CONNECTIONS

TO OUR BUSINESS | TO OUR WORLD | TO OUR FUTURE

2015 EMC Sustainability Report

EMC²

ABOUT THIS REPORT

Reporting Period
This is EMC's ninth annual Sustainability Report. Previous reports are available for download **here**. This report covers EMC and our subsidiaries for the 2015 fiscal year (January 1, 2015 to December 31, 2015), except where otherwise noted or where intermediary updates are made, and indicated, prior to the next full report.

Scope
In areas where the scope is defined as "EMC," information includes all our subsidiaries, but does not include VMware, Inc. unless otherwise specified. Where we refer to "owned and operated" facilities, we include buildings that we fully own, as well as buildings or parts of buildings that we lease and over which we have operational control. Tier 1 suppliers are companies who sell directly to EMC. Managed Tier 2 suppliers are companies from whom we instruct Tier 1 suppliers to purchase parts for the components they sell to us, and with whom EMC has a direct commercial relationship. The information on our workplace policies and programs is global and includes EMC and all of our subsidiaries, but does not include VMware, Inc.

Disclosures/Assurance
EMC's Office of Sustainability is responsible for the preparation and integrity of the information in this report. We engaged an independent third party to review our 2015 GHG inventory and received limited assurance of its accuracy and completeness. The scope of the review included all global Scope 1 and Scope 2 GHG emissions and global Scope 3 GHG emissions associated with business travel, downstream leased assets, fuel and energy-related activities, and use of sold products. This report was not externally assured or verified by an independent third party.

Global Reporting Initiative (GRI)
This report contains Standard Disclosures from the GRI Sustainability Reporting Guidelines. Please refer to the **GRI Index** for a listing of disclosures.

Restatements
Restatements for our 2015 report can be found **here**.

Online Content
Additional content related to EMC's Sustainability programs can be found online at **emc.com/ sustainability**.

Contact
EMC encourages our stakeholders to provide feedback on the topics covered in our report and on our website. Please submit any questions or comments to the Office of Sustainability at **Office_of_Sustainability@emc.com**.

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GUIDING PRINCIPLES
OF SUSTAINABILITY AT EMC

Pursuing sustainability makes
EMC a better business and it's
the right thing to do (we don't
need to choose)

Every decision has economic,
environmental, and social
consequences (they cannot
be considered in isolation)

Businesses will be held
accountable for their externalities
(either formally or informally)

We will affect the future with
the choices we make today

We focus on issues where EMC has
the potential for greatest impact
on our business and the world

We base our decisions on the
best available science and data

When making decisions, we
take into consideration the
entire lifecycle

We do not have all the answers
(and thus will collaborate and conduct
open and candid discussions)

We seek to drive change
at industry scale

Perception is important, but
reality is much more important

MESSAGE FROM EMC CHAIRMAN & CEO

JOE TUCCI

We are in the midst of a radical shift due to digitization of business, the internet of things, mobile and social—cited by McKinsey as "bringing the biggest change since the Industrial Revolution." At the center of this transformation is Information Technology, providing virtually every industry with the opportunity to better understand and shape the world around us. EMC is helping our customers navigate this change, and doing so ourselves, in a manner that contributes to greater well-being.

This digitization of our world is not just affecting business; it is affecting the lives of people. While these changes are creating unlimited opportunities—rapid access to targeted healthcare, precision agriculture and preservation of cultural artifacts—they are also creating new challenges. At EMC, we are committed to confronting and reducing our negative impacts, to measuring and reporting our results, and to collaborating to drive change at scale. Our efforts span every phase of our value chain:

- **Supply Chain:** Working with suppliers to improve working conditions, protect vulnerable workers and develop new materials to replace hazardous substances in IT hardware

- **Operations:** Embedding sustainability and security throughout our engineering processes, from design for the environment to energy efficiency reviews of all hardware and software

- **Customers:** Innovating solutions that allow customers to do more with less, reducing not only energy but also costs

- **End of Life:** Reclaiming old hardware when customers are ready to move on to new systems, ensuring that it, and any data it may have contained, are handled responsibly

Business and sustainability have become interconnected, and at EMC, we believe what is good for the world and what is good for business can, and should, be one and the same. In these pages, you will read about our key achievements and challenges in 2015, but most importantly, you will hear directly from our leaders about how EMC's sustainability priorities intersect with our business.

Ultimately, sustainability at EMC is about our people. I am inspired by their passion, drive to innovate and commitment to a healthy future for our business and our communities. I am proud of our accomplishments thus far and am confident we will continue to change the world for the better.

SINCERELY,

JOSEPH M. TUCCI
CHAIRMAN AND CEO

WHO WE ARE

At EMC, we are building a more sustainable future for the company, our communities and the planet. We are applying our technology and our talent to redefine solutions with benefits that both mitigate, and exceed, their impacts.

OUR BUSINESS AT A GLANCE

BRANDS	EMC² Pivotal RSA VCE virtustream vmware
FORTUNE 500 RANK (BASED ON 2014 REVENUES)	121
REVENUE (2015)	$24.7B
FREE CASH FLOW (2015)	$3.9B
CASH AND INVESTMENTS (AS OF 12/31/15)	$14.8B
MARKET VALUE (AS OF 2/9/16)	$46.7B
EMPLOYEES IN 86 COUNTRIES	>70,000
GREAT PLACE TO WORK RANKING	6

> "At EMC, we invest heavily in innovation and have been transforming our technology portfolio to extend our leadership position in the next wave of IT. We are uniquely positioned to help our customers modernize and automate their data center infrastructures to set the foundation for their IT and business transformations.

DAVID GOULDEN
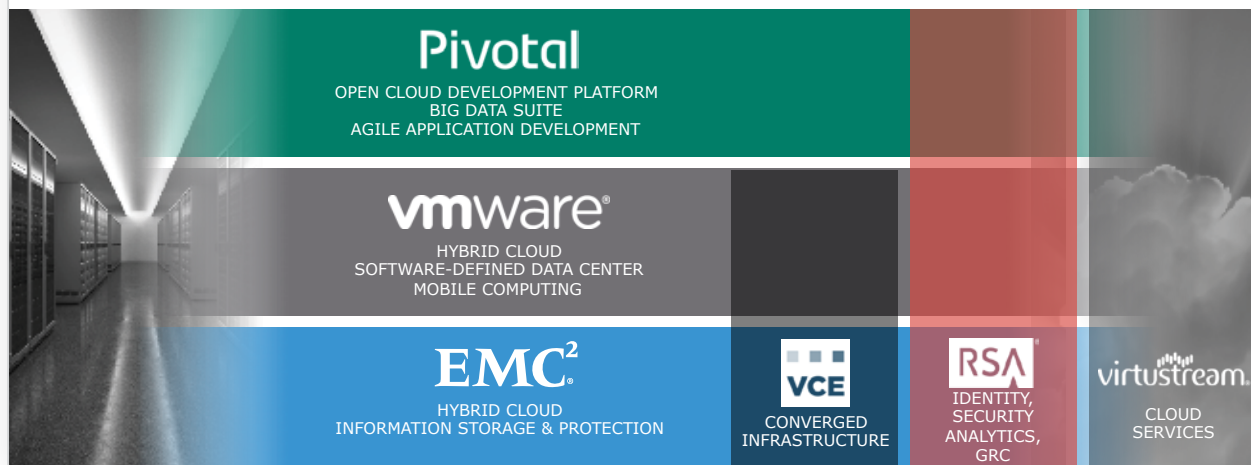CEO, EMC INFORMATION INFRASTRUCTURE

EMC & DELL

In 2015, Michael S. Dell, MSD Partners and Silver Lake announced a transaction to combine Dell and EMC, creating the world's largest privately-controlled, integrated technology company. The transaction is expected to close in Dell's second or third fiscal quarter.

OUR FEDERATION

We manage our company as a federation of businesses that include EMC Information Infrastructure (EMC II), VMware Virtual Infrastructure, Pivotal and Virtustream. Under our federation model, each of the businesses operates independently to build its own ecosystem and culture, operate with greater speed and agility, and offer customers technology solutions that are free from vendor lock-in. At the same time, our businesses are strategically aligned in the mission to lead customers and partners through unprecedented transformational shifts occurring in IT.

A UNIQUE FEDERATION OF COMPANIES
STRATEGICALLY ALIGNED, BUT OFFERING CUSTOMER CHOICE

Pivotal
OPEN CLOUD DEVELOPMENT PLATFORM
BIG DATA SUITE
AGILE APPLICATION DEVELOPMENT

vmware®
HYBRID CLOUD
SOFTWARE-DEFINED DATA CENTER
MOBILE COMPUTING

EMC²
HYBRID CLOUD
INFORMATION STORAGE & PROTECTION

VCE
CONVERGED
INFRASTRUCTURE

RSA
IDENTITY,
SECURITY
ANALYTICS,
GRC

virtustream.
CLOUD
SERVICES

SUSTAINABILITY AT EMC

Employees show off their reusable mugs at the EMC bistro, Hopkinton, MA

The global business community now has the opportunity, willingness and power to inspire and create change that will define the future of the economy, the environment and people's lives like never before.

"At EMC, we are committed to creating a sustainable future that is good for our business and for our world. While our initiatives stretch across a variety of global issues, we focus on the most material sustainability priorities to maximize our positive impact on our company, our industry, and—together with our customers—society as a whole."
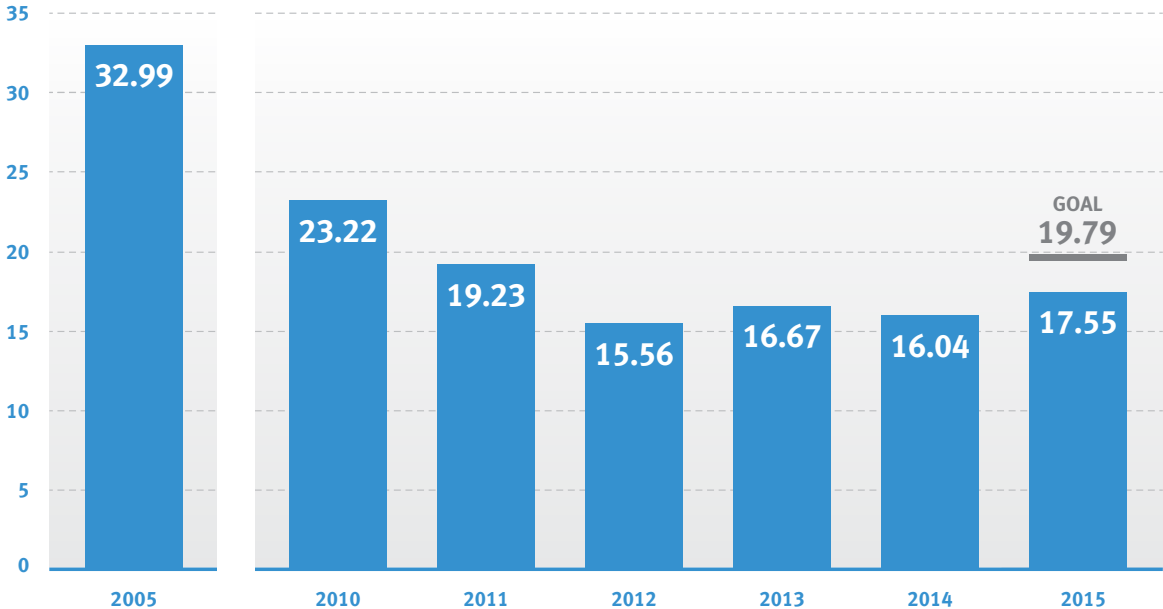
KATHRIN WINKLER
SENIOR VICE PRESIDENT AND CHIEF SUSTAINABILITY OFFICER

SUSTAINABILITY AT EMC IN 2015

Global GHG Emissions Intensity per $1M Revenue
Scopes 1 & 2

METRIC TONS CO_2e PER $1 MILLION USD REVENUE

Bar chart showing:
- 2005: 32.99
- 2010: 23.22
- 2011: 19.23
- 2012: 15.56
- 2013: 16.67
- 2014: 16.04
- 2015: 17.55
- GOAL: 19.79

GOAL ACHIEVED

2015 saw a 46% reduction over 2005, exceeding our 40% goal.

KEY LEARNING

This intensity target was first achieved in 2011 and we maintained the status through the goal year of 2015. Although there was a slight increase in the intensity value from 2014 to 2015, this was primarily due to a decrease in our purchased Renewable Energy Credits (RECs). We also experienced a modest increase of .5 percent in energy consumption.
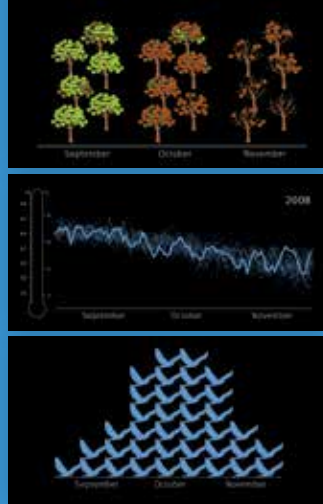
MASSACHUSETTS SOLAR PROJECT   WHENOLOGY   DREAM CENTER PROJECT

HIGHLIGHTS

MASSACHUSETTS SOLAR PROJECT

EMC broke ground on a solar project in Massachusetts. The site consists of three 650 kilowatt ground-mounted solar photovoltaic (PV) arrays totaling 1.95 megawatts. The system, expected to be finished in 2016, includes more than 6,000 solar PV panels, and will generate approximately 2,500,000 kilowatt hours of energy per year, which is roughly the equivalent annual energy usage of 320 typical U.S. homes.

BUSINESS INTEGRATION OF SUPPLIER SCORES

EMC added to our Archer® GRC platform an easy-to-intuit grading system highlighting supplier sustainability and compliance performance. The goal of this new system is to make it easier for our commodity teams to incorporate this information into sourcing decisions, highlight poor performers to management and clarify how suppliers can improve.

IMPLICIT BIAS

EMC offers various employee training courses on diversity & inclusion, including implicit bias, which introduces the process by which the brain uses mental associations that are well established to operate without awareness, intention or control; and offers techniques for operating more fairly and equitably. In 2015, more than 980 employees completed the training, up from 500 in 2014.

DREAM CENTERS OPEN IN CHINA

EMC launched five "Dream Centers" in schools located near EMC offices. The Dream Center project promotes computer access and integrated learning for children from poor, rural areas by offering multi-media learning and teaching facilities. In 2015, approximately 3,000 children benefited from the centers, and through EMC sponsorship, thousands of children will be impacted by the project in the coming years.

WHENOLOGY: THE SCIENCE OF SEASONS

Big Data vs. Climate Change, EMC's initiative using Big Data to understand the ecological impacts of climate change, expanded in 2015 with the launch of the **Whenology™** project. The site allows users to explore data sets through analytics and interactive visualizations.

PATENTS4WATER

Inspired by our partnership with **charity:water** to provide clean water around the world, EMC employee Jeroen van Rotterdam challenged colleagues to create a patentable idea relevant for EMC and donate the patent filing reward dollars to charity:water. In 2015, the team donated $94,500 through patent awards. EMC matched the donation to total $189,000, resulting in clean water for those in need, and new innovation for EMC.

CONNECTIONS TO THE BUSINESS

In 2015, EMC undertook a new sustainability materiality assessment—a process completed every few years to identify and prioritize sustainability factors in order to focus our resources, set goals and evolve our business practices. Our assessment was designed to be integrated with and informed by our core business strategy and enterprise risk analyses. The results greatly influenced the structure of this report.

From our assessment, we identified four strategic themes where sustainability plays an integral role in achieving EMC's business objectives, and seven material issues having the greatest impact both on EMC and on society. This year's report is organized around these business themes, each highlighting the material sustainability issues most relevant to that theme, why these issues matter to society and how EMC is approaching them.

DIGITAL TRANSFORMATION

The data-driven economy is creating significant disruption in multiple sectors, driving major changes in our customers' business and IT models, as well as our own.

› **MATERIAL SUSTAINABILITY ISSUE**
DATA SECURITY & PRIVACY

IMPACT THROUGH CUSTOMERS

EMC® technology is about more than managing data; our IT solutions enable our customers to have a positive impact on the economy, society and environment.

› **MATERIAL SUSTAINABILITY ISSUES**
ROLE OF IT IN SOCIETY
ENERGY

TALENT

EMC's ability to attract and retain the best talent is critical to successfully compete in the IT industry, and more than ever, current and potential employees desire an employer with a social purpose.

› **MATERIAL SUSTAINABILITY ISSUES**
DIVERSITY & INCLUSION
STEM EDUCATION

VALUE CHAIN RESPONSIBILITY

Stakeholders want to understand what EMC is doing to reduce the negative impacts of IT and increase positive influence on the world.

› **MATERIAL SUSTAINABILITY ISSUES**
HUMAN RIGHTS
PRODUCT STEWARDSHIP

STEM Education
Employee Engagement
Access to Technology
Bribery & Corruption
Role of IT

INFLUENCE

DATA SECURITY & PRIVACY

INFLUENCES

Throughout the report, you will see how our material sustainability issues interconnect. This is an example highlighting these connections.

Human Rights
Energy
Community Engagement
Role of IT

2015 SUSTAINABILITY MATERIALITY ASSESSMENT PROCESS

To conduct our 2015 sustainability materiality assessment, EMC engaged with leading think tank and strategic advisory firm **SustainAbility**. Through internal executive and external interviews, use of heat maps for comparing impacts, and aligning what we heard with key strategic themes for the company, we identified those issues that not only have a significant potential to affect our business, but also those on which we can have the greatest effect.

OUR PROCESS

1 ASSESS CURRENT STATE

- › **Research industry perspective**
- › **Conduct executive interviews**
- › **Incorporate stakeholder perspective**
- › **Leverage EMC's corporate risk assessment**
- › **Identify strategic themes**

2 IDENTIFY ISSUES

- › **Catalog potential issues**
- › **Align issues with strategic themes**
- › **Review against time horizons**

3 MAP AND PRIORITIZE ISSUES

- › **Evaluate risks and opportunities for EMC's business and society**
- › **Assess EMC's potential impacts on issues**
- › **Evaluate EMC's potential to influence the issues**
- › **Determine interconnections among issues**

4 VALIDATE AND ACTIVATE

- › **Review with internal and external stakeholders**
- › **Review with Executive Sustainability Council and Board of Directors**
- › **Integrate into communication and process (ongoing)**

During our materiality assessment, we evaluated each issue for its opportunities and risks to EMC and to society as a whole at each phase of our value chain.

SUPPLY CHAIN > OPERATIONS > CUSTOMERS > END OF LIFE

SOCIETY

STAKEHOLDER ENGAGEMENT

> " It's nice to see leadership in action and how EMC has taken into account stakeholder feedback over the years. "

NON-GOVERNMENTAL ORGANIZATION (NGO) STAKEHOLDER

EMC is committed to constructive and meaningful dialogue with a wide variety of stakeholders to build trust, leverage expertise and perspectives, and gain insights into emerging issues. The relationships formed from positive, two-way dialogue promote transparency and accountability, guide our strategy, increase engagement of employees, and generate ideas for leveraging technology for positive impact.

EXAMPLES OF OUTCOMES FROM ENGAGEMENT

NGO ENGAGEMENT
Ceres stakeholder forum on Human Rights
Revised our Human Rights and Global Labor Principles to explicitly include privacy as a fundamental human right

EMPLOYEE ENGAGEMENT
Launched our Sustainability Ambassador Program globally, creating a network of champions interested in promoting corporate sustainability policies and expanding their local practices

CUSTOMER ENGAGEMENT
Implementation of Big Data analytics related to customer support and satisfaction
Implemented a new proactive customer service model based on predicting a customer's likelihood to be satisfied that resulted in a 153 percent increase in satisfaction.

SUPPLIER ENGAGEMENT
Expanded our online supplier sustainability training "SMaRT" library, and co-hosted an in-person workshop on human trafficking in Malaysia

For details on specific aspects of engagement or our programs, visit **Stakeholder Engagement**.

GOALS, TARGETS AND PROGRESS

NAME	DESCRIPTION	TARGET (IF APPLICABLE)
Emissions (intensity)	Global Scopes 1 & 2 GHG Emissions Intensity MT CO2e / $1M revenue[1] (calculated using market-based methodology)	2015: 40% below 2005 (19.79 MT)
Emissions (absolute)	Global Absolute GHG Emissions, Scopes 1 and 2 [MT CO2e] Market-Based	2050: 54,800MT (80% below 2000)
		2020: 208,099 MT (40% below 2010)
Renewables	% of EMC Grid Electricity Consumption from Renewables	2020: 20% 2040: 50%
Disk Drive Efficiency	% drive efficiency increase	2020: 60% (Baseline: 2014)
Compute Efficiency	% compute efficiency improvement	2020: 80% (Baseline: 2014)
Power Supply Efficiency	All new power supplies meet current ENERGY STAR	2020: 100% of products meet efficiency specification
Product Energy Efficiency	Product efficiency improves in each new version	2020: 100% of EMC products demonstrate continued improvement
Supplier Sustainability (reporting)	% of Tier 1 & EMC-managed Tier 2 suppliers issuing sustainability reports	2020: 100%
Supplier Sustainability (performance)	% EMC-managed Tier 2 suppliers monitoring Tier 3 to EMC standards of SER performance[3]	2020: 100%
Logistics Emissions	Cumulative % reduction in carbon intensity (Kg of CO2e / metric ton-km)	2020: 20% below 2013 level
Packaging Optimized	% outbound packs optimized for sustainable materials and/or right-sizing	2020: 95%
eWaste Audits	% reduction in total (& major downstream) audit findings while maintaining a 100% audit program	2020: 50% total reduction
		2020: 95% major downstream reduction
eWaste Projects	Number and locations of EMC-established community eWaste recycling projects	2020: India, China, and Brazil
eWaste Supplier Certifications	% EMC equipment collected through our take back program disposed of at an R2 or e-Stewards certified facility	2020: Maintain 100% year on year
Beneficiaries	Reach 20 million beneficiaries by 2020, cumulatively from 2014	2020: 25 million beneficiaries[7]
Employee Volunteer Time	Employees will donate 1,920,000 hours of volunteer time by 2020, cumulatively from 2014	2020: 3 million hours of employee volunteer time[8]

1   All historic numbers were re-stated due to improved methodologies, updated GWPs, receipt of more consumption data, portfolio adjustments, etc.
2   Target: 30% below 2005 levels (22.82 MT)—ACHIEVED
3   This goal aligns to a long-term strategy regarding sub-tier management. This data has not been tracked historically, but we are planning to do so and to include it in future reports.
4   2015 now includes in-country goods freighting from Australia and South Africa. Still excludes in-country goods freighting from Brazil, Japan and Russia

2015	2014	2013	2012	SCOPE
17.55	16.04	16.67	15.56[2]	All leased & owned global facilities & mobile assets, including VMware
433,550	391,963	387,047	337,835	All leased and owned global facilities and mobile assets, includes VMware
361,273	329,544	331,168	292,502	All leased and owned global facilities and mobile assets, excludes VMware
5.3%	20.6%	14.9%	23.2%	EMC Global Facilities
6%	Baseline year			All EMC hardware products
12%	Baseline year			All EMC hardware products
Achieved for 100% shipped	Achieved for 100% shipped			All EMC hardware products
100% products reviewed; same or better	Continued baseline data collection			All EMC products
52%	50%		24%	Strategic Tier 1 and Tier 2 suppliers
ON-PLAN				Managed Tier 2 suppliers[3]
19% below 2013 baseline[4]	3% below 2013 baseline	Baseline year		Logistics Operations[5] Excludes VMware
77%	76%			EMC II[6]
28%	14%[9]	Baseline year		Tier 1 and managed Tier 2 ITAD suppliers
79%	16%[9]			Tier 1 and managed Tier 2 ITAD suppliers
	India project established			N/A
100%	100%	100%[10]	73%	EMC equipment collected through our take back program
3,178,702 (6,185,683 cumulative)	3,006,981			EMC II
80,173 (219,013 cumulative)	138,840			EMC II

5 Includes inbound, outbound, interplant, and customer service transportation and logistics operations, except for in-country goods freighting for Brazil, Japan, and Russia.
6 Outbound (customer-facing) packs that EMC purchases in volumes greater than 1,000 units per year
7 Target increased in 2014 from 20 million to 25 million beneficiaries to reflect increased engagement from our new EMC Gives Back program.
8 Target increased in 2014 from 1,920,000 to 3,000,000 volunteer hours to reflect increased engagement from our new EMC Gives Back program.
9 In 2015, we reviewed 2013 and 2014 audit findings on business elements and EHS, and adjusted as needed to align with current (2015) audit protocol.
10 Target: 100% by end of 2013—ACHIEVED

DIGITAL
TRANSFORMATION

MATERIAL SUSTAINABILITY ISSUE

DATA SECURITY & PRIVACY

EMC's Marketing Science Lab in Santa Clara, California

Technology is changing the world. Through digitization and the collection of vast quantities of data, we have transformed the way we live our lives. From how we do business, to our health care, education and homes—we are a community of digital citizens. This shift to broader and deeper use of technology is creating rapidly changing demands on business, as well as new risks and opportunities for society and the environment, and we must all be prepared to respond to the pace of change.

"In order to succeed in the new digital economy, businesses must address the changing needs of their customers. For EMC, this means enabling our customers to have greater flexibility in their IT operations so they can take advantage of new digital applications and devices. It also means that as a business, we must transform ourselves."

JEREMY BURTON
PRESIDENT, PRODUCTS AND MARKETING

DATA SECURITY & PRIVACY

Guarding against threats to data, such as protecting data from loss, corruption, or unauthorized access, and governing how data, specifically personal data, is legitimately used and disclosed

HIGHLIGHTS FROM OUR VALUE CHAIN

CUSTOMERS

EMC understands that personal privacy and security are fundamental to a trusted digital world. We have instituted **Transparency Principles** to explain how we address requests we receive from governments around the world for certain data and the measures we take to prevent unauthorized access to that data.

The EMC Product Security Response Center proactively alerts customers when security issues with our products arise. Through our Product Security Response Center, we issue EMC security advisories (ESAs) to notify customers about potential vulnerabilities and provide corrective measures before adversaries are able to exploit the situation. In 2015, we issued more than 180 ESAs to our customers.

END OF LIFE

EMC's policies and procedures pertaining to product take back and disposal include multiple protections for data security. Learn more at **Product End of Life**.

2015 HIGHLIGHTS

RSA CONFERENCE

RSA Conference (RSAC) is the premier series of information security conferences and expositions where the world talks security and the community comes together. RSAC saw attendance of nearly 40,000 people worldwide. The events, which took place in San Francisco, London, Singapore and for the first time Abu Dhabi, featured keynotes, sessions and debates focused on the Internet of Things, Threat Intelligence, Application Security & DevOps and more. Attendance was up from nearly 32,000 worldwide in 2014.

RSA VIA

RSA launched the **RSA® Via™** family of Smart Identity solutions, engineered to combine authentication, identity and access management, and identity governance silos into one unified solution. The solution protects identities from the endpoint to the cloud, delivering a secure, efficient and simple identity solution for all users—from any place and device, to any resource—meeting the needs of how businesses operate today. Learn more about **Customer Information Security & Privacy**.

> " We live in a data-driven world, and the opportunities to use data and technology to improve our lives are endless; however, failure to properly protect our data or secure our infrastructures poses a broad risk to society. At EMC, we understand that data privacy and infrastructure security are paramount to our customers. By protecting our customers'— and our own—infrastructures and by being transparent, we enable our customers to use their data to its fullest potential. "

ERIC BAIZE
SENIOR DIRECTOR, PRODUCT SECURITY OFFICE

SAFECODE

EMC's Senior Director of Product Security was elected chairman of SAFECode, a global organization focused on improving trust in IT products and services. In addition, EMC was a major contributor to the 12 free, publicly available, software development security training modules offered through the organization.

FIRSTLINE CYBER SECURITY AWARENESS

EMC kicked off a campaign to educate employees on the threats posed by "tailgating," the practice of entering a building or restricted area on the credentials of the person in front of you, without swiping your own corporate badge. Learn more about **Information Security & Privacy in Our Operations**.

"Tailgate Block"
Elvis MC
Singin' the Security Bl
EMC Records

ISSUE CONNECTIONS

STEM EDUCATION

EMC's Anti-Fraud Command Center (AFCC), based out of Purdue University, employs 50 Computer Science Co-Ops responsible for analyzing fraud trends, conducting forensic analysis and research, and detecting phishing attacks.

DIVERSITY & INCLUSION

EMC was one of 12 employers in 2015 to endorse the U.S. Army Cybersecurity Program. The goal of the program is to use classroom training and hands on experience to educate U.S. Army Reserve members on cyber security.

COMMUNITY ENGAGEMENT

Employees participated in EMC's FirstLine Cyber Security Awareness Volunteer Program to deliver educational to students on the "STOP.THINK. CONNECT" national cyber security education and awareness campaign.

IMPACT THROUGH CUSTOMERS

MATERIAL SUSTAINABILITY ISSUES

ROLE OF IT IN SOCIETY

ENERGY

Students learning at IDEA Public Schools in Texas

Information technology is critical to long-term environmental, societal and economic prosperity. The technology industry has the opportunity to enable customers to leverage the power of IT—through Big Data analytics and other emerging technologies—to create new knowledge and value for all stakeholders.

"Our customers are responsible for solving some of society's biggest challenges. Through the use of EMC technology and solutions, we enable these customers to deliver significant positive impacts. Whether it's cancer research and healthcare solutions, or more fuel efficient vehicles, EMC is providing more than just data management; we are providing the solutions that change people's lives."

KEVIN ROCHE
PRESIDENT, GLOBAL SERVICES

ROLE OF IT IN SOCIETY

The use of EMC products and services to promote and enable a more equitable, safe and healthy society, and the work to prevent or eliminate the negative impacts of these products and services

HIGHLIGHTS FROM OUR VALUE CHAIN

SUPPLY CHAIN

EMC uses the RSA Archer GRC solution to support our supply chain sustainability risk and resilience programs by providing comprehensive supplier risk profiles, process and audit management, and a supplier portal.

OPERATIONS

EMC's **Innovation Roadmap** challenge asks employees to help identify and incubate new products/solutions that address social issues while also generating economic value, known as Shared Value.

2015 HIGHLIGHTS

ADVANCED ANALYTICS WITH IDEA PUBLIC SCHOOLS

EMC Professional Services collaborated with IDEA Public Schools, a network of public schools in Texas servicing low-income families, to identify ways Big Data could add value to the schools. After a successful Big Data Vision workshop, in 2015, the EMC team was able to launch a set of dashboard tools to help teachers and administrators better forecast student performance, assess risk and provide recommendations.

PARTNERS DATA LAKE

In 2015, Partners HealthCare and EMC announced collaborative efforts to improve the delivery of healthcare and the lives of patients by developing an agile data and analytics platform: the **Partners Data Lake**. Large amounts of data generated through separate research activities will now be brought together within the Partners Data Lake to develop new insights into human disease in order to improve diagnostics, treatment and the lives of patients.

FIGHTING ZIKA VIRUS

EMC is contributing to the fight against the Zika virus through Big Data technology and analytics. In partnership with Fiocruz, Universidade Federal do Rio de Janeiro (UFRJ) and Universidade Federal do Rio Grande do Norte (UFRN), EMC data scientists are working to define the Zika phenotype (the description of the illness) and the cause-effect relationship of the virus on the brain. And, in conjunction with the Ministry of Health, EMC is building a Zika Data Lake repository which will store, analyze and share Zika-related information.

WHENOLOGY: THE SCIENCE OF SEASONS

Big Data vs. Climate Change, EMC's initiative using Big Data to understand the ecological impacts of climate change, expanded in 2015 with the launch of **Whenology**. The site allows users to explore data sets through analytics and interactive visualizations.
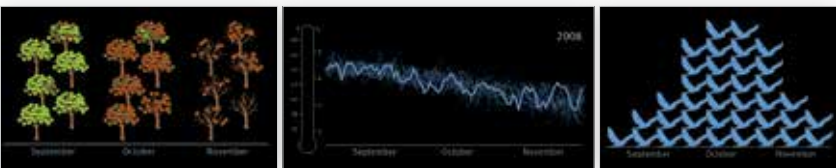
ISSUE CONNECTIONS

ENERGY

In 2015, EMC's head of Energy Efficiency Strategy testified before the Energy and Commerce Subcommittee on Energy and Power in Washington, D.C. in support of the "Energy Efficient Government Technology Act," which encourages federal government's use of energy efficient and energy saving technologies.

COMMUNITY INVOLVEMENT

In 2015, EMC worked with **Taproot** to kick off Global Impact Corps, a program matching skilled professionals with organizations working to improve society. In one project, EMC volunteers worked with an organization building schools in rural Africa on their supply chain process, resulting in a reduction of cost per build by 15% and time to build by 1-2 months. Read the **Taproot/EMC case study**.

DIVERSITY & INCLUSION

EMC's annual Women of World event connects customers and employees at EMC World for a panel discussion and networking event on women in technology. In 2015, the event drew 279 attendees, up from 113 in 2014, and featured opening remarks from EMC CEO Joe Tucci.

EMC Corporation
@EMCcorp   Follow

We are proud to have @DrHelenFisher @PeakTeams_Geek & @BCrair join us for our Women of World event! #EMCWORLD #EMCWOW

REDEFINE.NEXT
WITH YOUR COLLEAGUES AT
WOMEN OF WORLD

RETWEETS LIKES
17   14

ENERGY

The impact of the generation and use of electricity to power our products at customer sites, our operations and our supply chain, and the progress towards reducing greenhouse gas emissions

HIGHLIGHTS FROM OUR VALUE CHAIN

OPERATIONS
EMC's Cork, Ireland data center increased operating temperature to 25˚C, reducing mechanical energy consumption by 24%.

CUSTOMERS
More than 70% of mid-range storage systems customers purchased **EMC FAST®** tiering in 2015, saving an estimated 11.5 million kWh in 2015, underscoring customer movement toward energy efficient solutions.

2015 HIGHLIGHTS

ENERGY STAR®
EMC had four product models listed on the ENERGY STAR roster in 2015, and expanded the range of configurations for the VNX7600™ array.

TRANSFORMATIONAL CHALLENGE
EMC is exploring architectural and algorithmic innovations to enable significant improvements in the effective use of our products. In 2015, a multidisciplinary team was organized to focus on identifying and developing these substantial improvements for enhanced productivity and efficiency.

> " Companies that use energy from fossil fuels to run their business or power their products have a responsibility to help mitigate climate change even as they seek to reduce their costs. EMC addresses our emissions, both direct and indirect, by being more energy efficient and using more renewables in our operations, building efficiency into product design, encouraging GHG reduction in our supply chain, and working with our customers to reduce their impacts. Our 2020 goals underscore our commitment to making these improvements. "

RONA NEWMARK
VICE PRESIDENT, INTELLIGENT ENERGY EFFICIENCY STRATEGY

ACCELERATORS ACCELERATE
Members of EMC's Offices of the CTO and Sustainability published a white paper for EMC engineers, Accelerators Accelerate, on the technological changes that are producing new combinations of hardware components to achieve improvements in performance and energy efficiency.

MASSACHUSETTS SOLAR PROJECT
EMC broke ground on a solar project in Massachusetts. The site consists of three 650 kilowatt ground-mounted solar photovoltaic (PV) arrays totaling 1.95 megawatts. The system, expected to be finished in 2016, includes more than 6,000 solar PV panels, and will generate approximately 2,500,000 kilowatt hours of energy per year, which is roughly the equivalent annual energy usage of 320 typical U.S. homes.

ISSUE CONNECTIONS

PRODUCT STEWARDSHIP
Using our **Product Sustainability Assessment**, we deliberately drive energy efficiency into every generation of product.

ACCESS TO TECHNOLOGY
Through increased energy efficiencies in our products and solutions, we are enabling cloud operations and services that make necessary services such as education, healthcare, and economic opportunity available to more people.

EMPLOYEE ENGAGEMENT
EMC China marked Earth Hour 2015 by raising awareness on energy conservation and how the greater use of renewable sources can reduce air pollution. All EMC China offices turned off lights during the designated hour, and hundreds of employees turned off lights at home to make an even greater statement about the need to conserve energy. Read more in **Community Involvement**.

WATER
EMC's products can all function safely and efficiently under ASHRAE's (American Society of Heating and Refrigeration Engineers) A2 operating range. This allows our customers to safely increase data center temperatures, thereby reducing their use of water in cooling systems.

TALENT

MATERIAL SUSTAINABILITY ISSUES

DIVERSITY & INCLUSION

STEM EDUCATION

Employees from EMC Philippines: Mary Ann Viloria, Graciela Borromeo, Manex Sungahid, and Janethe Co

The success of our world depends on our future generations for the leadership, innovation and curiosity to propel us forward. To achieve this, it is our collective responsibility to provide opportunities for people from all backgrounds, and cultivate diverse, global perspectives.

" Talent is EMC's most valuable asset, and attracting the best talent is critical for us to remain competitive in the IT industry. We know our employees want a culture that values diverse opinions, acts with integrity and purpose, and offers growth opportunities. EMC works hard to create a culture that attracts and retains employees, while cultivating deep relationships with organizations to ensure a future generation of skilled talent is in place. "

ERIN MCSWEENEY
EXECUTIVE VICE PRESIDENT, GLOBAL HUMAN RESOURCES

DIVERSITY & INCLUSION

The recognition and appreciation of human differences including ethnicity, gender, age, national origin, disability, sexual orientation and beliefs, and the creation of a workplace environment where differences are valued, respected and embraced so that each person can achieve his or her full potential

HIGHLIGHTS FROM OUR VALUE CHAIN

OPERATIONS

EMC has been rated by **Careers & the disABLED** magazine as a Top 50 employer for the last three years and received a perfect score of 100 on the **Human Rights Campaign Corporate Equality Index** for the fifth consecutive year.

CUSTOMERS

As a founding company and advisory board member of the **Veterans Jobs Mission**, EMC consults with customers on how they can become involved in the campaign to address U.S. military veteran unemployment.

2015 HIGHLIGHTS

DIVERSITY & INCLUSION TRAINING

EMC offered various employee training courses on diversity & inclusion, including:

Mind the Gap: Getting Business Results in Multigenerational Organizations—EMC's new course on the behaviors, values and practices associated with a multigenerational workforce. By the end of January 2016, more than 4,300 employees had completed the training.

Implicit Bias—EMC's course introduces the process by which the brain uses mental associations that are well established to operate without awareness, intention or control; and offers techniques for operating more fairly and equitably. In 2015, more than 980 employees completed the training, up from 500 in 2014.

DIVERSITY EXECUTIVE LEADERSHIP COUNCIL

EMC established a new Executive Diversity Council under Executive Chair David Goulden, CEO of EMC II, and Chair Bill Scannell, President of Global Sales and Operations. Working with outside consultants and EMC leaders from across the functional and geographic spectrum, the Council established work streams to tackle opportunities for improvement in recruitment and hiring; training and development; advancement opportunities; vision, leadership and accountability; compensation; and fostering a climate of inclusion. Learn more about EMC's **Diversity & Inclusion** programs.

> " Today, IT companies are facing a talent gap, requiring action at industry scale. At EMC, diversity and inclusion are business imperatives. Our strategy is a multi-pronged approach, from internships to training, career coaching and employee affinity groups. By listening to employees and understanding our challenges, we are committed to providing a workplace that allows people to be fully valued for who they are. "

EDWINA MAYS
DIRECTOR, OFFICE OF GLOBAL INCLUSION

EMC employees at the 2015 Simmons Leadership Conference

EMC INDIA COE RECEIVES NIPMAN FOUNDATION EQUAL OPPORTUNITY AWARD

In December 2015, the EMC India Center of Excellence was honored with the Nipman Foundation Equal Opportunity Award for the organization's commitment to improving employment opportunities for the differently-abled. Among other initiatives, the organization was awarded for its "Redefine Abilities" Internship program for persons with profound disabilities.

EMC RENOVATES UNITED SERVICE ORGANIZATION (USO) LOUNGE AT DULLES AIRPORT

EMC partnered with USO Metro Washington-Baltimore to renovate the USO Lounge at Washington Dulles International Airport. The lounge, which sees more than 25,000 visitors each year, provides military members and their families an environment to reduce the stress of travel and relocation. EMC volunteers raised funds and donated time to support the renovations in 2015.

ISSUE CONNECTIONS

COMMUNITY ENGAGEMENT
Madeline Martinez, an EMC software engineer, was selected in 2015 to become a member of **TECHNOLOchicas,** a collaborative project of the National Center for Women & IT (NCWIT) and Televisa Foundation to promote careers in IT to Latinas. Watch **Madeline's story**.

STEM EDUCATION
EMC works with underserved communities to provide access to education. Learn more about EMC's partnership with **Hope Schools** in India and our other **education partnerships**.

EMPLOYEE ENGAGEMENT
In 2015, EMC was recognized as the 6th global Great Place to Work: Multinational Workplace. Annual employee survey results for 2015 show that 83% of employees believe EMC has an inclusive culture that values perspectives from all employees, matching 2014 results. The score has increased 4% since 2012.

STEM EDUCATION

Preparing citizens of the future with the necessary skills in science, technology, engineering and math (STEM) in order to thrive in an increasingly digital world

HIGHLIGHTS FROM OUR VALUE CHAIN

OPERATIONS

For Innovation Month, Massachusetts-based EMC employees spent the day teaching 450 7th grade science students about Big Data.

END OF LIFE

EMC donates used laptops through **Camara**, a nonprofit organization that refurbishes computers, ensures there is no residual data on them, loads them with open source educational software and distributes them to underserved communities around the world.

2015 HIGHLIGHTS

VEX ROBOTICS IN CHILE

EMC partnered with Fundación Corazón de Chileno to bring the VEX robotics platform to Chile. Through this partnership, we provided funding for the creation of 34 new teams from disadvantaged schools. Teams competed at the Expo Tecno Joven and the winners will have an opportunity to participate in the VEX Robotics World Championships in 2016.

> " The long-term success of the IT industry depends on a robust pipeline of qualified future employees. At EMC, we focus on expanding access to education and encouraging students from all backgrounds to pursue STEM programs. Our global partnerships with nonprofits and schools, as well as our inspired employee volunteers, allow us to engage students from around the world who might not otherwise be reached. "

DAVID WEBSTER
PRESIDENT, ASIA PACIFIC AND JAPAN

DREAM CENTERS OPEN IN CHINA

EMC launched five "Dream Centers" in schools located near EMC offices. The Dream Center project promotes computer access and integrated learning for children from poor, rural areas by offering multi-media learning and teaching facilities. In 2015, approximately 3,000 children benefited from the centers, and through EMC sponsorship, thousands of children will be impacted by the project in the coming years.

CITIZEN SCHOOLS PARTNERSHIP

EMC and Citizen Schools have been partnering for nine years to bring learning opportunities through an extended day to public middle schools in low-income areas in the United States.

> **WATCH THE VIDEO**

ISSUE CONNECTIONS

ACCESS TO TECHNOLOGY

EMC partnered with **Rumie** to sponsor the deployment of 500 tablets, loaded with educational content, to underserved schools and communities around the world.

EMPLOYEE ENGAGEMENT

EMC provides employees **24 paid hours annually** to participate in volunteer activities during the work day, allowing them the opportunity to lend their own expertise to teach and develop STEM curricula.

ROLE OF IT IN SOCIETY

Through a partnership with **Science Buddies**, EMC provides curriculum for students in grades 4-9 to learn more about the potential of Big Data by completing an activity using building blocks.

VALUE CHAIN RESPONSIBILITY

MATERIAL SUSTAINABILITY ISSUES

HUMAN RIGHTS

PRODUCT STEWARDSHIP

EMC's manufacturing facility in Cork, Ireland

In today's complex, interconnected economy, expectations are higher than ever for companies to address the social and environmental implications of their business around the world. To be effective, corporations must set standards, promote sustainable business practices and take a systems approach to improving conditions for people and the environment.

" As a manufacturer of products, it is our responsibility to look holistically at the economic, environmental and social issues across our business end-to-end. At EMC, we use a multifaceted approach to mitigate risks and enhance our resiliency through efficient facilities, strong relationships with our customers and other stakeholders in our value chain, enhanced data analytics within our supply chain and operations, and the highest standards for our products. "

WILLIAM DEPATIE
SENIOR VICE PRESIDENT, GLOBAL PLATFORM ENGINEERING

HUMAN RIGHTS

The protection of internationally proclaimed human rights for all, including our employees, customers, workers within our supply chain and people impacted by the use of our products

HIGHLIGHTS FROM OUR VALUE CHAIN

SUPPLY CHAIN
All suppliers are expected to comply with the **Electronic Industry Citizenship Coalition (EICC) Code of Conduct**.

OPERATIONS
All EMC employees are trained on Anti-Bribery Guidelines and our **Business Conduct Guidelines**.

CUSTOMERS
In 2015, EMC launched training for EMC employees on the risks associated with potential misuse of products.

END OF LIFE
Using only certified, audited IT Asset Disposal suppliers helps protect workers who process EMC's **eWaste**.

2015 HIGHLIGHTS

STAKEHOLDER MEETING
Through our partnership with Ceres, EMC convened a special stakeholder call to gather feedback on our programs and gain outside perspectives regarding potential salient human rights impacts across our value chain.

VULNERABLE WORKERS
We focused our supplier outreach on issues regarding indirect and temporary workers, migrant workers, young workers (including students), and gender diversity. We worked with those suppliers showing greatest risk to collect additional detail about their management practices, identify gaps and ensure corrective actions were completed. Learn more in **Supply Chain**.

> EMC is committed to respecting human rights and driving improvement across our value cycle. We achieve this through our risk assessments, active audit reviews and corrective actions, direct engagement and training both internally and externally, and mechanisms for feedback. By collaborating with suppliers, employees, customers and other companies, we can influence change beyond ourselves.

KATIE SCHINDALL
CONSULTANT PROGRAM MANAGER, GLOBAL PRODUCT OPERATIONS SUSTAINABILITY

HUMAN RIGHTS TRAINING

EMC employees in supply chain management completed training on the EICC Code of Conduct and additional training on human trafficking.

- 100% of the teams responsible for supplier management completed Code of Conduct training

- 100% of EMC's supply chain commercial management team completed additional human trafficking training

Learn more in the **EMC Statement Against Slavery and Human Trafficking**.

EMC EICC AUDIT

EMC adheres to the EICC Code of Conduct for our own operations as well as requiring it of our suppliers. In 2015, we conducted an EICC audit on EMC's Cork, Ireland facility, which resulted in no priority or major findings.

ISSUE CONNECTIONS

DATA SECURITY & PRIVACY

In 2015, EMC modified our **human rights principles** to explicitly incorporate privacy as a fundamental human right.

DIVERSITY & INCLUSION

In March 2015, EMC withdrew from attending a Big Data conference in Indiana in response to the passage of Indiana's Religious Freedom Restoration Act, which would have allowed companies or individuals to deny service to and discriminate against individuals based on those individuals' sexual preference, identity, or expression. Learn more in **Diversity and Inclusion**.

WATER

Improper treatment or overuse of water can infringe on individuals' rights to sufficient, safe, accessible and affordable water. In 2015, EMC worked with **charity:water** to provide nearly 18,500 people with access to safe, clean water.

PRODUCT STEWARDSHIP

Management of the environmental, health and safety impacts
of our products across the lifecycle from material sourcing through
end of life

HIGHLIGHTS FROM OUR VALUE CHAIN

SUPPLY CHAIN

EMC proactively works with suppliers
to eliminate hazardous materials
from IT products. Learn more from our
Vice President of Global Supply Chain
Engineering's **2015 Guardian article**
on toxic chemicals.

OPERATIONS

EMC leverages our own business analytics-
as-a-service (BAaaS) to predict and analyze
our application and device power usage.
Learn more about **Efficient Data Centers**.

CUSTOMERS

Transformative features such as Fully
Automated Storage Tiering (**EMC FAST**) and
data deduplication allow customers to do
more with less energy consumed.

END OF LIFE

EMC published our **eWaste policy** publicly
for the first time in 2015. This policy
addresses product design as well as
responsible management at end of life.

2015 HIGHLIGHTS

MATERIAL SUBSTITUTION

- We began exploring closed loop systems for our
  plastics. We initiated a pilot project to reclaim
  plastics from EMC products at the end of life, and
  reuse them to manufacture new EMC parts.

- We qualified new low-smoke zero-halogen cables
  with improved flexibility and performance. This
  is a continuation of our multi-year initiative to
  reduce the use of halogens in our products.

Learn more in **Product Material Content**.

> " At EMC, we believe our products and solutions must not only be reliable and high performing, but also efficient in their use of natural resources. To drive this focus, we search out transformative features that will result in significant impacts for both ourselves and our customers, and embed design and innovation into every aspect of our product lifecycle. "

MIKE ROBILLARD
ARCHITECT, DISTINGUISHED ENGINEER

DEVELOPING EFFICIENT PRODUCTS
EMC continued using tools such as mini applications to discover how to improve efficiency of our products. In 2015, we conducted further research into how to improve the efficiency of our products, and established a user community to share our experiences.

PACKAGING AND LOGISTICS
EMC developed a strategic framework to drive more sustainable packaging throughout the product lifecycle, including material sourcing, distribution and end of life. We also reduced our global logistics carbon intensity by 19 percent from a 2013 baseline, almost reaching our 2020 goal.

ISSUE CONNECTIONS

HUMAN RIGHTS
EMC takes a leadership role in the Internet Engineering Task Force (IETF), which creates protocols and standards to support how people design, build and use the internet. EMC employee Kathleen Moriarty serves as a Security Area Director for IETF, working to make sure human rights issues such as privacy and anonymity are properly considered in each publication.

ROLE OF IT
IT increasingly serves as a tool for real-time analysis of design impacts. EMC uses a screening-level **environmental lifecycle analysis** during mechanical design to incorporate environmental factors into decision making.

INFORMATION SECURITY & PRIVACY
To protect the integrity of the software images, EMC works with our suppliers to ensure the authenticity of pre-loaded, low-level computer software on hardware integrated into our products.

EMC²

Additional content related to EMC's Sustainability programs can be found online at **emc.com/sustainability**

CONTACT
EMC encourages our stakeholders to provide feedback on the topics covered in this report. Please submit any questions of comments about the report or its contents to the Office of Sustainability at **Office_of_Sustainability@emc.com**

EMC²