learn more.](#)



Simplifying and accelerating the production of anatomical models

At Rady Children's Hospital in Southern California, HP Multi Jet Fusion technology is used as a comprehensive tool for surgical and procedural planning, education, and research to improve patient outcomes.

[Watch video.](#)



Producing a more comfortable orthopedic helmet

OT4 Orthopädietechnik GmbH uses HP Multi Jet Fusion technology to produce customized safety helmets for use after surgeries in which cranial bones (or parts of cranial bones) have been removed and the brain has lost some of its protective barrier.

[Watch video.](#)



[See more case studies.](#)

Data

Product and solutions*

	2015	2016	2017	2018	2019
Product use GHG emissions intensity** [% reduction since 2015]	Not applicable	2%	11%	11%	18%
GHG emissions from product use [tonnes CO ₂ e]	19,100,000	19,300,000	22,100,000***	23,400,000***	22,200,000***
Personal systems	9,100,000	8,200,000	8,300,000	9,400,000	8,900,000
Desktop and enterprise printers (energy)*****	3,600,000	3,600,000	2,400,000	2,000,000	1,800,000
Commercial and industrial graphics printing solutions (energy)	Not available	250,000	350,000	270,000	210,000
3D printing solutions (energy)	Not applicable	Not applicable	180,000	180,000	210,000
Printing consumables for desktop and enterprise printers (paper and ink/toner cartridges)*	6,400,000	6,500,000	9,400,000	9,900,000	10,000,000
Printing consumables for commercial and industrial graphics printing solutions (paper and other supplies)	Not available	790,000	1,300,000	1,500,000	1,100,000
Printing consumables for 3D printing solutions (resins)	Not applicable	Not applicable	170,000	170,000	170,000
Water consumption related to product use [cubic meters]	153,700,000	156,300,000**	180,600,000**	195,000,000**	186,800,000**
Personal systems	76,400,000	70,000,000	71,000,000	84,000,000	80,000,000
Desktop and enterprise printers (energy)***	30,500,000	31,100,000	20,000,000	18,000,000	16,000,000
Commercial and industrial graphics printing solutions (energy)	Not available	2,200,000	3,000,000	2,400,000	1,900,000
3D printing solutions (energy)	Not applicable	Not applicable	1,600,000	1,600,000	1,900,000
Printing consumables for desktop and enterprise printers (paper)****	46,800,000	45,800,000	73,000,000	75,000,000	77,000,000
Printing consumables for commercial and industrial graphics printing solutions (paper)	Not available	7,200,000	12,000,000	14,000,000	10,000,000

	2015	2016	2017	2018	2019
Estimated materials use intensity for HP high-volume personal systems and printers† [tonnes/\$ millions of net revenue]					
Personal systems					
Metal	3.3	2.7	2.3	2.5	2.7
Plastic	1.4	1.5	1.3	1.3	1.5
Wires/cables	0.6	0.6	0.5	0.4	0.5
PCAs	0.5	0.5	0.5	0.5	0.5
LCDs	1.1	1.6	1.2	1.2	1.4
Batteries	0.1	0.1	0.0††	0.0††	0.0††
Total	7.0	7.0	5.8	6.0	6.5
Home and office printers					
Metal	15.4	17.6	17.0	19.4	19.2
Plastic	30.9	33.8	31.6	36.8	38.9
Wires/cables	0.4	0.5	0.4	0.4	0.4
PCAs	1.7	2.0	2.3	2.7	2.5
LCDs	0.0††	0.0††	0.0††	0.0††	0.0††
Batteries	0.0††	0.0††	0.0††	0.0††	0.0††
Total	48.4	53.9	51.3	59.2	61.0
Postconsumer recycled content plastic used in HP products [tonnes]					
Personal systems	Not available	Not available	8,080	8,360	9,650
Home and office printers	Not available	Not available	1,260	4,790	6,760
HP ink cartridges	6,282	5,517	5,901	5,354	5,384
HP toner cartridges	2,437	3,493	2,921	2,746	3,565
Large format printers	Not available	Not available	Not available	Not available	200
Total			18,160	21,250	25,560

*In some cases, segments do not add up to total due to rounding.

** HP product use GHG emissions intensity measures per unit GHG emissions during anticipated product lifetime use. These values are then weighted by contribution of personal systems and printing products to overall revenue in the current year. These emissions represent more than 99% of HP product units shipped each year, including notebooks, tablets, desktops, mobile computing devices, workstations, displays, and digital signage; HP inkjet, LaserJet, DesignJet, Indigo, Scitex, and Jet Fusion 3D printers; and scanners.

*** Greenhouse gas emissions from product use in 2017 and 2018 differ by less than 1% from the values reported on [page 23](#), due to rounding. Greenhouse gas emissions from product use in 2019 differ by less than 1.5% from the values reported on [pages 19 and 23](#), due to rounding.

**** Beginning in 2017, our LaserJet power usage data more accurately reflects typical idle and print energy. These changes were not applied retroactively. Scope 3 emissions from inkjet and LaserJet printers that HP manufactures for sale and service by other original equipment manufacturers is excluded from this data. In 2019, these printers represented less than 2.4% of HP printers manufactured in the reporting year and consequently, their associated emissions represented less than 3.7% of the product life cycle emissions of all HP manufactured printers. Scope 1 and 2 emissions from the manufacturing of these printers at HP operated facilities is captured in the Scope 1 and 2 data reported in this year's report.

† Data for 2017–2019 better reflect average laser printer paper usage. This represented the majority of the increase compared to 2015 and 2016.

†† Total water consumption related to product use differs by less than 1% from the values reported on [page 24](#), due to rounding.

**** Beginning in 2017, our LaserJet power usage data more accurately reflects typical idle and print energy. These changes were not applied retroactively. Indirect water consumption from inkjet and LaserJet printers that HP manufactures for sale and service by other original equipment manufacturers is excluded from this data. In 2019, these printers represented less than 2.4% of HP printers manufactured in the reporting year and consequently, their associated indirect water consumption during product use represented less than 3.5% of the product life cycle water consumption of all HP manufactured printers. Water consumption from the manufacturing of these printers at HP operated facilities is captured in the direct water consumption data reported in this year's report.

**** Data for 2017–2019 better reflect average laser printer paper usage. This represented the majority of the increase compared to 2015 and 2016.

† Personal systems and home and office printers values are based on individual product data. Estimates for home and office printers volumes do not include graphic arts, industrial, web press printers, scanners, or ink or toner cartridges. Product data for personal systems is based on calendar year for 2015 and 2018, and fiscal year for 2016–2017 and 2019. Personal systems data for 2015–2018 are updated to reflect tonnes and not U.S. tons. Product data for home and office printers is based on calendar year for 2015 and fiscal year for 2016–2019. Home and office printers data for 2018 are updated to correct a calculation error. Net revenue data is based on HP's fiscal year.

†† This value is stated as 0.0 due to rounding.

Product repair, reuse, and recycling*

	2016	2017	2018	2019
Total recycling of hardware and supplies [tonnes, approximate]	119,900	141,500	133,800	133,100
Electronic equipment repaired [units]	5,050,000	4,600,000	4,340,000	4,620,000
Electronic equipment remarketed and reused [units]	1,250,000	1,270,000	1,250,000	1,210,000
Number of countries and territories with HP return and recycling programs	73	74	74	76
Total recycling, by region [tonnes]				
Americas	48,800	61,100	55,200	54,100
Europe, Middle East, and Africa	59,200	64,100	62,900	62,400
Asia Pacific and Japan	11,900	16,300	15,700	16,600
Total recycling, by type [tonnes]				
Hardware	102,800	125,200	117,100	117,400
HP toner cartridges**	15,400	14,800	15,300	14,300
HP ink cartridges**	1,700	1,500	1,400	1,400
HP toner cartridge recycling				
HP LaserJet market covered by program [%]	92%	92%	91%	91%
Composition [%]				
Material recovered for recycling	80.9%	83.9%	82.1%	83.4%
Materials used for energy recovery	16.8%	13.2%	14.7%	13.7%
Reuse of components	2.3%	2.9%	2.9%	2.5%

	2016	2017	2018	2019
Material in storage—pending processing	0.0%	0.0%	0.0%	0.0%
Incineration	0.0%	0.0%	0.3%	0.5%
Landfill	0.0%	0.0%	0.0%	0.0%
HP ink cartridge recycling				
HP ink market covered by program [%]	91%	87%	89%	90%
Composition [%]				
Materials recovered for recycling	77.9%	73.9%	74.6%	74.2%
Materials used for energy recovery	21.6%	23.7%	23.7%	25.8%
Reuse of components	0.0%	0.0%	0.0%	0.0%
Material in storage—pending processing	0.4%	0.5%	0.7%	0.0%
Incineration	0.0%	1.8%	1.0%	0.0%
Landfill	0.0%	0.0%	0.0%	0.0%

* Totals include all hardware and supplies returned to HP for processing, with ultimate dispositions including recycling, energy recovery, and, where no suitable alternatives exist, responsible disposal. HP LaserJet toner and ink cartridge recycling data is for calendar year. The remaining data is based on the HP fiscal year. Although for HP print cartridges we report the composition of recovered materials, we cannot provide this data for hardware because we do not have operational control over all recycling processes and so do not have access to this information. In some cases, segments do not add up to total due to rounding. Although we do not include data prior to 2016 in the Product repair, reuse, and recycling section, the vast majority of product hardware recycling data, and all toner and ink cartridge recycling data, reported in past years was associated with the business units that are now a part of HP Inc. Through 2015, Hewlett-Packard Company reported 1,497,500 tonnes of cumulative computer hardware and supplies recycling combined.

** Includes cartridges returned by customers only.



Appendix

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About this report

HP has reported yearly on its social and environmental progress since 2001. We provide in-depth information to stakeholders, including customers, industry analysts, socially responsible investors, nongovernmental organizations (NGOs), employees, sustainability specialists, governments, and others.

To determine report contents, we consider:

- Our [materiality assessment](#).
- Input from executives and content experts across HP.
- Input from external stakeholders.
- The broader sustainability context and trends.
- External standards and frameworks such as the [Global Reporting Initiative \(GRI\) Sustainability Reporting Standards](#), the [United Nations \(UN\) Global Compact](#), and the [UN Sustainable Development Goals](#).
- Global reporting trends and best practices.

In addition to our Sustainable Impact Report, we report on our programs and progress on our [Sustainable Impact website](#) on an ongoing basis. Our past reports are available online.

Reporting scope and measures

- This report describes HP's Sustainable Impact policies, programs, and goals. It

includes HP's performance data through FY2019 (which ended October 31, 2019), unless stated otherwise.

- The information in this report is current as of the date of its initial publication. The report has not been updated to reflect any changes since that date, including any changes to HP's business or strategy. HP assumes no obligation and does not intend to update this report to reflect any such changes.
- The performance data in this report covers 100% of HP's global business operations and/or revenue, as of HP's most recently completed fiscal year, unless stated otherwise.
- All references to years are to HP's fiscal year, which ends October 31, 2019, unless stated otherwise.
- All references to dollars are to U.S. dollars.
- "Tonnes" refers to metric tons.

Metrics and goals

The metrics in this report are HP data, unless stated otherwise. Collecting data from hundreds of global sites is complex, and the process can vary by issue, business unit, function, and geography. As a result, company-wide metrics can be difficult to define and implement. We continue to standardize our measurement systems

and metrics. Data is rounded to reflect the appropriate level of certainty.

Reporting performance beyond our immediate operations is also challenging. We must make assumptions when estimating Scope 3 greenhouse gas (GHG) emissions, product energy consumption and resulting GHG emissions, the percentage of HP products that are recycled, and other metrics. Where appropriate, we provide context for data to help readers understand limitations and draw appropriate conclusions.

Forward-looking content reflects approaches, goals, and priorities established by the HP teams responsible for implementing them. These were set in consultation with internal, and in some cases external, stakeholders and consider leading corporate practices.

Feedback

Your comments and suggestions are important to us. Please provide any feedback on this report, our performance, or our website using our [online form](#).

External verification

Assurance demonstrates that information in this report describes our performance accurately and completely.

In 2019, HP engaged Ernst & Young LLP (EY) to perform an independent review of selected key performance indicators in

our HP 2019 Sustainable Impact Report. This process was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants.

For a full listing of the indicators within the scope of EY's review, please see the [Independent accountants' review report](#).

In addition, the following data received external assurance this year:

- Product repair, reuse, and recycling: Through ERM, HP audited 34 vendor facilities in 24 countries during 2019. This included repeat audits of 30 vendor facilities to evaluate their efforts to improve performance. Learn more in [Product reuse and recycling vendors](#).
- Supply chain: HP participates in the Responsible Business Alliance (RBA) Validated Assessment Program (VAP), which uses independent external auditors to audit our suppliers' social and environmental responsibility performance against HP Supplier Code of Conduct requirements. Learn more in [Supply chain responsibility](#).

Forward-looking statements

This document contains forward-looking statements based on current expectations and assumptions that involve risks and uncertainties. If the risks or uncertainties ever materialize or the assumptions prove incorrect, the results of HP Inc. and its consolidated subsidiaries may differ materially from those expressed or implied by such forward-looking statements and assumptions.

All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including, but not limited to, any statements regarding the potential impact of the COVID-19 pandemic and the actions by governments, businesses and individuals in response to the situation; projections of net revenue, margins, expenses, effective tax rates, net earnings, net earnings per share, cash flows, benefit plan funding, deferred taxes, share repurchases, foreign currency exchange rates or other financial items; any projections of the amount, timing or impact of cost savings or restructuring and other charges, planned structural cost reductions and productivity initiatives; any statements of the plans, strategies and objectives of management for future operations, including, but not limited to, our business model and transformation, our sustainability goals, our go-to-market strategy, the execution of restructuring plans and any resulting cost savings, net revenue or profitability improvements or other financial impacts; any statements concerning the expected development, performance, market share or competitive performance relating to products or services; any statements regarding current or future macroeconomic trends or events and the impact of those trends and events on HP and its financial performance; any statements regarding pending investigations, claims or disputes; any statements of expectation or belief, including with respect to the timing and expected benefits of acquisitions and other business combination and investment transactions; and any statements of assumptions underlying any of the foregoing. Forward-looking statements can also generally be identified by words such as “future,” “anticipates,” “believes,” “estimates,”

“expects,” “intends,” “plans,” “predicts,” “projects,” “will,” “would,” “could,” “can,” “may,” and similar terms.

Risks, uncertainties and assumptions include factors relating to the effects of the COVID-19 pandemic and the actions by governments, businesses and individuals in response to the situation, the effects of which may give rise to or amplify the risks associated with many of these factors listed here; HP’s ability to execute on its strategic plan, including the recently announced initiatives, business model changes and transformation; execution of planned structural cost reductions and productivity initiatives; HP’s ability to complete any contemplated share repurchases, other capital return programs or other strategic transactions; the need to address the many challenges facing HP’s businesses; the competitive pressures faced by HP’s businesses; risks associated with executing HP’s strategy and business model changes and transformation; successfully innovating, developing and executing HP’s go-to-market strategy, including online, omnichannel and contractual sales, in an evolving distribution and reseller landscape; the development and transition of new products and services and the enhancement of existing products and services to meet customer needs and respond to emerging technological trends; successfully competing and maintaining the value proposition of HP’s products, including supplies; the need to manage third-party suppliers, manage HP’s global, multi-tier distribution network, limit potential misuse of pricing programs by HP’s channel partners, adapt to new or changing marketplaces and effectively deliver HP’s services; challenges to HP’s ability to accurately forecast inventories, demand and pricing, which may be due to HP’s multi-tiered channel, sales of HP’s products to unauthorized resellers or unauthorized resale of HP’s products; integration and other risks associated with business combination and investment transactions; the results of the restructuring plans, including estimates and assumptions related to the cost (including any possible disruption of HP’s business) and the anticipated benefits of the restructuring plans; the protection of HP’s intellectual property

assets, including intellectual property licensed from third parties; the hiring and retention of key employees; the impact of macroeconomic and geopolitical trends and events; risks associated with HP’s international operations; the execution and performance of contracts by HP and its suppliers, customers, clients and partners; disruptions in operations from system security risks, data protection breaches, cyberattacks, extreme weather conditions, medical epidemics or pandemics such as the COVID-19 pandemic, and other natural or manmade disasters or catastrophic events; the impact of changes in tax laws; potential liabilities and costs from pending or potential investigations, claims and disputes; and other risks that are described in HP’s Annual Report on Form 10-K for the fiscal year ended October 31, 2019, HP’s Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2020, and HP’s other filings with the Securities and Exchange Commission.

As in prior periods, the financial information set forth in this document, including any tax-related items, reflects estimates based on information available at this time. While HP believes these estimates to be reasonable, these amounts could differ materially from reported amounts in HP’s Quarterly Reports on Form 10-Q for the fiscal quarters ended April 30, 2020 and July 31, 2020, Annual Report on Form 10-K for the fiscal year ended October 31, 2020 and HP’s other filings with the Securities and Exchange Commission. The forward-looking statements in this document are made as of the date of this document and HP assumes no obligation and does not intend to update these forward-looking statements.

HP’s Investor Relations website at investor.hp.com contains a significant amount of information about HP, including financial and other information for investors. HP encourages investors to visit its website from time to time, as information is updated, and new information is posted. The content of HP’s website is not incorporated by reference into this document or in any other report or document HP files with the SEC, and any references to HP’s website are intended to be inactive textual references only.



Policies and standards

Sustainable Impact

- [HP Sustainable Impact and Human Rights Policy](#)

Employees

- [Global Harassment-Free Work Environment Policy](#)
- [Global Nondiscrimination Policy](#)
- [Open Door Policy](#)

Environment

- [Climate Action Policy Position](#)
- [Environmental, Health, and Safety \(EHS\) Policy](#)
- [Export of Electronic Waste to Developing Countries Policy](#)
- [General Specification for the Environment \(GSE\)](#)
- [Hardware Recycling Standard](#)
- [Hardware Reuse Standard](#)
- [Materials and Chemical Management Policy](#)
- [Sustainable Paper and Wood Policy](#)

Ethics and anti-corruption

- [Anti-Corruption Policy](#)
- [Contingent Worker Code of Conduct](#)
- [Corporate Governance Guidelines](#)
- [Global Business Amenities Policy](#)
- [Integrity at HP](#)
- [Partner Code of Conduct](#)
- [U.S. Public Sector Code of Conduct](#)

Privacy and data security

- [Privacy Statement](#)
- [Standard for Information Protection and Security for Suppliers/Partners](#)

Supply chain responsibility

- [Student and Dispatch Worker Standard for Supplier Facilities in the People's Republic of China \(PRC\)](#)
- [Supplier Code of Conduct](#)
- [Supply Chain Foreign Migrant Worker Standard](#)
- [Supply Chain Social and Environmental Responsibility Policy](#)

Independent accountants' review report

To the Stockholders and the Board of Directors of HP Inc.

We have reviewed the Schedule of Select Sustainability Metrics (the "Subject Matter") included in Appendix A and as presented in the HP Inc. ("HP") 2019 Sustainable Impact Report (the "Report") for the year ended October 31, 2019, in accordance with HP's criteria set forth in Appendix A (the "Criteria"). We did not review all information included in the Report. We did not review the narrative sections of the Report, except where they incorporated the Subject Matter. HP's management is responsible for the Subject Matter included in Appendix A and as also presented in the Report, in accordance with the Criteria. Our responsibility is to express a conclusion on the Subject Matter based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants ((AICPA) AT-C section 105, *Concepts Common to All Attestation Engagements* and AT-C section 210, *Review Engagements*). Those standards require that we plan and perform our review to obtain limited assurance about whether

any material modifications should be made to the Subject Matter in order for it to be in accordance with the Criteria. A review consists principally of applying analytical procedures, making inquiries of persons responsible for the Subject Matter, obtaining an understanding of the data management systems and processes used to generate, aggregate and report the Subject Matter and performing such other procedures as we considered necessary in the circumstances. A review is substantially less in scope than an examination, the objective of which is to obtain reasonable assurance about whether the Subject Matter is in accordance with the Criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. A review also does not provide assurance that we became aware of all significant matters that would be disclosed in an examination. We believe that our review provides a reasonable basis for our conclusion.

In performing our review, we have also complied with the independence and other ethical requirements set forth in the Code of Professional Conduct and applied the Statements on Quality Control Standards established by the AICPA.

As described in Note A, the Subject Matter is subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Based on our review, we are not aware of any material modifications that should be made to the Schedule of Select Sustainability Metrics included in Appendix A for the year ended October 31, 2019, in order for it to be in accordance with the relevant Criteria.

May 8, 2020
San Jose, CA



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Appendix A – HP Inc. (HP) Schedule of Select Sustainability Metrics

Indicator name	Scope	Unit	Reported value	Criteria
Scope 1 greenhouse gas ("GHG") emissions ¹	Global	Tonnes of carbon dioxide equivalents (tCO ₂ e)	61,900	World Resources Institute ("WRI") / World Business Council for Sustainable Development's ("WBCSD") The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Global Reporting Initiative ("GRI") Standard 305 and HP's Carbon Accounting Manual ²
Scope 2 GHG emissions (location-based-method) ³	Global	tCO ₂ e	226,400	
Scope 2 GHG emissions (market-based-method)	Global	tCO ₂ e	153,900	
Scope 3 GHG emissions	Global	tCO ₂ e	46,570,000	WRI/WBCSD's The Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, GRI Standard 305 and HP's Carbon Accounting Manual ²
Direct energy use in operations (corresponds to Scope 1 emissions) ⁴	Global	MWh	133,851	GRI Standard 302 and HP management definitions disclosed in the HP 2019 Sustainable Impact Report
Indirect energy use (corresponds to Scope 2 emissions) ⁵	Global	MWh	561,569	GRI Standard 302 and HP management definitions disclosed in the HP 2019 Sustainable Impact Report
Voluntary purchases of renewable energy	Global	MWh	231,561	GRI Standard 302 and HP management definitions disclosed in the HP 2019 Sustainable Impact Report
Direct water consumption ⁶	Global	Cubic meters	2,930,000	GRI Standard 303 and HP management definitions disclosed in the HP 2019 Sustainable Impact Report ⁷
Nonhazardous waste (for Palo Alto, California, site only)	Global	Tonnes	145	GRI Standard 306 and HP management definitions disclosed in the HP 2019 Sustainable Impact Report

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

¹ To calculate GHG emissions, for all indicators we use the Global Warming Potentials (GWP) from the IPCC Fifth Assessment Report (AR5) except for perfluorinated compounds (PFC), where we use the GWP from the IPCC Fourth Assessment Report (AR4).

² Carbon Accounting Manual is available at <http://h20195.www2.hp.com/V2/getpdf.aspx/c05179524.pdf>.

³ Where possible, based on HP Inc.'s reporting timeline and requirements, HP Inc. uses the most up-to-date emission factors available at the time.

⁴ Direct energy use refers to direct energy consumption in HP's operations including natural gas, renewable energy generated on-site and diesel/oil/gas/LPG, similar to the Scope 1 emissions boundary. Transportation fleet, refrigerants, and perfluorinated compounds are excluded from direct energy use, although they are included in the Scope 1 GHG emissions boundary.

⁵ Indirect energy includes purchased electricity and steam and does not include renewable energy purchases.

⁶ Direct water consumption for HP operations.

⁷ Note that sewage treatment plant (STP) water is not included within the scope of water consumption.

Material issues

The following table summarizes issues determined to meet the materiality threshold for this report.

Issue	Description	GRI Standards topic(s)	Topic boundary	Location in report
Planet				
Circular economy	Managing product life cycles through design criteria and business models that: promote product serviceability and longevity; enable usage as a service; increase repair, reuse, recycling, recycled content, and closed material loops; and dematerialize processes and products.	Materials	Supply chain HP operations Products and solutions	Advancing a circular and low-carbon economy Product repair, reuse, and recycling Products and solutions portfolio
Climate change	Working across our value chain and in collaboration with external partners to address the risks, opportunities, and impacts of climate change on our business, customers, the natural environment, and society, with a focus on resilience and adaptation.	GHG emissions are addressed in the next row	Supply chain HP operations Products and solutions	Footprint Supply chain responsibility: Environmental impact: GHG emissions Our facilities: GHG emissions
Energy use and GHG emissions	Improving energy efficiency, increasing renewable energy use, and reducing the GHG emissions of HP's operations, including our owned and leased facilities and auto/aviation fleet, and our supply chain, including product transportation and logistics.	Energy Emissions	Supply chain (first- and second-tier suppliers, Scope 3 emissions) HP operations	Footprint Supply chain responsibility: Environmental impact: GHG emissions Our facilities: GHG emissions
Packaging	Decreasing the environmental impact of HP packaging, including by reducing materials use, increasing the use of recycled and biodegradable materials, and eliminating deforestation and single-use plastic associated with packaging, where feasible.	Materials	Supply chain Products and solutions	Packaging innovation
Paper and printed materials	Advancing more sustainable printing by HP and our customers through the sourcing, use, and recycling of paper and other printed materials, enabling more efficient printing practices, and addressing the impacts of deforestation.	Materials	Supply chain Products and solutions	Paper and forestry products
Product energy efficiency	Increasing the energy efficiency of HP products and services, and enabling customers to reduce energy use through efficient product fleets.	Energy	Products and solutions	Create a low-carbon future
People				
Diversity and inclusion	Fostering diversity and inclusion within our workforce, supply chain, and communities worldwide. Building a workforce representative of our customer base and communities.	Diversity and Equal Opportunity	Supply chain HP operations Products and solutions	Supplier diversity Diversity and inclusion
Human capital	Attracting, retaining, and developing human capital to meet current and future business needs. Providing compensation, benefits, and wellness programs that support engaged and productive employees and promote work/life balance, as well as managing the negative impacts of workforce reductions and relocations.	Employment Labor/Management Relations Training and Education	HP operations	Employee engagement Employee development Compensation and benefits Wellbeing
Human rights	Respecting human rights throughout our value chain consistent with international norms, remedying human rights abuses in our operations and the customer use of products and services where we caused or contributed to the impact.	Human Rights Assessment	Supply chain HP operations Products and solutions	Human rights Supply chain responsibility



Issue	Description	GRI Standards topic(s)	Topic boundary	Location
Product and operational health and safety	Working to create a healthy, safe, and secure working environment in our supply chain, operations, and for our customers, including managing the use of materials, chemicals, and substances of concern in the manufacturing and use of our products.	Occupational Health and Safety Customer Health and Safety	Supply chain HP operations Products and solutions	Supply chain responsibility: Health and safety Health and safety Product safety
Sourcing and supply chain labor practices	Monitoring and strengthening social and economic conditions throughout our supply chain, and addressing key areas of risk and opportunity such as working hours and conditions, wages and benefits, capability building, health and safety, humane treatment of workers, prevention of slavery and forced labor, and responsible minerals sourcing.	Indirect Economic Impacts Nondiscrimination Freedom of Association and Collective Bargaining Child Labor Forced or Compulsory Labor Human Rights Assessment Supplier Environmental Assessment Supplier Social Assessment	Supply chain (first- and second-tier suppliers; sub-tier suppliers in high-risk areas such as the Democratic Republic of Congo; there are multiple tiers between HP and smelters that trade with exporters). We ask that first-tier suppliers communicate our HP Supplier Code of Conduct to their suppliers, thereby propagating the requirements to our sub-tier suppliers.	Supply chain responsibility
Community				
Community investment and involvement	Supporting employee volunteering and charitable giving, and providing corporate financial and in-kind contributions for underserved communities and underrepresented populations.	Indirect Economic Impacts		Community giving and volunteerism
Role of IT in society	Enhancing the impact of digitalization on healthcare, education, and the workplace, including delivering IT solutions that improve access and opportunities and enable customers and communities to make progress toward the Sustainable Development Goals.	No GRI-specific Topics	Products and solutions	Community giving and volunteerism Social impact
Governance				
Corporate governance	Maintaining the standards, structures, and processes to ensure the diversity and independence of the Board of Directors, and the effective governance of HP, including the company's Sustainable Impact strategy, goals, and programs.	No GRI-specific Topics	HP operations	Sustainable Impact: Governance Ethics and anti-corruption Governance HP 2020 Proxy Statement
Data and product security	Designing products and processes that protect the collection, analysis, use, storage, transfer, and sharing of information from unwanted parties, unauthorized access, and security threats, including cyberattacks.	No GRI-specific Topics	Supply chain HP operations Products and solutions	Cybersecurity Product security and privacy
Ethics and anti-corruption	Promoting high ethical standards and combating corruption in all of our business interactions, including in joint ventures and with business partners, customers, suppliers, and distributors.	Anti-corruption	Supply chain (interactions with suppliers, business partners, and contractors) HP operations Products and solutions (interactions with business partners and customers)	Ethics and anti-corruption
Privacy	Collecting, analyzing, using, storing, transferring, and sharing information in ways that uphold the right to privacy and personal data protection. Complying with evolving privacy laws and standards.	Customer Privacy	HP operations (employees) Products and solutions (customers and partners)	Privacy

United Nations Global Compact index

HP is a signatory to the United Nations Global Compact, a set of voluntary commitments for companies to improve human rights, labor conditions, the environment, and anti-corruption controls. This table links to the sections of this report that address the Global Compact's 10 principles.

Principle	Information in report
Human rights	
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	Human rights Privacy Supply chain responsibility Our employees
Principle 2: make sure that they are not complicit in human rights abuses.	Human rights Supply chain responsibility
Labor standards	
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Human rights Supply chain responsibility
Principle 4: the elimination of all forms of forced and compulsory labor;	Human rights Supply chain responsibility
Principle 5: the effective abolition of child labor; and	Human rights Supply chain responsibility
Principle 6: the elimination of discrimination with respect to employment and occupation.	Human rights Supply chain responsibility Diversity and inclusion

Principle	Information in report
Environment	
Principle 7: Businesses should support a precautionary approach to environmental challenges;	Advancing a circular and low-carbon economy
Principle 8: undertake initiatives to promote greater environmental responsibility; and	Footprint Supply chain responsibility: Environmental impact Our facilities Advancing a circular and low-carbon economy Products and solutions portfolio
Principle 9: encourage the development and diffusion of environmentally friendly technologies.	Supply chain responsibility: Environmental impact Our facilities Advancing a circular and low-carbon economy Products and solutions portfolio
Anti-corruption	
Principle 10: Businesses should work against all forms of corruption, including extortion and bribery.	Ethics and anti-corruption Supply chain responsibility

“To promote higher standards across the areas of human rights, labor, environment, and anti-corruption, we endorse the United Nations Global Compact as a practical framework for the development, implementation, and disclosure of sustainability policies and practices.”

Enrique Lores, President and Chief Executive Officer, HP Inc.

United Nations Sustainable Development Goals index

HP supports the United Nations Sustainable Development Goals (SDGs). We have existing programs that contribute to progress against 16 of the 17 goals and will continue to drive innovations that help achieve them. This table references sections of this report that relate to each goal.



Goal 1 End poverty in all its forms everywhere

HP's actions [Community giving and volunteerism](#)



Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

HP's actions No major programs at this time



Goal 3 Ensure healthy lives and promote well-being for all at all ages

HP's actions [Supply chain responsibility: Health and safety](#), [Our employees: Health and safety](#), [Wellbeing](#)



Goal 4 Ensure inclusive and quality education for all and promote lifelong learning

HP's actions [Global education programs](#), [Community giving and volunteerism](#)



Goal 5 Achieve gender equality and empower all women and girls

HP's actions [Supply chain responsibility: Diversity and inclusion](#)



Goal 6 Ensure access to water and sanitation for all

HP's actions [Our facilities: Water](#), [Supply chain responsibility: Environmental impact: Water](#)



Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

HP's actions [Renewable energy](#), [Products and solutions: Product energy efficiency](#)



Goal 8 Promote inclusive and sustainable economic growth, employment and decent work for all

HP's actions [Supply chain responsibility: Community giving and volunteerism](#)



Goal 9 Build resilient infrastructure, promote sustainable industrialization and foster innovation

HP's actions [Advancing a circular and low-carbon economy](#), [Products and solutions portfolio](#)



Goal 10 Reduce inequality within and among countries

HP's actions [Supplier diversity](#), [Community giving and volunteerism](#), [Global education programs](#)



Goal 11 Make cities inclusive, safe, resilient and sustainable

HP's actions [Community giving and volunteerism](#)



Goal 12 Ensure sustainable consumption and production patterns

HP's actions [Advancing a circular and low-carbon economy](#), [Products and solutions portfolio](#)



Goal 13 Take urgent action to combat climate change and its impacts

HP's actions [Footprint](#), [Supply chain responsibility: Environmental impact: GHG emissions](#), [Our facilities: GHG emissions](#)



Goal 14 Conserve and sustainably use the oceans, seas and marine resource

HP's actions [Tackling ocean plastics](#)



Goal 15 Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

HP's actions [Paper and forestry products](#), [HP Sustainable Forests Collaborative](#)



Goal 16 Promote just, peaceful and inclusive societies

HP's actions [Ethics and anti-corruption](#), [Human rights](#), [Supply chain responsibility](#)



Goal 17 Revitalize the global partnership for sustainable development

HP's actions HP supports the [UN SDGs](#), the [UN Global Compact](#), the [Global Reporting Initiative](#), and other global efforts to advance sustainable development.

Sustainability Accounting Standards Board index

This table contains and refers to information related to the Sustainability Accounting Standards Board (SASB) Hardware Sustainability Accounting Standard.

Topic	Code	Metric	2019 reporting
Product Security	TC-HW-230a.1	Description of approach to identifying and addressing data security risks in products	Cybersecurity Product security and privacy
Employee Diversity and Inclusion	TC-HW-330a.1	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	Diversity and inclusion Our employees: Data
Product Lifecycle Management	TC-HW-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	100% of HP electronic products may contain small amounts of some of the chemicals on the IEC 62474 declarable substances list. HP has tracked and restricted the substances of concern in our products that have been identified as highest priority for restriction in jurisdictions worldwide. Any remaining uses of substances of concern in products are for applications that lack viable alternatives or substances of lower regulatory priority. All electronics companies still have products which claim RoHS exemptions or REACH candidate substances when there is no current viable alternative. For example, 100% of electronics products still contain some amount of lead used in specialized applications that are allowed under RoHS exemptions. Also, ethylene glycol dimethyl ether (EGDME), for which there is no known replacement, is used in all coin cell batteries.
	TC-HW-410a.2	Percentage of eligible products, by revenue, meeting the requirements for EPEAT® registration or equivalent	72% of models of HP personal systems shipped in 2019 were EPEAT registered. 81% of models of HP printers shipped in 2019 were EPEAT registered.* Product certifications and disclosures
	TC-HW-410a.3	Percentage of eligible products, by revenue, meeting ENERGY STAR® criteria	91% of models of HP personal systems shipped in 2019 were ENERGY STAR qualified. 94% of models of HP printers shipped in 2019 were ENERGY STAR qualified.* Product certifications and disclosures
	C-HW-410a.4	Weight of end-of-life products and e-waste recovered, percentage recycled	During 2019, we recycled 117,400 tonnes of hardware, 14,300 tonnes of HP LaserJet toner cartridges, and 1,400 tonnes of HP ink cartridges. See Product repair, reuse, and recycling for additional detail, including recycling rates.
Supply Chain Management	TC-HW-430a.1	Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities	In 2019, we completed 187 audits of production, nonproduction, and product transportation suppliers, and 60 other assessments of production suppliers. During the year, 91% of production supplier audits were third-party certified RBA VAP audits. Supply chain responsibility: Audit results
	TC-HW-430a.2	Tier 1 suppliers' (1) nonconformance rate with the RBA Validated Audit Process (VAP) or equivalent, and (2) associated corrective action rate for (a) priority non-conformances and (b) other nonconformances	Sixty-five initial audits and full re-audits of production suppliers conducted in 2019 identified 455 major nonconformances, equivalent to 7.0 per audit on average, and 6 immediate priority findings, equivalent to 0.092 per audit on average. Supply chain responsibility: Audit results Product repair, reuse, and recycling: Vendor audits
Materials Sourcing	TC-HW-440a.1	Description of the management of risks associated with the use of critical materials	Responsible minerals sourcing describes our program and performance related to conflict minerals, including tantalum and tungsten which are defined as critical materials by the U.S. National Research Council. In addition, our minerals due diligence and reporting include cobalt, which is also defined as a critical material. We also increase our access to valuable materials through our product repair, reuse, and recycling programs . HP SEC Conflict Minerals Report HP Report on Cobalt

*EPEAT data for personal systems is for models registered worldwide and for printers is for models registered in the United States. ENERGY STAR data for personal systems (versions 7.0 or 7.1) is worldwide and for printers (version 3.0) is for products sold in the United States. All data is for models shipped anytime during fiscal year 2019.

Global Reporting Initiative index

HP considered the Global Reporting Initiative (GRI) 2016 Sustainability Reporting Standards in the development of this report.

This index includes links to information about relevant Disclosures.

Disclosure	Location
GRI 102: General Disclosures	
Organizational profile	
102-1 Name of the organization	4
102-2 Activities, brands, products, and services	4, 97, HP 2019 10-K
102-3 Location of headquarters	4
102-4 Location of operations	HP 2019 10-K, Map of HP supplier sites
102-5 Ownership and legal form	4, HP 2019 10-K
102-6 Markets served	HP 2019 10-K
102-7 Scale of the organization	4, 5, 59, HP 2019 10-K
102-8 Information on employees and other workers	69 A portion of the organization's work is performed by individuals other than HP employees or other workers supervised by HP, including workers employed or supervised by contractors.
102-9 Supply chain	34
102-10 Significant changes to the organization and its supply chain	HP 2019 10-K
102-11 Precautionary principle or approach	84
102-12 External initiatives	12, 18, 30, 33, 34, 116
102-13 Membership of associations	Affiliations and memberships
Strategy	
102-14 Statement from senior decision-maker	3
102-15 Key impacts, risks, and opportunities	4, 7, 11, 114
Ethics and integrity	
102-16 Values, principles, standards, and norms of behavior	111

Disclosure	Location
102-17 Mechanisms for advice and concerns about ethics	27
Governance	
102-18 Governance structure	15, Governance
102-19 Delegating authority	15
102-20 Executive-level responsibility for economic, environmental, and social topics	15
102-22 Composition of the highest governance body and its committees	Governance
102-23 Chair of the highest governance body	Governance
102-24 Nominating and selecting the highest governance body	Corporate governance guidelines
102-25 Conflicts of interest	Corporate governance guidelines
102-26 Role of highest governance body in setting purpose, values, and strategy	15, Nominating, Governance and Social Responsibility Committee charter
102-31 Review of economic, environmental, and social topics	15
102-33 Communicating critical concerns	Contacting the board
102-35 Remuneration policies	HP 2020 Proxy Statement
102-36 Process for determining remuneration	HP 2020 Proxy Statement
Stakeholder engagement	
102-40 List of stakeholder groups	14
102-41 Collective bargaining agreements	The percentage of employees covered by collective bargaining agreements (CBAs) is managed at a local level. As of October 31, 2019, approximately 27% of employees company-wide were covered by a union or CBA.
102-42 Identifying and selecting stakeholders	14

Disclosure	Location
102-43 Approach to stakeholder engagement	14 Some forms of stakeholder engagement follow a set frequency, such as our annual employee Voice Insight Action survey, yearly responses to rating/ranking questionnaires, and supplier audits. Other forms of engagement, such as responses to customer requests for information about our Sustainable Impact performance, collaboration with NGOs and industry peers on specific issues, and discussion with policymakers, occur on an ad hoc basis. Examples are included throughout this report. We consider input from customers, NGOs, employees, investors, and others in the preparation of our annual Sustainable Impact Report.
102-44 Key topics and concerns raised	14 Our materiality assessment reflects the key topics and concerns that have been raised through stakeholder engagement and various analysis. This report describes how HP addresses those issues, including in some cases through engagement with the relevant stakeholder groups.
Reporting practice	
102-45 Entities included in the consolidated financial statements	HP 2019 10-K
102-46 Defining report content and topic Boundaries	15, 109, 114 HP determined the boundary for each material issue in this report based on input and review from executives and content experts. These assessments considered the value chain phases in which the most relevant impacts and opportunities occur.
102-47 List of material topics	15, 114
102-48 Restatements of information	Noted in sections as appropriate.
102-49 Changes in reporting	This HP 2019 Sustainable Impact Report includes in-depth information on our approach and performance across the broad range of environmental, social, and governance issues. The standalone Executive Summary provides a high-level overview of our Sustainable Impact strategy and progress, and vision for the future.
102-50 Reporting period	109
102-51 Date of most recent report	June 2019
102-52 Reporting cycle	Annual
102-53 Contact point for questions regarding the report	Feedback
102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
102-55 GRI content index	119
102-56 External assurance	112

Disclosure	Location
Material Topics	
GRI 200 Economic Standards Series	
GRI 203: Indirect Economic Impacts	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	41, 65
103-3 Evaluation of the management approach	41, 50, 72
203-2 Significant indirect economic impacts	41, 50, 65, 72
GRI 205: Anti-corruption	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	27, 114
103-2 The management approach and its components	27
103-3 Evaluation of the management approach	27
205-1 Operations assessed for risks related to corruption	28 Results of HP's internal assessments of corruption-related risks are confidential.
205-2 Communication and training about anti-corruption policies and procedures	28
GRI 300 Environmental Standards Series	
GRI 301: Materials	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	83, 114
103-2 The management approach and its components	83
103-3 Evaluation of the management approach	83, 106
301-1 Materials used by weight or volume	84
301-2 Recycled input materials used	85
301-3 Reclaimed products and their packaging materials	78, 107
GRI 302: Energy	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	61, 81, 114
103-2 The management approach and its components	59, 61, 81
103-3 Evaluation of the management approach	71, 81, 97
302-1 Energy consumption within the organization	71

Disclosure	Location
302-3 Energy intensity	71
302-4 Reduction of energy consumption	61
302-5 Reductions in energy requirements of products and services	81, 97
GRI 303: Water*	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	20, 114
103-2 The management approach and its components	44, 59, 62, HP water accounting manual
103-3 Evaluation of the management approach	24, 51, 71
303-1 Water withdrawal by source	24, 51, 71
303-3 Water recycled and reused	71
GRI 305: Emissions	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	19, 114
103-2 The management approach and its components	55, 55, 55, HP carbon accounting manual
103-3 Evaluation of the management approach	22, 51
305-1 Direct (Scope 1) GHG emissions	22
305-2 Energy indirect (Scope 2) GHG emissions	22
305-3 Other indirect (Scope 3) GHG emissions	23, 51, 106
305-4 GHG emissions intensity	22
305-5 Reduction of GHG emissions	42, 61
305-6 Emissions of ozone-depleting substances (ODS)	72
GRI 306: Effluents and Waste*	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	44, 64, 114
103-2 The management approach and its components	44, 59, 64
103-3 Evaluation of the management approach	51, 64, 71
306-2 Waste by type and disposal method	51, 64, 71

*Although this GRI Standards Topic was not determined to be material in HP's materiality assessment, we recognize that it is relevant to some stakeholders and we provide information about HP's programs and performance in this area.

Disclosure	Location
306-3 Significant spills	We apply the risk-prevention and management procedures of our environmental, health, and safety management system to help prevent unplanned releases at our facilities. In 2019, we experienced no significant unplanned releases.
GRI 308: Supplier Environmental Assessment	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	42, 114
103-2 The management approach and its components	55, 55, Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	51 We determined that 93.2% of HP first-tier production suppliers, by spend, had environmental management system (EMS) certification (e.g., ISO 14001) for manufacturing sites during 2019. Data represents review of 94.6% of HP production spend. The HP Supplier Code of Conduct requires our suppliers to have an effective EMS for manufacturing sites, regardless of third-party certification. We audit suppliers to this standard.
308-1 New suppliers that were screened using environmental criteria	More than 95% of HP production suppliers, by spend, have been screened using environmental criteria. This includes new suppliers that were onboarded during 2019.
GRI 400 Social Standards Series	
GRI 401: Employment	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	53
103-3 Evaluation of the management approach	53, HP's approach to fair and equitable pay
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	58 This is not practical to report by significant locations of operations, given variation by country.
GRI 402: Labor/Management Relations	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	58
103-3 Evaluation of the management approach	58
402-1 Minimum notice periods regarding operational changes	HP does not currently disclose this information.

Disclosure	Location
GRI 403: Occupational Health and Safety	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	58, 114
103-2 The management approach and its components	58, 59
103-3 Evaluation of the management approach	70
	70
403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism; and number of work-related fatalities	The types of injury HP recorded in calendar year 2019 included head/neck (19% of the total), hands/wrists (37%), lower extremities (33%), arms/shoulders (16%), back (23%), and other (11%). Some injuries are classified using multiple injury types. It is not practical to break down the injury data that HP reports by employment contract (employees and contractors that HP manages) or by gender. The occupational disease rate at HP in calendar year 2019 was essentially zero. HP experienced zero fatalities for the years reported (fiscal year 2016 and calendar years 2017–2019). HP does not report absentee rate.
GRI 404: Training and Education	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	56
103-2 The management approach and its components	56
103-3 Evaluation of the management approach	56
404-1 Average hours of training per year per employee	57
404-2 Programs for upgrading employee skills and transition assistance programs	57
404-3 Percentage of employees receiving regular performance and career development reviews	57
GRI 405: Diversity and Equal Opportunity	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	53, 114
103-2 The management approach and its components	53
103-3 Evaluation of the management approach	53, 69
405-1 Diversity of governance bodies and employees	53, 69 , HP Board of Directors , HP 2020 Proxy Statement
405-2 Ratio of basic salary and remuneration of women to men	HP's approach to fair and equitable pay

Disclosure	Location
GRI 406: Non-discrimination	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	ss, ss , Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	49
	49
406-1 Incidents of discrimination and corrective actions taken	HP discloses the rates of conformance in production supplier sites audited, as well as the data needed to calculate the approximate number of nonconformances. Due to confidentiality, HP does not report details regarding specific incidents of discrimination during the reporting period.
GRI 407: Freedom of Association and Collective Bargaining	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	ss, ss , Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	49
	49
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	HP discloses the rates of conformance in production supplier sites audited, as well as the data needed to calculate the approximate number of nonconformances. We require suppliers to train workers to understand their rights concerning collective bargaining, and to allow workers to associate freely without fear of discrimination, reprisal, intimidation, or harassment.
GRI 408: Child Labor	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	ss, ss , Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	49

Disclosure	Location
408-1 Operations and suppliers at significant risk for incidents of child labor	49 HP discloses the rates of conformance in production supplier sites audited, as well as the data needed to calculate the approximate number of nonconformances. To support rights in this area, HP has controls to meet student and young worker requirements. In China, no more than 20% of the direct labor supporting the manufacturing of HP products, packaging, parts, components, subassemblies, and materials at any given facility should consist of student workers at any point in time. We track performance in this area through our KPI program.
GRI 409: Forced or Compulsory Labor	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	37, 114
103-2 The management approach and its components	ss, ss, ss, Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	49
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	49 HP discloses the rates of conformance in production supplier sites audited, as well as the data needed to calculate the approximate number of nonconformances. See Combating forced labor for more detail about our approach in this area.
GRI 412: Human Rights Assessment	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	28, 114
103-2 The management approach and its components	28, HP 2019 Human Rights Progress Report
103-3 Evaluation of the management approach	28
412-1 Operations that have been subject to human rights reviews or impact assessments	29
GRI 414: Supplier Social Assessment	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	ss, ss, Our approach to a sustainable supply chain
103-3 Evaluation of the management approach	50

Disclosure	Location
414-1 New suppliers that were screened using social criteria	More than 95% of HP production suppliers, by spend, have been screened using social criteria. This includes new suppliers that were onboarded during 2019.
GRI 415: Public Policy*	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	33, 114
103-2 The management approach and its components	33, HP Political Contributions Policy
103-3 Evaluation of the management approach	33, HP Corporate Political Contributions, HP Employee PAC Contributions, U.S. lobbying expenditures
415-1 Political contributions	33, HP Corporate Political Contributions, HP Employee PAC Contributions, U.S. lobbying expenditures
GRI 416: Customer Health and Safety	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	90, 114
103-2 The management approach and its components	90
103-3 Evaluation of the management approach	90
416-1 Assessment of the health and safety impacts of product and service categories	90
GRI 418: Customer Privacy	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	30, 114
103-2 The management approach and its components	30
103-3 Evaluation of the management approach	30
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	31
Other material issues**	
Corporate governance	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114

* Although this GRI Standards Topic was not determined to be material in HP's materiality assessment, we recognize that it is relevant to some stakeholders and we provide information about HP's programs and performance in this area.

** This includes issues determined to meet the materiality threshold for this report that are not already addressed by the GRI Standards Topics in the index above.



Disclosure	Location
103-2 The management approach and its components	15, 26, Governance, HP 2020 Proxy Statement
103-3 Evaluation of the management approach	Governance, HP 2020 Proxy Statement
Data and product security	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	32, 91, 114
103-2 The management approach and its components	32, 91
103-3 Evaluation of the management approach	32, 91
Role of IT in society	
GRI 103: Management Approach	
103-1 Explanation of the material topic and its Boundary	114
103-2 The management approach and its components	65, 92
103-3 Evaluation of the management approach	72

Endnotes

Additional information about the data presented in this report is available upon request.

About HP

- ¹ As of October 31, 2019.
- ² Ibid.
- ³ Ibid.
- ⁴ Ibid.
- ⁵ Ibid.
- ⁶ Renewable electricity purchased and generated on-site, combined with renewable electricity certificates and guarantees of origin, accounted for 43% of our total consumption.
- ⁷ This number does not include commercial and industrial graphics printing solutions, packaging for those solutions, scanners, or personal systems accessories sold separately.
- ⁸ Product donations are valued at the Internet list price. This is the price a customer would have paid to purchase the equipment through the HP direct sales channel on the Internet at the time the grant was processed.
- ⁹ Data refers to the percentage of HP 2019 Voice Insight Action (VIA) employee survey respondents who strongly agreed or agreed with each statement.
- ¹⁰ Ibid.
- ¹¹ As of October 31, 2019.
- ¹² An industry standard for providing environmental information about products and product families. In 2019, HP provided ECO Declarations for product groups representing 93% of revenue.

Sustainable Impact

Sustainable Impact strategy

- ¹ In 2019, we tracked more than \$1.6 billion in sales wins (total contract value) in which sustainability criteria were a known consideration and were supported actively by HP's Sustainability and Compliance organization, an estimated 69% increase over the \$900+ million reported in 2018.
- ² Excludes new hires joining HP after February 1, 2019 (although all new hires are given 30 days to complete Integrity at HP New Hire training as part of their mandatory onboarding process).
- ³ All HP brand paper and paper-based product packaging will be derived from certified and recycled sources by 2020, with a preference for virgin fiber from certified sources of the Forest Stewardship Council® (FSC®). Packaging is the box that comes with the product and all paper (including packaging and materials) inside the box. Forest Stewardship Council® (FSC®) HP License Code FSC®-C017543. www.fsc.org.
- ⁴ Recycled content plastic (RCP) as a percentage of total plastic used in all HP personal systems, printer hardware, and print cartridges shipped during the reporting year. Total volume excludes brand-licensed products and after-market hardware accessories. Total RCP includes postconsumer recycled plastic, closed-loop plastic, and ocean-bound plastics used in HP products. Personal systems plastic is defined by EPEAT® eco-label criteria. Subject to relevant restrictions on the use and distribution of materials destined for recycling and/or recycled feedstocks.

- ⁵ Calculated as the percentage of primary plastic packaging (by weight) reduced per unit shipped. Excludes secondary and tertiary packaging components. Includes HP personal systems and printer hardware packaging. Does not include packaging for the following: Graphics Solutions Business (GSB) hardware other than PageWide XL and DesignJet printers; 3D printing hardware; print supplies; refurbished products; and accessories such as third-party options, drop in box, and aftermarket options.
- ⁶ Product use GHG emissions intensity describes the performance of our portfolio, taking into account changes to product mix and business growth. HP product use GHG emissions intensity measures per unit GHG emissions during anticipated product lifetime use. These values are then weighted by contribution of personal systems and printing products to overall revenue in the current year. These emissions represent more than 99% of HP product units shipped each year, including notebooks, tablets, desktops, mobile computing devices, workstations, displays, and digital signage; HP inkjet, LaserJet, DesignJet, Indigo, Scitex, and Jet Fusion 3D printers; and scanners.
- ⁷ All HP brand paper and paper-based product packaging will be derived from certified and recycled sources by 2020, with a preference for virgin fiber from certified sources of the Forest Stewardship Council® (FSC®). Packaging is the box that comes with the product and all paper (including packaging and materials) inside the box.
- ⁸ Intensity is calculated as the portion of first-tier production and product transportation suppliers' reported GHG emissions attributable to HP divided by HP's annual revenue. This method normalizes performance based on business productivity. Intensity is reported as a three-year rolling average to decrease the impact of variance year over year and highlight longer-term trends. Production supplier GHG emissions include Scope 1 and Scope 2.
- ⁹ This continues a goal from before the separation of Hewlett-Packard Company on November 1, 2015, extending the goal to 2025. Includes data from suppliers associated with HP Inc. and HP Inc. pre-separation business units.
- ¹⁰ Progress through 2019 includes 77,800 factory workers in 2015, 45,700 in 2016, 119,900 in 2017, 12,000 in 2018, and 11,000 in 2019.
- ¹¹ This data does not include participation in RBA audits. "Participation in our supply chain sustainability programs" is quantified by those programs that go beyond audits to build supplier capabilities to meet our standards. This includes deep dive assessment, weekly reporting of labor metrics, procurement engagement through our supplier Sustainability Scorecard, and in-depth coaching and workshops tailored to supplier risks.
- ¹² The HP Foundation is a nonprofit, 501(c)3 organization.
- ¹³ Includes valuation of employee volunteer hours, employee donations, HP Foundation match, and HP Foundation grants.

Footprint

- ¹ Carbon and water footprint data presented in this section related to our suppliers is calculated using product life cycle assessment-based estimates for materials extraction through manufacturing and product transportation. Supply chain GHG emissions and water withdrawal data presented on [page 51](#) is based on a different methodology.

Carbon and climate impact

- ¹ Key inputs to our business-as-usual scenario analysis include: (1) Transition risk assessment using (a) Shared Socioeconomic Pathways—Middle of the Road scenario (SSP2); and (b) IEA Current Policies Scenario, which considers policies and measures enacted into legislation by mid-2018. (2) Physical risk assessment using IPCC 5th Assessment Report (AR5) – Representative Concentration Pathways (RCP) 8.5.



² Key inputs to our 1.5°C mean temperature increase scenario analysis include: (1) Transition risk assessment using (a) Shared Socioeconomic Pathways—Green Growth Strategy scenario (SSP2); and (b) IEA SDS – Sustainable Development Scenario (SDS). (2) Physical risk assessment using IPCC 5th Assessment Report (AR5) – Representative Concentration Pathways (RCP) 4.5. Note: At the time our analysis began, our physical risk analytics tool did not factor in RCP 2.6 impact. As such, our physical risk assessment was more reflective of a 2°C scenario.

³ This table includes selected examples of how HP identifies, assesses, and manages climate-related risks and opportunities. It is not intended to be comprehensive. This table does not intend to convey that the risks and opportunities included are material from a financial perspective. Rather, it illustrates the scope and manner of how we assess and address risks and opportunities in this area.

Water

¹ The 3% decrease in our water footprint in 2019 compared to 2018, which contrasts a 5% increase in our carbon footprint during that period, reflects differences in the two calculation methodologies related to the supply chain phase. Details are available in the [HP water accounting manual](#) and the [HP carbon accounting manual](#).

Integrity and human rights

Ethics and anti-corruption

¹ Excludes new hires joining HP after February 1, 2019 (although all new hires are given 30 days to complete Integrity at HP New Hire training as part of their mandatory onboarding process).

Human rights

¹ Corporate functions evaluated included Environment, Health, and Safety; Ethics and Compliance Office; Global Indirect Procurement; Human Resources; Privacy; Supply Chain Responsibility; and World Technical Regulations.

² Salient human rights risks are risks associated with our activities or business relationships that are severe in potential impact, reasonably likely to occur, and difficult to remediate.

³ Excludes new hires joining HP after February 1, 2019 (although all new hires are given 30 days to complete Integrity at HP New Hire training as part of their mandatory onboarding process).

Privacy

¹ Excludes new hires joining HP after February 1, 2019 (although all new hires are given 30 days to complete Integrity at HP New Hire training as part of their mandatory onboarding process).

² Published May 2018. https://ec.europa.eu/newsroom/article29/item-detail.cfm?item_id=613841

³ HP cybersecurity baselines align with industry best practices recognized by ISACA, (ISC)2, ISSA, NIST, SANS, and others.

⁴ HP's ISO 27001 certifications in 2019 included: Customer Support Break Fix (Europe, Middle East, and Africa region); DaaS Remote Monitoring & Management Services (within DaaS Proactive Management with TechPulse); Indigo Presses, Servers, and Software Solutions; India Sales Carry-In Support; MPS Remote Monitoring and Management; PSGO Dynamic Configuration Service; PSGO Image Load Service; UK and Ireland Sales.

⁵ A cybersecurity event requires external disclosure if compelled by applicable laws or regulations.

Supply chain responsibility

Approach

¹ HP uses the terms “production suppliers,” “product transportation suppliers,” and “nonproduction suppliers” throughout this report. “Production suppliers” provide materials and components for our product manufacturing and also assemble HP products, and are the primary focus of our HP Supplier Code of Conduct audits, assessments, KPI program, Sustainability Scorecard, and capability-building initiatives. “Product transportation suppliers” provide services for the shipping and delivery of HP products. Learn more in [Supply chain responsibility: Environmental impact](#). “Nonproduction suppliers” provide goods and services that do not go into the production of HP products (such as staffing, telecommunications, and travel). These suppliers are a significant focus of our supplier diversity efforts.

² In 2019, the value of sales supported by HP's Sustainability and Compliance Organization includes retained, existing, and new sales (including deals that may or may not ultimately result in new sales) and deals still in progress, where supply chain responsibility was an area of particular interest for the customer.

³ Progress through 2019 includes: 77,800 factory workers in 2015; 45,700 in 2016; 119,900 in 2017; 12,000 in 2018; and 11,000 in 2019.

⁴ This data does not include participation in RBA audits. “Participation in our supply chain sustainability programs” is quantified by those programs that go beyond audits to build supplier capabilities to meet our standards. This includes deep-dive assessment, weekly reporting of labor metrics, procurement engagement through our supplier Sustainability Scorecard, and in-depth coaching and workshops tailored to supplier risks.

Labor

¹ The term “forced labor” refers to situations in which people are coerced to work against their will, either overtly through violence or intimidation, or by more subtle means such as accumulated debt, retention of identity papers, and threats of denunciation. HP forbids any forced, bonded, or indentured labor, involuntary prison labor, slavery, or trafficking of persons within its supply chain.

² We use these terms interchangeably when describing HP's existing programs and policies.

Responsible minerals sourcing

¹ “Conflict minerals” refers to the mineral precursors of the metals tantalum, tin, tungsten, and gold (3TG) as defined in the U.S. Securities and Exchange Commission (SEC) rule requiring a conflict minerals disclosure. Revenue from mining these minerals in the Democratic Republic of Congo (DRC) and adjoining countries has been widely linked to funding for groups engaged in extreme violence and human rights atrocities.

Supplier diversity

¹ The categories “large, B-BBEE compliant businesses” and “small and medium-sized businesses” may overlap with firms with at least 51% black ownership, firms with at least 30% black women ownership, youth-owned firms, and firms owned by people with disabilities. As a result, spending in some cases may be counted more than once.

Environmental impact

¹ See [HP Announces Supply Chain Goals to Enhance Environmental and Social Impact](#).

² Intensity is calculated as the portion of first-tier production and product transportation suppliers' reported GHG emissions attributable to HP divided by HP's annual revenue. This method normalizes performance based on business productivity. Intensity is reported as a three-year rolling average to decrease the impact of variance year over year and highlight longer-term trends. Production supplier GHG emissions include Scope 1 and Scope 2.



³ This continues a goal from before the separation of Hewlett-Packard Company on November 1, 2015, extending the goal to 2025. Includes data from suppliers associated with HP Inc. and HP Inc. pre-separation business units.

⁴ These are the total GHG emissions reductions and financial savings reported by suppliers through CDP, not amounts attributable to HP.

Audit results

¹ Segments do not add up to 100% due to rounding.

² These include child labor, forced labor, severe forms of discrimination, health and safety issues posing immediate danger to life or risk of serious injury, and perceived violation of environmental laws posing serious and immediate harm to the community. We take such findings very seriously, and require suppliers to cease all related practices and report corrective actions taken within 30 days of the original audit. Recruitment fees must be reimbursed within 90 days from discovery and are verified by an on-site inspection within 180 days from discovery. We follow up closely to ensure that all required corrective actions are completed, and visit sites to confirm resolution. Immediate priority findings do not necessarily involve termination of the supplier; we work with suppliers as appropriate to improve their performance and worker conditions in these areas.

Operations

Our employees

¹ As of October 31, 2019.

² Prior to the separation of Hewlett-Packard Company.

³ Ibid.

⁴ As of October 31, 2019.

⁵ Data refers to the percentage of HP 2019 Voice Insight Action (VIA) employee survey respondents who strongly agreed or agreed with each statement.

⁶ Ibid.

⁷ Dion Weisler was our CEO throughout fiscal 2019. As of November 1, 2019, our CEO is Enrique Lores.

⁸ During calendar year 2019, HP documented 120 recordable incidents, 48 lost workday cases, and 1,160 lost workdays.

Our facilities

¹ Complex locations include sites above a certain size with research and development, production, or manufacturing activities; sites with chemical lab operations; and sites with elevated risk due to regulatory reasons, such as placement in countries where management can be held personally liable for injuries.

² As of October 31, 2019.

³ HP directly tracks and reports nonhazardous waste data for the company's highest energy-consuming sites globally (25 in 2019) that account for at least 70% of total energy consumption across our portfolio and are under HP's operational control. These sites provide a representative sample of the main types of facilities in our portfolio from across the regions where we operate.

⁴ About GHG emissions data:

This report includes Scope 1, 2, and 3 GHG emissions data from HP's operations, transportation fleet, and employee business travel, calculated according to the Greenhouse Gas Protocol of the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI). See the [HP 2019 carbon footprint](#) for more details and an overview of emissions across the value chain.

- Scope 1 emissions include those from the direct use of natural gas, diesel fuel, refrigerants, and PFCs in operations and from fuel used by HP's transportation fleet.

- Scope 2 emissions are primarily from purchased electricity used in HP's operational real estate.
- Scope 3 emissions reported in this section result from employee business travel by commercial airlines and from commuting.

Data in this section for 2015–2019 uses the market-based method. In the data summary, we also include 2015–2019 data using the location-based method. See note * on [page 23](#) for additional detail.

- ⁵ This consisted entirely of NEWater (ultra-purified wastewater used in manufacturing operations in Singapore). Rain water is not included.
- ⁶ Beginning in 2019, HP directly tracks and reports nonhazardous waste data for the company's highest energy-consuming sites globally (25 in 2019) that account for at least 70% of total energy consumption across our portfolio and are under HP's operational control. These sites provide a representative sample of the main types of facilities in our portfolio from across the regions where we operate.

Community giving and volunteerism

¹ The HP Foundation is a nonprofit, 501(c)3 organization.

² Includes valuation of employee volunteer hours, employee donations, HP Foundation match, and HP Foundation grants.

³ Hourly rate is based on type of volunteering: \$195/hour for board, service corp, pro bono, and skills based; \$25.43/hour for hands-on and undetermined. Valuation of non-U.S. volunteering hours is adjusted using World Bank data for purchasing power differences across countries.

Products and solutions

Advancing a circular and low-carbon economy

¹ According to a MASIE 2017 Report (January 2017, by Bobby Carlton): in a study carried out by the National Training Laboratory.

² We conduct product carbon footprints (PCFs), a subset of life cycle assessment, of business HP desktops, notebooks, tablets, workstations, thin clients, all-in-one computers, and displays to better understand performance of individual products and our overall portfolio. These estimate total GHG emissions associated with a product over its lifetime and include emissions from materials extraction, manufacturing, distribution, use, and end-of-life management. To assess and report our complete personal systems product carbon footprint, we extrapolate these results to cover 99% of overall personal systems product sales (by unit and by revenue) during the reporting year.

³ Based on ReCiPe(H)2016 LCA methodology using SimaPro 9.0.

⁴ In 2019, HP tracked approximately \$6 billion in new sales associated with deals in which it met customer requirements for registered product eco-labels, including ENERGY STAR®, EPEAT®, and Blue Angel.

⁵ Based on all-in-ones with self-serviceable hard drive, M.2 storage, webcam, and the ability to remove and service the display and PC individually as of September 1, 2017.

⁶ Based on plan usage, Internet connection to eligible HP printer, valid credit/debit card, email address, and delivery service in your geographic area. Number of countries is as of February 2020.

⁷ Based on monthly subscription cost using only all pages in plan vs. cost per page of most color inkjet printers < \$399 USD. Color inkjet printers are selected by market share of IDC CYQ1 2019 Hardcopy Peripherals Tracker Final release. Standard cartridge CPP is as per the Gap Intelligence Ink Monthly (5/12/2019) 201905Wk2 report.

⁸ Compared with non-subscription purchase and distribution of the same HP ink cartridges in stores. Based on a 2020 life cycle assessment (LCA) performed by Four Elements Consulting and commissioned by HP.

⁹ This is the number of countries or territories where HP offers hardware recycling and/or HP ink cartridge recycling and/or HP toner cartridge recycling.

¹⁰ HP offers recycling of non-HP devices when replaced by HP equipment.



¹¹ Based on [2019 HP Supplies Survey in the United States, Canada, Mexico, UK, France, Italy, Spain, Germany, China, and India](#) conducted by Edelman Intelligence.

¹² HP Jet Fusion 3D printing solutions using HP 3D High Reusability PA 12 and HP 3D High Reusability PA 11 provide 80% and 70%, respectively, postproduction surplus material reusability, producing functional parts batch after batch. For testing, material is aged in real printing conditions and tracked by generations (worst case for reusability). Parts are then made from each generation and tested for mechanical properties and accuracy.

¹³ These include child labor, forced labor, severe forms of discrimination, health and safety issues posing immediate danger to life or risk of serious injury, and perceived violation of environmental laws posing serious and immediate harm to the community. We take such findings very seriously, and require suppliers to cease all related practices and report corrective actions taken within 30 days of the original audit. Recruitment fees must be reimbursed within 90 days from discovery and are verified by an on-site inspection within 180 days from discovery. We follow up closely to ensure that all required corrective actions are completed, and visit sites to confirm resolution. Immediate priority findings do not necessarily involve termination of the supplier; we work with suppliers as appropriate to improve their performance and worker conditions in these areas.

¹⁴ The average energy consumption of HP products was estimated annually between 2010 and 2019 using high-volume product lines representative of the overall shipped product volume. The high-volume personal systems product lines include notebook and desktop computers, tablets, all-in-ones, workstations, thin clients, and displays.

¹⁵ Energy consumption .835 kWh/week based on Keypoint Intelligence/Buyer's Laboratory test report "HP PageWide Managed Color Flow MFP E77650z vs. Competitive Laser Models," January 2019.

¹⁶ Carbon dioxide equivalent (CO₂e) savings based on the average lifetime use of printing 100,000 pages, and excluding paper. Peer-reviewed life cycle assessment models commissioned by HP and conducted by thinkstep for inkjet (August 2016) and LaserJet (May 2016) and updated in 2018 comparing to comparable models of HP Color Laserjets. Specific results run by HP internal LCA experts.

¹⁷ HP calculations based on ENERGY STAR® normalized TEC data comparing the HP LaserJet 300/400 series and 500 series monochrome printers introduced in spring 2019. HP 58/59/76/77A/X compared to HP 26A/X, and HP 89A/X/Y compared to HP 87A/X.

¹⁸ Product use GHG emissions intensity describes the performance of our portfolio, taking into account changes to product mix and business growth. HP product use GHG emissions intensity measures per unit GHG emissions during anticipated product lifetime use. These values are then weighted by contribution of personal systems and printing products to overall revenue in the current year. These emissions represent more than 99% of HP product units shipped each year, including notebooks, tablets, desktops, mobile computing devices, workstations, displays, and digital signage; HP inkjet, LaserJet, DesignJet, Indigo, Scitex, and Jet Fusion 3D printers; and scanners.

¹⁹ Safer alternatives are rated as GreenScreen® benchmark 2 or better. This data point is calculated based on the total mass of benign and safer alternatives divided by the total mass of products shipped. Commercial and industrial graphics printing solutions products, as well as accessories and packaging for all HP products, are not included in this total.

²⁰ This number does not include commercial and industrial graphics printing solutions, packaging for those solutions, scanners, or personal systems accessories sold separately.

²¹ Renewable material, as defined in the [Global Reporting Initiative Standards](#), is "material derived from plentiful resources that are quickly replenished by ecological cycles or agricultural processes, so that the services provided by these and other linked resources are not endangered and remain available for the next generation." This data includes paper, paper-based packaging, and wood pallets.

²² Recycled content plastic (RCP) as a percentage of total plastic used in all HP personal systems, printer hardware, and print cartridges shipped during the reporting year. Total volume excludes brand-licensed products and after-market hardware accessories. Total RCP includes postconsumer recycled plastic, closed-loop plastic, and ocean-bound plastics used in HP products. Personal systems plastic is defined by EPEAT® eco-label criteria. Subject to relevant restrictions on the use and distribution of materials destined for recycling and/or recycled feedstocks.

²³ More than 82% of Original HP ink cartridges contain between 45–70% recycled content. 100% of Original HP toner cartridges contain between 5–45% postconsumer or post-industrial recycled content. Does not include toner bottles. See www.hp.com/go/recycledcontent for list.

²⁴ Compared to the majority of in-class A4 home color and mono inkjet cartridge and ink tank printers and all-in-ones <\$430 USD. Keypoint Intelligence – Buyers Lab September 2019 research study commissioned by HP, based on research survey of printer manufacturers' published specifications, documentation and press releases as of 09/01/2019 and not confirmed by lab testing. Market share as reported by IDC Quarterly Hardcopy Peripherals Tracker - Final Historical 2019Q2. Sustainable printing system defined by: zero carbon impact, carbon offset included (HP offsets the carbon impact of HP Tango Terra manufacturing and transportation, electricity use, paper and Original OEM cartridge consumption), 40% recycled content packaging, 100% curbside recyclable packaging, and EPEAT Gold ecolabel. For details see: keypointintelligence.com/HP Tango Terra.

²⁵ Based on HP internal analysis and research by Keypoint Intelligence – Buyers Lab, compared to majority of competing in-class mobile color photo printers using paper up to 2.3 inches by 3.4 inches, priced <\$199.99 MSRP, as of August 19, 2019. Market share as reported by NPD/GFK FYQ1 2019. Thin point measures .69" / 17.5 mm. Details at www.keypointintelligence.com/HP Sprocket Select.

²⁶ As defined by the IEEE 1680.1 2018 EPEAT standard. Data are fiscal year 2019.

²⁷ Less than 2% of paper by tonnage is not labeled as certified, but is made from certified fiber. Recycled fiber for paper products is included in the FSC®-certified value.

²⁸ All HP brand paper and paper-based product packaging will be derived from certified and recycled sources by 2020, with a preference for virgin fiber from certified sources of the Forest Stewardship Council® (FSC®). Packaging is the box that comes with the product and all paper (including packaging and materials) inside the box.

²⁹ Previously called the HP Environmentally Preferable Paper Policy.

³⁰ Calculated as the percentage of primary plastic packaging (by weight) reduced per unit shipped. Excludes secondary and tertiary packaging components. Includes HP personal systems and printer hardware packaging. Does not include packaging for the following: Graphics Solutions Business (GSB) hardware other than PageWide XL and DesignJet printers; 3D printing hardware; print supplies; refurbished products; and accessories such as third-party options, drop in box, and aftermarket options.

³¹ Based on HP's internal analysis as of August 2019. Notebook speaker enclosure component made with 5% ocean-bound plastics as of August 2019.

³² Display manufactured with 5% ocean bound plastic materials by weight. HP is using 12.7 grams per 16.9 ounce "single serve" bottled water container based on this International Water Bottle Association reference. Drinking water bottles equivalents diverted from the ocean pollution problem is OBP grams per product shipments / 12.7 grams. <https://www.bottledwater.org/news/weight-pet-bottled-water-containers-has-decreased-326-over-past-eight-years>.

³³ Compared to the majority of in-class A4 home color and mono inkjet cartridge and ink tank printers and all-in-ones <\$430 USD. Keypoint Intelligence – Buyers Lab September 2019 research study commissioned by HP, based on research survey of printer manufacturers' published specifications, documentation and press releases as of 09/01/2019 and not confirmed by lab testing. Market share as reported by IDC Quarterly Hardcopy Peripherals Tracker - Final Historical 2019Q2. Sustainable printing system defined by: zero carbon impact, carbon offset included (HP offsets the carbon impact of HP Tango Terra manufacturing and transportation, electricity use, paper and Original OEM cartridge consumption), 40% recycled content packaging, 100% curbside recyclable packaging, and EPEAT Gold ecolabel. For details see: keypointintelligence.com/HP Tango Terra.

³⁴ Percentage of recycled material is based on empty weight.



Product responsibility

- ¹ An HP printing system consists of an HP printer, paper, and Original HP supply. Blue Angel DE-UZ 205 emissions criteria or earlier versions of criteria applicable when printing system launched.
- ² Nov 2019 WKI Blue Angel Indoor Air Quality study, commissioned by HP, in compliance with DE-UZ 205: 21 imitation and five remanufactured toner cartridge brands compatible with HP Color LaserJet Pro MFP M477fdw (sku# CF410A, 411A, 412A, 413A) purchased in EMEA, LA and NA regions. See [HP.com/go/IAQnonhpWKI2019](https://www.hp.com/go/IAQnonhpWKI2019).
- ³ Nov 2019 Intrinsic risk evaluation commissioned by HP. Based on 2019 Blue Angel indoor air quality compliance study which included VOCs emitted from imitation and remanufactured toner cartridges in accordance with DE-UZ 205 and health-based screening levels established by USEPA (2019) and Cal/EPA Department of Toxic Substances Control (2019a). See [HP.com/go/IntrinsicNonHPtoner2019](https://www.hp.com/go/IntrinsicNonHPtoner2019).
- ⁴ "World's most secure and manageable PC" claim is based on HP's unique and comprehensive security capabilities at no additional cost and HP's Manageability Integration Kit's management of every aspect of a PC including hardware, BIOS and software management using Microsoft System Center Configuration Manager among vendors with 1M annual unit sales as of November 2016 on HP Elite PCs with 7th generation and higher Intel® Processors, Intel® integrated graphics, and Intel® WLAN.
- ⁵ Based on HP's internal analysis of isolation backed, deep learning endpoint security services including SaaS and managed services. Most advanced based on application isolation and deep learning endpoint protection on Windows 10 PCs as of March 2020.
- ⁶ HP acquired Bromium in September 2019.
- ⁷ Based on HP's internal analysis of unique and comprehensive capabilities among Application Isolation and Containment security solutions. Requires Microsoft Windows 8 or 10, Microsoft Word, Excel, or PowerPoint protection requires an Office license. Adobe PDF protection requires Adobe Acrobat Reader.
- ⁸ HP's most advanced embedded security features are available on HP Enterprise-class devices with FutureSmart firmware 4.5 or above and are based on HP review of 2016–2017 published embedded security features of competitive in-class printers. Only HP offers a combination of security features for integrity checking down to the BIOS with self-healing capabilities. For a list of compatible products, visit: [hp.com/go/PrintersThatProtect](https://www.hp.com/go/PrintersThatProtect). For more information, visit: www.hp.com/go/printersecurityclaims.

Social impact

- ¹ World Economic Forum, [The Future of Jobs Report 2018](https://www.weforum.org/publications/the-future-of-jobs-report-2018), September 17, 2018.
- ² As of March 2020.
- ³ See user guide for cleaning instructions and approved cleaning solutions.
- ⁴ HP Healthcare Edition MFPs are general-purpose printing and multifunction printing devices and are not intended for use in diagnosis, disease, or other medical conditions.
- ⁵ Cerner EMR software required and sold separately. Biscom software is available on the HP cloud platform. Subscription required.
- ⁶ Most secure based on HP's unique and comprehensive security capabilities at no additional cost among vendors with >1M unit annual sales as of November 2016 on HP Elite PCs with 7th gen and higher Intel® Core Processors, Intel® integrated graphics, and Intel® WLAN.
- ⁷ Based on HP review of 2018 published security features of competitive in-class printers. Only HP offers a combination of security features that can monitor to detect and automatically stop an attack then self-validate software integrity in a reboot. For a list of printers, visit [hp.com/go/PrintersThatProtect](https://www.hp.com/go/PrintersThatProtect). For more information: [hp.com/go/printersecurityclaims](https://www.hp.com/go/printersecurityclaims).
- ⁸ [International Society for Prosthetics and Orthotics & World Health Organization](https://www.ispo.org/)

Products and solutions portfolio

- ¹ As defined by the IEEE 1680.1 2018 EPEAT® standard. Data are fiscal year 2019.
- ² "World's most secure and manageable PC" claim is based on HP's unique and comprehensive security capabilities at no additional cost and HP's Manageability Integration Kit's management of every aspect of a PC including hardware, BIOS and software management using Microsoft System Center Configuration Manager among vendors with 1M annual unit sales as of November 2016 on HP Elite PCs with 7th generation and higher Intel® Processors, Intel® integrated graphics, and Intel® WLAN.
- ³ 32 Gold, 280 Silver EPEAT-registered HP Personal Systems products in 19 countries, as of October 2019.
- ⁴ Based on US EPEAT registration according to IEEE 1680.1-2018 EPEAT. Status varies by country. Visit www.epeat.net for more information.
- ⁵ Ibid.
- ⁶ As defined by the IEEE 1680.1-2018 standard definition of in-scope plastic and recycled plastic.
- ⁷ Display manufactured with 5% ocean bound plastic materials by weight. HP is using 12.7 grams per 16.9 ounce "single serve" bottled water container based on this International Water Bottle Association reference. Drinking water bottles equivalents diverted from the ocean pollution problem is OBP grams per product shipments / 12.7 grams. <https://www.bottledwater.org/news/weight-pet-bottled-water-containers-has-decreased-326-over-past-eight-years>.
- ⁸ Based on HP's internal analysis as of August 2019. Notebook speaker enclosure component made with 5% ocean-bound plastics as of August 2019.
- ⁹ With HP Long Life 4-cell battery. By weight. Mechanical parts include chassis, speaker box, keycap mechanism, battery frame, and other small mechanical parts. Applies to Dragonfly Family starting mid-2020.
- ¹⁰ Based on US EPEAT registration according to IEEE 1680.1-2018 EPEAT. Status varies by country. Visit www.epeat.net for more information.
- ¹¹ Based on compact business convertibles with 8th Gen Intel® Core™ i U series processor, Windows Pro OS, vPro™ and a convertible non-detachable design under 59 cubic inches as of August 2019.
- ¹² Starting weight less than 1kg is only available in certain configurations.
- ¹³ HP Forest Positive Printing framework will go beyond existing HP sustainable fiber sourcing programs. It includes NGO partnerships targeted to protect forests, improve responsible forest management and help develop Science Based Targets (SBT) for responsible management of forests. Our vision is that printing with HP will protect forests regardless of what brand of paper customers use.
- ¹⁴ Compared to the majority of in-class A4 home color and mono inkjet cartridge and ink tank printers and all-in-ones <\$430 USD. Keypoint Intelligence – Buyers Lab September 2019 research study commissioned by HP, based on research survey of printer manufacturers' published specifications, documentation, and press releases as of 09/01/2019 and not confirmed by lab testing. Market share as reported by IDC Quarterly Hardcopy Peripherals Tracker - Final Historical 2019Q2. Sustainable printing system defined by: zero carbon impact, carbon offset included (HP offsets the carbon impact of HP Tango Terra manufacturing and transportation, electricity use, paper, and Original OEM cartridge consumption), 40% recycled content packaging, 100% curbside recyclable packaging, and EPEAT Gold ecolabel. For details see: keypointintelligence.com/HP Tango Terra.
- ¹⁵ HP will offset the carbon impact of manufacturing and transportation, electricity use, paper, and Original OEM cartridge consumption.
- ¹⁶ An HP printing system consists of an HP printer, paper, and Original HP supply. Blue Angel DE-UZ 205 emissions criteria or earlier versions of criteria applicable when printing system launched.
- ¹⁷ Nov 2019 WKI Blue Angel Indoor Air Quality study, commissioned by HP, in compliance with DE-UZ 205: 21 imitation and five remanufactured toner cartridge brands compatible with HP Color LaserJet Pro MFP M477fdw (sku# CF410A, 411A, 412A, 413A) purchased in EMEA, LA and NA regions. See [HP.com/go/IAQnonhpWKI2019](https://www.hp.com/go/IAQnonhpWKI2019).



¹⁸ HP's most advanced embedded security features are available on HP Enterprise-class devices with FutureSmart firmware 4.5 or above and are based on HP review of 2016–2017 published embedded security features of competitive in-class printers. Only HP offers a combination of security features for integrity checking down to the BIOS with self-healing capabilities. For a list of compatible products, visit: hp.com/go/PrintersThatProtect. For more information, visit: www.hp.com/go/printersecurityclaims.

¹⁹ Compared to the majority of in-class A4 home color and mono inkjet cartridge and ink tank printers and all-in-ones <\$430 USD. Keypoint Intelligence – Buyers Lab September 2019 research study commissioned by HP, based on research survey of printer manufacturers' published specifications, documentation and press releases as of 09/01/2019 and not confirmed by lab testing. Market share as reported by IDC Quarterly Hardcopy Peripherals Tracker - Final Historical 2019Q2. Sustainable printing system defined by: zero carbon impact, carbon offset included (HP offsets the carbon impact of HP Tango Terra manufacturing and transportation, electricity use, paper, and Original OEM cartridge consumption), 40% recycled content packaging, 100% curbside recyclable packaging, and EPEAT® Gold ecolabel. For details see: keypointintelligence.com/HP Tango Terra.

²⁰ Tango Terra is certified as CarbonNeutral in accordance with The CarbonNeutral Protocol.

²¹ Forest Stewardship Council® (FSC®) HP License Code FSC®-C017543. www.fsc.org.

²² EPEAT registered where applicable. EPEAT registration varies by country. See <http://www.epeat.net> for registration status by country.

²³ HP calculations based on ENERGY STAR® normalized TEC data comparing the HP LaserJet 300/400 series and 500 series monochrome printers introduced in spring 2019. HP 58/59/76/77A/X compared to HP 26A/X, and HP 89A/X/Y compared to HP 87A/X.

²⁴ Constant toner self-reload using imaging-drum-in-place OEM toner supplies compared to majority of worldwide competing OEM monochrome laser printers <€250 Euro and MFPs priced <€350 as of Nov 15, 2018. HP internal research & Keypoint Intelligence-Buyers Lab 2018 study commissioned by HP. Market share as reported by IDC CYQ4 2018 Hardcopy Peripherals Tracker, 2018Q4 Release. For details, see keypointintelligence.com/HPNeverstop.

²⁵ An HP printing system consists of an HP printer, paper, and Original HP supply. Blue Angel DE-UZ 205 emissions criteria or earlier versions of criteria applicable when printing system launched.

²⁶ See: <http://h22235.www2.hp.com/hpinfo/globalcitizenship/environment/productdata/itecotoner-cart.html> and www.hp.com/go/msds.

²⁷ Environmental footprint includes printer and supplies: raw material extraction and processing, printer manufacturing and transportation as well as electricity, drum and reload kit use, paper use, and end of use.

²⁸ Carbon dioxide equivalent (CO₂e) savings of HP Neverstop Laser 1000a with CTSS technology vs. HP LaserJet Pro M15w is based on the average lifetime use of printing 50,000 pages. Peer-reviewed life cycle assessment models commissioned by HP and conducted by thinkstep. Results reviewed by HP internal LCA experts. Analysis completed June 27, 2019.

²⁹ HP Neverstop is made with more than 25% recycled plastic by weight of plastic.

³⁰ EPEAT registered where applicable. EPEAT registration varies by country. See <http://www.epeat.net> for registration status by country.

³¹ Ibid.

³² Deinking tests conducted by Cadel Deinking verified that HP Indigo digitally printed flexible packaging, including coating, can be fully deinked. Test results obtained a product with a quality similar to that of new plastic. HP Indigo ElectroInks and Michelman primers have been certified by TUV Austria for use as printing inks for compostable labels and flexible packaging (up to certain allowable limits) per the EU standard for compostability testing EN 13432.

³³ PWI inks used to print on corrugated packaging meet the recyclability requirements of PTS Method RH 021/87.

³⁴ HP Jet Fusion 3D Printing Solutions using HP 3D High Reusability PA 12 and HP 3D High Reusability CB PA 12 provide up to 80% powder reusability ratio, producing functional parts batch after batch. For testing, material is aged in real printing conditions and powder is tracked by generations (worst case for reusability). Parts are then made from each generation and tested for mechanical properties and accuracy.

³⁵ Low-carbon footprint per printed HP Multi Jet Fusion part for runs of 1,500 or less when compared to injection molded parts. Data comes from an ISO 14040/44 compliant and peer reviewed LCA study.

³⁶ HP Multi Jet Fusion technology—on average ~30 watt-hours per cubic cm for the end-to-end processes (pre-processing, printing, and post-processing).

³⁷ Carbon footprint reduction calculated based on: Aluminum machined part carbon footprint 19.7 kg CO₂e; HP Multi Jet Fusion technology carbon footprint 0.97 kg CO₂e.

³⁸ Weight reduction calculated based on: Aluminum machined part 355g. HP Multi Jet Fusion technology part 23g.

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