Between aspiration and action, there's a bridge.

As you have just read in Our Story, Cisco is putting our people, technology, and resources to work in service of an inclusive future. In The Details, you can learn even more about the strides we made during FY19. This section of the report is organized according to our CSR priorities and delves deep into the programs and strategies that are helping us reach our goals.
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About this report

We use our Corporate Social Responsibility (CSR) Report to share how we are managing and measuring progress against our CSR goals, as well as to respond to a broad set of stakeholder expectations and inquiries we receive throughout the year.

This report covers fiscal year results for the period ended July 27, 2019. Data includes all our operations around the world, unless otherwise stated. Some data have been rounded. Monetary figures are in U.S. dollars unless otherwise noted. The data in the Planet chapter are subject to internal and external audits in line with our Environmental Management System and ISO14001 requirements. Data that support public commitments, such as our goals to reduce greenhouse gas (GHG) emissions, are subject to external assurance.

In addition, the Cisco Foundation, which provides cash grants to our nonprofit partners, is audited annually. For more information on Cisco’s CSR activities, visit csr.cisco.com.
Corporate profile
Cisco is a worldwide technology leader that has been making the Internet work since 1984. Our people, products, and partners help society securely connect and seize tomorrow’s digital opportunity today. Today, more than 80 percent of the world’s web traffic travels securely across Cisco connections.

Revenue by geographical segment
- Americas: 60%
- Europe, Middle East, and Africa (EMEA): 25%
- Asia Pacific, Japan, and China (APJC): 15%

Revenue by product or service category
- Infrastructure platforms: 58%
- Services: 25%
- Applications: 11%
- Security: 5%
- Other: 1%

Products and solutions
- Networking
- Mobility and wireless
- Data center
- Software
- Security
- Cloud
- Internet of Things
- Collaboration
- Analytics

Cisco stock symbol
NASDAQ

75,762+ employees
460+ office locations
97 countries
1984 year founded
$51.9B* FY19 revenue
*Non-GAAP
Governance & responsibility

Aligning our business priorities with pressing global challenges

Corporate social responsibility at Cisco
- Stakeholder engagement
- Materiality
- UN SDGs
Public policy
Political support
Corporate social responsibility at Cisco

Cisco pioneered the technology that connects everything. We believe that connections have the potential to create opportunity for everyone and to solve some of the world’s most pressing challenges. Leveraging our expertise, technology, and a strong network of partners, we’re focused on building bridges to a more inclusive future.

Corporate social responsibility (CSR) is core to our purpose, our culture, and how we invest. We focus on People, Society, and Planet—issues that align with our business strategy and where we can have the greatest potential for impact. Our success is built on a Conscious Culture, where trustworthiness and ethical conduct are expected and supported among our employees, suppliers, and business partners.

How we manage CSR

Corporate Affairs, as part of the Human Resources organization, champions Cisco’s strategic approach to CSR, including social investment programs and environmental sustainability. The organization also stewards our commitments to CSR performance and transparency.

The Corporate Affairs team is responsible for:

• Defining and managing our social investment strategy and programs
• Driving CSR governance processes
• Collaborating with a broad range of stakeholders
• Conducting socio-economic research and developing data driven insights
• Assessing and monitoring CSR priority issues
• Producing our annual CSR Report
• Coordinating and ensuring cross-functional ESG alignment

Business functions own CSR priorities. Teams integrate priorities into their business strategy by setting goals, implementing plans, and measuring performance. Some priorities touch multiple functions. In these cases, we establish cross-functional teams to align and implement against our commitments. In some cases, CSR goals and objectives may be linked to performance factors and compensation for CSR owners. For example, Supplier Code of Conduct performance may be considered when assessing the performance of key supply chain leaders.

We believe that risk is inherent in innovation and the pursuit of long-term growth opportunities. Cisco’s management is responsible for day-to-day risk management activities. The Board of Directors, acting directly and through its committees, is responsible for the oversight of risk management.

Figure 1.
CSR business process

Cisco’s CSR business process (Figure 1) is based on strong stakeholder engagement and an annual materiality assessment.
Cisco’s management has implemented an enterprise risk management (ERM) program, managed by Cisco’s internal audit function, that is designed to work across the business to identify, assess, govern, and manage risks and Cisco’s response to those risks. Cisco’s internal audit function performs an annual risk assessment that is utilized by the ERM program.

The Audit Committee, which oversees our financial and risk management policies, including data protection (comprising both privacy and security), receives regular reports on ERM from the chair of the ERM operating committee, as well as regular reports on cybersecurity from Cisco’s Chief Security and Trust Officer. Other Board committees oversee certain categories of risk associated with their respective areas of responsibility.

The Nomination and Governance Committee of the Board reviews Cisco’s policies and programs concerning corporate social responsibility, including environmental, social, and governance matters (Figure 2). CSR and environmental sustainability are represented through Tae Yoo, Senior Vice President of Corporate Affairs, and Francine Katsoudas, Executive Vice President and Chief People Officer.

---

### CSR governance and management

#### Board of Directors

<table>
<thead>
<tr>
<th>Nomination and Governance Committee</th>
<th>Other Board Committees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate CSR</td>
<td>Acquisition</td>
</tr>
<tr>
<td>Champion Cisco’s company-wide commitment to CSR performance and transparency</td>
<td>Audit</td>
</tr>
<tr>
<td>Business functions &amp; cross-functional groups</td>
<td>Finance</td>
</tr>
<tr>
<td>Conduct due diligence and implement policies and programs for specific CSR focus areas</td>
<td>Compensation and Management Development</td>
</tr>
<tr>
<td>Governance, risk &amp; control</td>
<td></td>
</tr>
<tr>
<td>Champion enterprise risk management (ERM) efforts across the business to identify, assess, and manage risks</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.**

For our efforts to succeed, we need stakeholders’ trust. A commitment to ethical conduct and good governance structures helps us walk the talk. Learn more about corporate governance and risk management at Cisco in our 2019 Annual Report.
Engaging with stakeholders

Building bridges of understanding with key stakeholders (Figure 3) helps us maximize impact and informs our materiality process. Through regular dialogue, we can better align our business to social and environmental needs.

We partner with a wide range of global and local organizations to shape and extend the reach of our CSR programs, including governments, nonprofits, multilateral organizations, and peers. We have been a strategic partner of the World Economic Forum (WEF) since 2002. Our engagement with the WEF provides us with world leader insights, influences our CSR strategy, and enables us to learn from others and share best practices. Other partnerships and memberships include: Business for Social Responsibility (BSR); the Conference Board’s Sustainability Council II on Innovation and Growth; the CEF (formerly the Corporate Eco Forum); and the Responsible Business Alliance (formerly the EICC or Electronic Industry Citizenship Coalition).

In addition to the formal materiality assessment, Cisco’s environment team independently gathers feedback on emerging issues, the quality of our reporting, and our sustainability performance from sources including stakeholder inquiries and key rankings and ratings. “Stakeholder inquiries” is the umbrella term we use for questions we receive from a variety of sources, including:

- Customers and partners. The visibility of environmental sustainability continues to increase in customer and partner requests for proposal (RFP), supplier qualification, and contract processes.
- Employees
- Financial and industry analysts
- Shareholders and investors
- Sustainability data aggregators, which includes companies like Ecovadis that collect sustainability data.

Engagement forums (external)

- Annual customer satisfaction surveys
- Annual shareholder meeting and company reporting
- Business for Social Responsibility
- Cisco CEO Leadership Council
- Cisco CIO Exchange
- Cisco Foundation
- Cisco Networking Academy Advisory Boards
- Cisco Networking Academy Conferences
- Cisco Platform blog
- Cisco support forums
- Cisco Live Conferences
- Committee Encouraging Corporate Philanthropy
- Financial Analyst Conference
- Global Customer Advisory Board
- High Tech Policy blog

Engagement forums (internal)

- EthicsLine
- Functional all-hands
- Leader Day
- Leadership Quarterly
- Monthly “Cisco Beat” company meeting
- SustainX
- Team Listening:
  » Engagement Pulse
  » Real Deal survey
  » Team Space
  » Voice of the Employee
information for our customers and partners. It also includes a range of organizations that collect and package sustainability information for resale or for their own analysis.

- Environmental advocacy groups
- Academia, including researchers and students
- Media

Environment-related topics form the vast majority of stakeholder inquiries that Cisco receives. These inquiries provide continuous, real-time insight into the environmental issues of interest to different categories of stakeholders. In FY19, we continued to see increasing customer and investor interest in environmental sustainability, as reflected in customer requests for proposals, customer and environmental advocacy surveys, and other inquiries.

**Materiality: Determining what matters most**

An important input to report content and CSR strategy is a materiality assessment. The assessment helps us understand what issues are most important to stakeholders inside and outside Cisco. We conduct a full assessment every two years. In years that we do not conduct a full assessment, we do an internal materiality refresh. This helps us validate priorities relative to business risks and opportunities. Each year, we provide results to the Cisco Governance, Risk, and Controls team, which feeds into Cisco’s ERM program.

Our latest assessment, completed by an independent consultant in FY19, evaluated 14 topics. We validated these topics in a variety of ways, including:

- Reviewing CSR inquiries from customers, partners, and investors
- Conducting social media listening

We reframed several of our priority topics compared to the previous assessment. For example, a new topic, economic inequality, refers to our efforts to address inequities globally and locally. Participants also showed increased interest in Cisco’s local community impact.

The scope of our environmental impact includes our operations, extended operations (supply chain), and IT solutions for the environment.

The assessment helps us prioritize investments, executive sponsorship, risk management, and stakeholder engagement. The issues evaluated in FY19—and their resulting rankings—are pictured in Figure 4.

![Materiality matrix](image-url)
products and services. The review confirmed that our environment-related priorities remain:

- Energy and GHG emissions from our operations and those of our suppliers, as well as from use of our products
- Product and packaging materials focusing on material resource efficiency, waste from our operations, and extended operations (supply chain)

We address these top two priorities through initiatives with dedicated funding and program structure. And we motivate and measure progress through publicly announced goals. We address our remaining environmental issues through normal operational due diligence by the responsible business functions. The order of environmental issues within Tier 3 also indicates a prioritization.

However, it recognizes a wider uncertainty band compared to Tiers 1 and 2.

In addition to our materiality assessment, we consider stakeholder input to rank environmental topics. In FY18, Cisco invited approximately 5,000 customers across all regions and market segments to complete an online survey on environmental sustainability. Feedback from this FY18 survey matched the results of the FY19 sustainability materiality assessment. More than five years of materiality assessments performed using various methodologies confirm the prioritization shown in Table 2 of the Planet section of this report.

### UN Sustainable Development Goals

We know that the actions we take can have ripple effects across the globe. It’s why we’ve been giving back to global communities for more than 30 years and why we’ve committed to positively impacting 1 billion people by 2025. In much the same way, the UN Sustainable Development Goals (SDGs) require global cooperation and ambitious commitment. The 17 SDGs set forth a framework to build a better world for people and our planet by 2030 and are designed to be applied by governments and organizations worldwide.

Cisco’s targeted CSR efforts align with many of the SDGs, and we share the UN’s vision for a peaceful, inclusive future. Given that our CSR priorities are aligned with our corporate CSR risks and opportunities, we leverage Cisco’s unique capabilities, expertise, and resources to maximize impact within the context of Cisco’s enterprise-wide goals to benefit people, society, and the planet. Table 1 outlines our material priorities and the SDGs where we believe Cisco’s CSR programs are having a positive impact.

### Table 1. Material risks, opportunities, and the SDGs

<table>
<thead>
<tr>
<th>Priority Topic</th>
<th>Materiality Definition</th>
<th>Related SDG</th>
<th>Supporting Strategies and Programs</th>
<th>Cisco Public Goal</th>
</tr>
</thead>
</table>
| Ethics & integrity                   | Ethical and transparent conduct by Cisco in its business dealings, and among employees, suppliers, and business partners. This includes regulatory compliance; antitrust and anti-trust; fair business, marketing, and competition; non-retaliation; and transparent participation in elections and policy. | 8.5          | - Code of Business Conduct  
- Supplier Code of Conduct  
- Supplier Ethics Policy  
- Concerns reporting process                                                  | Ensure that 100 percent of employees annually certify compliance with the Code of Business Conduct                        |
| Employee training & development      | Growing and expanding the skills of the current workforce and providing our employees with professional development opportunities through training and continuous education. | 8.5          | - Conscious Culture  
- Our People Deal  
- Degreed  
- Leadership programs                                                        | Achieve 80 percent employee engagement by 2020                                                                     |
| Diversity & inclusion (workforce)    | Promoting diversity, inclusion, and equal opportunity at all levels of the organization. This issue is inclusive of gender, generation, race, ethnicity, orientation, ability, nationality, religion, veteran status, background, culture, experience, strengths, and perspectives; unconscious bias education and developing a Conscious Culture; fair and equitable pay. | 5.5.2        | - Conscious Culture  
- Diverse Talent Accelerators  
- Next Generation Leaders  
- DARE  
- JUMP  
- Inclusion & Collaboration Community                                         |                                                                                                                 |
| Employee wellness & benefits         | Ensuring a safe and healthy workplace and providing employees with the benefits, resources, and flexibility to maintain and improve their wellness, care for others, and integrate work and home life. Providing fair compensation, benefits, and recognition. Engaging employees and listening to their concerns. | 8.8          | - Comprehensive benefits package  
- Emergency Time Off  
- Flexible work arrangements                                                    |                                                                                                                 |
<table>
<thead>
<tr>
<th>Priority Topic</th>
<th>Materiality Definition</th>
<th>Related SDG</th>
<th>Supporting Strategies and Programs</th>
<th>Cisco Public Goal</th>
</tr>
</thead>
</table>
| Data security & privacy                | Ensuring, designing, and adapting network security as it relates to personal privacy and mitigating online threats, including cybercrime, economic espionage, military espionage, and cyber warfare. | Cisco Aligned Target: 9.1 | • Call for privacy as a human right  
• Cisco Secure Development Lifecycle  
• Transparency Report  
• Trust Center                                                                                      |                                                                                   |
| Digital rights & inclusion             | Fostering the positive use of information and communications technology to promote freedom of expression and products and services that enable access by all people regardless of age, language, ability, cultural group, gender, or income. | Cisco Aligned Targets: 10.2, 10.4 | • Business and Human Rights at Cisco  
• Human Rights Working Group  
• Digital Readiness Index  
• Privacy Data Sheets and Data Maps                                                                 |                                                                                   |
| Socially responsible supply chain      | Ensuring ethical, fair, and responsible sourcing and supplier conduct. Includes social and environmental compliance by suppliers; fair working conditions; fair wages; human rights throughout the supply chain; ethical sourcing of raw materials (e.g., conflict minerals, rare earths); supplier diversity; and efforts to improve livelihoods and the well-being of local communities. | Cisco Aligned Targets: 12.2, 12.4, 12.5, 12.6.1, 12.7 | • Supplier Code of Conduct  
• Supplier Ethics Policy  
• Supply Chain Human Rights  
• Governance Committee  
• Circular Economy program  
• Capital Equipment Pledge  
• Industry engagement                                                                                                                      |                                                                                   |
| Global social impact—IT skills & digital readiness | Employing Cisco resources, technologies, and external partnerships to promote IT-related education and skills-to-jobs to help people thrive in the digital economy and accelerate economic and social development. | Cisco Aligned Targets: 4.1, 4.4 | • Cisco Networking Academy  
• Veterans Program  
• Global Problem Solvers (GPS) Challenge, GPS: The Series  
• Reskilling/upskilling programs for the future of work  
• Strategic social investment portfolio                                                                                                    | Reach 2 million Cisco Networking Academy students per year by 2020  
• Positively impact 1 billion people through our social impact grants and signature programs by 2025 |
| Global social impact—Critical human needs & disaster relief | Employing Cisco resources, technologies, and external nonprofit partnerships to: support human needs such as affordable housing, basic education, food security, and clean drinking water, and to assist in humanitarian and disaster preparedness and response efforts. | Cisco Aligned Targets: 1.1, 1.2 | • Strategic social investment portfolio  
• Destination: Home investment  
• Disaster response  
• TacOps                                                                                                                                     | Positively impact 1 billion people through our social impact grants and signature programs by 2025 |
<table>
<thead>
<tr>
<th>Priority Topic</th>
<th>Materiality Definition</th>
<th>Related SDG</th>
<th>Supporting Strategies and Programs</th>
<th>Cisco Public Goal</th>
</tr>
</thead>
</table>
| Local community impact           | Employing Cisco resources and employee contributions to manage Cisco’s negative impacts and effect positive change within local communities, including corporate and employee donations and volunteering with local nonprofits and NGOs. | Cisco Aligned Target: 1.2 | • Destination: Home investment  
• Bay Area Community Impact grants program  
• Habitat for Humanity Grant Program | Positively impact 1 billion people through our social impact grants and signature programs by 2025 |
| Economic inequality              | Addressing economic inequality globally and in local communities, including homelessness and shortages in affordable housing resulting in part from the technology economy.                          | Cisco Aligned Target: 2.1 | • Strategic social investments  
• Destination: Home investment | Positively impact 1 billion people through our social impact grants and signature programs by 2029 |
| IT solutions for the environment  | Innovate new solutions and promote existing products and services to provide environmental benefits, including energy efficiency, e.g., enabling connected cities and industries, and intelligent energy and transportation networks. | Cisco Aligned Target: 10.2, 10.4 | • Smart and Connected Communities  
• IT enabling effect  
• Connected Goods Showcase  
• E-flex  
• Container 42  
• Open Conservation | Positive impact 1 billion people through our social impact grants and signature programs by 2025 |
| Energy & GHGs                    | Efforts to reduce energy consumption and GHG emissions across the value chain, including product use, our own operations, and those of our suppliers. Includes product efficiency, operational energy efficiency and conservation, and renewable energy.       | Cisco Aligned Targets: 7.2, 7.3 | • Energy efficiency in offices, labs, and data centers  
• Renewable energy purchases  
• Product energy efficiency | Reduce Total Scope 1 & Scope 2 GHG emissions worldwide by 60 percent by FY22 (FY07 baseline)  
Use electricity generated from renewable sources for at least 85 percent of our global electricity by FY22  
Improve large rack-mounted-equipment system power efficiency—as measured from the input power from the facility to the boardmounted ASICs, memory, and other chip devices from 77 percent to 87 percent by 2022 (FY16 baseline) |
| Material use & waste             | Reducing material use and waste from our products and packaging, operations, and supply chain. Includes the reuse, remanufacturing, and recycling of products and packaging; product and packaging design for recyclability and reuse; sourcing of recyclable and sustainable materials; phasing out substances of concern; and landfill avoidance for operational solid waste from Cisco and supplier facilities. | Cisco Aligned Targets: 12.2, 12.4, 12.5, 12.6.1, 12.7 | • Circular Economy program  
• Product end-of-life programs  
• Use of recyclable and nonhazardous materials | Decrease use of virgin plastic by 20 percent by FY25 (FY18 baseline)  
Reduce all foam used in Cisco product packaging by 75 percent measured by weight, by FY25 (FY19 baseline)  
Increase product packaging efficiency by 50 percent by FY25, as measured by package volume per weight of product (FY19 baseline)  
Design all new products using circular design principles by 2025 |
ESG disclosure, rankings & ratings

Cisco’s CSR reporting is in accordance with the standards of the Global Reporting Initiative (GRI): Core Application. As appropriate, we align with frameworks beyond GRI. For example, we are working to follow the guidance of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and the Task Force on Climate-related Financial Disclosures (TCFD).

Cisco relies on six key rankings to gain insight into how ESG topics are prioritized and to evaluate our sustainability reporting and performance. We have chosen these rankings based on their public visibility, the transparency of the scoring methodology, and our ability to engage consistently with analysts to discuss their priority topics and our areas for reporting and/or performance improvement.

Except for Barron’s and the WSJ, which have only reported rankings the last two years, we have maintained this set of benchmarks for more than five years. For example, we’ve reported to CDP since its inception and to RobecoSAM (DJSI) since at least 2005. Information on these and other recognition is available on the awards page of our website. Cisco maintained our position on both the Dow Jones Sustainability (DJSI) World and North American Indices in September 2019 based on information submitted to RobecoSAM in June 2019. The DJSI indices, a globally recognized benchmark, rate companies based on economic, environmental, and social dimensions. We have been on the World Index for 13 of the last 14 years. And we’ve been on the North American Index every year since its inception in 2006.

The A List replaced the CPLI in CDP 2015, and both the CPLI and CDLI in CDP 2016.

### Table 2. Ratings & rankings performance

<table>
<thead>
<tr>
<th>Key Benchmark</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Knights Global 100</td>
<td>#69</td>
<td>#57</td>
<td>#3</td>
<td>#7</td>
<td>#14</td>
</tr>
<tr>
<td>FTSE4Good</td>
<td>On index</td>
<td>On index</td>
<td>On index</td>
<td>On index</td>
<td>On index</td>
</tr>
<tr>
<td>CDP (formally Carbon Disclosure Project)</td>
<td>A List</td>
<td>A List</td>
<td>A List</td>
<td>A List</td>
<td>A List</td>
</tr>
<tr>
<td>MSCI</td>
<td>AA</td>
<td>AA</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Corporate Information Transparency Index (CITI) by Institute of Public and Environmental Affairs (IPE) (IT Sector scores) *</td>
<td>–</td>
<td>April, #15</td>
<td>April, #10</td>
<td>June, #9; Nov., #6</td>
<td>July, #3; Oct, #2</td>
</tr>
<tr>
<td>Barron’s U.S. Most Sustainable Company</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>#1</td>
<td>#2</td>
</tr>
<tr>
<td>WSJ Management Top 250</td>
<td>–</td>
<td>–</td>
<td>#9</td>
<td>#13 (U.S.)</td>
<td>#5</td>
</tr>
<tr>
<td>Forbes: Just 100</td>
<td>–</td>
<td>–</td>
<td>#7</td>
<td>#10</td>
<td>#11</td>
</tr>
</tbody>
</table>

*CITI index is a real-time index. Numerical data presented is that which was collected by Cisco at the time.
The CDP Climate A List includes companies from around the world that have been identified as leaders in their reporting and actions to reduce GHG emissions. Although we weren’t on the CDLI until the 2008 CDP cycle, Cisco now has received more awards than any other company worldwide. Additional recognition from CDP includes:

- **Supplier Engagement Leader Board**: 2016–2018 (based on CDP SER score)

<table>
<thead>
<tr>
<th>CDP Year/Cisco FY</th>
<th>CDP CDP Score Disclosure/Performance</th>
<th>CDP A List</th>
<th>CDP CDLI</th>
<th>CDP CPLI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 (CDP1) / FY04</td>
<td>Responded</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2006 (CDP2) / FY05</td>
<td>70</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>2007 (CDP3) / FY06</td>
<td>70</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 (CDP4) / FY07</td>
<td>96</td>
<td>-</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2009 (CDP5) / FY08</td>
<td>88</td>
<td>-</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2010 (CDP6) / FY09</td>
<td>92 / A</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2011 / FY10</td>
<td>98 / A</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2012 / FY11</td>
<td>96 / B</td>
<td>√</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2013 / FY12</td>
<td>100 / A</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2014 / FY13</td>
<td>100 / A</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>2015 / FY14</td>
<td>100 / A</td>
<td>√</td>
<td>√</td>
<td>#</td>
</tr>
<tr>
<td>2016 / FY15</td>
<td>A</td>
<td>√</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2017 / FY16</td>
<td>A</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018 / FY17</td>
<td>A</td>
<td>√</td>
<td></td>
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<td>2019 / FY18</td>
<td>TBD1</td>
<td>TBD1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- √: on index
- -: not on index
- #: CPLI transitioned to the A List in 2015; CDLI followed in 2016
- CDLI: Carbon Disclosure Leadership Index
- ^CDP is not expected to release its 2019 scores until early 2020; this information will be updated in early 2020 when scores have been announced.

The CDP Climate A List includes companies from around the world that have been identified as leaders in their reporting and actions to reduce GHG emissions. Although we weren’t on the CDLI until the 2008 CDP cycle, Cisco now has received more awards than any other company worldwide. Additional recognition from CDP includes:

- **Supplier Engagement Leader Board**: 2016–2018 (based on CDP SER score)

Green revenue

More and more, stakeholders ask us to quantify the percent of our yearly revenue that is considered “clean” or “green.” Different stakeholders provide differing criteria defining “green.” The most comprehensive methodology is provided by Corporate Knights, which uses the following definition for clean/green revenue: “Clean revenue measures a company’s revenue from all goods and services which have clear environmental and, in a limited number of well-defined cases, social benefits. This includes revenue from clean transition, low-carbon economy and circular economy revenue segments.”

Revenue included in our green revenue calculation includes:

- Products that meet ENERGY STAR or EPEAT requirements
- Collaboration products such as Cisco Webex, Cisco TelePresence, Cisco Virtual Office, and Cisco OfficeExtend
- Products sold into various social-good sectors such as healthcare, utilities, and education
- Security products that promote data privacy

Based on this taxonomy, we determined that 64 percent of our FY19 revenue can be considered green/clean. However, we believe that stakeholders should use caution in comparing companies with a self-reported green/clean revenue number. There is not a public standard for such reporting, and this reporting is difficult to verify. Due to competitive considerations, the categories that make up clean/green revenue are often not aligned with current public financial reporting.
Public policy

Cisco’s Government Affairs team develops and advocates for pro-technology policies and regulations. We engage with governments at all levels, focusing on public policies that impact Cisco, our partners, and our customers. The team comprises former elected and appointed public officials, as well as government affairs experts.

Learn more about this team on our Government Affairs website and about our policy priorities on our High Tech Policy blog. Current policy priorities include:

- **Advancing smart cybersecurity policies.** Strong risk-management policies are foundational to secure connections. As threats evolve, 21st-century policies are essential to protect innovation and economic growth.

- **Protecting innovation.** We need a strong, balanced patent system to foster innovation and reduce incentives for harmful litigation.

- **Promoting investment.** National tax policies should encourage job creation and incentivize innovation. Policies must also be consistent with existing global approaches.

- **Securely connecting the future.** Emerging technologies like machine learning and AI can protect against cyberattacks. We can harness these technologies for positive impact.

**Political support**

Cisco does not make corporate contributions to candidates for elected office, political parties, or election committees in the United States. We occasionally make contributions in support of local and state ballot measures that affect our business. We disclose these contributions quarterly. Our Government Affairs team and the Board of Directors’ Nomination and Governance Committee regularly review contributions.
Empowering our people and teams to thrive in a digital workforce

We are committed to:

- Inclusion & collaboration 38
- Employee community impact 51
- Team development 58
- Health & wellness 69
- Ethics & integrity 75
**Goal:**
Achieve 80 percent community impact participation, as measured by employees’ actions, including advocating for causes they care deeply about, volunteering, donating, and participating in programs that positively impact communities by 2020.

**Our progress:**
Creating a positive impact in communities and creating positive communities are integral parts of our Conscious Culture and our commitment to benefiting people, the planet, and society. We drive hundreds of thousands of actions every year that amount to significant change. This year, we have innovated our approach to creating community impact by expanding the portfolio of programs through which our employees can take action.

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<td>#1</td>
<td>47%</td>
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- **100%** of employees completed Code of Business Conduct certification
- **62%** of Cisco’s Executive Leadership Team is diverse in terms of gender and/or ethnicity

- **16 years** of perfect scores on the Human Rights Campaign’s Corporate Equality Index
- **#1** World’s Best Workplaces 2019, according to the Great Place to Work Institute®
- **93%** of employees say Cisco is a great place to work
Introducing Conscious Culture

At Cisco, each person is unique, but we bring our talents together to work as a team and make a difference. When we do, great things happen. In FY19, we began defining the culture we have and hope for at Cisco in a more precise way. The result is Conscious Culture, a set of expectations, principles, and measures that we believe best define Cisco’s values, beliefs, and ethos. Conscious Culture means being aware of the environment we’re part of, and feeling accountable, empowered, and expected to contribute to a culture where we feel safe and can thrive.

Figure 2. Conscious Culture—Our approach

Figure 3. Conscious Culture has three components:

- **Environment**: An inclusive, diverse environment that positively impacts people, society, and the planet is the foundation of a thriving culture.

- **Characteristics**: Cultures are modeled by a company’s beliefs, behaviors, rituals, and principles.

- **Experience**: Culture is experienced through your work, your leader, and your teams.
Inclusion & collaboration

An inclusive, diverse environment that positively impacts people, society, and the planet is the foundation of a thriving culture.

At Cisco, we are committed to full-spectrum diversity inclusive of gender, ethnicity, race, orientation, age, ability, veteran status, religion, culture, background, experience, strengths, and perspectives.

Diversity, inclusion, collaboration, and technology are fundamental to who we are, how we create the best teams, and how we will succeed in this age of digital transformation.

Our work is focused on achieving four key business outcomes: Diverse leadership and workforce, inclusive and collaborative culture, community engagement and impact, and inclusion and collaboration industry leadership.

We are the most diverse Cisco since we began tracking our diversity in 1998.
The foundation of a Conscious Culture

We view inclusion and collaboration as the bridge to connect diverse perspectives. Spark new ideas. Imagine new possibilities. Challenge the status quo. Inspire innovation. And unleash the full power and potential of our people. This is the heart of our approach to creating a Conscious Culture where everyone takes responsibility for fostering an inclusive, collaborative, and respectful environment. Cisco welcomes all people into life and work. Our commitment has two components:

- **Full-spectrum diversity.** Inclusive of gender, ethnicity, race, orientation, age, ability, veteran status, religion, culture, background, experience, strengths, and perspectives.

- **Inclusive culture.** A place where people feel welcomed, valued, respected, accepted, and heard, and are enabled by our technology to fully participate in the business.

Our definition of diversity and inclusion is expansive, intersectional, and continually evolving. Our culture sets us apart, starting at the top with our diverse Executive Leadership Team (ELT). We’re proud to say that women make up 46 percent of our ELT. And 62 percent is diverse in terms of gender and/or ethnicity, making us an industry leader in this area.

Cisco sees diversity differently

We’ve made big shifts in how we approach diversity. Years ago, our discipline focused on government compliance. Later, we worked to create a workplace where all people could belong and thrive. Today, we’re reaching new heights, welcoming people into work by using our collaboration technology and enabling them to fully participate in our business.

We created the Office of Inclusion & Collaboration in 2014, choosing a name that encompasses our one-of-a-kind approach. Our technologies are central to our work, allowing everyone to have a seat at the table, even if they’re not sitting in the same room. Today, the office helps Cisco’s business in four main ways:

- **Workforce.** Helping us find and keep diverse people at every level.

- **Culture.** Promoting a Conscious Culture where everyone can contribute.
Inclusive futures

At Cisco, we believe our Conscious Culture leads to inclusive futures. Cisco strives to be a place of opportunity and possibility for all inside and outside the walls of the company and in every dimension where we do business.

Using technology to drive inclusive futures

As a technology company looking to drive inclusive futures for all, it makes sense that innovation is woven into every aspect of our business. Our People and Communities Organization is no exception. Technology is a critical success factor in moving the needle on full-spectrum diversity, making it easier to architect for fairness, equity, and accountability in our talent strategy and ensure inclusive futures for all. In FY19, we introduced Inclusive Workforce Planning. This new strategy is based on our aspiration to mirror the markets where we do business for skill, knowledge, experience, and diversity for every job family, in every function and at every level of our organization.

One hundred percent of our ELT members created Inclusive Workforce Action Plans. They built these plans using our Diverse Talent Accelerators (DTA).

DTA is a digital suite of solutions that leverages intelligence at the point of decision making to help us find, attract, select, and accelerate diverse top talent. These digital solutions include:

- Smart Insights, which enables us to benchmark and optimize diversity opportunities
- Smart Start, a solution by Textio that helps us write job postings that mitigate bias
- Smart Tracker, which helps us identify the best places to find diverse talent
- Smart Select, which enables hiring managers to assemble diverse interviewer panels to help mitigate bias and increase the odds of hiring diverse talent

To date, more than 14,000 Cisco leaders and HR employees have been enabled with DTA to make smarter hiring decisions.

Accelerating diverse representation

DTA is delivering results. Cisco achieved record levels of representation of women, African American/Black, and Hispanic/Latino employees due to record levels of hiring. In FY19, a record 31 percent of new hires were women, a 2 percentage point increase from FY18. We also saw a 4.8 percent increase in women in director and manager roles. All organizations are hiring above baseline share for women in both technical and nontechnical roles. Baseline Share is the portion of the global talent market that has the skills and experience levels for the job families Cisco targets. We also increased representation for African American/Black employees to 3.8 percent and Hispanic/Latino employees to 5.6 percent. Representation of African American/Black employees and Hispanic/ Latino employees has increased every year since 2016. The improvement in representation for these ethnicities has been broad-based and is being driven by record-level hiring, with African American/Black employees increasing 8.3 percent year-over-year and Hispanic/Latino employees increasing 4.3 percent year-over-year.

Others notice the difference

Cisco earned the following distinctions in 2019:

- World’s Best Workplaces 2019 Great Place to Work® (#1)
- LinkedIn Top Companies 2019 (#12)
- Fortune Great Places to Work for Disability Inclusion Disability Equality Index (100%)
- Best Places to Work for Disability Inclusion Disability Equality Index (100%)
- Fortune’s 100 Best Companies to Work for List (#6)
- Forbes Just 100 (#10)
- Military Friendly Employer (Gold Award)
- One of only 11 other companies to have been recognized on Great Place to Work’s Legends List
- Disability Matters CEO of the Year (Chuck Robbins)
American/Black hiring at 5.1 percent and Hispanic/Latino hiring at 6.7 percent. While we have had record levels of hiring, we know that we still have work to do. We will continue to drive efforts outlined in our Inclusive Workforce Plans and look forward to sharing continued progress in future CSR reports.

We’ve improved diverse hiring in our Engineering function by using blind hiring to reduce bias. In FY19, blind hiring resulted in an increase in gender-diverse hires from 21 percent to 40 percent for these roles. In addition, a pilot in India used HackerRank, a coding and recruiting platform used to assess technical capabilities to hire based on skill, to further promote blind hiring.

We’re also increasing hiring of diverse talent through targeted programs like Diverse Abilities at Cisco, the next phase of our Cisco LifeChanger program. Through this program, we are creating the best experience for people with disabilities and the teams and leaders who support them.

Supplier employees who work at our sites make up an extended workforce that is more than 50,000 people strong. We track not only diversity in ownership, but also the diversity of these suppliers’ employees. We request these metrics from preferred suppliers who have more than 50 individuals at Cisco in the U.S. This reporting is part of a supplier’s scorecard. In FY19, 35 preferred suppliers shared diversity metrics. From this data, we learned that the number of women in our contingent workforce increased by 2 percent. The overall representation of women, minorities, and veterans is flat from FY18 at 30.2 percent of contingent workers.

Building our leadership pipeline

We are committed and focused on building extraordinary leaders at Cisco across the full spectrum of diversity in every function and in every region. We want future generations of leaders to be even more diverse than those today. Cisco has several learning and development opportunities to help us build the pipeline of extraordinary talent:

- **Next Generation Leaders (NGL).** NGL is an important program for African American/Black and Hispanic/Latino mid- to senior-level employees who want to develop their leadership skills through the lens of diversity. NGL capitalizes on the strengths inherent in the diversity of our teams. More than that, it demonstrates how to inspire others to fully experience their colleagues’ diverse perspectives. Together, managers and their employees embark on a six-month journey to embrace differences, remove barriers to brilliance, unlock talent, and foster disruptive thinking. The group participates in honest and courageous conversations that forge a stronger culture of inclusion. Participants emerge as confident, clear leaders who know the exponential value their diverse teams bring to Cisco.

- **DARE.** An array of exercises, activities, and tools designed to help women just starting out in their careers articulate their unique value to the business, build a community of support and influence, empower each other to create bold career visions, and make a plan for getting there.

- **JUMP.** Consists of three multiday instructor-led workshops within a six-month period. Using a variety of assessment tools, networking activities, self-reflection exercises, and unique interactive theater activities, mid-level employees learn how to think strategically, lead inclusively, and reach their career goals.

These programs don’t just impart skills—they get results. Individuals who participate in NGL are twice as likely to receive a promotion as those who do not. Managers, who initially attend to support their team member, emerge as more thoughtful, intentional leaders who understand how they are responsible for creating an inclusive culture.

Likewise, women who participate in DARE or JUMP are more likely to move up the ranks. DARE participants are 1.3 times more likely to get promoted than nonparticipants. JUMP participants are more than 2.6 times more likely to get promoted.

"The biggest gain from this entire set of training was the group of women that I am now connected to. They are amazing and have expanded my network, my confidence, and my way of thinking and looking at challenges.”

FY19 JUMP Participant
Creating more inclusive teams

We want to create an inclusive and conscious culture by mitigating bias in our people, leaders, processes, and employee experiences. Cisco is expanding our approach from unconscious bias training to an overarching and integrated bias mitigation strategy. This strategy will cut across people, leaders, processes, and employee experiences. Its goal: create lasting behavior change in service of a Conscious Culture. Our new bias mitigation strategy has four focus areas:

• Creating a common language and understanding of unconscious bias that builds inclusive muscle memory with digital learning offerings
• Using in-person events and experiences to grow skills collectively
• Embedding bias mitigation strategies into enterprise solutions
• Expanding offerings to create new ways to learn and grow using innovative technologies

Part of creating a Conscious Culture is moving past debate and discussion to creating meaningful dialogue across and within difference.

Employee communities—a place for all

Cisco’s Inclusion and Collaboration (I&C) Community (ICC) provides a platform for diverse groups to connect, build powerful new relationships, explore their unique passions and talents, innovate, and excel. The ICC includes our Employee Resource Organizations (EROs), ICC Networks, I&C Ambassadors, and Cisco Citizen Networks. This year, the I&C Community sharpened its focus on intersectionality, bringing different groups together for events and conversations that more fully represent the complexity and wholeness of what it means to be diverse in today’s workforce.

These employee groups host flagship experiences to drive advancement and development of talent across the full spectrum of diversity inside and outside the company. For example, our Women of Impact Conference (WOI) focuses on the development and advancement of professional women. More than 15,000 people attended worldwide in FY19. It included nearly 24 hours of global broadcast content and in-person sessions in over 100 sites and 51 countries worldwide. This year, the event hosted its first-ever, all-women Executive Leadership Team panel. We invite all customers, partners, and global employees to WOI. And we open our WOI Facebook and Cisco.com broadcasts to the public.

Again using technology to build community, our ICC Connect portal, available on our global intranet, enables our communities to connect, collaborate, and innovate with team members around the world who share their interests and passions. The platform provides data and insights on the value that these communities are creating for their members (development, promotion, and retention) and the impact they are having on the world.
Over 29,000 active members participate in the I&C Community and benefit from programs like:

- **Mentoring.** The PRIDE employee resource organization launched the Proud Mentoring program in FY19. They also hosted a global broadcast on intersectionality.

- **Retention.** Connected Black Professionals launched Elevate, a monthly webinar series led by African American/Black senior leaders. Their goal: retain top African American/Black talent at Cisco.

- **Education.** The Women In Technology (WIT) Professional Development Series launched this year by our Women in Science and Engineering (WISE) ERO, providing a monthly forum for connecting and advancing women in technology.

- **Community support.** Our VETS ERO is helping to train other veterans for tech careers. Working with Corporate Affairs and CyberVetsUSA, the Cisco Veterans Cyber Scholarship program provides free online cybersecurity certification to vets and spouses.
Narrowing the pay gap

To be our best, and to achieve the goal of equity embodied in our Conscious Culture, it’s essential that we pay everyone fairly. Across the globe, we regularly test for pay parity based on gender, and inclusive of ethnicity in the United States. If we find gaps, we fix them for all. This commitment to pay parity isn’t a one-time event. It’s part of our ongoing process to make sure people are paid equitably for similar work in the same location.

While analyses show our pay structure is healthy overall, there’s always room to improve. In FY19, we found minor disparities in about 1 percent of our global employee population. We gave pay adjustments to make it right.

To further pay parity for new hires, we no longer ask U.S. job candidates how much they made at their last job. The ban on salary history questions is a new legal requirement in some states, but Cisco opted to make it broader. We’re basing our salaries on market data, candidate experience and expectations, and the level and location of the role.

We’ve also started offering deeper insight into market pay rates to our leaders as part of rewards planning. This information helps managers to make better decisions around compensation. And it leads to more transparent conversations with employees about how their pay compares to similar jobs in the same location. Better insights result in better rewards decisions, more fair pay overall, and a more satisfied workforce.

Cisco has also signed on to industry commitments, such as:

- White House Equal Pay Pledge
- Parity.org Pledge
- Employers for Pay Equity Consortium
- CA Pay Equity Pledge
First, our workplace. Next, the world

We recognize our power to influence others on topics related to inclusion. With that power comes responsibility. We’re committed to leading our industry and being a voice for positive change on some of today’s most pressing social issues.

Leveraging the power of sponsorship to move the needle

Anyone who has had a sponsor knows the value of having someone in your corner. Research from the Leadership Research Institute shows that people who have sponsors are 23 percent more likely to advance in their careers than those who don’t. But there’s a gap: Compared to men, women and minorities are significantly less likely to have a sponsor.

Cisco believes in the power of sponsorship. We are doubling down on building leadership capability in this area because we know sponsorship works. The Multiplier Effect Pledge is helping to accelerate full-spectrum diversity for individuals who have traditionally been left out. That’s why we founded The Multiplier Effect pledge. And why our CEO, Chuck Robbins, was the first to sign up.

Those who join pledge to change the equation for diversity. By signing the pledge, leaders make a promise to help a diverse professional advance in their career. And they pledge to encourage their peers to do the same. As of FY19, 83 percent of Cisco’s Executive Leadership Team and 44 percent of our Vice Presidents had signed the pledge.

The pledge isn’t limited to Cisco. We’ve opened it up to anyone who wants to sign, and leaders from over 300 companies across industries have joined in. Those who sign get access to our online sponsorship guide. Now, we’re using technology to track just how effective these sponsorships are. In FY20, we’ll further weave sponsorship into our processes and culture and help other companies do the same.

Partnering for success

We partner with more than 20 organizations which help us attract, retain, and develop extraordinary diverse talent. Recent partnership actions include:

- Participating in the Out & Equal Workplace Summit, which gave us tools to educate our employees on gender expression terminology.

Mike Solomita
Vice President, Customer Experience
Americas US Public Sector

We need to continue to advocate and advance our talent at all levels, and The Multiplier Effect does a great job in helping leaders understand the sponsorship gaps and ways they can get involved to bring diverse talent to the forefront.

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Taking a stand for social justice

Benefiting everyone starts with fairness and equality for all. And we mean all. We’re proud of Cisco’s longstanding leadership in advocating for inclusion and social justice for our people and those beyond our offices. As social injustices unfold around the world, Cisco is not staying silent. We’re speaking up on issues that matter to us and our employees. Here are a few examples:

- **LGBTQ equality.** We signed an amicus brief in support of LGBTQ workers and a joint business statement supporting transgender equality.

- **Gun violence.** As more tragic mass shootings took place across the U.S. and other parts of the world, Cisco took a stand. At the July 2019 Cisco Beat, Chuck Robbins announced the creation of the End Gun Violence Fund. Through this fund, employees make donations that are matched by Cisco.

- **Immigration policy.** As chair of Business Roundtable’s Immigration Committee, CEO Chuck Robbins called on the Trump administration to end family separations at the border. We also set up an Immigration Fund so employees can help.

- **Mental health.** We want everyone to know that it’s okay to not be okay. Cisco is changing the conversation about this issue within our company. Read more in Our Story.

We’re committed to driving long-term solutions that build fairness into policies, practices, and laws that break down barriers. We must protect and advocate for the equality of transgender, intersex, and gender-expansive people inside and outside the workplace. Cisco is dedicated to taking a stand against any actions that threaten the equal rights, safety, and dignity of all people and will continue supporting the LGBTQ+ community.”

Francine Katsoudas, Executive Vice President, Chief People Officer
Figure 6.

Workforce snapshot\(^1\)

Cisco has published workforce diversity statistics in our CSR Report since 2005. The diversity summary data below is based on FY19 data, and a total of 75,762 Cisco employees. See more at Cisco.com. In addition to the OIC Diversity Data, the EEO-1 submission can be found online.

### Overall workforce

**Global by gender**

- Male: 74%
- Female: 26%

**U.S. by gender**

- Male: 72%
- Female: 28%

**U.S. by ethnicity**

- White/Caucasian: 52%
- Asian: 37%
- Hispanic/Latino: 5.6%
- African American/Black: 3.8%
- Two or More Races (Not Hispanic or Latino): 1.3%
- American Indian or Alaska Native: 0.2%
- Native Hawaiian/Other Pacific Islander: 0.2%

### Technical workforce\(^2\)

**Global by gender**

- Male: 83%
- Female: 17%

**U.S. by ethnicity**

- Asian: 51%
- White/Caucasian: 40%
- Hispanic/Latino: 4.5%
- African American/Black: 3.3%
- Two or More Races (Not Hispanic or Latino): 1.0%
- American Indian or Alaska Native: 0.2%
- Native Hawaiian/Other Pacific Islander: 0.1%

### Nontech workforce\(^2\)

**Global by gender**

- Male: 58%
- Female: 42%

**U.S. by ethnicity**

- White/Caucasian: 63%
- Asian: 22%
- Hispanic/Latino: 7.5%
- African American/Black: 5.5%
- Two or More Races (Not Hispanic or Latino): 1.9%
- American Indian or Alaska Native: 0.3%
- Native Hawaiian/Other Pacific Islander: 0.3%

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1. Some figures may not total 100% due to rounding of underlying data.
2. Based on alignment to EEO-1 job categories.
Figure 6. Workforce snapshot (continued)

**Vice presidents**

- **Global by gender**
  - Male: 79%
  - Female: 21%

- **U.S. by gender**
  - Male: 78%
  - Female: 22%

- **U.S. by ethnicity**
  - White/Caucasian: 69%
  - Asian: 24%
  - Hispanic/Latino: 4.4%
  - African American/Black: 1.8%
  - Two or More Races (Not Hispanic or Latino): 0.4%

**Executive Leadership Team**

- **Global ELT membership by gender**
  - Male: 54%
  - Female: 46%

- **ELT membership by ethnicity**
  - White/Caucasian: 62%
  - Asian: 23%
  - Hispanic/Latino: 15%

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1 Some figures may not total 100% due to rounding of underlying data.
Figure 6. Workforce snapshot\(^1\) (continued)

**Leadership and people managers\(^2\)**

**Global managers by gender**

- Male: 79%
- Female: 21%

**U.S. managers by gender**

- Male: 76%
- Female: 24%

**U.S. managers by ethnicity**

- **White/Caucasian**: 61%
- **Asian**: 31%
- **Hispanic/Latino**: 4.8%
- **African American/Black**: 2.2%
- **Two or More Races (Not Hispanic or Latino)**: 0.8%
- **American Indian or Alaska Native**: 0.2%
- **Native Hawaiian/Other Pacific Islander**: 0.1%

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**Hiring**

**Global by gender**

- Male: 69%
- Female: 31%

**U.S. by ethnicity**

- **White/Caucasian**: 50%
- **Asian**: 35%
- **Hispanic/Latino**: 6.7%
- **African American/Black**: 5.1%
- **Two or More Races (Not Hispanic or Latino)**: 2.2%
- **American Indian or Alaska Native**: 0.2%
- **Native Hawaiian/Other Pacific Islander**: 0.2%

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\(^1\)Some figures may not total 100% due to rounding of underlying data.

\(^2\)People managers, directors, and senior directors.
Figure 6. Workforce snapshot (continued)

Cisco Board

Board membership by gender

Male 80%
Female 20%

Board membership by ethnicity

White/Caucasian 90%
Asian 10%
We expanded the definition of community impact to include more opportunities for employees to take actions that have a definable, positive value for communities.

Employees’ actions can include advocating for causes they care deeply about, volunteering, donating, and participating in programs that positively impact communities.

The new approach expands our possibilities through new forms of digital employee engagement, analytics, and automation.

We continued to sponsor and host events that encourage underserved students, particularly girls, interested in STEM education and careers.

Cisco shares information and resources with employees about how to live more sustainably at work and at home.
A thriving culture starts with us

Cisco employees make a positive impact within communities around the world every day, from advocating for causes they care deeply about to volunteering, donating, and participating in programs that positively impact communities. Creating a positive impact in communities and creating positive communities are integral parts of our Conscious Culture and our commitment to benefiting people, the planet, and society. Together, we drive hundreds of thousands of actions every year that amount to significant change.

This year, we have updated our approach to creating community impact by expanding the portfolio of programs through which our employees can take action. This creates new opportunities for our employees to contribute in the ways that are most meaningful to them, thereby creating a collective impact across a broad range of areas. We are also harnessing the power of behavioral economics and digitization to create new insights into the collective impact our employees are having with every action they take. Our aspiration is to make impact a habit inside and outside the walls of our company. As we evolve, we will continue to share our learnings and progress.

We also introduced the following changes to our donation matching program:

• Lowered the threshold for employee donations that must be made before the Cisco Foundation will provide a match. Thanks to this change, more than 250 new organizations have been considered for matching gifts.
• Made recreational organizations, like youth sports teams, eligible for matching gifts.
• Updated the Bright Funds platform to make it easier for people to log their donations and time.

We’ll continue to match gifts of up to $10,000 and match up to $10 per hour to organizations where people volunteer their time. Cisco will also keep enabling employees to volunteer. Our Time2Give benefit offers up to five days of time off per year that employees can use for volunteer service however they choose.

Going forward, we’ll take a more holistic view of our impact. We will measure not only dollars and hours, but also the number, frequency, and types of engagements by Cisco employees. This new model will not only allow us to achieve our goal—it will help us do more for people, society, and the planet.

447,935
total hours volunteered in FY19

$25.5M
total donated to charities by employees or through Cisco matching in FY19
Inspiring interest in technology

Ample opportunities exist for employees who choose to volunteer through Cisco-led community engagement programs. Cisco Citizen Networks plan projects in 27 countries worldwide that build relationships at the local level, with initiatives tied to the needs of each community. Given our focus on preparing people for the digital economy, many employees are involved in programs that help youth explore careers in technology. A few examples include:

**Girls Power Tech**

Every April and May, we host Girls Power Tech in alignment with the UN Girls in ICT Day, a global event organized by the UN International Telecommunication Union. This Cisco-run initiative connects girls and young women ages 13 to 18 with Cisco mentors for a day. The program inspires students to consider STEM education and careers. Through this program, we’ve shared opportunities in the tech sector with thousands of young women worldwide. Cisco offices in Europe, the Middle East, Africa, Asia, and the Americas hold events including office visits, tours, and presentations by female leaders. These employees discuss career opportunities and life in the technology field.

Students also get to use Cisco collaboration technologies to interact with other leading women at Cisco, as well as other girls participating in office visits around the globe.

More than 115 Cisco sites participated in Girls Power Tech in FY19. Each site determines what programs to offer. For example, our Research Triangle Park campus hosted 55 students and organized speed mentoring and a breakout session introducing them to the Cisco Networking Academy. An office in North Sydney, Australia, held a workshop on coding and IoT. Students also did a lab tour and met employees in technical and nontechnical roles. A half-day event in Shanghai included a Raspberry Pi programming workshop.

**MESA**

Mathematics, Engineering, Science Achievement (MESA) helps thousands of educationally disadvantaged students become engineers, scientists, and other tech professionals. Cisco has...
supported the MESA College Mentoring program for the past five years. For the 2018–2019 program, 20 students were paired with Cisco employees. Mentors helped students focus their interest in STEM and guide them toward careers. And since Cisco’s partnership with MESA began, we have reached over 132 students, six of whom are now full-time Cisco employees.

Cristo Rey work study program
Cristo Rey is a national network of college- and career-prep schools throughout the U.S. The network has a work study program through which students complete internships with companies in their communities. The program helps students offset the cost of their tuition and provides valuable connections and skills. In return, we benefit from access to a pipeline of diverse young talent. Cisco has been a partner of Cristo Rey San Jose since 2014. We celebrated our first graduating class of four interns in 2018 and our second in 2019. Now, we’re scaling the program and have 20 interns in Cisco offices. In future years, Cisco will accept even more interns in Silicon Valley. Other Cisco sites are exploring partnerships with their local Cristo Rey schools.
Doing our part for the environment

We encourage employees to be global problem solvers related to environmental sustainability. The actions they choose to take often depend on their experiences, their location, their expertise, and issues they care about. Through digital tools, educational activities, and volunteer opportunities, Cisco helps make employees aware of the many ways to get involved. For more information about Cisco’s approach to environmental sustainability, see Planet.

Education and awareness

Cisco employees receive many hours of education and awareness per year. One hour of New Employee Orientation (NEO) is dedicated to sharing information about Cisco’s CSR program. We also help employees incorporate environmental design principles into our products, packaging, and solutions.

To further embed environmental practices into our business operations, we offer employee training on our business management system. This training covers our Environment Management System (EMS) and environmental policies. We also provide ad hoc training to employees on topics such as correct waste sorting on campus.

The Cisco Green Team Network (GTN) is a global employee-led team with 11 local chapters and hundreds of members. Cisco GTN envisions a more environmentally sustainable business and world. It’s made up of people passionate about educating their fellow employees and making change. Chapters raise awareness of environmental issues, share how to make changes at work and at home, and connect employees with local resources—all while having fun. GTN-sponsored discussions and activities could include the benefits of a plant-based diet, how to plant trees, or a tour of a municipal recycling facility.

Since Cisco GTN was established, the team has:

- Eliminated paper cups from select Cisco buildings in India, Europe, and the U.S.
- Established a community garden in San Jose, California
- Developed an urban farm at our Diegem, Belgium, site
- Designed and installed shadow boxes above the landfill, recycling, and composting receptacles in San Jose and RTP cafeterias to help employees quickly and easily sort waste
- Received Cisco’s Excellence in Environmental Stewardship award (December 2017)
In addition, Cisco hosts events for employees to learn more about sustainability programs and current opportunities to get involved, such as Open Conservation and SustainX (see sidebar), part of our annual Earth Aware campaign. Other learning opportunities include:

- **Cisco Green.** This is a hub on our internal social media site that enables employees to learn about Cisco’s environmental sustainability activities. It provides links to programs, information, and other tools.

- **Cisco GreenHouse.** In 2016, we launched an interactive sustainability web platform hosted by WeSpire for employees. Cisco GreenHouse connects passionate employees with like-minded peers all over the world who want to find ways to lead more sustainable lives. By the end of FY19, more than 2,800 employees had joined the site and taken 20,000 actions to learn about or be more sustainable.

- **Circular economy newsletter and learning series.** To grow awareness and inspire employees to see how they can contribute to Cisco’s circular economy transformation, we launched a newsletter and a learning series in FY19. Both are delivered quarterly and highlight projects and successes driven by multiple teams across the company. They also provide resources such as training and videos for those who want to learn more. We will expand our efforts to engage employees on the circular economy in FY20.

**SustainX**

Cisco hosted SustainX, our fourth annual thought leadership forum, in May 2019 at our San Jose headquarters. Speakers shared the diverse work being done across Cisco and the tech industry in the areas of sustainability, the circular economy, and conservation. This year, 700 employees from around the world spent the day learning:

- How Terracycle, an innovative company, is turning hard-to-recycle items into valuable goods
- How Cisco implements circular economy solutions
- The business value of Environmental, Social, and Governance (ESG) scores

SustainX also featured a hands-on activity: employees sorted categories of waste gathered from our buildings and learned about hard-to-recycle waste.
Activities and volunteering

Beyond educating about environmental issues and connecting them with others, Cisco offers a number of sustainability-related activities for employees. These include:

- **Annual shutdown.** Cisco requires employees in North America, and encourages other employees worldwide, to take time off at the end of December. The shutdown gives us an opportunity to power down facilities and unused equipment during a time when much of our workforce is already taking time off. Over the 10-day shutdown beginning in December 2018, Cisco avoided approximately $570,000 in energy costs and 3,500 metric tonnes CO₂e of emissions. Employees working in buildings in India, Hong Kong, Germany, and Ireland reduced their electricity consumption by at least 40 percent during the shutdown. As the locations avoiding the most emissions, these employees were rewarded with an ice cream social or catered lunch.

- **Recycle IT Day.** Employees love Recycle IT Day. Many collect their used electronics year-round and bring them to their local Cisco office on Earth Day in April. Cisco responsibly recycles the equipment using the same vendors we use to recycle Cisco products. In FY19, Cisco collected 422,108 pounds (191 metric tonnes) of electronic waste from over 160 sites around the world.

- **Earth Aware.** While Earth Day is just one day, Cisco extends the celebration with a two-month employee volunteerism and awareness campaign, Earth Aware. During Earth Aware, we invite employees to practice sustainable behaviors like biking to work and properly sorting waste in cafeterias. We also host activities like on-campus farmer’s markets and information sessions about Cisco’s species conservation efforts. Earth Aware sparks new ideas and renews dedication to live in more environmentally responsible ways.

- **Stretch assignments.** Cisco groups post stretch assignments for employees to get involved in sustainability-related initiatives. Examples of stretch assignments include managing communications for the Open Conservation program, calculating sustainable solutions for our customers, and circular economy projects focused on removing plastic bags from our product packaging.

- **Bike to Work Day.** As part of the Earth Aware campaign, Cisco sponsors Bike to Work Day activities. While it is a global opportunity, Cisco employees and contractors in San Jose come out in large numbers. They visit Cisco’s energizer station, grab bagels and fruit, get free chair massages, use the repair station, and visit with fellow cyclists. In partnership with the Silicon Valley Bike Coalition, Cisco helps remove thousands of cars from the roads in the Bay Area through this event. Also in the month of May, employees in Bangalore take part in the Zero Emissions Ride. See photo above.
We introduced a set of Cisco principles that guide our behaviors and beliefs.

We assemble diverse interviewer panels and strive to interview a diverse slate of candidates for every position.

We believe in listening to employees—formally and informally—to identify areas for improvement.

Employees who regularly respond to surveys and use our collaboration tools are more engaged, and therefore more likely to stay at Cisco.

Training programs for employees at all career stages allow them to explore new skills and choose their own development paths.
Our People Deal and Principles

Working for Cisco means committing to “Our People Deal.” We call it a “deal” because culture is a two-way street, a relationship of give and take. In FY19, we built upon Our People Deal by introducing Conscious Culture. The “characteristics” component of Conscious Culture includes our Principles, which articulate how employees can live our culture. These principles are:

**Give your best.** Show a desire to be at your best and connect with others to share quickly with whomever needs it. Open your mind to ideas from everywhere and anywhere. And use those ideas to build on the possibilities to pour a little drop of love into our customers’ worlds.

**Take accountability.** Whatever comes your way, understand it and be personally accountable for its success. Assume the answer is “yes” and that you don’t need to wait in line for permission. Check the data, but don’t let that slow down taking responsibility. And deliver.

**Give your ego the day off.** It’s the best solution our customers need, not the best-protected Cisco turf, so support that solution, whatever the background of the person or team who came up with it. Have the debate and have a backbone. Make your point, then commit to what’s been agreed and deliver it with agility and grace.

**Take difference to heart.** We become bigger as individuals and more powerful as a collective when we respect and value what makes us so special: our unique, personal differences. Inclusion will always beat exclusion.

**Give something of yourself.** A simple smile or “hi” every day is worth its weight in gold, so don’t hide it away. Show care and consideration to your colleagues, our customers, our communities, our partners, and the world we all share. Be worthy of trust. Be an inspiration. Be delightful to everyone—even if you don’t like them.

**Take a bold step.** Whatever your position, show leadership and courage when it comes to innovating and disrupting. If it doesn’t feel safe, be secure in the knowledge that shooting for the stars will always be a part of who we are. Together we can figure out how to get there, so let’s dream big.

Loving the simple and clear principles! They beautifully capture who we are and how we show up.”

Cisco employee after our principles were unveiled in 2018
Our People Deal Movement

Defining our culture isn’t enough. We also need to act on it.

This thought was behind the launch of Our People Deal movement, a community of employees who think about and act on culture. It began with a few employees who came together in 2016 and started to spot other employees with a similar mindset. Today, there are over 200 employees who meet every six weeks to learn from each other and share ways to drive our cause.

Out of this group, 15 ambassadors were chosen in 2018 to help close the gap between senior leaders’ perception of Cisco’s culture and how employees experience it. These ambassadors are the cultural role models who represent the rest of us. In 2019, we selected a new cohort of ambassadors.

Sponsored by Francine Katsoudas, Executive Vice President and Chief People Officer, and David Geckeler, Executive Vice President and General Manager, Networking and Security Business, ambassadors make recommendations on how to continue to improve our culture, based on what people on the front lines actually think and feel. For example, the new Conscious Culture framework and Leader Day program evolved from ambassadors’ input.

In FY20, we launched the Living Cisco program, which was created by the first cohort of ambassadors. They were tasked with finding a way to embed Cisco’s Principles across each organization so that our people embrace, internalize, and live them every day. The team developed a relay game through which employees can show appreciation for colleagues who exhibit each of our Principles. Virtual tokens of appreciation are passed from person to person, and as tokens pass, money is raised for charity. Employees can also discover ways to make our culture stronger by taking quizzes or reading stories. In the first two months of the program launch, we’ve passed almost 3,000 tokens, raising $3,000 for charities.
A voice for all employees

In 2018, Cisco chose 15 employees to be ambassadors for Our People Deal Movement and spread excitement about our culture worldwide (read more on p. 59). We sat down with Nish Parkar, an ambassador from London, U.K., to learn about her experiences as a culture champion.

Q: How did you become a People Deal Ambassador?

A: Our leadership team selected ambassadors from throughout the company. A good ambassador is someone who has a passion for sharing Cisco’s culture. It’s also someone with guts. One of our responsibilities is to provide constructive feedback—with no filter—to Cisco’s Executive Leadership Team.

Q: What other responsibilities do ambassadors have?

A: Our purpose is to be the voice of all Cisco employees. Just as important as being up on stage in front of our executives is being a role model through small, everyday activities. On a regular basis, we give feedback and drive change through internal events, long-term projects, and role-modeling on the change we want to see at Cisco and in our communities.

Q: What sorts of projects have you taken on?

A: Our Executive Vice President and Chief People Officer, Francine Katsoudas, approached the ambassadors with a challenge: find a way to bring Cisco’s Principles to life. One of my fellow ambassadors had an idea to turn them into a game. From there, we created the Living Cisco program, where ambassadors pass tokens of appreciation to employees living Our Principles. We also capture stories of people doing amazing things and donate to selected charities every time a token is passed. It’s been amazing to hear all of the stories that have been shared from around the world.

Q: What’s your favorite thing about being a People Deal Ambassador?

A: Getting to know my fellow ambassadors. This experience has bonded 15 strangers—based all around the world and from all parts of the business—into one family. Each ambassador has taught me so much, and the experience has opened my eyes to the wider world. I know we’re going to do amazing things.
Talent recruitment and retention

Another component of a Conscious Culture is the experiences we have with our manager, team, and the work we do every day. Along with Our Principles, these daily experiences influence why people choose to join or stay.

Building winning teams begins with recruiting the best talent. We face steep competition for the same technology pool as other major tech companies. Today, we’re seeking people with skills in new areas like artificial intelligence, machine learning, and cloud engineering. What we offer them: the chance to work on fast-paced projects shaping the future of business, to work flexibly, and to be part of a team-oriented culture.

We set ourselves apart by putting our technology to work. We use Cisco collaboration technologies like Webex Teams and Telepresence to communicate with candidates throughout the interview process. Digital engagement through our cisco.com/careers site, @WeAreCisco social media profiles, the Life at Cisco blog, and video content shows prospects we are a business that lives and breathes innovation. Technology also helps us behind the scenes. Tools such as data analytics and automation are helping us map global talent flows and customize our strategies.

Diversity is an important part of our approach. In every candidate search, we interview a diverse selection of candidates and write job postings that neutralize bias. For example, for every open position at the Vice President level and above, we interview at least one qualified woman.

We also assemble diverse interviewer panels, as research shows they are more effective for hiring candidates across the full spectrum of diversity. The Talent Acquisition Diversity Communication Guide helps direct our efforts.

We also reach new hires in informal ways, such as through diverse Cisco alumni and special events. Key recruiting events include the Grace Hopper Celebration of Women in Computing, the Society for Hispanic Professional Engineers, and the National Society for Black Professionals.

#WeAreCisco

What’s the best way to learn what it’s like to work at a new company? If you’re like many people, you might start by talking to a current employee. With 75,762 team members worldwide, and an additional extended workforce of 62,000, Cisco employees aren’t hard to find. But for people who do not know one of us personally and want to know what working here is like, social media is the next best thing.

Prospective employees can get the inside scoop they seek by following the @WeAreCisco social media accounts or browsing the #WeAreCisco hashtag on Instagram, Twitter, or LinkedIn. Social media brings us together as a global employee tribe and allows us to connect, exchange ideas, and talk about why we love where we work.
Social media also helps our talent brand team engage and retain current employees. Each year, this team runs a contest using two hashtags: #WeAreCisco and #LoveWhereYouWork. Employees create posts using these hashtags on their own social accounts for a chance to win prizes, like coffee with a Cisco executive.

Listening to employees

Making the voice of our people heard is vital to fostering a Conscious Culture. We believe in listening harder and smarter to understand what’s going on at the company level and what’s happening within individual teams. Here are a few of the ways we listen.

Team Space

An essential part of Conscious Culture is empowering people to speak openly about their roles, likes, and dislikes, and to raise questions about Cisco’s outlook and future. When our employees feel comfortable raising issues, sharing new ideas, and exploring ways to work harder, Cisco can harness their shared insights into actionable change.

Many of these insights are captured on Team Space, a collaboration and development platform that blends technology and human touch. On Team Space, employees highlight their unique qualities and skills, track weekly ups and downs, and let teammates and their leaders know how to best work with and manage them.

It has two key features:

• **The StandOut Assessment.** This tool helps team members understand and reveal their strengths to others—and play to those strengths every day. Employees and managers can glean insights into their teammates’ abilities and understand how best to work together. By the end of FY19, 93 percent of Cisco employees had completed a StandOut Assessment.

• **Weekly Check-Ins.** These allow employees to share their priorities for the coming week and talk with their managers about what they loved—and loathed—about the previous week. Weekly Check-Ins enable leaders to guide their teams to work on what’s most important.

They also give managers a sense of where team members need coaching and how to help them develop their strengths.

With Team Space now in use for three years, more employees are joining in. Between Q4 FY18 and Q4 FY19, the percentage of employees who submitted a Check-In every week increased from 20 percent to 34 percent.

Use of Team Space also helps us track engagement. Employees who chat weekly with their leaders about near-term work, challenges, and priorities, have the highest engagement levels and biggest increase, up to 3 percent, in
their engagement over time. Meanwhile, employees who do not check in at all have the lowest engagement levels, and their engagement drops by as much as 13 percent over time. Engagement, in turn, predicts higher performance and lower attrition rates. Employees who are in the bottom 10 percent in terms of engagement are 2.7 times more likely to leave Cisco than employees in the top 10 percent.

We continue to enhance the Team Space platform and experience. In 2019, we rolled out a Long-Term Priorities feature, where team members can inform leaders of priorities that span many weeks. We also extended Team Space access to temporary contingent workers. Plus, we’re rolling out a new Team Space mobile app that will enhance and simplify the user experience for on-the-go employees. In FY20, we plan to launch Team Space Extended, which will allow us to quickly prototype and experiment with new data interfaces, visualizations, and features—so we can make the platform even more useful and usable.

Engagement Pulse

Another way for people to share their experiences of working with their leaders is Engagement Pulse, an eight-question, on-demand survey launched by team leaders within Team Space. Covering topics such as “I am enthusiastic about the mission of my company” and “In my team I am surrounded by people who share my values,” Engagement Pulse encourages employees to speak openly—and leaders to listen.

The surveys produce an assessment of team “health” at Cisco. Healthy teams at Cisco have most of their members highly invested in all three components of engagement: company, team, and individual. Unhealthy teams demonstrate a deficiency in one or more of the three.

Leaders then share the results of Engagement Pulse surveys with their teams. By openly discussing survey results, leaders can better understand what drives feelings of engagement. Based on this input, they can preserve what’s working and find areas for improvement. After each Engagement Pulse, teams identify actions they can take in the coming quarter, with the goal of seeing improvement in the next survey.

Our findings related to Check-Ins also apply to Engagement Pulse: employees who respond to these surveys more frequently tend to be more engaged. Greater participation in these surveys allows for greater insights. When Engagement Pulse launch rates remain high over multiple quarters, we can perform deeper research that allows organization leaders to understand how engaged their employees are and how to support increased engagement. We plan to share additional data about organizations that are the most frequent users of Engagement Pulse in FY20.
Real Deal survey

Another way we listen is through the Real Deal survey. Formerly a standardized 16-question survey, the Real Deal survey was updated in FY19 with unique questions each quarter. Each survey focuses on a new research topic that Cisco is interested in learning more about.

Cisco invites 25 percent of employees to participate in the survey each quarter, giving every employee the chance to weigh in once a year. We typically require a minimum of 1,500 responses to form a representative sample, but often receive far more. We share the results of the Real Deal survey with all employees every quarter through an online infographic. And we present data to our Executive Leadership Team and functional leaders of organizations with 1,000 or more employees. Table 1 summarizes FY19 Real Deal survey research topics and their key findings. The overall takeaway: healthy communication leads to engagement. And engagement decreases turnover and increases success.

Cisco Beat

We are always looking for new and clever ways to empower Cisco employees to share their thoughts and opinions. Our monthly, all-hands meeting, Cisco Beat, continues to be a vital communication channel through its TV talk-show format. At the Beat, every employee hears company news first-hand and has an opportunity to voice questions and concerns directly to leadership. We’ve listened to and acted on feedback from many employees who are deaf or hard of hearing. They wanted to watch Cisco Beat live instead of waiting for the closed-captioned, video-on-demand recording. In 2019, we launched a separate broadcast stream that includes a live ASL interpreter. This was an important step toward inclusion, allowing hearing-impaired employees to get important company information at the same time as all others.

In 2018, we launched our Bridge Award contest during a Cisco Beat. Ten Cisco employees who are giving back to the world in a huge way were selected as award winners and were granted a paid trip to the Global Citizen Festival in South Africa. Learn more about this year’s winners in Our Story.

Another Cisco Beat announcement was our partnership with Global Citizen to help fight extreme poverty. Employees were enthusiastic about this new commitment and eager to get involved. We are working with the Global Citizen team to create Cisco’s own Global Citizen site, which will allow employees to take action globally on topics like education and environmental issues.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Topic</th>
<th>Responses</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Leader capability</td>
<td>5,008</td>
<td>Live conversations are 4.6x more powerful than online interaction in creating connections between leaders and team members.</td>
</tr>
<tr>
<td>Q2</td>
<td>Conscious Culture</td>
<td>3,841</td>
<td>&gt;80% of employees report positive experiences on their teams.</td>
</tr>
<tr>
<td>Q3</td>
<td>Attrition</td>
<td>4,201</td>
<td>Employees who are more highly engaged are less likely to see themselves leaving Cisco.</td>
</tr>
<tr>
<td>Q4</td>
<td>Performance</td>
<td>2,885</td>
<td>Employees who have frequent conversations with their team leader feel better about our approach to lifting performance.</td>
</tr>
</tbody>
</table>
Helping our people learn and lead

New technologies and business models are disrupting our organization and industry, shortening the lifespan of skill sets. As a result, it is essential for our employees to be lifelong learners. We help them do so through a large suite of professional courses that increase skills and teach the inner workings of Cisco and our industry. Our goal: build a culture of constant learning and thoughtfulness around career paths and ensure our people bring the most engaged, highest performing, and valuable versions of themselves to work every day.

Degreed

Rather than telling employees what to do based on their jobs, we encourage them to be curious and choose their own path. We call this “learning at the edge.” Degreed, a learning experience platform, makes this possible by uniting internal learnings with external materials like TED Talks and LinkedIn learning courses. The program uses machine learning to provide personalized content recommendations, allowing users to select from Cisco-endorsed curricula or create their own development plans. It is a place where Cisco employees can discover, consume, organize, share, and track all relevant learnings, no matter where they take place. Degreed allows us to develop the core skills needed in our business today and tomorrow based on how we know job families, functions, and roles are evolving. It also provides insight into employees’ evolving skills and interests.

We rolled out Degreed to all Cisco employees in late 2018, and since then, nearly half of our employees have become active users. Popular learning pathways include:
• Leadership@Cisco
• The Art of Influencing
• Interrupting Unconscious Bias to Build Inclusion
• Communicating for Impact

Given their focus on interacting with others, these trainings support the creation of a Conscious Culture. Compared to other companies who use Degreed, Cisco’s users are highly engaged. They are also consuming a variety of types of content. This suggests they are seeking out the forms of learning that best suit them.
Talent Marketplace
An ongoing goal is to make sure we have the right people, with the right skills, on the right teams. It’s easier to achieve this goal when employees know they have room to explore career paths. Some employees may want to simply test the waters in another department, or they may want to work with a different team on an interesting or innovative project. The Talent Marketplace enables employees to test-drive a specific role through a “stretch assignment.”
These assignments allow people to work with other teams, have fresh experiences, and develop new skills, without having to completely change jobs. Using the Talent Marketplace, employees can apply for assignments with other teams, as well as trying job or time swaps. People might work on a one-time project or take on a stretch assignment lasting for five months. Or they might offer their special knowledge or talents to another team for eight hours a week for a year. Anyone at Cisco can post an assignment or apply to an open assignment on Talent Marketplace. Moving forward, we will integrate the consistent skill baseline we use to populate employee Degreed profiles with Talent Marketplace. Specific skills noted on each assignment will help employees find opportunities that match the skills they are seeking to develop.

Coaching
Cisco’s Career Advisory services allow employees to meet one-on-one with trained Career Advisors to receive personalized career development support. Working together, employees and Career Advisors assess an individual’s strengths, skills, experience, and goals. They then create an Action Plan to help the employee meet their goals, which may include specific development opportunities.

The Power of Teams
We’ve put the power of communication and growth into the hands of our teams. The Power of Teams is a guided, discussion-based, team learning experience for teams who are ready to take their performance to the next level. Consisting of self-led or facilitator-led options, this learning experience challenges teams to build better engagement. By understanding and practicing how the best teams at Cisco succeed, the program helps identify where each team can grow.
Programs for leaders

Leaders are crucial not only to their teams’ growth but to Cisco’s growth as a whole. Knowing this, we have set up programs to help leaders actively engage and continue to enhance their skills to become the best leaders they can be. Programs and experiences target all levels of leadership, from new to more seasoned. They include simulations, virtual sessions, one-on-ones, and more.

Rewarding great work

Cisco people share in our mutual success. We provide compensation, benefits, and long-term savings packages that are competitive, differentiated (as appropriate), and personalized. In FY19, our total compensation included salaries, benefits, bonuses, commissions, stock awards, and retirement benefits.

A culture of recognition is central to the employee experience and to Cisco’s success. Our Connected Recognition program means any employee can say “thank you” to an individual or team with a monetary award. In FY19, our people gave 209,685 Connected Recognition awards, with 80 percent of employees receiving an award. Employees can give their peers awards of up to $50 without approval and can give rewards with higher value—up to $2,000—with a manager’s approval. In addition, employees gave 89,498 “bravos,” or nonmonetary congratulations in FY19.

Table 2.
Cisco leadership programs

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Experienced Leader Program</th>
<th>Senior Leader Program (SLP)</th>
<th>New Leader Program</th>
<th>Team Leader Experience</th>
<th>Aspiring Leader Journey</th>
<th>Leader Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is it for?</td>
<td>Cisco leaders with two or more years of experience in people leader roles or technical leaders</td>
<td>Individuals who have been leading for five or more years, senior technical leaders, and enterprise leaders</td>
<td>Newly promoted team leaders and new-to-Cisco leaders</td>
<td>Experienced, new, and aspiring leaders</td>
<td>Potential team leaders</td>
<td>Current Cisco leaders</td>
</tr>
<tr>
<td>How long does it last?</td>
<td>Four days, in person</td>
<td>Eight weeks, held in two stages</td>
<td>Two days, in person</td>
<td>One day, consisting of three rounds of increasing difficulty</td>
<td>Self-paced content designed to last eight weeks</td>
<td>One day</td>
</tr>
<tr>
<td>What is covered?</td>
<td>Building superior talent, fostering innovation, and developing successful business models</td>
<td>Becoming innovators, catalysts for change, and stewards of talent</td>
<td>Facilitating transitions into leadership roles, clarifying what Cisco expects of leaders</td>
<td>Developing strategic decision-making skills around real-life leadership challenges</td>
<td>Understanding the challenges Cisco leaders face, identifying what leaders pay attention to, and learning how effective leaders handle difficult situations</td>
<td>Discussing priorities and strategies for the year ahead</td>
</tr>
</tbody>
</table>
Our health and wellness benefits honor all types of families and life circumstances. This approach aligns with our Conscious Culture.

We’re taking bold steps to make Cisco a safe place to talk about mental health with new online resources and open conversations during events like Cisco Beat.

U.S. employees can access free elective testing to identify changes in specific genes associated with breast and ovarian cancers. We believe we’re the first to offer this preventive service within U.S. medical plans.

Digital technology is helping make wellness accessible to employees and their families anytime, anywhere.

Support for parents and caregivers, combined with flexible work arrangements, shows respect for the many roles our employees play.
Benefits that benefit everyone

Our people come from different backgrounds and perspectives. At Cisco, we welcome and honor the things that make us unique. That’s why we offer a range of health and wellness solutions that address diverse needs and individual stories. Whether those stories include caring for loved ones or plans to start a family. Saving for a dream house or planning for retirement. Managing depression or struggling with stress or anxiety. We all experience different things at different times, but our Conscious Culture brings us together and inspires us to care deeply for one another.

Our approach is not “one size fits all,” but rather “one size fits one.” We want to support our employees and their loved ones during life’s triumphs and challenges, and we design our global benefits to do just that. When we enable people to feel and be their best, they bring their best selves to work. In turn, this empowers our teams and helps us have a positive impact on the world.

Plans for every family

Cisco’s global benefits are designed to support employees and their loved ones through all stages of life. Our comprehensive benefits package includes medical, dental, and vision plans; disability coverage; and life insurance to help employees stay healthy and secure their families’ well-being.

Caring for one’s health can also mean having someone to talk to who can offer advice and support. Our global Expert Medical Opinion program offers peace of mind in the face of a major medical diagnosis or treatment decision, including those related to mental health. A simple phone call connects employees and eligible family members, including parents and in-laws, to a leading physician in the specialty they need for an expert second opinion at no cost to them.

Similarly, our global Employee Assistance Program helps employees and families better manage family issues, relationship struggles, financial issues, anxiety, stress, and more. Visits are free and confidential. As of October 2019, we increased the number of covered visits in the U.S. from eight to 10 sessions per concern, in alignment with what is available globally. Employees pay the same coinsurance for in- or out-of-network mental health treatment, should they need additional care, through our largest medical plans. In addition to

Ending stigmas around mental health

Mental health is health. But for too long, too many people have been afraid to ask for support. Learn how Cisco is changing the conversation around mental health in Our Story.
financial support offered by the Employee Assistance Program, U.S. employees have access to certified Money Coaches.

For the first time in FY19, we began offering testing in the U.S. to identify changes in specific genes associated with an increased risk of breast and/or ovarian cancer (BRCA1 and BRCA2). Testing is already covered when medically necessary, but this allows people to request tests simply for their peace of mind. Why? We hope the more people know about their health, the better decisions they’ll make. But those decisions are best made with the input of a healthcare provider. Another example of our one-size-fits-one approach is our enhancement of gender-affirming or transition-related care. In FY19, we globally expanded coverage to include additional procedures as recommended by the World Professional Association for Transgender Health (WPATH) and removed the lifetime maximum for this coverage. We also offer training for managers and colleagues of employees undergoing transition, if the employee wishes, so that teammates can better provide support.

Ways to get and stay well
Total wellness is much broader than having a doctor to call when something is wrong. Even more important is forming healthy habits to prevent problems in the first place. Cisco makes it easy to prioritize health and wellness with both in-person and digital solutions.

Our LifeConnections Health Centers on campus in San Jose, California; Research Triangle Park, North Carolina; and Bangalore, India, offer high-quality, integrated healthcare including:

- Primary and urgent care
- Nutrition and lifestyle coaching
- Physical therapy
- Behavioral health counseling
- Lab and X-ray services
- Pediatrics
- Travel medicine
- Immunizations

In FY19, we opened two Occupational Health Service offices in Mexico City. Services include preventive health screenings, care for minor injury and illness, and travel medicine consultations. Our LifeConnections Fitness Centers at seven locations worldwide help employees fit a workout into their work day. Employees and spouses/domestic partners can attend group classes and work with a personal trainer. They can personalize their workouts by linking to favorite training programs, apps, and websites—all enabled by Cisco’s network.

We regularly organize Health + Savings events at our largest U.S. campuses where employees can learn more about how to secure their physical, mental, and financial health. During FY19, we hosted 13 of these events.
Around the globe, we’re expanding our reach to encourage employees to focus on their health and well-being. We teamed up with well-being expert Jessie Pavelka on a program that encompasses the four elements of health: food, exercise, mindfulness, and connection to others. In FY19, we expanded the Pavelka initiative outside of Europe, Middle East, Africa, and Russia (EMEAR) region with well-being tours in Singapore, India, Mexico, and Canada. More than 5,000 employees joined the online community in FY19, and 6,000 employees attended monthly webinars. The Pavelka philosophy focuses on small, sustainable, healthy changes that can have a big impact, and encourages participants to create an individual action plan specific to their challenges and goals. Cisco Pavelka has provided support and inspiration to several internal groups, including the Cisco Disability Awareness Network, Cancer Awareness Network, Early Career Network, Safe To Talk community, Connected Women, and LGBTQ+ group.

Employees can also use technology to stay healthy on their own time. The Vida Health app connects users to a personal health coach they can check in with at any time. Since its launch in March 2018, more than 2,800 U.S. employees and family members have engaged with a personal coach. New this year, users can access Vida’s Diabetes Prevention Program. Coaches create tailored plans for those at risk for developing diabetes. Fitbit tracking devices help participants stay on track. And to help those with diabetes live healthier, we introduced Livongo in the U.S. Livongo combines advanced technology, unlimited strips and lancets, and expert coaching to help members manage their condition.

We offer Cisco Mind Set to U.S. employees. This mindfulness program teaches simple cognitive strategies to help people optimize their performance at work. The innovative five-session course is designed to enhance concentration, resiliency, and creative thinking. To date, more than 2,000 employees have participated in the program. Many tell us they’ve seen improvements in their ability to focus and manage stress.

Supporting those who care for others

There are many ways to become a family. We aim to offer support that includes and celebrates families of all backgrounds. For example:

• **Flexible child bonding leave.** The time an employee receives to care for a newly born or adopted child is now based on the role they will play as caregiver, rather than gender. Moms and dads who are primary caregivers in many countries receive 13 weeks of paid leave (in addition to disability leave for birth moms). Supporting caregivers receive four weeks off. In addition, employees can take three days off to welcome and celebrate a new grandchild.
• **Fertility services.** In FY19, we introduced a new benefit for family planning—a reimbursement up to $50,000 for the harvesting and storing of eggs, sperm, or embryos for reasons not related to medical necessity for anyone enrolled in a Cisco medical plan. This includes services that facilitate pregnancy such as in vitro fertilization. All Cisco medical plans offer this coverage for medical necessity as well.

• **Adoption and surrogacy assistance.** In FY19, we doubled the amounts available for adoption and surrogacy reimbursement in the U.S. from $10,000 to $20,000. This covers many legal and administrative costs, plus certain surrogate medical costs.

• **Resources for new parents.** We help families start off on the right foot with free resources like healthy pregnancy programs, breastfeeding support and spaces for new mothers, and webinars and workshops on parenting topics.

Cisco continues to help employees put their families first as their children grow, and as other family members age. Ongoing offerings include:

• **Childcare.** Employees in San Jose, Bangalore, and the U.K. don’t have to look far for quality childcare. State-of-the-art learning and care centers run by globally recognized partners are located right on campus. U.S. employees are also eligible for discounts and priority access at partner childcare centers nationwide.

• **Adult care.** In the U.S., CareLinx helps employees locate in-home caregivers for adult family members. When regular arrangements fall through, we also offer backup care for children and adults.

• **More support for parents.** Parents of children with autism, Down Syndrome, ADHD, and other developmental disabilities may require extra help. The Rethink online global platform is available to all employees around the globe and provides evidence-based education and up to seven hours per year of coaching with a specialist over phone or video.

**Flexibility at work and away**

We do our best at work when we take the occasional time away. Cisco provides annual paid time off so employees can travel, take care of life matters, volunteer, recover from illness, or simply relax and recharge. Employees also receive five days of paid time off through the Time2Give benefit, which they can use to volunteer with an organization they care about. As an added treat, every employee gets their birthday off.
We also have our employees’ backs when the unexpected happens. The last thing we want people to worry about is work when a death, illness, or a natural disaster occurs. We offer emergency time off (ETO) that allows employees to deal with sudden circumstances that require their immediate attention, without having to dip into their regular vacation or paid time off.

Even when not taking time off, flexibility matters. We give people the choice over how, where, and when they work. Cisco’s own technologies make this possible. Our products, including high-speed wireless access, TelePresence® video devices, and social software platforms, support flexible work. For employees recovering from an illness or injury but ready to get back to work, we offer the Connected Touch program. This program provides workers with a DX80 collaboration unit, allowing them to work remotely using desktop video.

**Safety on the job**

A basic condition for wellness is a safe workplace. Our occupational health and safety programs are based on global and industrywide standards that help manage the most common risks employees face. Cisco holds OHSAS 18001 certification in Australia for compliance with these standards. And we create awareness of our safety programs through ongoing training and promotions. For country-specific health and safety policy information, please contact health_safety@external.cisco.com.

An important component of safety is emergency preparedness. 2,164 employees are part of 128 Emergency Response Teams worldwide. Teams are trained to give first aid, help evacuate buildings, and provide other support. Annual Incident Management Drills keep all employees prepared. If a disaster occurs, we inform employees and others through our intranet. Individuals in some countries can also sign up for our Emergency Notification System, where they can indicate whether they are safe or need help.

A tool introduced one year ago has simplified how we collect safety data. The tool improves incident reporting, risk assessment, compliance auditing, and other activities. As a result, we saw an increase of 0.07 injuries per 100 full-time employees. We view this as a sign that employees are using the tool, and not necessarily a sign of decreased safety. Many reports made using the tool describe very minor or nonmedical issues. As our internal education and awareness campaign for incident reporting ramps up in FY20, we expect reports to continue to increase.

<table>
<thead>
<tr>
<th>Table 3. Health and safety performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total incident rate, per 100 full-time equivalent (FTE) employees</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Lost work days, per 100 FTE employees</td>
</tr>
<tr>
<td>All injuries, globally</td>
</tr>
</tbody>
</table>
We aim to create a culture where employees can speak up with concerns, without fear of retaliation.

In line with our Conscious Culture, we share employee relations-related ethics concerns with employees every six months.

Each year, employees certify compliance with our Code of Business Conduct.

Employees also complete training on topics like antibribery, anticorruption, and conflicts of interest.

We recently began using predictive analytics technology to identify compliance risks.
Conscious of ourselves and others

Our success is built on a Conscious Culture, where trustworthiness and ethical conduct are a given. Among employees. Suppliers. Business partners. It’s a culture where everyone acts ethically. And where people know they can speak up when they see something amiss.

Our values and expectations are laid out in our Code of Business Conduct. The Code is available in 16 languages and helps employees make decisions. It includes:

• An ethics decision tree
• Videos
• Frequently asked questions
• Links to additional policies and resources

Every employee must certify compliance with the code each year. The Conscious Culture framework, introduced in FY19, informs all of our interactions with one another. In FY20, we began updating the Code with Conscious Culture content.

Besides the Code of Conduct, employees complete other compliance and ethics trainings on topics like:

• Anticorruption
• Antibribery
• Conflicts of interest

Other trainings throughout the year focus on priorities specific to a region or function. We share training materials in multiple formats to promote accessibility. And we reinforce campaigns with other resources such as discussion forums, videos, websites, and feature stories on our intranet.

We expect our suppliers and their employees to do the same. The Supplier Code of Conduct requires our suppliers to allow workers to file, track, and resolve formal complaints. We also work through industry coalitions to give supplier employees a way to raise concerns. Learn more about how we manage ethics and standards in our supply chain here.

Increasingly, technology helps us spot ethics violations. For example, we use predictive data analytics to pinpoint hidden patterns, detect fraudulent behavior, identify policy noncompliance, and monitor compliance operations. Once we flag a risk, we route it to the appropriate team for investigation and remediation.
Listening to concerns

Conscious Culture gives everyone at Cisco a voice. This includes empowering them to speak up with ethics concerns. We aim to be a place where employees and others can report concerns about suspected unethical behavior safely, promptly, and confidentially, subject to applicable law.

We provide several ways for employees to share their concerns or ask questions:

- Speak directly to their manager, their Human Resources representative, or a member of the Legal team
- Contact the Ethics Office:
  - By email at ethics@cisco.com
  - Through our web form
- By calling our global EthicsLine (available 24 hours a day in over 150 languages)
- By mail (addressed to Cisco Audit Committee: 105 Serra Way, PMB#112, Milpitas, CA, 95035)
- Contact Cisco’s General Counsel or the Audit Committee of the Board of Directors

We take all inquiries seriously. We handle them promptly and investigate to the extent necessary, including taking disciplinary action. Retaliation against those who raise concerns is not allowed at Cisco.

In FY19, the Ethics Office received 1,338 inquiries (see Figure 8). We believe this level of engagement demonstrates that our ethics training programs and policies are working. Cisco employees know how to raise concerns, and they feel comfortable doing so.

Conscious Culture compels us to strive for radical transparency. That’s why we started sharing employee relations-related allegations, such as those related to bullying and other negative behavior, with our employees every six months. We also share how allegations have been resolved. Once we began sharing this information, the number of employee relations reports increased. We view this as a sign of greater trust that concerns will be taken seriously.

Our Ethics Office reports all cases to:

- The Audit Committee of the Board of Directors
- The Executive Compliance Committee
- Independent auditors
- The U.S. Securities and Exchange Commission (for violations that could affect our business or finances)

Figure 8. Inquiries made to Ethics Office

<table>
<thead>
<tr>
<th>Year</th>
<th>Inquiries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>951</td>
</tr>
<tr>
<td>2018</td>
<td>1,240</td>
</tr>
<tr>
<td>2019</td>
<td>1,338</td>
</tr>
</tbody>
</table>

Figure 9. Ethics Office inquiries

- Conflict of interest disclosures: 47%
- Allegations of misconduct: 31%
- Questions: 22%

Figure 10. Ethics allegations

- Employee relations: 52%
- Policy issues: 25%
- Conflicts of interest: 9%
- Brand protection: 7%
- Gift policy violations: 4%
- Other concerns: 3%
We are committed to:

Building digital skills & entrepreneurship 80
Strategic social investments 92
Technology & human rights 102
Data privacy & security 108
Responsible sourcing & manufacturing 113
2019 society dashboard

Goal:
Positively impact 1 billion people through our social impact grants and signature programs by 2025

Our progress:
The life-changing work of new and established partners is helping us make rapid progress.

469M people impacted*

*This total does not include all of our CSR investments. For example, our cash and in-kind support for most natural disasters, product grant investments, some cash grant investments, and volunteer engagement are not included. A readiness review is underway for external limited assurance of this cumulative to-date number.

Goal:
Reach 2 million Cisco Networking Academy students per year by 2020

Our progress:
With the help of our education partners, we reached our goal one year early.

<table>
<thead>
<tr>
<th>Year</th>
<th>Students (millions)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.33</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1.87</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2.15</td>
<td>✔️ goal achieved</td>
</tr>
</tbody>
</table>

10.9M students have participated in Networking Academy courses since 1997
94,000 U.S. military personnel have participated since 1998

1.9M students who have completed CCNA Routing and Switching courses have found a new job since 2005

87% of employees have completed Keep Cisco Safe data security training

$408.8M in cash and in-kind contributions by Cisco and the Cisco Foundation

300+ teams competed in the Cisco Global Problem Solver Challenge 2019

224,000 supply chain workers covered by Responsible Business Alliance audits

*This total does not include all of our CSR investments. For example, our cash and in-kind support for most natural disasters, product grant investments, some cash grant investments, and volunteer engagement are not included. A readiness review is underway for external limited assurance of this cumulative to-date number.
Technology is in our company’s DNA. We prepare people for a digital future with our signature program, Cisco Networking Academy.

To encourage instructors to support students of all abilities, we created Networking Academy accessibility online resources.

We evolved our course offerings to address emerging topics and stay more relevant than ever.

Cisco’s Veterans Program helps service members and their spouses find jobs in the IT industry.

The Cisco Global Problem Solver Challenge recognizes students whose ideas use technology to solve social and environmental problems.
A bridge to career possibilities for people everywhere

A top priority for Cisco is to empower people everywhere through opportunity. More specifically, to transform the lives of learners,educators, and communities through education and career possibilities. Based on a growing skills gap globally and the fact that every kind of business in today’s economy requires digital skills, this priority couldn’t be timelier. Through Cisco Networking Academy, we’re providing global and inclusive access for anyone, anywhere to participate in the evolving digital landscape. The program is available to those as young as 13 years old, those pursuing higher education and college, and those seeking a new career path. It’s delivered through public and private partnerships—so learners and educators keep up and keep moving forward.

Throughout the program, students from various socioeconomic backgrounds are empowered. They know they’re learning the very latest in technology—and gaining the digital and entrepreneurial skills to thrive. Career possibilities open up and lives transform for the better. Beyond creating opportunities for individuals, the program also benefits employers by increasing the number of job-ready and qualified candidates.

Cisco Networking Academy isn’t your average digital training program, but a true skills-to-jobs program. Its best-in-class curriculum prepares students and professionals for the most in-demand IT jobs in areas such as networking, cybersecurity, and IoT.

- **Comprehensive.** An end-to-end learning experience where students work in teams and develop skills they’ll use in the workplace.
- **Accessible.** Content is available online at netacad.com and through in-person courses where students learn from expert instructors. It’s also localized in 25 languages worldwide.
- **Future-focused.** Students can access career resources and connect to potential employers through the Talent Bridge program.
- **Proven.** Year after year, students and instructors alike say that the program provides valuable skills that help them grow their careers and obtain jobs.

We’ve been delivering impactful curriculum and proven learning outcomes for over 21 years. In that time, technology—and required skills needed to deploy it—have changed greatly. Not only are we adapting to the trends of today, we’re anticipating those of tomorrow.
Ready for the future

Over 2.15 million students enrolled in Networking Academy in FY19. And we’re prepared to scale as the workplace of the future transforms. The World Economic Forum’s Future of Jobs 2018 Report estimates that by 2022, 75 million jobs may be displaced by shifting labor between humans and machines, while 133 million new roles may emerge. Roles that require new skills—skills that Networking Academy and others are trying to help fill. Additional statistics confirm a skills gap: (ISC)2, the world’s leading cybersecurity and IT security professional organization says the global workforce is short nearly 3 million cybersecurity professionals. And the European Parliament Briefing Report says there could be as many as 756,000 unfilled jobs in the European ICT sector by 2020.

Courses on the cutting edge

Networks are becoming more intelligent, programmable, and software-driven. The worlds of traditional network engineers and software developers are merging to form the IT team of the future. As such, Networking Academy has Emerging Technologies Workshops, developed in partnership with DevNet, Cisco’s developer program, to support this evolution of networking and expose learners to new concepts with not only theory, but real, hands-on experiences. Even with this convergence, our Cisco certifications are among the most in-demand in the industry, according to IDC. In a single year, they were requested in 1.9 million IT-related openings. The vast majority of students who take a Cisco aligned certification course from Networking Academy are enrolled in Cisco Certified Network Associate (CCNA) curriculum.
Networking Academy also rolled out a new IoT Security course that allows students to see through the lens of a cyberattacker. It trains students on real-world tools like Raspberry Pi and Kali Linux. And new cloud-based virtual labs for our CCNA Cybersecurity Operations course through our partner NDG allow instructors to run labs with less bandwidth and virtually no on-site equipment.

**Portfolio innovation**

Our course portfolio is focused on networking, cybersecurity, and programmable infrastructure with an emphasis on student engagement. We have made improvements to our simulation software, Packet Tracer, by removing its dependence on Java and supporting Mac users directly. And we’ve brought the “gaming” experience into the student experience to keep students better engaged.

Hands-on learning with physical equipment has always set Networking Academy apart. In FY20, we’re exploring new ways to use virtual equipment and environments through augmented reality for increased student learning. In addition, we’re exploring digital badging to further recognize the skills and accomplishments of our learners for potential employers.

**Accessibility for all**

With the support of partners, Cisco is proud to deliver Networking Academy to 12,100 schools, community colleges, universities, and other organizations. Some of these partners support underserved and rural populations, veterans, prisoners, and people with disabilities.

Netacad.com follows web accessibility guidelines based on WCAG 2.0 for users with vision and hearing disabilities. We expanded accessibility in FY19 by adding course enhancements including:

- Screen readers
- Transcripts
- Closed captions
- Keyboard shortcuts

Plus, we empower instructors to support students of all abilities. The program’s goal is to reach 10,000 students with disabilities, including physical, vision, and hearing impairments, by 2022. As of June 2019, we reached 8,000 students with disabilities. Several of these students enrolled through the New York City Mayor’s Office for People with Disabilities’ ATWORK project. With this partner, we have created the abilITy Cisco Academy. This program has already trained two cohorts of adult learners.
Benefiting everyone

**Students: Connections to career opportunities**

The benefits of Networking Academy don’t end when courses do. The learning portfolio’s hands-on design and resources from Talent Bridge help prepare students for jobs.

Talent Bridge meets students on their journey, whether they are just starting their studies, are mid-way through, or about to launch into the tech workforce. It offers resources like:
- An online job matching engine
- Career advice
- An alumni network
- Experience-building activities like Dream Team

Over 20,000 students found a job through the resources of Talent Bridge. And they found one more quickly than those who didn’t use our resources, according to the latest Networking Academy Survey. Some of our channel partners report that many of their entry-level hires are program grads.

For students looking for an extra edge, there’s the Networking Academy Dream Team. Through this program, instructors nominate students to provide IT support for major events like Cisco Live, Global Citizen Festival, and the U.S. Open. By setting up equipment, providing help desk support, and working in teams, students gain valuable on-the-job experience. And this experience makes them highly employable. About 95 percent of Dream Team participants find a new job or get promoted as a result of the program. In FY19, 110 Dream Team participants supported 19 events worldwide.

**Instructors: Resources that make a difference**

Skilled and passionate instructors are essential to Networking Academy’s success. We offer rigorous instructor professional development directly from netacad.com. In FY19, we launched an exclusive Cisco Community where instructors can share insights with others and interact directly with product teams and peer experts.

Feedback is also collected regularly from instructors on how we can improve. In a FY19 survey, instructors said that the program:
- Made them a better educator (92 percent)
- Broadened their career (86 percent)
- Had a positive impact on their life (85 percent)

**Figure 2.**

<table>
<thead>
<tr>
<th>FY19 Talent Bridge matching engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>290 employers</td>
</tr>
<tr>
<td>21,000+ jobs posted</td>
</tr>
<tr>
<td>22,000+ students registered</td>
</tr>
<tr>
<td>Available in 15 languages</td>
</tr>
<tr>
<td>180 countries</td>
</tr>
</tbody>
</table>
**Partners: Growing together**

Partnerships with governments, academic institutions, and nonprofits make the Networking Academy program possible. We continue to grow this network. We are also aligned with countries and states building digital economies that make them economically competitive. As part of our efforts to make access inclusive, Networking Academy is free to eligible education partners. Recent examples of partnerships that have driven social impact include:

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Partner</th>
<th>Idea</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>European Schoolnet</td>
<td>Webinar series to educate instructors on IT careers</td>
<td>Attendance by over 300 teachers from 33 European countries</td>
</tr>
<tr>
<td>Italy</td>
<td>Ministry of Education, Ministry of Justice</td>
<td>Increase digital skills, including among vulnerable populations</td>
<td>55 new academies launched and 140,000 students trained in three years, including 1,000 prison inmates since 2001</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Brainstud</td>
<td>Shared digital skills courses with on-demand platform</td>
<td>Progress toward goal of training 57,000 people in digital skills within three years</td>
</tr>
<tr>
<td>Israel</td>
<td>See Security (funded by Ministry of Labor)</td>
<td>Creation of new Cyber Ops course for those with high-functioning autism</td>
<td>16 people completed course and immediately were placed in jobs</td>
</tr>
<tr>
<td>Russia</td>
<td>Znanie, an education organization</td>
<td>Our courses made mandatory for students pursuing new “Digital Mentor” major</td>
<td>Accelerated digitization efforts through talent development</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Dept of Cyberpolice and other partners</td>
<td>Online event on International Safer Internet Day targeting high school students</td>
<td>35,000 students participated across 3,000 institutions</td>
</tr>
</tbody>
</table>

What’s most important is student success. We have students who attribute getting jobs to their participation in Networking Academy. Jobs that have allowed them to take on challenging career opportunities to make a difference in their communities and in the digital economy.”

Laura Quintana, Vice President and General Manager, Cisco Networking Academy

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*Continued on next page*

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1Based on data reported by Networking Academy partners.
### Table 1. Networking Academy Partnerships (continued)

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Partner</th>
<th>Idea</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Michigan Initiative for Cybersecurity Education</td>
<td>Develop cybersecurity and computer science standards for K12 education</td>
<td>Trained 100+ teachers in two years and prepared 2,200 students for 12+ certifications</td>
</tr>
<tr>
<td>United States</td>
<td>CyberPatriot</td>
<td>Create custom course for teams to learn networking skills</td>
<td>8,752 middle and high schoolers took part in FY19 (growing 130 percent since FY16)</td>
</tr>
<tr>
<td>Australia</td>
<td>SoldierOn</td>
<td>Provide digital literacy and technology education to veterans of the Australian Defense Force</td>
<td>Reskilled 70+ learners</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Ministry of Manpower</td>
<td>Create a space for startup founders to work and learn skills</td>
<td>Networking Academy courses available in the Innovation Room Incubator</td>
</tr>
<tr>
<td>India</td>
<td>Department of Technical Education, Directorate General of Training–Ministry of Skills Development &amp; Entrepreneurship</td>
<td>Bridge digital skills gap for students in the vocational sector</td>
<td>Announced program expansion to upskill 1 million students</td>
</tr>
<tr>
<td>China</td>
<td>Alliance of Emerging Engineering Education for Information Technology</td>
<td>Lead curriculum reform for networking, IoT, and IT fundamentals</td>
<td>Won AEEE’s “2018 Outstanding Company Contribution” award</td>
</tr>
<tr>
<td>China</td>
<td>Ministry of Education</td>
<td>Prepare next-generation of students with digital skills</td>
<td>437,000 students trained since June 2017</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Networking Academies</td>
<td>Participate in Cisco Innovation Challenge</td>
<td>30 Cisco mentors participated and engaged 2,000 students</td>
</tr>
<tr>
<td>Peru</td>
<td>Ministry of Education</td>
<td>Digital literacy education to secondary students</td>
<td>704,677 students trained since 2016</td>
</tr>
<tr>
<td>Mexico</td>
<td>Secretary of Public Education and Technical High Schools</td>
<td>Update ICT technical education and provide lateral entry to the labor market</td>
<td>12,432 students trained; 4,549 since 2018</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Ministry of Justice, Human Rights and Cults</td>
<td>Provide prison inmates with ICT education and reintegration opportunities</td>
<td>214 inmates engaged; 52 since 2018</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Ministry of Education &amp; Fundación Omar Dengo</td>
<td>Contribute to ICT curriculum update for secondary technical education</td>
<td>35,933 students trained; 8,804 since 2018</td>
</tr>
<tr>
<td>Brazil</td>
<td>School of Communications at the Center of Electronic Communications and War</td>
<td>Bridge digital skills for military and their families</td>
<td>11,245 students trained; 3,870 since 2018</td>
</tr>
</tbody>
</table>

*Based on data reported by Networking Academy partners.*
Cisco Networking Academy

Since 1997

10.9M students

By 2020

2M students participated annually. We met this goal in FY19.

In FY19

180 countries

12,100 academies

26,500 instructors

2.15M learners

83%3 increased their value in the job

93%2 used skills learned in courses in their daily lives

93%2 obtained a job or educational opportunity

1.9m2 Students who have completed any CCNA Routing and Switching course (CCNA 1-4) found a new job between FY05 and FY19

85%3 learned skills that can help them in a current or future job

92%4 say Networking Academy helped them become a better educator

86%4 say Networking Academy helped them broaden their career

85%4 say program had a positive impact on their life

Countries with highest female enrollment

65% Oman

51% United Arab Emirates

48% Palestine

47% Jordan

45% Nigeria

44% Peru

43% Lebanon

43% Myanmar (Burma)

Goal was adjusted from 2021 to 2020 during FY18.

1 Student Outcome Survey participants completing Cisco Certified Network Associate curriculum or higher.

2 FY19 Course Feedback Survey participants in Cisco Certified Network Associate curriculum.

3 FY19 Instructor Survey participants actively teaching.

4 FY19 Course Feedback Survey participants in Cisco Certified Network Associate curriculum.
Building bridges to civilian employment

We support our veterans and active duty service members. Cisco’s Veterans Program, launched in 2011, helps U.S. service members and their spouses find jobs in the IT industry. In FY19, Cisco helped over 10,000 military members, veterans, and spouses through a variety of programs:

**Training**

- **Networking Academy courses.** We’ve trained more than 94,000 active-duty military personnel since 1998 at over 70 military installations worldwide.
- **Free training and certification.** Nearly 300 vets received training through CyberVetsUSA in FY19.
- **Self-study.** The Veteran Talent Incubation Program is a pathway to gain the skills needed to become an entry-level Cisco Services engineer.

**Connections**

- **Talent Bridge Matching Engine.** This Networking Academy tool connects veteran talent to jobs.
- **Veteran Jobs Mission.** As a founding member, Cisco collaborates with over 200 other companies to hire more vets.
- **Randstad/RiseSmart.** Our partnership identifies talent pipelines to better recruit and retain veterans at Cisco.
Awards for social entrepreneurs

Cisco Global Problem Solver Challenge

The Cisco Global Problem Solver Challenge recognizes college students and recent grads whose ideas use IoT and digitization to solve social and environmental problems. With visibility, funding, and encouragement, we help entrepreneurs take their solutions to the next level. In 2019, over 300 teams competed for $300,000 USD in prizes. The 2019 Grand Prize winner was Oorja, which developed a community solar pumping solution for farmers in India. Today, many farmers rely on diesel groundwater pumps to irrigate their crops. But they are polluting, expensive to maintain, and deliver inferior yields. Solar pumps are a better solution, but most farmers lack the resources to invest in them. Oorja’s community solar pumps are shared by 15 to 20 farmers. They make water available as a service with no up-front cost. Farmers pay for what they need with a reloadable smart card. This model allows farmers to reduce expenses and grow more crops that increase their incomes.

We’re still tracking the progress of past challenge winners, such as 2018 Grand Prize winner CareNX. CareNX developed a portable, low-cost and IoT-based monitoring system that allows doctors to remotely track vital signs of expectant mothers and their fetuses. Since winning the challenge, CareNX has reached over 35,000 mothers across 800 villages in India and was selected as a 2019 MIT Solver Team, along with previous GPS Challenge winner OmniVis.

Rice Business Plan Competition

At Rice University, Cisco sponsored the 2019 Rice Business Plan Competition, “the world’s richest and largest graduate-level student startup competition.” Hundreds apply, dozens compete, and winners take home prizes totaling more than $1 million. In 2019, we awarded the fourth annual $100,000 Cisco Global Problem Solver Prize, the largest cash prize and the only one focused on social impact, to Rhaeos. Their invention: a device resembling a small bandage for patients with hydrocephalus, a condition marked by fluid buildup on the brain. The excess fluid is often drained with a shunt. Rhaeos’s device monitors the shunt’s activity. Applied to the skin, it can determine if a shunt fails. Data from the device goes to doctors via Bluetooth. Doctors use the device to reduce the need for risky surgery and invasive tests. Prize funding will help the Rhaeos team refine the device and conduct clinical trials. In FY19, seven past Global Problem Solver Challenge winners, as well as two Rice Business Plan Competition winners, appeared at Cisco Live events. These events are a chance for founders to gain exposure and earn more funding.
Global Citizen Prize: Cisco Youth Leadership Award

As part of our collaboration with Global Citizen, we established the Global Citizen Prize: Cisco Youth Leadership Award. The award honors individuals between ages 18 and 30 who have made a significant contribution toward ending extreme poverty. The award’s first winner was Wawira Njiru, the founder and executive director of Food4Education. This organization provides subsidized school lunches for children in Kenyan public schools. A wristband, called Tap2Eat, tracks students’ lunch money, which parents can reload using mobile apps. Since Njiru won the $250,000 award in December 2018, her program has expanded from feeding 2,000 students to 10,000 students per day. In a country where more than half of the population is food-insecure, Food4Education provides nutritious food that accounts for 40 percent of their daily nutrients.

Supporting emerging problem solvers

Global Problem Solvers: The Series

It’s never too early to become a global problem solver. That’s why Cisco created Global Problem Solvers (GPS): The Series, an animated web series designed for middle school students. GPS: The Series features a diverse team of teens from around the globe who use technology to solve real-world problems. The mission of the series is to inspire students to become global problem solvers: citizens ready to thrive in an increasingly connected and digital future by innovating like technologists, thinking like entrepreneurs, and acting as social change agents. Each episode tackles a different stage of social entrepreneurship, from defining a problem to marketing a product. The series, along with lesson plans for teachers, is available in English, French, Hindi, and Spanish. In partnership with Arizona State University, Cisco provided training to 30 Phoenix-area teachers who instructed over 1,500 middle school students in the Global Problem Solvers program over the course of two years.

Digital Economy Initiative

The tools for fostering a digital economy already exist in many communities. In many cases, what’s missing is funding—and a catalyst for the local ecosystem to collaborate. The Digital Economy Initiative helps provide this spark. The pilot grant program offers grants to public universities and is supported by Cisco-managed funds at the Silicon Valley Community Foundation. In FY18, we gave one- to three-year grants to six public U.S. universities. Schools are using grants to develop IoT and digital skills programs that:

- Align with local industries
- Foster innovation and entrepreneurial skills
- Increase diversity in their student pipeline for IoT and engineering programs
- Align curricula with local job needs
Since the grants were awarded, recipients have made meaningful progress. California State University Fullerton has developed an IoT track within their computer science degree program. They’ve developed new curricula, including IoT prototyping; increased interdisciplinary student engagement; developed an ongoing IoT speaker series; and started an IoT internship program for local high school students.

Florida International University developed a new certificate program for IoT in Hospitality for the cruise line industry. They created the program after researching workforce projections, IoT trends, and anticipated skill gaps. The program is designed for both students and professionals, and launched in 2019. Georgia State University designed and launched the Digital Learners to Leaders (DLL) program in 2018. DLL has been recognized for its focus on developing the next generation of digital problem solvers by providing students with opportunities to increase their technical experience while developing valuable professional skills. It especially focuses on students who are underrepresented in the technology industry.

Harambe Entrepreneur Alliance
Cisco understands the potential for African-led business, economic, and community development. That’s why we support the Harambe Entrepreneur Alliance (Harambe). The name is derived from “harambee,” Swahili for working together toward a common purpose. Harambe identifies promising young African entrepreneurs, known as Harambeans, and gives them access to knowledge and training, mentors, investment capital, and a network of advisors and potential investors. Previous Harambeans support current ones, drawing on similar experiences to provide guidance and share knowledge and networks. This network provides an ecosystem of support for high-impact business and social ventures.

What makes Harambe different is that it supports African entrepreneurs who want to launch ventures in Africa—transforming and building the continent’s future from within. Collectively, Harambeans have launched businesses that have created more than 3,000 jobs, raised over $400 million in capital, and are valued at more than $1 billion.
Cisco’s socioeconomic research informs our social investments. Recent insights include factors that reflect digital readiness and digitization jobs and skills.

Investments focus on the full hierarchy of human needs, from food and shelter to digital literacy and sustainable careers.

Cisco and the Cisco Foundation’s social investments in nonprofit organizations support early-stage, technology-based solutions that serve underrepresented and vulnerable populations.

We’re committed to our focus areas of critical human needs and disaster relief, access to education, and economic empowerment, as fundamental to economically self-sufficient individuals and thriving communities.
A bridge to global problem solving

As a technology company, we have the good fortune of realizing the benefits that innovation can bring. Improved well-being. Greater prosperity. Better business outcomes and more efficient cities. We also recognize that these innovations have left many behind, whether through automation, obsolescence, or unequal access.

We are moved to act as we see these inequalities grow. Cisco is more than a provider of technology; we are a member of the hundreds of communities worldwide where we work and where our products are used, and we have an important role to play.

We believe in a world where everyone can participate in the digital economy. We’re helping to make that world a reality through our grantmaking and related investments, products and solutions, signature programs, and the time and talent of our employees. Together, we’re applying technology to help meet people’s basic needs. Then, we’re training them in digital skills to support the jobs of the future. Finally, we’re giving people the tools to become global problem solvers themselves, building businesses that make use of digital skills. Combined, our efforts are building a bridge to positively impact 1 billion people by 2025.

Socioeconomic research

A key input to our social investment strategy is Cisco’s original research. This is conducted in partnership with leading research and advisory companies and world-renowned academic institutions. We believe that our research can contribute to the dialogue about technology’s future impact. What we want to understand: what will the digital revolution bring? And how can Cisco make strategic investments to help individuals thrive? Our research also ensures the relevance of our investment focus areas, such as Cisco Networking Academy, critical human needs, educational opportunity, and economic empowerment.

469M people positively impacted by Cisco’s social impact grants and signature programs as of FY19

Our research helps heads of state, universities, educators, and nonprofit leaders set the direction for social investments and program development. For example, our research is designed to help states and nations:

- Predict the digital skills needed and the most effective ways to address skills gaps and job displacement
- Pinpoint the supply and demand of skilled labor in specific regions
• Assess their digital readiness and understand key interventions needed to improve
• Rethink education systems and partnerships to deliver graduates with the skills necessary for the jobs of the future
• Realize the benefits of digitization for all socioeconomic groups

We have presented our findings at the World Economic Forum (WEF), International Society for Technology in Education, Cisco Live, Networking Academy partner conference, and other venues.

Recent research
Our current research examines what it means to be digitally ready and how best to help individuals and countries thrive in the digital world. Key research in FY19 included the new Cisco Global Digital Readiness Index. The original study was conducted in 2017. To uncover key insights and build our understanding of what it means for a country to be digitally ready, we created a holistic framework and measurement model. In 2019, we refreshed and expanded this model to include additional countries.

Understanding a country’s digital readiness helps give insight to what specific investments or interventions could help a country move up in their digital journey. Overall, the 2019 findings remain consistent with the 2017 results, with digital readiness scores broadly mirroring developed and emerging economies. Three stages of digital readiness emerged based on the findings. “Activate” is the lowest stage of digital readiness, “Accelerate” is the middle stage, and “Amplify” is the highest. To better understand country needs, the Accelerate stage was further divided into two sub-stages.

Figure 4.
Digital readiness is measured using seven holistic components.

- Technology infrastructure
  Infrastructure available to enable digital activities and connected consumers (IoT, Cloud)

- Technology adoption
  Demand for digital products/services

- Human capital
  Skilled labor force to support digital innovation (build and maintain)

- Basic needs
  Basic human needs for a population to survive and thrive

- Ease of doing business
  Basic infrastructure/policies needed to support business continuity

- Business & government investment
  Private and public investment in innovation and technology

- Startup environment
  Environment which fosters innovation within a community

Recent research
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Countries with higher digital readiness have higher levels of GDP per capita and tend to be more productive and prosperous, as measured against the WEF’s Global Competitiveness Index. Countries with higher digital readiness also tend to have a healthier natural environment and vital ecosystem as measured against Yale’s Environmental Performance Index.

Digital Readiness scores reveal which countries are most digitally ready and which are less so, presenting opportunities for local government, industry, educational institutions, and community organizations to work together to help create an inclusive digital economy.

The framework to measure digital readiness can also be applied to examine the level of digital readiness of states, territories, regions, and/or provinces within a country. In February 2018, the framework was applied to Australian states and territories. Key government and policymakers used the results to inform investment across the states. The findings were shared to help maximize digital inclusion and show how Australia can move further toward becoming a more digitally inclusive society.
We also made progress in FY19 on research to better understand the landscape of job opportunities resulting from digitization. The original study was conducted in 2014 in partnership with Gartner. It focused on defining digitization jobs, understanding the skills and competencies needed, and sizing up the job market through 2020. The 2014 study focused on net new IoT-related roles. The most recent study takes a broader view by expanding to roles driving digital transformation. As a larger proportion of businesses transform digitally, the number of roles driving digital transformation will become a larger proportion of total workers. Technologies such as AI, cloud, and IoT are enabling digital change and impacting the future of business, which in turn is transitioning all organizations into digital and technology companies.

The research identified 28 digital-related job roles, which align to five general job functions that are critical for driving digital business. The skills and competencies necessary to be successful in these 28 job roles were also identified. They include broad skills such as networking, security and privacy, business orientation, and analytical skills. Specialized skills in the areas of networking, software development, analytics/IoT, and security will also be crucial. The research found that a combination of critical workforce competencies, broad skills, and technical skills are needed to build a well-rounded employee in the age of digital transformation.

**Funding technology for social impact**

Cisco’s research helps guide our grantmaking and related investments to make a meaningful impact. These investments in nonprofit partners enable them to use technology-based solutions to improve how they operate and reach underserved communities. And they support conditions for the communities they live in to thrive.

Our approach is to invest in early-stage solutions. This is the stage where funding is most needed and where we can make the biggest difference. Funding from Cisco and the Cisco Foundation helps nonprofits apply technology to:

- Create innovative solutions targeting individual and community needs
- Implement proof-of-concept pilots to validate viability of solutions
- Improve the delivery, quality, efficiency, and effectiveness of their products and services
- Scale to reach more people
- Replicate to multiple geographies globally
- Validate social impact
- Make progress toward financial sustainability
- Use data for better decision-making

We also provide our nonprofit partners with ongoing consulting services, advisory support, and technical expertise in areas including:

- Governance and operational structure
- Organizational leadership capacity
- Business planning and strategy development
- Impact evaluation
- Financial sustainability planning

**Figure 6. Our social investment framework**

- **Stage 1: Blueprint** (solution design experimentation)
- **Stage 2: Validate** (initial deployment, test solution)
- **Stage 3: Scale** (expand and enhance)
- **Stage 4: Transition** (financial sustainability, exit)
It is important to confirm that the solutions we invest in are making a difference. We work closely with the nonprofits we fund to measure their effectiveness and impact. This measurement also provides partners with insights on how to improve. We measure both breadth (number of people reached) and depth (the impact their programs are making). Depth is measured with a standard set of metrics for each of our three investment focus areas, as well as custom metrics specific to our partners’ social objectives.

We also ensure that solutions serve communities that need it most. Grantees must validate that at least 65 percent of their programs’ participants are from underrepresented and vulnerable population groups. They also provide quarterly reports to share progress against targets that we agree upon, such as client satisfaction.

Opportunity’s partnership with Cisco has enabled us to scale our life-changing work—building livelihoods, creating jobs, and providing affordable education to millions of people who are at risk of being left behind or left out of today’s growth economy! It’s an honor to partner with a global leader in technology to empower women and girls, create innovative digital solutions for farmers and entrepreneurs, and ensure that our programs are highly effective.”

Atul Tandon, CEO, Opportunity International

How we measure impact

What we measure depends on what problems we’re trying to solve. Cisco has three social investment focus areas. Here’s an example of what we might measure for a project in each area:

- **Critical human needs & disaster relief**
  - Number of people housed, or who have improved access to clean drinking water

- **Educational opportunity**
  - Number of students who reached proficiency in science, technology, engineering, and math (STEM)

- **Economic empowerment**
  - Percent of people who obtain jobs, job retention, change in income
Social investment focus areas

Critical human needs and disaster relief

In order to thrive, people first must have their basic needs met. Our Critical Human Needs and Disaster Relief portfolio focuses on increasing access to essentials like water, food, and housing. We also invest in technologies that help people in crisis, from delivering humanitarian aid to providing relief after natural disasters.

Table 2.
Social investment focus area: Critical human needs and disaster relief

<table>
<thead>
<tr>
<th>Partner</th>
<th>Situation</th>
<th>Investment</th>
<th>Impact</th>
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</table>
| **Destination: Home** is a public–private partnership with a simple mission: to make homelessness in Silicon Valley rare, brief and nonrecurring. Its goal is to create permanent supportive housing for people in need in Silicon Valley, and prevent individuals and families from becoming homeless in the first place. | • Santa Clara County, California is one of the wealthiest counties in the U.S.  
• The county has among the largest homeless population (9,700) and number of chronically homeless people (2,500) in the U.S. | • $50 million over five years  
• Our donation will help Destination: Home:  
  • Facilitate financing for developers to buy land and plan construction of homes  
  • Use technology to improve services for the homeless  
  • Implement evidence-based programs to prevent homelessness | • $9.7 million for construction of six new housing developments with 472 units  
• 841 households enrolled in an expanded homelessness prevention program  
• 95 percent of households remained housed while enrolled  
• 92 percent of households remain housed one year after assistance ended |
| **Mercy Corps** is an international development and humanitarian relief NGO active in more than 40 countries. With humanitarian needs increasing, they must constantly do more with less. Technology can help Mercy Corps operate more efficiently. | • 135 million people worldwide need humanitarian assistance  
• 70.8 million have been forcibly displaced worldwide; 26.9 million are refugees who have fled their homelands in search of safety and better lives | • $10 million over five years to use technology to deliver faster and more efficient aid. Commitment includes:  
  • Cash grants, technical expertise, and advisory support  
  • Donations of Cisco technology to 100 offices in 40 countries | • 3.7 million people reached in 17 countries in FY19  
• 5 million people reached over two years  
• Over 1.3 million refugees reached with critical information through Signpost platform in first two years  
• 69 Meraki cloud networking installations completed in 18 countries |
| **Digital Green** knows that growing more food is only the first step to helping farmers improve their lives. They must also sell their produce quickly and at a good price. Digital Green’s Loop platform allows farmers to request crop pickups from their farms, have them delivered to markets for sale, and be paid via mobile phone. Learn more about our support of Digital Green in Our Story. | • Smallholder farmers grow over 80 percent of the world’s food  
• They also make up 80 percent of the world’s poor  
• In resource-poor, low-income countries, agricultural growth reduces poverty five times more than nonagricultural growth | • Cisco Foundation provided the first dedicated funding for pilot in Bihar, India in 2016  
• In the last 2.5 years, program has expanded to other states in India, as well as Bangladesh and Ethiopia | • 25,000 farmers reached in first two years  
• 17 percent average increase in farmers’ income  
• Operational sustainability of 65 percent  
• Loop will spin off into separate social enterprise within next year  
• Organizational goal to help 1.1 million farmers achieve a sustainable 25 percent income increase, thereby reducing poverty and increasing food security |
Connected in times of crisis

In addition to funding, Cisco benefits people in need by offering what only we can: our products and technological expertise. Our disaster response team, Tactical Operations (TacOps), deploys trained team members to restore communications—for free—in the wake of disasters and other events where first responders need support. We prioritize support for:

- Public safety and health
- Government continuity
- Critical infrastructure
- Emergency management
- Organizations facilitating disaster response or humanitarian relief operations

TacOps is a full-time team of 12 supported by over 200 trained employee volunteers. Volunteers are given time away from their normal Cisco jobs to join TacOps deployments. We respond quickly, and put our expertise to work as soon as we hit the ground. This allows us to get communications up and running within a matter of days, and transition management over to government and local providers when their systems are back up. We don’t compromise security in the process. Advanced technologies such as Cisco Umbrella, Next Generation Firewall, and Meraki keep networks safe from cyberthreats.

Customers affected by disasters may also request TacOps support. TacOps works with Cisco account teams to design solutions that meet customers’ needs.
Social investment focus area

Educational opportunity
Technology can help accelerate a quality education. We’re helping build a digital foundation to improve education in our society, given the importance of technology-related skills in today’s world.

Table 3. Social investment focus area: Educational opportunity

<table>
<thead>
<tr>
<th>Partner</th>
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<th>Impact</th>
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| **Science Buddies** helps students from all backgrounds learn about science and tech. Affordable online resources allow both students and teachers to explore science topics. | • 78 percent of U.S. high school graduates lack proficiency in STEM  
• Only 41 percent of K-8 science teachers have a STEM background  
• Half of eighth grade students are uninterested in STEM topics | • Cash grants and product donations to expand programming to teachers and low-income students  
• Latest grant will help Science Buddies deepen engagement with students and teachers | • Reached over 16 million students in FY19  
• 54 percent of student users were female  
• 38 percent were from underrepresented ethnic groups  
• 49,000 teachers registered  
• Reached students in 50 U.S. states and 147 countries |
| **Technovation** supports education for girls, children, and families. They help spark interest in STEM and give students skills to be lifelong learners. | • Women make up only a third of STEM students in higher education  
• Only 3 percent of female college students choose to study information and communication technologies (ICT)  
• Between 2006 and 2014, the number of women earning computer science degrees declined | • Cash and volunteering investments support testing and instructional design  
• Funding will also help Technovation improve its Curiosity Machine platform | • In FY19, 17,000+ educators reached  
• 620 instructors trained  
• 89 percent of students say they are more effective STEM learners  
• 91 percent of participating students say they will continue to study STEM  
• Technovation Families reached over 7,500 children and adults across 13 countries who used AI to solve problems in their communities |
| **Gooru** knows that education is a human right. They create technology that helps make effective teaching practices accessible to all. | • Half of students worldwide fail to meet minimum skill levels in science and math  
• Teachers struggle to find and integrate standards to see how their students compare to peers | • Cash and equipment grants since 2012  
• Grants supported development of Learning Navigator and Navigate Math. Learning Navigator creates personalized lessons and tracks student progress. Navigate Math is a math curriculum covering all K-12 math concepts | • In FY19, 5 million teaching resources catalogued  
• 3 million global users per year (600,000 are teachers)  
• Used by 356,000 students in 110 U.S. school districts  
• Students in the Navigate Math program gained an average of 2.8 math grade levels per year |

Programs we fund are designed to:
- Expand inclusive access to primary and secondary STEM education
- Improve student attendance, behavior, and overall course outcomes
- Increase student STEM career exploration and engagement
- Build teacher capacity and nurture quality proven practice
- Leverage STEM partner networks
- Apply technology to improve both teaching and learning
Social investment focus area

Economic empowerment

Our investments in nonprofits give people tools to thrive in a digital economy. We connect people to skills training, employment, and career development opportunities; support entrepreneurs with advisory resources, networks, and funding; and provide financial products and services to those without access to traditional banking institutions. These resources help put people on the path to develop meaningful careers that provide sustainable livelihoods, facilitate economic independence and self-sufficiency, and support community-level economic growth and development.

Table 4.
Social investment focus area: Economic empowerment

<table>
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<tr>
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| Opportunity International (OI) offers financial products, services, and training to help people transform their lives and participate in local economies. OI makes banking easy in areas where it has been out of reach. Most of their clients are poor women, farmers, and rural youth. | • One in three people worldwide lacks access to a bank account  
• But most of these individuals have access to a mobile phone  
• Mobile financial services allow people to send and receive money with their phones. This approach allows many more people to be part of the economy | • Early-stage support helped OI develop and test mobile banking products  
• Current support includes cash grants, product donations, and expertise to help OI:  
  • Improve efficiency  
  • Reach more people  
  • Offer new products and services  
  • Better target specific clients  
  • Better assess impact | • Three-year partnership resulting in 3 million jobs created  
• 20 million people impacted via digital financial solutions |
| Anudip’s mission is to equip low-income and vulnerable populations for sustainable technology careers by providing digital and professional skills training, mentoring, and networks. | • Technology and the digital economy are creating employment opportunities around the world  
• Anudip aims to ensure that youth and marginalized populations are able to secure employment for long-term, productive careers | • Cash grant investments to develop new curriculum for students, service offerings for clients, and optimization of business operations for their organization  
• Support for replication of Anudip’s model to the U.S. via launch of operations in New Orleans, Louisiana  
• Early stage support for Anudip’s 3D4D program, in which Anudip is leveraging 3D printing technology to develop a financially sustainable social enterprise that provides low-cost, customizable prosthetics at scale for marginalized populations in India  
• Donations of Cisco technology | • 22,000 low-income youth and women reached in FY19  
• Average 75 percent employment rate and 300 percent family income increase in India  
• 250 people received prosthetics  
• First cohort of New Orleans students graduated |
| Kiva’s mission is to expand financial access to help underserved communities thrive—creating opportunity and reducing poverty. Kiva reshapes access to financial services with an online, crowdsourced, peer-to-peer lending network. | • 1.7 billion people worldwide lack access to a bank account  
• Microloans allow people to invest in their futures  
• Kiva breaks down barriers to accessing financial services | • Support for multiple Kiva initiatives  
• Use of Cisco technology  
• This has enabled Kiva to design, test, and implement new types of loan products | To date:  
• $1.36 billion in loans facilitated  
• 3.4 million borrowers  
• 78 countries  
• 97 percent repayment rate |
We’ve created a new team to oversee our human rights strategy: Business and Human Rights at Cisco (BHR at Cisco). The team will focus on the potential human rights impacts of our technology.

BHR at Cisco will also operationalize our human rights position statements.

BHR at Cisco is expanding Cisco’s thought leadership on emerging issues in human rights and technology, and has increased external engagement.

Cisco has established a position on government use of technology to curtail freedom of expression.
Technology & human rights

Our world is changing fast. The speed of innovation and the adoption of new technologies is increasing at an exponential rate. For example, with the growth of 5G, the number of connected devices worldwide will explode. Nearly 29 billion networked devices in 2022 will swell to 300 billion by 2030. In the same time period, more than 3.5 billion more people will begin using the Internet for the first time.

This evolution presents great opportunities to solve pressing global problems: Improving health. Reducing pollution. Making cities smart. But these same technologies can also cause harm. Unfortunately, advanced data and technology can be used to infringe upon human rights, such as when governments employ technology to surveil or censor individuals.

We’re keenly aware of both the potential benefits and risks of our technology. That’s why we’re working to integrate human rights into the development, marketing, and sales process.

Our human rights journey

Cisco’s commitment to human rights comes from the top. Our CEO, Chuck Robbins, and other senior executives established our strategy and stress its importance. This year, we created a new legal function led by Mark Chandler, Executive Vice President, Chief Legal Officer, and Chief Compliance Officer, to address human rights issues that arise in our business. In FY20, we will begin regularly sharing with our Board of Directors how Cisco is responding to identified human rights risks.

To understand where we’re going, it helps to know where we’ve been. In 2012, Cisco’s technology landscape began to change. That year began our transition from a business focused on networking hardware to one focused on software and services delivered through the cloud.

This led to the creation of our first Global Human Rights Policy. This policy is aligned with the UN Guiding Principles for Business and Human Rights (UNGPs). Adopted by the United Nations Human Rights Council in 2011, the UNGPs spell out the corporate responsibility to respect human rights.

Cisco formally began to put policy into practice when we created our Human Rights Working Group (HRWG). The group includes experts from all parts of the business, including:

- Supply Chain
- Security & Trust
- Legal
- Engineering
- Customer Experience
- Office of Inclusion and Collaboration
- Government Affairs
- Sales & Marketing
- Corporate Communications
- Investor Relations
- Corporate Affairs

Cisco takes a holistic and crossfunctional approach to human rights, with dedicated human rights experts leading the work. See how we’re addressing human rights across our business:

- Business and Human Rights (BHR)
- Human Rights in the Supply Chain
- Privacy as a Human Right
The purpose of the HRWG group is to:

- Inform our human rights strategy and policy
- Track and share our progress
- Champion human rights externally and within their own functions
- Consider external perspectives on human rights

In 2018, Cisco supplemented our human rights policy with six [human rights position statements](#) that describe Cisco’s approach to key emerging human rights challenges in the technology sector. They address the following issues:

- Encryption
- Data localization and sovereignty
- Surveillance by governments
- Internet of Things
- Big data analytics
- Artificial intelligence

These statements give us a central platform from which to share Cisco’s basic commitments to uphold human rights. Our next goal is to translate these perspectives into guidelines that will inform software and product development and sales.

"With opportunity comes responsibility. Innovation must advance hand in hand with thoughtful policies and practices, including undertaking due diligence on how new products and services may impact human rights in the future."

Mark Chandler, Executive Vice President, General Counsel and Chief Compliance Officer

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**Figure 7.**

**Business and human rights at Cisco: Where we focus**

- **Uphold**
  - the public commitments that Cisco has made to human rights

- **Ensure**
  - that human rights are an important part of our decision-making

- **Anticipate & address**
  - human rights issues raised by our technology

- **Support**
  - Cisco in meeting business goals in a way that respects human rights
Cisco’s Position on Government Use of Technology to Curtail Freedom of Expression

At Cisco, we are strongly committed to an open global Internet. We build our products to promote the free flow of information, privacy, and freedom of expression. Our principles include:

• We sell the same products globally, built to global standards, thereby enhancing the free flow of information.

• Our networking products include basic features that are essential to allowing operators to defend against threats which could undermine the operation of the Internet and information security, recognizing that some governments may seek to use those features to interfere with the free flow of information.

• We strongly support the right of users to encrypt information they transmit and oppose governmental efforts to undermine encryption.

• We do not customize or develop specialized or unique filtering capabilities in order to enable different regimes to block access to information with the intent of undermining these rights and freedoms.

• We comply with laws that restrict sale of products to certain regimes based on the possibility that products and features could be misused to undermine human rights.

We are not in a position to determine how governments and others may use our products’ features day to day, and so we take these additional steps to promote these principles:

• We do not support attempts by governments to fragment the Internet or otherwise create a “closed” Internet.

• We do not support interception of telephone calls made over the Internet using Voice over Internet Protocol (VoIP) except in response to valid court orders consistent with due process of law.

• Consistent with Cisco’s Security Vulnerability Policy, our product development practices specifically prohibit any intentional behaviors or product features that are designed to allow unauthorized device or network access, exposure of sensitive device information, or a bypass of security features or restrictions (including, but not limited to, undisclosed device access methods or “backdoors”).

Read our full statement in Appendix I.
Weaving human rights into all we do

Each of these accomplishments has helped lay the groundwork for the next phase in the evolution of human rights at Cisco. In FY19, we increased our capacity to understand and influence the human rights impacts of our business with the creation of a new team: Business and Human Rights at Cisco (BHR at Cisco). BHR at Cisco sets Cisco’s human rights strategy, drives decision-making, and manages relevant human rights issues across Cisco’s business with a focus on the potential human rights impacts of our technology.

This team sits in our legal department and is staffed by human rights specialists. It’s led by Lynn Easterling, Vice President and Deputy General Counsel, who reports to Executive Vice President Mark Chandler. Creating this team within the legal function allows for input on legal, regulatory, and policy decisions related to human rights impacts. BHR at Cisco will continue to leverage the Human Rights Working Group for insights across Cisco functions. And we’ll rely on external stakeholders to support continuous and shared learning.

This dedicated internal team also equips us to make a bigger impact. We’re shifting from a reactive approach to one where we can build a sustainable, scalable, and holistic framework by developing and implementing policies, procedures, and training for the long term.

Our latest achievements

We’re putting our human rights commitments into action by raising internal awareness of human rights and engaging externally. Many Cisco employees have the potential to encounter human rights–related challenges in the course of their work. That’s why we are diligent about educating these employees with regard to:

• How we define human rights
• Why human rights are relevant to Cisco
• How technology can impact individual human rights
• How issues might show up in their roles
• What to do if they identify a human rights concern

Cisco is an influencer in the human rights space. We regularly share our perspectives outside the company as a member of the Article One Business Roundtable on Human Rights and AI and the BSR Human Rights Working Group. In 2019, we sponsored RightsCon for the third year in a row. RightsCon is the world’s leading conference on human rights and technology, bringing together thousands of stakeholders from around the world. At RightsCon 2019, a BHR at Cisco team member participated in a panel on 5G and human rights and gave a presentation about how Cisco has innovated to provide users with more transparency about personal data processing through our Privacy Data Sheets and Privacy Data Maps.

We’re also leading by calling for government action. In FY19, Cisco CEO Chuck Robbins called for U.S. federal data protection legislation that recognizes privacy as a human right. Learn more here about our commitments to data security and privacy.
Evaluate & address our impact.

Evaluate where our business and technology may lead to human rights risks. Then, identify priority areas and develop policies and procedures to address them, consistent with the UNGPs.

Engage with others.

The human rights landscape in the tech industry is always evolving. BHR at Cisco will continue to participate in the global conversation on the responsibility of business to respect human rights. We’ll engage with employees, human rights organizations, academia, socially responsible investors, customers, peer companies, governments, and technology users.

Turn words into actions.

We’ll translate Cisco’s human rights position statements into defined processes that help us ensure this outlook is integrated into the development and sale of our technologies.

Assess our progress.

We’ll continue to evaluate our effectiveness at addressing human rights impacts and will integrate what we learn as we continue to improve. Anyone can raise a concern about potential human rights issues by emailing humanrights@cisco.com.
Consumers have growing concerns about how their data is used and shared. We’re establishing and enhancing trust through transparency and education.

The Cisco Secure Development Lifecycle (Cisco SDL) builds security and privacy into our products, solutions, and services.

We have integrated privacy engineering and privacy impact assessments into Cisco SDL.

We’ve called for federal privacy legislation and have demonstrated leadership on this issue because privacy is a human right.

In FY19, Cisco continued its security focus by acquiring Sentryo, a provider of cybersolutions for industrial control systems, which are used in large industrial plants.
Protection in a changing world

Cisco is the industry leader in creating safe and secure connections and applications for processing data. And in a world with more data, more users, and more services than ever, there’s more to protect than ever. What’s more, cyberthreats are always evolving.

In light of high-profile security breaches and privacy abuses, it’s no surprise that fear and uncertainty abound. Standards and regulations aim to protect against data misuse by both those who are and those who are not authorized to access and use it. Unfortunately, this has produced the unintended effect of a global patchwork of inconsistent guidelines and requirements that can be difficult for data handlers and users to understand and follow.

It doesn’t have to be this way. We’re committed to incorporating privacy and security into every phase of product development, from ideation to end of life. We strive to enhance trust and provide transparency for our customers with our privacy and security policies and practices. We lead development of industry standards to enhance global cybersecurity.

Security by design

We’ve been building security into every level of our solutions and services for more than 10 years with the Cisco Secure Development Lifecycle (Cisco SDL). Cisco SDL provides a foundation for addressing evolving threats. We also follow specifications for our Information Security Management System (ISMS). And our entire services business is ISO 27001 certified. These verifications give customers peace of mind that their data is safe with Cisco.

We have integrated privacy engineering into the Cisco SDL. For example, a privacy impact assessment is now a mandatory step prior to product release. We’ve trained our product engineers and our lawyers who counsel them on privacy engineering and put them through privacy requirements workshops. For data-rich products and services, the information gathered during Cisco SDL is converted into plain language and published on the Cisco Trust Center as Privacy Data Sheets and visualized as Privacy Data Maps. We’ve also published our Master Data Protection Agreement that sets out our privacy and security promises (for customers) and requirements (for suppliers). These enhancements to our program provide greater transparency, fairness, and accountability in how we process personal information.
How do we identify privacy risks? We start with threat modeling and privacy scoping workshops during ideation and design. Next, we conduct operations and user experience testing. During these tests, we ensure appropriate controls are in place to properly manage personal data throughout its life cycle, from creation to disposition.

We continue to conduct penetration testing and check for vulnerabilities even after products have been deployed. All of our security products incorporate Talos threat intelligence, backed by a team that reviews 1.7 million malware samples per day. Meanwhile, the Product Security Incident Response Team (PSIRT) and Computer Security Incident Response Team (CSIRT) monitor network and attack traffic for security vulnerabilities and incidents in our products and corporate environments, respectively. Thanks to these safeguards, we had no reportable data breaches in the past year. To further enhance and expand our capabilities, we acquired two security companies in FY19. Sentryo is a provider of device visibility and security solutions for industrial control system networks. We also completed the acquisition of Duo Security for unified access security and multifactor authentication.

The European Union’s (EU) General Data Protection Regulation (GDPR) has been in effect for more than a year, and dozens of other privacy laws have been enacted or are being updated around the world. We continue to mature and improve our privacy program to align to the evolving landscape to ensure privacy is respected and protected. In the past year, we:

- Updated and published additional Privacy Data Sheets and Data Maps to provide transparency for our data handling practices
- Revised our Product Security Baseline and Security Readiness Criteria in Cisco SDL to build in privacy-enhancing features and functionality in our products
- Enhanced and automated aspects of our Data Subject Access Request (DSAR) management process for more rapid response
- Created a network and practice community of privacy leads in regions worldwide
- Renewed our EU/Swiss-US Privacy Shield and APEC Cross Border Privacy Rules system certifications
- Obtained APEC Privacy Recognition for Processors certification
Building bridges across our industry

Our work doesn’t happen in a vacuum. Just as we connect people and businesses in global networks, we are part of a network of peers working together to ensure security and privacy for all. We’re committed to respecting privacy as a human right, helping to shape new regulations and industry standards to protect privacy while supporting data-driven innovation, and working with our customers, partners, peers, and others to do the same. When we’re all better informed on these critical issues and work together to develop solutions, we’re all better off.

In FY19, Cisco called for comprehensive U.S. federal data protection legislation anchored to core principles of transparency, fairness, and accountability, because privacy is a human right. Specifically, we recommended that the U.S. develop an omnibus federal privacy law ensuring a consistent baseline of protection. Our perspective considers how today’s trends, such as IoT, 5G, and artificial intelligence will impact and reshape our lives today and into the future. New laws should drive responsible, accountable use of data and address the complex privacy needs of a world where tens of billions of devices will soon be online.

Cisco is leading the development of privacy frameworks around the world. We’re speaking out in support of policies that favor interoperable global standards and a safe, free, and open Internet.

Sharing our expertise

When it comes to data privacy, knowledge is power. And sharing that knowledge is critical. Our privacy experts regularly participate and lead training and panels at conferences and take part in industry events such as international Data Privacy Day in January and Cybersecurity Awareness Month in October.

The Trust Center is our hub for straight talk on data security and privacy. There, users can find:
- Current Cisco security research
- Alerts on the latest threat outbreaks
- Infographics that break down complex concepts
- Privacy Data Sheets, which explain how Cisco solutions use data
- Privacy Data Maps, new in FY19, which use a subway map-inspired design to visually show how data travels through our network

We highlighted the business value of good data privacy with the Cisco 2019 Data Privacy Benchmark Study. The survey was completed by thousands of security professionals worldwide. It revealed the financial benefits of good data privacy processes, including shorter delays in sales cycles. The study was downloaded about 3,500 times.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Collaborations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating in groups including:</td>
<td>Internet Engineering Task Force</td>
</tr>
<tr>
<td></td>
<td>Internet Governance Forum</td>
</tr>
<tr>
<td></td>
<td>Institute of Electrical and Electronic Engineers (IEEE) Standards Association</td>
</tr>
<tr>
<td></td>
<td>International Standards Organization (ISO)</td>
</tr>
<tr>
<td></td>
<td>National Institute of Standards and Technology (NIST)</td>
</tr>
<tr>
<td></td>
<td>International Telecommunications Union</td>
</tr>
<tr>
<td></td>
<td>World Wide Web Consortium</td>
</tr>
<tr>
<td></td>
<td>Cloud Security Alliance</td>
</tr>
<tr>
<td></td>
<td>Health Information Trust Alliance</td>
</tr>
<tr>
<td></td>
<td>National Cyber Security Alliance (NCSA)</td>
</tr>
<tr>
<td></td>
<td>Payment Card Industry (PCI) Board of Advisors</td>
</tr>
<tr>
<td></td>
<td>Centre for Information Policy Leadership (CIPL)</td>
</tr>
<tr>
<td></td>
<td>Future of Privacy Forum</td>
</tr>
<tr>
<td></td>
<td>Center for Democracy and Technology</td>
</tr>
<tr>
<td></td>
<td>International Association of Privacy Professionals (IAPP)</td>
</tr>
</tbody>
</table>

| Supporting data privacy certifications such as:                        | EU/Swiss-US                                         |
|                                                                        | EU Binding Corporate Rules                          |
|                                                                        | APEC Cross Border Privacy Rules                     |
|                                                                        | APEC Privacy Recognition for Processors             |

| Influencing global privacy law and regulatory guidance in:             | APEC Member Economies                                |
|                                                                        | ASEAN                                               |
|                                                                        | European Union                                      |
|                                                                        | United States                                       |
|                                                                        | Canada                                              |
|                                                                        | Brazil                                              |
|                                                                        | China                                               |
|                                                                        | Singapore                                           |
|                                                                        | Japan                                               |
|                                                                        | Vietnam                                             |

| Leading development of privacy standards like:                        | IEEE                                                |
|                                                                        | ISO                                                 |
|                                                                        | EU Cloud Code of Conduct                            |
Security begins with us

Cyberthreats are always evolving. As a company that provides security solutions to others, it’s important that we educate our employees and others who handle our data on how to stay safe online. We include data privacy and security topics in our Code of Business Conduct. And we offer more than 100 hours of additional training content for anyone who is interested or whose job requires enhanced expertise. Cisco engineers, for example, are required to complete security training. However, the curriculum is available to all employees and about one in three Cisco employees are certified “Security Ninjas,” meaning they’ve completed this training.

We also have a robust awareness program to keep hot privacy and security issues top of mind. Keep Cisco Safe is a collection of vignettes, posters, articles, blogs, and full-length courses that use visualization and gamification to educate and inform. The program includes instructions and simple actions employees can take to keep data safe at work, at home, and on the go. The latest course offerings include:

- 2019 Data Privacy & Security Annual Review Course
- Introduction to Data Security at Cisco
- Securing Your Data Environment
- Data and Computer Security Incident Reporting
- Understanding Your Data
- Introduction to Privacy

- Phishing Awareness
- Cisco SDL Security Readiness Criteria Enforcement
- Access controls and multifactor authentication

Workers can also deepen their security know-how by attending conferences and workshops, both internal and external, reading articles on our intranet and public website, and viewing posters and digital signage throughout our facilities. Brown-bag sessions on privacy topics, for example, reached hundreds of employees in FY19.

Our people gain awareness about cybersecurity in less obvious ways, too. We routinely send simulated “phishing” emails to employees. True phishing emails can expose users to malware or compromise their personal data. Our emails are for educational purposes only, but like real phishing, they use links or attachments that aren’t what they seem. When an employee clicks on one of our phishing test links, we follow up by sending information on how to stay safe in the future, including a link to our Phishing Awareness course. In FY19, we sent roughly 130,000 test phishing emails each month.

Keeping our people safe

We won the first-ever Cyber Safe Workplace Award from the National Cyber Security Alliance (NCSA). According to NCSA:

“Cisco has made extraordinary efforts in developing workforce commitment and engagement—from the break room to the board room—and continually fostering a culture of cybersecurity, data protection, and privacy.”
Executives on our Supply Chain Human Rights Governance Committee oversee human rights in our supply chain to assure accountability and drive positive impact.

We use rigorous data analysis to assess our progress and develop targeted new initiatives to improve working conditions in our supply chain.

We’re collaborating with suppliers and peers on new solutions for mineral traceability and responsible sourcing.

Building a diverse supply base helps us meet government and customer expectations. It also helps us improve performance and innovation.

The first cohort of our executive sponsorship program for top U.S. diverse suppliers ended in FY19, and all sponsees reported that they found the program valuable. The program will expand to include U.S., U.K., and India in FY20.
Socially responsible supply chain

Making the world a better place with technology begins with how that technology is made. Cisco’s supply chain enables our business success through the reliable, sustainable, and ethical production and delivery of our products. Cisco’s manufacturing operations are entirely outsourced to a global network of hundreds of suppliers and partners. These suppliers:

- Provide the parts that go into our products
- Assemble and test finished products
- Provide logistical services
- Collect, refurbish, and recycle products at the end of their useful life

As an extension of our operations, we hold our suppliers—and their suppliers—to the same high standards we practice. These include standards for ethics, labor practices, health and safety, and the environment. This is not only the right thing to do, it directly benefits our business and our supply chain partners. High standards ensure resiliency in our operations, as expected by our customers, shareholders, communities, and other stakeholders.

Sustainability and risk management are embedded in our business strategy and functions. Our approach is focused on assessing risk and opportunity, targeting risk areas, and continuously improving. We also collaborate extensively with industry groups, peers, suppliers, and other stakeholders to advance responsible supply chains across our industry. The Supply Chain Sustainability team plays a critical role in identifying, mitigating, and preventing risks to human rights, the environment, and worker health.

Figure 9.
Supply chain sustainability awards

<table>
<thead>
<tr>
<th>WHO</th>
<th>WHAT</th>
<th>RECOGNIZED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gartner</td>
<td>Top 25 Global Supply Chains</td>
<td>Commitment to the circular economy, security, and building a resilient workforce</td>
</tr>
<tr>
<td>CDP</td>
<td>Supplier Engagement Leader, 2019 Supplier Climate A-List</td>
<td>Decisive climate action in measuring, verifying, and managing the carbon footprint of our direct operations and supply chain</td>
</tr>
<tr>
<td>Center for Climate and Energy Solutions (C2ES) and the Climate Registry (TCR)</td>
<td>2019 Climate Leadership Awards for Supply Chain Leadership</td>
<td>Commitment to addressing climate change—from the facilities we manage to the suppliers who partner with us</td>
</tr>
<tr>
<td>Institute of Public &amp; Environmental Affairs (IPE)</td>
<td>#3 in the IT industry (up from #7) on the Corporate Information Transparency Index, #2 in the IT industry on the Supply Chain Climate Transparency Index</td>
<td>Targeted work with suppliers to address pollution and climate with a focus on China</td>
</tr>
</tbody>
</table>
Cisco supply chain

14 countries

138,600+ components
2,300+ orders daily
1,077,500+ units repaired

40,700+ orderable items
424,000+ items shipped daily
600+ suppliers

View the Cisco Supplier List here.

Component suppliers
A large group of suppliers that provide parts to our manufacturing partners according to our specifications

Manufacturing partners
A select group of suppliers that produce finished Cisco products

Logistics service providers
Suppliers who transport components and finished products

Software suppliers
Suppliers who support non-hardware-oriented products and services as Cisco’s business model evolves

Repair partners
Suppliers who operate repair sites and complete service repairs
What we expect of suppliers

Cisco was a founding member of the Responsible Business Alliance (RBA), formerly known as the Electronic Industry Citizenship Coalition and has contributed to the development of the RBA Code of Conduct. By adopting the RBA Code as our own Cisco Supplier Code of Conduct, we’ve set standards and expectations for labor, health and safety, environment, ethics, and management systems that are consistent across the electronics industry supply chain.

Adopting the Code is central to our commitment to the UN Guiding Principles on Business and Human Rights (UNGPs). It also reflects our longstanding pledge to uphold and respect human rights for all people, including those who work in our supply chain. See Cisco Global Human Rights Policy for more detail about our human rights commitments. The Code aligns with key international human rights standards, including:

- The ILO Declaration on Fundamental Principles and Rights at Work
- The UN Universal Declaration of Human Rights
- Other standards, such as ISO 14001 and OHSAS 18001

As a full member of the RBA, Cisco has adopted the RBA’s accountability and assessment tools. Cisco also participates in RBA’s Responsible Minerals Initiative (RMI) and Responsible Labor Initiative (RLI). We also contribute to working groups on Environmental Sustainability (ESWG) and Validated Assessment Program (VAP). This allows us to monitor and influence outcomes at the industry level. Our involvement helps shape the continual development of RBA standards and programs as business and social responsibilities evolve.

Our Supplier Ethics Policy requires suppliers and their employees to conduct themselves with honesty, fairness, and integrity. As part of the supplier qualification process, suppliers must affirm that they will follow the Supplier Ethics Policy and acknowledge that any subcontractors or other parties they engage will do the same.

We hold suppliers accountable throughout the supplier engagement process. During supplier qualification and onboarding, suppliers must acknowledge:

- Cisco Supplier Code of Conduct
- Supplier Ethics Policy
- Responsible Minerals Policy
- Controlled Substances Specification
- Other supply chain-related policies
Suppliers must re-acknowledge the Supplier Code of Conduct every time it is updated. This happens every three years. In addition, suppliers must cascade the Supplier Code of Conduct to their next-tier major suppliers. They must then ensure that those suppliers also meet its requirements. Cisco’s policies are embedded in standard master purchasing agreements. When a supplier consistently fails to meet our policies, we may discontinue the relationship.

Cisco’s expectations of suppliers

In FY19, Cisco issued the “Cisco Supplier Guide: Sustainability, Risk and Security.” It includes the following expectations:

- Uphold Cisco’s Supplier Code of Conduct and cascade responsible business practices into your own supply chain
- Support Cisco’s policy and due diligence to achieve a conflict-free supply chain
- Meet materials compliance requirements as detailed in the Cisco Controlled Substances Specification
- Support Cisco’s circular economy objectives and circular design principles
- Publicly report greenhouse gas (GHG) emissions and reduction targets to CDP annually
- Uphold environmental responsibility standards and local laws and mitigate impacts in the geographies in which you operate
- Comply with Cisco’s Business Continuity Policy and respond to related questionnaires and data requests related to manufacturing site locations
- Comply with the applicable security requirements specified in the Master Security Specification

To learn more about our work with suppliers on the environment, see Supplier environmental performance. To learn more about business continuity and security, visit Data privacy and security.
How we engage

The supplier engagement process is essential to drive improvement within our own supply chain and across our industry. We believe it is imperative to continually evaluate our suppliers and help them improve through leadership, support, and education. The engagement process includes four main phases:

• Risk assessment
• Supplier self-assessments and audits
• Corrective Action Plans
• Capability-building

Risk assessment
Cisco evaluates our supply base for social and environmental risk factors, inherent risks from operations and production, and exposure to those risks. We rely on reputable sources to assess vulnerabilities and protections in the geographies where suppliers operate. These data sources include:

• The UN Human Development Index
• World Bank Governance Indicators
• Other indicators for environmental performance and the presence of forced labor

Supplier engagement process for a more resilient and responsible supply chain

Figure 11.
We also look at risk factors such as suppliers’ past audit performance and workforce composition, and the nature of Cisco’s relationship to the supplier. During FY19, Cisco updated the assessment methodology. It now accounts for the presence of vulnerable workers such as foreign migrant workers, young workers, and student workers. The results of this assessment help us develop strategy and priorities for due diligence, audits and assessments, and further supplier engagement.

Awards for suppliers

At our annual Supplier Appreciation Event, we recognize a supply partner that has distinguished themselves as visionaries and collaborators in the social and environmental sustainability space. In 2019, the winner of the Excellence in Sustainability Supplier Award was Flex. Flex has been a top collaborator with Cisco in implementing environmental sustainability projects across its operations. Over the last two years, they have embedded best practices in IoT and Energy Management into their Flex Zhuhai and Flex Guadalajara sites.
Self-assessment and audits

Cisco has adopted the RBA’s accountability and assessment tools. These include Self-Assessment Questionnaires (SAQs) and the Validated Assessment Program (VAP). SAQs engage suppliers to assess their conformance to the RBA Code of Conduct and identify any gaps. They give suppliers insight into their own performance. And they help Cisco develop leading indicators for risks that can be addressed during an audit or another due diligence initiative.

In FY17, we completed a Human Rights Impact Assessment. In accordance with its recommendations, we expanded our scope of assessments to include logistics suppliers during FY19. All of our strategic logistics suppliers completed SAQs. They will continue to be part of Cisco’s supplier engagement process in FY20.

Cisco’s comprehensive supplier auditing program helps suppliers build capability and improve their performance. We make this easier for them by using RBA’s industry-standard protocol. This reduces the number of audits that suppliers have to perform and makes expectations consistent. Third-party auditors who are trained in social and environmental auditing and RBA’s VAP protocols conduct audits on site. Auditors walk through production areas, dormitories, and canteens; interview workers and management; and review policy and procedure documentation. More information about VAP standard protocols can be found on the RBA website.

Suppliers share their audit results with Cisco through the RBA-ONLINE platform. We require regular audits of manufacturing partners every two years. And each year, we audit 25 percent of component supplier facilities that are deemed high risk according to our risk assessment process. In FY19, 75 Cisco supplier facilities conducted RBA initial audits. We estimate these audits covered more than 224,000 workers1 in our supply chain.

Working hours, emergency preparedness, and occupational safety remained the largest percentage of our audit findings in FY19. We also observed multiple findings for new Code requirements. These include accommodations for pregnant and nursing mothers, which were implemented with the latest RBA Code update to 6.0 in January 2018. In FY20, we plan to proactively address prioritized risks outside of the audit program. Read more about these issues here.

In FY19, we began working with a small set of component suppliers to better understand our next-tier supply base. These component suppliers conducted RBA audits of their major suppliers and collaborated with Cisco to monitor supplier improvement. Through this work, Cisco aims to promote conformance to the RBA Code in lower tiers of the supply chain where there is greater risk to workers and the environment.

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1 Includes our Manufacturing and Components suppliers only.

### Table 6. Self-assessment questionnaire coverage by supplier type

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>FY19 Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing partners</td>
<td>100%</td>
</tr>
<tr>
<td>Components suppliers (by spend)</td>
<td>80%</td>
</tr>
<tr>
<td>Logistics suppliers</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 7. Audits conducted by supplier type

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing partner facilities</td>
<td>22</td>
<td>12</td>
<td>17</td>
<td>18</td>
<td>4</td>
<td>13</td>
<td>8</td>
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<tr>
<td>Component supplier facilities</td>
<td>30</td>
<td>22</td>
<td>29</td>
<td>37</td>
<td>49</td>
<td>47</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>34</td>
<td>46</td>
<td>55</td>
<td>53</td>
<td>60</td>
<td>75</td>
</tr>
</tbody>
</table>
### Table 8. Number of RBA audit findings by category for all audits in FY19

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Component Supplier Findings</th>
<th>Total Contract Manufacturer Findings</th>
<th>Findings Identified as Priority</th>
<th>Findings Identified as Major</th>
<th>Findings Identified as Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>207</td>
<td>43</td>
<td>20</td>
<td>142</td>
<td>88</td>
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<tr>
<td>Freely chosen employment</td>
<td>29</td>
<td>4</td>
<td>4</td>
<td>17</td>
<td>12</td>
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<tr>
<td>Young workers</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Working hours</td>
<td>127</td>
<td>27</td>
<td>16</td>
<td>87</td>
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<tr>
<td>Wages and benefits</td>
<td>28</td>
<td>8</td>
<td>0</td>
<td>24</td>
<td>12</td>
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<td>Humane treatment</td>
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<td>0</td>
<td>0</td>
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<td>1</td>
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<td>Nondiscrimination</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>6</td>
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<tr>
<td>Freedom of association</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Health and Safety</td>
<td>192</td>
<td>23</td>
<td>8</td>
<td>145</td>
<td>62</td>
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<td>Occupational safety</td>
<td>52</td>
<td>6</td>
<td>0</td>
<td>49</td>
<td>9</td>
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<tr>
<td>Emergency preparedness</td>
<td>75</td>
<td>7</td>
<td>6</td>
<td>52</td>
<td>24</td>
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<tr>
<td>Occupational injury and illness</td>
<td>24</td>
<td>3</td>
<td>1</td>
<td>16</td>
<td>10</td>
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<td>Industrial hygiene</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>3</td>
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<tr>
<td>Physically demanding work</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Machine safeguarding</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Food, sanitation, and housing</td>
<td>20</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Health and safety communication</td>
<td>8</td>
<td>2</td>
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<td>Environmental</td>
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<td>45</td>
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<td>Environmental permits and reporting</td>
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<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
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<tr>
<td>Pollution prevention and resource reduction</td>
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<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
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<td>Hazardous substances</td>
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<td>3</td>
<td>0</td>
<td>21</td>
<td>5</td>
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<tr>
<td>Solid waste</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Air emissions</td>
<td>10</td>
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<td>0</td>
<td>9</td>
<td>3</td>
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<tr>
<td>Materials restrictions</td>
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<td>0</td>
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<td>1</td>
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<tr>
<td>Water management</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Energy consumption and greenhouse gas emissions</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Category</td>
<td>Total Component Supplier Findings</td>
<td>Total Contract Manufacturer Findings</td>
<td>Findings Identified as Priority</td>
<td>Findings Identified as Major</td>
<td>Findings Identified as Minor</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------</td>
<td>-------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Ethics</td>
<td>26</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Business integrity</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>No improper advantage</td>
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### Table 9. Audit findings by country

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<td><strong>Total</strong></td>
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<td><strong>215</strong></td>
<td><strong>63</strong></td>
<td><strong>28</strong></td>
<td><strong>94</strong></td>
<td><strong>650</strong></td>
<td><strong>75</strong></td>
<td><strong>36</strong></td>
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Corrective Action Plans

We aim to help suppliers build their capabilities and adhere to our Code of Conduct. When an audit identifies nonconformances, suppliers must develop Corrective Action Plans (CAPs). In this process, suppliers identify the root cause for the nonconformance and develop an action plan with proposed changes to policies, procedures, worker training, or communications. They also propose key performance indicators to measure the effectiveness of their actions. Plans are submitted to Cisco and approved only if they meet our requirements.

If a CAP does not meet our requirements, Cisco coaches them in root cause analysis using best practice frameworks, such as the 5 Whys or Fish-Bone mapping. This work drives lasting positive change by addressing the root cause rather than implementing short-term fixes.

Supplier CAPs must adhere to Cisco deadlines. These are informed by the RBA Validated Assessment Program (VAP) Protocol. Suppliers must close findings within a time frame between 30 days to nine months. The time frame depends on the severity of the finding. We consider findings closed after we review revised policies and procedures and evidence confirming they have been implemented successfully. As needed by the RBA VAP protocol, we conduct closure audits. Third-party auditors conduct these audits on site. In FY19, we assessed the effectiveness of our CAP management. We found an inconsistency in how we define closure rate. Before, if a previous finding was still open at the time of an audit, it was closed and reflected as a new finding in the new audit. This essentially restarted the time suppliers had to resolve it. Now, we’ve revised our definition to account for repeat findings in successive audits. This new approach more accurately reflects persistent issues. We’ll report our findings in this way going forward.

Counting these repeat findings as still open, our on-time closure rate in FY19 was 92 percent. Overall, we closed 94 percent of priority and major findings scheduled for closure in FY19. Many of the findings that we did not close involved specific permits awaiting government approval, but whose related activities did not pose particular risk.

Figure 13.
Helping suppliers improve

Cisco uses audits to identify potential problems.

 Suppliers produce Corrective Action Plans and evidence that they have implemented their plans.

 Suppliers must address priority issues within 30 days and all other findings within 180 days.

 For issues such as the monitoring of working hours, suppliers provide long-term improvement plans.

 Cisco works closely with suppliers until performance improves. We conduct follow-up audits if needed.

1 Excluding working hours and social insurance. See “Working hours and days of rest” for more information.
**Figure 14. Key audit findings and actions taken across the globe**

Here are some of the most common priority audit findings in FY19, including findings for issues that are persistent and challenging.

### Finding: Exit discharge and exit route doors did not meet legal/RBA requirements. Facilities were also missing emergency exit lighting and directional signs.

**Action plan**
- Install correct exit doors, signs, and lights
- Develop and implement procedures for routine inspections
- Update and train workers in new emergency procedures

**Context**
Facilities didn’t know about updated RBA Code requirements, which specify that emergency discharge doors must be opened by single motion.

### Finding: More than 60 hours were worked in a workweek, with overtime exceeding local law. In addition, workers did not receive at least one day off every seven days.

**Action plan**
- Establish limits and procedures for approving overtime
- Recruit and cross-train more workers
- Strengthen shift and production planning
- Improve production efficiency and automation

**Context**
Working hours, workers’ needs, variable production cycles, and lead times can be complex to balance. Read more [here](#).

### Finding: Dispatch workers were not enrolled in social insurance programs, and social insurance coverage did not meet local requirements.

**Action plan**
- Enroll all workers in social insurance programs
- Ensure wage deductions for social insurance programs are calculated in line with local law
- Communicate changes and efforts to meet legal requirements to workers

**Context**
Chinese social insurance standards and exemptions differed across local jurisdictions. In 2019, China centralized authority to the national tax bureau and standardized contribution calculations. We expect to see the trend shift as this law takes effect.

### Finding: Suppliers did not have policies or procedures to mitigate risk of forced or bonded labor. Some workers paid fees ranging from 5 percent to more than 150 percent of gross monthly wages to obtain employment.

**Action plan**
- Reimburse affected workers
- Create policies and procedures to prohibit forced labor and fees for work
- Ensure labor agents follow RBA’s Definition of Fees

**Context**
The majority of issues regarding fees involved one-time fees paid by a large portion of the workforce for health checkups. These amounted to less than 5 percent of monthly gross salary.
### Capability building

Training and building the capabilities of our suppliers is necessary to make lasting improvement to working conditions. Some suppliers require more coaching and monitoring than others. This depends on the maturity of their programs and the complexity or severity of issues discovered in audits.

Cisco may coach suppliers or assign e-learning courses delivered through RBA’s e-Learning Academy. We assign courses according to the supplier’s audit findings to help them gain understanding of requirements and build more effective CAPs.

In FY19, 31 unique courses were completed by staff at 18 factories. The factory managers at those sites, who had not previously accessed the e-Learning Academy, collectively completed more than 130 assigned courses, which included fire safety, health and safety management systems, and working hours.

### Holding suppliers accountable

Supplier scorecards help us manage and maintain supplier conformance to Cisco’s requirements and standards. The supplier scorecard is used in Cisco’s Supply Chain Operations for overall performance monitoring. It also informs supply chain sourcing and procurement decisions. In the sustainability section of the scorecard, we score suppliers for completing required activities. These include conflict minerals reporting, audits, CAP management, pollution prevention activities, and CDP and waste reporting. They also receive points for strong audit performance, closing findings on time, and having a high percentage of Responsible Materials Assurance Process (RMAP)-conformant smelters in their supply chain. Having sustainability metrics alongside cost, quality, and service delivery allows managers to make informed decisions when awarding business to suppliers.

Multiple teams collaborate to hold suppliers accountable to Cisco’s sustainability standards. We routinely inform managers and executives of suppliers’ performance. If a supplier fails to meet Cisco’s policies or specifications, we escalate the issue through management, including to the senior executive of supply chain when necessary. Priority audit findings and forced labor allegations are reviewed in executive committees such as the Supply Chain Human Rights Governance Committee.

### Human rights in the supply chain

We initiated the Supply Chain Human Rights Governance Committee in FY19 to help us make progress against our priorities (see callout). This committee establishes executive oversight of human rights risks and opportunities within the supply chain. It also allows us to integrate human rights policies and priorities into business operations. The committee convenes our Senior Vice President of Supply Chain Operations with other executives representing Global Manufacturing Operations, Global Supplier Management, Technology & Quality, Supply Chain Transformation, and Legal.

Supply chain employees, such as operations managers and sourcing and procurement specialists, have the potential to encounter human rights-related challenges in their work. We continuously educate employees, and in FY20 we will launch a new supply chain human rights compliance training. It will highlight the importance of the Supplier Code of Conduct to address serious risks such as forced labor through debt bondage, freedom of movement, young workers and child labor, and ethical sourcing of minerals.
Freely chosen employment

Freely chosen employment and forced labor remain salient issues that Cisco monitors carefully and addresses with suppliers as necessary. Cisco upholds the RBA Definition of Fees to minimize the risk of debt bondage. The policy requires that workers do not pay fees to obtain, maintain, or leave employment. Cisco also works to ensure that workers do not experience unreasonable restrictions to their freedom of movement. We require suppliers to mitigate risks that could potentially lead to forced labor conditions. They must also remediate impacts to workers affected. You can read an overview of Cisco’s process for addressing forced labor risks in our Statement on the Prevention of Slavery and Human Trafficking.

During FY19, supplier audits uncovered nonconformities to our Code of Conduct for Freely Chosen Employment. These indicated risks for forced labor or bonded labor. We found workers in China who paid one-time medical exam fees of less than 5 percent of their monthly salary. Cisco’s audits also uncovered cases of excessive recruitment fees charged to foreign migrant workers. During FY19, Cisco oversaw suppliers’ reimbursement of about $400,000 in health check and recruitment fees to 2,150 workers. To make lasting improvements, Cisco will monitor and coach suppliers across multiple years if needed.

One such case involves concerns about nonconformant labor practices and conditions at a supplier’s operations. The concerns were raised in FY18, and Cisco worked with the supplier through FY19 to resolve them. Cisco first commissioned a thorough investigation to assess the supplier’s conformance to Cisco’s Code, local laws, and international standards on ethical recruitment and employment. The investigation identified foreign migrant workers who had paid excessive relocation costs. Some workers struggled to understand the terms of their contracts and disciplinary proceedings due to lack of written communication in a language they understood. Also, the facility’s labor agencies had various nonconformances to the RBA Code. As part of corrective actions, Cisco

Cisco encourages third-party stakeholders and employees to report concerns of misconduct or suspected violation of any of Cisco’s policies using the Cisco EthicsLine. We take any concerns of alleged misconduct very seriously and resolve these concerns promptly. In FY19, Cisco did not receive any such reports relating to human rights issues within the supply chain.
We’re dedicated to improving cases like these. Working with the RBA on workgroups like the Responsible Labor Initiative, and with other RBA members, remains an important aspect of addressing serious human rights issues.

Young workers and child labor

Protecting the rights of young workers within Cisco’s supply chain is an important priority. Our standards for protecting workers under the age of 18, including the types of work they cannot perform, are outlined in the Juvenile Labor Guidance Document.

In FY19, Cisco did not observe any cases of young workers at risk or any cases of underage child labor. However, audits identified suppliers who did not have written procedures to address underage child labor if children were to be discovered working on site. In these cases, Cisco works with suppliers to close gaps. We help them strengthen their management systems so they can responsibly resolve these issues if they occur.

We know that freely chosen employment and young workers are salient human rights issues in technology supply chains. That’s why in FY19, Cisco strengthened its due diligence processes on these topics. We conducted a focused assessment of manufacturing and component suppliers with vulnerable worker populations such as migrant workers, young workers, interns, and student workers. We used the results of this assessment to prioritize suppliers for engagement beyond our normal audit processes and assess their policies and practices. We will be working with those suppliers to further identify and address potential risks during FY20.

Ethical sourcing of minerals

Cisco products, like most electronics, contain tantalum, tin, tungsten, and gold. These minerals, known as 3TG, are mined around the world. 3TG are sometimes known as “conflict minerals” because of concerns about their mining and sale contributing to armed conflict and human rights abuses in the Democratic Republic of the Congo. Cisco does not procure minerals directly from mines or the smelters or refiners (SORs) that process them. However, we are committed to upholding and respecting human rights for all people, including those who work in the earliest parts of our supply chain. Our goal is to work collaboratively with suppliers to source minerals consistent with our values around human rights, business ethics, labor, health and safety practices, and environmental responsibility. This approach includes sourcing responsibly from conflict-affected and high-risk areas. Our full commitment, informed by the UNGPs, is captured in our Responsible Minerals Policy. Our activities are aligned to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.
Industry collaboration

Because Cisco does not buy 3TG directly from SORs, we collaborate with our suppliers to conduct due diligence for responsible mineral sourcing. We also work across our industry to develop tools and practices to support due diligence. We use the Responsible Minerals Initiative (RMI) Conflict Minerals Reporting Template (CMRT) to survey suppliers, review SORs they report, and request them to work through their supply chains to shift sourcing to SORs conformant with RMI’s Responsible Minerals Assurance Process (RMAP).

Cisco also participates in RMI working groups to help develop best practices and standards that increase the availability of responsibly sourced minerals. Our participation will increase in FY20. We’ll contribute to the Smelter Engagement Team, which performs research on and outreach to SORs to engage them in the RMAP process. We’ll also participate in the Mining Engagement Team, which works with upstream stakeholders to increase the quantity and quality of data that enables downstream companies to identify and mitigate risks.

After Cisco analyzes supplier CMRTs, we address any identified risks. This includes working with suppliers to remove non-RMAP-conformant SORs from the supply chain. We set the highest priority on SORs that meet Cisco’s definition of high risk. Through the Supply Chain Human Rights Governance Committee, we regularly notify Cisco’s supply chain leadership of our progress. If a supplier does not attempt to comply with our Responsible Minerals Policy, we may escalate the supplier to global supply chain management and possibly remove them from our supply chain.

In 2018, 81 percent of the identified 3TG SORs for current products had been audited by or were active in the RMAP process. For more information, see Table 10. The Conflict Minerals Disclosure and Report, published in May 2019, describes in detail how our due diligence activities align to OECD Guidance.

Beyond “conflict minerals”

Demand is increasing for accountability and transparency regarding human rights in global mineral supply chains. This extends beyond the DRC and beyond 3TG to minerals like cobalt. Cisco is committed to addressing these issues by extending our existing due diligence practices. In FY20, Cisco will initiate our first Cobalt Supplier Survey, using the RMI’s Cobalt Reporting Template (CRT) to survey lithium-ion battery suppliers.

RMI has expanded its RMAP audit process beyond the DRC and surrounding countries to include due diligence on all conflict-affected and high-risk areas (CAHRAs). In FY19, Cisco contributed to the RMI’s Upstream Due Diligence Smelter Fund. Our goals with this contribution are to:

- Support smelters making the transition to broader due diligence requirements
- Promote the adoption of RMAP assessment protocols beyond central Africa and into other CAHRAs
- Offset the due diligence cost of sourcing responsibly from CAHRAs and support peaceful economic activity in those regions

Table 10. Total smelters and refiners, by conflict mineral (CY2018)

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Advancing transparency through blockchain

Cisco recognizes a need to build upon current industry standards and increase the accuracy with which downstream companies report on the origin of their materials. As a contributor to RMI’s blockchain working group, we are exploring opportunities to leverage blockchain technology to provide enhanced transparency and trust. This includes valid data on the extraction, processing, and transportation of 3TG materials in Cisco products and the ability to share the collected data across the various actors in the supply chain.

In FY18, we worked with industry peers and a large-scale mining company to design and test prototypes at a small-scale mine in Africa. In FY19, we started the next phase of this project by initiating a blockchain pilot in Peru. The goal of this project is to learn how data generated in the mines at the start of the supply chain can support downstream companies to execute their responsible sourcing strategies. We also aim to understand how the value of that data can be returned to mining communities and drive peaceful economic development.

Health and safety

Protecting workers’ health and safety and providing workers with safe working conditions is part of our human rights commitment and priorities. During FY19, our team conducted a multiyear analysis of nonconformances to Cisco’s Code. We observed a trend of health- and safety-related nonconformances in chemical management, emergency preparedness, and reasonable accommodations for pregnant and nursing mothers. To address these trends, Cisco sought tools and resources that could help identify risks outside of regular RBA audits.

Suppliers struggled to conduct risk assessments related to chemical handling and containing and storing chemicals to prevent exposure to workers and the environment. Cisco expects suppliers to evaluate, control, and prevent worker exposure to chemicals according to a hierarchy of controls and provide workers with adequate training and personal protective equipment. In FY19, Cisco became a pilot partner of the Clean Electronics Production Network (CEPN). CEPN is a multistakeholder network with the goal to address workers’ exposure to toxic chemicals during electronics manufacturing. In FY20, Cisco will pilot CEPN’s Qualitative Exposure Assessment (QEA) tool with select component suppliers to identify what controls are in place to address chemical exposure risks. Cisco will use the results of that assessment to engage component suppliers to mitigate risks.

In addition, to address the frequent audit findings in adequate emergency preparedness, fire safety, and providing reasonable accommodations for pregnant and nursing mothers, Cisco will pilot an on-site spot check program. Cisco employees who regularly visit supplier factories will be trained to check for visible evidence of supplier conformance to these requirements. The goal is to get additional insight into supplier performance beyond audits and prevent recurring nonconformances. Cisco will work with suppliers to address any management systems gaps and promote continuous improvement.
Conducting these pilots is a first step toward engaging suppliers on issues beyond our audit program and providing opportunities for Cisco to better identify, assess, and address risks to workers’ health and safety within the supply chain.

Working hours and days of rest

Working hours and days of rest is a chronic issue in the electronics industry supply chain and our most frequent audit finding category. Cisco works with suppliers to thoroughly uncover root causes during the CAP review process, develop changes to workforce management systems, and monitor long-term improvement plans. As we drive progress, we consider the time it takes suppliers to:

- Recruit new workers to reduce the total workforce’s average working hours
- Cross-train and license workers so they can rotate to roles with workforce shortages

Cisco tracks progress of suppliers with priority nonconformances monthly until the finding is downgraded to a major nonconformance. Before determining a nonconformance as ready to close, Cisco conducts a document review of at least three months of average working hours data. Our goal is to structure solutions so that nonconformances do not recur in the next seasonal production cycle or wave of workforce attrition. However, corrective actions often take longer to implement than RBA’s recommended closure guidelines. We do not include working hours nonconformances when calculating closure rates. This allows us to focus on adequately addressing root causes, rather than implementing short-term solutions. As part of our long-term commitment, Cisco will delve deeper into this issue during FY20 to see how we can drive systematic improvement.

Promoting reskilling for the future of work

Cisco’s socioeconomic research has examined how technologies such as automation, IoT, and artificial intelligence can impact the global workforce. As manufacturing evolves in our supply chain, Cisco has been working to understand how the shift toward more automation will affect workers within the supply chain. In FY19, Cisco and supplier partners collaborated on how to make sustainable workforce investments to build a more resilient workforce ready to address the future of manufacturing. Collaboration to develop a pilot is ongoing and will continue through FY20.

Supplier diversity

Creating a responsible supply base includes creating opportunities for diverse-owned businesses. We actively seek diverse businesses to supply us with goods, services, and labor. Why does supplier diversity matter? In some countries, it’s a requirement. Diversity is also a mandate from many of our customers. For example, the U.S. federal government encourages its vendors to source from domestic businesses owned by citizens from the following disadvantaged groups:

- Small business
- Women-owned business
- Minority-owned business
- Veteran-owned business
- Service-disabled veteran-owned business
• Disabled veteran-owned business
• Historically underutilized business (HUB) zone

While LGBT-owned businesses do not fall under the U.S. federal government guidelines as a disadvantaged group, we track inclusion of these businesses, as well. Over 100 customers request Cisco’s diversity spend each quarter, and this number continues to grow. In FY19, we adopted a standard format for sharing this information.

Promoting diversity is more than compliance, however. It’s no easy task for a company of Cisco’s size to elevate supplier diversity among other priorities. But doing so helps us better connect with our global base of customers and employees. In addition, research shows that diverse suppliers regularly meet or exceed customer expectations. Cisco’s work was recognized in FY19 at the Procurement Leaders’ Americas Procurement Congress event. We were also on the short list for the World Supplier Diversity & Inclusion Awards.

We participate in professional organizations to help us further engage with diverse-owned businesses. In FY19, we focused our participation with regional and global organizations. Lastly, Cisco participates in the National Minority Supplier Development Council and Women’s Business Enterprise National Council conferences. Current memberships include:
• Carolina Virginia Minority Supplier Development Council
• NC Morrisville Chamber of Commerce
• North Carolina Veterans Business Association
• Technology Industry Group
• WEConnect International
• Western Regional Minority Supplier Development Council

Making diversity visible
Before a category manager can choose a diverse supplier, they must first be aware that such a supplier exists. Cisco has procurement tools and processes that help us do this. This approach helps us create a stronger pipeline for long-term diverse supplier spend.

For example, when internal clients in the U.S. search for augmented staff, they receive a list of preferred suppliers. Of these lists, 99 percent include at least one diverse supplier. And these diverse suppliers win 27 percent of bids. In the U.K. and India, 91 percent and 97 percent, respectively, of contingent labor job postings include a woman-owned business.

Cisco’s supplier diversity program is a win-win for Cisco and suppliers. It provides the needed advocacy and advice to our suppliers. And Cisco benefits from the diverse talent and skills.”

Swati Saran, Vice President, Customer and Partner Experience, Cisco
Helping suppliers maximize their potential

How better to help suppliers succeed than by connecting them with Cisco leaders? This was the idea behind an executive sponsorship program for Cisco’s top U.S. diverse suppliers. Through this program, 26 U.S. Cisco executives paired with 26 diverse suppliers. They met at least quarterly for 18 months. The goal of the program was for diverse suppliers to:

- Build a structured relationship within Cisco
- Better understand Cisco’s culture and priorities
- Receive coaching and feedback

The first round of this program ended in FY19. And it delivered on every measure.

- Scores on Supplier Performance and Recognition (SPAR) surveys increased for each of the last four quarters of the program
- Suppliers reduced their financial risk and revenue reliance on Cisco
- Seven new sponsorees earned preferred supplier status

All in all, with an 88 percent response rate, all diverse sponsorees found the sponsorship program valuable and said it helped them better understand how to work with Cisco. This program aligns with our Multiplier Effect pledge—a call for Cisco leaders to help diverse individuals advance in their careers. A second cohort of this program has begun and now includes suppliers in the U.K. and India.

Supporting women business owners

Women face work-related barriers in all parts of the world. As a result, the global expansion of our supplier diversity program focuses on women-owned businesses. Cisco partners with WEConnect International, an organization that builds capacity among women business owners. It also connects women-owned businesses with potential corporate buyers.

Over the past year, we kicked off this partnership with events in Bedfont Lakes, U.K., and Bangalore, India. Steering committees in both locations will help us engage with local businesses.

Supplier Day Diversity Award

Our Supplier Day Diversity Award recognizes suppliers who share Cisco’s commitment to inclusion and deliver high customer satisfaction. The 2019 winner was Akraya, a minority woman-owned consulting and staffing supplier. The company created Women Back to Work, a program that makes it easier for professional women to return to the workforce after a hiatus. Akraya is also committed to giving back. They support the India Project Race for Literacy and the Saranalayam Orphanage, and participate in local Habitat for Humanity builds. Akraya is a member of the Institute for Economic Empowerment of Women and Silicon Valley Leadership Group.
Planet

Advancing environmentally sustainable growth in a digital world

We are committed to:

- Environmental sustainability approach  137
- Supplier environmental performance  150
- Energy & GHG emissions  156
- Product & packaging materials  182
- Other topics  197
**Goal:**
Reduce total Cisco Scope 1 and 2 GHG emissions worldwide by 60 percent absolute by FY22 (FY07 baseline)

**Our progress:**
We are investing in energy efficiency and renewables to meet this FY22 goal.

![Graph showing percentage progress](image)

82% of goal achieved

---

**Goal:**
Avoid 1 million metric tonnes of GHG emissions in our supply chain from FY12 to FY20

**Our progress:**
Smart supply chain decisions across the organization helped us achieve and exceed this goal one year ahead of schedule.

![Graph showing percentage progress](image)

115% of goal achieved

---

**Goal:**
Improve large rack-mounted equipment system power efficiency—as measured from the input power from the facility to the board-mounted ASICs, memory, and other chip devices—from 77 percent to 87 percent by 2022 (using FY16 baseline)

**Our progress:**
By driving energy efficiency into our largest-energy-consuming products, we’re making steady progress toward our goal.

![Graph showing percentage progress](image)

98% of goal achieved
Figure 1. 2019 Planet dashboard (continued)

Key performance metrics

100% of electricity used at North American facilities is generated from renewable energy sources

600+ employees are members of the Cisco Green Team Network

19.4 GWh of energy avoided in our internal operations through energy efficiency and renewable energy projects

191.5 metric tonnes of used electronics collected at Recycle IT Day 2019

Circular economy goals:

- 80 percent of Cisco component, manufacturing, and logistics suppliers by spend will have a public, absolute GHG emissions reduction target by FY25.
- 70 percent of Cisco component and manufacturing suppliers by spend will achieve a zero waste diversion rate at one or more sites by FY25.
- Reduce Cisco supply chain-related Scope 3 GHG emissions by 30 percent absolute by FY30 (FY19 base year).
- Decrease use of virgin plastics by 20 percent by FY25 (FY18 base year).
- Reduce all foam used in Cisco product packaging by 75 percent measured by weight, by FY25 (FY19 base year).
- Increase product packaging efficiency by 50 percent by FY25, as measured by package volume per weight of product (FY19 base year).
- Design all new products using circular design principles by FY25.

Learn more about our goals in Table 3.

1According to current standard definitions used in certification protocols, “zero waste” diversion is defined as a 90 percent or greater overall diversion of solid, nonhazardous wastes from landfill, incineration (waste-to-energy), and the environment. Diversion methods can include reduction, reuse, recycling, and/or compost.
Cisco has set environmental goals since 2006, and continues to set goals aligned with our most material issues.

Three executives sponsor our energy and GHG emissions initiatives. This arrangement reflects the complexity of an issue that affects our operations, supply chain, and products.

Our enterprisewide circular economy program operates under a dedicated program management office.

We use life-cycle assessments (LCAs) to estimate the GHG emissions associated with the different life-cycle stages of our products and to help prioritize the best ways to reduce these emissions.
This chapter is designed to be a comprehensive reference for environmental sustainability information published by Cisco. We provide information either directly in this report or via a hyperlink to information on cisco.com or another publicly accessible resource. Appendix IV lists all hyperlinks in this chapter. If you have questions, contact us using the “feedback” link in the lower left corner of every page of this report.

The first major section of this chapter is Environmental Sustainability, which covers topics such as our environmental management system (EMS). The remaining major sections address environmental topics using the terminology from the Global Reporting Initiative (GRI) Standards. Topic names used within this chapter map to the GRI Standards, but their names are aligned to the specifics of Cisco’s business, as shown in Table 1.

There are two significant differences between our report headings and GRI topics. First, we group energy and a subset of emissions—greenhouse gases (GHG)—under a single heading. We also use the term “waste” to refer to operational waste from our labs and offices. It does not include Cisco product production. See Product & packaging materials for more information on used Cisco products and how we’re implementing circular economy principles.

Table 1. Mapping between GRI Standards topics and CSR Report sections

<table>
<thead>
<tr>
<th>GRI Topic-Specific Standard</th>
<th>Related Planet Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>301: Materials</td>
<td>Product &amp; packaging materials</td>
</tr>
<tr>
<td>302: Energy</td>
<td>Energy &amp; GHG emissions</td>
</tr>
<tr>
<td>303: Water and effluents</td>
<td>Water Effluents (liquid)</td>
</tr>
<tr>
<td>304: Biodiversity</td>
<td>Biodiversity (including land use)</td>
</tr>
<tr>
<td>305: Emissions</td>
<td>Non-GHG emissions</td>
</tr>
<tr>
<td>306: Effluents and waste</td>
<td>Effluents</td>
</tr>
<tr>
<td></td>
<td>Solid waste from operations (“trash”)</td>
</tr>
<tr>
<td>307: Environmental compliance</td>
<td>Environmental sustainability approach</td>
</tr>
<tr>
<td></td>
<td>Environmental compliance</td>
</tr>
<tr>
<td>308: Supplier environmental assessment</td>
<td>Environmental sustainability approach</td>
</tr>
<tr>
<td></td>
<td>Supplier environmental performance</td>
</tr>
</tbody>
</table>
CSR materiality assessment: Environment

In FY19, a review completed by an independent consultancy confirmed that our environment-related priorities remain:

- Energy and GHG emissions, with a focus on energy consumption and GHG emissions from our operations and those of our suppliers, as well as from use of our products.
- Product and packaging materials, focusing on material resource efficiency, and waste from our operations and extended operations (supply chain).

Environment-related topics are ranked in Table 2 based on stakeholder input and our sustainability materiality assessment. The top two issues are addressed through initiatives with dedicated funding and program structure, and progress is motivated and measured through publicly announced goals. The remaining environmental issues are also addressed, but through normal, operational due diligence by the responsible business functions. Details of our efforts and performance are provided in the topic-specific sections of this Planet chapter.

A full explanation of Cisco’s materiality assessment process and outcomes can be found in the Governance chapter of this report.

Stakeholder inquiries

Please see the Governance chapter of this report for an explanation of Cisco’s stakeholder engagement activities.

Life-cycle assessments

One way we prioritize our most important environmental issues is through life-cycle assessments (LCAs). LCAs allow us to estimate the GHG emissions and environmental impacts of our products through their entire life cycle. We continue to see that our products consume the largest proportion of energy—and are responsible for the most GHG emissions—during the product-use life-cycle phase.

Our LCAs use the five product life-cycle stages defined by the GHG Protocol in the Product Life Cycle Accounting and Reporting Standard. This is based on the ISO 14040 standard:

- Material acquisition and pre-processing
- Manufacturing
- Transport (distribution and storage)
- Use
- End of life
To support our LCA work, we utilize external tools and data sources, including thinkstep GaBi 7.3 and publicly available data sources, such as the International Energy Agency (IEA); the United Kingdom’s Department for Business, Energy, and Industrial Strategy; and the Greenhouse Gas Protocol.

Much of the electronics industry uses the same components and materials in its products. The Massachusetts Institute of Technology Product Attribute to Impact Algorithm (PAIA) program has developed a collaborative tool to efficiently perform LCAs for GHG impacts. Last year, Cisco joined the PAIA program, which allows us to streamline LCAs by using shared, industry-standard inputs.

We benchmarked the PAIA tool against prior GaBi results by conducting new LCAs on a Unified Computing System (UCS) B200 Blade Server and a 7800-series IP phone using both the GaBi and PAIA tools. The tools provided similar results. We plan to use the PAIA tool going forward as it is a faster, industry-standard method. It allows us to efficiently analyze product GHG life-cycle impacts, which in turn enables us to identify opportunities faster.

The updated LCA analyses we completed in FY19 identified changes over time. For example, updated LCAs of the FY19 IP phone showed that improvements in energy efficiency had reduced the phone’s overall emissions, compared with the existing LCA of the previous-generation Cisco IP phone. At the same time, the proportion of emissions by category remained consistent. Although our phones do not use as much energy

![Figure 2: Breakdown of GHG emissions by life-cycle phase for various Cisco product categories](image-url)

1From FY19 LCA
2From FY08 and FY11 LCA
3Some figures may not total 100 percent due to rounding of underlying data
as our rack-mounted equipment, the long life of an IP phone still leads to a higher proportion of GHG emissions in the use phase, compared to emissions from the other life-cycle phases which are driven more by the weight of the product.

Figure 2 provides a snapshot of GHG emissions by life-cycle phase for a representative sample of Cisco products.

Figure 3 provides a breakdown of GHG emissions by product component type.

Figure 4 breaks out these LCA environmental impact categories by life-cycle phase.

Figure 5 summarizes the relative impact across standard LCA environmental impact categories by component.

The extraction and processing of precious metals like copper and gold required to make printed circuit boards (PCBs) and integrated circuits (ICs) are the primary drivers of all categories of environmental impact, including abiotic depletion, which is the decreasing availability of non-living resources like minerals and fossil fuels. This type of environmental impact is an important consideration for the circular economy. Hard-drive manufacturing processes, including washing and cooling of production chemicals, are the primary drivers of blue water consumption and smog formation, respectively.
Environmental policy

Cisco has developed a series of practices over the last 10 years that guide our environmental efforts. These policies declare our values and inform our decision-making. Our practices are:

- We will eliminate or mitigate our environmental impacts. Cisco accepts responsibility for negative environmental impact from our operations, extended operations (supply chain), and throughout the life cycle of our products.
- We will implement our environmental policies consistently across all Cisco operations and legal entities worldwide, all extended operations, and all products.
- We will govern our environment-related efforts using an externally certified, ISO 14001 EMS.
- We will take a broad approach. The scope of our EMS includes energy and GHG emissions, product and packaging materials, water, biodiversity and land use, solid waste from operations, liquid effluents, and non-GHG emissions.
- We will listen. The earth’s ecosystem is complex, and there is much to be learned from our customers, our employees, advocacy groups, academia, and other stakeholders.

<table>
<thead>
<tr>
<th>Date Announced</th>
<th>Goal Topic</th>
<th>Goal Statement (performance table)</th>
<th>Completed in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2016</td>
<td>Energy/GHG</td>
<td>Avoid 1 million metric tonnes of GHG emissions within our supply chain between FY12 and FY20.</td>
<td>✓</td>
</tr>
<tr>
<td>September 2017</td>
<td>Energy/GHG</td>
<td>1. Reduce total Cisco Scope 1 and 2 GHG emissions worldwide by 60 percent absolute by FY22 (FY07 baseline). 2. Use electricity generated from renewable sources for at least 85 percent of our global electricity by FY22.</td>
<td></td>
</tr>
<tr>
<td>September 2018</td>
<td>Energy/GHG</td>
<td>Improve large rack-mounted-equipment system power efficiency—as measured from the input power from the facility to the board-mounted ASICs, memory, and other chip devices—from 77 percent to 87 percent by FY22 (FY16 baseline).</td>
<td></td>
</tr>
<tr>
<td>October 2018</td>
<td>Product and packaging materials</td>
<td>Decrease use of virgin plastics by 20 percent by FY25 (FY18 base year).</td>
<td></td>
</tr>
<tr>
<td>July 2019</td>
<td>Product and packaging materials</td>
<td>• Reduce all foam used in Cisco product packaging by 75 percent measured by weight, by FY25 (FY19 base year).  • Increase product packaging efficiency by 50 percent by FY25, as measured by package volume per weight of product (FY19 base year).  • 70 percent of Cisco component and manufacturing suppliers by spend will achieve a zero waste diversion rate at one or more sites by FY25.</td>
<td></td>
</tr>
<tr>
<td>August 2019</td>
<td>Energy/GHG</td>
<td>• 80 percent of Cisco component, manufacturing, and logistics suppliers by spend will have a public, absolute GHG emissions reduction target by FY25.  • Reduce Cisco supply chain-related Scope 3 GHG emissions by 30 percent absolute by FY30 (FY19 base year).</td>
<td></td>
</tr>
</tbody>
</table>

1The plastics included in this goal make up the majority of Cisco’s use. However, it excludes plastics contained in commodity components sourced from suppliers (such as printed circuit boards). Most of these electronic components require the electrical insulating property provided by plastics.

2According to current standard definitions used in certification protocols, “zero waste” diversion is defined as a 90 percent or greater overall diversion of solid, nonhazardous wastes from landfill, incineration (waste-to-energy), and the environment. Diversion methods can include reduction, reuse, recycling, and/or compost.

3Preferably in line with an approved science-based methodology (applying either a 1.5 or well below 2°C reduction scenario). Includes suppliers that set intensity targets that produce an absolute emissions reduction during the target period.

4Includes allocated emissions from Cisco’s Tier 1 and Tier 2 manufacturing, component, and warehouse suppliers, and calculated emissions associated with transportation emissions managed and paid for by Cisco. Emissions are allocated based on Cisco’s financial share of the supplier’s reported global Scope 1 and Scope 2 GHG emissions. Transportation emissions will be reported as Upstream Transportation and Distribution according to GHG Protocol methodology because they are paid directly by Cisco.
• We will identify key analysts and advocacy groups and form strong working relationships. This will help us build a consistent, independent, external measure of our environmental performance.

• We will identify our environmental impact through annual sustainability materiality assessments informed by stakeholder listening. We will follow the precautionary principle in establishing priorities and implementing initiatives.

• We will set unambiguous, public goals to drive improvement and demonstrate accountability. Please refer to Table 3, Environmental Goals for more details on our goals and their governance.

• We will annually and publically report our environmental performance, prioritizing full disclosure and the stakeholder perspective.

Environment goals

Our annual sustainability materiality assessment incorporates input and feedback from our stakeholders as well as a technical assessment of the global problem and Cisco’s contribution to both the problem and the solution. In 2006, we announced our first public goal, for business air travel reduction. Since then, we’ve understood the importance of public goals for our most material issues, accompanied by a strong governing protocol. Table 3 lists Cisco’s active goals for our top two material issues in chronological order.

Links in the table’s left-hand column direct to Cisco blog posts announcing each goal. Links in the right column direct to pages of this report where we report performance against the goal. Appendix IV lists our completed goals with a link and page reference to the CSR Report corresponding to the target or completion year.

The governing protocol for our goals is as follows:

• We will publicly announce goals for our top-two material issues.

• We’ll ensure that goal language is detailed and unambiguous.

• We’ll report goal progress annually in the CSR Report with base year and up to five years of performance data, or the goal duration if it is less than five years. We will explicitly display our progress against the goal.
We will keep goal language fixed through the duration of the goal, except in rare circumstances and with full disclosure of the reason for the change. The complete goal is included at least once in any communication about the goal.

An outside body will independently assure reported performance (limited assurance per ISO 14064-3).

Cisco has also made public environmental commitments that are outside of our materiality-driven goal process but provide inspiration for attacking difficult problems that aren’t well suited for a fixed-horizon goal. For example:

- At Davos in January 2018, CEO Chuck Robbins committed to 100 percent product return, pledging that Cisco will take back used equipment upon request from any customer, expand tools and incentives to promote that practice, and grow our reuse of equipment through remanufacturing, refurbishment, and repair (Capital Equipment Pledge from World Economic Forum).
- At our RTP campus, we are piloting techniques to become water-neutral and zero-waste.
- Our recycling partners will maintain a diversion rate to landfill of less than 0.38 percent by weight of all material received.
- Cisco has set goals that have been approved by the Science-Based Targets initiative.

**Organization**

Governance of our environment program has evolved as sustainability has become better integrated into the business, especially as a result of heightened interest from the investor and analyst community.

More than a decade ago, our Stewardship Council, as a large, inclusive, cross-functional gathering, primarily served an educational function. It helped executives and organizations learn about various kinds of environmental impacts and Cisco’s role in the earth’s ecosystem. As our sustainability materiality assessments became more sophisticated, we migrated to a Sustainability Executive Team (SET), which was smaller and more focused on initiatives for our most material environmental topics. As our sustainability efforts continued to mature and our initiatives became increasingly integrated into our business, management and governance were further split into two pieces corresponding to our two most material environmental issues: energy/GHG and product and packaging materials. Governance related to product and packaging materials is fully embedded within our Circular Economy program.

**Energy/GHG emissions**

Three executives sponsor our energy and GHG initiatives. This structure reflects the multipronged nature of the issue affecting operations, extended operations (supply chain), and our products.

- Irving Tan, Executive Vice President, Chief of Operations (COO) is the executive sponsor for all initiatives impacting operations, including Scope 1 and 2 emissions reduction, renewable energy, water conservation, and waste reduction, and our response to the annual CDP climate change questionnaire.
- John Kern, Senior Vice President, Supply Chain Operations is the sponsor of initiatives related to supplier operations’ energy efficiency and GHG emissions reduction.
- Marco Crocci, Senior Vice President, Hardware Engineering, along with two Cisco Fellows, sponsors product power architecture and product energy efficiency efforts.
**Circular economy**

In FY18, Cisco launched an enterprisewide circular economy program. The program extends from how we design, build, and deliver products, to how we value the assets we have and turn them into new products. We also apply Cisco technology to support our customers in their own circular transformations.

Our circular economy initiatives are focused in five major areas (see Figure 6):

- **Circular operations.** Reduce or use renewable and recovered inputs throughout our operations.
- **Circular design.** Design for product and packaging circularity, repair, and reuse; use recycled and closed-loop material inputs; and direct used materials to become new inputs for production.
- **Circular consumption.** Cycle refurbished and remanufactured product for multiple uses, leverage partners, and deploy as-a-service models. This area includes Cisco’s trade-in, takeback, and recycling programs.
- **Circular solutions.** Shape and pioneer technology-driven solutions and services to enable circular economy value creation for customers.
- **Ecosystem leadership.** Advance the circular economy through industry innovation, collaboration, and public policy.

Cisco’s circular economy program operates under a dedicated program management office under the executive sponsorship of John Kern. The team runs multiple levels of governance bodies and cross-functional working groups to establish and achieve strategic priorities across the company. These include:

- **Circular Economy Executive Change Network.** Champions Cisco’s holistic circular economy vision; drives engagement and business alignment.
- **Operational Leadership Committee.** Responsible for making decisions, taking accountability, influencing, and allocating resources for circular economy end-to-end at Cisco.
- **Circular Consumption Steering Committee.** Responsible for driving strategic initiatives to advance product returns and reuse. The committee operates cross-functionally, and is accountable for metrics and financials, allocating resources, and consulting key advisory functions on both systems and process changes.
- **Working Groups.** Responsible for initiating, implementing, and managing specific circular economy projects; organized by pillar.
- **Circular Economy Regional Leader Network.** Responsible for championing our vision within their regions, facilitating local engagement, and providing business support.

Further details on our circular economy program, including our goals and initiatives, can be found throughout this report and on our website.
Design for environment

The goal of Cisco’s Design for Environment (DfE) program is to incorporate environmental design principles into each of our products and manufacturing processes so fewer raw materials are used, less packaging is needed, and product refurbishment and recycling are more feasible and effective. Because Cisco products can be in service for a decade or more, seeing the impact of these changes takes time. With each new generation of product, we are able to increase the percentage of products designed to the latest DfE principles.

Cisco’s approach focuses on the following areas:

• Energy efficiency (with a goal to improve system power efficiency of large rack-mounted equipment from 77 percent to 87 percent by 2022 (FY16 baseline))
• Reduction of hazardous materials
• Design for upgradability and longevity
• Recycling markings on plastic components (ISO 11469, formerly SPI codes) for ease of sorting during recycling
• Packaging and fulfillment (reduction of materials and package volume as well as logistics impacts)
• Ability to opt out of product accessories not needed (power cords, cables)
• Use of recycled content materials and materials with less environmental impact
• Standardized and modularized components and enclosures, which allow us to reduce use of unique components on each product
• Design for disassembly, repair, and reuse, using easily separable components with similar materials to facilitate recycling and reusable components

Both formal requirements (for example, ECMA-TR/370) and best practices developed within our business inform Cisco’s DfE principles. In FY19, we updated our DfE principles to align with Cisco’s commitment to the circular economy while also aligning with evolving customer requirements and industry and regulatory trends.

We’ve also built on our DfE principles to form a holistic circular design strategy focused on five main areas:

• Material selection
• Standardization and modularization
• Sustainable packaging
• Energy
• Design for disassembly, repair, and reuse

We aim to make these principles part of our design DNA by integrating them seamlessly into our design practices. From these principles, we launched a goal committing that 100 percent of new Cisco products will incorporate our circular design principles by 2025. In support of this goal, in FY20 we will launch our Circular Design Working Group to bring together relevant stakeholders to continually develop and implement these principles in our products. For examples of work we’ve done, see Table 21.

Key ratings and rankings

Please see the Governance chapter of this report for a discussion of key Cisco ratings and rankings.
Environmental management system

Cisco’s ISO 14001 Environmental Management System (EMS) is a global framework. It relies on individual accountability, management responsibility, measurement of key performance indicators (KPIs), and a continuous improvement philosophy to meet business and environment goals and drive environmental performance. Cisco’s Corporate Environmental Policy outlines Cisco’s high-level environmental framework that helps make our EMS so successful, driving Cisco’s environmental performance. The EMS is certified by TUV SUD America Inc. to the international EMS standard ISO 14001:2015.

We select Cisco sites for ISO 14001 certification based on criteria including:

- Facility size and lab area
- Building headcount capacity or persons housed
- Primary facility function

These criteria focus on sites with the greatest potential to reduce negative environmental impacts and enhance positive impacts. Once we’ve selected a site for certification, we evaluate its associated impacts, including corporate functional areas; associated products, activities, or services at that location; and the environmental impacts associated with the generation or use of materials, impacts on air and water, and depletion of natural resources. Using this information, we calculate an environmental score to further help us prioritize facilities and issues. Each site aligns with Cisco’s corporate sustainability priorities, in addition to site-specific goals. Cisco continually assesses existing sites and acquisitions against the certification criteria and incorporates them into the ISO 14001 certification roadmap to meet business and customer needs. Figure 7 shows Cisco’s global ISO 14001 certified site locations.

Scope and implementation

Cisco’s ISO 14001 certified sites are audited by TUV SUD America Inc. Sites that were part of an acquisition are included in the scope of our corporate environmental policy and associated environmental initiatives. Therefore, they may become 14001 certified and audited. Table 4 shows our ISO 14001 certification KPIs.

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cisco sites with ISO 14001 certification</td>
<td>28</td>
<td>26</td>
<td>30</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Percent of real estate portfolio with ISO 1401 certification</td>
<td>94%</td>
<td>&gt;90%</td>
<td>&gt;90%</td>
<td>&gt;90%</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

We have met our goal of certifying a high percentage of our real estate portfolio. We will maintain >90% coverage of sites that meet the certification criteria.

Our EMS helps us identify our most significant environmental impacts, evaluate their risks at each Cisco site, and set relevant corporate and local objectives. All ISO 14001 certified sites have environment aspect teams. Each site’s team reports on goals, initiatives, and metrics to measure our environmental performance. Local initiatives are aligned to corporate-level programs where possible. Table 5 lists the number of aspect teams per region.

Cisco’s primary corporate sustainability activities are included in our certified EMS and are part of the internal and external audits we perform annually. This enables us to internally track key corporate environmental performance goals, initiatives, and metrics.

Our EMS aligns closely with our circular economy, GHG emissions, and energy management programs and supports the management of our sustainability information. This alignment has helped us automate our sustainability data.
Cisco ISO 14001 certified site locations

- Boulder/Englewood, Colorado
- San Jose, California
- Richardson, Texas
- Austin, Texas
- Alpharetta, Georgia
- Atlanta, Georgia
- Research Triangle Park, North Carolina
- Chicago, Illinois
- Boxborough, Massachusetts
- New York, New York
- Columbia, Maryland
- Herndon, Virginia
- Galway, Ireland
- Breinfield Lakes/Reading, United Kingdom
- Paris, France
- Brussels, Belgium
- Vismere, Italy
- Amsterdam, Netherlands
- Dusseldorf, Germany
- Krakow, Poland
- Netanya, Israel
- Beijing, China
- Shanghai, China
- Tokyo, Japan
- Singapore
- St. Leonards/N. Sydney, Australia
- Bangalore, India
- Hong Kong, China
- Dusseldorf, Germany
- Frankfurt, Germany
- Krakow, Poland
- Netanya, Israel
- Beijing, China
- Shanghai, China
- Tokyo, Japan
- Singapore
- St. Leonards/N. Sydney, Australia
- Bangalore, India
- Hong Kong, China
- Dusseldorf, Germany
- Frankfurt, Germany
- Krakow, Poland
- Netanya, Israel
- Beijing, China
- Shanghai, China
- Tokyo, Japan
- Singapore
- St. Leonards/N. Sydney, Australia
- Bangalore, India
- Hong Kong, China
collection and focus resources on other important tasks, such as evaluating and implementing mitigation projects.

Internal EMS audits provide insight into how our environmental processes and commitments have been implemented and how well we are improving our EMS at our certified sites. The frequency of these audits depends on criteria such as site size, operational activities at the site, and the results of previous audits. In a typical three-year period, every site will receive one on-site audit and one virtual audit.

As part of our ISO 14001 certification, we participate in annual audits conducted by a third-party registrar. These audits identify areas of improvement and performance while providing external validation and verification of our EMS processes and programs.

Cisco has piloted virtual external ISO 14001 certification audits with our third-party registrar. For the last three years, at least one of our annual external site audits is done virtually using Cisco technology. This helps decrease Cisco’s travel footprint.

During our internal and external audits in FY19, Cisco received 21 Positive Comments and five Best Practices on our ISO 14001 certified EMS. The Positive Comments were primarily tied to improving Cisco environmental performance, exceeding environmental goals and targets, and aligning our operational management with sustainability in mind. The Best Practices were found across the globe and include:

- Cisco’s collaboration with interested parties to improve our recycling program
- A LED light upgrade project that helps Cisco meet its GHG reduction goals
- Innovative ideas to improve recycling and environmental performance
- Excellent hazardous waste management
- An exceptional training program for emergency preparedness

All numeric claims made in this chapter are subject to a multiday, detailed, bottom-up audit conducted by our internal ISO 14001 audit team and part of the annual ISO 14001 internal audit plan. Verification is key to reporting valid data and helps us actively identify needed corrective actions. All environmental claims made in the 2018 CSR report were successfully audited and verified through Cisco’s internal audit process. Cisco’s environment-related claims in the 2019 CSR report will be audited in FY20.

### Environmental compliance

Cisco has incurred no significant fines—defined as more than $10,000—in any of the last five years. Nor have we been subject to nonmonetary sanctions for noncompliance with environmental laws and regulations. Cisco is not aware of any formal grievance filed about environmental impacts.

### Employee engagement

Please see the People chapter of this report for information on how Cisco engages employees in environmental sustainability initiatives.
The greenhouse gas emissions from our supply chain are five times greater than the footprint of our own operations, so we make it a priority to work with suppliers to help them improve.

In FY19, we achieved our goal to avoid 1 million metric tonnes cumulative of GHG emissions in our supply chain from FY12 to FY20, and have set a new target for FY30.

We recently issued the Cisco Supplier Guide: Sustainability, Risk and Security, outlining our expectations of suppliers.

Cisco works closely with suppliers in China to ensure proper environmental protection.

Learn more about how we engage with suppliers in Responsible Sourcing & Manufacturing.
Supplier environmental performance

We aim to ensure that environmental sustainability is a key criterion in our relationships with an assessment of our suppliers. We do this by including sustainability requirements and performance in our supply chain business processes, educating stakeholders, and continually improving these processes. See organizations with which Cisco engages in Table 6.

To help us understand key impacts in our supply chain and how they are managed, we:

- Create long-term commercial incentives for our top-spend direct suppliers by setting public expectations regarding their GHG emissions goals and waste diversion rates.
- Require suppliers to report GHG emissions and reduction targets through CDP Supply Chain; hold suppliers accountable through Cisco’s supplier scorecard process.
- Perform risk assessments using reputable indicators of environmental risk such as Yale’s Environmental Performance Index and tools from the World Resources Institute, and conduct on-site audits for those identified to be high risk. For more detail, see Risk Assessment and Supplier Assessment.

Greening our supply chain

We’re helping reduce environmental risk in our supply chain, particularly in China. As a result, we were recently recognized by the Institute of Public and Environmental Affairs (IPE), an influential Chinese NGO, with the following awards:

#3 in the IT industry
Corporate Information Transparency Index (CITI)

#2 in the IT industry
Supply Chain Transparency Index (SCTI)

CITI and SCTI are real-time ranking systems, and these rankings are as of July 2019. Cisco was also named to the CDP Supplier Engagement leader board.
Supplier GHG emissions

The GHG emissions from our supply chain are five times greater than the footprint of our own operations. We have an important opportunity to collaborate with our global network of component, manufacturing, and logistics suppliers, as well as our industry peers, to drive the large-scale change needed to transition to a low-carbon economy.

In FY19, we achieved our goal to avoid 1 million metric tonnes of GHG emissions in our supply chain from FY12 to FY20. With this goal complete, per Table 3, we’ve announced new goals to address supply chain GHG emissions.

- 80 percent of Cisco component, manufacturing, and logistics suppliers by spend will have a public, absolute GHG emissions reduction target by FY25
- Reduce Cisco supply chain-related Scope 3 GHG emissions by 30 percent absolute by FY30 (FY19 base year)

These goals build upon our last 10 years of working with suppliers to improve and report environmental data through CDP’s supply chain program. They’re also the result of collaboration with industry peers to advance emissions modeling and to gain more real-time insight into suppliers’ targets, capabilities, and performance. With this information, we have the data needed to set an absolute reduction target and prioritize our efforts to drive engagement and reductions in our supply chain.

With that lens, we plan to focus on:
- Targeted supplier engagement and increased performance expectations for our top component, manufacturing, and logistics suppliers
- Expanded efforts to reduce our use of air transportation
- Industry collaboration to increase the availability of renewable energy and to reduce energy consumption across the electronics value chain

Currently, 24 percent of our suppliers are publicly reporting an absolute GHG reduction target. Given the standard lag between when emissions occur at our suppliers and when they are reported to Cisco through CDP, we will report the baseline calculation for our new supply chain reduction target in our 2020 CSR Report. Learn more about our supplier GHG emissions reporting in Appendix V.

Supplier material waste

Cisco’s focus on developing and promoting a circular economy has driven efforts to better understand the material used upstream in our supply chain. Unfortunately, there is little visibility into supplier data in this area. In FY19, to increase visibility of this information and identify opportunities, we partnered with TRUE Zero Waste to provide training, increase engagement, and improve reporting capabilities in our supply chain. We also committed that 70 percent of Cisco component and manufacturing suppliers by spend will achieve a zero waste diversion rate at one or more sites by FY25.

In FY19, we initiated the TRUE Advisor training at multiple supplier sites. Based on the results, we will evaluate whether the training improved
supplier performance and waste data reporting in support of this goal. We’ll also work to determine opportunities not only to reduce material waste but also to increase renewable and recovered inputs in our value chain.

Currently, 21 percent of our suppliers have a verified zero waste diversion rate at one or more sites. According to current standard definitions used in certification protocols, “zero waste” diversion is defined as a 90 percent or greater overall diversion of solid, nonhazardous wastes from landfill, incineration (waste-to-energy), and the environment. Learn more about our supplier waste reporting in Appendix IV.

Supplier audit findings

Environmental findings in our suppliers’ factories are a key dimension of the Supplier Code of Conduct. Cisco performs audits on our high-risk suppliers through the RBA Validated Audit Protocol (VAP). Read more about our audit processes and supplier audit findings in Responsible Sourcing & Manufacturing.

There were no priority environment findings in FY19. We worked with our suppliers to ensure that major findings were closed and helped them establish environmental management systems to help prevent similar findings from happening again.

Environmental risk management in China

Cisco has been working with our suppliers in China on environmental protection. Pollution is a challenge that can come with economic growth, and the regulatory landscape in China is complex and quickly changing. Topics we’re focused on include wastewater management and pollution mitigation, as well as tracking and addressing reports of illegal pollution. Cisco addresses and manages the environmental performance of our manufacturing partners and component suppliers in China. In addition, we require our manufacturing partners to do the same with their suppliers.

We partnered with Institute of Public and Environmental Affairs (IPE) and launched a series of activities to prevent and mitigate the environmental risk from our suppliers in mainland China. This work included screening Cisco supplier sites in the IPE Blue Map database to identify existing and historical environmental violations. We work closely with these suppliers to ensure that they remediate any environmental issues and comply with the local environmental law. In addition, Cisco requires suppliers to publish their corrective actions on the IPE website to improve environmental transparency, and get the violations addressed and delisted within the required timeline.

In FY19, wastewater was the most frequent issue found in Cisco’s IPE screening of our suppliers. To identify wastewater treatment and drainage pathways in Cisco’s supply chain, we...
conducted a wastewater treatment survey with 120 supplier sites in China. We then requested the targeted factories to register and disclose the wastewater management information in the national sewage permit management platform. Through this work, we also identified suppliers who dispose wastewater in their own on-site treatment systems, and which subcontracted to outside wastewater treatment facilities. We screened the subcontracted wastewater treatment facilities to assess if there were any environmental violations at those sites. Cisco does not have a direct relationship with those wastewater treatment facilities. However, if we found violations, we collaborated with our suppliers to influence the wastewater subcontractors to address any issues.

To further promote transparency on pollution, Cisco encourages high environmental impact suppliers to disclose their energy conservation, water, air, and waste information through the Pollution Release and Transfer Report (PRTR) reporting system on the IPE website. Cisco worked with 60 suppliers to publish their PRTR information in FY19. In doing so, suppliers are making information publicly available on what chemicals are being released to the air, water, and soil, and what pollutants are being transferred to another site for treatment and disposal.

We are also taking steps to help suppliers address current environmental compliance challenges. In FY19, Cisco organized environmental seminars for more than 250 suppliers. These were held in collaboration with industry peers, environmental authorities, and other stakeholders. The seminars included presentations and roundtable discussions of environmental issues. Through these roundtables and trainings, Cisco, our suppliers, and stakeholders are jointly learning how to manage supply chains in a way that reduces impact on the environment.

Table 6. Supply chain environmental organizations in which Cisco participates

<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Business Alliance (RBA), formerly Electronics Industry Citizenship Coalition (EICC)</td>
<td>Cisco is a founding member of the RBA, participates in multiple working groups and initiatives, leverages many RBA tools, and has contributed to the development and periodic revision of the RBA Code of Conduct.</td>
</tr>
<tr>
<td>Institute of Public &amp; Environmental Affairs (IPE)</td>
<td>Cisco partners with IPE to prevent and mitigate environmental pollution in China, through educating the supply base on environmental stewardship and leveraging data to identify and address risks.</td>
</tr>
</tbody>
</table>
Collaborating to stop pollution and drive environmental responsibility

In Suzhou, China, a component supplier to Cisco was repeatedly emitting volatile organic compounds (VOCs) as part of its regular facility operations. Due to rapid economic development, the area around the factory began to grow in population density. Residential communities were built close by.

Residents began to complain about noise pollution, air quality, and excessive air emissions. These complaints drew the attention of the local government, resulting in various citations in 2016 and 2017. The citations were then published in the IPE Blue Map. Cisco discovered the citations in our routine supplier screening. To remediate the violations, Cisco encouraged the supplier to invest in noise dampeners and abatement equipment to stem air and noise emissions and seek approvals from the local government.

However, the supplier was slow to act. And Cisco’s influence was limited due to the small amount of business we do with that supplier. In FY18, we identified one of our manufacturing partners who also worked with the component supplier and asked for their collaboration on this issue. Together with our partner and IPE, we influenced the factory to take action. The facility improved their air treatment system to purify emissions before discharge into the local community. In FY19, they installed exhaust systems to improve air quality inside the factory and better protect the health and safety of workers. A third party commissioned by IPE verified on-site that the supplier’s pollution issues were resolved. Emissions were compliant with local regulations. As a result, the supplier was delisted from IPE’s pollution violation database.

In many cases, we can’t do this work on our own. By collaborating with our partners, peers, and suppliers, we can drive meaningful change in our supply chain and beyond. It’s not only smart business sense for Cisco. It’s the right thing to do for our local communities and the environment.
Through energy efficiency and renewable energy projects across our real estate portfolio, we have avoided approximately 170 GWh of energy and 76,000 metric tonnes CO\textsubscript{2}e since FY15.

In FY19, we reduced our total Scope 1 and 2 GHG emissions worldwide by 49 percent, and are on track to complete our FY22 goals.

We used electricity generated from renewable sources for 83 percent of our global electricity consumption.

We focus on improving our Scope 3 emissions footprint through product energy efficiency and optimization of our supply chain operations.
Reducing our energy use and GHG emissions is a critical environmental issue. We are making progress through energy efficiency initiatives across Cisco, investments in renewable energy, engagement with our supply chain partners, and improvements to the efficiency of our products. For information on our Scope 1 and 2 GHG emissions, see this page, and for information on our Scope 3 GHG emissions and goals, see page 168.

Energy and GHG emissions goals

Our current energy and GHG emissions goals are summarized, along with other environmental goals, in Table 3. Our completed goals are summarized in Appendix IV.

We form our GHG emission reduction goals based on internal best practices and expert opinion, including recommendations from the IPCC, the U.S. EPA, the IEA, and The 3% Solution report1 from the World Wildlife Fund (WWF) and CDP. Since 2013, Cisco has been setting and achieving science-based targets that exceed the rate of decarbonization required to keep global average temperature increase below 2°C compared to preindustrial temperatures, as described in the Fifth Assessment Report of the IPCC. Our FY22 GHG reduction goal of 60 percent (FY07 baseline) equates to a 4 percent reduction per year. For reference, this reduction is nearly three times greater than the yearly emissions reduction of 1.35 percent recommended for our industry by the Sectoral Decarbonization Approach to science-based target setting.2

Cisco sets five-year, or longer, commitments because multiyear goals allow for the large up-front investment needed for a big payoff. Learn more about our Environment Goals.

Energy and Scope 1 GHG emissions

To achieve our Scope 1 and 2 GHG reduction and renewable energy goals, we will:

• Invest more than $45 million between FY18 and FY22 in energy efficiency and renewable energy

• Implement hundreds of energy efficiency and on-site renewable energy projects across our real estate portfolio

• Increase renewable energy procurement through utility green power programs, power purchase agreements (PPAs), and renewable energy certificates (RECs)

Reducing our energy consumption and GHG emissions while enabling a diverse energy supply for our operations helps us stay competitive and benefits the environment. Our overall strategy to accomplish these objectives is to:

• Use our real estate space more efficiently

• Increase the energy efficiency of our real estate operations

• Generate low–carbon electricity from on–site systems and purchase renewable energy

• Engage our stakeholders, including employees, on our sustainability strategy

Our Scope 2 emissions result almost exclusively from electricity use and represent 94 percent of our Scope 1 and 2 emissions. As a result, implementing projects to reduce our electricity use and increasing our use of renewable electricity are major parts of our energy and GHG reduction strategy. In FY19, our Scope 1 and 2 GHG emissions were 49 percent lower than our FY07 baseline on an absolute basis. See Table 7 for details.

1The 3% Solution report is named for the annual emissions reduction thought to be needed through 2020 to meet IPCC guidance. According to the IPCC Annex 1, developed countries need to reduce GHG emissions by 25 to 40 percent below 1990 levels by 2020, and by 80 to 95 percent below 1990 levels by 2050. Such a stabilization pathway was said to provide a “reasonable chance” of averting warming beyond 2°C above preindustrial temperature.

2According to the Sectoral Decarbonization Approach (SDA) sector definitions (version 1, released May 2015), Cisco is classified in the “Services/Commercial Buildings” sector. Calculation is based on the most recent SDA target calculation tool (version 8, released 27 February 2017).
Cisco uses the GHG Protocol Corporate Accounting and Reporting Standard as the basis for our Scope 1 and 2 calculations. This supports standardization and benchmarking across companies. We report Scope 1 and 2 emissions based on operations over which we have operational control. Calculations are based on site-specific data for fuel consumed and utilities purchased, applying published emissions factors and global warming potentials (GWPs). See Table 8 for details. The EPA Center for Corporate Climate Leadership provides additional program guidance. Of the seven GHGs covered by the GHG Protocol (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃), four (CO₂, CH₄, N₂O, and HFCs) are applicable to our operations. We do not have biogenic carbon emissions.

Historical Scope 1 and 2 emissions data often vary from previous publicly reported values, either in the most recent CDP survey or our previous CSR report. This is due to updated reporting guidance, emissions factors, adjustments for acquisitions or divestitures, or correction of errors found during review. We report market- and location-based Scope 2 emissions in accordance with the GHG Protocol’s updated Scope 2 guidance.

Each year, an independent third party provides a limited assurance review of our GHG inventory. This includes the emissions relevant to our current GHG reduction goals, namely Scope 1 and 2 emission sources. This limited assurance review is provided in accordance with the ISO 14064-3 International Standard and is published as part of our CDP submittal. See our FY19 Inventory Assurance Statement.

Indirect energy or electricity represents 90 percent of our energy consumption (Table 9). Through the projects described in this section, we have effectively plateaued our level of energy consumption for the last several years. We expect our energy use to rise over time. As a result, we are working to reduce the carbon intensity of the electricity we do use. Including renewable energy purchases, our global average contractual emissions factor is 76 percent below the world average (See Table 8). We have achieved this by locating facilities where low-carbon grid electricity is available and buying renewable energy from utilities and green power providers. Our challenge will be to prevent our global average emissions factor from increasing as we grow in emerging markets such as India, where low- and no-carbon electricity is less readily available.
### Table 7. Summary of Scope 1 and 2 GHG emissions

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY07 Baseline Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total GHG emissions: Scope 1, metric tonnes CO₂e</td>
<td>48,311</td>
<td>45,562</td>
<td>53,123</td>
<td>41,926</td>
<td>41,171</td>
<td>41,037</td>
<td>“Location-based” is used consistent with GHG Protocol and does not include renewable energy purchases.</td>
</tr>
<tr>
<td>Total GHG emissions: Scope 2 (location-based), metric tonnes CO₂e</td>
<td>448,950</td>
<td>731,103</td>
<td>731,662</td>
<td>744,929</td>
<td>666,708</td>
<td>651,234</td>
<td>“Market-based” is used consistent with GHG Protocol and includes renewable energy purchases.</td>
</tr>
<tr>
<td>Total GHG emissions: Scope 2 (market-based), metric tonnes CO₂e</td>
<td>402,422</td>
<td>318,890</td>
<td>247,933</td>
<td>223,558</td>
<td>205,141</td>
<td>187,382</td>
<td></td>
</tr>
<tr>
<td>Scope 1 and 2 emissions (location-based) intensity, metric tonnes CO₂e per million dollars of revenue</td>
<td>14.2</td>
<td>15.8</td>
<td>15.9</td>
<td>16.0</td>
<td>14.4</td>
<td>13.3</td>
<td>Location-based intensity is a measure of operational efficiency commonly used by many Cisco stakeholders.</td>
</tr>
<tr>
<td>Scope 2 emissions from primary data, percent</td>
<td>96.4%</td>
<td>98.2%</td>
<td>98.1%</td>
<td>98.0%</td>
<td>98.2%</td>
<td>97.5%</td>
<td></td>
</tr>
<tr>
<td>Total GHG emissions: Scope 1 and 2 (market-based), metric tonnes CO₂e</td>
<td>450,733</td>
<td>364,452</td>
<td>301,057</td>
<td>265,484</td>
<td>246,312</td>
<td>228,419</td>
<td></td>
</tr>
<tr>
<td>Percent progress against FY22 reduction goal²</td>
<td>-19.1%</td>
<td>-33.2%</td>
<td>-41.1%</td>
<td>-45.4%</td>
<td>-49.3%</td>
<td></td>
<td>Results are based on Scope 2 GHG Protocol methodology released in 2015. Cisco's current GHG reduction goal was announced in September 2017.</td>
</tr>
</tbody>
</table>

11 Our reporting policy for environmental metrics is to show the baseline year, data for the past five completed years, the goal, and progress against the goal.

2 Scope 2 emissions for all years have been adjusted to reflect the GHG Protocol's new Scope 2 guidance. This new guidance was released in 2015 and had material impacts on Cisco’s current and Scope 2 figures calculated prior to 2015.

3 Our reporting policy for environmental metrics is to show the baseline year, data for the past five completed years, the goal, and progress against the goal.

4 Cisco used emission factors from the following databases for its FY19 GHG inventory: 2019 IEA Electricity Information Database, 2017 IEA factors, 2018 EU Residual Mix Factors from RE-DISS, Center for Corporate Climate Leadership GHG Emission Factors Hub (modified March 9 2019), 2019 country-specific emission factors for Australia, Brazil, Canada, India, and United Kingdom provided from those countries' governments. 100-year GWPs from IPCC Fourth Assessment Report (AR4), 2007.

### Table 8. Electricity emissions factors

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY07 Baseline Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEA world average emission factor, g CO₂e per kWh</td>
<td>507.1</td>
<td>536.0</td>
<td>536.0</td>
<td>506.0</td>
<td>489.6</td>
<td>485.3</td>
<td>Latest factors used for our current FY19 report from IEA, RE-DISS, and EPA GHG Emissions Factors Hub. Prior years used the latest factors available at time of prior-year reporting. See footnotes for emission factor and GWP sources.</td>
</tr>
<tr>
<td>Cisco global average electricity emission factor (location-based), g CO₂e per kWh</td>
<td>437.9</td>
<td>446.6</td>
<td>448.2</td>
<td>447.1</td>
<td>407.9</td>
<td>404.6</td>
<td></td>
</tr>
<tr>
<td>Cisco major data center average electricity emission factor (location-based), g CO₂e per kWh</td>
<td>394.7</td>
<td>421.0</td>
<td>419.4</td>
<td>419.5</td>
<td>353.9</td>
<td>353.1</td>
<td></td>
</tr>
<tr>
<td>Cisco global average electricity emission factor (market-based), g CO₂e per kWh</td>
<td>392.5</td>
<td>194.8</td>
<td>152.8</td>
<td>134.5</td>
<td>125.5</td>
<td>116.4</td>
<td></td>
</tr>
</tbody>
</table>

11 Our reporting policy for environmental metrics is to show the baseline year, data for the past five completed years, the goal, and progress against the goal.

2 Scope 2 emissions for all years have been adjusted to reflect the GHG Protocol's new Scope 2 guidance. This new guidance was released in 2015 and had material impacts on Cisco’s current and Scope 2 figures calculated prior to 2015.

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### Table 9. Summary of Scope 1 and 2 energy usage

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY07 Baseline Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy generated, GWh</td>
<td>0</td>
<td>1.5</td>
<td>2.5</td>
<td>2.6</td>
<td>2.6</td>
<td>2.2</td>
<td>Cisco uses all the energy generated by its on-site solar PV systems and does not sell any energy.</td>
</tr>
<tr>
<td>Energy usage, GWh</td>
<td>1,239</td>
<td>1,826</td>
<td>1,850</td>
<td>1,831</td>
<td>1,815</td>
<td>1,788</td>
<td></td>
</tr>
<tr>
<td>Indirect energy usage, GWh</td>
<td>1,025</td>
<td>1,636</td>
<td>1,641</td>
<td>1,656</td>
<td>1,637</td>
<td>1,612</td>
<td>Electricity is the only indirect energy source used by Cisco—we do not purchase any heating, cooling, or steam.</td>
</tr>
<tr>
<td>Direct energy usage, GWh</td>
<td>213</td>
<td>189</td>
<td>209</td>
<td>176</td>
<td>178</td>
<td>176</td>
<td>Direct energy consumption is the sum of Cisco’s natural gas, propane, and diesel usage for heating and backup power generation and regular gasoline and diesel fuel used in Cisco’s fleet.</td>
</tr>
<tr>
<td>Electricity usage, GWh</td>
<td>1,025</td>
<td>1,636</td>
<td>1,641</td>
<td>1,656</td>
<td>1,637</td>
<td>1,612</td>
<td></td>
</tr>
<tr>
<td>Natural gas usage, GWh</td>
<td>135</td>
<td>82</td>
<td>94</td>
<td>90</td>
<td>90</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Stationary diesel usage, GWh</td>
<td>18</td>
<td>37</td>
<td>33</td>
<td>15</td>
<td>21</td>
<td>20</td>
<td>Stationary diesel is typically used for backup power generation.</td>
</tr>
<tr>
<td>Propane usage, GWh</td>
<td>0.8</td>
<td>0.2</td>
<td>0.2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Transportation fuel usage (combined gasoline and diesel fuel), GWh</td>
<td>59</td>
<td>70</td>
<td>73</td>
<td>68</td>
<td>65</td>
<td>62</td>
<td>Transportation fuel includes regular gasoline and diesel fuel used in Cisco’s fleet.</td>
</tr>
<tr>
<td>Energy use per unit of revenue, GWh of energy consumed per billion dollars in revenue</td>
<td>35.5</td>
<td>37.1</td>
<td>37.6</td>
<td>37.2</td>
<td>36.8</td>
<td>34.4</td>
<td></td>
</tr>
</tbody>
</table>

1Our reporting policy for environmental metrics is to show the baseline year, data for the past five completed years, the goal, and progress against the goal.
We continue to optimize our real estate portfolio while reducing energy use and GHG emissions. Our solutions integrate leadership engagement, change management, design, procurement, policy, and technology to transform the workplace experience. For example, our activity-based workspaces can accommodate more employees than a traditional office layout, substantially reducing space and land requirements and associated environmental impacts.

New buildings and renovation projects include energy efficiency requirements such as standards for LED lighting and efficient air conditioning. We have changed our workplace occupancy model from individual to group assignment, giving our employees flexibility and choice while increasing the utilization of our assets. In addition, with our flexible work policy and mobile technology solutions, employees can work from any Cisco office, as well as from home, a customer site, or even a coffee shop.

In FY19, we began a multiyear program to transform the way we manage our smaller sales offices to improve the flexibility and agility of our real estate portfolio. The program will focus on matching our real estate footprint to Cisco’s business needs. This flexible real estate model will reduce our overall real estate footprint, commute times, and energy consumption. The program builds upon our prior success: over the last five years, Cisco has reduced our real estate portfolio by 7.3 million square feet. We estimate this gross reduction in square footage has allowed us to avoid approximately 166 million kWh of energy use and 67,400 metric tonnes of GHG emissions annually.

Energy efficiency in our buildings, labs, and data centers

Our Global Energy Management and Sustainability (GEMS) team leads all energy and sustainability initiatives across our more than 20 million square feet of global real estate. The team currently manages the $40 million, five-year global EnergyOps program. EnergyOps aims to implement hundreds of efficiency and renewable energy projects every year through FY22. GEMS includes Cisco employees and contracted energy managers who have the following primary responsibilities:

- Managing Cisco’s global annual utility budget and contracts
- Identifying and implementing demand- and supply-side energy solutions, such as energy efficiency upgrades and on-site renewable energy projects
- Embedding sustainability and efficiency criteria into our building, lab, and data center design standards
- Exploring and evaluating options for higher efficiency in all of Cisco’s real estate projects
- Engaging employees to participate in resource conservation

In FY19, the GEMS team enabled Cisco to avoid approximately 19.4 GWh of energy consumption and 7,100 metric tonnes CO₂e by investing $9.3 million to implement 48 energy efficiency projects. This does not include our renewable energy purchases or on-site renewable energy generation. We estimate that the over 550 energy
efficiency and on-site renewable energy projects we have implemented since FY15 have avoided approximately 170 GWh of energy and 76,000 metric tonnes CO₂e. This program has also allowed us to make our operations more efficient and increase the amount of renewable electricity we buy, directly contributing to the achievement of the FY17 sustainability goals and the creation of our FY22 goals. See our Environmental Goals section for details.

Table 10 shows the energy savings associated with the GHG reduction projects we implemented between FY15 and FY19. Projects the GEMS team implemented globally in FY19 include:

- Updating lighting controls and using LED technologies to increase lighting efficiency
- Installing solar window film to reduce heat gain and improve occupant comfort
- Installing waterside economization and dry cooler technologies to improve free cooling utilization
- Balancing airflow and improving hot and cold aisle containment within our labs
- Recommissioning chillers and air handling units to improve energy efficiency of our heating and cooling systems
- Continuing an employee engagement campaign to promote, educate, and incentivize employees to conserve energy

Table 10. Energy and GHG emissions reduction projects¹

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects implemented</td>
<td>165</td>
<td>103</td>
<td>103</td>
<td>145</td>
<td>48</td>
</tr>
<tr>
<td>Annual energy avoided, GWh/yr</td>
<td>47.1</td>
<td>31.2</td>
<td>40.1</td>
<td>32.4</td>
<td>19.4</td>
</tr>
<tr>
<td>Total estimated annual CO₂e savings,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>metric tonnes CO₂e/yr</td>
<td>22,500</td>
<td>12,400</td>
<td>23,600</td>
<td>10,300</td>
<td>7,100</td>
</tr>
</tbody>
</table>

¹Does not include renewable energy purchases.
**Labs and data centers**

Over 60 percent of our operational electricity is used to power and cool equipment in our labs and data centers. Increasing the energy efficiency of these spaces is our greatest opportunity to reduce Cisco’s GHG emissions and energy costs. We can do this by focusing on efficiency in the design of our labs and practicing smart approaches to utilization and power management.

Our Global Lab Specification includes efficiency standards for new, high-density labs and retrofits. Our standards mandate airflow management in all new labs globally and recommend it for renovation projects. EnergyOps projects, as well as projects initiated by lab managers, also help us improve existing airflow management, ventilation, cooling, and other building infrastructure systems.

To reduce electricity usage in our labs and data centers, we use smart power distribution units to monitor our lab equipment. We increase server utilization by using virtual machines. Our Cisco Customer Experience labs use a check-in, check-out system of automation pods to allow lab employees to set up configurations virtually and then release equipment when they are finished with it. This system maximizes the number of people who can use the equipment, minimizes the amount of equipment physically

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**LEED-Certified data center design features**

The following sustainable design features have been incorporated into our LEED-NC Gold Certified data centers in RTP, North Carolina, and Allen, Texas:

- Waterside and airside economization
- Variable frequency drives on major equipment, including pumps, chillers, and CRAH units
- Higher-voltage electrical service distribution of 480/277V; rack distribution of 415/230V
- Rooftop solar photovoltaic (PV)
- Heat recovery from data hall for office space use (in North Carolina)
- LED lighting
- Low-e glass windows
- Reclaimed water use in cooling towers (in North Carolina)
- Nonchemical water treatment system
- Water-efficient plumbing
- Occupancy sensors integrated with lighting and temperature controls
- Landfill diversion during construction
needed in each lab, and reduces the amount of energy used collectively by our labs. When a lab team moves to a different lab, users remove unused or old equipment, thereby saving space, power, and cooling.

Our data center efficiency strategy focuses on design, utilization, and power management. Our data centers in RTP, North Carolina, and Allen, Texas, were designed to achieve a power usage effectiveness (PUE) of 1.41 and 1.35 at full load, respectively. Both centers have achieved Leadership in Energy and Environmental Design (LEED) New Construction (NC) Gold Certification (v2.2) from the U.S. Green Building Council for incorporating numerous sustainable design features.

We have also increased efficiency by migrating IT loads into key locations. By consolidating our footprint, we’ve reduced our square footage costs and our overall electricity use. Since July 2013, we have reduced data center square footage by 20 percent.

**GHG emissions from outsourced IT**

IT services come in several forms: on premises, co-located, infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS). Figure 8 illustrates the differences between these models.

As part of our annual Scope 2 GHG emissions reporting, we calculate the on-premises emissions of Cisco-managed data centers. However, we are shifting more IT services into co-located data center facilities or the cloud (as-a-service providers). Our Chief Information Officer, Jacqueline Guichelaar, recently confirmed this shift to outsourced IT.

As part of this shift to cloud resources, Cisco is targeting a 30 percent reduction in the number of Cisco on-premise data centers within the next five years. When IT services move from on-premise facilities to co-located or the cloud, GHG emissions accounting also shifts, from Scope 2 to Scope 3. We are tracking the increase in co-located and cloud service providers and its impact on our Scope 3 emissions. We will update our Scope 3 emissions in our FY20 CSR report.

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**Figure 8: Progression of IT functions from on-premises through software as a service (courtesy of BMC Software)**

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**Green building standards**

We have integrated green building standards into our real estate since our first LEED-certified building was built in 2009. By the end of FY19, 19 Cisco facilities were LEED-certified, with 13 rated Gold or Platinum. These facilities represent over 2.6 million square feet of LEED-certified space, which is about 12 percent of Cisco’s global real estate portfolio.

We also incorporate principles of green building standards into our standard workplace design, even if we’re not planning for LEED certification. These standards make our spaces more comfortable for our occupants while reducing our buildings’ environmental impact. Some of the principles we include are:

- Thoughtful building layouts that place enclosed spaces toward the core, allowing for natural light penetration and placement of people near the perimeter
- LED lighting, including task lighting for adjustable occupant lighting control
- Biophilic designs such as living walls and the use of natural materials
- Educational outreach through change management with design and sustainable practices
- Increased building occupancy and efficiency with the use of data and space policies
- Wellness focus with the provision of spaces for relaxing, socializing, and exercising
- Specification of low-emitting materials in construction

We also donate furniture in several locations, including sites in China and San Jose, California. If furniture we are replacing can be used in another Cisco office, we donate it to a local charity or recycle it.

**Renewable energy**

Generating and purchasing low-carbon electricity is a key component of our GHG reduction strategy. We prefer on-site power projects where possible, but off-site power is often the better option due to factors such as location, budget, and space constraints. While we do use unbundled renewable energy certificates (RECs) today to help meet our renewable energy goal, we continue to engage utilities and renewable energy providers to expand both our on-site and off-site renewable energy activities so we can help support the development of new renewable energy systems in locations where we operate. We identify and evaluate potential projects in the following order:

1. On-site power opportunities
2. Green power contracts with utilities
3. Off-site power opportunities
4. RECs
On-site power: Solar and combined heat and power (CHP)

From FY12 through FY19, Cisco increased our total on-site solar PV capacity from 200 kW to 2.8 MW. Collectively, these systems produce an average 3.4 million kWh of electricity, avoiding 1,200 metric tonnes CO₂e each year over the projected 25-year life of the systems. Our newest rooftop solar PV systems in Bangalore and Pune, India, increase our on-site solar PV capacity in India to over 1 MW. We also completed a 966-kW solar PV carport in 2015 at our Boxborough, Massachusetts, campus. We installed five arrays containing 3,168 solar panels. The output for this system is nearly 1 million kWh per year. Our other on-site solar systems are located at our data centers in Allen, Texas; Research Triangle Park (RTP), North Carolina; and other campus buildings in Bangalore, India.

We continue to maintain our 425-kW cogeneration system at our Bedfont Lakes campus in the U.K. Operating at peak efficiency, this system avoids approximately 850 metric tonnes CO₂e per year and saves over $510,000 in electricity costs annually. We have also installed nine solar hot water systems at our campus in Bangalore, India. These systems collectively produce an average of 8,500 liters of hot water every day, which satisfies approximately 67 percent of our hot water demands at the campus.

Purchasing renewable electricity

Purchasing electricity generated from renewable or other low-carbon sources is a key component of our GHG reduction strategy. We summarize our global renewable electricity purchases in Table 11. We have purchased renewable electricity in the U.S. and Europe since FY06.
by buying RECs and entering into green power contracts with various electricity suppliers. In FY19, we purchased 1,087 GWh of Green-e Certified RECs and green power in the U.S. and Canada, 88 GWh of green power in Europe, and 139 GWh of green power and international RECs (I-RECs) in India. See the percentage of electricity purchased from renewable energy sources for various regions in Table 11.

Utility providers are enabling better access to renewable energy. We are actively exploring how to increase the percentage of renewable energy obtained from utility contracts and PPAs. We engage with green power providers through the WWF’s Corporate Renewable Buyers’ Principles and Renewable Energy Buyers Alliance. Cisco also participates in the EPA’s Green Power Partnership and consistently ranks highly in the EPA Green Power rankings.

We have expanded our renewable electricity purchases in India to include both long-term and short-term contracts supporting solar, wind, and hydropower development in a grid that is dominated by fossil fuels. We executed two long-term solar power contracts in April 2018 and numerous short-term renewable electricity contracts in 2019. Collectively, these agreements will deliver 85,000 MWh of clean, renewable electricity every year to the local electric grid where our Bangalore campus is located. Through these contracts, we exceeded 50 percent renewable electricity for our India operations in FY19. We also completed our first off-site solar power contract in 2017, which now provides solar power to our San Jose headquarters.

Other renewable energy accomplishments in FY19 include:

- Purchasing 100 percent of the electricity used at our facilities from renewable energy sources in the U.S., Canada, and many European countries, including Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Switzerland, and the United Kingdom.
- Partnering with multiple companies to sign a PPA for a portion of the wind power generated from a large wind farm in Texas. Construction began in May 2019 and we expect to begin receiving power from the system in 2020.
- Continuing participation in Duke Energy’s Green Rider program to purchase about 10 percent of the electricity used at our RTP campus from 10 MW of solar projects located in North Carolina.
- Continuing participation in Austin Energy’s Green Choice program to purchase 100 percent of the electricity used at our facilities in Austin, Texas, from local wind power systems.
Climate Leadership Awards

In March 2019, Cisco won three 2019 Climate Leadership Awards, two for excellence in GHG management—goal setting and goal achievement for Scope 1 and 2 emissions) and one for our supply chain initiatives, which impact Scope 3 emissions. (Refer to Supplier GHG emissions for more information.) Cisco also ranks consistently high on the EPA Top Partner Rankings, which highlight the annual green power use of leading Green Power Partners within the U.S. across individual industry sectors. As of July 29, 2019, we were ranked seventh on the list, eighth on the National Top 100 list, and eighth on the Fortune 500 Partners List.

Scope 3 GHG emissions

Cisco measures our environmental footprint across our value chain to prioritize areas for improvement. Scope 3 emissions cover a broad range of activities across Cisco’s supply chain, operations, products, and solutions. Below we discuss the most significant areas of impact. For a complete table of our Scope 3 emissions, see Appendix III. Additional Scope 3 emissions information is available in our response to Question 6.5 of the 2019 CDP Investor Survey.

Scope 3 reduction strategy

Our Scope 3 focus areas are reducing emissions related to our products’ energy use and to our supply chain operations, which make up the vast majority of our Scope 3 emissions. Table 12 shows the public commitments we have made to reduce our Scope 3 emissions. Our overall strategy to accomplish these objectives is to:

• Increase product power efficiency through continual engineering improvements
• Integrate carbon accounting metrics into our supply chain operations to optimize transport and materials in the manufacturing of our products, and increase energy efficiency in our extended operations
• Collaborate with manufacturing, component, and logistics suppliers to manage and report GHG reduction targets, influencing improvements in performance year over year (see Supplier environmental performance section for more details)

More information on how Cisco engages with our suppliers on environmental responsibility, including our new supply chain goals, can be found in the Supplier environmental performance section.
Scope 3 supply chain operations

As a member of the CDP supply chain program, we request that all our direct suppliers with whom we have a significant business relationship report their GHG impacts to CDP. In FY19, 87 percent of our manufacturing, component, and logistics suppliers, by spend, publicly reported their Scope 1 and Scope 2 GHG emissions to CDP. 80 percent of the emissions data they reported was verified by a third party. This data allows Cisco to gain a more accurate picture of our extended operations and to better understand impacts associated with our supplier GHG emissions. See Appendix V for a complete record.

In 2016, we set a goal to avoid 1 million metric tonnes of GHG emissions from our supply chain by FY20. This goal was our first quantitative emissions goal to encompass Scope 3 supply chain activities that Cisco directs or influences. At the end of FY19, we had avoided 1,152,562 metric tonnes of carbon emissions since FY12, achieving our 2020 target one year early. This highly collaborative effort relied on smart supply chain decisions across the organization, including more ocean shipments, redesigned product packaging, and energy efficiency partnerships at manufacturing sites.

Cisco’s Make It Green, Component Scrap Management, and Partner Energy Management programs have led to less waste and material use in our supply chain for more than five years. Make It Green is Cisco’s sustainable materials, packaging, and fulfillment solutions program. It has helped eliminate unwanted or redundant items often included in a shipment, thereby reducing packaging and material waste. These solutions also help reduce GHG emissions through lower transportation weights. Through Make It Green, approximately 3,901 cumulative metric tonnes of material and 41,840 cumulative metric tonnes of CO₂e were avoided in FY19. The GHG emissions total included emissions avoided from reduced material and freight weight reductions. These FY19 changes also saved an annualized $33 million in material and freight costs.

The Component Scrap Management Program has grown into a formal initiative under our Circular Economy program. The objective of the program is to extend the life of components by sharing inventories across business units, making repairs, and refurbishing parts where possible. We also aim to resell more nonproprietary components on global commodity markets. In FY19, the Component Scrap Management program avoided 1,870 metric tonnes CO₂e through the reuse of 342 kg of components.

Through the Partner Energy Management program, we work with our contract manufacturing sites to save energy by digitizing and monitoring factory activities. Over three years, we have engaged with suppliers at sites in China, Malaysia, Mexico, and Thailand. Each site has taken its own approach to designing and completing energy reduction initiatives, but all have incorporated IoT functionality in some capacity.

Collectively, these programs have avoided 159,054 metric tonnes CO₂e from Cisco’s purchased goods and services between FY12 and FY19.

The business case for pursuing ambitious greenhouse gas reduction targets is clear. The work our team did to achieve our 2020 target drove cost savings for the business, as well as increased operational efficiency and resiliency across our value chain.”

John Kern, Senior Vice President of Supply Chain Operations at Cisco
Scope 3 category 4: Upstream transportation and distribution

Cisco’s Services Green, Mode Shift, and Responsible Supply Chain Design initiatives have all helped to reduce Cisco’s transportation emissions.

Services Green uses two primary strategies to reduce transportation-related emissions. The first is dynamic receipt and disposition, which eliminates the need for a central depot to evaluate a product’s viability for reuse over recycling. Instead, products are screened locally, and either forwarded for repair or sent to an approved local recycler. Repair site localization takes this one step further, using in-theater repair sites and ground transportation whenever possible. In FY19, the Services Green program avoided 10,972 metric tonnes of CO₂e.

Mode Shift optimizes freight logistics, shifting transportation modes from air to ocean whenever practical while still meeting customer expectations on lead time. In FY19, the Mode Shift program avoided 148,432 metric tonnes of CO₂e.

Responsible Supply Chain Design optimizes the movement of a product during its life cycle, starting with component shipments from suppliers and continuing through finished product shipments to customers. Modeling tools allow executive-level decision-makers to consider carbon emissions from logistics alongside traditional supply chain variables like cost, resiliency, and lead time with each network design sourcing decision. In FY19, the Responsible Supply Chain program avoided 38,866 metric tonnes of CO₂e.

In total, these programs have avoided 993,508 metric tonnes CO₂e from Cisco’s upstream transportation and distribution between FY12 and FY19.

Scope 3 category 6: Business travel

Cisco closed its last travel goal in 2017. Our two travel goals are included in Appendix IV. We continue to report travel emissions as part of our Scope 3 CDP reporting, summarized in Appendix III.

Scope 3 category 7: Employee commuting

Cisco completed an employee commuting survey in FY18 to estimate the emissions produced from employees commuting to work. See Table 13 for our Scope 3 emissions from employee commuting.

Flexible work practices

In addition to the collaboration tools we make widely available to our employees, several Cisco network technologies also permit flexible working environments (for example, working from home or remotely). These include Cisco Virtual Office and Cisco OfficeExtend. Cisco Virtual Office provides wired and wireless voice, data, and video service for an employee’s home or for small commercial offices, using Cisco integrated services routers (ISRs) and IP phones. Cisco OfficeExtend is an even simpler solution. It’s a remote wireless access point in the employee’s home that provides the same highly secure communications to a wireless local area network (WLAN) controller at the connected Cisco campus.
Many employees also use Cisco’s AnyConnect Secure Mobility Client to connect to our enterprise network, enabling them to work from any device, at any time, in any location. Although working remotely does not directly reduce air travel, it helps our employees become more proficient in using collaborative technologies, which is especially important for a global technology company. Our employees can then use these skills to reduce air travel when possible. We estimate that we avoided 49,300 metric tonnes of CO2e in incremental commuting emissions in FY19 due to our flexible remote work policy.

**Transportation services**

We provide a variety of transportation services to our employees to help them commute, move around our campus locations and adjoining communities, and maintain their vehicles.

Cisco encourages our employees to use mass transit by providing campus shuttle services at eight of our locations globally, incentive programs that lower the cost of transit, and information about public transportation options in their area. We also offer transit shuttle services at eight locations, making it easier for mass transit commuters to get from stations to our sites. In FY19, over 1,700 employees took advantage of our mass transit incentive program each month, and our commuter and transit shuttle services provided 810,000 rides either to or from work.

We launched a carpooling program for our San Francisco Bay Area locations in FY16. By the end of FY19, 7,649 users had signed up to participate either as riders or drivers, and matched users for 186,300 carpooling trips.

We offer electric vehicle (EV) charging at 40 locations across China, Europe, India, Latin America, and North America, saving over 1,290 metric tonnes CO2 in FY19. In 2019, we doubled the number of EV chargers at our headquarters in San Jose, and now have over 500 ports available for employees and guests. Globally, Cisco has over 350 stations with more than 660 charging ports. Cisco includes the electricity used to charge employee EVs in our Scope 2 emissions reported as shown in Table 8.

Cisco also maintains a fleet of company cars for our employees in Europe and has been working to reduce the GHG emissions associated with this fleet over the last five years. We have set a limit on the allowable CO2 emissions of newly purchased vehicles and promote EVs when possible. The current limit we set is 151 g/km for diesel cars, and 160 g/km for gasoline cars (WLTP). We expect to further reduce these limits over time, as the automobile industry continues to release more fuel-efficient and less polluting vehicles, as well as an increased number of full electric vehicles.

### Table 13. Scope 3 emissions from employee commuting

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 3 GHG emissions from employee commuting, metric tonnes CO2e</td>
<td>96,937</td>
<td>91,586</td>
<td>80,506</td>
<td>81,394</td>
<td>79,699</td>
<td>Our FY18 and FY19 figures are externally verified (see WSP assurance statement)</td>
</tr>
</tbody>
</table>

Figure 9. Benefits of Cisco transportation services

- **Environment**
  - Fewer GHG emissions and less congestion
- **Employees**
  - Improved work-life balance and job satisfaction
  - Reduced vehicle maintenance and commuting costs
  - Greater productivity
In FY20, employees who select EVs for their company car will get a home charger installed as part of the car lease agreement, while we continue to increase the number of EV charging units at our Cisco offices. See Table 14 for the percentage of EVs in Cisco’s fleet.

We also provide a number of on-site services for employees on our campuses, including refueling, car washing, oil changes, and bicycle storage. These and other concierge services reduce employee commuting time, employee stress, and vehicle miles. In FY19, over 39,000 employees used our Booster refueling service, reducing their driving miles by 57,500 miles and associated CO₂ emissions by 25.5 metric tonnes.

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fleet size</td>
<td>6,580</td>
<td>6,100</td>
<td>5,950</td>
<td>5,440</td>
<td>4,772</td>
</tr>
<tr>
<td>Number of electric vehicles</td>
<td>127</td>
<td>334</td>
<td>420</td>
<td>469</td>
<td>540</td>
</tr>
<tr>
<td>Percentage of electric vehicles</td>
<td>1.9%</td>
<td>5.5%</td>
<td>7.1%</td>
<td>8.6%</td>
<td>11.3%</td>
</tr>
</tbody>
</table>
Cisco locations with EV charging
Scope 3 category 11: Use of sold products (product energy efficiency)

Improving product energy efficiency is more than just a regulatory requirement for Cisco. It’s an opportunity for us to help customers save on energy costs, lower GHG emissions, and reduce global energy demand. It also makes our products more competitive.\(^1\) Recent literature from 2015 has seen GHG emissions from the ICT industry leveling off, with the total energy footprint stabilizing at around 3.6 percent of global electricity consumption.\(^2\) While it’s a good start that the ICT energy footprint is not growing, we believe success will ultimately be measured by a decreasing ICT energy footprint and decreasing global energy consumption. That’s why improving product energy efficiency and decreasing energy consumption are important factors in our product development.

We track how much total energy our products use as a Scope 3 Use of Sold Products GHG emission. To calculate this, we first created a manual database of our existing products and listed their typical power rate. When that was unknown, we identified the max power output on the products’ power supply and de-rated that value, providing an approximation of their power rate. We then calculated how many of each product we sold in the previous fiscal year and added that to our database. With those factors, we multiplied the typical power rate by the number of units shipped to determine the total energy consumed by our products sold in that fiscal year. To account for products sold in a previous year, we assumed an average life of five years. We scaled that number using past hardware revenue to determine total energy used by all of our products potentially in use. About 80 percent of emissions were calculated using primary data.

To better calculate this number, we’re exploring ways to create a database to track our products’ energy consumption. Our goal is to automate this process as much as possible to allow for easier energy calculations and more consistent data year over year. By the end of FY20, we plan to have our initial database ready to help calculate our GHG emissions from use of sold products.

Customers and regulators have rising expectations that our products minimize energy costs and GHG emissions. Every year, the number of inquiries related to environmental sustainability we receive from analysts, customers, shareholders, and nongovernmental organizations rises. We track applicable energy-use regulations and certification programs to review compliance needs as requested by our customers.

**Stakeholder engagement and standards development**

Cisco engages with governments, regulatory agencies, and standards development organizations to monitor and influence the development of emerging product energy

\(^1\)Use-phase emissions generally account for more than 80 percent of product life-cycle emissions. They account for more than 90 percent of life-cycle emissions for larger routers and switches, because power is higher relative to weight.

efficiency requirements and standards. Product energy efficiency standards can promote innovation by being performance-based, by taking into account product functionality, and by relying on objective criteria, real-world data, and system-level efficiency. Predictable requirements enable companies to focus on the environmental issues most relevant to them.

Since 2008, we have been working with the EPA to define ENERGY STAR requirements for relevant products. In 2013, the EPA released the Version 1.0 ENERGY STAR specification to differentiate more efficient products across multiple types of large networking equipment (LNE). In 2019, ENERGY STAR Version 3.0 went into effect. It introduced active performance criteria for qualifying products instead of just focusing on limits for idle power in earlier versions. ENERGY STAR specifications apply to Cisco’s enterprise servers, IP phones, LNE, and small network equipment (SNE). For a full and updated list of Cisco ENERGY STAR-qualified products, visit the ENERGY STAR program website.

Although ENERGY STAR is a useful means to promote product energy efficiency improvements, we believe we can do even more by addressing energy efficiency across an entire product system. Almost all eco-design standards and regulations generally apply to a single point of energy conversion in the power supply at the front end of the total system. Cisco supports the idea of studying energy consumption more broadly. This systems approach should result in a fair and correct way to promote energy efficiencies in tomorrow’s networks. One standard that embodies this approach is the Alliance for Telecommunications Industry Solutions (ATIS) Telecommunications Energy Efficiency Ratio (TEER). This measurement method covers all power conversion and power distribution from the front end of the system to the data wire plug, including application-specific integrated circuits (ASICs).

Cisco has also been a co-editor for several standards and actively contributes as the standards are updated. These include the ATIS TEER standards and Energy Efficiency of Telecommunications Equipment: Methodology for Measurement and Reporting standards, more specifically those regarding:

- Servers and server blades (ATIS-0600015.01.2014)
- Transport and network systems (ATIS-0600015.02.2016)
- Router and ethernet switch products (ATIS-0600015.03.2016)

The ATIS TEER standards created a framework for measuring product energy usage that takes product functionality into account. They use real-world loads to determine energy efficiency across the entire product. This is important because it
Table 16. Energy efficiency initiatives and organizations in which Cisco participates

<table>
<thead>
<tr>
<th>Organization</th>
<th>Engagement Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance for Telecommunications Industry Solutions (ATIS)</td>
<td>Cisco is an active member of ATIS and engages with other member organizations to develop standards relevant to the telecommunications industry. In 2010, Cisco took a lead role in the development of the ATIS TEER standard for the measurement of product energy efficiency.</td>
</tr>
<tr>
<td>European Commission Joint Research Center, Codes of Conduct</td>
<td>Cisco is a signatory and active member of the EU Code of Conduct on Energy Consumption of Broadband Communication Equipment.</td>
</tr>
<tr>
<td>European Committee for Electrotechnical Standardization–CENELEC TC10</td>
<td>Cisco is actively working on EN 45552—General method for the assessment of the durability of energy-related products.</td>
</tr>
<tr>
<td>Electronic Product Environmental Assessment Tool (EPEAT)</td>
<td>Cisco has engaged with IEEE and NSF International in the development of server standards for energy efficiency. Cisco is an active member of the EPEAT program for servers and is contributing to the new program on networking products.</td>
</tr>
<tr>
<td>European Telecommunications Standards Institute (ETSI)</td>
<td>Cisco is engaged with ETSI in the development of standards for energy efficiency.</td>
</tr>
<tr>
<td>The Green Grid (TGG)</td>
<td>Cisco participates on a broad range of issue topics, including data center management, liquid cooling technology, PUE, and energy usage effectiveness (EUE). Cisco is a member of TGG’s Advisory Committee.</td>
</tr>
<tr>
<td>Minimum Energy Performance Standards (MEPS) (Australia and Korea)</td>
<td>Cisco supports efforts that focus on the development of energy performance requirements and limit the maximum power consumption of product standby modes.</td>
</tr>
<tr>
<td>Ministry of Economy, Trade and Industry (METI) (Japan)</td>
<td>Cisco supports efforts that focus on the development of a minimum energy efficiency requirement for networking router and switch product groups.</td>
</tr>
<tr>
<td>Telecom Regulatory Authority of India (TRAI)</td>
<td>In 2011, TRAI released recommendations and guidance on energy-efficiency metrics and measurement. Cisco provided extensive document reviews and recommendations on how to align with existing and widely adopted ATIS/ANCI and ITU–R relevant documents.</td>
</tr>
<tr>
<td>U.S. Department of Energy (DOE), Environmental Protection Agency (EPA)</td>
<td>Cisco has been working with the EPA to define ENERGY STAR standards for networking equipment: SNE, LNE, telephony equipment, and servers. Cisco has also worked with Lawrence Berkeley National Laboratory, the EPA/DOE technical arm; Navigant; the National Resources Defense Council (NRDC); and Ecova on measurement methodologies and metrics. Cisco routinely provides feedback to these organizations on best practices, draft standards, and actual power measurement procedures for relevant products.</td>
</tr>
</tbody>
</table>

allowing companies like Cisco to compare energy-usage design improvements from one product generation to the next, and it helps consumers make better-informed purchasing decisions. All Cisco products covered by these standards that have entered the market since 2011 have gone through ATIS TEER testing.

The ATIS TEER standards have been incorporated into the Network Equipment Building System (NEBS) design guidelines applied to telecommunications equipment in the U.S. NEBS is the most common set of safety, spatial, and environmental design guidelines applied to telecommunications equipment. Compliance with these guidelines is an industry (but not a legal) requirement. Table 16 lists organizations Cisco works with on energy efficiency.

**Improving product energy efficiency**

Improving product energy efficiency addresses two key challenges for Cisco. First, to achieve the projected, and required, product performance specifications for the next five to 10 years, Cisco products need an architecture with “energy scalability.” This is one that can provide energy-efficient service for variable traffic types, traffic demands, customer usage, and installs. Second, product use is by far our largest GHG emissions source. To address these challenges, Cisco is investing in five primary product energy efficiency engineering initiatives. These initiatives were chosen as they allow us to have the largest impact on improving our products’ energy consumption.
- **Power initiative.** We are improving product efficiency of our products from plug to port and set a product power efficiency goal in early FY18. This goal is to improve large rack-mounted-equipment system power efficiency—as measured from the input power from the facility to the board-mounted ASICs, memory, and other chip devices—from 77 percent to 87 percent by FY22 (FY16 baseline). Read more about this goal in our goal announcement blog post. Progress toward this goal is shown in Table 17. Such a goal drives Cisco to design new power systems that result in a net positive gain in overall product efficiency.

- **Thermal initiative.** We are exploring alternative methods of cooling (air flow, liquid, and refrigerant cooling) to reduce operating temperatures and facility cooling requirements. Forced air cooling systems in wide use today have limitations in cooling concentrated areas of high power from next-generation packet processing engines. To cool these higher-power components, we must deploy more efficient and effective systems. These advanced cooling systems, targeted towards 2023, will use multiphase cooling techniques to transfer expected thermal output of next-generation switches and routers.

- **High-speed interconnects initiative.** High-speed silicon-to-silicon or optics-to-silicon interconnects are an integral part of routing and switching systems. These interconnects consume a significant portion of the total system power. We are exploring ways to increase the interconnect speed, driving the gigabits per second per watt (Gbps/W) consumed metric as high as possible. This will increase performance and reduce energy use. By the end of 2020, increasing traffic bandwidth demand will require interconnector speed efficiency to be discussed in terms of Tbps/W of traffic transmitted or received. By 2022, ASIC packet processing technology will likely consume more than 1,000 watts in a 4-inch by 4-inch area, using hundreds of transmit and receive channels and thousands of power connections. This initiative drives optimization in the high-speed signaling interconnect to allow more physical space and effective methods of delivering power to the ASIC.

- **Customer facilities initiative.** We are working with customers to reduce the amount of energy required to operate IT facilities with power solutions that increase the efficiency of overhead power, avoid step-down transformers, and provide integrated cooling strategies. These end-to-end solutions reduce hardware requirements and energy consumption while providing a more integrated method for managing IT infrastructures. This initiative includes developing power supplies with wide-ranging AC and DC inputs, and Power over Ethernet (PoE) and Pulsed Power systems integrated into connected building applications that reduce the buildout of future electrical infrastructure.

- **Power Supply Initiative.** Power supplies play a critical role in managing product energy efficiencies, as they are the first step where energy is lost. To overcome this loss, we are working to offer more energy-efficient options for power supplies, giving customers the option of platinum or titanium 80+ rated power supplies whenever possible. This provides cost-sensitive customers the option of selecting lower-rated power supplies, such as gold or silver, while allowing customers concerned about reducing their total energy use to select the higher-rated supplies. For external power supplies, we ship products that are DOE6 compliant, aligning with the latest U.S. energy efficiency standards.

### Table 17. Product power efficiency improvements (large rack-mounted-equipment)

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY16 Baseline</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>System power efficiency (percent)</td>
<td>77%</td>
<td>80%</td>
<td>82%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Goal: Improve large rack-mounted-equipment system power efficiency—as measured from the input power from the facility to the board-mounted ASICs, memory, and other chip devices—from 77 percent to 87 percent by 2022 (FY16 baseline).
When we evaluate product energy efficiency, we consider the power performance of the entire system. We measure the percent efficiency as electricity passes through each component or function. This can include, for example, the external power supply units (PSU), intermediate bus converter (IBC), point of load (POL), and ASIC, memory, or other chips.

**Reducing product energy consumption**

Increasing energy efficiency is key to Cisco’s strategy for managing the total amount of energy used by our products, but it is only one part. Cisco produces a wide variety of products ranging in size from access points (APs) to LNE. This means we must take a multifaceted approach to managing energy consumption. Our products fall into three categories in which we report revenue: Infrastructure Platforms, Applications, and Security. Each product segment requires a different approach.

Infrastructure platforms make up the backbone of the network and consume the most energy. The total energy footprint of each of our products is determined mainly by which components we use. As components, such as the ASICs, CPUs, PHYs, and DIMMs, continue to consume more energy, our products will, too. To offset this energy increase, we continue to push the bps/W ratio of our products higher to get superior performance for the additional energy they use. Read more about this work [here](#).

Our wireless portfolio, which includes APs, also falls under this segment. These products are primarily powered through PoE, making energy consumption a high priority. Each product must fit into the desired PoE standard, ranging from the 802.3af standard of max power at 15.4 W to the 802.3bt max power rating of 90 W. Due to the use case of these products, we design them to minimize their energy consumption during low use periods, such as overnight. Our latest products support the new Wi-Fi 6 standard power-saving feature called Target Wake Time (TWT). TWT allows the AP and client to schedule target wake-up times to exchange data.

Our collaboration portfolio is made up primarily of our IP Phones and telepresence products. Like APs, IP Phones can spend an even greater amount of their lifetime not in use. It’s critical for these products to be designed to efficiently power up for use, then switch into a standby mode to minimize their energy footprint. It is also a priority for our IP Phones to be designed to meet ENERGY STAR standards. Read more about ENERGY STAR and our ENERGY STAR certified products.

Telepresence products help customers reduce their GHG emissions from business air travel and commuting. When designing these products, we prioritize efficient switching between product use and standby modes. Whenever possible, we design our telepresence line of products to support three modes to minimize energy consumption: off, standby, and networked standby. Products can then be set to transition to either of the two standby modes if no input signals are detected for a predetermined time. See the IT solutions for the environment.
section for more information on the benefits of these products.

Our security portfolio is made up of physical and cloud-based product offerings. Similar to our infrastructure platforms, energy consumption is determined by component selection. Each generation of products uses more energy, but bps/W ratios are also increasing. This offsets the additional energy increase.

Scope 3 category 12: End-of-use treatment of sold products (end-of-life)

The last product life-cycle phase defined in the GHG Protocol Product Life Cycle Accounting and Reporting Standard is end-of-life (EOL) management. There are minimal emissions associated with this life-cycle phase for Cisco products, and most of them are connected to the transport of returned products and recycling. For more details, see Product End-of-Use.

IT solutions for the environment

We are making progress in managing GHG emissions in our own operations, in our supply chain, and at other phases of the product life cycle. Our products and services also offer opportunities through the "enabling effect."

The enabling effect happens when technology helps lower emissions in other industries. For example, high-definition videoconferencing can be used in place of face-to-face interaction to avoid air travel. Energy monitoring and control of IP-enabled devices can reduce buildings’ energy consumption.

In addition, Cisco products can support LEED accreditation. Currently, network products can only get LEED credit under the Innovation category of the Building Design & Construction (BD+C): Data Center program. Under this program, only ENERGY STAR-certified products can get LEED credit of up to six points. Read more about Cisco’s ENERGY-STAR certified products.

1See the SMART 2020 report published by GeSI for a more detailed explanation of the enabling effect.
Cisco sponsored and contributed to the first SMART 2020 report in 2009. The report identified opportunities for the ICT sector to develop and apply network technologies to reduce total GHG emissions by 15 percent. The report continues to be a seminal work and guides industry strategy. Considering the ICT sector was projected to be responsible for only 3 percent of global emissions in 2020, this represents a substantial positive impact. Potential reductions are concentrated in the areas of transportation, buildings, power/energy, and industry.

Reducing GHG emissions from business air travel and teleworking

Remote collaboration technologies (see Figure 12) help Cisco and our clients reduce emissions from air travel and commuting. These technologies include Webex Teams®, Cisco TelePresence®, Cisco Webex®, Cisco Unified Communications, and Cisco Jabber® collaboration solutions. Beyond reducing emissions, these technologies also increase employee productivity, promote work-life balance, and help us build customer relationships.

Replacing business air travel with remote collaboration requires more than just technology. Our business processes, management practices, and culture have also had to adapt. As experience with collaborative technologies increases, within Cisco and among our customers and partners, remote interactions have gone from being the exception to standard practice. Hosting and attending Webex meetings with other employees

Small office/personal video conferencing

The Cisco Workplace is Cisco’s shared office space solution. Many small, flexible-use rooms for one to two people have DX80, IP Phones, or MX00 videoconferencing units installed. We’ve deployed over 88,000 IP Phones and over 17,000 personal Cisco TelePresence devices worldwide.

Desktop/devices videoconferencing

Webex Meetings, Webex Teams, and Jabber are available to all Cisco employees using Cisco-assigned laptops. In FY19, we logged over 1.1 million Webex meetings per month, supporting over 4.6 million attendees. On Webex Teams, over 100,000 users exchanged 45 million messages per month. There are over 93,000 deployments of Cisco Jabber, where employees can forward phone calls to their computer, eliminating the need to be near a phone. Cisco Jabber, Webex Meetings, and Webex Teams are interoperable on smartphones, with over 45,000 devices registered.

Immersive videoconferencing

We have more than 5,500 multipurpose TelePresence rooms, an additional 200 fully immersive TelePresence rooms, and over 1,000 Webex Boards, deployed in our offices worldwide.

Home/remote office videoconferencing

Through our Cisco Virtual Office (CVO) hardware and Cisco AnyConnect VPN, employees had more flexibility to work from any location with network access. In FY19, we supported over 26,000 CVO units and over 105,000 Cisco AnyConnect VPN users worldwide.
or with customers, partners, and other stakeholders has become as common as using the telephone. We use Cisco TelePresence, Jabber, and Webex for virtual company meetings, executive operational reviews, and department all-hands meetings.

In addition, about one-third of our annual global ISO 14001 site audits are performed using Cisco remote collaboration solutions. This real-world experience guides product development and helps with the rollout of supporting management practices. Because adoption of remote collaboration technologies has matured, we are no longer tracking adoption metrics included in our previous CSR reports.

**E-flex**

In partnership with other leaders in technology, academia, energy, and the public sector, Cisco is leading a demonstration program to test technology that puts unused energy from electric vehicles (EVs) back into the grid. This vehicle-to-grid (V2G) technology would free up energy for other needs, balancing demand and supply and dramatically reducing the cost of owning EVs. This in turn would lead to positive outcomes for the energy grid and environment. Read more here.

**Cisco technology for CDP**

Cisco supports CDP’s role in promoting global action to reduce GHG emissions. In the interest of promoting CDP’s mission, Cisco has donated Cisco Telepresence units, including large single- and dual-screen conference room units (such as MX700 and MX800) and personal-size units like the DX80; Cisco IP phones; and Webex meeting, event, training, and technical support functionality. These solutions enable CDP to increase its organizational effectiveness and productivity, and better accomplishes its global mission.
We are working to reduce our use of plastic in the designs of our products and packaging, and where this is not viable, use post-consumer recycled plastic instead.

In FY19, we avoided the use of 456 metric tonnes of virgin plastic, laying a foundation for us to achieve our goal of reducing virgin plastic use by 20 percent by FY25.

We are making progress against the product takeback commitments we made at the World Economic Forum in 2018. We are investing in improvements to existing product returns and reuse systems to support increased volumes of product returns.
The design of our products and packaging requires a holistic approach. We carefully review our material selection, product fulfillment strategy, and product end-of-use. This requires cross-functional collaboration between our design, supply chain, product management, reverse logistics, and repair/service teams through this partnership, we prioritize environmentally friendly materials in our products and packaging and optimize the use of product accessories. We also take back the products we sell after customers are done using them, processing them for reuse, recycling, or proper disposal.

Product and packaging goals

To create true change through circularity, we’re aligning our circular economy objectives with our business. Cisco has set new goals and committed the necessary resources to meaningfully reduce our environmental impact and contribute to a circular economy. See Table 3 for a full list of our product and packaging goals.

Stakeholder engagement and standards development

Cisco engages with a variety of organizations, including governments, standards development organizations, and nonprofits, to collaborate and influence on circular economy and related topics. Through our involvement, we share with and learn from peers, work to help bring clarity and consistency to the global marketplace, create predictable requirements that enable companies to focus on the environmental issues most relevant to their business, and address opportunities or challenges that cannot be solved alone. Table 18 highlights several initiatives and organizations in which Cisco participated in FY19.
### Product materials

#### Recycled material content

We use post-industrial recycled content materials in a variety of Cisco products. Electronic products consist primarily of circuit boards, steel, and plastics. Using the lens of the circular economy, we are working to reduce overall material use and increase recycled content. This includes being more deliberate about how and when to use plastic.

In FY19, we committed to decrease the use of virgin plastic by 20 percent by FY25 (FY18 base year)\(^1\). Progress toward this goal is shown in Table 19. Where technically feasible, we will design plastic out of our products and packaging and reduce our overall material. Where it is not viable to design out plastic, we will increase the use of recycled plastic. This reduces the extraction of finite natural resources such as petroleum. It also helps to increase demand for recycled plastic across the industry, making it a more viable economic option for more companies.

Although we did not reduce our use of virgin plastic in FY19, we laid the foundations to significantly increase the amount of post-consumer recycled (PCR) materials we use in our products moving forward. We have identified a supplier of a minimum 85 percent PCR resin and completed mechanical testing and color matching to Cisco specifications for a variety of products. The supplier sources from recycled electronic waste, creating a direct connection to Cisco equipment that has been recycled from previous use.

Earlier examples of our work in this area include the Cisco 6800 and 7800 Series IP Phones, which use a minimum of 35 percent PCR material. In FY19, this meant that we avoided the use of more than 456 metric tons of virgin plastic in the production of 2.7 million IP phones. In FY20, we plan to transition the Cisco 8800 Series IP Phone to the newly identified resin, which uses a minimum 85 percent PCR which will substantially increase these numbers. Examples of ongoing work are listed in Table 21.

#### Miscellaneous shipped material

Cisco aims to optimize the number of accessories included with our products, including reducing the number of plastic bags we ship with our products. We’re currently investigating alternative materials to help separate the various screws we must ship, which are a major source of our plastic bag waste. Many of our products also ship with a cable wrapped in a plastic bag. In FY19, we launched a pilot program to remove the bag from the cables while ensuring they arrived undamaged. If successful, the pilot program will be expanded to other product lines in FY20.

We are also exploring options to reduce the amount of physical documentation we ship. While most documentation is already distributed electronically, some physical documentation is still necessary, such as regional regulatory requirements, safety materials, and operating instructions. In these cases, we require suppliers to print their documentation on paper that is chlorine-free and contains at least 10 percent PCR. We are also evaluating new fulfillment

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**Table 19. Progress toward our virgin plastics goal**

<table>
<thead>
<tr>
<th>KPI</th>
<th>2018 Base Year</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virgin plastic avoided, metric tonnes</td>
<td>6,175</td>
<td>*</td>
</tr>
<tr>
<td>Percent progress against virgin plastic goal</td>
<td>N/A</td>
<td>*</td>
</tr>
</tbody>
</table>

\(^1\)Goal: Decrease use of virgin plastics by 20% by FY25 (FY18 base year). 

*Plastics in this goal make up the majority of Cisco’s use. However, it excludes plastics contained in commodity components sourced from suppliers (such as printed circuit boards). Most of these electronic components require the electrical insulating property provided by plastics.

*To be updated later
technologies that may provide region-specific solutions. For more information, see Appendix III and the Scope 3 Purchased Goods and Services section.

Hazardous materials
As a global supplier of network equipment, we conform to applicable material regulations for product, packaging, and battery materials. We’re committed to reducing the impact of the materials used in our products and in our supply chain. We developed our Controlled Substances Specification to fulfill global environmental regulations. The purpose of this specification is to share Cisco’s substance use and reporting requirements with component suppliers and manufacturing partners. It outlines controlled substances and any conditions of use, regulatory restrictions, substances to be reported and phased out, and substances under study for potential inclusion. Cisco currently restricts more than 200 hazardous substances and recently removed 30 previously allowed substance exemptions.

For additional information on materials-related regulations, visit our Materials webpage. For up-to-date product-level information such as a CE Declaration of Conformity, visit our self-service Product Approvals Status (PAS) tool.1

The following sections cover materials that, while currently not prohibited in our industry, we are working to reduce or substitute in our products where possible.

**Halogenated flame retardants**
Nonregulated halogenated flame retardants (HFRs) can be found in PCBs and plastic parts. We have worked with manufacturing partners, industry standards technical committees, and academia to validate proposed alternatives to HFRs. Cisco continues to identify, confirm, and, where technically practical, phase out nonregulated HFRs.

Some of the actions we have taken include:

- Qualifying additional halogen-free PCB laminate materials and increasing their use in new products
- Eliminating, from thousands of Cisco-designed plastic parts, the HFRs found in resin compounds
- Performing material assessments and identifying areas within our business with the greatest opportunity to move to HFR-free materials

**Polyvinyl chloride**
Polyvinyl chloride (PVC) is a nonregulated substance found in cable insulation. Cisco worked on the iNEMI PVC Alternatives Project to reduce PVC content in cable insulation. This work focused on understanding the environmental trade-offs of standard, halogen-free, and bio-based cable jacketing. Cisco will continue to research alternate materials and apply them to new products where we can maintain quality and performance requirements.

**Batteries**
Batteries in Cisco products are generally used to maintain information in system memory when a device is powered off. These products are designed so batteries can be easily located and recycled. We use product labels to indicate if a product contains a battery. This information alerts our recyclers to remove a battery before further processing.

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1Cisco.com registration is required. Note: This tool is only accessible using Internet Explorer and Mozilla Firefox.
Product end-of-use

We seek to drive circularity throughout the life cycle of our hardware products. The circular economy presents significant business opportunities for Cisco, and for our partners and customers. This commitment starts at the very top. Our CEO, Chuck Robbins, committed to 100 percent product return at the World Economic Forum (WEF) in 2018.

We are making product returns simple and transparent for our customers and employees. Cisco repairs, remanufactures, and refurbishes products for resale and to support customers with service contracts. The programs covered in this section aim to extend the useful life of our hardware.

Product return

Extending the life cycle of our products and the components inside them has long been a Cisco priority. We operate programs for customers, partners, and employees to take back, refurbish, and reuse products. And we’re continually developing new ways to manage product materials.

Information on our compliance with product recycling regulations, such as the Waste Electrical and Electronic Equipment (WEEE)

The Capital Equipment Pledge

At the WEF Annual Meeting in 2018, Cisco committed to 100 percent product return. We will do this by:

• Providing product return pickup and transport at no cost for any customer worldwide upon request
• Establishing alternative commercial models that promote product return, including purchase trade-in, return credit, leasing, and product-as-a-service
• Offering comprehensive warranty, replacement, service, and repair for all products to extend useful product life and minimize obsolescence
• Repurposing returned products, subsystems, components, and commodities, including a limited amount of closed-loop return to new product manufacturing
Directive, can be found here. Products are labeled with a crossed-out “wheelie bin” symbol to encourage users to reuse or recycle electronics instead of putting them in the trash.

We have nine different programs to support our product trade-in and recycling efforts aimed at customers, suppliers, partners, and internal users. Read more about these programs in Figure 13. And see what we’ve achieved in Table 20. In FY19, we saw a decrease in metric tonnes of material returned and a lower refurbish, resell, and reuse rate. These results are due to multiple factors, such as fewer returns from customers, reduced weight of returned products, and/or decreased demand for used product. In FY20, we aim to increase our channels for refurbished or reusable products and expand programs that incentivize customers to return their end-of-life equipment.

For close to two decades, Cisco has followed circular economy principles to increase product returns for resale or recycling; to continuously improve leasing and as-a-service models to facilitate return and reuse; to implement IoT technologies for improved asset tracking, maintenance, and operations; and to improve product design to facilitate reuse.

Figure 13.
Cisco trade-in and recycling programs

Customer and partner programs
The Cisco Migration Incentive Program (MIP; formerly the Technology Migration Program) and Exceptional Pick-Up Program (EPUP) enable customers to return used equipment. MIP is a global channel partner program that uses discounts in exchange for product returns to reward partners for migrating their customers’ networks to new Cisco technologies. These programs provide Cisco with the newest and best-quality used equipment for refurbishment and reuse.

Trade-in materials are refurbished, resold, or reused by Cisco Capital® Refresh, Cisco Service Supply, or our internal labs. Reuse is always our first priority. Any products that are not reusable are harvested for components and recycled by one of our authorized recyclers.
The Cisco Takeback and Recycle (TB&R) program focuses on Cisco-branded items that do not qualify for either MIP or EPUP. TB&R also accepts equipment from other manufacturers that has been replaced by newly purchased Cisco items. The equipment is typically old or damaged and has no reuse value. These materials go to the closest Cisco-approved recycling site. Currently, there are 47 approved recycling locations (Figure 13). The number of locations of Cisco authorized recyclers continues to expand based on the growth in our business and the requirements of local regulations.

In addition to TB&R, Cisco has a process called Send IT Back that allows for the easy return of Cisco products in the Netherlands, the United Kingdom, and the U.S. More information on the Send IT Back process can be found here.

Cisco’s Global eScrap Management Aspect Test (SMAT) is responsible for setting objectives for all ISO 14001 Cisco offices, as described in the Environmental management system section and seen in Figure 7. These objectives are crafted in line with significant environmental aspects identified by Cisco’s EMS and Environmental Aspect Management process. They drive Cisco’s environmental performance, commitment to pollution prevention, and continual improvement. Since FY16, our target has been to keep the percentage of material sent to landfill after initial processing under 0.48 percent. In FY19, the SMAT team lowered the objective to 0.38 percent. While we continue to aim for decreased material sent to landfill, we also recognize that Cisco has limited control over the material received at the recycler. Therefore, we expect our landfill percentage to remain consistent annually.

Our trade-in and recycling programs are designed to bring back the products that Cisco or our acquired companies have sold to channel partners. Of products sent to our e-scrap recyclers, nearly 100 percent are broken down into commodity fractions and sent to downstream vendors to create new products.

### Table 20. Product trade-in and returns

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product returns, metric tonnes</td>
<td>12,180</td>
<td>11,718</td>
<td>12,609</td>
<td>11,398</td>
<td>13,946</td>
<td>9,881</td>
<td>All materials sent for harvesting, recycling, and reuse including materials received via a Returned Materials Authorization (RMA)</td>
</tr>
<tr>
<td>Refurbish, resell, and reuse rate, percent</td>
<td>23%</td>
<td>25%</td>
<td>19%</td>
<td>16%</td>
<td>31%</td>
<td>13%</td>
<td>Material returned from customers, stock rotations, or internal sources that is redeployed by Value Recovery and Repo Depot groups to Cisco Service Supply, Cisco Refresh, or internal users to avoid new purchases</td>
</tr>
<tr>
<td>Returned material sent to landfill, percent</td>
<td>0.30%</td>
<td>0.27%</td>
<td>0.28%</td>
<td>0.36%</td>
<td>0.35%</td>
<td>0.38%</td>
<td>Landfill material consists only of nonelectronic waste materials, such as broken pallets, wet cardboard, and shrink wrap, accompanying Cisco product returned by customers for recycling</td>
</tr>
</tbody>
</table>
Internal programs

The largest of Cisco’s internal programs is the eBin/Lab Scrap Program. eBins are green plastic rolling bins where materials are collected in the labs for recycling. Each eBin has an owner. When the eBin is full, the owner visits our recycling web portal and fills out a pickup request, which is fulfilled by a Cisco authorized recycler. The eBin program began at our San Jose campus, where 450 labs produce a large amount of e-scrap. It now includes all Cisco labs and offices worldwide.

The Cisco Data Center Server Recycling Program serves data centers in 11 countries. When a data center no longer needs a server, it is offered to other Cisco data centers for possible reuse. When one of these servers reaches the end of its useful life, it is recycled, and all parts are shredded. By request, some products are not reused due to sensitive data residing in their memory. In this case, the products go through a full data destruction, including shredding of the equipment, photographs of the destruction, and a Certificate of Destruction with individual serial numbers that were destroyed. Learn more about our policy for data removal here.

The Non-Genuine Materials Program handles “non-genuine” Cisco products we occasionally receive in equipment returns. Items are classified non-genuine if they are competitor products or if they are Cisco products that have been altered by someone outside of our certified repair vendors. They can also come to Cisco through law enforcement seizure of counterfeit Cisco equipment. When we find non-genuine equipment, we use a special witnessed protocol whereby we shred and separate materials into their basic components to send to downstream recyclers and vendors.

We also hold an annual Recycle IT Day for our employees. Cisco employees and contractors can bring their e-scrap from home, and Cisco pays to have the materials recycled properly. Any Cisco office location can host a recycling day event. In FY19, we held our 24th annual Recycle IT Day event, with 161 Cisco sites around the world participating and 191.5 metric tonnes of used electronics collected. Since Cisco started holding these events in 1995, our employees and contractors have helped recycle 3,235 metric tonnes of used electronics.
Product redeployment

The Cisco Manufacturing Scrap/Reuse Program collects and works to redeploy excess, obsolete, or damaged materials from our contract manufacturers, manufacturing partners, original equipment manufacturers (OEMs), original design manufacturers (ODMs), and proprietary component suppliers. Our contracted repair manufacturers and distribution depots use the Global Scrap Program for these materials. Both programs are a valuable source of reusable product.

Figure 14.
Cisco reverse logistics locations
Remanufacturing and refurbishment
Cisco Refresh, our certified remanufactured equipment program, provides a genuine and trusted complement to new Cisco equipment, without compromising performance, support, or value. Cisco Refresh is backed by the same Cisco warranty and service options as new products. Equipment is sold only through Cisco authorized resellers and is available in more than 80 countries. Inventory includes products from all technology areas, including switching, routing, wireless, IP telephony, security, and other advanced technologies. In-stock products usually ship within three days.

Remanufacturing and refurbishing used equipment also brings quality technology to those who may not otherwise have access to it. In FY19, we announced plans to launch a Repair Partners Network in Africa. Its aim is to work with selected distributors to repair and restore Cisco hardware and make high-quality, refurbished technology accessible, especially for small and medium-sized organizations. By investing in repair centers in Africa, we will help create jobs and develop skills. We will also protect our brand and promote Cisco’s Authorized Channel.

Service product reuse
Our Global Service Supply Chain organization delivers and supports customer and partner hardware RMAs. This organization is constantly optimizing our network and inventory levels as parts are used, customers deploy new products, and old hardware becomes obsolete. We replace, recover, and refurbish defective inventory back into finished products through an extensive logistics, warehouse, planning, and repair operations network. Each device is repaired and repeatedly tested to ensure compliance with the latest manufacturing specifications.

Recycling
Component harvesting
Our goal is to redeploy as much material as possible, with recycling as the last step of a product’s life only when reuse is not an option. In January 2017, Cisco launched a program in the Americas and Europe that allows our recycling partners to harvest commodity components from materials for the first time. Recyclers may harvest processors, memory, and other hardware with sufficient market value to offset the cost of their harvesting, cleaning, packaging, and resale. The pilot was a success and is now part of our standard process. Since the program’s inception, component harvesting has allowed more than $12.5 million of components to be reintroduced into the market, thus extending their useful lives and eliminating the need for virgin components.

Material return to manufacturing
In FY19, Cisco piloted and formalized a process to return unused products from our distribution centers to our contracted manufacturing sites. At six sites, returned products that are considered “new-in-box” are sent back to be tested and, if necessary, reconfigured. This allows us to reuse products while satisfying demand for new equipment. In FY20, we plan to expand this program to additional contracted manufacturing sites.
In addition to the return of whole products, we are committed to using recycled content in our new products. For information on recycled content in our products, see Recycled material content.

**Commodity resale**

We currently have two contracted e-scrap recyclers. Each recycler uses both company-owned facilities and subcontracted recyclers to provide global recycling coverage. Cisco’s contracted recyclers are certified to one or more e-scrap-specific recycling standards, such as R2, R2 Rios, eStewards, and WEEELABEX.

Our contracts require recyclers to enforce our strict recycling processes with any of their subcontractors doing Cisco work. We approve every prospective recycling company and every recycling location before sending any Cisco equipment for processing. In addition, our recycling process is formally documented and is part of the contract with each of our recyclers. We hold quarterly business reviews with each e-scrap recycler to review recent results, action items, and upcoming focus areas. We also conduct random site audits of recycling facilities.

Each contracted recycler provides Cisco with monthly reports showing all cases opened and processed on a lot-by-lot basis. Reports include a mass balance showing the weight as received and the weights of each fractional commodity adding up to the gross weight received.

After weighing each item on a calibrated scale, recyclers review items for possible component harvesting. After harvesting, the unit proceeds to the recycling process. The recycling process starts with each load of e-scrap being dismantled and sorted into “commodity fractions.” This separates steel, aluminum, cardboard, plastic, wire/cable, and printed circuit boards (PCBs). PCBs are shredded and sorted further before going to a specialized smelter where as many as 22 metals are harvested. These harvested metals are sold on the global metals markets. All materials, including any batteries or packaging materials, are sent to downstream recyclers to be made into new products. Learn more about our return and recycling programs here.
Packaging

In an ideal circular economy, there is no such thing as waste. The current reality is that many packaging materials become waste immediately after first use. We are working to remove unnecessary packaging and make what remains reusable and/or easy to recycle. Some common materials used for packaging are difficult to recycle, like foams or expanded polymers, yet they continue to be selected due to their ability to protect products during shipment with strong cushioning. Products that are damaged in transit create additional negative business and environmental impacts, since repairing or replacing a damaged good requires resources, energy, and materials.

To support Cisco’s commitment to sustainable packaging, we announced two new goals in FY19 focused on reducing the use of foam and improving product packaging efficiency. See Table 3 for more information. To help us achieve our goals, packaging engineers work with product design teams to reduce protrusions, improve product fragility, standardize or reduce product dimensions to optimize product packaging, and increase packing efficiency during transport. Each packaging design goes through rigorous drop and vibration testing to confirm it provides the required level of protection.

Once we’ve met basic packaging and material requirements, Cisco evaluates four additional aspects of environmental package design:

- **Packaging material optimization.** Designing a package that adequately protects the product from transport damage while optimizing the volume of material and complying with all relevant environmental regulations
- **Space efficiency optimization.** Designing a package that optimizes space/cube efficiency during transport
- **Optimizing distribution.** Designing products for distribution to further reduce packaging material used and/or GHGs emitted in transportation
- **Environmentally friendly materials.** Including recycled content and recyclability in product designs

Eliminating plastics in WebEx Share packaging

One example of a product that has moved to plastic-free packaging is our Cisco Webex Share product. We wrapped both the cable and power adapter clip in paperboard, reducing the need for two plastic bags. A molded fiber tray, rather than foam or other plastic cushioning, holds the actual product in place. All of these fit into a corrugated box, which slides into an overpack box with eight other units. We have also optimized the design for distribution, so we can fit 132 of these boxes onto a pallet to maximize efficiency. For this small, consumer-facing product, plastic was easy to design out, and we addressed all of the principles above. We will continue to explore new designs to protect larger products during transit.
Generally, our packaging uses corrugated cardboard that includes a minimum of 30 percent recycled content. Almost all of our packaging for new products is made either of a single material or of multiple materials that are separable for recycling. In our global market, customer, municipal, and regional recycling practices vary greatly. Customers’ ability to recycle our packaging depends on the recycling facilities in place in their location.

The plastic used in Cisco packaging falls into categories identified by Resin Identification Codes 1 to 7. Polyethylene (codes 2 and 4) is the predominant material. Some plastic components carry labels indicating their plastic recycling code number to aid end-of-life recycling. We use thermoformed medium-density polyethylene cushions made from virgin material or from recycled substitutes. When regionally available and technically feasible, we use cushions made from 100 percent recycled polyethylene.
Cisco legacy products, including those produced by our acquired companies, may not incorporate all current packaging best practices. A similar challenge also exists for packaging provided with OEM products that a Cisco supplier delivers directly to a customer.

While we promote recyclable packaging, sometimes this is not possible. Although metallized antistatic bags are not easily recycled, they are essential to the safe transport of products susceptible to damage from electrostatic discharge. We size bags to fit the product being shipped and minimize the amount of material we use. Our contract manufacturers also reuse antistatic bags whenever technically feasible.

**Product packaging end-of-life**

Cisco product packaging is designed to be separable and recyclable so it can be absorbed by local packaging material recycling programs. Cisco does not collect used packaging, as shipping empty product packaging to Cisco for recycling would create unnecessary environmental impacts. However, we are exploring reusable packaging options for specific scenarios. One example is using reusable packaging for customers near our distribution sites. This would allow packaging to move between two locations for reuse while minimizing the environmental impact of shipping empty material. Read more [here](#) about Cisco’s compliance with environmental packaging regulations.

**IT solutions for the environment**

Beyond our efforts to make Cisco a circular business, we are committed to advancing the circular economy across a broader ecosystem of customers, partners, and other stakeholders. Our networks provide the infrastructure for transformative technologies, like IoT, blockchain, and artificial intelligence. These disruptive forces will help us better understand the context of objects in our physical world. Below are some examples of how we are applying our technology and services to help our customers transform their organizations and advance the circular economy ecosystem.

**Cisco Connected Goods showcase**

In June 2019, we convened a technology showcase and design thinking workshop called *Cisco Connected Goods for Circularity*. This demonstration event explored how Cisco technology can enhance and enable circular business models.

One application we explored focused on takeback models for clothing. Using sensors and other technologies, we modeled “smart clothes” that are uniquely identifiable and trackable throughout their life cycles. At our showcase, participants were led through six different stations, including a mock store, home, recovery center, and more.
Connected clothing enables a new kind of relationship between brands and consumers. Through their smartphones, consumers can receive tips on sustainable laundering methods and how to responsibly return their clothing when it is no longer needed. The data generated from the clothing can also be applied to enable more efficient collection, sorting, and reuse.

**Container 42**

Rotterdam is Europe’s biggest and busiest port. It also aims to be the world’s smartest and most sustainable port by introducing technology that makes shipping safer, more efficient, and more environmentally friendly. Cisco is supporting Rotterdam’s digitization journey through our intent-based networking solutions, including partnering with the port and other technology leaders on a project called Container 42.

Container 42 is a shipping container equipped with sensors and communication technology to collect data on vibrations, pitch, position, air pollution, temperature, and humidity as it travels the world. The container is a prototype that will lead us into the future of global logistics, where data insights can be applied to minimize air pollution, increase fuel efficiency, prevent spoilage and waste of perishable items, and more.

Cisco CEO Chuck Robbins visited the Port of Rotterdam and met with the We Are 42 team for further partnership in digitization.
In this section:

- Water 198
- Biodiversity 201
- Solid waste from operations 207
- Effluents 209
- Non-GHG emissions 209
Water scarcity affects more than 1 billion people around the world. Even though technology companies like Cisco do not directly use significant amounts of water, we understand the importance of reducing water consumption as much as we can in our operations and supply chain. It’s essential to protect this limited resource not only for our business needs, but also for the sake of communities in which we operate.

Cisco’s water strategy is to:

- Benchmark and report water use and risks according to industry best practices
- Conserve water in our operations, focusing on water-scarce and water-stressed locations
- Set long-term water goals for water-scarce and water-stressed locations (FY20)

Water usage

We have been collecting and tracking water usage data for our major campus locations since FY07 (Table 22). In FY19, Cisco quantified water withdrawals, consumption, and discharges for 100 percent of our total real estate portfolio within our operational control.

In FY19, Cisco withdrew 3,409 thousand m³ of water for use in its direct operations. Cisco’s primary use of fresh water in our direct operations is for water, sanitation, and hygiene (WASH) services in the workplace, such as in restrooms and cafeterias. We also use fresh water in our cooling towers and for irrigation where we are unable to use recycled water. Our primary use of utility-provided recycled water is for irrigating landscapes and evaporative cooling for our labs and data centers at several of our major campuses.

Cisco recycles and reuses most of the water we withdraw for use at our Bangalore, India, campus. The campus is a zero-discharge facility, meaning no wastewater is discharged to third parties or the environment. All building water discharge is sent to two sewage treatment plants that use filtration and reverse osmosis to treat the water for eventual reuse. Eighty-five percent of the treated water is used in HVAC systems (cooling towers), for irrigation, and for toilet flushing in two campus buildings. A small quantity of discharge water is trucked back to the water company when it can no longer be recycled. In FY19, we recycled 108,680 m³ of water at Bangalore campus, which is 3.2 percent of Cisco’s total global water use.

In addition to our direct operations, many of our suppliers require fresh water as a direct input during production, and for drinking water and sanitation for their employees. Our Tier 1 suppliers’ (i.e., contract manufacturing and ODM suppliers) primary use of fresh water is the same as Cisco’s. They provide WASH services in the workplace as well as for cooling towers and irrigation. For some Tier 2 component suppliers that need large amounts of water in their production process, such as semiconductor and PCB suppliers, water quantity and quality impact their daily operations.

We use the World Business Council for Sustainable Development (WBCSD) water tool and the WRI Aqueduct tool to better understand our water use and risks at both the country and local watershed levels. The Aqueduct tool revealed that 50 percent of Cisco’s water use by volume is withdrawn from water-stressed areas, including the water withdrawn for use in our two largest campuses: San Jose and Bangalore. We will continue to monitor these sites for changes in water availability and will develop contextual water management strategies accordingly.

However, Cisco’s total water withdrawals are relatively low compared to other industries and companies. For example, through the U.S. Commercial Buildings Energy Consumption Survey (CBECS), the Energy Information Agency (EIA) estimates large commercial buildings in the U.S. use about 18,400 gallons (69.7 m³) of water per worker per year. In FY19, Cisco used 44 m³ of water per employee, which is far below the EIA average.
Cisco is committed to managing water responsibly across our direct operations and our supply chain. We have implemented numerous water conservation projects in our direct operations over the past few years. These projects are still conserving water today and will continue to do so for many years to come:

- Using irrigation controllers throughout the San Jose main campus
- Using reclaimed water for irrigation and cooling towers in RTP
- Installing variable-frequency drives in our cooling towers
- Installing two-way valves for toilets, waterless urinals, sink aerators, low-flow showerheads, and pre-rinse spray valves for kitchen sinks
- Replacing water fountains and turf in San Jose and RTP with native planter beds that require little water, and installing drip irrigation lines to improve irrigation efficiency
- Implementing a comprehensive water management system in Bangalore, including a rainwater harvesting system, two sewer treatment plants, and an evaporative cooling system

### Table 22. Water use in direct operations

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total water withdrawn, m³, thousands</td>
<td>2,916</td>
<td>3,050</td>
<td>3,220</td>
<td>3,394</td>
<td>3,409</td>
<td>This figure covers 100 percent of Cisco’s facilities. Withdrawal sources are reported below. Cisco does not withdraw water from any source not listed below.</td>
</tr>
<tr>
<td>Water withdrawn from municipal supply</td>
<td>2,872</td>
<td>3,010</td>
<td>3,204</td>
<td>3,366</td>
<td>3,222</td>
<td>The majority of Cisco’s water withdrawals are from third-party sources.</td>
</tr>
<tr>
<td>Water withdrawn from fresh surface water</td>
<td>131</td>
<td>148</td>
<td>168</td>
<td>159</td>
<td>165</td>
<td>We withdraw water from a nearby lake at our Vaud, Switzerland, location, use it on site in a closed-loop cooling system, then discharge it back to the lake.</td>
</tr>
<tr>
<td>Total water recycled and reused</td>
<td>102</td>
<td>95</td>
<td>106</td>
<td>116</td>
<td>109</td>
<td>Cisco recycles and reuses about 50 percent of the water it withdraws for use at our Bangalore, India, facilities.</td>
</tr>
<tr>
<td>Water withdrawn from groundwater, m³, thousands</td>
<td>44</td>
<td>40</td>
<td>16</td>
<td>28</td>
<td>22</td>
<td>Water is treated on site at our Boxborough facilities and then discharged back to the groundwater.</td>
</tr>
<tr>
<td>Total water consumption, m³, thousands</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>108</td>
<td>491</td>
<td>We are in the process of improving our water accounting practices and expect to more accurately report the water we use for evaporative cooling and irrigation.</td>
</tr>
<tr>
<td>Total water discharged, m³, thousands</td>
<td>2,916</td>
<td>3,050</td>
<td>3,220</td>
<td>3,286</td>
<td>2,918</td>
<td>This figure covers 100 percent of Cisco’s facilities. Discharge destinations are reported below. Cisco does not discharge water to any destination not listed below.</td>
</tr>
<tr>
<td>Total water discharged to sewer</td>
<td>2,731</td>
<td>2,862</td>
<td>3,149</td>
<td>3,258</td>
<td>2,731</td>
<td>The majority of Cisco’s water discharges are to third-party destinations.</td>
</tr>
<tr>
<td>Total water discharged to fresh surface water</td>
<td>131</td>
<td>148</td>
<td>168</td>
<td>159</td>
<td>165</td>
<td>We withdraw water from a nearby lake at our Vaud, Switzerland, location, use it on site in a closed-loop cooling system, then discharge it back to the lake.</td>
</tr>
<tr>
<td>Total water discharged to groundwater</td>
<td>44</td>
<td>40</td>
<td>16</td>
<td>28</td>
<td>22</td>
<td>Water is treated on site at our Boxborough facilities and then discharged back to the groundwater.</td>
</tr>
<tr>
<td>Real estate portfolio covered by water reporting</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Real estate portfolio where we receive water data</td>
<td>72%</td>
<td>73%</td>
<td>72%</td>
<td>71%</td>
<td>70%</td>
<td></td>
</tr>
</tbody>
</table>
We plan to develop targeted strategies to conserve water and evaluate partnerships with local organizations to address local water issues in Bangalore and San Jose. In FY20, we will audit our water usage in San Jose to identify opportunities to reduce our water consumption there.

We have also been working toward a water neutrality target for our RTP campus. To us, this means restoring water to local watersheds in quantities equal to our consumption. In addition to implementing the above projects, we also began treating the reclaimed water we use in our cooling towers with a plant-based water treatment solution instead of chemicals in FY19. So far, this solution has improved water quality and the efficiency of our systems.

To balance the remainder of both the fresh water and recycled water that we use in RTP, we are funding water restoration projects in North Carolina and the Southeast. These projects increase flows in rivers and streams, restore wetlands, and replenish groundwater to improve water security for ecosystems, communities, and economies. One project we are supporting is the removal of Ward Mill Dam, a decommissioned dam in the Watauga River Basin in North Carolina. By supporting this and other water restoration projects in the Southeast, we expect to achieve water neutrality in FY20.

Water-energy nexus

The production of electrical power is one of the largest users of fresh water. Therefore, one of the greatest opportunities for Cisco to reduce our impact on water resources globally is by continuing to make our products and operations more energy-efficient.

The U.S. Geological Survey estimates in their latest 2015 water report that an average 15 gallons of water are used to produce 1 kilowatt-hour of electricity in the U.S. Considering this, the energy savings we achieve through our energy and GHG reduction efforts have a big impact on reducing water usage. We estimate our FY19 energy reduction projects (Table 10), which avoided 19.4 GWh of energy usage, also avoided 1.1 million cubic meters (m³) of water usage in FY19. Since FY15, we estimate our energy reduction projects have avoided the use of over 9.7 million m³ of water. To put this into perspective, the avoided water usage we achieved from our energy projects in FY19 is equal to roughly half of Cisco’s total FY19 water use.
Biodiversity

Biodiversity is the variability among living organisms and the ecological complexes they are a part of. All organizations impact biodiversity directly through their own activities or indirectly through their supply chains. Cisco’s primary impact on biodiversity is the land we use for our facilities. We mitigate this impact by reducing the demand for physical office space through employee telework programs and other support solutions. For more information, see the Cisco Workplace and Flexible work practices.

Operations

Cisco uses environmental impact assessments to evaluate the biodiversity and land-use impacts of our sites. We generate annual biodiversity summary reports for all land and property we own. Table 23 shows the percentage of our portfolio with biodiversity assessments in place. Note that as Cisco’s total square footage decreases, our percentage of real estate portfolio with biodiversity assessment decreases as well. Some of the buildings we own in San Jose are located near a protected area for the American Cliff Swallow, which is a bird species on the Least Concern category of the International Union for Conservation of Nature (IUCN) Red List. To protect their habitat during nesting season, we close our balconies on those buildings. We then remove the mud nesting locations on our buildings after nesting season is over.

Protecting turtle habitat

Our Boxborough campus is located in the habitat of Blanding’s Turtle (IUCN Endangered Species) and the Eastern Box Turtle (IUCN Vulnerable Species). We have taken measures recommended by the IUCN to ensure the turtles can survive and even thrive in this location, including:

- Establishing two conservation areas of 49 and 60 acres, respectively
- Constructing three turtle tunnels under the highway to provide a safe passage for migration
- Installing turtle curbing around the site to prevent migrating turtles from entering the roadway and parking areas
- Enhancing 16 acres of turtle nesting habitat within the conservation area
- Funding a two-year construction phase turtle monitoring plan and a two-year Blanding’s Turtle conservation research project
- Restricting future development on approximately 50 acres of our land
Over the last several years, we’ve come to understand the importance of ocean biodiversity and ecosystem health. To support and promote improved ocean health, Cisco has become a signatory to the UN Global Compact Sustainable Ocean Principles. Guided by these principles, Cisco commits, where relevant, to ensure that we integrate material ocean-related risks and opportunities in corporate strategy, risk management, and reporting.

**IT solutions for the environment**

Cisco’s wildlife conservation program began as a joint effort with Dimension Data to save rhinos. It has since evolved into an initiative, Cisco Open Conservation, that includes new partners, geographies, and species, as well as a new Cisco team: Sustainable Impact. The goal: use innovative technology to impact both human well-being and life on land, under water, and in the air. The program aligns with Cisco’s CSR and Country Digital Acceleration (CDA) efforts that aim to positively impact people, society, and the planet. Saving endangered species and protecting ecosystems effectively impacts all three of these categories.

Our work began in 2015 in support of Cisco’s largest distribution partner, NTT, based in South Africa. Cisco contributed technology, services, and expertise to help NTT protect endangered rhinos and uplift communities. Following these efforts, we identified other ways to contribute. In 2019, the program evolved from many independent efforts to a single program under Dave Ward, CTO of Engineering and Chief Architect. The new program’s goals are to apply innovation and encourage industry to develop training programs that support conservation efforts. The program also aims to benefit surrounding communities, and will ultimately expand to new sectors and use cases.

<table>
<thead>
<tr>
<th>Table 23. Biodiversity and land use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KPI</strong></td>
</tr>
<tr>
<td>Percent of real estate portfolio with biodiversity assessment</td>
</tr>
<tr>
<td>Total real estate footprint square footage, millions</td>
</tr>
</tbody>
</table>
Phase 1: Pilot projects

Private Game Reserve, South Africa: The program worked with Dimension Data (now a wholly owned subsidiary of NTT) to design and deploy a solution that would curb rhino poaching at a private game reserve outside of Kruger National Park in South Africa. The Connected Conservation pilot used Cisco networking and security technologies, combined with a series of sensors and data collection tools, to track human movement. These tools helped identify suspicious activity that could indicate a potential incursion or threat to the endangered animals. This project has reduced poaching incidents by 95 percent (see Table 24) in this 650 km² reserve.

Phase 2: Global expansions

In 2017, Cisco expanded beyond South Africa and took on three new conservation projects through our partnership with World Wildlife Fund. The first project took place in Zambia at Kafue National Park. This project aimed to decrease elephant poaching along the banks of Lake Itezhi-Tezhi, where we funded the construction of a new operations control center and helped to design a secure network across the 370 km² lake. The solution enabled rangers to identify illegal activity on the lake and notify their teams to apprehend suspects. From January to August of 2019, ranger teams using this solution apprehended people 45 times for illegal poaching or fishing activity. Anti-poaching units in the area have not found any poached elephant carcasses in the protected area, nor have they received any reports of elephant poaching incidents.

Next, we introduced Connected Conservation solution to Kenya. There, a secure network and series of sensors will provide rangers at Lewa Conservancy with real-time surveillance capabilities for enhanced response time and informed decision-making.

To grow our network of partners and expertise, we teamed up with NIL Data Communications, Peace Parks Foundation, and others to begin a project at Hluhluwe–imfolozi Park in the famous KwaZulu-Natal region in South Africa, known as

| Table 24. Open Conservation and sustainable impact |
|----------------------------------|---|---|---|---|---|---|
|                                 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Incursions                      | 51   | 52   | 76   | 25   | 20   | 27   |
| Rhino carcasses                 | 45   | 10   | 14   | 2    | 1    | 0    |
| Possible number of rhinos lost  | 51   | 52   | 76   | 25   | 20   | 27   |
| Poacher success rate            | 88%  | 19%  | 18%  | 8%   | 5%   | 0%   |
| Ranger success rate             | 12%  | 81%  | 82%  | 92%  | 95%  | 100% |

*Last year before implementation of technology*
the “birthplace of rhinos.” The new “Internet of Life” solution that we helped develop for this reserve included a complex network paired with a unique sensor placed beneath the skin that tracks the movement and location of rhinos, as well as anatomical data such as blood pressure and heart rate. This solution is of great interest to both conservationists and veterinarians, as it provides data that was previously unobtainable. Continuing to grow our footprint within South Africa, we recently committed to a third project in the region, at Balule Game Reserve, using the same solution deployed at Hluhluwe-imfolozi. The success of these technologies in multiple locations suggests their potential to scale.

**Phase 3: Thought leadership, techno-conservation research**

Cisco’s Sustainable Impact team is interested in long-term partnerships and solutions. Cisco will lead the emerging techno-conservation industry through an external program called Open Conservation. We are trying to lead the scaling of the effort from single reserves through parks and sharing across nation-states. By pioneering this effort, we hope to set an example for technology companies and lead the industry to a scalable architecture and set of standards for protecting threatened biodiversity.

In 2019, we held a three-day Research and Innovation Symposium in Paris, France, in partnership with Ecole Polytechnique. Cisco had three goals for this symposium:

- Drive awareness and alignment for techno-conservation efforts
- Share best practices among peers and across industries
- Discuss existing and potential solutions toward a common architecture

At the end of the symposium, we invited select partners to join us for an architecture review session. There, we welcomed feedback on our working reference architectures and to solidified industry leadership toward the Open Conservation effort. These deeper conversations have enabled us to refine our architectures with the knowledge that they have viability to work in the field as well as in theory.

The Sustainable Impact program also works in alignment and partnership with country leaders and Cisco’s 14 Co-Innovation Centers. These centers are strategically located around the world.
and align to our CDA efforts to help governments achieve their digital priorities. By leveraging these centers and the CDA program, the Sustainable Impact program can explore opportunities in new regions across the world and access networks of experts, academics, and partners to help propel our conservation efforts forward.

Our university relations and grant program has also published requests for proposal (RFPs) to fund academic research. The research is not limited to species, ecosystems, or geographies. Currently, the Sustainable Impact team has three open RFPs focusing on:

- The economic benefits of ecotourism and conservation
- Technology applied to research life patterns of species and their relationships to ecosystem health
- Identifying fish species using artificial intelligence

Recognition

Our conservation efforts gained the interest of National Geographic, who showcased our technology solution in a documentary series. Led by cricket legend Kevin Pietersen and “Outback Wrangler” Matt Wright, the two-part documentary shares the stories of passionate conservationists and their tireless work to save rhinos in South Africa. Save This Rhino highlighted that technology can and should play a role in conservation. This coverage has not only accelerated the Open Conservation program but has encouraged new conversations between Cisco and our global partners.

We jointly premiered the documentary in London and Sydney and hosted the national premiere of Save This Rhino in Los Angeles. Cisco invited the technology, conservation, and Hollywood communities to come together and learn about the critical state of rhino populations in Africa. By bridging communities and tapping into celebrity and social media influence, we
are working to engage new demographics and amplify awareness for techno-conservation efforts. Our goal is to showcase more of our projects using mainstream media and to empower younger generations to get involved. Read more about Save This Rhino and Cisco’s involvement.

Cisco’s work with Dimension Data (now part of NTT) won the Innovation award at The Better Society Awards, recognizing commercial companies who are helping to create a better, more equal, ethical, and sustainable world. Internally, the team won Cisco’s first Data Science Award for Benefitting Humanity for using data science, deep learning, and data sharing policies to innovate for social benefit.

The road to conservation projects has been a fulfilling one. We are proud of how Cisco experience, donations, and technology have benefited rhino and elephant populations across Sub-Saharan Africa. As we look to FY20, we will evolve a broader strategy to solve some of the world’s toughest conservation problems. Innovation will drive our efforts, as will the creation of an open-source techno-conservation community that will bring scale and accessibility to the conservation ecosystem. Cisco’s Sustainable Impact Program aims to apply the R&D started for conservation efforts to a broader commercial audience. “Tech for good” has become a common refrain, but to become sustainable, these efforts must bring long-term value to the company. Many of the use cases in conservation could serve a much broader set of business opportunities, including education, healthcare, energy, ports, transportation, agriculture, and manufacturing. This new shared value model is good for conservation, good for Cisco, good for our customers, and good for communities that will continue to benefit from Cisco innovation.

Cisco technology for WWF

Cisco donated much of the information and communications technology in WWF’s U.K. office—the Living Planet Centre—that opened in late 2013 in Woking, U.K. Much of the equipment was redeployed as like-new from the 2012 Olympic Games and refurbished before installation at Woking, where it continues to support WWF’s global mission.
Cisco’s waste reduction and recycling program applies the principles of reduce, reuse, and recycle to our operations. The program is a key component of our ISO 14001 certification and global environmental policy. While municipal and regional recycling practices vary, all our facilities take steps to reduce their operational waste and recycle materials locally.

In FY19, we diverted approximately 79 percent of the waste generated at our facilities from landfill. Per the GHG Protocol Corporate Value Chain (Scope 3) Standard, our emissions generated from operational waste sent to landfill are 1,096 tCO$_2$e. Using the EPA Waste Reduction Model, we estimate that our waste and recycling efforts in FY19 avoided 763 tCO$_2$e that would have been produced had the material been sent to landfill instead of a recycling or composting facility. Therefore, we estimate that Cisco’s net GHG emissions from waste and recycling in our operations are less than zero.

Table 25 shows our solid waste metrics. Cisco reports total waste generated and recycled for 100 percent of our total real estate portfolio within our operational control. Figure 18 shows examples of how we reduce waste and increase reuse and recycling on our campuses. Figure 16 shows solid waste recycling rates for our major campus locations worldwide.

Our headquarters in San Jose diverted 87 percent of all waste streams from landfill in FY19, including a compost program that diverted approximately 796 metric tonnes of waste from local landfills. In addition, through our food collection and donation program in San Jose, we have donated 21,000 pounds of food to local homeless shelters in the Bay Area. A breakdown of our waste stream for the San Jose site in Figure 17 illustrates our key sources of operational waste, the complexity of proper waste stream segregation, and the need for robust recycling services. Our Boxborough campus diverted 100 percent of all waste from landfill in FY19 through a comprehensive composting, recycling, and waste-to-energy program.

We have been working toward a zero waste goal for our RTP campus. Click here for more information on our RTP campus goals. Per the True Zero Waste Certification definition, zero waste means diverting 90 percent or more of all...
solid waste from landfill. To work toward this goal, we launched a campus composting program on Earth Day 2019. All to-go containers in the cafeteria have been replaced with biodegradable options, and we now provide mugs and reusable cups in cafés and breakrooms instead of paper cups.

Since the zero waste program launched, the RTP campus has stopped sending over 10,000 plastic items to landfill each week, saving 6 tons of plastic to date. We intend to build upon these successes over the next 12 months by switching plastic breakroom and catering items over to compostable options, removing paper cups from the remainder of the campus, and transitioning the campus from deskside trash bins to centralized waste. Over FY19, we diverted 68 percent of the waste produced at RTP campus from landfill, up from 38 percent diverted in FY14.

We are also moving away from plastic and paper cups and toward reusable cups and mugs in many offices around the world, including our Bedfont Lakes campus in the U.K. and the majority of our facilities in Asia and Europe. In the U.K., we are also replacing the plastic and polystyrene to-go boxes, cutlery, and straws with compostable options, and adding campus composting. In FY19, 132 facilities, making up a quarter of our office square footage, were paper-cup-free.

---

**Table 25. Solid waste from operations (trash)**

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operational waste generated, metric tonnes</td>
<td>10,388</td>
<td>9,805</td>
<td>12,519</td>
<td>10,559</td>
<td>9,618</td>
<td>This figure covers 100 percent of Cisco’s facilities.</td>
</tr>
<tr>
<td>Percent real estate portfolio covered by waste reporting</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Includes major campus locations in the United States, India, and China.</td>
</tr>
<tr>
<td>Total operational waste recycled, metric tonnes</td>
<td>7,885</td>
<td>7,358</td>
<td>8,500</td>
<td>7,717</td>
<td>7,639</td>
<td></td>
</tr>
<tr>
<td>Operational waste recycled (including compost), percent</td>
<td>76%</td>
<td>75%</td>
<td>68%</td>
<td>73%</td>
<td>79%</td>
<td></td>
</tr>
</tbody>
</table>

---

**Figure 18. Cisco solid waste reduction initiatives**
We seek to locate our operations in areas where we can successfully serve our customers while limiting our negative environmental impacts. Effluent spills, such as chemical, oil, and fuel spills, can have significant negative impacts on the surrounding environment. They can potentially affect soil, water, air, biodiversity, and human health, as well as our business. We take this and other environmental health and safety issues very seriously. Cisco has had no significant releases to an environmental receptor over the reporting year. Table 26 tracks liquid spills and discharges from Cisco facilities.

Table 26. Effluent spills and discharges

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spills and discharges</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Because our production is outsourced to supply chain partners, our global operations primarily consist of standard office activities and research labs. This limits our non-GHG emissions to volatile organic compounds (VOCs) from cleaning products, nitrous oxides (NO\textsubscript{x}), and sulfur oxides (SO\textsubscript{x}) from on-site fuel combustion (from vehicle engines, boilers, or emergency generators), and the subsequent formation of ozone from the photochemical reaction of NO\textsubscript{x}. Table 27 summarizes our relevant non-GHG-related airborne emissions: VOCs, NO\textsubscript{x}, SO\textsubscript{x}, and particulate matter.

Table 27. Non-GHG emissions

<table>
<thead>
<tr>
<th>KPI</th>
<th>FY16</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile organic compound (VOC) emissions\textsuperscript{1}</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
</tr>
<tr>
<td>NO\textsubscript{x}, metric tonnes</td>
<td>212</td>
<td>207</td>
<td>138</td>
<td>176</td>
<td>156</td>
</tr>
<tr>
<td>SO\textsubscript{x}, metric tonnes</td>
<td>0.72</td>
<td>0.72</td>
<td>0.65</td>
<td>0.67</td>
<td>0.59</td>
</tr>
<tr>
<td>Particulate matter</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

\textsuperscript{1}Quantities of VOC-based chemicals deployed are minimal and monitoring is not required.
Appendix & GRI content index

In this section:
Cisco’s Position on Government Use of Technology to Curtail Freedom of Expression 211
Cisco letter requesting suppliers and partners report to CDP 213
FY19 Scope 3 emissions 214
Completed Cisco environment goals 215
Supplier environmental engagement and performance 216
Hyperlinks in Planet 217
GRI Content Index 219
Appendix I—Cisco’s Position on Government Use of Technology to Curtail Freedom of Expression

Cisco was founded in 1984 by two computer scientists at Stanford in order to enable communication between different computer systems. Thirty-five years later, our mission has not changed. Cisco supports free expression and open communication, and we recognize the importance of driving policies to enable people the world over to benefit from the freedom and empowerment that the Internet can offer. To that end, our goal remains to expand access to information and promote innovation by building our products according to open, global standards that promote human rights including privacy and freedom of expression.

As set out in the 2011 United Nations Guiding Principles on Business and Human Rights, businesses have a responsibility to respect internationally-recognized human rights and fundamental freedoms, which includes avoiding infringing on the human rights of others and addressing adverse human rights impacts with which they are involved. Embracing this critical responsibility, Cisco’s Global Human Rights Policy, first published in 2012, articulates our long-standing commitment to uphold and respect human rights for all people. Further, in 2018 Cisco published human rights position statements related to the development and use of disruptive technologies that are shaping our collective future, setting out our perspective on the potential human rights impacts of encryption, data localization and sovereignty, surveillance by governments, Internet of Things, big data analytics, and artificial intelligence, and how we intend to address their potential adverse human rights impacts.

One additional area of technology in particular—Network Security—provides enormous protection to human rights. Network security technology allows people to work, send email messages, browse the Internet, read articles, publish blogs, and shop in privacy. At Cisco, we are proud to be the industry leader in providing network security products that are designed to keep data and Internet access safe and secure; we see this as critical to advancing human rights around the world.

The same capabilities that enhance network security can be deployed by end users to subvert these principles. Around the world, governments that fear the liberating power of ideas seek to block free expression by exploiting the very security technologies designed to protect Internet users from outside threats. It is possible for these actors to use these capabilities to block their citizens from accessing, receiving, and sharing information from or with outside sources, thereby subverting their citizens’ rights to privacy and freedom of expression.

Unfortunately, there is no effective way to provide network administrators the capabilities necessary to protect their networks (and end-users) without also putting at their disposal powerful security capabilities which can be exploited in ways that can impair free expression. Disabling these security technologies would put networks, and the users of those networks, at risk. Take, for example, the use of Deep Packet Inspection (DPI) in networks. This ubiquitous networking and security capability enables visibility into network traffic packets to detect and block malware, DDoS attack risks, viruses, spam, and other security threats. While leading DPI technologies have been designed to protect the security of network end-users, press reports for more than a decade have alleged their (mis)use by governments to facilitate the control and censorship of the flow of information, blocking access to unfavored websites, and restricting the use of encrypted communication tools.
Appendix I—Cisco’s Position on Government Use of Technology to Curtail Freedom of Expression (continued)

Governments are increasingly restricting free access to information by deploying security technologies to shut down access to content they oppose. They typically implement these shutdowns by issuing orders to telecommunications companies and Internet service providers, often together with a gag order limiting transparency. These companies often have little choice but to comply because they are government-controlled or rely on government licenses to operate. According to Access Now, there were 196 documented Internet shutdowns in 25 countries in 2018 alone. Shutdowns are often ordered in response to protests, in the lead-up to elections, or to prevent unlawful or policy-violating activities. No matter the reason, Internet shutdowns have a direct impact on human rights, including the right of access to information, freedom of expression, and the right to peaceful assembly.

Cisco will continue to follow certain internal rules that it has adhered to for decades with respect to its products to ensure that our business activities will not undermine the right of access to information and the right of freedom of expression:

- We sell the same products globally, built to global standards, thereby enhancing the free flow of information.
- Our networking products include basic features that are essential to the fundamental operation of the Internet.
- These basic features—without which much of the Internet could not function effectively—can, unfortunately, be used by network administrators for political and other purposes.
- In this regard, we do not customize or develop specialized or unique filtering capabilities in order to enable different regimes to block access to information with the intent of undermining these rights and freedoms.

We are often not in a position to determine how these features are used day to day, so we take these additional steps to promote these principles:

- We do not support attempts by governments to fragment the Internet or otherwise create a “closed” Internet.
- We do not support interception of telephone calls made over the Internet using Voice over Internet Protocol (VoIP) except in response to valid court orders consistent with due process of law.
- Consistent with Cisco’s Security Vulnerability Policy, our product development practices specifically prohibit any intentional behaviors or product features that are designed to allow unauthorized device or network access, exposure of sensitive device information, or a bypass of security features or restrictions (including, but not limited to, undisclosed device access methods or “backdoors”).

It’s clear now more than ever that Cisco’s networking and security products present immense opportunity for advancing human rights, but governments can exploit these tools to control their citizens’ ability to access, receive, and share ideas freely with one another. Through our human rights approach, we will continue to promote uses of technology that are respectful of human rights.
Appendix II—Cisco letter requesting suppliers and partners report to CDP

Cisco has consolidated its supplier sustainability requirements into a single document available from the Supply Chain Sustainability web page. The following transmittal to Cisco suppliers includes a link to specific CDP reporting requirements.

Dear Valued Business Partners and Suppliers:

It is a shared responsibility to ensure that we are all operating businesses that positively impact our environment, society and employees/workers. Please take the time to complete two of our annual supplier reporting requirements: the CDP Climate Change questionnaire, and the Responsible Business Alliance (RBA) Code of Conduct activities.

CDP Climate Change Questionnaire

For the 10th consecutive year, Cisco is requesting our partners and suppliers to report their greenhouse gas (GHG) emissions to CDP, formerly the Carbon Disclosure Project. You should have already received an invitation from CDP to complete the questionnaire on behalf of Cisco (2019 Disclosure Info).

- Please coordinate internally and follow the invitation instructions to log-in and tell us that you intend to respond as soon as possible.
- You must complete the CDP Climate Change questionnaire (plus additional Supplier Module for Cisco) and submit it through CDP’s Online Response System by July 31, 2019. More information here

Responsible Business Alliance (RBA) Code of Conduct

Cisco has adopted the Responsible Business Alliance (RBA) Code of Conduct as our own, and is a full member of the RBA. As part of Cisco’s commitment to responsible and sustainable manufacturing, our suppliers and partners are required to complete the following actions:

- Annual Self-Assessment Questionnaire (SAQ) Refresh: Please log into your RBA Online account to refresh both your 2019 Corporate-level SAQ and Facility-level SAQ for each factory in direct support for Cisco by July 27, 2019.
- VAP Audit Sharing: Cisco suppliers are required to provide a valid RBA audit report to Cisco via RBA-Online upon request.

More information here

Many thanks for your continued partnership,

Lisa Brady, Director, Supply Chain Sustainability & Circular Economy
Jeff Purnell, Vice President, Global Supplier Management (GSM)
Jack Allen, Sr Director, Global Logistics
Colin Chummers, Vice President, Network & Partner Services (NPS) & Americas Manufacturing Operations

Reminder -> Read the Cisco Supplier Guide: Sustainability, Risk and Security
We have created a new Cisco Supplier Guide: Sustainability, Risk and Security as a resource to help support this work and provide further clarity on our specific reporting and compliance requirements. Please click here to acknowledge that you have read and understood the guide no later than June 17, 2019.
## Appendix III— FY19 Scope 3 emissions

The following table provides Scope 3 emissions for fiscal year 2019. These values will be reported in our 2020 CDP Climate Change response. Further explanation of the second column, “CDP Response Evaluation Status” will be provided in our 2020 CDP Climate Change response.

<table>
<thead>
<tr>
<th>Scope 3 Emissions Category</th>
<th>CDP Response Evaluation Status</th>
<th>2019 (metric tonnes CO$_2$e)</th>
<th>Percentage of Total Calculated Scope 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchased goods and services</td>
<td>Relevant, calculated</td>
<td>1,154,682</td>
<td></td>
</tr>
<tr>
<td>2. Capital goods</td>
<td>Relevant, calculated</td>
<td>58,963</td>
<td></td>
</tr>
<tr>
<td>3. Fuel- and energy-related activities (not included in Scope 1 or 2)</td>
<td>Not relevant, calculated</td>
<td>39,074</td>
<td></td>
</tr>
<tr>
<td>4. Upstream transportation and distribution</td>
<td>Relevant, calculated</td>
<td>36,598</td>
<td></td>
</tr>
<tr>
<td>5. Waste generated in operations</td>
<td>Not relevant, calculated</td>
<td>763</td>
<td></td>
</tr>
<tr>
<td>6. Business travel</td>
<td>Relevant, calculated</td>
<td>217,500</td>
<td></td>
</tr>
<tr>
<td>7. Employee commuting</td>
<td>Relevant, calculated</td>
<td>79,699</td>
<td></td>
</tr>
<tr>
<td>8. Upstream leased assets</td>
<td>Not relevant, explanation provided</td>
<td>N/A</td>
<td>–</td>
</tr>
<tr>
<td>9. Downstream transportation and distribution</td>
<td>Relevant, calculated</td>
<td>83,396</td>
<td></td>
</tr>
<tr>
<td>10. Processing of sold products</td>
<td>Not relevant, explanation provided</td>
<td>N/A</td>
<td>–</td>
</tr>
<tr>
<td>11. Use of sold products</td>
<td>Relevant, calculated</td>
<td>39,311,466</td>
<td></td>
</tr>
<tr>
<td>12. End-of-life treatment of sold products</td>
<td>Relevant, calculated</td>
<td>272</td>
<td></td>
</tr>
<tr>
<td>13. Downstream leased assets</td>
<td>Not relevant, explanation provided</td>
<td>N/A</td>
<td>–</td>
</tr>
<tr>
<td>14. Franchises</td>
<td>Not relevant, explanation provided</td>
<td>N/A</td>
<td>–</td>
</tr>
<tr>
<td>15. Investments</td>
<td>Not relevant, explanation provided</td>
<td>N/A</td>
<td>–</td>
</tr>
</tbody>
</table>
Appendix IV—Completed Cisco environment goals

Completed Cisco environment goals are shown in the following table. Active goals are listed in Environment Goals.

<table>
<thead>
<tr>
<th>Date Goal Established</th>
<th>Goal Topic</th>
<th>Environment Goal</th>
<th>Final Reporting Fiscal Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2006</td>
<td>Energy/GHG</td>
<td>Clinton Global Initiative (CGI) commitment to reduce GHG emissions from all Cisco business air travel worldwide by 10 percent absolute by FY09 (FY06 baseline).</td>
<td>CSR Report 2009 (p. C32)</td>
</tr>
<tr>
<td>June 2008</td>
<td>Energy/GHG</td>
<td>U.S. EPA Climate Leaders’ commitment to reduce all Scope 1, Scope 2, and business-air-travel Scope 3 GHG emissions worldwide by 25 percent absolute by end of CY12 (CY07 baseline).</td>
<td>CSR Report 2012 (p. F14)</td>
</tr>
</tbody>
</table>
| February 2013         | Energy/GHG | 1. Reduce total Cisco Scope 1 and 2 GHG emissions worldwide by 40 percent absolute by FY17 (FY07 baseline).
2. Reduce total Cisco business-air-travel Scope 3 GHG emissions worldwide by 40 percent absolute by FY17 (FY07 baseline).
3. Reduce Cisco’s FY17 net consumption-weighted electricity emission factor to half of the latest IEA world average emission factor publicly available before the end of FY17.
4. Reduce total Cisco operational energy use per unit of revenue worldwide by 15 percent by FY17 (FY07 baseline).
5. Use electricity generated from renewable sources for at least 25 percent of our electricity every year through FY17. | CSR Report 2017 (pp. 101, 102, 106, 108) |
Appendix V—Supplier environmental engagement and performance

Our suppliers are essential partners as we work to improve our environmental performance across our value chain. The following table is included to show the historical carbon emissions and waste performance of our direct suppliers. See Supplier Environmental Performance for more details.

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supply Chain GHG Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier Engagement</td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
<tr>
<td>Suppliers, by spend, with a public absolute GHG reduction target</td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
<tr>
<td><strong>Supply Chain Material Waste</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier Engagement</td>
<td></td>
<td></td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>Suppliers achieving a zero waste diversion metric at one site</td>
<td></td>
<td></td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td><strong>CDP Supplier Reporting—Climate Change</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicly report GHG emissions to CDP</td>
<td>40%</td>
<td>33%</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>3rd party verify Scope 1 and Scope 2 emissions</td>
<td>22%</td>
<td>78%</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>Set a GHG reduction target</td>
<td>100%</td>
<td>44%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Engage their suppliers on GHG emissions</td>
<td>87%</td>
<td>32%</td>
<td>87%</td>
<td>86%</td>
</tr>
<tr>
<td>Component Suppliers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicly report GHG emissions to CDP</td>
<td>56%</td>
<td>50%</td>
<td>70%</td>
<td>72%</td>
</tr>
<tr>
<td>3rd party verify Scope 1 and Scope 2 emissions</td>
<td>47%</td>
<td>58%</td>
<td>64%</td>
<td>59%</td>
</tr>
<tr>
<td>Set a GHG reduction target</td>
<td>74%</td>
<td>64%</td>
<td>74%</td>
<td>64%</td>
</tr>
<tr>
<td>Engage their suppliers on GHG emissions</td>
<td>49%</td>
<td>54%</td>
<td>65%</td>
<td>66%</td>
</tr>
<tr>
<td>Logistics Suppliers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicly report GHG emissions to CDP</td>
<td>92%</td>
<td>67%</td>
<td>89%</td>
<td>95%</td>
</tr>
<tr>
<td>3rd party verify Scope 1 and Scope 2 emissions</td>
<td>60%</td>
<td>64%</td>
<td>62%</td>
<td>73%</td>
</tr>
<tr>
<td>Set a GHG reduction target</td>
<td>88%</td>
<td>91%</td>
<td>64%</td>
<td>73%</td>
</tr>
<tr>
<td>Engage their suppliers on GHG emissions</td>
<td>87%</td>
<td>86%</td>
<td>88%</td>
<td>85%</td>
</tr>
</tbody>
</table>

1Preferably in line with an approved science-based methodology (applying either a 1.5 or well below 2°C reduction scenario). Includes suppliers that set intensity targets that produce an absolute emissions reduction during the target period.

2According to current standard definitions used in certification protocols, “zero waste” diversion is defined as a 90% or greater overall diversion of solid, non-hazardous wastes from landfill, incineration (waste-to-energy), and the environment. Diversion methods can include reduction, reuse, recycling, and/or compost.
Appendix VI—Hyperlinks in Planet

The Planet chapter provides comprehensive information on Cisco’s environmental sustainability performance, including from hyperlinks referenced throughout the chapter. For improved access to this referenced material, a list of all hyperlinked reference material is provided in the following table.

<table>
<thead>
<tr>
<th>Page</th>
<th>Referenced Language and Additional Keywords</th>
<th>Hyperlink</th>
</tr>
</thead>
<tbody>
<tr>
<td>138</td>
<td>cisco.com</td>
<td><a href="http://www.cisco.com/">http://www.cisco.com/</a></td>
</tr>
<tr>
<td>144</td>
<td>World Economic Forum</td>
<td><a href="https://www.weforum.org/projects/circular-economy">https://www.weforum.org/projects/circular-economy</a></td>
</tr>
<tr>
<td>151</td>
<td>Supply Chain Transparency Index (SCTI)</td>
<td><a href="http://wwwen.ipe.org.cn/GreenSupplyChain/SCTI.html">http://wwwen.ipe.org.cn/GreenSupplyChain/SCTI.html</a></td>
</tr>
<tr>
<td>151</td>
<td>Corporate Information Transparency Index (CITI)</td>
<td><a href="http://wwwen.ipe.org.cn/GreenSupplyChain/CITI.aspx?hy=22&amp;tt=&amp;index=0">http://wwwen.ipe.org.cn/GreenSupplyChain/CITI.aspx?hy=22&amp;tt=&amp;index=0</a></td>
</tr>
<tr>
<td>158</td>
<td>FY19 Inventory Assurance Statement</td>
<td><a href="https://www-1.compliance2product.com/c2p/getAttachment.do?code=fQJ7jxnFA7MAw0RM93rTipcM8adbAn8bdOQEiMhrTC6sdCsaqcPgknHNvzPSi0">https://www-1.compliance2product.com/c2p/getAttachment.do?code=fQJ7jxnFA7MAw0RM93rTipcM8adbAn8bdOQEiMhrTC6sdCsaqcPgknHNvzPSi0</a></td>
</tr>
<tr>
<td>168</td>
<td>2019 Climate Leadership Awards</td>
<td><a href="https://climateleadershipconference.org/cla-winners/">https://climateleadershipconference.org/cla-winners/</a></td>
</tr>
<tr>
<td>171</td>
<td>Worldwide Harmonised Light Vehicle Test Procedure (WLTP)</td>
<td><a href="https://wtfpfacts.eu/what-is-wltp-how-will-it-work/">https://wtfpfacts.eu/what-is-wltp-how-will-it-work/</a></td>
</tr>
<tr>
<td>175</td>
<td>ENERGY STAR program website</td>
<td><a href="https://www.energystar.gov/">https://www.energystar.gov/</a></td>
</tr>
</tbody>
</table>
# Appendix VI—Hyperlinks in Planet

<table>
<thead>
<tr>
<th>Page</th>
<th>Referenced Language and Additional Keywords</th>
<th>Hyperlink</th>
</tr>
</thead>
<tbody>
<tr>
<td>187</td>
<td>Cisco eScrap recycling is connected to sustainability and the circular economy (video)</td>
<td><a href="https://video.cisco.com/detail/videos/inside-cisco/video/6045326543001/circular-economy-101:-circular-consumption">Link</a></td>
</tr>
<tr>
<td>188</td>
<td>Send IT Back process</td>
<td><a href="https://www-1.compliance2product.com/c2p/getAttachment.do?code=Me4XG5OyFinBC4ChSHHjOGHdWWScpJDSWp5EkAhD2hY29qcOu6T7EEJ973disDO">Link</a></td>
</tr>
<tr>
<td>109</td>
<td>Container 42</td>
<td><a href="https://weare42.io/">Link</a></td>
</tr>
<tr>
<td>206</td>
<td>Save This Rhino</td>
<td><a href="https://www.nationalgeographic.com.au/australia/high-tech-lifeline-could-save-the-rhinos.aspx">Link</a></td>
</tr>
<tr>
<td>206</td>
<td>Cisco’s involvement with Save This Rhino</td>
<td><a href="https://blogs.cisco.com/csr/cisco-connects-to-the-conservation-cause">Link</a></td>
</tr>
<tr>
<td>207</td>
<td>Zero waste goal for our RTP campus</td>
<td><a href="https://blogs.cisco.com/csr/cisco-makes-progress-on-sustainability-goals-in-north-carolina">Link</a></td>
</tr>
</tbody>
</table>
## Appendix VII—GRI Content Index

### GRI Standards

<table>
<thead>
<tr>
<th>Disclosure Number</th>
<th>Disclosure Title</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRI 102: General Disclosures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational profile</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-1</td>
<td>Name of the organization</td>
<td>Cisco Systems, Inc.</td>
</tr>
<tr>
<td>102-2</td>
<td>Activities, brands, products, and services</td>
<td>Cisco designs and sells a broad range of technologies that have been powering the Internet since 1984. Across networking, security, collaboration, applications, and the cloud, we are integrating intent-based technologies to help our customers manage more users, devices, and things connecting to their networks. This will enable us to provide customers with a highly secure, intelligent platform for their digital business. For more information refer to <a href="#">2019 Annual Report / Form 10-K</a> (page 1)</td>
</tr>
<tr>
<td>102-3</td>
<td>Location of headquarters</td>
<td>Cisco Systems, Inc. Corporate Headquarters 170 West Tasman Drive San Jose, CA 95134, USA</td>
</tr>
<tr>
<td>102-4</td>
<td>Location of operations</td>
<td>We conduct business globally and are primarily managed on a geographic basis in the following three geographic segments: the Americas; Europe, Middle East, and Africa (EMEA); and Asia Pacific, Japan, and China (APJC).</td>
</tr>
<tr>
<td>102-5</td>
<td>Ownership and legal form</td>
<td>Cisco is publicly listed and traded on NASDAQ</td>
</tr>
<tr>
<td>102-6</td>
<td>Markets served</td>
<td><a href="#">2019 Annual Report / Form 10-K / Customers and Markets</a> (page 5)</td>
</tr>
<tr>
<td>102-8</td>
<td>Information on employees and other workers</td>
<td>People / Inclusion &amp; collaboration / Workforce snapshot</td>
</tr>
<tr>
<td>102-9</td>
<td>Supply chain</td>
<td><a href="#">Society / Responsible sourcing &amp; manufacturing</a> / <a href="#">Socially responsible supply chain</a> (page 114)</td>
</tr>
<tr>
<td>102-10</td>
<td>Significant changes to the organization and its supply chain</td>
<td>There were no significant changes in FY19.</td>
</tr>
<tr>
<td>102-11</td>
<td>Precautionary Principle or approach</td>
<td>Planet / Environmental sustainability approach / Environmental policy</td>
</tr>
<tr>
<td>102-12</td>
<td>External initiatives</td>
<td>Planet / Energy &amp; GHG emissions / Energy efficiency initiatives and organizations in which Cisco participates Governance &amp; responsibility / Corporate social responsibility at Cisco / Stakeholder engagement Society / Data privacy &amp; security / Protection in a changing world / External engagement on data privacy</td>
</tr>
<tr>
<td>102-13</td>
<td>Membership of associations</td>
<td>Planet / Energy &amp; GHG emissions / Energy efficiency initiatives and organizations in which Cisco participates Governance &amp; responsibility / Corporate social responsibility at Cisco / Engaging with stakeholders Society / Data privacy &amp; security / Protection in a changing world / External engagement on data privacy</td>
</tr>
</tbody>
</table>
## GRI Standards

<table>
<thead>
<tr>
<th>Disclosure Number</th>
<th>Disclosure Title</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-14</td>
<td>Statement from senior decision-maker</td>
<td>Our Story / CEO message / A message from Chuck Robbins</td>
</tr>
<tr>
<td><strong>Ethics and Integrity</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 102-16            | Values, principles, standards, and norms of behavior | People / Introducing Conscious Culture  
People / Ethics & integrity / Conscious of ourselves and others  
People / Team development / Our People Deal and Principles |
| **Governance**    |                  |          |
| 102-18            | Governance structure | 2019 Proxy Statement / Corporate governance / Board leadership structure (pages 3-4)  
2019 Annual Report/ Governance and responsibility (page 8)  
The Details / Governance & responsibility |
| **Stakeholder Engagement** |                  |          |
| 102-40            | List of stakeholder groups | Governance & responsibility / Corporate social responsibility at Cisco / Stakeholder engagement |
| 102-41            | Collective bargaining agreements | Cisco employees are global and each country carries with it local employment laws and norms. Due to data privacy legislation in many countries, we do not have an exact percentage of employees who are represented by trade unions. |
| 102-42            | Identifying and selecting stakeholders | Governance & responsibility / Corporate social responsibility at Cisco / Engaging with stakeholders |
| 102-43            | Approach to stakeholder engagement | Governance & responsibility / Corporate social responsibility at Cisco / Engaging with stakeholders |
| 102-44            | Key topics and concerns raised | Governance & responsibility / Corporate social responsibility at Cisco / Materiality matrix |
| **Reporting Practice** |                  |          |
| 102-45            | Entities included in the consolidated financial statements | The Details / About this report |
| 102-46            | Defining report content and topic Boundaries | Governance & responsibility / Corporate social responsibility at Cisco / Materiality: Determining what matters most  
Planet / Environmental sustainability approach / CSR materiality assessment: Environment |
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<td>No major changes: Any adjustments are explained within the report</td>
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<td><a href="mailto:csr_report@cisco.com">csr_report@cisco.com</a></td>
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<td>102-54</td>
<td>Claims of reporting in accordance with the GRI Standards</td>
<td>This report has been prepared in accordance with the GRI Standards: Core Option</td>
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<td>405-1</td>
<td>Diversity of governance bodies and employees</td>
<td>People / Inclusion &amp; collaboration / Workforce snapshot 2019 Annual Report / Board of Directors / Board Diversity (page 71)</td>
<td>Cisco does not disclose information on employee age categories.</td>
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<td>Ratio of basic salary and remuneration of women to men</td>
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<td>205-2</td>
<td>Communication and training about anti-corruption policies and procedures</td>
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<td>Cisco reports communication and training data as an aggregate for employees and governance, not by region.</td>
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<td></td>
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<td></td>
<td>418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data</td>
<td>Cisco did not report any incidents to global data protection authorities during FY19. In addition, there were no data protection incidents of high risk or material harm reported during this period.</td>
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Cisco does not disclose on the following related to local community impacts:

i. environmental impact assessments and ongoing monitoring;

ii. public disclosure of results of environmental and social impact assessments;

iii. broad-based local community consultation committees, and processes that include vulnerable groups;

iv. works councils, occupational health and safety committees, and other worker representation bodies to deal with impacts;

v. formal local community grievance processes.
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<td>413-1</td>
<td>Operations with local community engagement, impact assessments, and development programs</td>
<td>For information on engagement and impact assessments refer to GRI 103-2</td>
<td>Cisco does not disclose on the following related to local community impacts: i. environmental impact assessments and ongoing monitoring; ii. public disclosure of results of environmental and social impact assessments; iii. broad-based local community consultation committees and processes that include vulnerable groups; iv. works councils, occupational health and safety committees and other worker representation bodies to deal with impacts; v. formal local community grievance processes.</td>
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For information on development programs, refer to: Society / Strategic social investments.
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The following data is not made publicly available:

i. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which improvements were agreed upon as a result of assessment;

ii. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which relationships were terminated.
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While Cisco does not report on the following disclosures related to local community engagement and impact assessment, its partner organizations conduct appropriate analyses for the community programs that employees volunteer with:

- i. social impact assessments, including gender impact assessments, based on participatory processes;
- ii. environmental impact assessments and ongoing monitoring;
- iii. public disclosure of results of environmental and social impact assessments;
- iv. stakeholder engagement plans based on stakeholder mapping;
- v. broad-based local community consultation committees and processes that include vulnerable groups;
- vi. works councils, occupational health and safety committees, and other worker representation bodies to deal with impacts;
- vii. formal local community grievance processes.
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<td>Other indirect (Scope 3) GHG emissions</td>
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<td>Reduction of GHG emissions</td>
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<td>Cisco does not disclose biogenic emissions (not relevant to operations).</td>
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<td>Energy and greenhouse gas emissions</td>
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<td>Explanation of the material topic and its Boundary</td>
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<td>Evaluation of the management approach</td>
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<td>302-1</td>
<td>Energy consumption within the organization</td>
<td>Planet / Energy &amp; GHG emissions / Energy and Scope 1 GHG emissions / Summary of Scope 1 and 2 energy usage</td>
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<td>Planet / Product &amp; packaging materials / Product end-of-use / Product returns</td>
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<td>301-2</td>
<td>301-2</td>
<td>Recycled input materials used</td>
<td>Planet / Product &amp; packaging materials / Product Materials / Recycled material content, Cisco has set long-term goals for recycled content, but currently does not report on recycled content for all products. Current disclosure covers only recycled content in IP phones enclosures and packaging.</td>
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<td>301-3</td>
<td>Reclaimed products and their packaging materials</td>
<td>Planet / Product &amp; packaging materials / Product end-of-use / Product trade-in and returns, Data presented is aggregated for all products returned by weight; not presented as a percentage of all products sold.</td>
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## GRI Standards

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<td>307-1</td>
<td>Non-compliance with environmental laws and regulations</td>
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### Additional Performance

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<td>Planet / Other topics / Biodiversity / Operations</td>
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<td>306-3: Significant spills</td>
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