Doing well by doing good

Corporate Sustainability Report 2017
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Updated: January 2019
Mastercard’s guiding vision is a world beyond cash.

It is the road map for our business, promoting growth precisely because it addresses society’s needs. A world beyond cash is a safer world — a world with less corruption and more inclusion, a world where everyone can contribute to the global, digital economy and where the benefits of that economy are broadly shared. That’s a healthy economy — and everyone thrives in a healthy economy, including Mastercard.

Sustainability is part and parcel of that business strategy. It is based on the fundamental conclusion that we do well by doing good. Being a force for good and being a purpose-driven business is part of what helps us do well as a company. It helps us attract top talent, grow our base of customers, serve as a problem-solving partner to governments and create brand affinity with consumers and businesses globally.

Philanthropy plays an important role in doing good, but there isn’t enough philanthropic money in the world to solve society’s problems in a lasting way. Real change calls for companies to take action; to bring to the table their technologies and infrastructure, capital and creativity and ability to scale solutions. When we do this, we create a sustainable system where everyone benefits — employees, citizens, customers, companies and governments.

Sustainability is an ongoing journey. We will always be exploring what we can do to deliver long-term change and inclusive growth. Our goal is to continuously learn from our experience and from our partners about how we can collectively push assumptions and barriers to deliver results beyond what people think is possible or probable.

And we’ll always be making trusted connections with those who can drive action. After all, that is what we do as a network: We create ecosystems and infrastructure that lay the groundwork for long-term inclusive growth. In turn, this drives strong relationships, strong financial results and strong delivery of our commitment to our shareholders, as well as the world around us.

Ultimately, that is what doing well by doing good is all about.

Ajay Banga, President and CEO, Mastercard
Mastercard is a global company with a global workforce. We work to create an inclusive workplace that allows us to leverage the diverse experiences and perspectives of our workforce.

• We are committed to gender equity and the principle of equal pay for equal work.
• We are dedicated to recruiting and developing female leaders, and we have increased the representation of women in our workforce and leadership.
• We offer our employees compensation and benefits to support their entire experience both personally and professionally, and we work to provide a safe and healthy workplace that enables employees to achieve their full potential.

We believe a world beyond cash can be more environmentally sustainable, and we are working to make that vision a reality.

• Mastercard is first in the payments industry to receive external validation of our science-based target to reduce our greenhouse gas (GHG) emissions 20% by 2025.
• We source renewable energy for 100% of our global operations, and 73% of our office space has earned a green building certification.
• We are exploring new, environmentally conscious solutions that help consumers, businesses and cities lessen their impact on the planet.

Our success is tied in part to the trust that people place in us to deliver our products and services in the right way. For us, acting ethically and responsibly is not only the right thing to do, but also the right way to do business.

• We are guided by our Code of Conduct, the cornerstone of our Ethics and Compliance system and the foundation of our culture of decency.
• Data privacy and information security are vital to the trust that our customers and consumers place in us.
• Innovation is at the heart of what we do, helping us make transactions faster, easier, more convenient and more secure.

As part of our efforts to build a sustainable and inclusive future, Mastercard is proud to present our annual corporate sustainability report. Below are highlights from the full report.
Mastercard is a global technology company in the payments sector. We power payments and provide products and services for individuals and industries all around the world.
We connect and create trusted relationships among consumers, financial institutions, merchants, governments, digital partners, businesses and other organizations, enabling them to use electronic forms of payment instead of cash and checks.

150 currencies and 210 countries and territories
We authorize, clear and settle transactions through our core network for our issuer customers around the world

$5.2 trillion in credit, debit, prepaid and commercial Mastercard-branded programs used in 2017

65.3 billion transactions switched in 2017

2.4 billion Mastercard- and Maestro-branded cards in use in 2017

Mastercard is a publicly traded company listed on the New York Stock Exchange. Our headquarters are in Purchase, New York, and on December 31, 2017, Mastercard and its subsidiaries owned or leased 167 commercial properties.
Our core business

Our core business is built on our global network. Through our payments-processing network, we facilitate transactions and deliver payments-related products and services. We partner with banks and other institutions, which issue Mastercard-branded cards and acquire payment transactions for merchants. In a typical transaction, our network connects a buyer, a seller and their banks. Our core products are consumer credit and debit card programs, prepaid card programs and commercial card programs for business spending. Our network is also expanding to enable real-time payments directly between bank accounts.

In 2017, we expanded the capabilities of our network through our acquisition of Vocalink, which enables payments between bank accounts in near-real-time in countries in which its technology has been deployed. As a multi-rail network, we now offer customers one partner for all their payment needs, domestically and across borders, through cards or direct account-to-account transactions.

Our core business is built on our global network.

Digital Payments
Our innovation in digital payments extends our network’s functions to allow people to pay when, where and how they want.

• Better digital experiences: We’re working to deliver better payment experiences everywhere, on all devices and channels, including smartphones, wearables and Internet of things.

• More security: We’re leveraging tokenization, biometrics and machine-learning technologies in our push to secure every transaction.

• New solutions: We’re developing new offerings that meet the needs of people and businesses, including peer-to-peer and business-to-business payments.

Security by design
Security is built into the fabric of our entire network. Our focus on security plays a key role in how we design, implement and manage our systems, products and services, including our analytics for fraud prevention and detection.

Expanding our core capabilities: real-time payments

In 2017, we expanded the capabilities of our network through our acquisition of Vocalink, which enables payments between bank accounts in near-real-time in countries in which its technology has been deployed. As a multi-rail network, we now offer customers one partner for all their payment needs, domestically and across borders, through cards or direct account-to-account transactions.
We provide a wide range of payment solutions and services, using our family of well-known brands, including Mastercard®, Maestro®, Cirrus® and Masterpass®.

Beyond our core network, we’re expanding our offerings of value-added services that help our partners in the payments ecosystem provide new, better and more secure solutions.

These services are built on our core competency as a payments network and our data capabilities, and they help us differentiate our offerings from our competitors, drive better performance from our core products and diversify our revenues.

Safety and security solutions
We offer products and services to prevent, detect and respond to fraud and cyberattacks and to ensure the safety of transactions made using Mastercard products.

Information services and consulting
Mastercard Advisors provides proprietary analysis, data-driven consulting and marketing services solutions to help clients grow and deliver value to consumers.

Loyalty and reward programs
We offer a platform that helps financial institutions and merchants provide consumers with a variety of relevant benefits and services.

Processing
We offer our payment-processing capabilities to customers, including issuers and e-commerce merchants, to help them plug into the payments ecosystem.

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How we make money
We generate revenues from assessing our customers based on the gross dollar volume of activity on the products that carry our brands, and from the fees we charge for providing transaction switching and for other payment-related products and services.

We do not issue cards, extend credit or determine or receive revenue from interest rates or other fees charged to account holders by issuers, nor do we establish the rates charged by merchants’ financial institutions in connection with their acceptance of our branded products. In most cases, account-holder relationships belong to, and are managed by, our financial institution customers.

Our other services

Putting our business to work
Our people, technology, data and brand provide the capabilities that drive our success. Our strategy is to grow, diversify and build to grow our core business globally, diversify our customers and geographies and build new businesses, including value-added services.

In executing this strategy, we rely on two principles: We give consumers, merchants and banks choice about the best way to pay, and we provide solutions that help our customers meet their goals, rather than offering just one piece of the puzzle.

Our key business assets and capabilities also provide our greatest opportunities for impact. Our sustainability goals, developed according to our overall approach to sustainability, are aligned with and support each element of our business strategy. In pursuing those goals, we’re guided by the same principles that help us succeed as a business.
They started with an extraordinary act: a donation of 10% of the company’s stock to create the independent, private Mastercard Foundation, which was launched with a mission to advance financial inclusion and education to enable economically disadvantaged young people in developing countries to improve their lives.

Since then, our financial performance has driven the growth of the Foundation’s resources: Its assets have grown to more than $20 billion, making it one of the largest foundations in the world. As our largest shareholder, the Foundation — and the millions of people it serves — benefits directly from the growth in our value as a company through quarterly dividends. In 2017, the Foundation received $100 million in stock dividends to support its ongoing efforts.

We are a global company, serving consumers in more than 210 countries and territories. As we’ve grown, we have learned that sustainability is key to our success. Our environmental, social and governance initiatives are tied to our performance as a business.

**OUR APPROACH TO SUSTAINABILITY: DOING WELL BY DOING GOOD**

Our commitment to sustainability grew out of a question our Board of Directors asked at our initial public offering in 2006: How can Mastercard serve as a force for good?
Putting ethics, data privacy and security first helps us remain a welcome partner around the world. Promoting growth across all segments of society contributes to stability and shared prosperity, which drives our growth as a payments company. Ensuring that our workforce is as diverse as our customers, inclusive of the perspectives diversity brings and inspired by our sense of purpose, is what drives our success. And limiting the impact of climate change is as essential for our future as it is for the world around us.

Mastercard is integrating purpose into our business strategy. This allows us to serve as a force for good in the world while creating opportunities for sustainable, long-term business growth — to do well by doing good. In 2018, in light of recent tax cuts in the U.S. and elsewhere, we reaffirmed our dedication to philanthropy by committing $500 million in funding to promote inclusive growth through a newly formed nonprofit entity known as Mastercard’s Center for Inclusive Growth Fund. We seeded the Fund with an initial $100 million in 2018.

The Fund will facilitate investment in innovative efforts to promote inclusive growth in the years to come. As we grow, we’re still learning and our approach is evolving. But sustainability is embedded in our business, and we are looking for opportunities where our capabilities position us to have the greatest impact.

This report describes where we’ve come so far and provides examples of how we are working toward a world beyond cash that is more inclusive and more sustainable.

**Based on our long-held belief that doing good for society helps us do well as a company, our approach to sustainability supports Mastercard’s business vision and is aligned with our strategy.**

**Our vision**
A World Beyond Cash®.

**Our mission**
Every day, everywhere, we use our technology and expertise to make payments safe, simple and smart.

**Our commitment**
We’re committed to being a force for good in the world and to doing well by doing good. As a core component of our strategy, we’re conducting business in an open and transparent way, advancing inclusive growth, building an inspired workforce and being good stewards of the environment to create a sustainable future for Mastercard and the world around us.

**Materiality and our focus areas**
As our approach to sustainability matures, we are moving from managing risk to seizing opportunity. Our goals in these areas include expanding beyond compliance and reputation management to innovation and value creation; moving from driving cost efficiencies to growing revenue and from making sure we do no harm to owning our opportunity to lead with purpose.

To help determine the priority areas for Mastercard, in 2016 we engaged Business for Social Responsibility (BSR), a global nonprofit business network and consultancy dedicated to sustainability, to conduct a materiality analysis. This analysis prioritized topics across two dimensions: their influence on our business success and their importance to our external stakeholders. We also conducted a current-state assessment that helps us understand how we are managing our priorities, and will continue to update our analysis over time.

Informed by this assessment, as well as by our ongoing engagement with stakeholders, we focus on four priority areas, which each includes several topics.

**Inclusive Growth**
We combine expertise, data, technology and philanthropic investments to empower those working on the front lines of inclusive growth.

We bring together businesses, governments, academic institutions and NGOs to create new models of collaboration that promote inclusive growth and bring shared prosperity.

**Inspired Workforce**
At Mastercard, our industry expertise is strengthened by the diverse insights from our global workforce, which is at the core of our inclusion and diversity strategy. Our dedication to cultivating an environment for all employees that respects their individual strengths, views and experiences drives a global and collaborative culture of inclusion.

**Ethical and Responsible Standards**
Ethics and compliance are embedded in our core values, and we take a proactive approach to conducting business in a trusted and transparent way while meeting the highest standards for integrity.

We drive innovation at every level of our business and regard it as key to our success. We build data privacy and security into our products and systems from the ground up.

**Environmental Stewardship**
We understand the importance of addressing environmental sustainability and have undertaken a variety of environmental sustainability and protection initiatives targeting our greenhouse gas (GHG) emissions, renewable energy, landfill diversion and transportation footprint, while also developing innovative, environmentally conscious solutions.

**Foundation Giving**
We support Mastercard’s business strategy. This allows us to serve as a force for good in the world while creating opportunities for sustainable, long-term business growth — to do well by doing good.

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SUSTAINABILITY GOVERNANCE

Sustainability at Mastercard is driven from the top by our Board of Directors and CEO.

Within our culture of doing well by doing good, the senior management team works cross-functionally across the organization to support our global sustainability efforts. We set public targets and endorse external principles to ensure internal alignment and drive measurable progress. For example, in 2017 we became signatories of the UN Global Compact, and in 2018 we set reduction targets for GHG emissions that were reviewed and validated by the Science Based Targets initiative.

We continue to work toward creating a comprehensive approach to sustainability and to articulate our approach in a clear and unified manner.

In 2017, we designated a global lead for sustainability who is responsible for the creation and execution of our sustainability efforts, and in 2018 Mastercard appointed our first Chief Sustainability Officer (CSO). The CSO collaborates with leadership across the business to integrate sustainability initiatives shared among business units and position them to be enterprise-wide drivers of growth. This position is included under a newly created division led by the Vice Chairman and President of Strategic Growth, who reports directly to the CEO.

WE CONTINUE TO WORK TOWARD CREATING A COMPREHENSIVE APPROACH TO SUSTAINABILITY
In 2018, the Committee Encouraging Corporate Philanthropy (CECP) awarded Mastercard CEO Ajay Banga and CFO Martina Hund-Mejean with the CEO Force for Good Award in recognition of their leadership in advocating for financial inclusion in vulnerable communities and emerging markets.

The joint award reflected the importance of both leadership from our CEO and commitment from our CFO and business units in our pursuit of transformative change. Ajay and Martina have led philanthropic investment and innovative business models at Mastercard that connect the underbanked and unbanked with formal financial services to drive economic growth in places such as Egypt, Kenya and South Africa. By accelerating financial independence in more communities, they have fostered social progress that exemplifies impactful leadership.
STAKEHOLDER ENGAGEMENT

Our approach to sustainability begins with engaging stakeholders, both internal and external, to assist us in determining our most material environmental, social and governance issues. Our efforts involve continuous engagement with consultants, peers, other external stakeholders and our employees.

Stakeholders

We regularly engage a broad range of stakeholders to ensure that we understand their diverse views and sustainability concerns. Among the categories of Mastercard’s key stakeholders are:

- civil society organizations
- consumers
- employees
- financial institutions, merchants and other business partners
- governments
- international organizations
- investors
- regulators

WE REGULARLY ENGAGE A BROAD RANGE OF STAKEHOLDERS TO ENSURE WE UNDERSTAND THEIR DIVERSE VIEWS
Financial inclusion partnerships

As an integral part of our business objectives, we partner with others in the public and private sectors to connect the underbanked and unbanked to formal financial services, and to drive shared economic growth. These joint efforts include product innovation, policy maker and key stakeholder engagement, financial education, philanthropy and academic research. Our partnerships include:

• Alliance for Financial Inclusion
• Better Than Cash Alliance
• G20 Global Partnership for Financial inclusion
• International Telecommunication Union
• United Nations agencies
• World Bank Group and other international financial institutions
• World Economic Forum

Memberships

Mastercard participates in a number of sustainability membership organizations and peer networks focused on environmental, social and governance topics, which allows us to learn from other companies’ sustainability efforts and share our own best practices with our peers. Our memberships include:

• BSR
• CECP
• Corporate Eco-Forum
• GreenBiz Executive Network
• Conference Board Sustainability Council
• Sustainable Brands
• U.N. Global Compact
• U.S. Green Building Council

Working to achieve the sustainable development goals

Our business goals and the Sustainable Development Goals (SDGs) are inextricably linked.

Our technology, expertise and approach to partnership are helping drive implementation and scale for the global goals, while advancing our mission to create a more inclusive economy. We have programs in over 60 countries designed to reach the financially excluded in active support of these goals.

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Decent Work and Economic Growth
7. Industry, Innovation and Infrastructure
8. Reduced Inequalities
9. Sustainable Cities and Communities
10. Responsible Consumption and Production
11. Climate Action
12. Partnerships for the Goals
This marks Mastercard’s first corporate sustainability report. Previously, Mastercard has reported on our commitment and approach to sustainability on our website, in our annual proxy disclosure, Carbon Disclosure Project (CDP) and other sources. We plan to publish corporate sustainability reports on an annual basis. As we continue our journey of innovation, transformation and leadership, we regularly review our strategy and approach to corporate sustainability. This ongoing analysis helps us to identify and prioritize the issues of relevance to our business and our stakeholders. Our materiality analysis with BSR and the priority areas identified in that process were incorporated in the approach and content of this report.

External assurance

Mastercard did not employ an external agency or organization to audit the contents of this report. However, certain elements of our external disclosures have gone through external independent assurance. This includes our calculations of our greenhouse gas (GHG) emissions and reduction targets. The assurance letters are included in this report on page 95. Information about our business and financial performance is provided in our 2017 annual report and quarterly SEC filings. Please direct questions on this corporate sustainability report or topics relating to our corporate responsibility activities to sustainability@mastercard.com.

Inclusive Growth: creating a more inclusive world through our products, programs and partnerships.

Inspired Workforce: building a world-class culture of high-performing employees who innovate using their hearts and minds.

Environmental Stewardship: responsibly managing our environmental footprint and creating environmentally conscious solutions.

Ethical and Responsible Standards: acting responsibly and with integrity, guided by the highest standards of ethical behavior.

In selecting the content for inclusion in our 2017 report, we used the Global Reporting Initiative (GRI) reporting principles of materiality, sustainability context, stakeholder inclusiveness and completeness. This report was prepared in accordance with the GRI Standards: Core option. An index of the relevant GRI disclosures can be found on page 96.
INCLUSIVE GROWTH
We envision a world in which people are on the move — on a path of shared prosperity. Billions of people are striving to make a better and more secure life for themselves and their families.
We believe ambition and aspiration are universal. Yet too many people lack access to the networks and resources they need to reach their full potential — whether it is electricity, training or financial services.

Mastercard has a vision of a world beyond cash. As a network, our business is rooted in making connections, and our vision is about breaking down barriers and increasing access. This vision guides our strategy of financial inclusion — access to the set of tools that enables people to enhance their financial security and pursue economic opportunities.

We envision a world in which people are on the move — on a path of shared prosperity. Whether it’s a farmer in Africa or a gig worker in Los Angeles, financial inclusion is the first step toward that vision: It is providing access to the tools that people can use to manage their money in a secure and reliable way, to save and invest for the future.

Helping people use those tools, and make the critical progression from access to usage to security, contributes to their upward mobility and a better quality of life.

The result is prosperity shared among all segments of society. This is inclusive growth.
At the end of 2013, Mastercard took an important step in this journey by establishing the Center for Inclusive Growth. The Center is a hub of the company’s efforts to advance inclusive growth around the world through thought leadership, data philanthropy and programmatic support. The Center is an independent and noncommercial entity that harnesses all of Mastercard’s assets — our technology, global networks, aggregated and anonymized data-driven insights, partnerships, the expertise of our people and our ability to quickly scale solutions — to promote inclusive growth. At the same time, the insights that come out of the Center’s research, programs and stakeholder engagement help inform and shape Mastercard’s business strategy.

In 2018, we deepened our commitment to the mission of the Center by creating a $500 million 501(c)(3) philanthropic fund to further promote inclusive growth, $100 million of which we gave in 2018. Inclusive growth is both a business strategy and a social impact imperative. It is emblematic of Mastercard’s approach of doing well by doing good. As more individuals and businesses access the financial system and join the formal economy, the economic environment improves. Mastercard thrives in a thriving economy. There is no contradiction between pursuing our commercial objectives and advancing inclusive growth. Quite the opposite: We are doing well by doing good.

The cost of cash

Our commitment to inclusive growth is grounded in a growing body of knowledge on the high cost of cash — a cost that keeps individuals, families and communities from reaching their full potential.

Cash is expensive to print, store and secure. Cash-based transactions facilitate corruption, illicit activities and tax evasion. For the 1.7 billion unbanked people who are trapped in cash-only systems,1 it’s much harder to grow a business, much less safe to save, and much more difficult to forge a path into the middle class.

1 According to the World Bank’s 2017 Global Findex database.
We are committed to bringing 500 million excluded consumers into the formal financial system by 2020, and 40 million micro and small merchants into our network by 2021. This includes programs focused on government partnerships, mobile technology innovation and support to enable small businesses to thrive. But increasing access is only the first step. Once they have access to the financial system, the key is to make it possible for them to use it to pursue greater financial security and economic opportunity.

We are promoting inclusive growth by connecting more people to the vital networks that power the modern economy, so that everyone has a chance to participate in and benefit from economic growth. When people are empowered to succeed, families and communities are better off, and the global economy is stronger.

We embrace the opportunity to be a force for good in the world and focus on areas where we are particularly well-placed to have a positive impact. As a leader in digital payments, we work with governments, NGOs and business partners to create the necessary environments that move people from financial access to usage to security — shifts that will transform the economic lives of farmers, families, entrepreneurs and business owners everywhere.

To support these partners, we pursue both philanthropic efforts, led by the Center, and commercial programs that generate both revenues and social impact.

We amplify and promote the efforts of leaders around the world who are stimulating equitable and sustainable economic growth in their local communities — whether by helping micro-entrepreneurs access training and services to become more productive, improving financial literacy or using data-driven insights to support evidence-based decisions for social impact.

We look to unearth promising models that can be replicated in diverse communities. We use early lessons and pilot programs, coupled with the advice of experts, to innovate, build and scale.

We are powered by the belief that when people reach their full potential, the positive impact is felt around the world. It is the path to shared prosperity. From that wellspring, we have committed to bring hundreds of millions of people, and tens of millions of merchants, into the formal economy.

At Mastercard, we envision a world that is more productive and interconnected — one that provides people with greater opportunities to succeed. We recognize how much there is to do, and we’re pushing the pace of progress to make the financial system work for everyone.
“Too many people are disconnected from the resources they need to survive and thrive.

We can help more people prosper by making it easier for them to pay and get paid. Over the long term, this helps commerce and our business. This is why inclusive growth is central to how we think about investing for the future. We’re putting private sector capital, ingenuity and innovation to work, which not only creates a foundation for Mastercard to operate in new markets and reach new consumers, but allows us to drive real change for governments, businesses, individuals and society.”

*Mastercard President and CEO, Ajay Banga*
2018
- Committed $500 million — including $100 million in 2018 — to Mastercard’s Center for Inclusive Growth Fund, which will support initiatives that focus on long-term, inclusive economic growth.

2017
- Included in Fortune’s inaugural “Change the World” list of companies making important social or environmental impacts.

2016
- Launched Mastercard Labs for Financial Inclusion in Nairobi with support from the Bill and Melinda Gates Foundation to develop practical and cost-effective financial tools that expand access to financial products and services and help build stable futures.

2015
- Committed to reaching at least 500 million people previously excluded from financial services by 2020.
- Included in Fortune’s inaugural “Change the World” list of companies making important social or environmental impacts.

2014
- Launched Mastercard Labs for Financial Inclusion in Nairobi with support from the Bill and Melinda Gates Foundation to develop practical and cost-effective financial tools that expand access to financial products and services and help build stable futures.
- Launched Mastercard Aid in partnership with the NGO community to enable humanitarian aid with global digital voucher services.

2013
- Created the Mastercard Center for Inclusive Growth to advance sustainable and equitable economic growth and financial inclusion around the world.

2011
- Introduced the Master Your Card community education program to help consumers and small businesses learn how to get more from their money by using electronic payments technology.

2006
- Created the Mastercard Foundation to advance financial inclusion and education for economically disadvantaged people in developing countries.
A key milestone of Mastercard’s force for good agenda came in 2011 with a Tufts University research report that detailed the material and social costs associated with cash.

At the time, 2.5 billion people were trapped in all-cash informal economies, standing in line for hours and traveling great distances to pay a bill, send money to relatives or retrieve a government subsidy. Cash can cost from 0.5% to 1.5% of GDP, depending on the country, and poor countries — where cash usage is most prevalent — are the most impacted.2 By creating and formally adopting a global focus on financial inclusion, we integrated a social impact objective with a business strategy targeting an enormous gap in the market.

Mastercard elevated financial inclusion on the global stage and helped transform it from a public sector concern to a shared model of public-private partnership. We were a founding partner of the Better Than Cash Alliance in 2012, and our CEO, Ajay Banga, assumed the co-chairmanship of the World Economic Forum’s inaugural financial inclusion steering committee in 2013. These efforts contributed to partnerships across the development and private-sector communities, including governments, foundations, financial services and telecommunications.

A critical inflection point came in 2015, when Mastercard helped lead the way from awareness to action at the World Economic Forum in Davos. Our CEO, along with World Bank Group president Dr. Jim Yong Kim and the UN Secretary-General’s Special Advocate for Inclusive Finance for Development H.M. Queen Máxima of the Netherlands, called on public- and private-sector leaders to address the financial inclusion challenge globally through formal commitments. At the World Bank spring meetings the same year, Mastercard co-founded the Universal Financial Access 2020 initiative to address the financial inclusion challenge and made a public commitment to provide financial services to 500 million unbanked people by 2020.

To improve the global regulatory environment’s support for financial inclusion, Mastercard worked with organizations, including the Alliance for Financial Inclusion and the G20. To deepen the impact of these efforts, we have worked with companies in other industries, including consumer goods, agribusiness and garment manufacturers, to extend financial services to those who need them most: women, rural farmers and micro and small merchants.

To support this work, Mastercard joined the launch of Queen Máxima’s CEO Partnership for Financial Inclusion, an initiative to accelerate financial inclusion efforts by growing successful private-private models such as Mastercard’s partnership with Unilever in East Africa.

Since 2011, the number of people excluded from the financial system has dropped by nearly one-third, to 1.7 billion. Mastercard is working to lead the way, along with other pioneering institutions, and driving progress toward our goals for 2020 and beyond.

In 2006, at the time of Mastercard’s initial public offering, the company provided a gift of 10% of its shares to create the Mastercard Foundation, pioneering a sustainable, independent model for philanthropy.

Founded with the mission to advance youth learning and financial inclusion to catalyze prosperity in Africa, the Foundation’s initial assets of $400 million have grown to more than $20 billion. The Foundation continues to receive support from Mastercard each year through dividend payments. In 2017, the Foundation received $100 million in dividend payments. To date, the Foundation has committed $2.1 billion in programming and partnered with 135 organizations in over 60 countries, improving the lives of more than 26 million people.
In late 2013, Mastercard established the Center for Inclusive Growth to advance sustainable and equitable economic growth and financial inclusion around the world. The Center seeks to improve people’s access to the networks that can increase their productivity, helping create a pathway to shared prosperity.

Since its inception, the Center has collaborated with a network of leading research institutions and academic advisors and supported programs that have reached over 350,000 entrepreneurs across 14 countries. The Center is also breaking new ground through the practice of responsible data philanthropy, enabling leading scholars and research institutions to enhance the public’s understanding of the drivers of economic development and inclusive growth. See more detail on our Data for Good initiatives on page 34.

The Center activates Mastercard’s core assets to drive action on inclusive growth in four ways:

**RESEARCH**
We partner with leading economists and scholars to translate academic theories into concrete actions.

**RESPONSIBLE DATA PHILANTHROPY**
We work with our partners to develop data-driven insights that support smart government policy and NGO strategies that advance social good.

**PROGRAMS**
Through programs such as business training and digital solutions, we help entrepreneurs and workers grow and succeed in the new economy.

**ENGAGEMENT**
We connect a community of leaders across governments, civil society, academia and the private sector to promote and adopt evidence-based solutions.

Digital identity

Globally, 1.1 billion people lack any form of identification.\(^3\) Without an official way to prove their identity, they can’t open a bank account, vote in an election, access education or health care or receive benefit payments. Mastercard has long recognized proof of identity as a critical priority for the 21st century — empowering individuals and increasing their access to rights, services and the formal economy.

In 2017, we jointly developed and endorsed a set of Principles on Identification for Sustainable Development, alongside organizations including the World Bank, the United Nations Development Programme and the Bill and Melinda Gates Foundation. In Egypt, we have been working with the government to link identity solutions with payments — enabling people to become financially included on a massive scale. See a description of this example under Partnering with Governments on page 27.

\(^3\)According to the World Bank’s Identification for Development 2017 dataset.
Especially in these places, challenges with identification can prevent people from accessing not just essential financial products, but basic rights and services. Citizens may lack national identification cards, and governments may lack tools such as biometric validation that could help them ensure the right social benefits are delivered to the right people.

We work closely with governments globally to help them deliver the advantages that electronic payments offer over cash and checks. Our solutions not only help more people easily and safely access and manage their money, they also help governments reduce costs, gain efficiencies and curtail fraud.

PARTNERING WITH GOVERNMENTS

In many areas of the world, essential government services require cash payments, imposing costs and risks on the people they are intended to help.
In Egypt, we partnered with the Ministry of Finance and major Egyptian banks on a custom solution for the government to pay its employees safely and efficiently. Launched in 2010, it is now one of the largest government payroll card programs in the world, with more than 3 million cards helping ensure that public-sector employees receive their full salary on time. Today, we’re working with the government to build a mobile money platform linked to citizens’ national identification so that all Egyptians can easily participate in the formal economy.

In the U.S., we joined the U.S. Treasury Department and Comerica Bank to create an electronic delivery program providing federal Social Security benefits to U.S. citizens. Through the Direct Express program, which launched in 2008, 5 million Americans receive government payments on a Mastercard prepaid card. Cardholders can use the card for free at millions of merchant locations. They also have access to tens of thousands of surcharge-free ATMs.

Not only does this program cost the U.S. Treasury 90% less than distributing benefits via checks, recipients save at least $100 million each year in check-cashing costs.

We work closely with governments globally to help them deliver the advantages that electronic payments offer over cash and checks.
MAKING MOBILE COMMERCE AND PAYMENTS SIMPLE AND ACCESSIBLE

While progress has been made, we know that the cost of point-of-sale payment-acceptance devices still prevents many micro and small businesses from accepting electronic payments in both developed and emerging markets.

In 2016, we piloted our Masterpass QR digital payment and acceptance solution to enable customers to use a smartphone to pay merchants by scanning a QR code. For merchants, the solution provides a no- or low-cost way to accept digital payments at the point of sale — even where traditional card payment infrastructure, or an electric grid, may not be present. In 2017, we expanded this solution to reach seven markets in the Middle East and Africa, as well as India and Vietnam.

TECHNOLOGY FOR INCLUSION

To bridge the gap between the supply of traditional banking services and the global demand for safe and secure transactions.

We work with customers, leading technology companies and mobile equipment manufacturers to develop products and solutions that make mobile commerce and payments simple and accessible. These services allow consumers to pay from any type of mobile phone, they help merchants accept electronic payments and they help small enterprise owners run their businesses.

QR payments
In 2017, we launched the Mastercard Farmer Network, a digital platform connecting smallholder farmers to markets, information and relevant financial services — all powered by mobile technology. The Network allows farmers to sell their produce for the best price and quickly receive digital payment for their work. Farmers register by providing simple details, allowing them access to buyers seeking the produce they grow and agents who can transport the harvest from grower to buyer. Developed in the Mastercard Labs for Financial Inclusion, this innovative platform aims to shorten farmers’ journey from field to market, carving them a path to greater prosperity.

To date, more than 18,000 farmers are registered on the Mastercard Farmer Network, and our goal is to reach approximately 3 million smallholder farmers in East Africa and elsewhere.
Unfortunately, these businesses, especially those in developing countries, often face barriers and lack the tools, knowledge and financial services that are available to larger businesses. We deploy our services, partnerships and technologies to help small business owners manage their records, access market information, build a financial footprint and use digital communications channels to receive training and business advice.

HELPING SMALL BUSINESSES GROW AND THRIVE

In many parts of the world, micro and small enterprises provide significant contributions to local economies, creating jobs and helping people build assets and wealth that stay in their community.
Entrepreneurship training in Indonesia

Another example of how we help small businesses is through the Center’s 2017 partnership with the Commonwealth Bank in Indonesia. We are providing high-quality business training, interactive digital tools, and training seminars that will impact 15,000 women who run micro and small enterprises. We aim to reach 2 million women business owners by 2020, and we will measure the success of the program based on the increase in revenue of targeted small businesses.

Microfinance in the U.S.

The Center has supported the digital transformation of Grameen America, a microfinance organization that serves low-income women entrepreneurs. With our support, Grameen has expanded its services and grown at unprecedented rates, reaching 97,000 women in the 2017. Grameen is providing the groundwork to help transition its members to fully digital financial transactions. Now, instead of checks, members receive their loans through cards, which are safer, give them full and immediate access to funds and decrease check-cashing costs.

Small business finance in Kenya

In 2017, we launched a first-of-its-kind digital lending initiative with Unilever to empower small and micro business owners in Kenya. This partnership gives shopkeepers access to short-term, affordable loans to purchase Unilever products so they can stock what they can sell, not just what they may be able to afford on any given day. It also provides a tailored education program that helps entrepreneurs gain the skills and knowledge to grow their business and use the credit facility effectively. By the end of 2017, nearly 2,000 shop owners in the Nairobi area had enrolled in the program, which is expanding in 2018 to reach 20,000 stores.

WE DEPLOY OUR SERVICES, PARTNERSHIPS AND TECHNOLOGIES TO HELP SMALL BUSINESS OWNERS

4 Grameen America 2017 Annual Report
low-income and unbanked families can instantly become a part of the global economy by electronically making and receiving payments, which saves them time and money. Armed with this knowledge, financially vulnerable people can avoid expensive financial services and fight back against merchants who abuse them, such as check cashers and payday lenders.

For small businesses, Master Your Card provides education on how to negotiate the best deal from card processors and equipment providers. Our program covers key areas that help them gain more value for their business and their customers, including how to select a card processor and equipment provider, negotiate the best deal, improve the safety and security of their transactions and information, manage their finances and use business technology.

Since its creation in 2011, Master Your Card has developed and delivered hundreds of training and capacity-building sessions in partnership with governments, chambers of commerce, community organizations and other groups that support consumers and small businesses in 15 countries.

People need to understand how to use these tools most effectively to support themselves and their businesses. Education on financial literacy helps people take advantage of the services that come with financial inclusion to achieve greater financial security and economic opportunity.

We develop, lead and sponsor financial literacy programs for consumers and small business owners around the world. A key element of our approach is our flagship community-empowerment program, Master Your Card, which helps consumers and small business owners in various regions learn how to get more from their money by using electronic payments technology.

By understanding how to use payment cards (including prepaid, debit and credit cards),

Through Mastercard’s corporate partnership with the National Urban League, we educate people about and promote the importance of financial inclusion and economic empowerment among the league’s representatives from affiliate services communities across the U.S. We intend to expand our partnership and educate the younger members of the affiliate chapters about our payments technology — algorithms, encryption, fraud detection, data analysis, digital convergence and the power of our network.

The Center for Inclusive Growth also supports financial education for small business owners through programs aimed at helping micro-entrepreneurs gain the skills they need to grow their businesses.

FINANCIAL LITERACY

Access to financial products and services is not enough to create inclusive growth.
Master Your Card in the U.S.

68 million
INDIVIDUALS AND BUSINESSES
reached through our established network of more than 125 influential and diverse organizations, including community groups, unions, chambers of commerce and others.

10.4 million
ASPIRING ENTREPRENEURS, SMALL BUSINESS OWNERS, TRAINERS AND MENTORS
reached by Master Your Card’s five national small business partners and 173 chambers and other small business organizations that receive monthly educational content for their members.

3.7 million
people reached through Master Your Card’s national Latino, African-American and labor union program partners.

>20,000
STUDENTS
reached by the end of the 2017-18 school year through our partnership with the financial education company EverFi to deliver the Master Your Card financial literacy program in 268 public schools.
Data can drive insights that help experts from a wide range of disciplines and institutions understand the world’s most pressing economic and societal issues and identify effective ways to address them. But people, researchers and organizations that lack data-related resources are excluded from this potential. The Center is pioneering the practice of responsible data philanthropy to harness the power of data-driven insights to advance social good.

Subject to robust privacy and data-protection controls, the Center allows institutions focused on promoting positive social impact to leverage its data-driven insights and data expertise. We work with leading scholars and academic institutions to conduct research and leverage our data-driven insights to guide evidence-based solutions and policy making. We have also helped NGOs improve their capacity to work with their own data-related resources.

These efforts empower nonprofits, researchers, NGOs and city and regional planners to more efficiently identify challenges, determine ways to address them and take practical steps to solve them.

Tapping into the expertise of our in-house data scientists, we have published new data-related resources for organizations committed to positive social impact and conducted analysis aided by Mastercard’s data-driven insights to better understand trends affecting local economic activity. Mastercard’s data-driven insights have helped to better understand the economic impact of the more than $200 million in recent redevelopment spending in Chicago’s historic Pullman neighborhood. Using our own anonymized and aggregated transaction data, Mastercard analysts compared spending and retail trends in Pullman to citywide trends, demonstrating that redevelopment investments spurred a more significant impact beyond the citywide effects of the economy improving. For instance, we found that the number of cardholders in Pullman more than doubled since the development began, showing greater financial engagement in the neighborhood. And digital payments grew by 86% between 2012 and 2016, while Chicago as a whole saw only 17% growth. Insights like this help facilitate greater investment and demonstrate the impact of inclusive investments throughout a city.

In 2017, the Center supported research to measure how urban innovations are improving the way we live, work and connect in cities. Insights from anonymized and aggregated Mastercard data enabled researchers from New York University’s Center for Urban Science and Progress to study how different services in New York — such as bike-sharing and interactive kiosks offering resources like free Wi-Fi and device-charging stations — may be benefiting commuters, visitors and local businesses.

Also in 2017, the Center published two editions of Donation Insights, an open-source report and data set that shed light on charitable giving trends. With more than five years of monthly indexed insights, Donation Insights allows charities and nonprofits to have a better understanding of the how, why and when of charitable giving.

We recognize that the power of responsible data philanthropy will be realized when it is widely practiced. Our efforts to unleash the potential of responsible data philanthropy are not limited to our own initiatives. We know that the need is great and the pace of progress in this effort must increase; responsible data philanthropy initiatives must be nurtured. That’s why we’re engaging with global leaders, academia, nonprofits and NGOs to identify and create incentives to participate in responsible data philanthropy and to foster broader engagement. Through our leadership in responsible data philanthropy, we hope to bring together the resources necessary to realize the power of data-driven insights to create sustainable, lasting solutions to society’s greatest challenges.

5 Chicago Neighborhood Initiatives’ “Pullman Revitalization” website

DATA FOR GOOD

Mastercard recognizes the power of data to transform communities and change lives for the better.
We provide products and services that help humanitarian aid and development organizations expand their reach and improve their operational efficiency.

We have already helped bring humanitarian aid to 2.5 million people — the vast majority of whom are refugees — in Ethiopia, Greece, Indonesia, Jordan, Kenya, Lebanon, Mozambique, Nepal, Niger, Nigeria, the Philippines, Serbia and Yemen. Building on this work, we aim to help an additional 2 million people receive humanitarian aid through our products by 2020.

COMMUNITY SUPPORT AND DEVELOPMENT

Helping people achieve prosperity also means helping them meet their basic needs — particularly during times of crisis.

We do this in three ways: through humanitarian aid, disaster relief and funding for critical causes.

Humanitarian aid

We provide products and services that help humanitarian aid and development organizations expand their reach and improve their operational efficiency.

We have already helped bring humanitarian aid to 2.5 million people — the vast majority of whom are refugees — in Ethiopia, Greece, Indonesia, Jordan, Kenya, Lebanon, Mozambique, Nepal, Niger, Nigeria, the Philippines, Serbia and Yemen. Building on this work, we aim to help an additional 2 million people receive humanitarian aid through our products by 2020.
In 2015, we launched the Mastercard Aid Network to help NGOs, as well as UN and government agencies, deliver non-financial aid in fragile environments with low connectivity.

It allows recipients to use a card to receive their benefits through a local merchant, and it gives them the dignity of choosing what they want to provide to their families. The network works offline, using Android-enabled devices, card readers and EMV-standard chip cards backed by Mastercard technology so that transactions are authenticated via PIN and processed even in the absence of telecommunications infrastructure. The implementing agency can load the cards or smartphone applications with points and restrict or expand the choice of items available to beneficiaries at participating merchants.

In 2017, leading NGOs, including the International Rescue Committee, Mercy Corps, Save the Children and World Vision, distributed more than 120,000 Mastercard Aid Network cards, which help provide critical assistance to vulnerable people in nine countries.

Disaster relief

To support disaster relief, we provide corporate contributions, employee donations and volunteer support.

In 2017, we committed more than $1.5 million to support disaster response efforts following floods in Sri Lanka; landslides in Colombia; hurricanes Harvey, Irma and Maria in the U.S. and the Caribbean; and the earthquake in Mexico.

After the hurricanes, we worked with Mercy Corps and the American Red Cross to provide efficient aid distribution for victims in Florida, Puerto Rico and Texas. Using Mastercard prepaid cards and Mastercard Send mobile technology, beneficiaries were able to buy what they needed most for themselves and their families.

Together with our bank partners, we waived fees on donations to major charities responding to the hurricanes and those responding to Mexico’s earthquake. The donations went to the American Red Cross, Doctors without Borders, International Rescue Committee, Mercy Corps, Save the Children, the World Food Programme (WFP) USA and World Vision.

In a partnership with GM/OnStar, we used insights from our payment network to help identify which gas stations were most likely open in the areas hit by Harvey and Irma. These indicators helped emergency responders and individual consumers calling OnStar get accurate directions to available fuel.

We provided similar information to the U.S. Federal Emergency Management Agency in Florida. Our employees also volunteered to help the American Red Cross with temporary shelter management in Houston.
We provide funding for critical causes and community programs, primarily through Mastercard’s Priceless Causes. In some campaigns, we make a small donation to a designated cause every time cardholders use their Mastercard products for a certain purchase. In other cases, the platform helps our partners collect charitable contributions from our cardholders.

From 2012 to 2017, we completed a five-year project with WFP, through which we funded 32 million school meals and empowered 8.5 million Mastercard cardholders to make direct donations to WFP. We enabled these donations through Priceless Causes and by launching Donation Platforms, a Mastercard technology that allows consumers to sign up and add a small donation to their card purchases.

Continuing our partnership with the WFP and other local organizations, in July 2017 we also launched the global 100 Million Meals Challenge, for which we committed to fund 100 million school meals in 12 months. This program will feed 600,000 children (50 children for every Mastercard employee) for an entire school year. By the end of 2017, we helped fund the equivalent of 55 million meals through our donations, as well as the donations of our retail and financial partners and we empowered 200 million cardholders.

Mastercard has proudly supported Stand Up to Cancer (SU2C) since 2010. Together with the help of our cardholders, we have donated more than $41 million to help fund lifesaving cancer research. Through the partnership, Mastercard also provides its employees access to valuable resources from the SU2C medical community, including education on how to receive the latest and most promising cancer treatments through clinical trials.

We enabled these donations through Priceless Causes and by launching Donation Platforms, a Mastercard technology that allows consumers to sign up and add a small donation to their card purchases.

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We aim for Mastercard to be where the best people choose to be. We focus on building a world-class culture of high-performing employees who innovate, using their hearts and minds.
Goals and awards

We’re honored to have received a number of awards in recognition of our wide-ranging efforts on workforce inclusion and diversity.

2017 awards and recognition

- **Bloomberg Gender-Equality Index**
- **Reader’s Choice**
  - Top 50 Employers for Equal Opportunity
- **Women’s Choice Award**
  - Best Companies to Work for Millennials
- **Working Mother and AVTAR Best Companies for Women in India**
- **Great Place to Work**
  - Best Workplaces for Women in Brazil
- **Professional Woman’s Magazine “Best of the Best” Employers for Diversity**
- **DiversityInc’s Top 50 Companies for Diversity**
- **Forbes America’s Best Employers for Diversity**
- **100% on Human Rights Campaign’s Corporate Equality Index Best Places to Work for LGBT Equality**
- **Fatherly’s 50 Best Places to Work for New Dads**
- **Great Place to Work**
  - Best Workplaces in Canada, Best Workplaces in Mexico
We aim for Mastercard to be where the best people choose to be. We’ve set a number of ambitious company-wide goals to get us there, and we recognize that our ability to achieve them — whether it’s bringing 500 million new people into the financial mainstream, providing humanitarian aid to 2 million people who have been forcibly displaced or reducing our carbon footprint by 20% — hinges on our people.

Mastercard is a global company with a global workforce. We serve customers in more than 210 countries and territories, as well as the consumers who hold our over 2 billion Mastercard-branded cards. We know the importance of a diverse workforce to meet this global demand, and as of the end of 2017, 7,900 of our 13,400 employees were based outside of the U.S. Across our global operations, our core values shape the company’s purpose, embedding trust, partnership, agility and empowered initiative-taking into everything we do.

We sustain this culture by providing our people opportunities to do purpose-driven work that benefits our customers, our stakeholders and our coworkers on a global scale. We have built a strategy around the employee experience that we call “The Whole You,” through which we support our employees at work and beyond.

Our inspired workforce efforts are designed to attract top talent, retain them and provide them once-in-a-career opportunities to do world-changing work. We believe that by helping our people bring their authentic selves to work, they will serve as a force for good in their communities.
“Within our organization, we are focused on creating a dynamic, engaged and balanced workplace globally.

We’re creating opportunities for growth and advancement within our teams and across the organization. It’s important to have an inclusive approach to business where everyone feels welcomed and empowered”.

Martina Hund-Mejean, Mastercard Chief Financial Officer
INCLUSION AND DIVERSITY

The work Mastercard does in the world is made possible by the diverse experiences, insights and perspectives of our workforce.

Building and strengthening our culture of decency is at the core of our strategy and is key to our current and future business success.

We recognize diversity as spanning all the ways in which we are similar and different, whether through age, gender or ethnicity, or through experience, perspectives or thinking styles. We view inclusion as a leadership skill that allows Mastercard to leverage our diverse workforce to deliver our innovative products and services. Our emphasis on inclusion helps us understand and serve an increasingly diverse pool of customers and communities. Surrounding ourselves with talented people from many different backgrounds is how we limit our potential blind spots and maintain our ability to prepare for future opportunities and challenges.

Our employees, suppliers, customers and stakeholders expect Mastercard to reflect the diversity of our global presence and experience. We challenge ourselves to provide a workplace where the best individuals can thrive and apply their authentic selves to help our company succeed.

OUR EMPHASIS ON INCLUSION HELPS US UNDERSTAND AND SERVE AN INCREASINGLY DIVERSE POOL OF CUSTOMERS
We strive to attract and retain top talent while simultaneously ensuring rich diversity at all levels of the organization. We provide team leaders with information on the gender and ethnic diversity of their organizations so that they can build inclusive teams and support our talent pipeline around the world.

**ETHNIC BACKGROUND**

**U.S. WORKFORCE (ALL LEVELS)**

- Black or African-American: 5.4%
- Hispanic or Latino: 8.6%
- Asian: 17.9%
- All other people of color: 1.6%
- White: 64.7%

**U.S. SENIOR MANAGEMENT**

- Black or African-American: 5.6%
- Hispanic or Latino: 10.5%
- Asian: 13%
- All other people of color: 1.2%
- White: 67.3%

**OUR BOARD**

- Women: 21%
- From diverse backgrounds: 42%
Recruiting and retaining a diverse workforce

Mastercard continues to work to strengthen our culture of decency. Our Chief Inclusion Officer drives our existing inclusion and diversity programs while developing new global programs that support our efforts to find, recruit, develop, and retain the best and brightest talent.

We conduct extensive outreach to maintain and increase the diversity of our workforce. Every year, Mastercard partners with leading business organizations, universities, and events to seek out exceptional recruits and encourage them to join the team.

In 2017, we continued our support of INROADS, an international nonprofit that works to increase the representation of people of color in corporate leadership, and the Posse Foundation, which identifies extraordinary public high school students who may be overlooked by traditional college selection processes. Our support of these programs strengthens the talent pipeline for Mastercard and other global companies.

Among the many conferences we supported in 2017, Mastercard was honored to have a presence at the Grace Hopper Celebration of Women in Computing, the Society of Hispanic Professional Engineers Conference, Yale’s Black Solidarity Conference, the Harvard Business School’s Africa Business Conference, the Corporate Counsel Women of Color Career Strategies Conference and many others.

We also recruit through career fairs focused on students and recent graduates from diverse backgrounds. In 2017, we recruited at historically Black colleges and universities, including Jackson State, Howard University, Hampton University and Delaware State University.

In addition to employee recruitment, Mastercard maintains a broad portfolio of partnerships and organization sponsorships that allow us to strengthen our connection with diverse communities. We sponsor 45 organizations that represent diverse communities, including African-Americans, people with disabilities, Hispanic and Latino groups, LGBTQ organizations, veterans and women.
Investing in youth

Mastercard supports several notable youth employment and empowerment programs. Through the First Jobs Compact, we are committed to helping young people who face barriers to economic opportunity build work experience and launch their careers. In 2017, we piloted a “First Opportunity” initiative in St. Louis, partnering with community-based organizations to identify recent high school or GED graduates to embark on a yearlong internship in our Global Business Support Center. Built around a comprehensive training program and a formal review process, First Opportunity is designed to be a springboard for young people to launch their careers at Mastercard and beyond.

Diversity sponsorships

Mastercard has leveraged a number of partnerships to build our inclusive culture. Here are some of the organizations we sponsor.

AFRICAN-AMERICAN
- African-American Museum Management Leadership for Tomorrow
- National Urban League

DISABILITY
- Best Buddies
- Diversity:IN

HISPANIC
- New York Hispanic Chamber of Commerce
- Puerto Rican Legal Defense Fund

LGBTQ
- Human Rights Campaign
- Lambda Legal
- OUT Leadership
- Stonewall UK

VETERANS
- American Corporate Partners
- The Wounded Warrior Project

WOMEN
- 30% Club
- Corporate Counsel
- Women of Color
- UN HeForShe
- Women in the World

ALL COMMUNITIES
- The Conference Board
- Corporate Executive Board
- The Council of Urban Professionals
- DiversityInc
- Launch Code
- The National Association of Minority and Women Owned Law Firms
- UN HeforShe
- Women in the World
EVERY DAY, WE WORK TO BUILD A CULTURE THAT IS OPEN, DIVERSE AND INCLUSIVE
We believe all Mastercard employees deserve to be treated fairly and with respect and dignity. We’re committed to developing and retaining a diverse and inclusive workforce around the globe, free of unlawful discrimination, harassment and retaliation.

As an equal employment opportunity workplace, it’s our stance that job qualifications and performance should be the sole basis for employment decisions and opportunities. Every day, we work to create a culture that is built on decency and that is open, diverse and inclusive. We recruit, hire, train, pay and promote qualified individuals regardless of:
- age
- alienage or citizenship status
- color, ethnicity, creed, or race
- disability
- gender, gender identity or gender expression
- genetic information
- marital or family status (including pregnancy, childbirth or breastfeeding)
- national origin
- religion
- sexual orientation
- veteran status

We do not tolerate any discrimination, harassment or retaliation by employees or our business partners, including sexual harassment, degrading or offensive comments or jokes, violence, intimidation or threats. All Mastercard employees receive training on these policies. We enforce them by providing employees with several alternative methods to report concerns, including an anonymous Ethics Helpline. We also promptly investigate all complaints and take appropriate responsive action when warranted.

QUALIFICATIONS AND PERFORMANCE SHOULD BE THE SOLE BASIS FOR EMPLOYMENT DECISIONS AND OPPORTUNITIES

A workplace free of discrimination and harassment
Business Resource Groups

Mastercard is home to nine employee affinity groups — our Business Resource Groups, or BRGs — that further employees’ professional development and leadership skills and deepen their connection to the company’s work.

In addition, these BRGs act as internal business consultants, helping the company with consumer research, cultural insights, customer segmentation and access to networks. While each BRG focuses on specific areas, they are all guided by our culture of inclusion and are open to all employees. Across our global operations, we have 70 BRG chapters in 30 locations, with half of our global workforce participating in these groups.

ADAPTability
Employees with disabilities and their friends and families

EAST
Exploring Asian Societies and Trends

ePros
Experienced Professionals

Latin Network
Employees of Latin descent

LEAD
Leading Employees of African Descent

PRIDE
Fostering an environment of inclusiveness and respect for LGBTQ employees

SALUTE
Active and veteran military personnel and their families

WLN
Women’s Leadership Network

YoPros
Young Professionals

Pay equity

Mastercard is committed to the principle of equal pay for equal work. Each year, we review every role in the company and benchmark its pay to the external market.

We also assess compensation decisions for potential pay disparities by gender and offer employees multiple channels to raise pay disparity concerns, such as the employee’s manager, our Ethics Helpline, our Employee Relations team or the Law Department. Whenever we uncover pay disparities that do not have a satisfactory explanation, we take responsive actions to rectify the situation.

In 2017, we began working with a third party to validate our pay assessments, and we’ll continue this partnership as part of our annual process.

As of October 2017, for every $1 earned by men, women earned $0.991 for equal performance at the same level. We remain dedicated to maintaining practices that ensure equal pay for equal performance at the same levels.

Gender equality

Half the world’s population is female, but across companies and industries, women are not represented equally or fairly.

Since 2013, we’ve seen improvement in female representation in our workforce and management — with women now representing 39% of our global workforce and 30% of our senior leadership.
One key focus area for improving our gender mix is recruiting from diverse candidate slates for all open positions. In 2017, 83% of our global candidate slates included at least one female candidate, resulting in women being 40% of our global hires and 55% of our university hires.

For high-potential women currently in the Mastercard workforce, we offer additional career development and skill-building opportunities through lateral and upward job assignments. We have formal, targeted discussions to address any development and succession-planning gaps by gender at our senior management levels. In 2018, we also introduced a global female leadership development program to identify the next generation of talented women and ensure they have the necessary skills to take on broader roles within the organization — whether through intensive workshops, career moves or other means.

Additionally, we work to grow a diverse pipeline of future leaders. Our Women in Tech initiative also cultivates the pipeline of girls and women entering the STEM fields, empowering women within these career tracks and identifying promising women to join the Mastercard workforce. We’re also a proud supporter of Launchcode’s CoderGirl program, a weekly meet-up that offers aspiring female coders mentoring from seasoned professionals.

We’ve introduced a global female leadership development program
We’re also expanding our outreach for female candidates, with enhanced efforts during International Women’s Day at the Women Leaders in Fintech event in India. In addition, we hosted #MC is Priceless business networking events in Mexico and Columbia.

Mid-career employees who are returning to the workforce after a career break can face a number of challenges in the recruitment and hiring process. Our Relaunch Your Career (RYC) program is designed to attract mid-level and senior career applicants to Mastercard, allowing our company to tap into and benefit from the wealth of experience and talent they bring. These candidates have taken a career break of two or more years and are prepared to return to work full time and re-establish their careers. Because of the prevalence of women in caregiving roles who take such a career pause, we look to this program to bolster our efforts toward gender balance in the workplace.

Each participant engages in a paid, 12-week program that offers the training and experience to help smooth their path back into the workforce. RYC participants are paired with a hiring manager that provides coaching and regular feedback, as well as a mentor to assist with networking and navigating the workplace. At the end of the program, high-performing RYC candidates have the opportunity to take on permanent roles.

In the program’s first months, we’ve positively engaged with the initial 27 participants.
ATTRACTING AND ENGAGING TOP TALENT

We offer a competitive benefits and rewards program to attract and retain the most talented employees around the world and provide the opportunity to bring their authentic selves to their work.

Compensation and rewards

Mastercard has designed our compensation programs to attract, motivate and retain the world’s best talent. We believe our Total Rewards programs enrich our employees’ experience at work and beyond, through a mix of fixed and variable pay that includes a base salary, annual cash incentives and long-term stock incentives. These compensation packages are guided by three core principles:

1. Align our long-term interests with our stockholders’ interests.
2. Ensure market-competitive pay across our packages.
3. Design pay packages that encourage optimal short- and long-term performance.
At Mastercard, we believe in accelerating, not managing, performance. Creating the right experience for our employees allows our workforce to feel valued and empowered to perform at their best.

We achieve this by providing ongoing coaching and feedback to support career development and growth, including annual performance and development reviews for all employees, and by offering formal training programs, self-guided learning platforms and company-wide recognition opportunities.

In 2016, we launched Degreed at Mastercard, an upgraded enterprise-wide learning tool that allows employees and talent-development professionals to discover, share and track internal and external learning resources on thousands of topics — whether they need to learn new skills right away or are looking to advance their careers as part of a longer-term trajectory. Our Manager Center offers new and experienced managers in-person and online training to stay abreast of the latest best practices.

Mastercard also offers tuition reimbursement and financial assistance to employees who wish to continue their education and further their careers. And tying all these programs together is our new Career Launchpad program, which offers every employee a personalized career-development experience, including creating a career path and detailing the skills, resources and relationships that will help them achieve their goals.

In 2017, nearly 11,000 employees engaged in our formal learning tools, for a total of more than 150,000 hours of training.

In September 2017, we unveiled Recognizing You, a global website and mobile app platform highlighting employees that have driven business results and exemplified the Mastercard values of innovation, collaboration, customer focus and more. Between September and December 2017, we presented over 7,400 awards to employees in more than 50 countries.

We count on our global workforce to tell us what we’re doing right — and where we can continue to improve. That’s why in 2017 we upgraded our employee pulse surveys to allow us to conduct more agile “health checks” on our workplace and culture as we pursue our business priorities. Through these surveys, we request feedback on our efforts to build an inclusive, diverse and decent workplace that is wired to continually improve. Our Chief Human Resources Officer works with the management committee to address opportunities for improvement on a global basis.

Graduate recruiting

We’re always seeking to hire truly great technologists to bring new capabilities to our dynamic business. Our Management Graduate Development and MBA Management Associate programs have delivered more than 200 interns and full-time hires, representing a growing pipeline of diverse, high-performing talent. These undergraduates and MBAs are drawn to the stretch assignments in areas of strategic importance to Mastercard, as well as the opportunity to work internationally and alongside senior leadership as a way of expanding their experiences and accelerating their career progression.

Mastercard has always been an active and generous contributor to our employees’ benefits, including our focus on the retirement readiness of our employees. In 2018, we enhanced our employer contribution to defined contribution retirement plans and introduced a minimum global standard across all of our markets. The standard is a minimum annual employer contribution of 10% of salary. Introducing this standard will increase retirement benefits for 80% of our employees, including those in the U.S.

Employee benefits

Employee and leadership development programs

Listening to employee feedback

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At Mastercard, we believe in accelerating, not managing, performance.
We express our appreciation for our world-class workforce in part through the support we offer, with comprehensive benefits packages that promote good health and financial stability for our employees and their families.

As a global company, our employees’ needs and regional requirements can vary dramatically. Everywhere we operate, Mastercard has developed a core set of benefits we offer to all employees, including health-care coverage, life insurance and retirement plans. In every location, we also offer our employees disability insurance and accident benefits to help mitigate the impacts of life’s misfortunes.

Benefits for The Whole You

In 2017, we expanded our global benefits in a number of ways. We expanded our parental leave policy to support all of our colleagues in all geographies — regardless of race, gender, sexual orientation or local laws. This is consistent with who we are and our support of marriage equality. We also introduced back-up child- and elder-care options in several countries, and we expanded our bereavement-leave program globally.

EMPLOYEE HEALTH AND WELL-BEING

Mastercard is driven by our philosophy to care for The Whole You. We aim to provide a safe and healthy workplace as part of our efforts to enable all employees to achieve their full potential.
WE EXPANDED OUR PARENTAL LEAVE POLICY TO SUPPORT ALL OF OUR COLLEAGUES IN ALL GEOGRAPHIES — REGARDLESS OF RACE, GENDER, SEXUAL ORIENTATION OR LOCAL LAWS. Our Global Health and Safety policy details this commitment, and our management team is charged with making sure that we ensure the safety of our workplace and equip our employees to communicate any risks they observe. Our frequent audits of our global workplaces cover topics ranging from fire and accident risk to lighting and waste management, helping us stay abreast of where we’re succeeding and where we can focus our efforts.

In addition to our own global safety standards, we comply with local and statutory health and safety requirements and maintain consistency with applicable international health and safety standards. Because the majority of our workforce is located in office settings, we’ve made ergonomics a key focus of our workplace safety efforts. Since 2014, we have offered our Workstation Safety Plus online training to all interested employees, with more than 4,000 taking part to learn about recommended workstation improvements that can increase their productivity and comfort. In 2017 alone, nearly 1,400 employees engaged with the program.

We incorporate health and wellness principles into our office designs as well, in line with our Worldwide Office Design Standards. Among the guidelines we follow as part of these standards, our workstations are located along perimeter windows to maximize natural light, and we centrally locate pantries, recycling facilities and common areas to encourage active use of the space. Our larger offices also have open staircases, fitness centers and walking trails to encourage movement throughout the workday. We also encourage employees to rest and recharge with in-office quiet rooms, meditation rooms, wellness rooms and game rooms.

For our U.S. operations, we have emphasized employee wellness in our benefits offerings, including acupuncture, on-site fitness centers in our Purchase and St. Louis locations (plus reimbursement for fitness center membership for employees in other U.S. locations) and workplace ergonomic assessments in all our workplaces.

Mastercard also supports our U.S. employees in caring for their families, with discounted plans for emergency and ongoing childcare and adult- and elder-care and more. We’ve also partnered with Rally Health, a digital health platform that makes it easy for employees to incorporate exercise and wellness activities into their daily routine. Our U.S. workforce is eligible to earn up to $1,000 per year in additional health-care funds by engaging with Rally to maintain and track their wellness activities, such as visiting a doctor for their annual physical exam.

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**Safe and healthy workspaces**

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**WE INCORPORATE HEALTH AND WELLNESS PRINCIPLES INTO OUR OFFICE DESIGNS**
Mastercard is committed to protecting the security of our company, employees, facilities and information with technology, personnel and physical controls to provide a safe working environment.

Our Corporate Security department provides comprehensive coverage, monitoring, awareness and intelligence, advising on risk mitigation and threat preparedness. Whether during corporate events, employee international travel or daily operations at our workplaces, the Corporate Security team is proactively protecting Mastercard and our employees.

In addition to making use of the latest security technologies for our workplaces, we’ve developed an e-learning platform to promote security awareness and communicate our security policies to our workforce, as well as virtual reality safety training. Mastercard also offers enterprise-wide classroom training on first aid, CPR, automatic external defibrillator (AED) use and women’s self-defense.
While Mastercard offers financial support to a number of causes (see more in the Inclusive Growth section), we also encourage employees to make a difference through volunteering for causes they value. We pay for every full-time employee to spend as many as five workdays per year engaging in volunteering and community activities. Among the many worthy organizations our employees support:

**Girls4Tech**
Our award-winning Girls4Tech™ education curriculum for girls around the world aged 9-12 is aimed at creating future problem-solvers. Girls4Tech was developed in conjunction with our top engineers and technologists to teach the foundations of STEM principles. Girls4Tech has already reached more than 38,000 students in 21 countries, and in 2017 we set a goal to reach a total of 200,000 girls by 2020.

**Military mentoring**
For the past four years, we’ve served as a sponsor of American Corporate Partners (ACP) with 156 employees in the U.S. and U.K. serving as year-long mentors to more than 300 members of the military, supporting them as they re-enter civilian life.

**Teaching tomorrow’s business leaders**
Over the past 12 years, more than 5,000 employees in the St. Louis and New York areas have volunteered in local schools, teaching more than 70,000 K-8 students.

From local projects to global challenges, we aim to have an enduring impact on the communities where we live and do business.

Whether it’s serving as mentors, providing skills-based assistance or giving back in their local communities, our employees aim to drive social change and support local nonprofits and small businesses. The Mastercard donation-matching program doubles the impact of our employees’ financial support of qualifying organizations.
Hurricane Relief Effort
In the wake of Hurricane Harvey in the summer of 2017, Mastercard partnered with the American Red Cross to send a team of 10 employee volunteers from our Purchase, St. Louis and Miami offices to Houston for 10 days to provide disaster-response support. Working 12-hour shifts, the team assisted in bulk distribution of household supplies for residents returning home, as well as support for those living in two local shelters (for more information on our broader disaster relief efforts, see page 36).

Supporting future entrepreneurs
Mastercard has partnered with the Network for Teaching Entrepreneurship (NFTE) since 2010, working to inspire students in underserved areas to envision, develop and launch their own businesses in the U.S., Mexico and China. We’ve supported NFTE through our volunteering efforts, as well as several board memberships for our employees. In addition, we’ve donated more than $5 million in support of their global mission.

Pay It Forward Program
In 2017, as part of an ambitious new partnership, our teams in Public Private Partnerships, Human Resources and Communications created a new opportunity for employees to give back and use their knowledge and skills to do good. We partnered with Mercy Corps, a global humanitarian organization, to identify three projects where employees could volunteer alongside NGO team members to help local small businesses develop safe, secure digital payment systems. More than 160 employees applied and six were selected to participate in 10-day-long volunteer experiences in Nepal, Colombia and Gaza/Jordan in 2018.

In addition to encouraging our workforce to engage their passions and expertise to support the causes they love, we also empower them to increase their financial support of those organizations. Mastercard provides a total of $15,000 in matching funds per employee, per year, to eligible charities of their choice. In 2017, we expanded on our charitable matching program by increasing the cap on matching funds available to any charity our employees’ choose. We want to support the organizations that our employees value enough to devote their personal time to. Every employee who volunteers at least 40 hours per year to one organization is eligible to apply for up to four $500 grants per year to help further that group’s work.
As a global company, we believe the private sector has the opportunity — and the responsibility — to contribute solutions to the world’s environmental challenges.
Since climate change represents one of the biggest challenges of our time, we are committed to doing our part to support the goals of the Paris Agreement and limit global warming to well below 2 degrees Celsius.

We recently became the first payments company to set an approved science-based target, with external review to ensure that our actions help the world meet the Paris Agreement goals. Beyond climate, we are dedicated to reducing our environmental impacts, including our waste and water impacts, and innovating to design solutions and technologies that contribute to a sustainable future.

Our approach to environmental stewardship — including our focus on energy efficiency and green building, renewable energy and addressing our supply chain impacts — defines how we are contributing to a more environmentally sustainable world. Our first focus at Mastercard is ensuring we manage and continuously improve our own footprint, including the environmental impacts of our offices and operations.

The next step is ensuring that our payment solutions are built on a sustainable foundation. As an electronic payments network, we are powering our network and data centers more efficiently and through the use of renewable resources — so that when people, businesses and governments pay with Mastercard, they’re choosing a sustainable way to pay.
We’re working to measure and improve the environmental impact of our network and solutions. By comparison, traditional alternatives like cash and newer cryptocurrencies come with significant environmental costs, and we believe our network provides a better option. With our partners, we have also begun to explore more environmentally friendly alternatives to plastic for cards.

The opportunity for Mastercard goes beyond ensuring our own sustainability. We believe we can help the world transition to a sustainable future, and we’re exploring new environmentally conscious solutions that help others lessen their impact on the planet. Already, we have brought the first of these solutions to market; some examples are described on page 75.

We’re committed to taking a leading role in environmental responsibility, using our people and innovation as a force for good in the world.

We believe our focus on environmental stewardship goes hand in hand with our vision for inclusive growth. The people who are excluded from economic opportunity are often also the most vulnerable to environmental challenges like climate change — so by being a good steward of the environment, we are also helping create a sustainable world and contributing to inclusive growth.
The environmental cost of cash

Cash may still be a commonly used form of currency, but it has significant **environmental impacts**, which stem from the raw materials and energy used in production, as well as the energy used and emissions created from the distribution and circulation of cash.

In 2017, approximately 12.5 million pounds of cotton were used for U.S. banknotes alone. Producing that much cotton requires approximately 112.5 billion liters of water — enough to supply a year’s worth of water to nearly 1.2 million American households. U.S. coins used approximately 49.4 million pounds of copper. It’s likely that the use of cash has an even greater environmental footprint due to the carbon emissions linked to companies collecting and transporting cash.

The use of cash also can contribute to illicit activities that are usually prevented when money is exchanged via electronic payments networks. Activities such as trade in endangered species and illegal logging are usually conducted in cash, whereas electronic payments have enforcement regimes to prevent illegal activities.

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6 Environmental cost of cash estimates were produced with support from BSR. Estimates of cotton consumption are based on figures from WWF, Cotton.org and USCurrency.gov. Estimates of average U.S. household water consumption are based on figures from USGS and the U.S. Census. Estimates of copper consumption are based on figures from the U.S. Mint.
The environmental impact of Bitcoin versus the Mastercard Network

New research shows that cryptocurrencies like Bitcoin are inherently more energy-intensive than Mastercard’s payment network.

According to some estimates, Bitcoin’s electricity consumption per transaction ranges from 300 kilowatt-hours to up to 1,000 kilowatt-hours — more than the average U.S. household uses in a month. If the popularity of Bitcoin grows, so do its energy demands. Those estimates show that, at minimum, Bitcoin is already consuming nearly as much energy as Ireland, and this amount may triple by the end of 2018.7

In contrast, our network is more efficient. In 2017, our data centers, which process Mastercard transactions, consumed approximately 45 million kilowatt-hours of energy. We switched 65.3 billion transactions, processing each transaction with approximately 0.0007 kilowatt-hours of energy. This means that, according to the estimates above, a Bitcoin transaction consumes between 430,000 and 1.4 million times more energy than a Mastercard transaction. Moreover, Mastercard’s transaction processing is entirely powered by renewable energy, which may not be true for all participants in Bitcoin.8

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7 U.S. household energy consumption provided by the U.S. Energy Information Administration. Estimates of Bitcoin energy consumption are sourced from Joule and Digiconomist.net.
8 This estimate of Mastercard’s energy consumption includes only Mastercard’s switching; the merchants, banks and any others involved in processing transactions consume additional energy that is not included.
We are proud to be the first payments company — and one of a small number of companies in any industry — to have announced an externally validated, science-based target to reduce our emissions in line with the global goal laid out in the Paris Agreement to limit global warming to well below 2 degrees Celsius.

In 2018, our climate goal was independently assessed and approved by the Science Based Targets initiative, a collaboration between CDP (formerly the Carbon Disclosure Product), the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). We undertook a rigorous process to develop this goal, which provides our company with a defined pathway to future-proof growth by specifying how much and how quickly we must reduce GHG emissions. This ensures we are doing our part to make a larger impact — with the best science behind our work.

Our science-based climate goals

Our science-based target is to reduce our absolute Scope 1, Scope 2 and Scope 3 emissions — including our direct, indirect and supply chain emissions — by 20% by 2025, from a 2016 baseline. In order to understand and manage our climate impact and contribute to broader efforts on environmental stewardship, we measure our emissions and environmental footprint and report to CDP. We have participated in CDP’s Climate Change survey since 2010 and its Supply Chain survey since 2013. We have also quantified the emissions of our supply chain so that we can identify the opportunities for the greatest reductions.

Our biggest climate impacts originate from the goods and services we purchase through our supply chain, followed by our buildings and facilities, including the operation of our data centers. We manage our emissions through strategies that maximize our renewable energy use and reduce our GHG emissions, water use and waste. We're not just reducing our own footprint; we are also working to improve the performance within our supply chain. These activities make Mastercard a more efficient business and ensure we are doing our part to contribute to a sustainable future.

Our environmental initiatives are supported by a strong governance structure. Our global Real Estate and Procurement teams manage our efforts to reduce our internal footprint and that of our supply chain. They report their results to our CFO. Oversight of our environmental performance, as well as our efforts to develop environmentally beneficial products and services, rests with the Nominating and Corporate Governance Committee of Mastercard’s Board of Directors.

ENSURING OUR SUSTAINABILITY

We are dedicated to providing payment solutions built on operations that are environmentally sustainable.

Our science-based target is to reduce our absolute Scope 1, Scope 2 and Scope 3 emissions — including our direct, indirect and supply chain emissions — by 20% by 2025, from a 2016 baseline. In order to understand and manage our climate impact and contribute to broader efforts on environmental stewardship, we measure our emissions and environmental footprint and report to CDP. We have participated in CDP’s Climate Change survey since 2010 and its Supply Chain survey since 2013. We have also quantified the emissions of our supply chain so that we can identify the opportunities for the greatest reductions.

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Emissions at Mastercard

**Goal:** 20% reduction in Mastercard’s absolute Scope 1, 2 and 3 location-based emissions by 2025, based on a 2016 baseline.

**Progress to Date:** 100% renewable energy for our global operations: 1% solar generated onsite; 7% directly procured renewable energy; 92% renewable energy credits.

**SCOPE 1**
Stationary combustion of natural gas, diesel and jet fuel at owned and leased sites

**SCOPE 2**
Purchased electricity at owned and leased sites, including data centers at two U.S. sites

**SCOPE 3**
Purchased goods and services, capital goods, fuel and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel and employee commuting

**SCOPE 3 Supply chain emissions:**
- 75% of our global emissions originate in our upstream supply chain
- The top-emitting 48 suppliers contribute 66% of our Scope 3 emissions
- Industries that make up our biggest supply chain emissions: technical consulting, advertising, amusement and recreation and promotional marketing

- HFCs
- C02
- SF6
- NF3
- PFCs
- CH4
- N20

**Upstream transportation and distribution**

**Upstream leased assets**

**Purchased goods and services**

**Business travel**

**Employee commuting**

**Fuel and energy-related activities**

**Waste generated in operations**

**SCOPE 1**
Direct reporting company

- Company facilities
- Company vehicles

**SCOPE 2**
Indirect
Purchased electricity, steam, heating and cooling for own use

**SCOPE 3**
Indirect upstream activities
In 2016, we changed our GHG accounting methodology, from ownership control to operational control, in order to measure our emissions more comprehensively. Our Scope 1 and Scope 2 measurements now include not only owned sites, but leased sites as well. We also began calculating our Scope 3 emissions only in 2016. Our data from previous years are therefore no longer comparable. The increase in Scope 1 emissions in 2017 was the result of increased travel and a colder winter, which increased natural gas consumption. The 2017 Scope 2 decrease was the result of energy-efficiency initiatives, office consolidation and the introduction of on-site solar energy production.
Capturing our true footprint and leading through partnerships with our supply chain

Since the majority of our GHG emissions result from our supply chain, for us to do our part in meeting the Paris Agreement goals, it was essential to measure and include these Scope 3 emissions in our goal. That is why we undertook new supply chain emissions efforts in 2017, as described below. We take pride in the strong relationships we have built with our suppliers, which are at different stages of their own paths to sustainability. In the past year, our Supply Chain and Environmental Sustainability teams have dedicated efforts to advance our suppliers’ efforts to measure, report and reduce their emissions.

The emissions data we have collected are significantly more complex and comprehensive than more commonly collected Scope 3 emissions data that are limited to business travel and employee commuting. Our Scope 3 reporting also includes our purchased goods and services, the capital goods and services we use in our operations and the fuel and energy not included in Scopes 1 and 2. This level of data collection is essential to achieving positive, real-world climate impacts, as well as the most comprehensive climate data reporting in the global payments industry.

In the year since we began these efforts, we have made great progress: Between 2016 and 2017, our total Scope 3 emissions declined by 42%. This success is the result of a number of activities, including helping our suppliers identify ways to understand and reduce their own emissions, as some of our biggest suppliers by spend had not previously measured their carbon footprints with great accuracy. We also worked with our suppliers to make climate-friendlier purchases, such as with our global real estate partner, which is now prioritizing low- and zero-carbon office equipment in every purchase.

The decrease in Scope 3 emissions in 2017 was the result of supplier engagement to begin or improve emissions measurement, supplier initiatives to provide fewer emissions-intensive products or services and consolidation of our supplier base.

Mastercard has implemented a significant waste-diversion program that surpasses the GHG emissions that our waste streams generate. Because it is not possible to have negative emissions, we report this number as zero.

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<tr>
<th>SCOPE 3 EMISSIONS 2016-2017 MTCO2e</th>
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<tr>
<td>2016</td>
</tr>
<tr>
<td>848,978</td>
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<tr>
<td>2017</td>
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<td>490,285</td>
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As a technology company in the payments space, Mastercard does not directly produce physical goods and therefore generates little downstream process or emissions. The majority of our carbon footprint comes from Scope 3 emissions, particularly those resulting from the goods and services we purchase. To complement our established goals and strategies on Scope 1 and 2 emissions, we are implementing a new strategy to address our Scope 3 supply chain emissions. Our Environmental Sustainability team is working one-on-one with key suppliers. We believe that creating relationships with each supplier fosters shared values and motivation to measure, disclose and reduce carbon emissions.

We began our Scope 3 work in 2017 by conducting a study to gain a deeper understanding of these emissions. Our analysis revealed that an estimated 75% of our global emissions originate in our upstream supply chain. Our Global Procurement team partnered with CDP Supply Chain Services to identify the top 12 suppliers by estimated emissions, and we began engaging those suppliers on our carbon-reduction goals. In 2017, we hired a sustainable supply chain specialist charged with building supplier relationships, helping suppliers track their progress and identifying areas for improvement. We have also educated Mastercard’s procurement category managers about climate change and Scope 3 emissions to leverage our relationship with suppliers in pursuit of our reduction goals. We offer suppliers ongoing resources, including training programs and webinars, to share best practices and encourage continuous improvement.

In 2018, we took this work farther with efforts to identify the carbon emissions of each of our suppliers. We prioritized our supply chain and focused on the 48 suppliers that contribute approximately two-thirds of our Scope 3 emissions. This allowed us to define four broad categories of industries that make up our biggest supply chain emissions: technical consulting, advertising, amusement and recreation and promotional marketing.
At Mastercard, we believe energy efficiency goes hand in hand with green buildings, and we are committed to building, maintaining and improving our buildings sustainably. We obtain external certifications to demonstrate our commitment and progress, and we recertify our properties over time to assure that they continue to meet our high standards.

Energy efficiency is built into Mastercard’s Global Workplace Design Standards, so that efficiency is part of the design and construction process from the beginning. We pursue green certification for all eligible construction projects, and we work to ensure that our green building practices align with global and local standards. Today, all of our owned campuses are LEED-certified, and more than 73% of Mastercard’s total square footage is either green building-certified or resides in a building that meets green certification for that area of the world.

Outside of our owned campuses, we are pursuing certifications in a number of locations, and we have already achieved Green Mark Gold Plus in our Singapore regional office. We also require that all new build-outs meet a leading green certification standard and include energy-efficiency design standards. We are committed to maintaining certification and improving our facilities each time we recertify our buildings. For instance, our primary global data-processing center in O’Fallon, Missouri, was certified as LEED EBOM Gold in 2010. In 2015, after we implemented additional energy-efficiency measures and greener practices, it was recertified as LEED EBOM Platinum.

At our data centers, we implement rigorous efficiency standards, including server efficiency requirements. We have created a checklist of sustainability criteria for power usage effectiveness, renewable energy and other factors that we consider when choosing new colocation sites. We are constantly looking at ways to improve the energy use at our data centers globally, and we are committed to exploring and testing new technologies.
Every year, we complete energy-saving projects for sites globally. We require that all new construction projects, including renovations, use LED and energy-efficient lighting systems. In 2017, for example, in our London location — among our largest offices globally — we began upgrading the lighting to LEDs. We expect this to reduce our lighting energy use there by more than 80%. We also look to reduce the energy impact of all purchased electronics, including appliances and laptops, by requiring that these items meet energy-efficiency standards like Energy Star.

Green buildings

**COUNTRIES WITH CERTIFIED BUILDINGS AS OF END 2017**
Australia, Belgium, Brazil, Canada, Chile, France, Germany, India, Indonesia, Ireland, Kenya, Republic of Korea, Philippines, Poland, Singapore, South Africa, Spain, Turkey, United Kingdom, U.S.

100% owned campuses are LEED-certified

73% Mastercard’s total square footage is certified

In 2017, we certified nine additional buildings.
Renewable energy

Through a combination of on-site solar, directly procured renewable electricity and renewable energy credits, we have achieved 100% renewable energy for our global real estate portfolio.

In 2017, we installed solar panels at our technology headquarters in Missouri and at our global headquarters in Purchase, New York, which will generate up to 15% of electricity consumed at those sites. In 2017, these solar arrays generated 218,237 kilowatt-hours of renewable energy, and we expect them to contribute more than 1.3 million kilowatt-hours annually going forward. Over the next two years, we plan to more than double our on-site renewable energy creation. These efforts will help us to shift a larger portion of our energy sourcing from renewable energy credits to on-site renewable energy generation.

Transportation

We are dedicated to reducing the impacts of employee travel and daily commutes. We encourage the use of virtual meetings and we offset all business travel through the purchase of carbon offsets.

Wherever we select office space, we identify locations that have high walkability scores and are close to public transportation. We also encourage our employees to use green transportation options by providing bicycle allowances, car-charging stations and shuttle bus services. For people who bike, walk or run to work, we provide on-site bike storage and showers. We also offer flexible work-from-home policies.

Waste and water

Our goal is to recycle, divert or compost 70% of waste generated in our owned facilities, and in 2017, we were able to divert 62% of waste from landfills.

Globally, we have transitioned to centralized waste-diversion programs, placing bins in central locations to make recycling easier for everyone. We also recycle, reuse or donate all of our office furniture globally, and we work with vendors to decrease their use of packaging and waste. We work with our global IT department to ensure 100% of electronic waste is diverted from landfills.

To reduce our water use, we installed water-efficient fixtures in all facilities, with a special focus on data center cooling, as described above. We also use stormwater runoff for landscape irrigation at our major campuses.
ENVIRONMENTALLY CONSCIOUS SOLUTIONS

We’re focused on looking for ways to apply our people, assets and innovation to help the world transition to a more sustainable future.

By managing the environmental impacts of our operations and supply chain, we’re working to reduce our environmental footprint and show leadership as a company whose operations are sustainable. But we want to do more to contribute solutions that reach outside our business. We’re exploring a variety of environmentally conscious solutions, from biodegradable cards to simple and smart payment systems for people in Africa to afford solar energy systems.
In 2018, Mastercard announced a partnership with M-KOPA, a provider of home solar energy systems that facilitates lighting and radio- and phone-charging capability to millions of people in East Africa in an affordable manner.

Today, an estimated 1.1 billion people have no access to electricity. In sub-Saharan Africa alone, 590 million people lack access to electricity and instead rely on bio and fossil fuels such as wood, charcoal and kerosene. For people who lack access to electricity, off-grid solar power solutions offer a clean, low-cost and low-emissions energy source. Through the combination of a connected device and digital payments, Mastercard is enabling a pay-as-you-go business model for better access and commercial viability of key assets for underserved populations. But many people cannot afford the up-front cost of a home solar system.

Off-grid energy providers like M-KOPA offer a simple solution, allowing customers to make only a down payment to receive a home solar kit, followed by small installment payments, as established by the consumer. The home solar kit provides electricity based on consumers’ ability to make payments. This allows M-KOPA to offer its products on credit with a lower financing risk. Not only does this help people gain access to clean and safe electricity, it also helps customers build creditworthiness.

While the pay-as-you-go model proves to be effective in enabling asset financing for consumers at the base of the pyramid, today’s model relies on multiple integrations with different organizations for digital payments and device connectivity. As a payment network, Mastercard is in the business of connecting our platform to many partners.

For a pilot in Uganda, we plan to offer our QR-based payment system combined with an internally developed pay-as-you-go API to reach customers across different entities. As providers expand to other markets, they can rely on our existing QR-footprint across issuers and telcos in a standard way. Our goal is to help providers like M-KOPA expand its reach and offer affordable, safe and clean energy to millions more people who lack access to electricity. By providing access to both clean energy and formal financing, this partnership is advancing energy inclusion and financial inclusion — two priorities for Mastercard to deliver sustainable solutions to the world.

ADVANCING ENERGY INCLUSION AND FINANCIAL INCLUSION IN THE WORLD


The pay-as-you-go inclusion opportunity

Building on our collaboration with M-KOPA, we are building on a pre-pay billing model using smart infrastructure to give consumers at the base of the pyramid control over their consumption across basic services such as energy and clean water. We are excited about the opportunity to develop innovative, affordable options that help people meet their basic needs and help them build a credible payment history to connect to other financial services. Read our white paper for a deeper look at the potential for pay-as-you-go and Internet of things technologies to help people meet their basic needs.
In 2016, we partnered with the Finnish Bank of Åland, which also worked with partners such as WWF Finland, KPMG and Gemalto, to create a new credit card that is not only biodegradable, it tracks consumers’ carbon footprint and suggests ways they can reduce their impact.

The Baltic Sea Card — made of renewable and biodegradable materials — uses the Åland Index, a tool that estimates the environmental impact of cardholders’ monthly consumption through their purchases. Consumers receive this information via an easy-to-read environmental report, which is presented through their mobile app or Internet bank account. The report shows the environmental impact on each transaction in both euros and kilograms, and it gives consumers the option of making direct donations to different environmental projects to offset their impacts. WWF Finland is also providing information on making more sustainable lifestyle choices. This innovative solution serves as a proof of concept and offers new tools as we and our partners look for ways to expand our impact.

The Åland Index is open to any other bank that wants to be part of the solution.

Mastercard is in the early stages of exploring how we and our partners can reduce the environmental impact of plastic cards. We are investigating options to reduce the volume of plastic that ends up in landfills. These options include sourcing recycled plastic for card production and using non-petroleum-based renewable alternatives.

As we develop new digital solutions and device-based payments, we’re mindful of opportunities to make payments more environmentally sustainable. We have already helped bring to market some promising alternative materials — a first step toward new solutions like biodegradable cards.

Beyond plastic cards
We believe public transit is the smart and sustainable solution for moving people around the world’s growing cities. We are partnering with local governments as part of our work on smart cities, leveraging new technology alongside open standards and platforms to drive innovation at scale.

Mastercard is working with more than 100 global cities to enable contactless and mobile payments for their transit and toll road systems. We’re partnering with city governments to make public transit management smarter and more efficient, to encourage ridership and to boost transit systems’ capacity to meet growing need.

Our solutions enable people in these cities to use their payment card or mobile device as the only ticket they need to get around — by train, bus, ferry or bike-share. This can shorten lines and speed passengers through turnstiles, helping make transit the more convenient choice.

We are also developing incentives for people to travel during non-peak times, helping address congestion and enable transit systems to support more riders.

In 2014, we worked with Transport for London (TfL) and Cubic Transportation Systems to help them introduce a pay-as-you-go solution on Tube, bus and rail services in London. Using a contactless-enabled card or mobile device, customers are able to walk through a ticket gate without needing to purchase a ticket or top-up an Oyster card. This solution allows customers to enter the system more rapidly, and also helped TfL reduce the cost of collecting fares from about 14% of revenues to just below 9% — so that London’s investments in public transit go farther and support more riders.

In 2017, we partnered with the Chicago Transit Authority (CTA), City Digital and ideas42 on a trial to reduce congestion on one of Chicago’s busiest train lines. The north-south CTA Red Line, which serves some of Chicago’s most densely populated neighborhoods, experiences significant crowds when the popular Chicago Cubs are playing weekend games at Wrigley Field. We found that by offering text-message alerts with incentives such as fare rebates and charitable donations, people were open to changing their travel time. As a result of the targeted fare rebates, the trial shifted nearly 18% of traffic during peak times. This type of innovative demand-management technique can give cities new tools to enable their existing transit infrastructure to meet the needs of growing populations.

We are excited about exploring more of these opportunities to create seamless and sustainable urban mobility solutions.

WE’RE EXCITED ABOUT EXPLORING MORE OPPORTUNITIES TO CREATE SEAMLESS AND SUSTAINABLE URBAN MOBILITY SOLUTIONS.
As part of our efforts to improve the world’s public transit systems, Mastercard is helping fund the C40 Cities Climate Leadership Group’s Mobility Management Network. As cities face population growth, resource constraints and environmental challenges like air pollution, improving public transit — and encouraging more people to use these systems — is a critical way to improve quality of life and combat climate change.

The Mobility Management Network, formed at the COP21 international conference on climate change in 2015, is helping cities integrate different transit systems. It is also supporting programs that make public transport more attractive and easier for citizens to use. Participating cities are focused on five areas:
- integrated transport planning to improve connections among modes of transport;
- ticketing, including automated fare collection and integrated fare systems;
- parking and private vehicle management;
- congestion pricing implementation and
- communications and travel-planning campaigns to encourage public transit, walking and cycling.

C40 mobility management network: improving urban transit and reducing climate impacts

Supporting people affected by extreme weather

We provide products, services, donations and volunteer support to help people who are affected by extreme weather events, which are stronger and more common due to global climate change.

In 2015, we launched the Mastercard Aid Network to help NGOs, as well as UN and government agencies, deliver aid in fragile environments with low connectivity. In 2017, we committed more than $1.5 million to support disaster response efforts in the Caribbean, Colombia, Mexico, Sri Lanka and the U.S. (Read more about our disaster relief efforts on page 36).
ETHICAL AND RESPONSIBLE STANDARDS
OUR APPROACH

We believe that acting ethically and responsibly is not only the right thing to do, but also the right way to do business.
Mastercard received a number of prestigious awards recognizing our ethical and responsible performance in 2017.

**Awards, recognition and partnerships**

**Ethisphere Institute**
2017 World’s Most Ethical Companies

For the third consecutive year, Mastercard was named one of the World’s Most Ethical Companies for our efforts to lead with integrity and promote ethical business standards and practices, internally and externally.

**Barron’s**
Most Respected American Companies

Mastercard has again been named one of the Most Respected American Companies by Barron’s, ranking 17th in this influential survey.

**Reputation Institute**
2017 Global CSR RepTrak

Mastercard earned a spot in the Global CSR RepTrak, a list of 100 firms recognized for their commitment to corporate social responsibility.

In addition, we maintain professional partnerships with the Business Ethics Leadership Alliance and the Association of Corporate Counsel Westchester/Southern Connecticut, organizations dedicated to advancing the integrity of business. Our participation in these groups allows us to share Mastercard’s best practices and learn from our peers’ successes and challenges.
Our touchstones of decency, integrity and respect are central to who we are, what we do and how we do it. They guide our interactions with each other, with our partners and with the world.

Mastercard is built around the four core values of trust, partnership, agility and initiative. Consumers, merchants, business partners, governments and the communities we serve all expect Mastercard to maintain the highest standards. Our deep commitment to ethical operations and legal compliance, as well as to world-class information security and data privacy, allows us to meet these expectations. These same values are evident in our workplaces, making Mastercard the place where the best people want to be.

**Trust**
We act with integrity and respect; we encourage openness.

**Partnership**
We work as one team to the benefit of all — consumers, merchants, business partners, governments and the communities we serve.

**Agility**
We act with a sense of urgency and deliver value through our innovation and execution.

**Initiative**
We are empowered to take bold and thoughtful action, and we hold ourselves accountable for delivering results.
Across our operations, we strive to ensure that Mastercard’s work reflects the highest ethical values. We are guided in this effort by our Code of Conduct, the cornerstone of our Ethics and Compliance system and of our culture of decency.

Because our Code of Conduct is the road map guiding our employees in making the right decisions, in 2017 we updated the Code to reflect the latest best practices. We offer the Code in multiple languages, with a newly updated and more readable design, to provide guidance to all employees on issues including managers’ responsibilities, conflicts of interest, anti-corruption, political activities and privacy and data protection.

In addition, Mastercard’s CEO and other senior officers are subject to a Supplemental Code of Ethics for the CEO and Senior Officers, which reflects their heightened responsibilities to lead by example, such as in taking special care to avoid conflicts of interest.
EVERY MASTERCARD EMPLOYEE UNDERGOES IN-DEPTH TRAINING ON OUR CODE OF CONDUCT

Working to ensure compliance

As a leader in the global payments industry, Mastercard has developed and implemented a robust compliance system that employs innovation and technology in our drive to prevent the use of our products, services and technologies for money laundering, terrorist financing or evading economic sanctions.

We have invested in a comprehensive risk-based program built on a strong control environment — including policies and procedures and employee education and awareness — to ensure that our company meets our regulatory and policy obligations. Mastercard’s anti-money-laundering program is subject to rigorous examination by the U.S. Department of the Treasury, as well as by the federal banking agencies in our capacity as a service provider to banks.

A central component of our Ethics and Compliance system is a mandatory curriculum of employee training. Every Mastercard employee undergoes in-depth training on our Code of Conduct, as well as a number of other topics, including anti-corruption and anti-money-laundering practices, data privacy and information security, preventing insider training and workplace conduct, including harassment and discrimination. This training lays the foundation of our culture of decency and helps employees understand the laws and regulations that guide our business around the globe.

The Mastercard Ethics Helpline is a confidential, around-the-clock service that provides employees, contingent workers, third parties and the public the ability to report suspected violations of the law, our Code of Conduct, or other company policies. The Helpline is hosted by an independent third party, and reports can be made anonymously where permitted by local law. All concerns are promptly, thoroughly and objectively investigated by the relevant investigative function within Mastercard.

We also maintain a stand-alone Non-Retaliation Policy to further empower employees to speak up if they see any inappropriate, unethical or unlawful activities. This policy explicitly forbids retaliation against anyone who asks a question, raises a concern or provides information in good faith about anything that may be a violation of the law, the Code of Conduct or one of Mastercard’s other policies, and subjects anyone who violates the policy to disciplinary action, up to and including termination of employment.

As part of our commitment to creating and maintaining a strong culture of decency, we comply with anti-corruption laws and regulations around the world, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act. Our Code of Conduct and related policies prohibit offering payments or anything of value to improperly influence a business decision or gain an unfair business advantage, and we have implemented training and internal controls to proactively manage corruption risks, wherever they arise. We have also built a data-driven continuous monitoring program to detect high-risk transactions. We developed an innovative internal audit and compliance platform that centralizes information from various systems in our global operations so that we can regularly monitor compliance with our bribery and corruption policies.

Our Chief Compliance Officer (CCO) leads and oversees our Ethics and Compliance system, which encompasses a broad set of integrated programs. The CCO is also the chair of Mastercard’s Ethics and Compliance Operating Council, a network of Compliance Liaisons that spans our business lines and regions, working to increase the organizational engagement, alignment and accountability within our Ethics and Compliance system. The CCO reports functionally to the Audit Committee of the Board of Directors and administratively to the General Counsel.
Properly managed risk-taking in business is a critical component of innovation and leadership. The Board therefore seeks to foster a risk-aware culture while encouraging thoughtful risk-taking in pursuit of the company’s objectives.

Mastercard’s Enterprise Risk Management (ERM) program is designed to provide comprehensive, integrated oversight and balanced identification and management of existing and emerging risks alike. Our Risk Management Committee guides our ERM program, and is composed of many of our most senior executives, several of whom report regularly to our Board and its committees. Our Board further oversees risk management directly and indirectly through its three standing committees, each of which is delegated responsibility for specific risks. (Additional detail about Mastercard’s risk management oversight is available in our 2018 Proxy Statement).

Our Board is responsible for establishing Mastercard’s risk appetite and overseeing its risk-management framework, as well as its risk-assessment and -management processes.

Our Board and management work to continuously improve our risk-management practices, and in the past two years we have taken several steps that significantly strengthened our risk framework. We have established new routines to define and communicate across business units the right balance between the need for stability and reliability on the one hand, and for agility, innovation and entrepreneurial risk-taking on the other. This balance is ultimately captured in our Risk Appetite Statement, which is reviewed and approved by our Board. We also developed new policies and practices to identify, measure and manage internal and external risks. Using these tools, our ERM team regularly reports to the Board and management on top risks, the steps taken to manage them and indicators showing possible changes in our risk profile.
INNOVATION AND NEW TECHNOLOGIES

Innovation is at the heart of what we do, helping us make transactions faster, easier, more convenient and more secure.

We are looking to the future today and connecting innovative technologies to transform the way people pay and get paid, advancing financial inclusion around the world.

Everyone at Mastercard is charged with innovation — from our product teams to our attorneys — with several dedicated teams and initiatives leading the way.

The future of Mastercard starts with our in-house innovation incubators, where we imagine and create the technologies of tomorrow.

Tech Hubs
We have developed five Mastercard Tech Hubs, specialized offices around the world staffed with innovation teams dedicated to delivering products and solutions that improve people’s lives, wherever they are. In 2017, we announced a multimillion-dollar investment in a 212,000-square-foot facility in New York City, with plans to nearly triple our innovation workforce there by 2024.

In Sydney, Australia, our new Tech Hub and Innovation Centre unites more than 500 employees under one roof to accelerate innovation in artificial intelligence, machine learning and cybersecurity.

Mastercard Labs
Mastercard’s global innovation team is responsible for the research and development of innovative products and services that can be brought to market in a rapid fashion. We developed Mastercard Labs with the intent to anticipate and innovate the consumer experience before, during and after the transaction, focusing especially on socioeconomic and environmental challenges, including financial inclusion. Since we unveiled our Labs in 2010, it has been involved in developing technologies or services related to e-commerce payment gateways, multi-merchant mobile applications focused on market aggregation, biometric authentication, artificial intelligence-driven chatbots and blockchain technology use cases, to name a few.

In 2014, we launched our Mastercard Labs for Financial Inclusion in Nairobi to create new solutions for people without access to formal financial products and services. (Read more on page 29.)
Labs as a Service
In 2015, we created our Labs as a Service program in response to marketplace demand for Mastercard’s proven innovation methodologies and processes. Mastercard Labs and Mastercard Advisors work in partnership to offer our customers and partners insights into Mastercard’s innovation processes, as well as R&D consultation to leverage our expertise. Our Labs as a Service solutions, such as our rapid-prototyping Launchpad service, are currently at work around the world, helping our company and our customers stay abreast of the latest technological innovations.

Start Path
We launched Start Path in early 2014 to provide support to innovative commerce-related startups, including access to markets, operational support and networking connections. Through our annual Start Path Summit, we help them build relationships not only with Mastercard executives and leaders, but also with our partners from financial institutions, tech-industry leaders and global retailers. By the end of 2017, the Start Path team had evaluated 1,600 startups per year and partnered with more than 150 organizations around the globe. Companies included in the 2017 class of Start Path participants are using blockchain, digital identity and other technologies to build the latest innovations in financial services, commerce and health care.

IdeaBox
This internal innovation competition launched in 2015 as a Mastercard Labs initiative, periodically challenging all employees to submit ideas for new products. We guide the creators of the leading ideas through a process to pitch, prototype and incubate the product. In the past three years, we have hosted 18 IdeaBox challenges, notable winners of which include Smartalk, an SME-focused chatbot that provides business intelligence, and Mastercard Travel Recommender, an API-based service that provides consumers with recommendations based on anonymized and aggregated Mastercard data.

In addition to building out our in-house innovation platforms, Mastercard also makes strategic acquisitions to accelerate our progress and integrate new capabilities into our networks. In March 2017, we announced our acquisition of NuData, which uses behavioral biometric indicators to enhance the security of the Internet of things including device-level security and authentication. In May 2017, we completed our acquisition of Vocalink, which enables near-real-time payments between bank accounts in countries in which its technology has been deployed. And in July 2017, Mastercard announced the acquisition of artificial intelligence software provider Brighterion, which will expand our abilities to provide an improved consumer experience and enhanced security across our solutions.

THE FUTURE OF MASTERCARD STARTS WITH OUR IN-HOUSE INNOVATION INCUBATORS
2017 innovation highlights

Mastercard first released APIs — application programming interfaces, or tools for building application software — in 2010, and to date we have developed more than 60 proprietary tools to empower financial institutions, merchants and digital-solutions providers to strengthen data security and activate payments on new platforms.

Our APIs have already been put to work in seamlessly integrating services into digital experiences, including digital wallet APIs for smoother checkouts and cashless payment APIs built around QR codes. The solutions we unveiled in 2017 include an API to help businesses make the most of their Internet of things data performance and a tool to give people greater control over their finances while using their mobile banking app or in-store at the checkout counter.

In 2017, we also unveiled our first-ever Masterpass-enabled bots for Facebook Messenger. These AI-powered programs launched with FreshDirect, Subway and the Cheesecake Factory, allowing customers to interact with the merchants, build their orders and securely check out with Masterpass, all without leaving the Messenger platform.
Our longstanding commitment to privacy and the care with which we handle data are a vital part of our responsibility to our customers, accountholders and employees, and help us earn and maintain their trust.

We protect our network against security threats and also offer a range of security products and services designed to prevent and detect cyberattacks and fraud and protect the security, confidentiality and integrity of our account holders’ and customers’ information.

Governance
Mastercard’s commitment to privacy starts at the highest levels of our organization, with our Board of Directors and CEO. That commitment continues with a dedicated global team of world-class professionals responsible for implementing our robust privacy program globally. Each year, our Chief Privacy Officer conducts a comprehensive assessment of our program and its practices and presents the findings to the Board of Directors.

We engage in active discussions with governments, regulators and policy makers around the world to help expand their understanding of how our industry uses information for innovation, research and business development. We explain how we build privacy, security and data protection into all of our products and solutions. We believe that these discussions with policy makers, intergovernmental organizations, universities and other constituents are important in order to ensure the rights of individuals are protected while enabling the development of the next generation of payment products and solutions.
Embedded in how we work
Mastercard believes in Privacy by Design. We design, develop and deliver our products and services with respect for privacy and data protection. Our privacy program has been designed not only to ensure legal compliance with applicable laws, but also to embed privacy and data protection throughout our product life cycle and extend it to our suppliers and business partners.

Our account holders and customers have a right to understand how their personal data is handled. We believe it is important to explain our information practices simply and transparently, so that individuals can understand how their information is collected, used and shared. The result is a process of placing individuals at the center of our data-innovation processes and providing our employees with regular training to reinforce this belief. More information is available in our Global Privacy Notice.

Accountability
We hold ourselves accountable to, and comply with, the highest standards of global privacy and data protection laws, including the E.U. General Data Protection Regulation (GDPR). We design Mastercard products and solutions to comply with the Fair Information Practice Principles — guidelines developed by the U.S. Federal Trade Commission to ensure that any collection of an individual’s personal data is conducted with privacy protection as a top concern.

On a biannual basis, Mastercard’s security, privacy and information practices are reviewed by U.S. financial regulators for compliance with financial privacy laws. Mastercard also abides by its Binding Corporate Rules, which have been reviewed by data protection authorities in Europe and govern cross-border data transfers.

Information Security
The cybersecurity threat environment is large and growing every day. As part of our company-wide commitment to security, Mastercard is making strategic investments to keep our network secure.

We employ a proactive approach to monitor and combat constant threats and attacks, including positioning ourselves on the leading edge of innovation and partnering with industry experts to anticipate future threats.

We protect all of our assets against physical and digital threats through the leadership of four integrated Corporate Security teams: Prevention, Security Engineering, Response and Regional Security. These teams are led by our Chief Security Officer, who has staffed this corporate function with experts from government services around the globe, including the U.S. Secret Service, Interpol, the NSA and the U.S. Army Cyber Command.

Data and privacy governance
We have tasked several of our senior executives with the responsibility to uphold our company-wide commitment to best practices in protecting our company’s — and our customers’ — data security.

Chief Data Officer: oversees Mastercard’s efforts to maintain a responsible, ethical enterprise data program by ensuring we adhere to high standards for data quality, curation and governance.

Chief Privacy Officer: drives compliance with worldwide laws and regulations regarding the collection, use, sharing, storage and transfer of data, as well as managing engagements with regulators and policy makers in this area.

Data Protection Officer: supports compliance with the GDPR, including by handling requests from individuals to exercise their new rights.
Our efforts

We have a multi-layered security strategy to respond to attacks on our corporate and payment networks through a number of efforts improving our core security programs.

Fusion Center

In 2017 we launched our Fusion Center, a cross-functional security and intelligence center that unites all of our cyber and physical security defenses. By optimizing our information-sharing, analysis, dissemination and action capabilities, the Fusion Center allows us to learn, anticipate and respond more rapidly — so that we can more comprehensively protect Mastercard and our customers.

Safety and security solutions

Safety and security are at the heart of Mastercard’s story, and because we play a crucial role in the global payments ecosystem, we continue to develop new and better ways to keep payments safe.

Within our network, we ensure that payments are secured from end to end. Our efforts also extend to helping our partners anticipate and tackle threats of increasing frequency, scale, severity and sophistication. We offer solutions and help develop industry-leading standards to ensure the safety of transactions made using Mastercard products.

Our multilayered security strategy is designed to prevent attacks by protecting infrastructure, devices and data to help banks and merchants identify genuine consumers during the payment process and to detect and stop fraud and cyberattacks, all while providing an improved experience for consumers.

We develop innovative new solutions to secure both the physical and digital worlds. We are enhancing our fraud and security platforms with artificial intelligence technology, ensuring the security of mobile phone acceptance devices for chip and contactless payments, developing new biometric tools like fingerprint and iris ID and supporting new digital authentication standards to improve the payments experience.

Our security program is regularly audited. In 2017, four U.S. and international government agencies conducted detailed on-site security assessments.

We also hosted numerous on-site and remote customer assessments and penetration tests. The methodology for these assessments — and our annual certifications — incorporate multiple industry-recognized frameworks, including the U.S. National Institute of Standards and Technology (NIST), Special Publication (SP) 800-115 Technical Guide to Information Security Testing and Assessment, Open Web Application Security Project (OWASP) methodology, Payment Card Industry (PCI) standards and Penetration Testing Execution Standard (PTES).

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WITHIN OUR NETWORK, WE ENSURE PAYMENTS ARE SECURED FROM END TO END

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EMV Chip Cards
EMV chip cards have dramatically reduced fraud globally at the point of sale by including dynamic digital data in every transaction.

For more than 20 years, Mastercard has played a leading role in creating, managing and maintaining the EMV standard, which serves as the backbone for future payment technologies by enabling safer, smarter and more secure transactions across card, contactless, mobile and remote-payment channels.

Safety Net
Issuers are more at risk from large-scale cyberattacks and fraud events than ever before. Mastercard Safety Net, launched in 2014, is a solution to protect against and combat this evolving security threat. Safety Net monitors transactions at the global network level, independent of individual issuers’ systems. Through advanced intelligence, the system can continuously monitor over 200 million transactions per day, identifying and isolating systematic threats within milliseconds. Within minutes of a large-scale fraud attempt, Safety Net can intelligently decline transactions on behalf of an issuer. Since its introduction, Safety Net has expanded globally to protect all of our processed transactions, saving banks millions of dollars in potential fraud.

Decision Intelligence
One of the key challenges in payments fraud is learning to distinguish between genuine and fraudulent transactions rapidly, accurately and with minimal disruption to the consumer. In 2016, Mastercard rolled out our Decision Intelligence platform, using artificial intelligence to analyze insights from our network to improve consumers’ shopping experiences, increase transaction approval rates, minimize fraud for retailers and prevent banks from losing money.

NuDetect
In March 2017, Mastercard acquired NuData, a passive biometrics and behavioral analytics company. NuDetect, the company’s flagship product, distinguishes authentic users from potential fraudsters based on their online, mobile app and smartphone interactions. These insights enable merchants and issuers to improve their authorization decisions. We are integrating NuData’s tools into Mastercard’s already robust suite of fraud-management and security products.

At Mastercard, we are always looking to the future of payments.

2017 security developments
Mastercard unveiled a number of security innovations in 2017, including:

The Mastercard Early Detection System: using predictive technologies to give issuers advanced alerts for cards and accounts at higher risk of fraudulent use.

Consumer Control: a new tool that provides consumers a central view of where their card data is stored across all digital channels, as well as the ability to control how, when and where those cards are used.

Our next-generation biometric card: piloted in South Africa to combine chip technology with fingerprints to conveniently and safely verify consumers’ identities for in-store purchases.

AT MASTERCARD, WE ARE ALWAYS LOOKING TO THE FUTURE OF PAYMENTS
HUMAN RIGHTS AND RESPONSIBLE SOURCING

Across our operations, Mastercard places great value on human rights and is committed to treating all people fairly and with dignity.

In our global workforce, we provide equal opportunities in employment and treat all employees equally, regardless of any non-vocational distinction, such as age, gender (including gender reassignment), marital status, civil partnership status, sexual preference, disability, color, nationality, race or ethnic origin or religion or belief.

In our supply chain, we have documented in our Supplier Code of Conduct the principles, guidelines and expectations for establishing and maintaining a business relationship with Mastercard. We are committed to developing partnerships with suppliers that share our dedication to conducting business in a legal, ethical and socially responsible manner.

We require every supplier we work with to abide by labor laws, operate in alignment with globally recognized human rights principles and avoid the use of forced labor, whether in the form of prison labor, indentured labor, bonded labor or otherwise. While we expect each supplier to define its own human rights policy and approach, we require it to be consistent with both Mastercard’s Supplier Code of Conduct and the U.N. Universal Declaration of Human Rights.
In accordance with the U.K. Modern Slavery Act, we have issued a statement outlining the steps Mastercard has taken to ensure modern slavery is not taking place in our business or supply chains. We are proud of our stance as an ethical company that believes in doing well by doing good. We endorse the principles of the Act and have a number of policies and provisions in place designed to eradicate modern slavery from our business and supply chains. Our full statement on modern slavery and human trafficking is available on the Mastercard website.

Supplier diversity

Mastercard is focused on advancing inclusion and diversity throughout our supply chain as thoroughly as we do within our own workforce.

Our Supplier Diversity program empowers us to actively seek out business relationships with diverse and small businesses, which reflects Mastercard’s diverse operating environment, strengthens the communities where we work and provides us with high-quality, innovative and cost-effective products.

Our Supplier Diversity Program ensures that diverse suppliers and small businesses have a fair and equal opportunity to compete for our business. We define diverse suppliers as companies that are majority-owned, operated and controlled by one or more U.S. citizens that identify as an ethnic minority, woman, veteran, LGBT+ or a person with a disability.

Mastercard continually increases our diversity spend, with over 10% of our U.S.-based spend going to diverse-owned and small businesses each year. In 2017, we earned a spot on DiversityInc’s list of the Top 50 Companies for Diversity, which includes recognition of our focus on minority- and women-owned suppliers. 20% of the U.S.-based law firms we work with are members of the National Association of Minority and Women Owned Law Firms (NAMWOLF).
“Mastercard’s commitment to sustainability comes from our long-held belief that doing good for society helps us do well as a company.

This purpose-driven strategy led us to the transformational vision of a ‘World Beyond Cash,’ and it drives us in establishing environmental, social and governance initiatives. I’m extremely proud of the progress we’ve made, and I’m excited about the ongoing impact Mastercard will have in the areas that matter to our business and stakeholders”.

Kristina Kloberdanz, Mastercard Chief Sustainability Officer
ASSURANCE LETTERS

Dear [Recipient],

Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.

Our team has assessed your target(s) against the SBTi criteria and, after careful review, we are happy to inform you that your submitted target(s) have been approved. More information about your company and the approved target(s) will be listed on the Science Based Targets initiative. The following agreed target wording will be used:

"[Company Name] commits to reduce absolute Scope 1, 2 and 3 GHG emissions 20% by 2025 from a 2016 base-year."

A member of our communications team will follow up with you to coordinate the publication of your target(s) as well as other media outreach opportunities.

We are also happy to inform you that this target validation will qualify your company for Leadership level points in CDP’s 2018 Climate Change questionnaire if you are a responder.

Congratulations on having science-based targets!

Kind regards,

The Science Based Targets initiative’s Steering Committee

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July 02, 2018

Mastercard
390 Madison Avenue
Purchased, NY

WSP has conducted an independent third-party review of Mastercard’s 2015 greenhouse gas inventory with the intention of providing limited assurance of its accuracy and completeness. The scope of the review relates to Scope 1 and Scope 2 activities undertaken. The GHG inventory applies to Mastercard’s current and future facilities.

WSP provided a “green light” report to Mastercard which details the specific metrics completed and sources which have been flagged for further analysis or improvement. Mastercard has outlined all requests for clarification and has completed necessary corrective actions. The details of the scope of the assurance review can be found in Table 1.

Table 1: GHG Inventory Scopes

<table>
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<th>Scope</th>
<th>Projected (tCO2e)</th>
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<tr>
<td>Scope 1</td>
<td>4,200 metric tons CO2e</td>
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<tr>
<td>Scope 2</td>
<td>3,200 metric tons CO2e</td>
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WSP has reviewed all data and information, or has not been provided in accordance with the Greenhouse Gas Protocol.

Assurance findings

Based on these review procedures and processes, WSP has no reason to doubt Mastercard’s 2015 GHG inventory is not materially correct, is not a full representation of the GHG data and information, or has not been prepared in accordance with the Greenhouse Gas Protocol.

Sincerely,

[Signature]

[Name]
[Title]

WSP

---

Professional Conduct

WSP has conducted the limited assurance review in its capacity as an independent third party in accordance with the ISCC Greenhouse Gas Standard. Greenhouse gas validation and verification work is not an entirely objective or value-free process. SBTi has specified the principles and requirements employed by WSP to make the LCA exercise. WSP has not contributed to the compilation of Mastercard’s 2015 GHG inventory and members of the Assurance Team are not working with Mastercard’s 2015 GHG inventory beyond what is required for this assignment.

[Signature]

[Name]
[Title]

WSP

---

WSP
<table>
<thead>
<tr>
<th>Management approach</th>
<th>Explanation of the material topic and its boundary, the management approach and its components; evaluation of the management approach</th>
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<tbody>
<tr>
<td></td>
<td>Inclusive Growth: Our approach, pages 18 to 25</td>
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<td>Inspired Workforce: Our approach, pages 39 to 47</td>
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<tr>
<th>Economic performance</th>
<th>Direct economic value generated and distributed</th>
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<tr>
<td></td>
<td>201-2 Financial implications and other risks and opportunities due to climate change</td>
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<th>Communication and training about anti-corruption policies and procedures</th>
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<th>Legal actions for anti-competitive behavior; anti-trust, and monopoly practices</th>
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<tr>
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<th>Reduction in energy requirements of products and services</th>
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<tr>
<th>Water</th>
<th>Water withdrawal by source</th>
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<th>Waste by type and disposal method</th>
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<th>Benefits provided to full-time employees that are not provided to temporary or part-time employees</th>
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<th>Training and education</th>
<th>Percentage of employees receiving regular performance and career development reviews</th>
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<th>Diversity of governance bodies and employees</th>
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<th>Ratio of basic salary and remuneration of women to men</th>
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