



# ACCELERATING OUR JOURNEY TO SUSTAINABILITY

2010 EMC Sustainability Report

**EMC<sup>2</sup>**

## **NOTICE**

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## GRACE YU

Age 9

Child of Bright Yu

EMC China

EMC EcoKids Global Contest Winner

## ARTWORK USED IN THIS REPORT

The images used in this report adjacent to each section heading are from the EMC 2011 EcoKids Drawing Contest. The Office of Sustainability developed the contest to promote awareness of our impact on the environment, but also as a way for Parent:s and children to have a conversation about the way we interact with our planet. The aim was for EMCers to encourage their children to think about the global environment and draw a picture illustrating why we should care and what we can do to protect our planet. The contest spurred many great conversations, and resulted in 368 entries from 27 countries. For more information please email the [Office\\_of\\_Sustainability@emc.com](mailto:Office_of_Sustainability@emc.com).

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# ACCELERATING OUR SUSTAINABILITY JOURNEY



## RACHNA KARTHIK

Age 3

Child of Karthik Jeyaraman

EMC India

EMC EcoKids Global Contest Winner

This EMC Corporation 2010 Sustainability Report marks our fourth year reporting on our sustainability journey. We are proud of what we have achieved, but recognize there are many challenges on the road ahead.

To guide our journey, we have established Sustainability Priorities.

In this report, we share our progress and note the challenges and goals for accelerating sustainability here at EMC. Thank you for sharing this journey with us.

[EMC Sustainability Priorities](#)

[From Our Chairman, President and CEO Joe Tucci](#)

[From Our Chief Sustainability Officer Kathrin Winkler](#)



## 2010 SUSTAINABILITY HIGHLIGHTS

- Introduced a new generation of products with industry-leading technology for power supply efficiency
- Delivered on the promise of FAST to allow our customers to run their data centers more efficiently
- Conducted our first multi-stakeholder forum for collaborative input on our Environmental Sustainability strategy
- Partnered to launch a state-of-the-art energy efficient data center
- Began accounting for Scope 3 emissions from our Tier 1 suppliers

## OUR SUSTAINABILITY PRIORITIES

### HEALTHY ECOSYSTEMS

We are on a journey of environmental sustainability, committed to improving our performance and transparently reporting our progress. Our priorities are energy and climate change, material use and waste, and water conservation. Our actions are focused on optimizing our operations and our value chain, transforming information infrastructure to be more sustainable, and collaborating for an environmentally sustainable world.

### ENGAGED PEOPLE

Inside EMC, we cultivate a culture of inclusiveness, innovation, and education. It takes diverse perspectives and a blend of creative minds to innovate groundbreaking solutions. A workforce whose diversity mirrors our customer base, feels valued for their unique talents and perspectives, and is encouraged to pursue lifelong learning make the best, most innovative IT solutions possible.

In the future, more engineers and scientists will be needed by EMC, our partners and our customers to innovate IT solutions for tomorrow. We invest in this future workforce through our focus on education and global academic initiatives.

### SHARED VALUE

Business creates jobs, shareholder wealth and economic benefits for local communities and global society.

Strong governance, coupled with visionary and ethical leadership, is essential to the long-term sustainability of our enterprise.

Engagement and collaboration with our stakeholders enables each party to stay informed and potentially create mutually beneficial solutions together.

### TRANSFORMATIVE IT

We believe that IT has the power to transform the way organizations work, people live and communities thrive. Around the world, people are creating new ways to grow social, environmental and financial well-being together.

We are driven at EMC to provide groundbreaking products and solutions that support a more sustainable world. We enable our customers to advance transformative ways of living and working, whether it's making the health care system more effective, enabling new models of delivering government services, or advancing better systems of energy and resource use.



## FROM THE CHAIRMAN AND CEO

EMC is a global leader in enabling businesses and service providers to transform their operations and deliver information technology as a service. Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset — information — in a more agile, trusted and efficient way.

We aim for EMC to evolve over time into a global leader in sustainability, through our product innovation and more efficient and innovative business practices. The long-term success of our company depends upon it.

Our customers want more efficient IT operations that cost less money to operate, consume less power and help them reduce their carbon footprint.

EMC recently introduced innovative, industry leading technologies that deliver energy-efficient design. Our new EMC FAST VP (Fully Automated Storage Tiering with Virtual Pools) software optimizes the EMC Symmetrix VMAX platform for performance, utilization and cost. Compared to single-tier systems, this automated tiering technology delivers up to 40% more application performance at a 40% lower cost while requiring 87% fewer disks and 75% less power. We estimate the combined energy efficiencies of VMAX with FAST VP will enable customers to reduce power consumption by more than 270 million kw hours in 2011— enough to power 24,400 homes.

At EMC World, one of our customers, a smart grid network provider, demonstrated how EMC technologies for Cloud Computing and analysis of “Big Data” are enabling electric utilities to study consumption patterns so they can manage and source power more efficiently and intelligently.

We also deploy EMC technologies in our data centers to demonstrate the benefits customers can realize and to showcase best practices. Phases I and II of our journey to Cloud Computing have delivered \$27 million in operating cost reductions from lower power, cooling and space consumption. This has reduced our IT energy use by one-third and reduced our carbon footprint by nearly 100 million pounds of CO<sub>2</sub>. Phase III of our journey to Cloud Computing — delivering IT as a service, on a pay-for-what-you-consume model — will establish financial incentives for business units to waste less and become smarter consumers of IT services.

We are pleased thus far with our progress toward achieving sustainability, both here at EMC and with the customers we serve. We are mindful of a long road ahead, and we continue to see the IT industry, and our role within it, as significant drivers in the pursuit of a cleaner and more sustainable world.

JOSEPH M. TUCCI  
CHAIRMAN AND CEO



## FROM THE CHIEF SUSTAINABILITY OFFICER

In 2010, we at EMC accelerated our journey toward sustainability, building on transformations we'd made in technology innovation and operational changes in place across the organization. We have accomplished much, but know it is a constantly evolving process. We are past the easy wins and working toward the true challenge— embedding sustainability into our everyday culture and business strategy.

Part of this future journey involves making the most of our leadership role in the IT industry. As an early innovator of cloud computing, EMC is transforming the ways that information is stored and managed. We have also brought to market products that set a new standard for power consumption and we are delivering on the promise of Fully Automated Storage Tiering, or FAST, which helps data centers run more efficiently.

On a global scale, such developments are helping people and organizations around the world to further their own sustainability initiatives, most notably through improved productivity, reduced waste, and better use of resources.

We continue to develop new ways of measuring and minimizing our own impact, and of expanding our contribution to the well-being of our company, our community, and our planet.

Throughout this report, we share successes and challenges, and have included more stories of the positive effects EMC people and products are having all over the world.

Feedback from all of our stakeholders is critical in establishing and pursuing our sustainability priorities. Please share your thoughts on our progress and how EMC can continue to contribute towards a more sustainable planet.

KATHRIN WINKLER  
VICE PRESIDENT CORPORATE SUSTAINABILITY  
OFFICE\_OF\_SUSTAINABILITY@EMC.COM



## OUR COMPANY

EMC is a global leader in enabling businesses and service providers to transform their operations and deliver IT as a service. Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset—information— in a more agile, trusted and efficient way. More information about EMC's products and services can be found at [www.EMC.com](http://www.EMC.com).

### OUR TEN CORE VALUES

Every winning company lives by a unique and enduring winning culture.

This is ours.

#### **CUSTOMERS FIRST**

Focus on their needs; deliver on our promises.

#### **SENSE OF URGENCY**

Seize opportunities quickly; get it done now.

#### **RESULTS-DRIVEN / ACCOUNTABILITY**

Complete what you say you are going to do; no excuses.

#### **INTEGRITY**

Treat others with respect and do the right thing always.

#### **INNOVATIVE PROBLEM SOLVING**

Think creatively to provide the solution.

#### **EXPERTISE / QUALITY**

Develop and deliver best-of-breed products and services.

#### **UNDERSTANDING THE BUSINESS**

Know how we provide real value to our customers.

#### **TEAMWORK**

Collaborate smoothly with others; leverage our diversity.

#### **COMMUNICATION**

Maintain open, honest interaction; build relationships on trust.

#### **ADAPTABILITY**

Stay flexible; adapt as circumstances change.





## ANTONI SZULAR

Age 12

Child of Piotr Szular

EMC Poland

EMC EcoKids Global Contest Winner

## EMC CORPORATE PROFILE

A Fortune 500 company, EMC is a global leader enabling businesses and service providers to transform their operations through IT storage, management, protection, and analytics.

Our vision is to lead customers on a safe and swift journey to the cloud, a dramatically more efficient and effective model to deliver IT as a service.

Our mission is to help people, organizations, and IT departments accelerate their journey to cloud computing, by helping store, manage, protect, and analyze their most valuable asset— information— in a more agile, trusted and efficient manner.

Our passion is to innovate to make life better for our customers.

Throughout our operations, we recognize the importance of sustainability— the creation of shared environmental, societal and economic value for our customers, partners, employees, and communities.

## GLOBAL REACH

We work with organizations around the world, in every industry, in the public and private sectors, and with organizations of every size, from startups to the Fortune Global 500.

Our customers include financial services firms, manufacturers, healthcare and life sciences organizations, internet service and telecommunications providers, airlines and transportation companies, educational institutions, and public-sector agencies. Our business provides technology products, and services to consumers in more than 100 countries.

**“Business users are looking for agility, they are looking for ways to react more quickly, to understand their markets faster, to understand the information that they have in their enterprises today and to leverage that information to create new revenue streams for their companies. IT is an increasingly important part of that.”**

TOM ROLOFF,  
CHIEF OPERATING OFFICER OF EMC CONSULTING

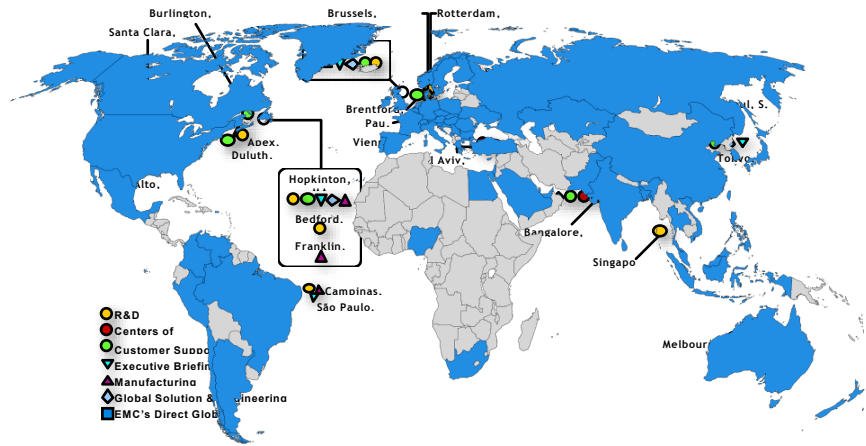
WATCH MORE OF TOM ROLOFF'S, CHIEF OPERATING OFFICER OF EMC CONSULTING, DISCUSSION ON  
[THE FUTURE OF CLOUD: OPTIMIZATION STRATEGIES FOR CLOUD MODELS](#)

## GLOBAL PRESENCE

Today, we employ more than 48,500 people worldwide, more than 40 percent of whom work outside the U.S. We are represented by approximately 400 sales offices and scores of partners in more than 80 countries around the world. We have the world's largest sales and service force focused on information infrastructure, and we work closely with a global network of technology, outsourcing, systems integration, service, and distribution partners.

Our differentiated value comes from our sustained and substantial investment in R&D, a cumulative investment totaling approximately \$10.5 billion from 2003-2010, in addition to \$14 billion more invested in acquired innovation during the same period. We have acquired and integrated 36 growth-oriented software and services companies since 2006.

We are committed to acting in a socially and environmentally responsible manner and to being an attentive and thoughtful neighbor in our local and global communities. We are a publicly traded company, listed on the New York Stock Exchange under the symbol EMC, and are a component of the S&P 500 Index.



## AWARDS AND RECOGNITION

We have earned awards and recognition globally for our operations, products and services. Some of the highlights in 2010 included:



Fortune's Most Admired Companies

[See more of our Awards and Recognition](#)

## OUR BRAND: BASED ON A PROMISE

Second only to your people, information is your organization's most important asset. Ideas—and the people who produce with them—are the only real differentiator. Our promise is to help our clients take that differentiator as far as possible. We provide solutions that not only meet but exceed demanding business and IT challenges.

## EMBODYING OUR BRAND

We are a leading technology company driven to execute, to partner, and to perform. We do our jobs with a passion for delivering results that meet or exceed our customers' and investors' expectations. We pride ourselves on doing what's right over what is easy or expedient. We are devoted to the advancement and well-being of our people, our customers, our industry, and our world.

## OUR STRATEGY

### JOURNEY TO THE CLOUD

With IT resources at a breaking point, customers demand new models for information management. Enter cloud computing, which changes the way IT is procured, constructed, and consumed. EMC introduced the notion of "private cloud"—the journey to transform our customers' data centers into flexible, scalable pools of on-demand virtual infrastructure that they control. Today, we help customers accelerate the journey to their cloud through the hybrid cloud— a mixture of private cloud and public cloud geared toward our customers to give them agility through efficiency, control and choice. Learn more about the Journey to the Cloud.

### BIG DATA

Much of today's growth comes from a sector called "big data"—huge data volumes of unstructured information from social media, medical applications, and other disciplines. Big data presents different challenges compared to database transactions and small-file data, an area which EMC has long been the leader in handling, storing, and processing for IT infrastructures.

As information increases exponentially, IT will play a role in managing big data growth as we as a civilization face increasingly complex social and environmental challenges, from energy to healthcare, and education to finance.

Customers choose EMC because they are looking for best-of-breed technologies to manage massive amounts of new forms of data from sources such as always-on networks, the Web, a flood of consumer content, surveillance systems, and sensors.

## EMC GREENPLUM OFFERS FREE BIG DATA TOOLS FOR SCIENTISTS AND DEVELOPERS

Highlighting our commitment to innovation, we offer our EMC Greenplum Community Edition of 'Big Data' tools free for developers and data scientists. Opening access encourages using data for insight into our global society. Building on earlier Greenplum "Big Data" breakthroughs, like the EMC Greenplum Data Computing Appliance, the new EMC Greenplum Community Edition removes the cost barrier to entry for big data power tools empowering large numbers of developers, data scientists, and other data professionals. This free set of tools enables the community to not only better understand their data, gain deeper insights and better visualize insights, but to also contribute and participate in the development of next-generation tools and solutions for potential societal benefits. Developers can build complex applications to collect and analyze big data leveraging best of breed big data.

[Read more.](#)

[Learn more about our Partnerships and Alliances.](#)

## PARTNERSHIPS AND ALLIANCES

EMC has developed a global network of business partners to bring customers the full complement of skills and expertise required to build their information infrastructures. This network helps customers maximize the value of their information with cost efficiencies.

Our global strategic alliance partners offer unparalleled industry experience, technology, innovation, and cost leadership. We help customers design, build, and implement application and industry solutions of strategic value.



## KATERINA ADRIANOS

Age 8

Parent: Panagiotis Adrianos

EMC Greece

# GOVERNANCE, INTEGRITY, COMMITMENT, AND ENGAGEMENT

At EMC, our governance strategy is multi-faceted. It includes understanding our customers, setting clear goals and priorities, having a well informed, fully engaged board of directors, developing new leaders, building a culture that supports employees, and being transparent and accountable to our stakeholders.

We recognize that the long-term success of our business depends on an economically vital, inclusive and educated society, and on a healthy environment. Therefore, we strive to make decisions and operate our business in a sustainable manner.

## CORPORATE GOVERNANCE INFORMATION

[Corporate Governance Guidelines](#)

[2011 Proxy Statement](#)

### Contacting the board

Parties interested in contacting our Audit Committee, Leadership and Compensation Committee, and Non-Management Directors may follow instructions on our emc.com website at [Contact our Board](#).

[Corporate Governance](#)

[Ethics](#)

[Our Commitments](#)

[Our Engagement](#)



## LUCAS ARELLANO

Age 12

Parent: Jackie Salazar

EMC New Mexico

## EMC BOARD NAMED 2010 BOARD OF THE YEAR BY NACD

The EMC Corporation Board of Directors was named [Board of the Year by the National Association of Corporate Directors \(NACD\) New England chapter](#). Cited for the active role in overseeing EMC's evolution, the Board was also recognized for their time and energy to championing good corporate governance and active shareholder engagement.

## #19

Corporate Responsibility Magazine's 100 Best Corporate Citizens List 2010

## CORPORATE GOVERNANCE

Our Corporate Governance Guidelines provide the framework for effective governance at EMC. The guidelines address many areas including board member criteria, director responsibilities, lead director responsibilities, management succession planning, selection and evaluation of the CEO, director compensation, and assessment of board performance.

## SUSTAINABILITY OVERSIGHT

The Corporate Governance and Nominating Committee (the "Governance Committee") of our board of directors is responsible for overseeing our sustainability program. We believe that integrating environmental, social and financial considerations in our business strategy and decisions is integral to growing the success of EMC. This benefits our shareholders, employees, customers, suppliers and communities.

## GOVERNANCE STRUCTURE

We recognize corporate governance is only as strong as the board of directors behind it. At EMC, we are fortunate to have a highly experienced, well informed, and fully engaged board.

EMC currently has 10 board members, eight of whom are independent (as defined in our Categorical Standards of independence and the listing standards of the New York Stock Exchange). All the members of the Board's Audit, Governance and Leadership and Compensation Committees are independent. We require each board member to stand for election annually, and have adopted a majority vote standard for the election of directors.

Our bylaws and corporate governance guidelines permit the roles of chairman and CEO to be filled by the same or different individuals. This allows the board flexibility to determine whether the two roles should be combined or separated based on our needs and the board's assessment of its leadership from time to time. The board and the Governance Committee review the structure of the board and EMC leadership as part of the succession planning process on an ongoing basis.

## OUR BUSINESS CONDUCT GUIDELINES ADDRESS:

Acting with integrity  
Obeying the law and EMC policies  
Protecting EMC's confidential information  
Maintaining accurate and honest records and reporting  
Avoiding conflicts of interest  
Treating others with dignity and respect  
Acting as an environmental steward

**100%**

of new hires are required to complete ethics training

[Our Supplier Code of Conduct](#)  
[Business Conduct Guidelines](#)  
[Human Rights and Global Labor Principles](#)  
[Political Contributions Policy](#)  
[Political Contributions Disclosure Statement for the six months ended December 31, 2010](#)

## EMC ENHANCES POLITICAL CONTRIBUTIONS DISCLOSURE

Furthering our commitment to transParent: communications with shareholders and other stakeholders, EMC Corporation announced in 2010 an [enhancement in its disclosures regarding political contributions](#).

For many years, we have disclosed our corporate political contributions on EMC.com. In the interests of even greater transparency, following the end of the 2010 fiscal year, we will also disclose membership dues paid to major trade associations and the percentage of such dues that is used for political spending.

## ETHICS

Ethical conduct builds relationships of trust with customers, partners, shareholders, communities, and other stakeholders. EMC's corporate compliance program drives employee awareness of ethical standards, and requires investigation of potential breaches. The Audit Committee of the Board of Directors oversees the corporate compliance program.

## BUSINESS CONDUCT GUIDELINES

The centerpiece of the corporate compliance program is our Business Conduct Guidelines. The guidelines are reviewed at least annually. We offer language translations for our global employees in Chinese, French, German, Hebrew, Italian, Japanese, Korean, Polish, Portuguese, Russian, and Spanish.

The Business Conduct Guidelines also summarize and link to a number of key EMC policies, including our Antitrust Guidelines; Insider Trading Policy; Foreign Corrupt Practices Act and Anti-Bribery Policy; Equal Employment Opportunity Policy, Mission Statement, and Anti-Harassment Policy; Privacy Statement; and Information Technology policies.

## HUMAN RIGHTS

We are a member of the Electronic Industry Citizenship Coalition (EICC), a collaboration of the world's leading Information and Communications Technology (ICT or IT) companies, whose aim is to collaborate on improving efficiency and social responsibility in the global supply chain.

As an EICC member, we have adopted the EICC's Supplier Code of Conduct (the "EICC Code") for our suppliers and ask all Tier 1 direct suppliers to acknowledge the code. In 2010, we adopted the EICC Code for ourselves. In 2011, we will ask our indirect suppliers to adhere to the EICC Code as well.

Consistent with standards in the EICC Code, we are committed to upholding workers' human rights. These standards include: freely chosen employment, child labor avoidance, working hours, wages and benefits, humane treatment, non-discrimination and freedom of association.

We have a Human Rights and Global Labor Principles that are based on the United Nations Global Compact (UNGC), International Labour Organization (ILO) standards and similar doctrines. These principles reinforce and strengthen our commitment to the rights of our employees, workers in our supply chain and in our global community.

As part of our commitment to human rights, we recognize and enforce the EICC Code throughout our Supply Chain. Please see our Environmental Impact: Supply Chain for more information.

We have a process for clear and accurate communication of our policies, practices, expectations and performance to workers, suppliers and customers, as well as, worker feedback, audits and assessments.

## EMPLOYEE TRAINING

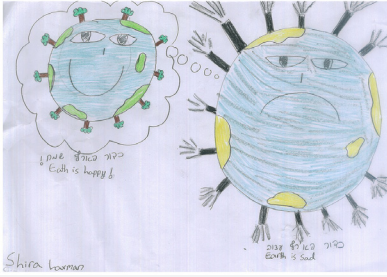
All new hires are required to complete corporate compliance training. This training covers the Business Conduct Guidelines, as well as anti-harassment, insider trading, proper handling of confidential information and antitrust policies. We also provide extensive training to existing employees tailored to their particular organization or geographic region.

## INVESTIGATIONS

EMC takes seriously any reports of misconduct or unethical behavior. There are multiple avenues for employees, or others, to raise concerns. These include a confidential website and a confidential hotline. Questions, concerns or reports of a potential violation of law, regula-

tion, the Business Conduct Guidelines, or other EMC policies can be reported in any of the following ways:

- Contact the Office of the General Counsel by telephone (508-435-1000, extension 77267), facsimile (508-497-8079), or email (General\_Counsel@EMC.com).
- Contact EMC's hotline by telephone (877-764-0557) or via a secure web report at <https://emccorporation.alertline.com>
- Contact the Audit Committee of the Board of Directors by email (AuditCommitteeChairman@emc.com) or by mail (Alertline, PMB 3767, 13950 Ballantyne Corporate Place, Charlotte, NC 28277).



## JILLIAN BERENTY

Age 9

Parent: Brenda Gibbs

EMC North Carolina

## DEFINING ENVIRONMENTAL SUSTAINABILITY AT EMC

At EMC, we define environmental sustainability as conducting and transforming ourselves and our company in a manner that will benefit our employees and their families, customers, suppliers, investors and the global community. This conduct includes conserving and enriching the environment in which we live and work; creating shared value in the adaptations that are required to thrive into the future, and mitigating the risks from changes in the planet that we cannot influence.

Many of our corporate environmental, social and governance policies align with the spirit of the Rio Declaration Principle 15– the Precautionary approach– in that we take proactive and precautionary measures to enact programs to prevent threats or damage to our environment, such as through our organizational memberships, supplier emissions survey and stakeholder engagement.

## OUR COMMITMENTS

From our product design to our involvement in external organizations, we are firmly committed to engaging in activities that enhance transparency in our business operations and provide a vehicle for our company's sustained success.

### PRODUCT SAFETY

At EMC, we work across the product lifecycle to assess and improve safety. Our Global Product Compliance (GPC) organization is responsible for compliance with regulations on electrical and mechanical safety.

### PRODUCT DESIGN AND CERTIFICATION

Our GPC engineers play an integral role in product development, beginning with the design concept. These engineers plan, manage, and conduct required product review and testing during the product design phase. This ensures that 100 percent of EMC core hardware and power supplies are in compliance with international product safety standards or requirements.

The goal of EMC's product safety compliance program is to prevent potential damage to customer property and harm to people using EMC hardware. Our GPC organization works with external agencies to attain product safety certification. Relevant certifications include the international IEC 60950-1, European EN60950-1, and North American UL/CSA 60950-1 standards.

### MANUFACTURING, LABELING, AND DISTRIBUTION

Staff in each of our EMC manufacturing plants monitors the manufacturing process to ensure that products are being built to safety standards. Every product has a device rating label with applicable agencies' certification marks that confirm compliance with safety regulations of the country to which it is being shipped. The GPC organization has full and final authority for approval of product shipments.

### MATERIAL CONTENT AND COMPLIANCE

As a global enterprise compliance is as much about doing the right thing as it is a business necessity. Our customers can be assured that our products comply with regulations for hazardous material content and safe product disposal, including RoHS, WEEE, China RoHS, and REACH, and other national, regional, and local regulations.

As global concern about the environment grows, there are more regulations surrounding IT products, and more is being discovered about the impact of certain substances. Our International Environmental Regulatory Committee (IERC) monitors the development of relevant environmental regulations and industry standards. Our goal is not mere compliance, but proactively addressing electronic waste, packaging, transportation, and material content issues.

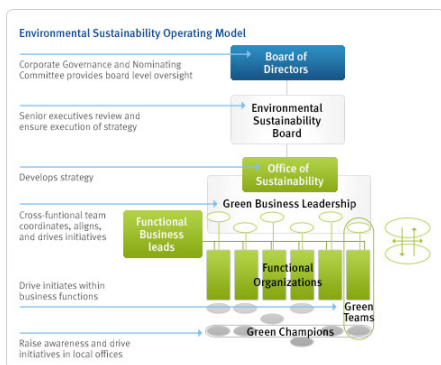
### PRODUCT LIFE CYCLE

EMC is committed to product safety from design through disposal or reuse. Life cycle considerations, such as designing for simplicity, improved disassembly sequencing, recycling and easy component recovery, have been institutionalized as part of our standard design process.

### ENVIRONMENTAL STRATEGY AND SYSTEMS

EMC's Office of Sustainability is applying a unified environmental strategy across our business and day-to-day operations. We have an internal Green Business Leadership team, a cross-functional group, leading sustainability in our operations.





## EMC'S ENVIRONMENTAL PRIORITIES

We focus our environmental efforts where we have greatest potential to reduce negative impact and even have positive influence. Accordingly, our priorities are energy and climate change, material use and waste, and water. Recognizing that environmental sustainability is both a responsibility and opportunity, we look for ways to improve our impacts in our products, the supply chain and our global workforce.

## GOVERNANCE MODEL

EMC is integrating environmental sustainability throughout our business. The Governance Committee meets with the Chief Sustainability Officer (CSO) at least twice a year to provide board level oversight. The CSO also reports to the CEO and executive leadership twice a year. Our operating model can be seen to the left.

## ENVIRONMENTAL MANAGEMENT SYSTEM

EMC's comprehensive environmental management system covers waste reduction, conservation of energy and materials, and overall environmental impact at our facilities worldwide. All of EMC's global manufacturing sites are certified to the globally recognized and accepted environmental management standard, ISO 14001. The same policies and procedures apply, as appropriate, to all of EMC's facilities worldwide. In 2010, EMC had no fines or non-monetary sanctions for non-compliance with environmental laws and regulations.

## MARKETING COMMUNICATIONS

In 2010, we hired our first Chief Marketing Officer. The role of our CMO is to lead the global structure, strategy and execution of all aspects of EMC's marketing and communications efforts.

We regularly conduct marketing and communications meetings across business units globally to review, coordinate and plan marketing communications. We also have internal protocols which guide our use of social media, trademark usage, use of copyrighted materials, brand integrity and communications with the media.

## ORGANIZATION MEMBERSHIPS

EMC is a member of various industry associations and advocacy organizations, including the following:

**Business Roundtable (BRT):** an invitation-only association limited to CEOs of leading US corporations, which focuses on issues such as education reform, the economy, healthcare and corporate governance. EMC's Chairman, President and CEO is a member.

**Ceres:** a network of investors, environmental groups and other public interest organizations working with companies to address sustainability challenges. EMC is a member.

**Digital Energy Solutions Campaign (DESC):** an organization of information and communications technology companies, trade associations and non-governmental organizations promoting the innovative and effective use of ICT as an essential tool in managing climate change issues. EMC is a member and contributor to their work.

**Distributed Management Task Force (DMTF):** an Information Technology (IT) industry organization which defines protocols for measurement and management of energy efficiency in IT. EMC's Senior Technologist for the Office of the Chief Technology Officer is a member of the Board of Directors.

**Electronics Industry Citizenship Coalition (EICC):** an organization of ICT companies which works to improve labor and environmental conditions in the electronics supply chain. EMC is a member and participates in a number of their working groups.

**GridWise Alliance:** a consensus-based organization representing a broad range of the energy supply chain including utilities, technology companies, academia, venture capitalists



A coalition of the world's leading ICT companies working together to improve efficiency and social responsibility in the global supply chain

and emerging tech companies with the goal of serving as a forum to transform the electric grid to achieve a sustainable energy future.

**Healthcare Information and Management Systems Society (HIMSS):** a comprehensive healthcare-stakeholder membership organization exclusively focused on providing global leadership for the optimal use of IT and management systems for the betterment of healthcare. EMC is a Diamond Member of HIMSS, and an EMC representative serves on the HIMSS New England Board.

**International Committee for Information Technology Standards (INCITS):** a group encompassing and advancing ICT standards. EMC is a member of the group, serves on working groups and committees, and serves on the INCITS Executive Board.

**Information Technology Industry Council (ITI):** a council representing approximately 40 leading U.S. IT companies. ITI's three main divisions are Environment and Sustainability, Global Policy, and Government Relations. EMC is a member.

**National Cyber Security Alliance (NCSA):** an organization dedicated to educating and empowering a digital society to use the Internet safely and securely at home, work, and school, protecting the technology individuals' use, the networks they connect to, and our shared digital assets. EMC is a member.

**Standard Performance Evaluation Corporation (SPEC):** an organization benchmarking a wide range of technology from web servers to network file systems. EMC is a member.

**Storage Networking Industry Association (SNIA):** an organization of IT companies which develops standards and educates on best practices in energy efficiency in the data center. EMC's Senior Technologist for the Office of the Chief Technology Officer is the Chairman of the Board of Directors.

**Storage Performance Council (SPC):** an organization producing benchmarks focused only on storage subsystems. EMC became a member in 2011.

**TechAmerica:** an organization representing the broad spectrum of the U.S. IT industry, including software, hardware, telecommunications products and services, Internet and online services, systems integration, and professional services companies. EMC is a member. EMC's Director of Government Relations is Chair of the Information Security Committee, and EMC's VP of State & Local Government Sales serves on the State and Local Government Board of Directors.

**TECHNET:** a bipartisan, political network of IT CEOs that promotes the growth of technology and the innovation economy. EMC's Chairman, President and CEO is a member of the National Council. EMC's Executive Vice President and President of RSA, the Security Division of EMC, is co-Chair of TechNet New England.

**Technology CEO Council:** a group of CEOs from leading technology corporations which is dedicated to advancing policies which ensure and promote U.S. competitiveness through technology leadership. EMC's Chairman, President and CEO is a member.

**The Green Grid:** a global consortium of companies dedicated to advancing energy-efficient data centers. EMC is a member, and EMC's Vice President of Corporate Sustainability is on the Board of Directors.

**UCA International Users Group:** a not-for-profit corporation focused on assisting users and vendors in the deployment of standards for real-time applications for several industries with related requirements. EMC is a member.

**World Economic Forum:** an independent international organization committed to improving the state of the world by engaging leaders in partnerships to shape global, regional and industry agendas. EMC is an industry partner, and participates in the Task Force on Low-Carbon Economic Prosperity and the Global Education Initiative.



A global [consortium](#) dedicated to data center efficiency

## SHARING EMC'S SUSTAINABILITY

Chief Sustainability Officer Kathrin Winkler shares our sustainability in [Interconnected World](#), a blog about transforming corporate mindsets and her discoveries along the way

**World Resources Institute:** an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people's lives. EMC is a member of the Corporate Consultative Group.



## MIA SIMPSON

Age 3

Parent: Lauren Simpson

EMC California

## 19

business units are represented in the EMC internal Green Business Leadership Organization

## OUR STAKEHOLDER ENGAGEMENT

We actively engage in dialogue with our stakeholders— from employees to customers, shareholders to external groups— as an effective and productive approach to building trust and shaping the overall direction of our business strategy.

### EMPLOYEES

Executives discuss the company's performance and strategy directly with our. We also solicit feedback through our Employee Satisfaction Measurement Survey (ESMS), where employees anonymously complete a questionnaire about the EMC work environment.

In 2010, we proposed and developed a new 18-month ESMS, rather than an annual survey. The new ESMS allows our organization adequate time to evaluate, review, establish and complete action planning in response to employee feedback. The most recent survey took place in May 2011.

As a result of our 2009 ESMS, we implemented a Recognition@EMC program, which includes the Commitment@EMC and Excellence@EMC recognition programs. Our Commitment@EMC program demonstrates our appreciation for years of service, recognizing every fifth year. Our Excellence@EMC program recognizes our culture that drives and values innovation, passion, and success and rewards our employees for their actions and efforts on six separate award levels annually.

### CUSTOMERS

EMC's Total Customer Experience (TCE) is a company-wide commitment to exceed customer expectations for quality, service, innovation, and interaction. We listen via an extensive "voice of the customer" survey process performed on a quarterly basis which evaluates the entire EMC relationship. We establish initiatives in areas that our customers have identified as most impactful to them through the survey. Through our customer feedback, we deliver results through a disciplined process for continuous improvement that is tied to specific metrics and targets.

Since 2009, we have asked our customers to tell us how they value sustainability performance in choosing vendors. We also solicit customer feedback on areas for improvement. This information is used by cross-functional leaders to help prioritize EMC's environmental sustainability initiatives.

For more information on our TCE commitment, please read see our Customer Relations section.

### SHAREHOLDERS

We maintain multiple avenues of engagement with our shareholders. Our communications program includes outreach to our large institutional investors and interaction with other shareholders throughout the year on a variety of topics such as corporate governance, executive compensation, and other pertinent matters. Through this dialogue, shareholders have provided specific feedback and input on matters of mutual interest. We regularly update the Board of Directors on our interactions with shareholders.

In order to build constructive, informed relationships with shareholders and encourage transparency and accountability, directors may be available to dialogue with shareholders from time to time as appropriate. In the past, members of the board have discussed a variety of topics with shareholders, including executive compensation, board leadership structure, sustainability and other governance topics. The board values open communication with shareholders.

We believe that the exchange of information accomplished through our dialogue with shareholders has been very valuable to shareholders, management and the Board of Directors.

## Developing our Stakeholder Program

In 2010, we held our first external stakeholder forum facilitated by Ceres. Stakeholders, including environmental advocates, joined a panel of EMC executives, managers and contributors, in an open dialogue to give direct input on our sustainability strategy, priorities and challenges. Stakeholders provided comments and reflections on EMC sustainability strategy.

Stakeholders identified several key opportunities for EMC, including:

### **LEVERAGE LEADERSHIP IN VIRTUALIZATION AND CLOUD COMPUTING**

Stakeholders recognized our unique position to establish a competitive advantage through utilizing virtualization and cloud computing, one of our core business strategies, from a sustainability perspective. In 2010, we added to our portfolio with FAST VP and VNX for helping our customers develop their cloud. With our successes, we recognize there is room for progress in linking the role of next generation computing models to sustainable business.

### **EXECUTIVE COMMUNICATION OF SUSTAINABILITY**

Stakeholders identified use of our executives in communicating our sustainability initiatives. We acknowledge we have room for improvement in communicating sustainability through our executive team. We intend to further leverage our Chief Executive Officer and other executives to present our sustainability message in our investor, employee and customer meetings.

### **RESEARCH AND DEVELOPMENT FOR SUSTAINABILITY**

Stakeholders encouraged EMC to explore further opportunities to integrate sustainability considerations into R&D investments. They were pleased to learn more about EMC's focus on virtualization and cloud computing, as well as continued investment in sustainable product solutions, including Design for Environment (Dfe). We take environmental impact into consideration, as demonstrated through our new leadership high efficiency power supplies in our next generation products.

### **GOALS AND TARGETS FOR RENEWABLE ENERGY PROCUREMENT**

Stakeholders responded well to our target of procuring 50% of our energy needs through renewable sources by 2040. Stakeholders recommended opportunities for establishing mid-term targets on renewable energy. We intend to evaluate the mid-term target recommendation going forward as we continue to develop pilot projects that will help us achieve our renewable energy goal.

### **SUPPLY CHAIN**

Stakeholders strongly supported the active engagement of our supply chain team and the sustainability disclosures provided regarding our supply chain. An opportunity lies in the use of our scorecard to engage with suppliers to integrate Environmental, Social and Governance (ESG) considerations and criteria to rate our suppliers, and encourage suppliers to disclose their emissions data.

### **INVESTOR ENGAGEMENT**

Stakeholders highlighted the growing investor interest in sustainability performance metrics. Discussions included an opportunities for EMC participation in the Bloomberg Sustainability Survey, formal integration of sustainability into our Annual Report on Form 10-K and incorporation of sustainability into shareholder communications and presentations.

## **\$16.2 MILLION**

Decrease in operating costs due to increased efficiency in data center power, cooling and space from 2004 to 2009 from EMC IT's virtualization and cloud computing project implementation

## **2040**

EMC target for 50% renewable energy procurement

In 2010, we participated in the Bloomberg survey. We also reported on our sustainability strategy in our 2010 Annual Report, engaged with several investors specifically on the topic of sustainability and discussed sustainability in our most recent strategic forum.

We continue to develop a broader stakeholder engagement program to actively engage our employees, customers, shareholders and other stakeholders.



## ANDREA GONZALEZ

Age 6

Parent: Hector Garcia Sabath

EMC Mexico

# HEALTHY ECOSYSTEMS

EMC is dedicated to improving and reporting on our environmental performance. Our environmental priorities include energy consumption and climate change, material use and waste, as well as water conservation. By setting environmental initiatives according to these priorities, we focus on optimizing operations, including our supply chain; transforming ourselves and our industry to become more sustainable; and collaborating wherever possible to build a healthier social and business climate.

- Climate Change and Energy Use
- Our Facilities
- EMC Data Centers and IT
- Travel and Commuting
- Energy-Efficient Hardware
- Enabling IT Efficiencies
- Material Use and Waste
- Water
- Biodiversity
- Product End of Use
- Collaboration and Engagement
- Industry Standards
- Working for Global Change
- Supply Chain
- Supply Chain Responsibility
- Supply Chain Emissions
- Supplier Diversity
- Supply Chain Security
- Logistics
- Product Material Content
- Packaging



## CLARA GUILLOUD

Age 9

Parent: Romaric Guilloud

EMC Switzerland

6

Number of years EMC has tracked GHG emissions

4

Number of years the Carbon Disclosure Project has commended EMC for commitment to thorough and transparent climate change disclosure

## CLIMATE CHANGE AND ENERGY USE

Addressing the potential impacts of climate change and energy use helps EMC reduce risks, enhance shareholder value, and strengthen our business. EMC's primary GHG emissions arise from the generation of electricity used to power our products, run our business operations, and support our supply chain. Part of our commitment to action in reducing harmful emissions is our annual participation in the Carbon Disclosure Project (CDP), for which we were commended in 2010 for the fourth consecutive year.

We also apply innovative uses of IT to reduce energy consumption and GHG emissions. This can be achieved by supporting new, more efficient ways of living and working. Through the services we provide, we also help other organizations to reduce their own emissions production and energy use.

## OUR STRATEGY

The EMC climate change strategy focuses on these areas:

### Reducing emissions from our own operations

- Decrease energy demand
- Maintain a highly efficient infrastructure
- Identify sound opportunities for renewable energy use

### Reducing emissions throughout our supply chain

- Engage suppliers in measuring and reporting
- Collaborate with suppliers to measure and reduce emissions
- Work with the IT industry to develop standard protocols for reporting supply chain emissions

### Reducing customer energy demand

- Supply energy-efficient products
- Develop more efficient approaches to data center operations
- Deliver services that help customers implement best strategies

### Reducing global energy demand

- Develop information solutions that optimize business functions, accelerate research, and enhance public infrastructure

## SETTING GOALS

Since we began measuring emissions in 2005, our energy intensity by revenue— the amount of GHG in metric tons we emit per one million dollars of revenue— has declined.

While we are pleased with this progress, this reduction is not enough. We continue to adopt measures to reduce absolute emissions from EMC operations worldwide.

By 2012, we intend to reduce by 30 percent our 2005 energy-intensity-by-revenue figure. By 2015, we plan to achieve a 40-percent reduction.

The objective in setting our goals was to find a trajectory of GHG emissions reduction that:

- Allows for business growth
- Leverages the learning curve for renewable energy sources
- Peaks in absolute emissions before 2015, which is what current science says is required in order to avoid the worst consequences of climate change
- Reduces absolute emissions by 80 percent below estimated 2000 levels by 2050

Our goals require an accelerating reduction in GHG intensity by revenue, year over year, to meet our objectives.



In 2010, we continued to monitor our progress toward achieving our reduction goals, as well as scientific developments that may suggest adjustments to those goals. We have been encouraged by stakeholders to set more interim goals and are exploring approaches to doing so.

## **REPORTING AND ACCOUNTABILITY**

EMC reports GHG emissions annually to the Carbon Disclosure Project (CDP), and has been on the Carbon Disclosure Leadership Index for four consecutive years.

We are committed to the U.S. Environmental Protection Agency's (EPA) Climate Leaders Program to reduce GHG emissions from U.S. owned and operated facilities by eight percent by 2012. While the program was discontinued, we remain committed to achieving this reduction goal. We also participate in Ireland's EPA Climate Change Programme, where we maintain emissions at 10 percent below the annual allowance.



## HEO SEUNG WOO

Age 5

Parent: Kong Bo Suk

EMC South Korea

**80%**

EMC target to reduce GHG emissions by 2050

## OUR FACILITIES

Since 1987, energy efficiency has been a priority across EMC-owned and operated facilities. Naturally, as business grows, so does energy use. To deal with this, EMC maintains a three-pronged approach to managing energy use:

- Aggressive pursuit of energy efficiency
- Collaborative exchanges between engineering and IT
- Sensible adoption of renewable energy

### ENERGY EFFICIENCY

We incorporate energy efficiency into all new building designs. Programs for retro-commissioning existing facilities maintains or increases facility performance over time. Energy-efficiency initiatives include upgrading lighting systems to energy-efficient fixtures and control systems, and installing free-cooling systems that use external air and water to cool our facilities.

In 2010, we transitioned our Cork facility from the Irish EPA IS 393 energy efficiency certification to EN 16001, an energy management standard for Europe. We are also monitoring the development of an ISO 50001 global standard for energy efficiency.

### COLLABORATION WITH ENGINEERING AND IT

The facilities team works closely with engineering and IT to manage energy consumption and set power budgets. Engineers monitor power use and measure the effect of energy efficiency initiatives with energy management systems installed in labs and data centers. Our Hopkinton, Massachusetts and Cork, Ireland data centers also automatically capture and report Power Usage Efficiency (PUE). PUE is a standard metric defined by The Green Grid to measure the energy efficiency of data center infrastructure and is used by EMC across all facilities. These systems allow data center managers to consistently monitor PUE and measure the impact of changes they make.

### RENEWABLE ENERGY

With our target to reduce 2050 GHG emissions by 80 percent, we recognize energy efficiency alone is insufficient. Our corporate goal is, by 2040, to obtain 50 percent of electrical needs from renewable sources. In 2010, we began studies on the feasibility of using wind energy at the EMC Cork and Hopkinton campuses.

### CERTIFICATION AND AWARDS

- LEED India Core & Shell Gold certification for EMC Center of Excellence facility in Bangalore, India
- Environmental Steward Award from the Department of Environment and Natural Resources for our Apex, North Carolina facility
- I.S. 393 certification for our Cork, Ireland facility
- LEED Platinum for critical infrastructure at VMWare Data Center in Washington State, U.S.



## EFFICIENCY IN EMC FACILITIES AROUND THE GLOBE

### RIVER OUEST, FRANCE

In 2010, EMC's new France headquarters, River Ouest, earned three of the French government's Haute Qualité Environmental (High Environmental Quality or HQE) certifications. HRO France, the River Ouest property owner and EMC did not only meet the standards, they exceeded them. Out of the 14 criteria the certifying agency used to rate the building's environmental performance, River Ouest achieved a rating of either Exceptional or High Performance in 13 categories in both the Construction and In-occupation phases of the certification process. In the third phase of the program—Energy Management—the agency awarded River Ouest a rating of Very High Energy Efficiency. This rating means the building occupants have achieved a reduction in energy use of at least 30 percent more than the French standard for office areas. The facility also includes air conditioning specific to the IT lab to decrease demands on the central air conditioning system.

**15%**

Reduction in electricity consumption from Cork Free Fresh Air Cooling project

**5,200**

Estimated tons of CO<sub>2</sub> not emitted, thanks to the project implementation

### FREE FRESH AIR COOLING PROJECT, IRELAND

With tens of thousands of feet of labs and data centers requiring cooling to maintain the integrity of the equipment, the Ireland Center of Excellence (COE) undertook a project to assess the viability of using outside air, or 'free fresh air,' to assist with cooling the interior spaces. Taking advantage of a low average air temperature of 9°C, coupled with advancements in technology, the team developed a plan to utilize new cooling units to maximize energy savings for the COE. The resulting Free Fresh Air project has reduced total annual electricity consumption by an estimated 15 percent, decreased annual operating expenses by approximately 800,000 Euros, and reduced annual energy consumption by approximately 10,000,000 kWh, the equivalent of removing 775 cars from the road each year or 5,200 tons of CO<sub>2</sub>.



### WORKPLACE SHUT-DOWN PROGRAM (WSP), INDIA

In 2008, the EMC India Center of Excellence Research and Development lab began an initiative to reduce its carbon footprint by enabling business units to harness an automated workplace shut-down process for servers during the weekend. Begun under the umbrella of the "Go Green" initiative, with a scaled implementation in 2010, the initiative resulted in a 10-to-15-percent reduction in power consumption, the equivalent of reducing CO<sub>2</sub> emissions by three percent, and a cost savings of \$63,000. The WSP team developed and built a support infrastructure that, after initial development, runs maintenance-free, allowing the COE to achieve energy and cost efficiencies.



## JEKABS DECLEIR

Age 4

Parent: Gisela DeCleir

EMC Ireland

## THE EMC IT JOURNEY TO THE CLOUD

**\$23 MILLION**

data center operating expense savings

**\$80 MILLION**

operating expense savings

**100 MILLION**

pounds of CO<sub>2</sub> avoided

**34%**

decrease in energy consumption

## EMC DURHAM DATA CENTER HIGHLIGHTS

- Air-intake plenums at the perimeter of the building and air-side economizers provide free cooling during months of cool weather—approximately 5,000 hours per year
- The air plenums also eliminate the need for windows, minimizing light pollution
- Rainwater is collected from the roof and diverted to a storage tank, reducing the water usage more than 40 percent; one inch of rain on the 450,000 square-foot roof equals 280,000 gallons of water
- UPS modules utilize flywheel technologies that eliminate the need for battery storage

## EMC DATA CENTERS AND IT

In our day-to-day operations, we face the same challenges as those who buy and use our products— how to increase the business value of IT, while managing endless information growth and the demands both place on energy supplies and floor space. To do this, we leverage our leadership position in IT technology and apply best practices for energy-efficient IT.

## OUR JOURNEY TO CLOUD COMPUTING

The worldwide EMC IT environment spans five data centers, with more than 400 applications and seven petabytes (7 PB) of storage.

EMC IT supports approximately 50,000 internal users and 150 corporate offices in more than 50 countries. EMC IT also collaborates closely with the EMC Global Services organization, which supports more than 400,000+ customers and partners in 80 countries, and speaking 20 languages.

To reduce costs, improve services, and promote both business innovation and competitive advantage, we embarked on our own “Journey to the Cloud,” making the move from a physical to a virtualized infrastructure and adopting more automated processes that will allow EMC IT to be delivered as a service.

While our journey was fueled initially for economic reasons, it has produced environmental benefits from reduced GHG emissions.

## CONTINUED VIRTUALIZATION

Dynamic allocation of server and storage resources in a virtual IT infrastructure strikes the right balance between energy efficiency and business performance. Our virtual IT infrastructure strategy includes:

- Tiered, shared, virtualized server clusters and storage
- Integrated virtual management solutions
- Virtual desktop infrastructure

In 2004, we began a server virtualization process. By the end of 2010, our EMC IT division has virtualized 75 percent of OS images and 100 percent of our x86 server environment. We have realized a 75-percent gain in storage utilization and a 170-percent improvement in storage administration productivity. In addition, we reduced the number of Oracle data base servers from 55 to four—and the number of databases from 51 to six.

In 2009, we launched a Virtual Desktop Infrastructure (VDI) pilot to improve information security and client services across our organization, and to boost energy efficiency. To date, We are on track to meet our goal of 100 percent virtualized desktops by 2012.

Overall, EMC IT initiatives have decreased energy consumption by 34 percent and reduced our carbon footprint by nearly 100 million pounds of CO<sub>2</sub>.

These initiatives have saved approximately \$23 million in data center operating expenses. Implementation of cloud services into our operations has achieved savings of approximately \$80 million in capital expenditures for equipment.

## NEW EMC DATA CENTER

With our existing U.S corporate data center quickly running out of capacity—and after exploring multiple options—we decided to build a new energy-efficient, and 100-percent virtual data center.

We completed Phase 1 of our new data center in Durham, NC in October 2010. This phase included construction of a 20,000 square foot Data Center (expandable to 30,000 square feet in a full build scenario) and 55,000 sq. ft. Development Lab. The project is on track for meeting stringent PUE objectives of 1.3 and obtaining LEED Corporate Interiors (CI) certifica-

Climate savers computing initiative



tion. Green innovations include a rooftop water collection system, free air cooling for much of the year, and flywheel technology that eliminates the need for batteries in uninterruptable power systems (UPS).

The refurbished 450,000 square foot building will also house our first U.S.-based Center of Excellence. The Durham COE will consolidate regional EMC research, development, and proof-of-concept labs; offer a wide range of executive briefing, consulting, development, and technical services; and showcase EMC and partner solutions.

### **PURCHASING ENERGY EFFICIENT EQUIPMENT**

At EMC, we purchase energy-efficient servers, printers, photocopiers, and personal computers for our operations worldwide. We are also an affiliate member of the Climate Savers Computing Initiative, an organization that promotes power efficiency in computing systems.



## ANDREJA JEVTIC

Age 7

Parent: Mladen Jevtic

EMC Serbia

## TRAVEL AND COMMUTING

EMC encourages alternative travel and commuting methods, including e-conferencing, efficiencies in our transportation methods, remote work assignment programs and shuttle services. We encourage employees to reduce their environmental impact and achieve savings for our business.

### E-CONFERENCING

We provide a number of technology options for employees to collaborate more effectively and more often without having to travel. Options for e-conferencing at EMC include teleconferencing, web meetings and audio conferencing.

### CORPORATE FLEET

In Europe, we have shifted to more energy-efficient models in our fleet of corporate cars available to employees. In 2010, We achieved our target of a

15-percent reduction in fuel consumption in the European fleet. By continuing to move to more energy-efficient models, we expect a 25-percent reduction in fuel consumption in the European fleet by 2013.

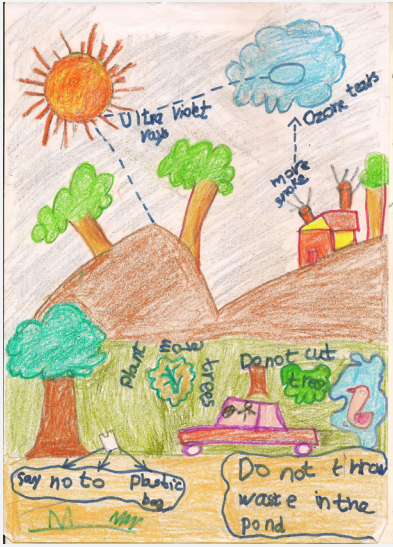
At the end of 2010, we purchased an Embraer Phenom 300 jet that burns 30 to 50 percent less fuel per hour than other crafts in our corporate fleet. In 2010, total fleet emissions increased 12.2 percent from 2009 levels due primarily to an increase of 12 percent in annual flight hours. We continually examine our fleet and potential replacement aircraft to increase efficiency and reduce emissions. We participate in the EU-Aviation Emissions Trading Scheme (EU-ETS or AVETS) and reported 2010 EU emissions as our benchmark year. The EU-ETS or AVETS goes live in 2012, with active credit trading commencing January 1, 2012.

### TELECOMMUTING

Today, more EMC employees are working remotely and with other flexible work arrangements. The EMC WorkWise program is available for EMC Massachusetts and California employees to engage in either partial or full commitment to remote work. The environmental benefits include reduced emissions from commuting and facility consolidation that result in more efficient use of space and energy.

### COMMUTING AND SHUTTLE PROGRAMS

Our corporate facilities in the U.S. offer carpool matching programs for employees. Bike racks and showers are available for employees who bike to work. EMC also offers incentives to encourage employees to use public transportation. In our central Massachusetts facilities, we offer shuttle service between buildings so that employees can attend meetings without driving their cars. Shuttle fleets include hybrid vehicles, which further reduce GHG emissions.



## MANDAR JOSHI

Age 5

Parent: Sidharth Joshi

EMC India

## FIRST FOR FLASH ENERGY EFFICIENCY

EMC was the first in the industry to use enterprise flash, or solid state, drives in enterprise storage. Enterprise flash drives offer energy efficiency in high-performance computing, using up to 97.7 percent less energy in operations per second than FC/SAS drives, and 38 percent less energy per terabyte of data stored. The energy savings come from their solid state nature—they do not spin like conventional disk drives—and from the potential to reduce the total number of drives required across an entire system to achieve performance targets. They are available in the EMC VNX family, EMC Celerra, EMC CLARiiON, and EMC Symmetrix systems.

The disk spin-down feature prevents disks from spinning when they are not being accessed, further reducing energy use. This feature is available in the VNX family series, CLARiiON, Celerra, and EMC Disk Library, as well as the EMC Iomega Compact StorCenter ix2-200.

## ENERGY-EFFICIENT HARDWARE

The electricity consumed by EMC products constitutes our greatest impact on energy use and climate change. As a producer of hardware and software systems, EMC is constantly working to increase the energy efficiency of all of our products, allowing our customers to deploy the latest in innovative and efficient storage technology.

We take a holistic view of the data center, looking at the energy efficiency of each component and evaluating how components work together. Here we discuss the energy efficiency of our information storage platforms. For a systemic view, please read “Efficient Data Centers” in this report.

## EFFICIENT DRIVES

Digital information is stored on drives. EMC offers a variety of drive types to meet varying needs of capacity, performance, cost, and energy efficiency. Multiple drive types can be used concurrently in a single storage platform. Our software assigns digital information in storage tiers to the “just-right” type of storage to meet performance requirements while maximizing energy efficiency.

Disk drives are used across our storage platforms and come in a range of capacities and rotational speeds. High-capacity, low speed SATA type drives use less power but have slower performance. Low-capacity, high-speed FC/SAS drives are better for more frequently accessed information.

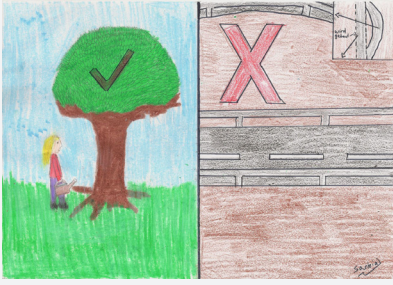
SATA-type drives have up to four times the storage capacity of FC/SAS drives, and can use up to 96 percent less energy per terabyte of data stored. SATA drives are available in the VNX family series, Celerra, CLARiiON, EMC Disk Library, and Symmetrix systems.

## EFFICIENT POWER AND COOLING

Beyond drives, there are three other key initiatives for reducing power use in EMC storage platforms. One is adopting more efficient power supplies to reduce energy losses as power is delivered to the storage platform. The recently released EMC VNX and EMC VNXe platforms have power supplies with more than 90-percent energy efficiency.

A second initiative is the inclusion of instrumentation that measures power use and ambient temperature, and then reports that information. With this capability, people can monitor and measure the power use of individual storage platforms.

Finally, adaptive cooling saves energy by reducing blower and fan speeds in the storage platform to cool in proportion to ambient room temperatures. Today, all EMC storage platforms have adaptive cooling systems in place. In a typical 240 drive array, this saves as much as 480 watts in cooling power.



## SASKIA KALVERKAEMPER

Age 10

Parent: Jens Kalverkaemper

EMC Germany

### VCE: IMAGINE THE POWER OF THREE

The [Virtual Computing Environment \(VCE\)](#) coalition offers collaboration in development, services and partner enablement, which reduces risk in the infrastructure virtualization journey to the cloud.

## ENABLING IT EFFICIENCIES

EMC's approach to data center efficiency treats it as a holistic system. This approach helps organizations achieve agility through efficiency, control, and choice through proven practices and industry leading technologies. These best strategies for data center management also improve overall energy efficiency.

Our business focuses on cloud computing and data center virtualization, which together hold great promise for greater energy efficiency in the data center. EMC technologies—virtualization, deduplication, and Fully Automated Storage Tiering (FAST)—deliver significant energy and total-cost-of-ownership savings even before transitioning to the cloud.

## JOURNEY TO THE CLOUD

The cloud begins with a fully virtualized IT infrastructure, in which IT resources are pooled and allocated to applications as needed. It dynamically spans internal and external IT resources, presenting seamless, managed services to the business with the corporate IT team fully in control. In this new model, data centers are still controlled, reliable, secure, and trusted, but also more cost-efficient, dynamic, flexible, and accessible, delivering IT as an on-demand service.

Cloud infrastructure continues to evolve. However, the promise for data center energy savings is great. In a traditional silo data center, each application must be provisioned with the maximum resources it will ever need. This waste of energy is reduced through the cloud with capabilities such as dynamic provisioning of resources, which takes away the need for maximum provisioning. Applications hit their peak needs for storage, servers, and networks at different times. The cloud enables the spread of peak demands across a pool of resources. As a result, less hardware and less energy are needed to serve the data center's aggregate needs.

At EMC, we are on our own journey to the cloud, implementing the best of our technologies and services to achieve the efficiency and control of the private cloud. Learn more by visiting "EMC Data Centers and IT" in this section.

## VIRTUALIZATION

Virtualization is about transforming something inherently complex into something simple, manageable, and approachable by hiding the complexity from the user. For example, a car's automatic transmission "virtualizes" the gears from the driver, who no longer has to engage a clutch and manually shift those gears.

EMC has tremendous strengths in server and in storage virtualization. Our VMware subsidiary is the leader in virtual infrastructure for x86 computing environments. Its software provides dynamic, transparent mapping of hardware resources to application needs. As a result, VMware software can dramatically increase the efficiency of hardware utilization and dramatically reduce cost and complexity through server consolidation.

It also provides increased flexibility—helping users reallocate resources and move things around with minimal effort or disruption. VMware virtualizes servers and desktops and provides virtualized access to networks and storage.

Server virtualization allows one physical server to host multiple virtual servers, delivering significant energy and hardware savings. Block storage virtualization and file virtualization allow data to be moved to the correct storage tier to meet performance, energy-efficiency, and cost requirements. EMC virtualization technologies increase utilization, lower costs, improve service levels, and make IT more nimble.

## DEDUPLICATION

Deduplication technologies reduce the total volume of digital information, reducing storage and network capacity needed and therefore energy consumed. Deduplication looks for



redundancy of data sequences and, where possible, the first uniquely stored version of a sequence is referenced rather than stored again. In a storage system, this is all hidden from users and applications, so the whole file is readable after having been written. This reduces the total volume of data stored while maintaining user access.

## EMC AND EFFICIENT DATA CENTERS

Listen to EMC's Pat Gelsinger discuss advances in energy efficient solutions.

[Watch the video.](#)

## FULLY AUTOMATED STORAGE TIERING (FAST)

FAST technology automatically moves data to the right tier of storage, optimizing for performance, energy-efficiency, and cost. FAST software monitors and analyzes the use patterns of digital information and, if necessary, moves it to be stored on the right type of drive for the right tier of storage, such as Flash drives for ultra-high performance, or SATA drives for infrequently used information. Automatically assigning and moving digital information to the right tier allows for the most energy-efficient storage.



## HARUNA KAWAMOTO

Age 7

Parent: Yuya Kawamoto

EMC Japan

75

tons of waste composted in EMC Massachusetts facilities in 2010

## MATERIAL USE AND WASTE

### FACILITIES RECYCLING AND WASTE

Across all EMC-owned and operated facilities, we maintain responsible recycling and waste programs. We evaluate and develop strategies for waste management in our operations globally.

### RECYCLING

In our Massachusetts, North Carolina, California, and Cork locations, recyclables are removed from the waste stream by waste management contractors or municipal providers. We compost cafeteria waste from our Cork, Ireland and highest occupancy facilities in central Massachusetts, North Carolina and California.

We have comprehensive waste management programs within our manufacturing operations. Sorting cardboard, wood, plastic, glass, and other materials allows us to realize more economic value by reselling them to recyclers and, at the same time, reduce waste and make the recycling process more efficient.

It is a challenge to establish a global recycling strategy that incorporates the leased facilities where we do not have operational control. We are working to incorporate recycling requirements in new lease agreements.

Employees around the world have launched initiatives to reduce paper use and increase recycling. In our India COE, our Real Estate and Facilities team has created an innovative program to turn recycled paper products into office supplies for their location. Employees in Cork have banned the use of paper cups.

### OFFICE AND FACILITIES E-WASTE

EMC strives to re-use office electronics, extend their useful life and reduce waste. When office electronics reach the end of their useful life, they are returned to manufacturers who accept them for take-back, or sent to our IT asset disposal vendors where they are reused or recycled when possible.

### HAZARDOUS WASTE

EMC maintains an emphasis on reducing or eliminating the use of hazardous materials. As a result, EMC manufacturing operations generate only small quantities of hazardous waste, as defined by the U.S. and Ireland Environmental Protection Agencies. In 2010, there were no significant spills on EMC property, meaning any spills that occurred were less than 38 liters and were immediately contained and cleaned up onsite.



**MARIA KAZAKOVA**

Age 3

Parent: Anton Kazakov

EMC Russia

**WATER**

Although EMC has a relatively small operational water footprint, we take a conscientious approach to conserving this important global resource. In our owned and operated facilities, we minimize water consumption and control wastewater streams. Our manufacturing facilities produce no industrial wastewater.

**WATER CONSERVATION**

EMC primarily uses water in general building operations, such as for drinking, cooling, and sanitation systems. In our owned and operated facilities we conserve water with low-flow plumbing fixtures. We use rainwater capture systems to reduce energy consumption and reduce local groundwater extraction in some of our facilities.

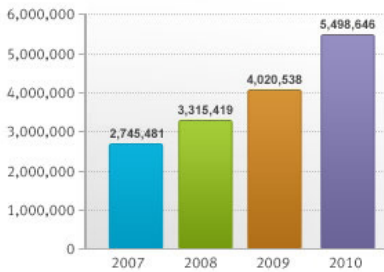
**WASTEWATER TREATMENT PLANT**

The wastewater treatment plant at EMC headquarters reclaims wastewater and passes it through three treatment and disinfection processes. We reused more than 5.5 million gallons of this treated “gray” water in 2010 for cooling, sanitation, and irrigation. Unused gray water is returned to the ground through infiltration systems to replenish local watersheds. In 2010, we increased our water reuse by more than 36 percent, exceeding our goal of 30 percent.

**0**

Industrial wastewater from EMC manufacturing.

**EMC Corporate Water Reuse  
2007-2010, gallons**





## BIODIVERSITY

At EMC, we know that our operations and facilities have an impact on biodiversity - the plants, animals and ecosystems in the local environment. As part of our commitment to the environment, we are working to take a proactive approach by engaging with organizations and in activities that enhance and protect biodiversity.

Our Massachusetts corporate headquarters does not sit in any “Areas of Critical Environmental Concern” (ACEC) as designated by the Massachusetts Department of Conservation and Recreation. Our North Carolina facilities do not sit adjacent to any areas designated as “Protected Lands” or “Biodiversity Protected Lands” by the State of North Carolina. Beyond the affects of our office buildings, our operations do not have any significant direct impacts on biodiversity.



### **NORTH CAROLINA ENVIRONMENTAL STEWARDSHIP INITIATIVE (ESI)**

The EMC Apex manufacturing facility is recognized by the North Carolina Department of Environment and Natural Resources as a North Carolina Environmental Stewardship Initiative (ESI) Rising Environmental Steward.

Through this initiative, EMC works with ESI on reducing environmental impacts beyond regulatory requirements, including a commitment to environmental protection by finding effective ways to act as stewards of our natural resources. In addition to facility energy efficiency and related projects, one of EMC Apex’s commitments to biodiversity in the area included a 2008 project to convert a parking lot to green space. The project reclaimed 2.6 acres and added an employee walking path. All of the materials were recycled on site, including 2,700 cubic yards of asphalt which was used as a base for new paving.



### **WILDLIFE AND INDUSTRY TOGETHER (WAIT) CERTIFICATION**

The EMC Apex manufacturing facility earned an environmental honor in 2010. The facility was recognized as a Wildlife and Industry Together (WAIT) site by the NC Wildlife Federation. The WAIT designation is a workplace stewardship program that manages portions of a commercial property for wildlife and provides environmental education opportunities for employees and the local community. Implemented with assistance from management and employees, including the NC Veterans Employee Circle, EMC assists the NC Wildlife Federation with statewide conservation efforts, habitat protection, and promoting the connection between people and nature.



## HAYAT KOC

Age 7

Parent: Cemal Koc

EMC Ankara

## PRODUCT END-OF-USE

People and communities expect environmentally responsible handling of IT products when they reach the end of their planned usage. To meet this expectation, EMC incorporates end-of-use considerations into the initial design process and operates a program to dispose of products responsibly when their useful time has ended.

## PRODUCT TAKE-BACK

We accept returns of all EMC-branded products at the end of their useful life. Customers worldwide who trade in or return EMC products can be assured that we recycle and dispose of the products securely and responsibly. Where appropriate, EMC may recondition products for donation or internal deployment. Remaining products are disassembled and some sub-assemblies are re-manufactured. Approximately one third of the returned material by weight is processed at our manufacturing facilities. The remainder is sent to our ITAD (IT Asset Disposal) vendors who responsibly reclaim and recycle or resell the remaining two thirds, sending less than five percent to waste-to-energy or landfill. Disk drives that are recycled are degaussed prior to recycling and physically shredded as an added security precaution.

In 2010, we continued to focus on harmonizing practices across our business to ensure consistent application of policies throughout the company. We also worked towards establishing in-region e-waste handling to reduce transportation of goods. Looking ahead, EMC is supporting the development of industry-standard certifications for e-waste management.

EMC's European Union operations are compliant with the Waste Electrical and Electronic Equipment (WEEE) and battery directive. In 2011, EMC is taking proactive steps to comply with emerging regulations in the U.S. and other geographies.

## DESIGN FOR DISASSEMBLY

The easier a product is to disassemble, the easier it is to reclaim, recycle, and responsibly dispose of. This not only reduces waste, but recaptures greater value as elements of a product are more easily recycled or reused.

EMC products are designed so they can be disassembled easily and in such a way as to maximize the value of recyclable materials. End-of-life considerations such as designing for simplicity, improved disassembly sequencing, and easy component recovery have been institutionalized as part of our standard design process.



## RIO KOKUBUN

Age 7

Parent: Isao Kokubun

EMC Japan

## 15

Countries have EMC Green Champions

## COLLABORATION AND ENGAGEMENT

### EMPLOYEE ENGAGEMENT

To further accelerate our journey toward environmental sustainability, we depend upon the engagement of the more than 48,500 people who work at EMC. Our people are the best source of innovative ideas and our ambassadors to customers. We also recognize that environmental awareness and engagement make EMC a more desirable place to work.

Our employees have numerous opportunities for engagement. Although it is challenging to baseline and measure the results of every initiative, it is exciting to unleash employee talent and innovation on our environmental endeavors.

### ENVIRONMENTAL SUSTAINABILITY INNOVATION AWARD

EMC's annual Innovation Conference harnesses the collective power of our people's ideas to shape future EMC offerings. In 2009, the first Sustainability Awards recognized two ideas at the Innovation Conference—one being a tool that measures and improves data center energy consumption, and the other a system that monitors an enterprise's carbon footprint by tracking and analyzing energy-related events. In 2010, the Sustainability Award recognized developments in sustainable packaging practices. Please read the Innovation Conference section for more information on this award.

### GREEN CHAMPIONS

The Office of Sustainability's Green Champions Program is connecting employee environmental advocates from around the world to share ideas and best practices. The initiatives of these local groups include:

- EMC Ireland COE implemented a "Bike to Work" program and earned a Green Innovation Award for a liquid nitrogen reduction project
- EMC Green Champions around the globe host Earth Day and Earth Hour programs to further environmental awareness within operations
- India COE held a Water Conservation Month in February 2010

## EMC IRELAND EARNS GREEN INNOVATION AWARD NOD

A multifunction team led an initiative to decrease use of liquid nitrogen (LN2) in its Environmental Stress Screening (ESS) while still adhering to high standards for quality. The result of this two year project was a reduced need for LN2. The project led to an annual decrease of 13,287,243 kwh of energy, a reduction of 7,228.587 kg of CO2e, and 118 million litres of water from the manufacturing of LN2.

The project, which is being rolled out at EMC sites globally, also earned a nod in the [Irish Independent Green Awards 2011](#).

## INDUSTRY STANDARDS

Transforming the IT industry requires collaboration among partners and competitors, and across all sectors, to dramatically reduce the direct and indirect impacts of IT products. Most IT products from EMC and our peers run on common underlying hardware technology. Most importantly, maximum energy efficiency in the data center can be achieved only by looking at it as a holistic system.

## CONSORTIUM MEMBERSHIPS

EMC engineers, public policy experts, and sustainability professionals actively participate in industry consortia that are helping to set the roadmap for the future. Our memberships include The Green Grid, the Storage Networking Industry Association (SNIA), and the Distributed Management Task Force (DMTF). For a full list of organizations and memberships, please see the EMC Corporate Profile section.

## COLLABORATING ON BEST PRACTICES FOR DATA CENTERS AND ENERGY EFFICIENT STORAGE STANDARDS

Governments, private industry and industry groups are working together to set effective standards and metrics for energy-efficient hardware and software. By skillfully using storage, servers, software, and networks together, IT organizations can manage and store more information using less energy. Creating and disseminating best practices for efficient data center operations helps bring the entire industry along. In 2010, EMC collaborated with many different partners and industry groups, including:

- Leadership to organize The Green Grid's approach working with the ENERGY STAR program to improve the process via improved communication with the industry
- Leadership via ITI's ESWG to ensure the process changes being developed for the ENERGY STAR program Enhanced Qualification Procedures were fair to industry and provided manufacturers with multiple approaches for achieving qualification.
- Contributed to the developing Storage Power Efficiency Measurement Specification and Green Storage Initiative efforts.
- Participated in the Irish Government High-Level Strategic Workshops on Data Centres and Cloud Computing to discuss strategy on use of technology in the Irish government



## KSENIYA MOISEEVA

Age 12

Parent: Igor Moiseev

EMC Russia

## DESC

digital energy solutions campaign

The Digital Energy Solutions Campaign (DESC) brings together information and communications technology companies and associations, non-governmental organizations, customers, and other stakeholders who recognize the enabling role that IT plays in improving the environment and driving long-term economic growth. DESC was launched in 2008 and in 2010 was moved to the Information Technology Industry Council to help advance the Campaign's work.

## WORKING FOR GLOBAL CHANGE

### IMPROVING OUR PERFORMANCE

To be a credible and useful partner in global collaboration on environmental sustainability, we must strive for the best in our own operations. Part of this effort includes reporting our performance to NGOs and governments, and being held accountable for our impact. We also actively engage in dialogue with experts as we work toward improving our environmental performance and reducing operational impact. Some of our partnerships with industry experts include:

- Ceres Corporate Network, member
- Carbon Disclosure Project
- U.S. EPA SmartWay
- World Resources Institute (WRI) GHG Scope-3 Protocol for Products and Supply Chains
- Electronic Industry Citizenship Coalition (EICC)

### SUPPLY CHAIN COLLABORATION

We are an active member of the EICC and participate on a number of EICC working groups, including the Environmental Sustainability Working Group, the Extractives Working Group (which is developing a methodology for ethical sourcing of materials from Democratic Republic of Congo) and other working groups which cover social responsibility. To learn more, visit the Supply Chain section of this report.

### LOW-CARBON ECONOMIC PROSPERITY

Information technology has enormous potential to change the way people work and live, and to support a sustainable future. We participate in the [World Economic Forum Task Force on Low-Carbon Economic Prosperity](#), which generates recommendations for practical policies and incentives that will drive economic growth and limit GHG emissions.

### LEVERAGING IT FOR BROAD ENERGY EFFICIENCY

IT can contribute to dramatic reduction of GHG emissions by increasing efficiency across the economy. The Digital Energy Solutions Campaign (DESC) promotes the innovative and effective use of IT as an essential tool in managing climate change issues. As a member of DESC, we contribute to policy research and communications on the role of IT in an innovative, energy-efficient, and sustainable economy.





## CINDY LAN

Age 10

Parent: Kevin Lan

EMC Taiwan

## SUPPLY CHAIN

EMC's Global Supply Chain Management organization is committed to establishing and maintaining a world-class supply network in a competitive landscape. Socially and environmentally responsible supply chain management is central to this commitment.

- Supply Chain Responsibility
- Supply Chain Emissions
- Supplier Diversity
- Supply Chain Security
- Logistics
- Product Material Content
- Packaging



## RYAN LAWRENCE

Age 6

Parent: Rob Lawrence

EMC Australia

## 99

Percentage (by spend) of tier-one direct suppliers acknowledging EMC's Supplier Code of Conduct, as of December 2010

## SUPPLY CHAIN RESPONSIBILITY

Our Supply Chain Social and Environmental Responsibility (SER) program works to ensure conditions in our global supply chain are fair, legal, and safe. The program also works to reduce the environmental impact of our supply chain operations.

We work closely with our suppliers and industry peers to advance supply chain SER. With suppliers, we communicate our standards, examine their programs and performance, and engage with them at events and special education programs. We also include SER indicators in our supplier performance scorecard, which guides EMC purchasing decisions. In addition, as a member of the Electronics Industry Citizenship Coalition (EICC), we work with peers to improve efficiency and SER throughout our interconnected global supply chain.

## SUPPLIER CODE OF CONDUCT

EMC's Supplier Code of Conduct, first established in 2007, sets the minimum levels of behavior as a condition to do business with EMC, including guidance on environmental and social responsibility. EMC asks all tier-one direct suppliers to acknowledge the Supplier Code of Conduct. Tier-one direct suppliers are defined as those that supply EMC with materials used directly in our products. By the end of 2010, suppliers representing 99 percent of EMC direct tier-one spend acknowledged our Supplier Code of Conduct. The Supplier Code asks them to apply the same standards to their suppliers ("sub-tier management").

In November 2010, EMC revised the Supplier Code of Conduct and adopted the EICC Code of Conduct ("EICC Code") for our suppliers. The EICC Code establishes standards to ensure that working conditions in the electronics industry supply chain are safe, that workers are treated with respect and dignity, and that business operations are environmentally responsible. The code describes standards in the following five areas:

- Labor
- Health and Safety
- Environment
- Management systems
- Ethics

EMC supplemented the EICC Code with additional guidance in the following areas:

- Industry standards
- Compliance review
- Sub-tier management
- Combating trafficking in persons
- Improper gift giving

In 2011, we have begun communicating to our supplier base the principles of the updated Supplier Code of Conduct.

## SUPPLIER SELF-ASSESSMENTS

We not only ask our suppliers to acknowledge our Supplier Code of Conduct, we also measure their performance against it. EMC suppliers report performance against key social, environmental, and health and safety measures through EICC's self-assessment questionnaire (SAQ). This gives us increased visibility into supplier practices. In 2010, 77 percent of EMC direct tier-one suppliers spend was with companies that provided a current SAQ.

## SUPPLIER SAQ FEEDBACK

100 percent of suppliers who complete the SAQs receive detailed feedback from EMC on their performance. Suppliers with low scores overall, or on the most significant indicators of risk, are requested to submit corrective action plans.

In 2010, we requested corrective action plans from 29 percent of tier-one direct spend. Of that 29 percent, 79 percent completed corrective action plans by the end of 2010. In 2011, we continue to drive participation from suppliers in reporting performance, work with suppliers who score poorly, and use SAQ findings to inform program focus and development.

## AUDITS AND EDUCATION

Each year, EMC performs onsite audits of strategic suppliers. Along with other factors, low scores on the SAQ may indicate the need for an onsite audit.

Audits are performed by a qualified third-party professional auditing firm whose audits meet EICC's standards. In 2010, we audited 11 key supplier sites, and in 2011, will reassess high-risk supplier sites and schedule additional audits, if necessary.

The audits assess compliance with our Supplier Code of Conduct, as well as international and local laws, standards, and regulations in the following areas:

- Labor
- Ethics
- Labor and ethics management systems
- Health and safety
- Environment
- Environment, health and safety management systems

## OUR AUDIT SCHEME INCLUDES:

- Management interview and document review
- EHS facility inspection, interview and document review;
- Worker interviews
- Inspection of worker living quarters (dormitories or hostels), if applicable

In addition to conducting third-party audits, EMC participates in the EICC Validated Audit Program (VAP). The VAP is a collaborative effort of EICC and GeSI that allows participating suppliers to respond to the VAP questionnaire rather than those of different customers. Because EMC and many of our peers use the same suppliers, the VAP is a more efficient way to assess supplier performance.

EMC also considers hazardous materials practices when evaluating suppliers. We stress full traceability of all processes and equipment used as a condition to be able to build product for EMC. Non-conformities are addressed by EMC and the supplier to ensure issues are corrected and closed.

## SUPPLIER COLLABORATION

We take multiple opportunities to educate our supply base. Our annual Supplier Day agenda includes social and environmental program updates and reviews. We encourage suppliers to access online training available through the EICC, and in China, suppliers are invited by EMC to participate in regional EICC meetings focused on local issues.

## SOURCING OF MINERALS

EMC is committed to the ethical sourcing of minerals used in our products. Among other things, we are assessing whether our products contain tantalum, tin, tungsten or gold derived from ores mined in the Democratic Republic of Congo (DRC) and adjoining countries. These minerals are commonly used in electronics and other products. Some of the mining operations in the DRC are controlled by warring militias who we believe are financing armed conflict with profits from the sale of these minerals. This on-going conflict has been linked to human rights violations, labor abuses, and environmental degradation.

EMC is working diligently with suppliers and other stakeholders to improve and systematically address the process for sourcing minerals that are "conflict-free." The global supply

**5,000,000**

estimated reduction CO<sub>2</sub>e emissions through 15 projects at EMC's Franklin manufacturing facility in 2010

chain for these minerals is complex, and tracing the minerals in our products to their source is a challenge.

To reach our objectives, we are collaborating with industry peers, NGOs, governments, academics, and others. We are members of the EICC-GeSI Extractives workgroup which is developing programs for the responsible sourcing of minerals, such as Conflict-Free Smelter Validation and mineral traceability schemes. We also provide funding to the ITRI Tin Supply Chain Initiative pilot project to track the path of tin and tantalum in the DRC from the mine to the smelter.



**EGOR LEBEDEVA**

Age 9

Parent: Natalia Lebedeva

EMC Russia

**SUPPLY CHAIN EMISSIONS**

Accounting for our suppliers’ GHG emissions is essential to understanding the environmental impact of our supply chain. We ask key suppliers, who represent a majority of our tier-one direct spend, to calculate and report their scope-one (direct) and scope-two (indirect) emissions, as well as reduction targets and performance.

**GATHERING DATA**

EMC has been collecting GHG emissions data from tier-one direct suppliers since 2009. The disclosures are derived from both EICC and CDP methodologies.

In 2010, our goal was to collect scope-one and scope-two GHG emissions data and reduction goals from 95 percent (by spend) of direct tier-one suppliers. To this end, we requested disclosures from 98 percent of direct tier-one suppliers. In response:

- 82 percent reported Scope 1 and Scope 2 emissions
- 28 percent of these emissions reports were verified by third parties
- 31 percent reported carbon emissions reduction goals
- Of that 31 percent, 97 percent reported successfully achieving their goals

In addition, 23 percent of EMC suppliers reported their scope-three emissions and 13 percent reported their estimated water use.

We intend to continue tracking supplier performance against published reduction targets, and ask them to promote climate change management strategies among their tier-one suppliers— those that make up EMC’s tier two.

**CHALLENGES AND LESSONS LEARNED**

Although we missed our 2010 goal, we learned important lessons that are informing our program development. First, we underestimated the difficulty of getting GHG data from our many suppliers. While our larger suppliers are generally more advanced in carbon reporting, many of the smaller suppliers had difficulty calculating their emissions and required extensive education on methodologies and measurement. In 2011, we will continue to work with the suppliers who need guidance and training. We have also set a goal for 85 percent of our Tier 1 suppliers to report GHG emissions and reduction goals.

Second, many suppliers were not able to allocate a portion of their emissions to the products they built for EMC. Without this allocation, we are unable to truly calculate the emissions from our supply chain. We continue to monitor and assess emerging protocols for suppliers to allocate portions of their emissions to their customers.

As a result of the variance in data quality and completeness and the challenge of allocating portions of our suppliers’ emissions to our products, we are not currently publishing the emissions data from our supply chain. We will continue to develop our program and processes and work towards this disclosure goal.

**82**

Percentage of tier-one direct suppliers (by spend) that reported GHG emissions in 2010

**97**

Percentage of tier-one direct suppliers (by spend) reporting GHG emission reduction goals in 2010 that reported achieving established goals



## JOAN DENISE LUMBAO

Age 4

Parent: Dennis Lumbao

EMC Phillipines

## EMC SUPPLIER DIVERSITY MEMBERSHIPS

National Minority Supplier Development Council

Women's Business Enterprise National Council

## SUPPLIER DIVERSITY

Supplier diversity broadens our supply base, expands opportunity for historically disadvantaged people, and builds economic strength in our communities. Our Supplier Diversity Program promotes diverse supplier participation in EMC contracting and procurement.

## OUTREACH AND EDUCATION

Strategic outreach to diverse suppliers is the first step in broadening our supply base. Educating our purchasing personnel in best practices is an essential second step. Program activities include:

- Participating in workshops, seminars, and trade fairs geared toward diverse suppliers
- Quarterly training programs for EMC purchasing personnel
- Maintaining lists of prospective diverse suppliers for EMC buyers

Membership in key organizations gives us greater access to diverse suppliers. EMC's Office of Global Workforce Inclusion is a key internal partner in this work, helping us to manage and make the best use of our relationships with these organizations.

## GOALS AND MEASUREMENT

We set goals and assess performance regularly. We measure and track activity with certified minority- and women-owned business enterprises and federally defined small businesses. We report to the U.S. Federal government in compliance with regulations. Although this report is confidential, quarterly excerpts of EMC's Small Business Subcontracting performance report may be made available upon request.



## JULIA PACHO

Age 9

Parent: Julia Santos

EMC Spain

## SUPPLY CHAIN SECURITY

### BUSINESS CONTINUITY PLANNING

Our Business Continuity Planning (BCP) program ensures that the global supply chain is resilient and prepared, with strategies in place to adjust to disruptions without disturbing operations. This program assesses the business continuity preparedness levels of our suppliers, develops strategies for mitigation planning, and implements the procedures necessary to recover in the event of a disruption. We use the international standard of ISO 22399 and use it as a baseline for measuring supplier BCP programs.

### SECURITY CERTIFICATIONS

To sustain our global business, EMC relies on secure and timely transport of international supply chain shipments. We work with governments to attain certifications for our supply chain security programs. This certification gives us faster, simpler processing for shipments coming through customs inspections and helps government officials with securing harbors and borders.

Our manufacturing facilities are based in the U.S. and Ireland, so our supply chain security certifications are especially important in those countries. In the U.S., EMC is a validated member in the Customs Trade Partnership Against Terrorism (C-TPAT), a U.S. Customs and Border Protection program. We employ best practices in the C-TPAT program to cooperatively develop solutions to address potential vulnerabilities in shipments coming into the U.S.

EMC Ireland has been a certified European Union Commission Authorized Economic Operator (AEO) since 2009.



### CAROLINE PAHL

Age 10

Parent: Mark Pahl

EMC Oregon

**98**

Percentage of EMC domestic freight shipped with SmartWay certified logistics providers

## LOGISTICS

The EMC Logistics organization is focused on increasing efficiency and effectiveness in the transport of our products.

In 2010, we continued to make strides in process efficiencies, resulting in reduced transport miles as well as decreased GHG emissions. We formed a global logistics sustainability committee that reviews industry trends and pending regulations and designs a proactive strategy for EMC's global logistics organization. We also incorporated sustainability criteria in our selection of freight carriers, including environmental certification standards, investment in environmental initiatives, and fair labor practices. In this way, EMC Logistics weighs economic, social, and environmental impacts in order to maximize EMC's commitment to our customers.

## FREIGHT UTILIZATION

Consolidating product shipments increases fuel efficiency by reducing miles traveled. EMC's eight Merge-in-Transit (MIT) centers advance these goals by:

- Consolidating products from multiple sources and bundling customer orders so fewer trips are made
- Combining product shipments coming back to EMC through trade-ins or the product take-back program
- Expanding our Asian MIT centers to service growth in the region.

In 2010, we made significant improvements in route optimization, allowing us to select more fuel-efficient methods of transport when appropriate. We continuously analyze major shipping lanes and transportation choices. By carefully selecting between air, ground, sea, and intermodal transport, EMC is not only reducing harmful GHG emissions but also cutting operational costs.

## SMARTWAY

EMC is a member of the SmartWay Transport Partnership, a program of the U.S. Environmental Protection Agency that works with freight companies and their customers to reduce environmental impact and certifies transport suppliers who are leaders in environmental performance. As a part of our partnership, we include SmartWay certification as a requirement in domestic transport supplier selection. In 2010, we moved over 98 percent of our domestic freight with Smartway certified logistics providers.





## ALEJANDRA TORRES PUCHE

Age 9

Parent: Diana Puche

EMC Colombia

100

Percentage of newly designed printed circuit boards that are BFR-free

## PRODUCT MATERIAL CONTENT

Information technology devices contain potentially hazardous chemicals and heavy metals that can cause adverse reactions to ecological and human health. To protect people and the environment, EMC takes a proactive approach to minimizing the use of these substances in our products by finding alternative materials. We also take proactive measures to prevent these substances from entering the natural ecosystem.

## DESIGN FOR ENVIRONMENT

Our Design for Environment (DfE) program incorporates environmental considerations throughout product design. EMC engineers take what we have learned about the environmental impact of existing product design and materials and use that knowledge to implement best practices for ongoing design.

## FINDING ALTERNATIVES

To eliminate environmentally sensitive materials in our products, viable alternatives must be found. When we believe that a material is of concern we take a proactive and precautionary approach by exploring alternatives that are safer for ecological and human health.

Our Material Sciences Lab collaborates with industry and academia to identify and qualify alternatives that meet the same or higher levels of reliability, cost effectiveness, performance and availability as the materials we currently use. When a suitable alternative for a material is found, we eliminate or reduce use of the material of concern where technically and economically feasible, even if use of that original material is permitted by law.

## ALTERNATIVES FOR BFRS

We set our 2010 goal to reduce brominated flame retardants (BFRs) by 50 percent in all newly designed printed circuit boards (PCBs) for EMC core products. We are pleased to report that we met, and exceeded, our goal.

Through analysis and investigation with our supply chain and manufacturing, we identified a material in 2009 that met both EMC's and our customers' rigorous requirements for product performance, availability, and continuity of supply, cost viability, and long-term reliability. In early 2010, we implemented the use of this halogen-free flame retardant in every newly designed PCB.

## ALTERNATIVES FOR PVCS

As with BFRs, we proactively collaborated with suppliers to identify and test alternative materials to reduce polyvinyl chlorides (PVCs) in our products. PVCs are used in cable jacketing in our enterprise storage platforms.

EMC is one of the first companies to qualify an alternative to PVCs and take steps toward its implementation in new product design. However, as a result of low industry demand, there are challenges of cost and continuity of supply for this substance. Therefore, our 2010 goal to reduce PVCs by 50 percent was not attained. The reduction of PVCs in our products remains a priority, and we continue to work with suppliers to develop a transition plan.

## ALTERNATIVES FOR PHTHALATES

Phthalates are frequently used with PVCs to improve their plasticity. We are proactively looking for substances to substitute for phthalates, even though their use is still permitted. Working with the Green Chemistry and Commerce Council (GC3), we are researching alternatives that will meet the qualifications for use in our products, and also reduce impact on the environment and human health.

## **FULL MATERIAL DISCLOSURE**

In 2010, EMC launched a Full Material Disclosure (FMD) database to catalogue and trace substances used in EMC core products.

EMC asked direct suppliers to identify, by CAS number (a unique identifier for chemical substances), materials used in every part of EMC core products. Compiling this database is complex, due to the sheer number of parts in our hardware products, the constant evolution of our product portfolio, and the maturity level of each supplier's infrastructure to enable them to provide FMD declarations. We continue to proactively pursue completion of the FMD database. Our goal is to reach 65-percent completion of the FMD database in 2011.

## **VOC EMISSIONS**

EMC produces negligible VOC emissions from our operations. VOC is not material to our manufacturing operations. Other than minor spray paint touch-up processes, we do not have painting or coating operations or other VOC-containing processes.



## REBECCA WINKLER DAMICO

Age 7

Parent: Jorge Damico

EMC Brasil

## RETURNABLE PACKAGING FOR CUSTOMERS

Returnable packaging reduces waste for our customers. Our returnable packaging program identifies opportunities for EMC to reclaim and re-use product packaging. One new returnable, reusable packaging design for large orders of new drives eliminates material disposal at customer sites, reducing waste by more than 13,000 kg annually compared with the previous non-returnable packaging.

## PACKAGING

We believe that EMC packaging should minimize environmental impact without compromising product protection. We continuously evaluate and make improvements in material composition, weight, and waste stream. In 2010, we are working on evaluating our metrics and process for reporting our packaging.

## MATERIAL SELECTION

Our packaging is free of polyvinyl chlorides (PVCs) and polystyrenes, which pose health risks to humans and other animals. We are currently evaluating substitutions for polyethylene and polyurethane foam, which has hazardous by-products.

Our shipping pallet suppliers purchase the majority of their wood from sources certified by the Forest Stewardship Council and Sustainable Forestry Initiative. We treat the wood to ISPM 15 standards, which prevents invasive pest infestations without using harsh chemicals.

## PACKAGING EFFICIENCY

Our continuous improvements in packaging efficiency are not only saving money and GHG emissions, but they are also being championed as an examples of innovation. At the 2010 EMC Innovation Conference, two packaging redesign projects won the Environmental Sustainability Award. In one, we implemented a new disk drive packaging design that reduced the package size by 50 percent and the weight by 28 percent. In the other, we replaced a single-use cardboard package for a storage cabinet with a collapsible, returnable package. This package had been introduced in 2009 for returned material, and its use was expanded to new product shipment in 2010. Together, these two new designs are saving more than \$350,000 annually and avoiding GHG emissions equivalent to 153 cars.

Working with our suppliers, we are developing reusable packaging to reduce material use and waste. For example, in 2010 we worked with two suppliers who were shipping the same product to us, but in very different packaging. By sharing the efficient packaging design of one supplier with the other, we were able to influence a design with greater product density, less packaging material per product, and with no foam. Not only will this design reduce material use, it will reduce fuel consumption in transport and associated GHG emissions.



## BEN CAPITEL

Age 7

Parent: Jason Capitel

EMC Texas

# ENGAGED PEOPLE

## OUR WORKPLACE

Inside EMC we are cultivating a culture of inclusiveness, innovation, and education. Diverse employees who are encouraged to pursue lifelong learning make the best, most innovative IT solutions possible. We also seek to create a safe, healthy, engaging, and supportive workplace for our employees to thrive.

- Global Inclusion
- Career Development
- Innovation Conference
- Global Collaboration
- University Relations
- Leveraging Global Talent
- Health and Wealth Benefits
- Health and Safety
- Managing Change
- Customer Relations
- Information Privacy

## OUR COMMUNITIES

The future will demand a highly skilled IT workforce of engineers and scientists. We are investing in the future through engagement in education policy and support of academic initiatives around the world. In addition to our investment in education, our employees contribute their time and talent to our global communities. And our Information Heritage program is digitally preserving cultural treasures for future generations.

- Education Public Policy, Partnerships and Alliance
- Community Involvement
- Information Heritage



## SARAH COSTA

Age 5

Parent: Kleber Costa

EMC Sao Paulo Brazil

## GLOBAL INCLUSION

To sustain our relevance and vitality for the long haul, we strive to attract and retain talented people who reflect the diversity of the global marketplace and who can continue to develop innovative solutions for our customers. Building a fully inclusive and diverse organization within our workforce of more than 48,500 people continues to be a strategic imperative and part of our long-term vision.

We recognize that diverse organizations are not necessarily inclusive, and inclusive organizations are not necessarily diverse. We drive inclusion throughout our organization and empower our employees to embrace the importance of creating a fully inclusive environment across EMC. Our strategy has three dimensions: executive accountability, talent management, and continued global expansion of our inclusion initiative.

## EXECUTIVE ACCOUNTABILITY

Our executives are personally involved in executing EMC's diversity strategy. Senior executives receive key diversity metrics twice a year and are directly involved in developing new strategies and action plans. Our executives help drive tighter alignment of diversity goals with the company's overall strategy and within their own organizations.

## TALENT MANAGEMENT

Investing in diverse, high potential employees helps to build a culture of inclusion. We support retention, development, and promotion across constituencies through targeted mentoring and coaching programs. For example, we have summer internship programs with the United Negro College Fund and the National Action Council for Minorities in Engineering to aid in developing a diverse pipeline of future employees.

As the demographics of the global marketplace continue to change, the war for talent will tighten and we must excel in this area to remain a technology leader. Inclusion drives higher levels of innovation; we are working to ensure that EMC provides an inclusive culture where our employees feel that their new, innovative ideas are welcomed and appreciated.

Our Office of Global Workforce Inclusion uses our Organization and Talent Review process to identify and develop high potential employees across constituencies. The office also helps to adopt succession plans to advance diverse leadership. We continue to develop new programs to aid in the development and retention of our people. One example is the "Leadership in the FastLane at EMC" program. This program is targeted at senior-level women with executive aspirations. More than 100 women have been nominated to participate in this program over its two years of existence. To learn more about talent management at EMC, please read our section on Career Development.

## EXPANDING THE INITIATIVE

Our customers, employees, suppliers, and communities expect to experience a culture of inclusion and trust. Expanding our global presence in key markets brings us closer to our customers and allows us to cultivate new talent worldwide.

Our supplier diversity program broadens our supply base, expands opportunities for historically disadvantaged people, and builds economic strength in our communities. Our commitment to full citizenship in the communities around the globe where we conduct business and where our employees live sustains efforts that benefit underrepresented populations.

Strategic partnerships help increase our attractiveness as an employer, provide professional development, and drive greater levels of diversity within our employee ranks. Partnerships renewed in 2010 included:

- Premier sponsor of Simmons School of Management Leadership Conference
- Vision Sponsor of the Bangalore Advancement of Women Global Conference, organized by Working Mother Media

## 100+

Women nominated for Leadership in the FastLane executive development program

## EMC LAUNCHES FIRST VETERAN'S EMPLOYEE CIRCLE IN NORTH CAROLINA

EMC encourages employee engagement by fostering grass-roots efforts to create Employee Circles around the globe. EMC launched the first Employee Circle for veterans in 2010 in our North Carolina operations. The new circle provides a platform for EMC veterans and other interested individuals to reach their full personal and professional potential through mentoring, networking and leadership opportunities. During their first year, the Veterans circle sent care packages for troops overseas, assisted the NC Apex facility with the North Carolina Wildlife and Industry Together (WAIT) certification and in developing other activities in their community.

- 100 Black Men Robotics

## EMPLOYEE EDUCATION AND ENGAGEMENT

We seek to have all of our employees become daily practitioners of our inclusion philosophy. EMC's Essential Curriculum (see Career Development) includes diversity and inclusion courses which aid employees in fostering a welcoming environment for all people. These courses are also essential to promoting full inclusion and engagement of all employees—making them part of the mainstream business and yielding higher levels of productivity for the company.

Employees are also engaged through the EMC Employee Circles. The Employee Circles are organized and run by employees with the support of EMC executives who sponsor or co-sponsor each group. These circles offer assimilation support to new employees, networking avenues for existing employees, and personal and professional development. EMC's eight employee circles, organized around different constituency groups, are open to employees and contractors of all backgrounds. More than 4,000 EMC people in three countries are members.

Employees recommend new focus areas for new circles. In 2010, we launched two new employee circles— the Disability Employee Resource Group and the Veterans's Circle. We continue to monitor employee requests for new circles and add them as employee interest and enthusiasm warrants.

2,090

“High-potential” employees identified in EMC Talent Review



EMC achieved #6 ranking in corp U Training Top 125 list in 2010. The list highlights organizations that excel at employee training and development.

## INNOVATIVE IDEA LAUNCHES CLOUD COMPUTING DEGREE FOR EMC EMPLOYEES

The customer demand for cloud computing has created a demand for individuals educated in cloud computing solutions. In 2010, EMC employees from our Ireland Center of Excellence in Cork earned a 2010 Innovation Award at our annual Innovation Conference for the creation of a degree in Cloud Computing. The idea became a reality as EMC and VMWare partnered with Cork Institute of Technology (CIE) to offer a BSc (Level 7) and MSc (Level 8) degree in Cloud Computing. In September 2010, 30 students enrolled in the first course of the 18 month program available to EMC employees. Modules on storage, networking, virtualization and security are complemented with laboratory work at the CIT campus, giving our employees access to the tools to meet their career aspirations. The curriculum roadmap has a 2011 goal of offering the program remotely to other EMC COEs and units around the globe.

## CAREER DEVELOPMENT

We want talented people at EMC. And we believe talented people want to create and achieve their individual professional goals. We empower our employees to develop their own careers. We task our managers with helping our people achieve their goals, learn new skills and find opportunities for growth.

## PERFORMANCE MANAGEMENT

Every employee has an annual performance review to discuss strengths, skills, and development needs. Employees can work with their managers to create Individual Development Plans (IDPs). These plans set professional development goals that align with the employees' career aspirations and the needs of the business.

## LEARNING AND DEVELOPMENT PROGRAMS

EMC University's Learning and Development programs are designed to attract, retain, and develop the best talent and enhance their ability to execute corporate strategy. Employees learn core competencies through our Essential Curriculum, which provides a level-specific roadmap for employees from entry-level to executive.

## MANAGING TALENT IN ACQUISITIONS

Retaining top talent is one of the primary goals following any merger or acquisition. Early in the process, we create an assimilation plan to balance integration into EMC while maintaining important aspects of the acquired company's culture.

## TALENT REVIEW PROCESS

Talent is the engine that fosters innovation and growth for EMC's future. Each year we conduct an Organization and Talent Review to plan our leadership and talent agenda for the future.

Each Executive Vice President (EVP) meets with EMC's CEO and EVP of Human Resources to identify our high-potential employees and critical talent. This process yields a plan to actively engage and retain these employees through movement across business units and geographies, promotions, and targeted development opportunities to prepare them for their next role at EMC.



## BHUVI DANGE

Age 5

Parent: Abhijit Dange

EMC India

### Environmental Sustainability Award 2010

## SUSTAINABILITY PRACTICES IN EMC PACKAGING

In 2010, a cross-functional team earned the Innovation Conference Award for Environmental Sustainability for a green packaging proposal. Their redesigns included two parts: smaller, lighter and more protective packaging; and an innovative collapsible design for larger packages that is reusable. The team forecasts an annual reduction of 1.2 million pounds of material and nearly 50% in weight. The configuration forecasts a potential avoidance of 1.7 million pounds of CO2 per year.

## INNOVATION CONFERENCE

2010 marked the fifth year of the annual EMC Innovation Conference. This event showcases our employees' talents and highlights innovative ideas that are helping shape EMC's future.

Employee teams submit ideas for innovative solutions that help both EMC and our customers better compete, save money, mitigate risk, and create more value from their information.

Our judging panel selects ideas to be incubated for new product and process development. In addition to overall winners, ideas are selected for awards from specific organizations and functions including Ireland COE, CTO office, EMC Symmetrix and Virtualization Products Group (SVPG), Information Intelligence Group (IIG), Data Computing Products Division (DCPD), Backup Recovery Systems (BRS), and RSA. Special award categories also include Environmental Sustainability, Sales Innovation, Social Innovation, IT, Total Customer Experience, and Diversity and Inclusion.

## SOCIAL MEDIA, GLOBAL REACH

Our employees use EMC|One, our internal social media site, to collaborate and submit ideas to our annual Innovation Conference. In 2010, a record 1,506 proposals were submitted by employees from 26 countries.

Community voting plus evaluation by expert judges narrowed the field to 47 finalists. The 20 winners were selected and recognized at our Innovation Conference hosted in Cork, Ireland in October 2010. More than a dozen other offices around the world hosted mini-conferences, connecting to the Cork event via live webcast.

## THE 2010 INNOVATION CONFERENCE WINNERS WERE:

**First Place (and Social Innovation award winner):** a joint USA and Pakistan team developed a sustainable, low cost storage platform for supporting health data systems in developing countries. The proposal addresses developing world challenges for IT storage such as power reliability, transport and maintenance.

**Second Place:** a USA team from California, Massachusetts and Texas proposed an easy application deployment for Network Attached Storage.

**Third Place:** a joint team from Berlin and Cologne, Germany proposed a home entertainment solution for our IOMEGA network attached storage devices.

**Honorable Mention:** an Ireland COE team developed a Total Customer Experience (TCE) innovation allowing for optimization of field replacement tools with a new mobile application.

**People's Choice:** a team from India developed a user friendly application allowing for faster and easier installation of common software.





## DOUGLAS HOBBS

Age 10

Parent: Kevin Hobbs

EMC Washington

**54%**

of full-time college hires graduates from  
EMC's key schools

**10**

countries with EMC University Relations  
programs

## UNIVERSITY RELATIONS

Universities play a key role for technology companies as a source of talented future employees and partners in advanced research. University Relations is our centralized corporate resource for creating, identifying, and managing strategic partnerships between universities and EMC's business groups.

### SUPPORTING THE BUSINESS STRATEGY

University Relations works closely with the Academic Alliance, Innovation Network, Office of the Chief Technology Officer, Centers of Excellence, Office of Global Workforce Inclusion, Office of Sustainability, and Community Involvement. This internal collaboration leads to the selection of EMC's key schools, where we have developed recruiting, research, and faculty relationships. University Relations is active in 10 countries: China, Egypt, Germany, India, Ireland, Israel, Russia, Singapore, the U.K., and the U.S.

In 2010, 54% of our full time college hires graduated from our key schools. We also expanded our co-op program at four new schools in the U.S. to develop our pipeline of college hires.

### RECRUITING FOR DIVERSITY

We have a diversity recruiting program at three key schools in the U.S. The program begins with special programming and mentoring opportunities for first year students, and extends over the four years of their schooling. Our goal is to nurture strong relationships with these students so they will join EMC upon graduation.



## MAYA DVIR

Age 10

Parent: Michal Yahav Dvir

EMC Israel

## 7

Centers of Excellence on four continents

## LEVERAGING GLOBAL TALENT

It is important for us to be close to our customers in our more than 100 markets. New pools of talent are blossoming around the world, and we are on a journey to find the best minds everywhere. To foster our global strategy, our Centers of Excellence (COE) cultivate local talent and expand our presence in key markets around the globe.

## LOCAL EXPERTISE, GLOBAL COLLABORATION

We operate COEs in seven countries: China, Egypt, Ireland, India, Israel, Russia and the U.S. Our COE model drives operational, financial, and project efficiency by leveraging locally available talent. The organizations coordinate initiatives with local university programs, government relations initiatives and community involvement efforts for maximum impact.

Each COE leverages specific expertise and skills in their markets to advance our business strategy. The employees perform essential services for EMC business units, including engineering R&D, customer service, translation services, tech support, and back office processing. Each COE is managed locally and a cross functional board consisting of EMC's senior executives oversees strategy and investment decisions. One unique advantage of our COE model is that employees from different business units have more opportunities for cross functional collaboration.

Many technology companies are seeking to hire top talent in our COE locations. Our COEs work closely with University Relations, the Academic Alliance, Corporate Training, and the Innovation Network on our local recruiting strategies. We continue to emphasize employee retention, and have kept attrition rates below the market average in each of our COE locations.

**“EMC’s effort to expand its global presence and invest in Centers of Excellence in India, China, Israel, Russia, and Egypt has resulted in the creation of sustainable environments around the world that deliver innovation and enable local market presence for EMC.”**

SANJAY MIRCHANDANI,  
SENIOR VICE PRESIDENT AND CHIEF INFORMATION OFFICER, EMC

## PARTNERING WITH SALES

Our COEs and local sales teams have developed a collaborative relationship to organize products, services solutions and support strategies focused on their local markets.



## PETER EMSCHERMANN

Age 12

Parent: Peter Emschermann

EMC Germany

## PARTNERSHIPS TO BENEFIT EMPLOYEES

Strong partnerships are essential to advance our employee health programs. Our approach to health management includes hosting a partner and vendor summit to review EMC's healthcare strategy. A centerpiece of this event is a brainstorming session to generate innovative ideas from our participants about how we can advance our vision and goals for employee health. Our next summit is scheduled for 2012.

We also partner on medical studies that benefit EMC employees. DASH for Health is an optional web-based nutrition and health program conducted in partnership with Boston University. The program reduces health care costs to employees with heart health risks, and the findings were written up in the [Journal of Medical Internet Research](#).

SmartBeat is a pilot program for remote patient blood pressure monitoring that was conducted with the Centers for Connected Health. Based on the success of the pilot program, we brought the program to our U.S. employees and their family members in 2011. An enhancement created as a result of the original study is the ability to upload blood pressure readings into the individual's PHR.

## HEALTH AND WEALTH BENEFITS

At EMC, we use the power of IT to help employees manage their own health and wealth. Our tools and resources enable employees and their family members to understand their individual status, get information targeted to their needs, improve their health, and grow their wealth.

### HEALTHLINK

HealthLink, EMC's health management portal powered by WebMD, offers an optional Personal Health Record (PHR) for employees to manage their healthcare information. It has been accessed by more than 90% of EMC's U.S. employees and more than 55% of spouses/domestic partners. Users enter health information into a confidential, secure portal and receive targeted communications about resources to help them with their individual health needs. Users may also choose to share information in the PHR with their healthcare providers.

The PHR helps employees and their adult family members review complete clinical data with their healthcare providers, avoid duplicative tests and procedures and manage drug interactions and side effects.

This health management approach has improved health outcomes and contained healthcare costs for employees and for EMC. The per capita cost for healthcare at EMC is below the national trend.

### INFLUENCING THE HEALTHCARE IT MARKETPLACE

EMC was the first employer to sponsor an electronic PHR, launching it in 2004. Since then, EMC is playing an increasingly influential role in accelerating the movement to harness the full potential of digital technology to improve health. In fact, our innovation and expertise in healthcare technology and in employee benefits are being sought out by Fortune 500 companies, business leaders, and the Commonwealth of Massachusetts.

### WEALTHLINK

WealthLink provides employees with the opportunity to learn about investment strategies and how to develop their own wealth management plans to meet their individual needs and goals.



## ZHU CHEN JIAHE

Age 10

Parent: Zhu Zhongxiang

EMC China

## OUR OHSAS 18001 FACILITIES CERTIFICATION STATUS IS:

- Ireland manufacturing facility certified since 2005
- Massachusetts manufacturing facility certified in 2009
- North Carolina manufacturing facility certified in 2010

[Health and Safety Policy](#)

## HEALTH AND SAFETY

We work to ensure that our worldwide operations and facilities are safe and healthy environments for our employees, visitors, and everyone who may be affected by our operations. Protecting the health, safety and general welfare of all our employees is not only the right thing to do but also the smart thing to do. Certified professionals manage our occupational health and safety programs, and we engage employees to help us improve our performance.

## HEALTH AND SAFETY MANAGEMENT

Our global Environmental Health and Safety management system is certified to OHSAS 18001, the global standard for excellence. As an IT company, our health and safety risks are primarily in our manufacturing facilities. We focus our facilities certification work on those locations.

At each of our manufacturing facilities, comprehensive Job Safety Analyses and risk assessments support and drive our policies and procedures. We conduct audits and inspections to ensure these policies and procedures are effectively carried out. Employees take health and safety training relevant to their work through on-line and instructor-led courses. Employee-led Safety Action Teams meet regularly to review safety issues, perform audits, and organize training programs.

## HEALTH AND SAFETY VIOLATIONS

We were not cited in any OSHA health and safety violations in 2010.

## PANDEMIC PREPAREDNESS

EMC recognizes that communicable diseases may pose a potential threat to the health of our employees, our business operations and our global customers. In the event of a major outbreak, we will take direction from health experts to minimize the impact. EMC's Global Pandemic Preparedness Team has a detailed preparedness plan to help employees and customers around the world deal with pandemics at every phase. Our goal is to assure our employees, customers, and vendors that our Global Preparedness Plan will help minimize interruption to our operations, our customers' operations, and our supply chain.



## MIEKE WEPENER

Age 6

Parent: Christo Wepener

EMC South Africa



### #3

EMC Ireland rank in Ireland Great Place To Work 2011

EMC Ireland earned a [Great Place To Work](#) top rank for the third year in a row in the Ireland, Europe category. The annual survey evaluates company and employee input, as well as company programs and culture. EMC Ireland employees were surveyed for the 2011 award.

## MANAGING CHANGE

Global economic upheaval, acquisitions, and restructuring have become common in the 21st century. We work hard to make any transitions resulting from these events as smooth as possible for employees, in order to retain top talent and preserve relationships with our employees.

We take measures to reduce costs before resorting to workforce reductions. We believe this strategy makes us more operationally efficient and fiscally stronger, and generates goodwill and an organizational team spirit that helps us retain our talented people.

## REDUCING COSTS FIRST

Our Cost Transformation Program (CTP) was launched in 2008 to save non-people-related costs and improve the company's cost discipline. The CTP has saved millions of dollars since its inception and reduced our environmental impact as well. This program includes:

- Extending the life of IT assets, especially personal computers and servers
- Reducing energy consumption in labs, data centers, and facilities
- Increasing e-conferencing and reducing travel
- Reducing printing

## RESTRUCTURING PROGRAM

In the course of conducting normal business operations, EMC is occasionally required to reduce headcount in certain areas of the business, reallocate investments, de-emphasize less productive initiatives and focus new efforts in areas of opportunity. Any of these actions can result in valued employees leaving our business involuntarily. EMC takes these actions only after thoughtful consideration and with an empathic understanding of the impact our actions can have on the lives and careers of our team members.

When we are required to take the difficult action of severing employment, our mission is to assure each individual is treated with dignity, fairness and respect. In the U.S. we offer a separation package that consists of base pay and certain benefits continuation, including medical, dental, and vision coverage. We also offer job search assistance provided by a third-party organization and paid for by EMC. Internationally, EMC severance packages vary by country to comply with local law.

Another goal is to make sure that exiting employees retain their affinity for the company and that they would willingly rejoin our team when business conditions allow. We have created an EMC Alumni website to encourage former employees to maintain contact and stay connected to the EMC network.



## KYLEIGH FAULKNER

Age 7

Parent: Michael Faulkner

EMC Massachusetts

## EMC WORLD

Each year, we host EMC World, the ultimate information exchange for our customers and partners. The event attracts thousands from around the globe, offering unparalleled access to EMC's entire portfolio of software, platforms, solutions and services, as well as innovative ways to leverage our leadership in IT. With employees from all levels of our organization attending, EMC World offers an opportunity to network with both executives and peers.

## EMC TCE

When customers speak, EMC acts

Customers drive the EMC support organization

[ECN on emc.com](#)

## CUSTOMER RELATIONS

We actively engage our customers as part of our commitment to quality and service.

### TOTAL CUSTOMER EXPERIENCE

EMC's Total Customer Experience (TCE) is a company-wide commitment to exceed customer expectations for quality, service, innovation, and interaction. We listen via an extensive "voice of the customer" survey process that evaluates the entire EMC relationship. We establish initiatives in areas that our customers have identified as most impactful to them. For example, we ask customers to identify dimensions of environmental sustainability that are most important to the way in which they operate their businesses and use the results to help prioritize our projects. We deliver results through a disciplined process for continuous improvement that is tied to specific metrics and goals established through these surveys.

To drive the importance of TCE at EMC, an annual TCE Excellence Award is presented to an individual or team who most demonstrates EMC's commitment to the Total Customer Experience. In 2010, 13 candidates were nominated for our TCE Excellence Award honor. For the first time in EMC history, three award recipients were recognized in three categories: TCE Excellence Award, TCE Excellence Field Award and TCE Excellence Individual Award.

Our 2010 TCE Excellence Award was awarded to a Customer Live Initiative Chat team. The initiative was recognized for its innovation and facilitation of the overall customer experience by leveraging online chat to expedite our response time to help our customers. The 2010 TCE Excellence Field Award recognized a team that created and tested a way to migrate customer data to Celerra, with significant reductions in down time and an overall operational impact improvement of data migrations. The project reduced downtime from an entire weekend to less than 4 hours. The individual who earned the 2010 TCE Excellence Award was recognized for outstanding service to EMC and with a customer in Latin America.

The TCE program also leverages EMC's annual Innovation Conference (please see Innovation Conference section). The 2010 TCE Innovation Award was awarded to a team for an idea to integrate a private wiki tool into our product documentation to better engage with providing support and receiving feedback from our customers to assist with their needs.

### CUSTOMER FORUMS

Our Customer Council program is designed to gather customer feedback on our products, services, and solutions. Since its launch in 1993, the Customer Council has served as an important sounding board for EMC, helping us set our roadmap and business strategy.

Our Chief Technology Officer's (CTO) office has a forum called the Industry Technical Advisory Council. Our CTO meets with a select group of leading-edge customers to discuss their IT challenges and our evolving technical strategy.

### EMC COMMUNITY NETWORK ON EMC.COM

The EMC Community Network (ECN) on emc.com is an evolving collection of global online communities that leverage social networking technologies and practices to foster more collaborative relationships among EMC employees, customers, and partners.

This community is an open online portal where anyone, including customers, developers or just those curious about IT, can find and share ideas through our blogs, social networking tools and RSS feeds by connecting to our leaders, experts and products teams.



## FOSTER CRIPPS

Age 9

Parent: Kaisa Holloway Cripps

EMC Massachusetts

## INFORMATION PRIVACY

Our approach to information security is straightforward: use appropriate administrative, technical, and physical measures to protect personal and confidential information. Our goal is to protect innovation and collaboration within our company, and secure confidential and personal information shared with us by our customers and partners. This is core to sustaining EMC's assets and preserving the trust of our customers.

We look at the security components at each point in our value chain, assess the vulnerabilities, and then implement solutions that advance overall business results. Our internal board of directors, which includes senior management, meets periodically to review and approve our information security strategy, which is delivered by our Global Security Organization (GSO).

## R&D FOR SECURITY SOLUTIONS

EMC's IT Proven Program is a test bed for EMC technologies in our IT operations. The GSO is implementing EMC security solutions across the enterprise, tackling the same problems that our customers face in their organizations. In so doing, we can test our own products, demonstrate their effectiveness in an enterprise, provide realistic feedback on their performance, and drive future product innovation.

## INTEGRATING SECURITY ACROSS THE ENTERPRISE

Our Critical Incident Response Center (CIRC) consolidates all information security incident management cases into our Critical Incident Response team with locations in Bedford, MA and Bangalore, India. This centralized management ensures more efficient and effective resolution.

## SUPPLY CHAIN SECURITY

One component of EMC's security strategy is to ensure our ability to securely design, implement, deliver, and service our products. The GSO, in conjunction with the EMC Product Security Office (PSO), manages risk across the full supply chain. This includes credentialing, secure product design, the product development life cycle, the protection of intellectual property, and our support and service delivery capabilities.

## CUSTOMER SECURITY MANAGEMENT OFFICE

EMC's Customer Security Management Office (CSMO) is an intermediary between customers and the EMC business units that access customer information. The CSMO takes requests and suggestions from customers on the protection of their information, and works directly with EMC departments — from IT and product development, to customer service and finance — to continuously improve internal operations with the goal of meeting industry best practices or higher.

## ISO 27001 CERTIFICATION

EMC's security program is based on the ISO 27001 standard for security management systems. We also seek ISO 27001 certification for select business units as the business need arises. Nine business units in four countries are ISO 27001 certified, including all of our RSA data centers servicing the RSA Identity Protection and Verification products.

## EMPLOYEE TRAINING AND CREDENTIALING

EMC employees and contractors must complete annual security training sessions relating to protection of confidential and personal information. Employees who work on customer sites, including our sales force and field engineers, must undergo additional annual training. Our credentialing program makes a consistent, world-wide practice of conducting background checks for EMC employees to ensure they are not a risk to the company or our customers.

**100%**

Of our employees have background checks completed through our credentialing program.



The Security Division of EMC

## ANNUAL RSA CONFERENCES BRINGS SECURITY EXPERTS TOGETHER FROM AROUND THE GLOBE

RSA developed the RSA Conference in 1991 as a forum for cryptographers to gather and share the latest knowledge and advancements in the area of Internet security. Over the years, it has evolved to become the industry's foremost IT security conference on the industry's most important issues. There are annual events in the USA, Europe, and China.

## EMPLOYEE AND CONTRACTOR INFORMATION

Just as we do for our customers, EMC protects the confidential and personal information of our employees and contractors. We use personal information for a variety of human resources programs and other functions related to employment. Beyond the necessary uses for business purposes, we do not share employees' personal information with third parties, except as otherwise permitted or required by applicable laws or regulations.

## SECURITY IN A CHANGING WORLD

An ongoing challenge for our GSO is implementing security for new, rapidly changing technologies. As our company grows, we are becoming a hyper-extended enterprise, sharing information with more people, using more technology tools across more geographies than ever before. However, our strong information security strategy and practices are preparing us well for this challenge.

## TRUST IN THE CLOUD

Clouds and virtualization offer powerful new ways to manage and use digital information. However, they also create new complexities for organizations, including the fundamental challenge of getting the right information to the right people over an infrastructure that they can trust. Clouds and virtualization have irrevocably changed the nature of control and visibility: infrastructure becomes virtual, not physical. People access infrastructure from devices that are outside of IT's direct control. Information moves with incredible speed across networks and the cloud, making it hard to know where sensitive information resides. And with an IT infrastructure that is virtual and shared via the cloud, organizations must learn new ways to achieve visibility into risks, threats, and compliance performance.

The formula for building trust in the cloud is to achieve control over and visibility into the cloud's infrastructure, identities, and information. The technologies needed to establish this level of cloud control and visibility already exist for both internal (private) clouds and cloud services delivered through external providers.

EMC, our security division RSA, and VMware have leveraged our experience and expertise in information management, security, and virtualization to deliver control and visibility in the cloud. Our solutions are closely integrated within VMware's virtualization platform to take full advantage of the virtual layer's unique control and visibility capabilities.

Today, we each offer products and services addressing the biggest challenges surrounding trust in the cloud including information control, infrastructure, and identity. Read more about our approach in our [Trust in the Cloud Whitepaper](#).





## JOSEPHINE HELIN

Age 6

Parent: Sebastien Helin

EMC France

## 1.2 MILLION

dollars raised for the Michael Carter Lisnow Respite Center in 2010

In 2010, EMC joined with other businesses to support [Change the Equation](#). Through this group, we will partner on various national policy issues and drive state-by-state plans to advance student achievement in science, technology, engineering and mathematics (STEM) education.

## EMC VOLUNTEERS SUPPORT STEM IN NC AFTERSCHOOL PROGRAM



EMC's commitment to STEM education is reinforced by a volunteer afterschool program undertaken by EMC employees in North Carolina. Through Citizen Schools, a national network of after-school education programs for students in middle school, students participated in learning sessions guided by EMC volunteers. After designing circuit board schematics and layouts, students were able to see their designs in action after the parts were assembled and inserted into an arcade game.

"We were happy to help and are proud of the energy and enthusiasm the students brought to the program and to learning about electrical engineering," says Bob Hawkins, EMC VP of North Carolina

## OUR COMMUNITIES

### EDUCATION PUBLIC POLICY

The top priority of our social investment strategy is education, and public policy engagement is a key element. We firmly believe that effective policies to bring all students to high achievement levels are the best way to invest in society's future. EMC Chairman, President, and CEO Joe Tucci has been a leader in education reform in the U.S. since 2000, and we are extending this work globally.

As a technology company, our primary interest and expertise lies in advancing Science, Technology, Engineering, and Math (STEM) education to build a highly trained and innovative workforce for the future. Our efforts are focused on strengthening educational systems and raising standards on the global and local level.

### READINESS PROJECT

In June 2007, Massachusetts Governor Deval Patrick asked Joe Tucci to co-chair the Massachusetts Readiness Project to improve education. Business, education, and community leaders collaborated and released a 10-year strategic plan. In 2009, the Readiness Project released its finance report with recommendations on how to fund the strategy by increasing revenue and capturing cost efficiencies in the Massachusetts public education system. Current education reform legislation in Massachusetts is advancing the recommendations of the Readiness Project. In 2010, a number of those recommendations were implemented through new legislation and work of the Department of Elementary & Secondary Education (DESE).

Public-private partnerships with higher education are a key recommendation of the Readiness Project. In 2010 EMC in partnership with Massachusetts Institute of Technology, the University of Massachusetts, Northeastern University, Boston University and Cisco Systems, held the groundbreaking of a world-class, high-performance computing center and collaborative research program in Holyoke, Massachusetts. Please see our Shared Value section for more information.

### CHARTER SCHOOLS

We partner with other leading businesses and the Massachusetts Charter School Association to advocate for expanding charter schools, which can provide educational choices for families and potentially lead to new and innovative education practices. The U.S. Federal Race to the Top initiative increased the focus on this issue in Massachusetts. In early 2010, legislation passed that raised the cap on charter schools in the lowest performing school districts, a measure we strongly supported. A number of proven providers were granted licenses, leading to the anticipation of several new charter schools in the Bay State opening in upcoming years.

### TAPPING MASSACHUSETT'S POTENTIAL

We believe that STEM education is essential to maintaining a competitive edge in science and technology. The Governor's Science Technology, Engineering and Mathematics (STEM) Advisor Council was announced in January 2010. EMC is a member and participates on the Diversity Subcommittee which presented its recommendations and a statewide plan at the STEM Summit in June 2010. The Advisory Council continues to work with national and local organizations to implement elements of the plan recommendations in 2011.

### GLOBAL EDUCATION INITIATIVE

We are involved in education public policy work globally through the World Economic Forum's Global Education Initiative (GEI). The GEI forms partnerships between the public and private sectors to support relevant, sustainable, and scalable national education plans. In 2010, EMC and other leading companies explored approaches to integrating the recommendations from the GEI's Entrepreneurship Education Report into education systems worldwide.



## ALANA GAO

Age 4

Parent: Iris Hui Zhang

EMC Australia

## EDUCATION PARTNERSHIPS

We work to strengthen society by expanding access to education. In developed countries, we support programs that encourage students, particularly from underrepresented groups, to pursue science and math. Around the world, we are helping communities gain access to education and IT—tools necessary to succeed in the global information age.

### UNITED STATES

#### BOSTON MUSEUM OF SCIENCE

The Boston Museum of Science extends science education beyond the classroom. EMC is a corporate sponsor of the museum, and our employees are engaged in volunteering with youth of all ages.

#### CALIFORNIA ACADEMY OF THE SCIENCES

The California Academy of the Sciences is a scientific institution committed to leading-edge research, educational outreach, and finding new and innovative ways to engage and inspire the public. EMC is a corporate partner.

#### CITIZEN SCHOOLS

Citizen Schools operates a network of high-impact after-school programs for middle schools across the country. Through our partnership, EMC employees in California, North Carolina, and Massachusetts work with faculty to enhance their science and technology curriculum, and volunteer in special programs for the classroom.

**“We all very much enjoyed the inauguration. The party was delightful. The children were enchanted with their new books, and their parents were very thankful. They are very active in the activities that the school puts together. I particularly want to thank Fundación Leer and EMC for this opportunity. It's a beautiful and worthwhile project.”**

DIRECTOR OF KINDERGARTEN SCHOOL “MERCEDITAS”  
BUENOS AIRES, ARGENTINA

#### FIRST ROBOTICS

In the FIRST program students design and build robots for regional and national competitions. EMC sponsors FIRST teams throughout the U.S.

#### MASSACHUSETTS STATE SCIENCE & ENGINEERING FAIR (MSSEF)

Over 300 high school students showcase their projects in science, math and technology in this competition held at the Massachusetts Institute of Technology. EMC is a supporting sponsor of the MSSF.

#### NEW ENGLAND AQUARIUM

Our corporate sponsorship of the New England Aquarium helps to support the museum’s permanent exhibits as well as Community Open Houses, which are free to the public.

#### SCIENCE BUDDIES

Science Buddies provides free online resources for K-12 students and teachers developing science fair projects. EMC gives financial support and employees volunteer in the “Ask an Expert” advice forum.

#### TECH MUSEUM OF INNOVATION

The Tech Museum of Innovation’s signature program, The Tech Challenge, engages youth in designing innovative solutions to real-world problems. EMC is a sponsor.



## CHINA COE SOCIAL COMMUNITY SERVICES

Our China Center of Excellence (COE) has an active volunteer base directly engaging their local community. In 2010, 117 volunteers contributed 3,688 hours on a variety of projects directly impacting more than 2,500 students. The volunteers also collected more than 300 books and magazines to enrich the Yu Ying immigrant school's library, and 21 volunteers in Beijing facilitated migrant school teaching every weekend on a rotational basis. In courses offered in collaboration with EMC and universities in Beijing, Shanghai, and Guangzhou, more than 2,000 college students participated in 53 classes and workshops.

In 2010, the China COE held the 4th season of a five-day workshop, 'Rebuild Heart and Soul of Du Jiang Yan'. The workshop trained 40 teachers in counseling from the Sichuan region, which had been hit by a devastating earthquake in 2008. The teachers will in turn counsel over 40,000 primary and secondary students in the area, where more than 88,000 people were killed, 400,000 were injured, and more than 5 million were left homeless.

## EMC PARTNERSHIP ASSISTS LOW-INCOME INDIVIDUALS LEARN COMPUTER SKILLS IN INDIA

In partnership with the Hope Foundation, EMC has several community involvement programs around the globe. In India, EMC's initiative includes support for computer learning centers where low-income men, women, and children learn computer skills.

Hear Lakshmi's story from the computer skills training program in HOPE from Cradle to Career

## VEX ROBOTICS-- ROBOTICS EDUCATION & COMPETITION FOUNDATION

The VEX Robotics Competition offers unique and challenging games that put high school and middle school students' engineering and technology skills to the test. Students, with guidance from teachers and mentors, collaborate to build innovative robots for competition in regional and national tournaments.

## LATIN AMERICA

### ARGENTINA: BUENOS AIRES

In partnership with Fundación Leer, EMC helps promote literacy and a love of reading among youth in several public schools in disadvantaged neighborhoods of Buenos Aires. Several of the schools received newly created "Reading Corners."

### BRAZIL: RIO DE JANEIRO

Alfisol is an organization that promotes and teaches literacy in Brazil and other parts of the world. Through this partnership, EMC provides support for literacy programs for 500 adults in a disadvantaged neighborhood of Rio de Janeiro.

### CHILE

After the Chile earthquake, EMC partnered with Coaniquem, an organization that offers physical, psychological, and social rehabilitation services to children free of charge. This partnership provided educational visits to 200 child burn victims.

### COLOMBIA: BOGOTA

St. Theresa Home provides a location for children of displaced families to participate in extracurricular activities. EMC sponsors the computer lab at this center and also provides general operational support.

### MEXICO: MEXICO CITY

In partnership with Lazos, EMC provides IT training and development to educators and operational support for three primary schools in Mexico City.

## ASIA PACIFIC AND JAPAN

### AUSTRALIA

EMC Australia employees invested their time each month to interact with and cook meals for 150 youth who are a part of Phoenix House. In addition, EMC employees demonstrated their commitment to community service by regularly devoting their time to a number of organizations throughout Australia.

### CAMBODIA

Supporting Tabitha Cambodia, EMC helps to improve the quality of life for Cambodian families by providing access to clean water. In 2010, 81 individuals were beneficiaries of this program.

### CHINA: BEIJING, SHANGHAI, AND SICHUAN, GUANGZHOU

EMC partners with Junior Achievement in Beijing and Shanghai to mentor 2100 high school students in developing business acumen. In continued response to the Sichuan earthquake, EMC donated funds to support mental health [workshop training](#) for those affected. 40,000 primary and secondary school students benefited from the workshop trainees.

### INDIA: BANGALORE

In partnership with the Hope Foundation, EMC and our employees provide operational support for a primary school and assist in the classroom as mentors. We also support computer learning centers where low-income men, women, and children learn computer skills. In total, EMC reaches nearly 1,000 individuals a year through this program. In addition, EMC employ-

## EMC ENHANCES UNIVERSITY IT EDUCATION IN BRIDGEIT PROGRAM

To help enhance the skills of students transitioning from university to industry, the India COE started the BridgeIT India Program. The program is a three-way collaboration between EMC, JA and Silicon India. EMC volunteers help university students enhance their level understanding of both the Indian economy and businesses in general and the software industry in particular. In 2010, more than 1800 students from 11 colleges participated in the program, with plans to further the program through an e-learning Silicon India platform.



## JAPAN COLLABORATES TO CELEBRATE HALLOWEEN WITH COMMUNITY

27 EMC volunteers participated in the “Hands on Education at Orphanages Halloween Event” in October, collaborating with the Ani Children Welfare Institution, a NPO community partner in Kamakura and Kawasaki. The EMC volunteers and children celebrated by playing the game Bingo in English, making Halloween pictures and accessories, and playing a “Trick or Treat” game.

ees mentor engineering students as part of a Junior Achievement program called “BridgeIT India.” The program seeks to improve employability in the Indian IT industry.

### INDONESIA

EMC partners with Hope Indonesia to support a primary school in Cijayanti Village in the Bogor District. Books were donated to the newly renovated library, and employees mentored and read to 300 students.

### KOREA: SEOUL

EMC employees provided support to build bookshelves and donated 800 books to the Hangil Community Child Care Center.

### MALAYSIA: KUALA LUMPUR

EMC partners with Hope Foundation in Kuala Lumpur and supports a local reading program. Our employees have been conducting reading sessions and afterschool activities with underprivileged children from a Kuala Lumpur elementary school. 150 students benefited from this program in 2010.

### NEW ZEALAND: WELLINGTON

In 2010, EMC employees donated time at the House of Grace and an organization for the disabled within Wellington. Participants not only helped their community but were able to work together as a cross functional team.

### PHILIPPINES: MANILA

The Center for Street Children provides a safe home for children in need. EMC employees regularly volunteer time to mentor 100 children.

### SINGAPORE

EMC and its volunteers donate time and resources to Boys Town and the Saturday Nurture Program. Both organizations offer mentoring and after-school activities for disadvantaged children. Employees facilitated workshops and mentoring activities for over 100 children.

### THAILAND: SANKRABURI

EMC’s team in South Asia supports an orphanage and an elementary school in rural parts of Thailand, donating books, food and a water tank for the orphanage, as well as spending time with children in the orphanage.

## EUROPE, MIDDLE EAST, AND AFRICA

### AUSTRIA: VIENNA

The Initiative for Children’s Cancer Aid is a unique partnership in which EMC employees assist youth recovering from cancer with reintegration into everyday life. EMC also sponsors a mobile teacher who helps students obtain an IT knowledge certificate.

### EGYPT: CAIRO

EMC employees partner with a local orphanage in the Cairo area. They visit regularly to play with the children, and provide toys and school supplies.

### IRELAND: CORK

EMC employees volunteer with Junior Achievement’s M3 Project, which targets economically and socially disadvantaged young people who are at risk of dropping out of school. The dynamic and innovative program focuses on mathematics and career aspirations. 514 students were reached through this program in 2010.

## EMC RUSSIA CELEBRATES CHRISTMAS THROUGH CHARITABLE GIVING

New Year's Eve in Russia is one of the biggest local holidays. People like to celebrate with their families and present gifts to each other. To share this holiday's atmosphere, Russia CoE employees, together with the Charity Fund "Milost" ("mercy" in English), helped orphanages celebrate with New Year's and "Christmas Wonders" for the children. All employees had a chance to participate in raising money for the orphanages and collected funds for 39 children to participate in this event.

The New Year Event, which is called "Praise the Christmas," took place at Alexander Nevskaya Lavra, one of the oldest architectural ensembles and cemeteries of St. Petersburg. The Christmas celebration included a puppet show, carol-singing, Christmas & Yuletide games, dances, Father Frost (Santa Claus) and his granddaughter Snow Maiden, and Christmas presents (sweets and games).

### ISRAEL: NETANYA, RAMAT GAN, KFAR SABA, AND TEL AVIV

EMC employees support several facilities for at-risk youth by engaging students in extracurricular activities. EMC employees also tutor elderly members of the community at a local senior center.

### ITALY: MILAN

EMC employees volunteer at a day care center where they engage with children from economically and socially disadvantaged families

### KENYA: NEAR AHERO, KIAMBAA, AND NAIROBI

In 2010, EMC's partnership with The ZOO Foundation allowed 1000 children and adults access to IT Labs, training and development in 5 primarily rural areas in Kenya.

### POLAND: WARSAW

EMC employees tutor more than 70 students in IT skills and training and have provided 10 families with personal laptop computers in partnership with the Substitute Families Foundation.

### RUSSIA: MOSCOW AND ST. PETERSBURG

Employees in Moscow partner with Big Change, a charitable fund and educational center that focuses on the continued education and social adaptation of orphanage graduates. Employees volunteer as computer tutors and conduct IT workshops.

In partnership with the Leonard Euler Foundation, EMC provides 20 scholarships to the top performing mathematics students at St. Petersburg State University. Scholarship winners are also invited to EMC Russia for a day of learning and exploration.

### SERBIA

EMC partners with University Children's Hospital to supply videoconferencing for the hospital. This program will enable contact between professors, physicians, students and other medical experts around the world to share experiences, deliver presentations, and provide remote help with surgeries and other critical procedures. Employees interact with young patients in educational classes.

### SOUTH AFRICA: JOHANNESBURG

The Tamaho Primary School supports more than 1,500 students. EMC provides operational support to the school, and employee volunteers offer activities to students throughout the year.

### TURKEY

Employees in Turkey collaborate with TOCEV Tuvana Foundation for Educating Children and the Turkish Ministry of Education. Through an initiative called the "Smart Cubes Project," employees were able to celebrate a newly renovated school with students from Ekinciler Village Primary School in Mardin, Mazidag.

## ACADEMIC ALLIANCE

The EMC Academic Alliance collaborates with colleges and universities around the globe to address the skills gap resulting from the growing volume and complexity of data. The alliance is free to qualifying institutions.

## CURRICULUM AND TOOLS

Membership in the Academic Alliance provides access to a wide variety of teaching and learning aids for the unique 'open' Information Storage and Management (ISM) program. The ISM course focuses on concepts and principles of information storage technologies, rather than specific products, and can be applied to any storage vendor's product. Our sub-

## EMC SPONSORS VEX ROBOTICS TEAM COMPETITION

The VEX Robotics competition is a team-based challenge putting middle and high school students engineering and technology skills to the test. With guidance from teachers, students collaborate to build innovate robots through competition. Through a partnership with VEX Robotics and the Future Foundation, EMC competition teams and is a proud sponsor of the VEX World Competition. EMC supports this program to enable students around the world to discover and pursue their passion for science, technology, engineering and mathematics

**30,000+**

students have taken Information Storage and Management courses between 2006 and 2010

## EMC ACADEMIC ALLIANCE PARTNERS WITH INDIA'S LARGEST PRIVATE UNIVERSITY TO HOST STORAGE TECHNOLOGY ACADEMIC CONFERENCE



EMC India and the EMC Academic Alliance joined Amity University, India to host the second Information Storage Seminar in 2010, bringing together more than 100 faculty members and 350 students. During the conference, EMC and Amity University held a research paper competition to explore and provide insight into the latest trends and storage best practices in electronics, IT, and Bioinformatics. Ms. Kavita Pabreja of BITS, Pilani (far right), won the award for best paper presentation. From left, Dr. Balvinder Shukla, Pro Vice Chancellor, Amity University; Guest of Honor Mr. SC Srivastava, Joint Secretary - Justice Division, Ministry of Home Affairs; Alok Srivastava, EMC Sr. Director, Education Services; Manoj Chugh, President, EMC India and Saarc; and Ms. Kavita Pabreja.

ject matter experts work together with professors to validate the curriculum, ensuring technical relevance and easy integration into academic programs. This curriculum is taught in hundreds of universities in over 30 countries.

A key part of this program is the "Information Storage and Management textbook we produced in May 2009. This textbook represents the information storage industry's only definitive reference resource.

The program also features an EMC-developed storage management simulator. This simulator can be installed in a university computer lab to provide the experience of working on a storage system without having to purchase storage platform hardware. Registered students also have access to a web portal that includes simulators, case studies, videos, podcasts, and white papers.

## FACULTY ENGAGEMENT FOR ONGOING DEVELOPMENT

Our Academic Alliance team continually engages with faculty in order to improve the program. They encourage feedback through our faculty portal, regular faculty e-mail communications, and interactions with Academic Alliance program managers. Our skilled subject matter experts, many with academic backgrounds, continually create content and faculty resources that are informed by these engagement processes.

## PROGRAM ACHIEVEMENT AND EXPANSION

In 2010, we added Portuguese and Russian translations of the ISM textbook to the existing English and Mandarin Chinese editions. We launched a comprehensive social media presence to further help our students and faculty network with each other and with IT professionals worldwide. The program's future goals include continued expansion, with an emphasis on emerging markets where IT and EMC have a growing presence.

## EMC LOCALIZATION INTERNSHIP PROGRAM

In 2009 we launched the EMC Localization Internship Program (ELI), a joint program of the Academic Alliance and EMC's Localization organization. The Localization team translates materials on EMC's products and services and localizes our products so they can be easily used in languages other than English. In the ELI program, students can apply what they have learned in the Information Storage and Management program to translate EMC materials into their native language, and explore a career in translation and localization.

## COMMUNITY INVOLVEMENT

We encourage employees to join Community Involvement committees, bringing colleagues together with the goal of improving health and human services. Our Community Involvement organization also supports the arts and responds to disaster relief efforts around the world.

## COMMUNITY PARTNERSHIPS

Our Community Involvement department strives to support employee-led efforts and also to provide employees with guidance and resources to initiate, maintain, and grow grassroots activities of their own.

Some of the organizations EMC proudly supports are:

- Big Brothers Big Sisters
- Boston Healthcare for the Homeless Program
- Boston Symphony Orchestra
- Habitat For Humanity
- International Red Cross & Red Crescent Societies: China
- Michael Carter Lisnow Respite Center
- Tabitha: Cambodia

## EMC AND RSA ENCOURAGE CHILDREN TO STAY SAFE ONLINE



EMC and RSA partnered with the National Cyber Security Alliance (NCSA) and Department of Homeland Security for National Cyber Security Awareness Month in October 2010. EMC and RSA volunteers visited classrooms in six countries and 31 U.S. states to talk about safe and responsible online behavior.

To further the 'Stay Safe Online' message Corporate Marketing produced a public-service video to encourage students to use the internet safely. Check out the [Stop. Think. Connect. Stay Safe Online video](#)

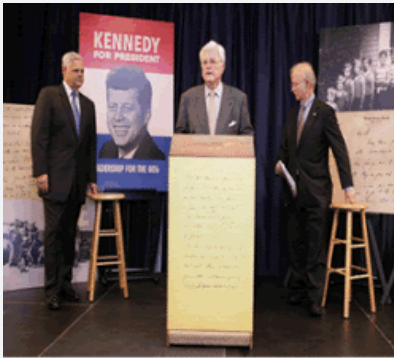
## COMMUNITY SERVICE AWARDS

With a tradition of community service, we support a number of key community partnerships in addition to service engaged in by our individual employees. In 2009, EMC established the Community Service Awards (CSA) to recognize the time and resources employees give back to their communities. The award recognizes employees, as well as provides one-time grants to the organizations from \$500 to \$10,000. EMC awarded the first CSA winners in 2010.

## DISASTER RELIEF

We recognize the toll of human suffering and economic uncertainty in the wake of natural disasters. As a company, we respond regularly to these unfortunate situations by matching employee donations to benefit service organizations such as the American Red Cross and International Red Cross & Red Crescent Societies. In 2010, EMC matched employee donations to assist in relief efforts. Total dollars raised by the company and employees (including the match) was \$758,132 and benefited activities surrounding the responses to the Haiti, Chile and Pakistan earthquakes.

## EMC DIGITIZES INSIDER LOOK AT JFK THROUGH \$10 MILLION PROJECT



Senator Edward Kennedy, EMC's Joe Tucci, and Dr. Allen Weinstein, the Archivist of the United States, announce the joint partnership between EMC and the JFK Library & Museum to develop the library's digital archive.

The last months of 2010 saw the wrap-up of an historic \$10 million project initiated in 2006 by EMC and the John F. Kennedy Library Foundation to digitally archive and make accessible President John F. Kennedy's most important artifacts and recordings. The digital archive is the first of its kind for any U.S. presidential library, offering an insider view of JFK's presidency through unfiltered policy conversations, handwritten drafts of speeches and photographs of private family times. The 2011 Goal was an unveiling in January of the digitized archive.

Watch the video:

[EMC unveils groundbreaking online archive of the collection of President John F. Kennedy](#)

[Funding Guidelines](#)

## INFORMATION HERITAGE

Thousands of years of our civilization's cultural heritage are captured in books, art, and artifacts stored in museums and libraries around the world. Digital information is less than a century old, yet opens an enormous opportunity to preserve and share precious works. Over the past decade, EMC has provided more than \$20 million in products, services, and financial assistance for digital information heritage worldwide.

### THE EMC INFORMATION HERITAGE INITIATIVE

EMC's Information Heritage Initiative partners with cultural institutions to capture, store, and share digital images of their priceless collections. Our Professional Services organization assists the institutions pro bono, and we donate our solutions to store and share the digital files. Thousands of artifacts are now preserved for posterity and made available through the Internet. There are currently seven Information Heritage Projects in six countries:

- The Finca Vigía Foundation, Havana, Cuba
- Herzogin Anna Amalia Library, Weimar, Germany
- Cheongju Early Printing Museum, Cheongju City, South Korea
- The John F. Kennedy Library, Boston, Massachusetts, U.S.
- Leonardo3 SRL, Milan, Italy
- Smithsonian Institution, Washington, D.C., U.S.
- Yad Vashem, Jerusalem, Israel

### THE EMC HERITAGE TRUST PROJECT

The EMC Heritage Trust Project offers financial support for digital curation in local communities around the world. Using the same criteria for excellence that guide the Information Heritage Initiative, the Project awards cash grants of \$5,000 to \$15,000 to local cultural institutions, archives, or private collections. New grants are awarded annually through an open application process. The 2010 grantees were:

#### GUIZHOU UNIVERSITY, COLLEGE OF THE HUMANITIES, GUIZHOU, CHINA

One thousand endangered manuscripts from a highly valuable collection of 300-year-old agroforestry contracts will be digitized. The manuscript photographs will be stored in a public database.

#### KARVEER NAGAR VACHAN MANDIR, KOLHAPUR, INDIA

This initiative will digitize and catalog a very rare manuscript and book collection dating from the 16th century through 1900, and will create a publicly available database.

**“Ernest Hemingway is an iconic global figure. As one of the world's leading technology companies, we strive to help preserve the world's heritage for posterity. And, we are honored to support the restoration and preservation of Hemingway's documents, photos and literature at Finca Vigía, as well as to help offer the world an intimate glimpse into the life of one the 20th century's preeminent authors.”**

DIRECTOR OF KINDERGARTEN SCHOOL “MERCEDITAS”,  
BUENOS AIRES, ARGENTINA



## **EMC HELPS PRESERVE AND PROVIDE ACCESS TO GLOBAL ICONIC WRITER HEMINGWAY'S ARCHIVE**

In May 2010, EMC announced a donation to Finca Vigía Foundation, Hemingway's home until his death. Finca Vigía has been operated by Cuba's Consejo Nacional de Patrimonio (CNPC) since his death in 1961. The project will digitize and preserve thousands of priceless, irreplaceable Hemingway artifacts including artwork, books (many with handwritten marginalia), letters, photographs, scrapbooks, and manuscripts. While the originals will remain in Cuba, digital copies will be hosted at the John F. Kennedy Presidential Library and Museum in Boston, MA, USA. An encrypted backup copy of Finca Vigía's collection will be stored in an EMC cloud for disaster recovery backup purposes.

## **WIMSA DIGITAL LIBRARY AND EQUITABLE ACCESS PROJECT , WINDHOEK, NAMIBIA**

This project will establish a secure and accessible digital archive of San history. It will serve as a cultural center for future generations of San to learn about traditional knowledge, customs, and history.

## **HISTORY MEETING HOUSE, WARSAW, POLAND**

Approximately 700 hours of interviews from individuals on 20th century Poland and Eastern Europe history, now on tape, will be digitized. Excerpts and photographs that accompany the interviews will be prepared and made available on the archive website.

## **ARCHEION: ONTARIO'S ARCHIVAL INFORMATION NETWORK, ONTARIO, CANADA**

This project will upgrade the archival system. Members will be trained to use the new software, access the digitization equipment, and take advantage of social networking. Members will be able to share their free access to information about Ontario's rich and diverse archival resources—including diaries, personal accounts, maps, films, photographs, administrative and genealogical records.

## **UNIVERSITY OF VICTORIA, FACULTY OF EDUCATION, AND LOWER VANCOUVER ISLAND RETIRED TEACHERS ASSOCIATION, VICTORIA, CANADA**

This initiative will digitize of education artifacts dating from the mid-1800s to enhance the general public's understanding of Vancouver's schooling heritage, to preserve aspects of its social history, and to improve research and teaching.

## **ST. JOHN FISHER COLLEGE ROCHESTER, N.Y.**

Paper resources being digitized to explore medical ethics include narratives of health and wellness, gender and race politics, and the philosophy of medicine. The resources date to the early twentieth century as seen through the lens of Dr. George W. Goler. The digital images will be hosted on a server at the Rochester Public Library and mirrored to St. John Fisher College.



## ANGEL YANG

Age 7

Parent: Angel Yang

EMC China

# SHARED VALUE:

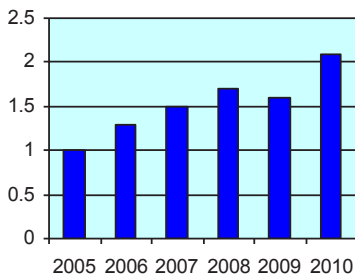
## OUR ECONOMIC PERFORMANCE

At EMC, we know that our financial performance and health is crucial to long term viability and success. The ability to exploit opportunities and effectively manage risks such as competition, regulation, disruptive technologies, social developments, and environmental changes, plays a significant role in our overall economic performance. We believe a sustainable business is one that treats environmental, societal, economic, and governance practices holistically and creates shared value for all classes of stakeholders.

- Our Financial Performance
- Recognizing Environmental Risks and Opportunities
- Our Indirect Opportunities

## RESEARCH AND DEVELOPMENT INVESTMENT

EMC R&D Investment 2005 - 2010 (in billions)



## OUR FINANCIAL PERFORMANCE

Our Annual Form 10K provides an overview of our economic performance, our results, our operations and our market presence.

In 2010, EMC's performance was the best in our company history. Equipped with the strongest, most distinctive product and services portfolio, and aligned strategically with our partners, we are confident in our position to lead the transformative shift to cloud computing, and ultimately, to IT as a service.

In 2010, we reported consolidated revenue of \$17.0 billion, which represents an increase of 21% year over year. GAAP net income increased 75 percent year over year to \$1.9 billion. Our GAAP diluted earnings per share (EPS) increased 66 percent year over year to \$0.88. We achieved record full-year operating cash flow of \$4.5 billion, an increase of 36% compared with 2009.

With a successful 2010 behind us, we remain committed to double-digit revenue and profit growth for the next several years and stand poised to continue to strengthen our competitive position for the long term.

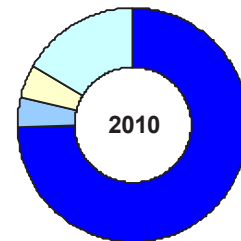
**21%**

Increase in consolidated revenue 2010 over 2009

**75%**

Increase in GAAP net income 2010 over 2009

## REVENUE BY SEGMENT

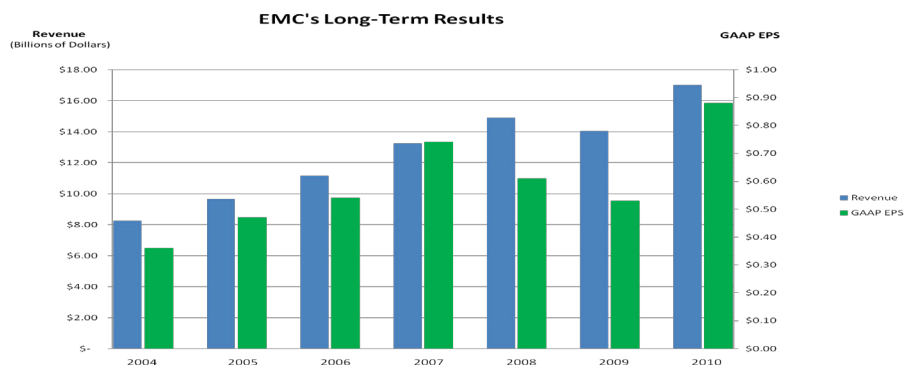


- Information Storage
- Information Intelligence Group
- RSA Information Security
- VMWare Virtual Infrastructure

[EMC Declaration Regarding REACH](#)

[EMC Declaration Regarding Waste Battery And Accumulator Compliance](#)

[RSA Statement on Safe Use and Disposal of RSA Tokens](#)



## EMC INVESTS IN INNOVATIVE GREEN DATA CENTER IN HOLYOKE, MA

In October 2010, our CEO Joe Tucci, announced a \$2.5 million donation to assist with building the Massachusetts Green High Performance Computing Center (MGHPCC) in Holyoke, MA. EMC is collaborating with a number of partners to locate this facility in an area that suffers from high unemployment and that offers low-cost hydroelectric power through local utilities. These partners include Cisco, the Commonwealth of Massachusetts, the City of Holyoke, the Pioneer Valley Planning Commission, and a university consortium consisting of the Massachusetts Institute of Technology, the University of Massachusetts, Harvard University, Boston University, and Northeastern University.

The MGHPCC will serve as an incubator for next-generation technology and will assist with economic development in the area. The site is slated for completion in 2012 when it will provide an infrastructure for life sciences computing research and clean energy computing, and will facilitate development of an innovation district powered by green energy.

### Innovate Holyoke



Picture: Attendees included Joe Tucci (front row, fourth from left); Bruce Klein, EVP of Cisco; Congressman John Olver (D-Mass); Holyoke Mayor Elaine Pluta; Jack Wilson, President of the University of Massachusetts; Susan Hockfield, President of MIT; Joseph Aoun, President of Northeastern University; representatives from Harvard University and Boston University, and students from two local high schools.

## STRONG LEADERSHIP RECORD

Our differentiated value comes from our sustained and substantial investment in R&D, a cumulative investment totaling approximately \$10.5 billion from 2003-2010, in addition to \$14 billion more invested in acquired innovation over the same period. EMC is supported by our thousands of technical R&D employees around the globe, the industry's broadest portfolio of systems, software, and services, our ability to create total integrated solutions—designed from top to bottom by us—and our commitment to delivering the best Total Customer Experience in this or any industry.

To strengthen our core business and extend our market to new areas, we have acquired and integrated 36 growth-oriented software and services companies since 2006. We operate R&D centers in Belgium, Brazil, China, France, Ireland, India, Israel, the Netherlands, Russia, Singapore, and the U.S., and manufacturing facilities in the U.S. and Ireland. We hold the most stringent quality management certification from the International Organization for Standardization (ISO 9001), and our manufacturing operations hold an MRP II Class A certification.

From 2007 through the end of 2010, EMC's total consolidated revenues grew at a compounded annual rate of 10 percent, and 2010 marked the largest revenue year (\$17 billion) in EMC's 30+ year history.

## RECOGNIZING ENVIRONMENTAL RISKS AND OPPORTUNITIES TO OUR BUSINESS

Our [Corporate Environmental Policy](#) guides our environmental responsibilities to our shareholders, employees, customers and the general public. We take a proactive, structured approach to managing risks presented by environmental developments, as well as regulatory, social, and market responses to them. We participate in the Carbon Disclosure Project by reporting annually the financial implications to EMC along with risks and opportunities resulting directly or indirectly from climate change. While we did not participate in the Water Disclosure Project in 2010, we intend to do so in 2011 as part of our process of evaluating risks associated with global environmental concerns.

## OUR INDIRECT ECONOMIC OPPORTUNITIES

We provide products and services to both public and private sectors that allow them to transform the way they compete and maximize the value from their information. Though we cannot quantify the indirect economic, environmental, and social impact directly attributable to the application of our offerings, we are confident that we are helping our customers, suppliers and partners transform their own businesses while contributing to the value we are creating for EMC shareholders.

## INDIRECT OPPORTUNITIES IN OUR COMMUNITIES

The Information Heritage project is an example of how EMC is helping create value for our global communities. This initiative assists organizations with digitizing and preserving cultural collections around the world, and has the opportunity to reach virtually every person on the globe. Read more about this project in the Our Communities section in Our Societal Investment in this report.

## INDIRECT OPPORTUNITIES THROUGH PUBLIC POLICY

EMC is actively involved with organizations that encourage action on public policy in the key areas of education, competitiveness, cyber-security and energy. One such organization is the Technology CEO Council (TCC) of which our CEO Joe Tucci is a member. This organization is the IT industry's public policy advocacy organization, which focuses on how technology can address national challenges such as health care, deficit reduction, energy and the environ-

## **EMC ADDED TO NASDAQ OMX CRD GLOBAL SUSTAINABILITY INDEX**

EMC (EMC) was added to the NASDAQ OMX CRD Global Sustainability 100 Index In November 2010. An equally weighted equity index, the index serves as a benchmark for stock of companies traded on a major US stock index. The index includes companies who have taken a leadership role in sustainability performance reporting, including energy, carbon footprint, water and other environmental, social and governance (ESG) indicators.

ment. Through supporting research and advocacy around these issues, we recognize even greater potential for our company to have benefit our global community.



## RONAN O'DONOGHUE

Age 7

Parent: David O'Donoghue

EMC Ireland

# TRANSFORMATIVE IT

The world faces unprecedented challenges as well as opportunities– social, economic, and environmental. Designing solutions to meet and exceed them requires ingenuity and collaboration.

The innovative, intelligent use of information is central to the future of business, society, and the environment. At EMC, we call this approach to information and technology “Transformative IT.”

Across industries and around the world, EMC applies Transformative IT practices. To highlight this effect, we offer the following industry profiles:

- EMC and Energy
- EMC and Healthcare
- EMC and the Public Sector



## JOY ROSENBERG

Age 8

Parent: Thomas Rosenberg

EMC Germany

### MANAGING ENERGY EFFICIENCY IN THE DATA CENTER

Power, cooling, and floor space are top-of-mind issues for IT and facilities teams struggling with lean resources, increasing costs, growing business demands, and environmental concerns. [Learn more about approaches](#) to these challenges and ways to manage energy demands today and in the future.

### BUILDING A MORE ENERGY EFFICIENT IT INFRASTRUCTURE

[Learn how EMC Consulting](#) helps customers drive greater IT efficiency and achieve sustainability goals by addressing growing energy demands.

## ENERGY

### THE CHALLENGE

The production and supply of energy are vital to economic growth and improving standards of living. Global demand for energy resources is growing rapidly, propelled by forces like population growth and market globalization.

This has led to increased concentrations of carbon dioxide and other so-called greenhouse gases, which have a dramatic impact on global climates. It is incumbent on the world to build alternatives to traditional power generation methods and devise innovative ways to grow prosperity while reducing greenhouse gas (GHG) emissions.

### THE ROLE OF IT

The IT industry has an important role to play in reducing energy use and managing climate change. According to commonly accepted estimates, the IT industry accounts for about two to three percent of global GHG emissions.

The IT industry is working to reduce its impact and counter the growth in total emissions. Not only is the industry increasing the energy efficiency of products and services and improving performance per kilowatt-hour in generation after generation of products, it is also working to reduce energy use across the global economy. Improvements include the use of high-performance computer modeling to accelerate the design of new materials and technologies for clean energy and energy storage. Clean Tech analyst firm, [Pike Research](#) predicts that, through energy efficiency and cloud computing technology, worldwide datacenter energy use could, by 2020, potentially be 38 percent lower than expected. This decline in energy use could by 2020 reduce GHG emissions by nearly 30 percent.

### THE ROLE OF EMC

EMC develops energy-efficient storage platforms for organizations around the world. We have improved efficiency of not only our storage devices but also the data center as a whole with more efficient power and cooling architectures and with features that allow products to adjust dynamically to the loads placed on them.

Our use of technologies, such as virtualization, data deduplication, fully automated storage tiering (FAST), and solid state drives create huge energy savings. In addition, our vision cloud computing holds even greater potential for efficiency.

With these technologies and services, customers can manage information assets with the same rigor and efficiency that they do for other assets, leading to both environmental and financial savings.

For example, people use EMC information infrastructure to support applications that help them reduce energy use in logistics. Better route planning, warehouse management, and other IT-informed logistics strategies could reduce GHG emissions by 1.5 gigatons by 2020, according to the Smart 2020 report.

Looking beyond the data center, EMC supports and encourages public policies to combat climate change, including innovation in clean technology and energy efficiency.

### SMART GRIDS

The emerging smart grid uses IT to transmit rate, usage, and control data, and applies that data to address business opportunities, including demand response, customer relationship management, billing, and improving the overall reliability of the grid through quick resolution of outages. The smart grid also provides consumers with the information they need to understand the cost implications of their day-to-day choices, allowing them to adjust behavior accordingly.

## 28

Percentage of emission reductions emissions possible by 2020, through Cloud Computing

### LEARN HOW HUNTINGTON NATIONAL BANK BECAME ENERGY-EFFICIENT WITH EMC

Huntington National Bank became energy efficient with EMC

#### Operational benefits

- Improved energy and overall IT operational efficiency
- Better managed facility, power, and environmental costs
- Alignment of energy efficiency with overall ITIL process

#### Cost benefits

- Avoided capital expenditure of approximately \$200,000

### EMPOWERING CUSTOMERS

How the success of the smart grid hinges on human behavior.

EMC products and solutions are supplying key elements that protect data within the grid infrastructure and enable the flow of digital information between utilities and the consumer. Technology from RSA, the Security Division of EMC, allows utilities to secure the end-to-end system from the home to the utility, so information is not lost, tampered with, or accessed by an unauthorized user.

EMC Information Infrastructure products optimize the performance of utility applications and offer business intelligence, helping to ensure electricity reliability for utilities. Combined with EMC Consulting, these products help utility managers to make better decisions from the data they are collecting and more effectively manage service demand.

### EFFICIENT UTILITIES

The EMC Ionix software suite provides utilities with a view of all smart grid components. The software provides trending information about failing or failed components. If an outage occurs, the utility can quickly identify the location of the failure and the likely causes, virtually through Ionix, improving decision making and eliminating the need for truck rolls to search for the problem.

In addition, EMC's IT helps utilities store and manage the volumes of data that are coming into their data centers through new meter data management systems. Not only will the data be well managed and accessible, it will be stored efficiently using EMC technologies, such as FAST and deduplication.

### SMART METERS

EMC provides the back-end infrastructure for meter data management systems (MDMS) that utilities use to collect, analyze, and report on the electricity consumption of their customer base. EMC optimizes the performance of MDMSs and provides efficient, secure technology to protect this mission-critical data in the most cost-effective manner.

### SMARTER CONSUMERS

Delivering data to consumers is not enough. To help people change behavior and realize full energy savings through the smart grid, the data must be presented as useful, actionable information.

EMC Consulting, which has expertise in smart portal design and execution, empowers consumers by giving them more insight into the amount of energy they are consuming, allowing them to modify behavior by either cutting usage or shifting demand to off-peak hours.

## LEARN HOW

EMC Consulting and private cloud solutions transformed critical public health data processes for Belfast Health and Social Care Trust

The IT challenges of healthcare provider institutions often center on electronic health records, computerized physician order entry, and health information exchange. But these are just part of the transformation under way - the institution's business growth strategy must be supported as well.

To meet these challenges, provider institutions must use their IT resources to excel at both information integration and information exchange.

## A PRINCIPLED APPROACH TO HEALTHCARE IT

Healthcare providers have an unprecedented number and variety of IT initiatives underway, such as demonstrating 'meaningful use' of standardized electronic health records and participating in regional health information exchanges. Many IT projects are moving forward at a fast speed, driven not only by government-imposed deadlines, but also by cost and competitive pressures in the healthcare industry.

Technological advances can enable healthcare providers to both add cap

abilities to meet demands and reduce costs simultaneously. [Learn how in the EMC Perspective: Healthcare IT - A Principled Approach.](#)

## HEALTHCARE

### THE CHALLENGE

The U.S. healthcare system continues to face challenges of increasing medical costs, gaps in insurance coverage, and limited deployment of healthcare IT due to inadequate financial resources.

Governments around the world as well as healthcare providers, insurers, employers, and families are encouraging greater adoption of IT to improve access, safety, quality, and cost control of healthcare, while protecting the privacy of individuals.

### THE ROLE OF IT

Because providing optimum patient care relies on the exchange of up-to-date information, IT plays an important role in enabling safer, more cost-effective patient care. For example, IT helps to improve clinical outcomes with timely access to online patient information.

The RAND Corporation, a nonprofit research institution, stated in their 2010 study, *Electronic Health Record Adoption and Quality Improvement in US Hospitals*, that the number of hospitals using either basic or advanced electronic health records rose sharply from 24 percent in 2003 to nearly 38 percent in 2006.

### THE ROLE OF EMC

At EMC, we are working with healthcare partners to develop integrated information infrastructure solutions that enable caregivers to securely exchange and access patient health information at the point of care.

Our efforts include collaboration with research and advocacy groups that are dedicated to improving the way healthcare is practiced. As an employer, we are providing our employees with online tools that enable them to store, access, and maintain their own comprehensive health information in a secure, centralized location. In fact, we were the first company in Massachusetts to provide our employees with an electronic Personal Health Record (PHR).

### EMC SOLUTIONS FOR HEALTHCARE

As healthcare organizations focus resources on achieving "meaningful use" of their Electronic Health Records (EHR), their clinical and business applications must be integrated with a readily available, high-performing secure, and virtualized information infrastructure.

EMC integrated solutions help healthcare organizations accelerate time-to-deployment of an efficient and highly-automated IT infrastructure. In tandem with leading clinical application providers, we are creating solutions that help healthcare providers of all sizes capture, manage, and secure patient health information while gaining IT efficiencies. Medical images and patient information is quickly delivered to authorized clinicians for faster time-to-treatment.

### EMC HEALTHCARE CONSULTING

Our dedicated healthcare consulting group works directly with healthcare providers, helping them to improve information sharing to drive efficiencies for safer patient care; extend the capabilities of healthcare applications to automate workflow and optimize revenue; and create an agile, resilient, secure, and optimized technology infrastructure to reduce IT costs and risks.

### OPTIMIZING EMPLOYEE HEALTH

EMC employees have access to a suite of online health applications and tools that can be customized to fit each individual's needs and interests. For example, our health management program enables employees and their families to better manage their health conditions and help them monitor everything from prescription records to weight loss goals. In



2011, we began offering and tracking EMC employee spouse/partner access to these programs as well.

### **ADVOCATING FOR A HEALTHIER SOCIETY**

By sharing our expertise, we are playing an important role in the development of new healthcare technology solutions and practical health management programs. We advise policy makers on legislative issues that affect the privacy and confidentiality of healthcare information. We partner with research and advocacy organizations to support their efforts to create a healthier society, including the rigorous analysis of patient outcomes to promote better clinical practices.



## SHEA CRIPPS

Age 6

Parent: Kaisa Holloway Cripps

EMC Massachusetts

## LEARN HOW EMC IS ADDRESSING IT CHALLENGES IN THE PUBLIC SECTOR

Information management is a big challenge facing the public sector today. Challenges such as sharing information, consolidating information storage, access to information or creating common processes for agencies, require efficient IT solutions.

For governments everywhere EMC solutions help enable transformation and modernization of infrastructure required for public sector connectivity, operability, information protection and collaboration.

[Learn more about how EMC is helping our public sector transform their IT operations.](#)

## PUBLIC SECTOR

### THE CHALLENGE

Many public sector organizations around the world face declining tax bases and rising expectations for service. In response, they are working to improve the delivery of services, increase operational efficiency, make it easier for citizens to interact securely with information, and enable agencies to share information to maintain public safety and ensure continuity of operations in the event of a disaster.

### THE ROLE OF IT

In the past, public sector organizations used IT primarily to improve operational the efficiency. Today, they focus more on the information in their organizations and how it's managed, shared, and secured. To serve constituents effectively, public sector organizations need the ability to collect, store, share, and retrieve information electronically.

### THE ROLE OF EMC

According to analyst group IDC, the digital universe is doubling every 18 months. The group predicts that by 2020, the digital universe will be 44 times as large as it was in 2009. Ever-increasing volumes of information generated by mandates for more record-keeping compliance, increased access to broadband communications, the rise of electronic health records, the arrival of smart electric grids, and many other developments are overwhelming public sector organizations that continue to operate with paper-based business processes and silos of information.

EMC advocates strongly for "connected government" in which all information is digitized and information sharing among departments and agencies is orchestrated and secured by information infrastructure.

### PUBLIC SECTOR SOLUTIONS

EMC solutions, often developed with partners, transform paper processes in connected government, where workflows are streamlined and automated. This allows public agencies to quickly access vital information and collaborate with peers to achieve better outcomes for social services, ensure accurate revenue collection, and provide more effective public safety.

Our goal is to help public sector organizations implement and leverage their IT infrastructure in ways that enable them to optimize resources and serve the public's interest more efficiently and effectively.

### EMC GOVERNMENT CONSULTING

We are working directly with public sector customers, helping them streamline processes, resolve data security issues, improve service delivery, ensure preparedness, and provide for public safety. Whether it's offering file assessment services, green IT improvements, or consulting on information management efficiencies, our consulting group excels at helping organizations reduce costs while expanding delivery of services to constituents.

# 2010 GOALS AND PERFORMANCE

## GOVERNANCE, INTEGRITY, ETHICS AND ENGAGEMENT

Our strong corporate governance and culture of integrity is sustaining our business success.

## ENGAGED PEOPLE

### Our workplace

EMC is cultivating a culture of inclusiveness, innovation, and education, and creating a healthy workplace for employees to thrive.

## STAKEHOLDER ENGAGEMENT

### PERFORMANCE

2010: Held first multi-stakeholder forum

2010: Launched a global Environmental Sustainability on-line training course for all employees in 2010

2010: 3,074 employees voluntarily took Environmental Sustainability training course through EMC University

### GOAL

2011: External stakeholder review of our draft annual Sustainability Report

## GLOBAL INCLUSION

### PERFORMANCE

2010: Over 4,000 employees participated in global Employee Circles in 3 countries

2010: Over 100 women were nominated for Leadership in the Fast Lane executive development program

2010: Developed and executed a diversity strategy to increase the pool of candidates for mid-to-senior level openings

- Added 2 annual positions to Leadership in the FastLane
- Increased class size for number of participants in each FastLane class
- Developed and implemented formal alumnae program for FastLane
- Joined NCWIT and WITTI to provide networking experiences among technical women at all levels

2010: Developed and executed a program to promote EMC's brand for diversity and inclusion

- Doubled EMC attendees at Simmons Women in Leadership conference over 2 year period
- Increased Chief Diversity Officer and panel participation in global events and media opportunities

2010: Developed a targeted strategy to maximize EMC success by proactively addressing diversity and inclusion factors in key markets around the world

- Launched a pilot initiative to proactively build proposals for new COE to address local diversity laws, regulations, and cultural considerations
- Gained approval to build a diversity and inclusion Ambassador program to broaden our reach and better understand local issues in targeted geographies

## CAREER DEVELOPMENT

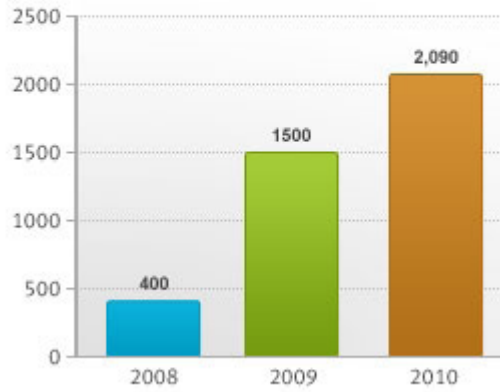
### PERFORMANCE

2010: Placed 6th on the corp U Training 125 list

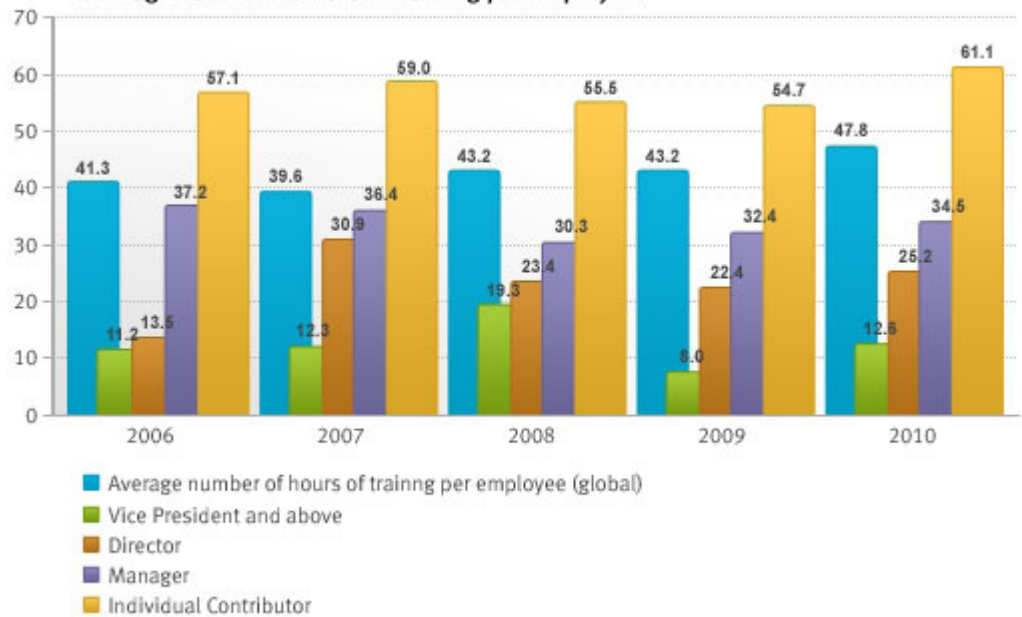
## GOAL

2011: Expand automated talent management system to streamline the Organization and Talent Review process and make career development resources more readily available to employees

**Total number of identified high-potential employees**



**Average number of hours of training per employee**



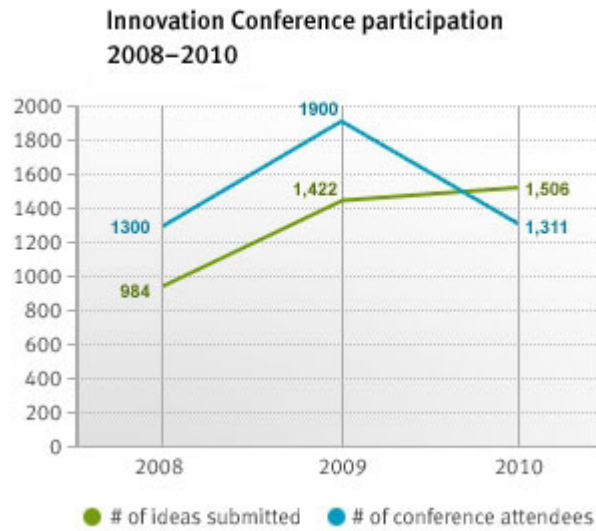
## INNOVATION CONFERENCE

### PERFORMANCE

2010: Increased participation in the annual Innovation Conference with both ideas submitted for consideration and attendees

2010: Employees from 26 countries submitted ideas

2010: Added new Social Innovation award at the Innovation Conference



## UNIVERSITY RELATIONS

### PERFORMANCE

2010: 54% of college hires in North America came from key schools

2010: 25% domestic college hires were former interns and coops

2009 - 2010 - 26% increase in college hires from 2009 to 2010

2009:2010 - 51% U.S. domestic increase in college hires from 2009-2010

2010: 160% increase in coop program hiring

2010: 39% increase in intern program hiring

## HEALTH AND WEALTH BENEFITS

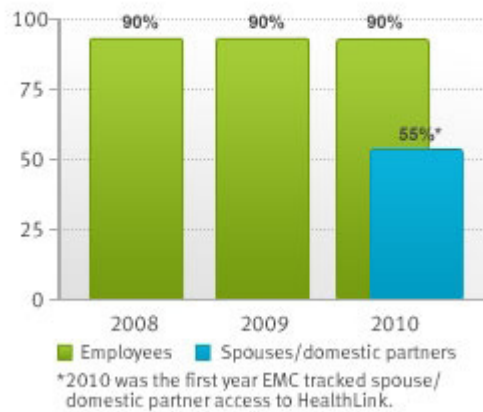
### GOALS

2011: Create an environment in which healthcare providers can write notes in personal health records (PHR)

2011: Add x-ray record capability to PHRs

2011: Expand the number of lab networks that upload to the PHR

Percentage of employees who accessed health link 2008-2010



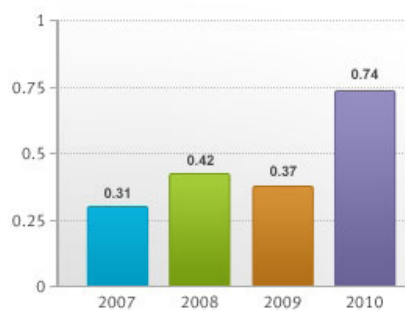
## HEALTH AND SAFETY

### PERFORMANCE

2010: Achieved OHSAS 18001 certification for Apex, North Carolina manufacturing facility

2010– Measured LTIR in countries where we have manufacturing operations

US LTIR 2007 - 2010



## OUR COMMUNITIES

EMC is expanding our social investment in our global markets. From education partnerships to Information Heritage, we are advancing our community investment of financial assistance and deep knowledge of technology.

## EDUCATION PARTNERSHIPS

### PERFORMANCE

2010: Implemented methodology to track volunteer hours and global social investment funding

2010: Fostered education and community partnerships in 28 countries worldwide

### GOALS

2011—Report volunteer hours and global social investment funding

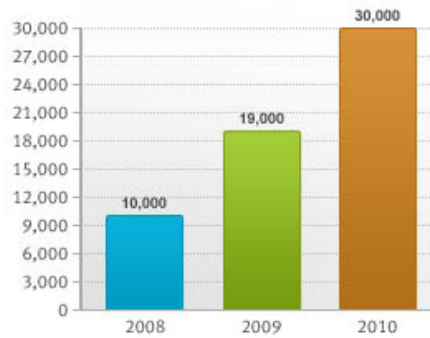
## ACADEMIC ALLIANCE

### PERFORMANCE

2010: Continued growth in Academic Alliance partnerships with universities in emerging markets with institutions in 25+ countries

2010: Published Information Storage and Management textbook in Portuguese and Russian

**Number of students educated on Information Storage and Management, 2008-2010**



## INFORMATION HERITAGE INITIATIVE

### PERFORMANCE

2010: Awarded cash grants to seven new grantees through the Heritage Trust Project

## CLIMATE CHANGE AND ENERGY USE

### PERFORMANCE

2010: EMC is on track to meet our corporate energy reduction goal

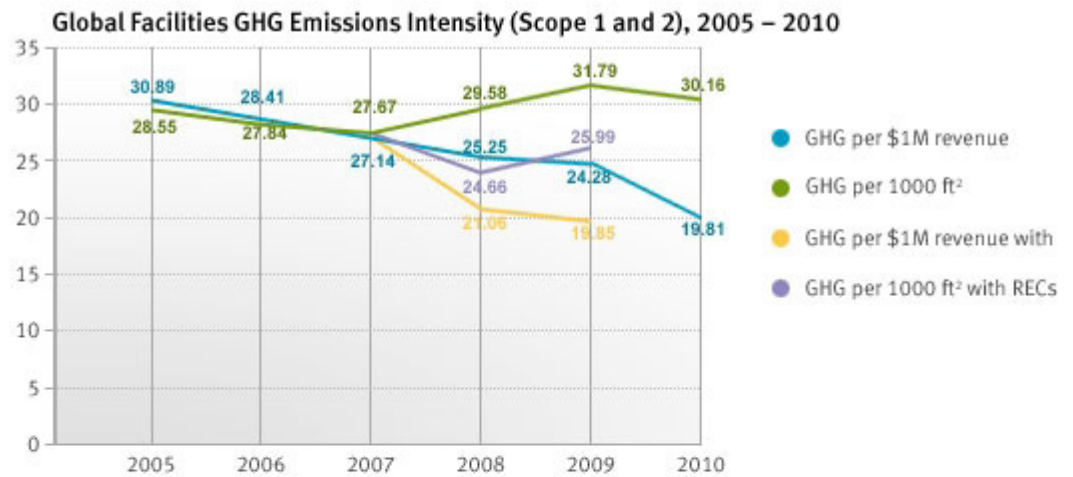
## HEALTHY ECOSYSTEMS

We are committed to improving our performance and transparently reporting our progress. Our top environmental priorities are energy use and climate change, material use and waste and water.

2010: We did not purchase Green-e certified Renewable Energy Credits (RECs) in 2010

2010: GHG emissions intensity per US \$ revenue decreased in 2010 to 29% below 2005 levels without RECs

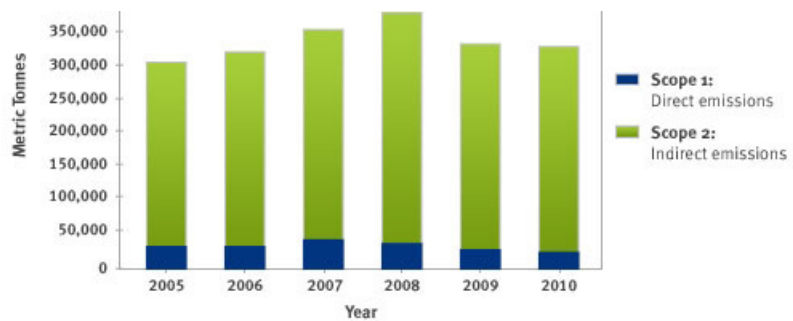
2010: Absolute GHG emissions were 22% above 2000 estimated levels, while growing revenue more than 91% in the same time frame



Source	2005	2006	2007	2008	2008 (with RECS)	2009	2009 (with RECS)	2010 (no RECS)
Per revenue	30.89	28.41	27.14	25.25	21.06	24.28	19.85	19.81
Per 1000 ft²	28.55	27.84	27.67	29.58	24.66	31.79	25.99	30.16

RECS: 2009: offset 62,169 tonnes, 2008: offset 62,444 tonnes

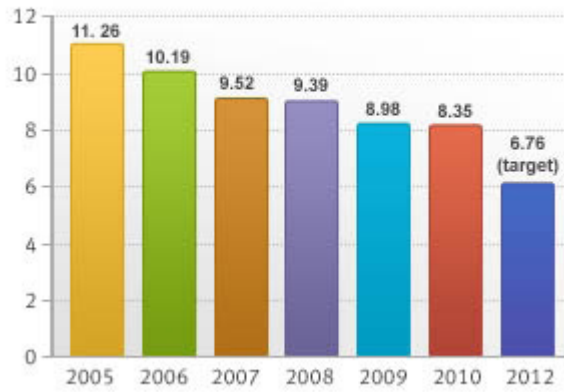
In 2008 and 2009 we purchased Green-e certified Renewable Energy Credits (RECs) to offset (numbers above) respectively. In our 2008 report we stated that we only offset 40,325 tonnes, due to an error from our REC vendor, who gave us numbers only for CO<sub>2</sub>, not CO<sub>2</sub> and CO<sub>2</sub> equivalents (CO<sub>2</sub>e)



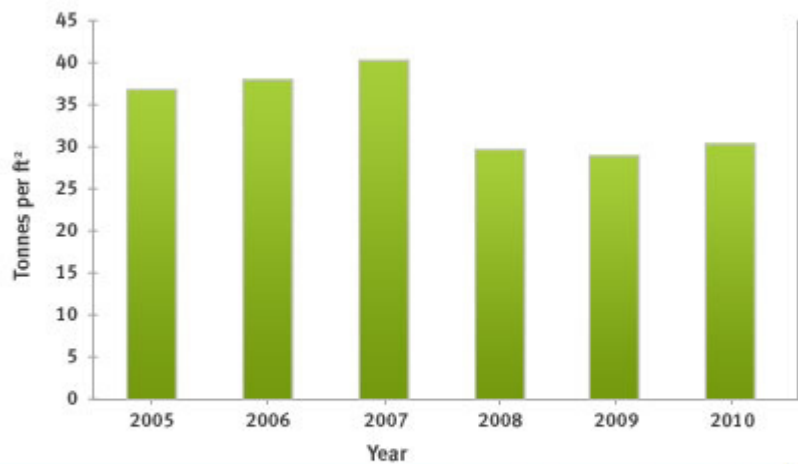
Source	2005	2006	2007	2008	2009	2010
Scope 1: Direct Emissions	32,473	31,437	38,529	36,004	27,736	26,736
Scope 2: Indirect Emissions	266,014	285,458	320,560	339,682	312,062	310,940



### GHG Emissions Per Employee, 2005-2010



### U.S. Facilities Emissions 2005-2010



Source	2005	2006	2007	2008 (with RECS)	2009 (with RECS)	2010 (no RECS)
GHG per 1000 ft²	37.02	38.16	40.63	29.72	25.99	30.16

#### GOALS

2012: Reduce GHG emissions per square foot of our U.S. facilities to 8% below 2005 levels

2012: Reduce GHG emissions intensity per U.S. \$ revenue to 30% below 2005 levels

2015: Reduce GHG emissions intensity per U.S. \$ revenue to 40% below 2005 levels

2050: Reduce absolute GHG emissions to 80% below 2000 estimated levels of 274,000 tonnes

#### EFFICIENT FACILITIES

##### PERFORMANCE

2010: Installed energy management systems in all major facilities worldwide

2010: Energy efficiency measures first implemented in 2009 avoided the use of approximately 4.5 million kWh of electricity

2010: Total electricity use increased by 2% over 2009

### Total Electricity use by MegaWatt hours and Gigajoules

Year	MegaWatt hours	Gigajoules
2005	570,839 MWh	2,055,019 GJ
2009	761,614 MWh	2,714,810 GJ
2010	779,444 MWh	2,805,994 GJ

2010: Natural gas use for heating facilities decreased 8% from 2009

### Total Natural Gas use by Therms and Gigajoules

Year	Therms	Gigajoules
2005	4,326,235 therms	456,442 GJ
2009	3,911,361 therms	412,288 GJ
2010	3,873,596 therms	408,308 GJ

#### GOALS

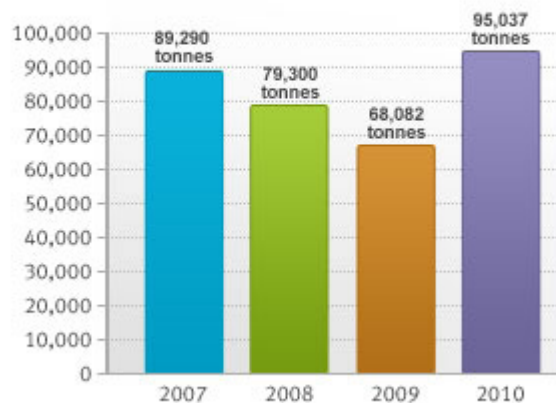
2012: Reduce energy consumption per employee in global facilities to 40% below 2005 levels

2040: Purchase 50% of electricity consumed in major global facilities from renewable resources

#### TRAVEL

##### PERFORMANCE

#### GHG Emissions from Corporate Travel



#### EMC DATA CENTERS

##### PERFORMANCE

2010: State-of-the-art energy-efficient data center opened in Durham, North Carolina

## ENERGY-EFFICIENT HARDWARE

### PERFORMANCE

2010: Released VNX and VNXe platforms that have power supplies with more than 90% energy efficiency than previous generations

## MATERIAL USE AND WASTE

### PERFORMANCE

2010 - 75 tonnes of waste composted in EMC Massachusetts facilities

## WATER

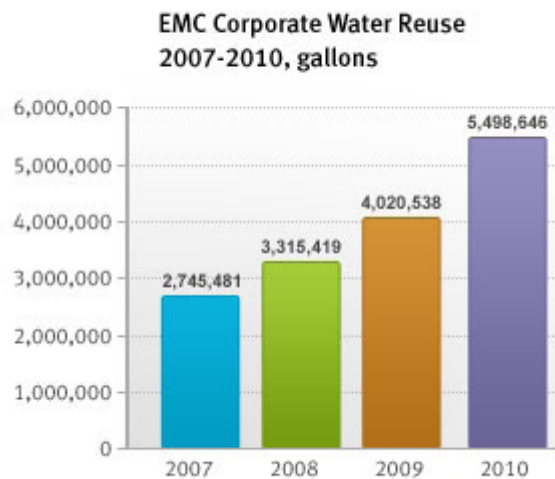
### PERFORMANCE

2010: Reused more than 5.5 million gallons of treated “gray” water in our Massachusetts facilities

2010: Increased use of recycled water from our treatment plant by 36% over 2009 amounts

### GOAL

2011— Add additional building to Wastewater Treatment Plant



## BIODIVERSITY

### PERFORMANCE

2010—EMC North Carolina Apex manufacturing designated a Wildlife And Industry Together (WAIT) site

## PRODUCT MATERIAL CONTENT

### PERFORMANCE

2010— Manufactured every newly designed Printed Circuit Board with a halogen-free flame retardant instead of brominated flame retardants (BFRs)

2010: Continued to work with our supply chain in evaluating the implementation of the qualified substitute material for PVCs in cable sheathing that meets our performance requirements. This substitute still does not yet meet our requirements for economic viability or supply chain continuity.

### GOALS

2011—Identify alternative materials for phthalates and develop a qualification protocol to validate the efficacy of those alternative materials in partnership with the GC3 Consortium.

## PACKAGING

### PERFORMANCE

2010– Continued to develop more sustainable packaging solutions that reduce material consumption and waste, utilize recycled and renewable materials, and increase transport efficiency.

2010: Determined reassessment of packaging metrics collection processes to present an accurate picture of our global environmental impact from packaging and to better inform our strategy.

2010: Implemented EMC and MIT partnership to reassessment implementation of new packaging metrics collection and evaluation

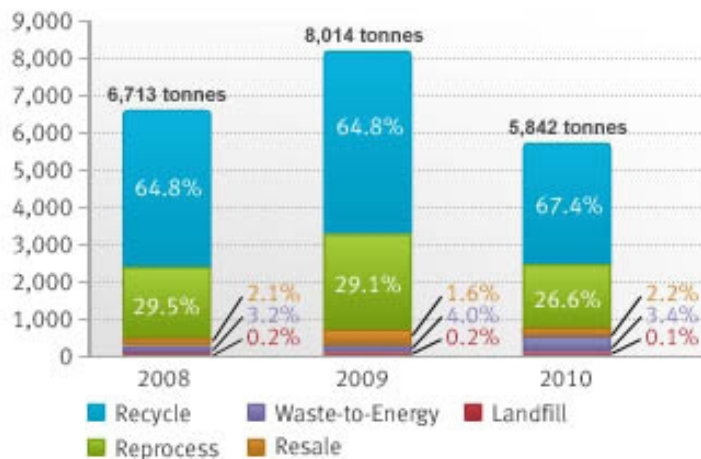
### GOALS

2011– Set new processes for global packaging data collection

2011: Determine packaging baseline and set goals for 2012

## PRODUCT END-OF-LIFE

Destination of returned products by weight, since 2008



## SUPPLY CHAIN

### PERFORMANCE

2010 - Worked closely with suppliers and industry peers to advance environmental responsibility in the supply chain.

## SUPPLIER GHG EMISSIONS REPORTING

### PERFORMANCE

2010 - Requested carbon disclosures from 98% (by spend) of our direct Tier 1 suppliers

2010: Suppliers constituting 82% of direct Tier 1 spend reported their 2009 GHG emissions data

2010: 31% of EMC supplier respondents (by spend) disclosed carbon emission reduction goals

2010: 97% of EMC supplier respondents (by spend) who disclosed carbon emission reduction goals reported successfully achieving their established goals

### GOAL

2011: Collect scope 1 and scope 2 GHG emissions data and reduction goals from direct Tier 1 suppliers constituting 85% coverage by spend

2011: Measure Tier 1 suppliers' performance against their goals

## CODE OF CONDUCT ACKNOWLEDGEMENT

### PERFORMANCE

2010: Suppliers representing 99% of EMC's Tier 1 direct supplier spend acknowledged EMC's Supplier Code of Conduct

2010: Adopted the EICC Code of Conduct for suppliers, together with an EMC Supplemental Supplier Code of Conduct

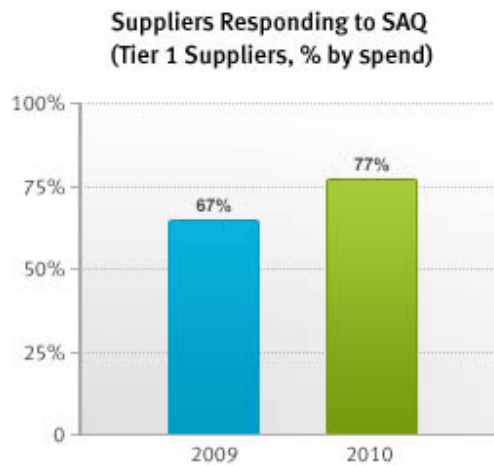
### GOAL

2011: 100% of active direct Tier 1 suppliers acknowledge EMC's revised Supplier Code of Conduct

## SELF-ASSESSMENT QUESTIONNAIRE (SAQ)

### PERFORMANCE

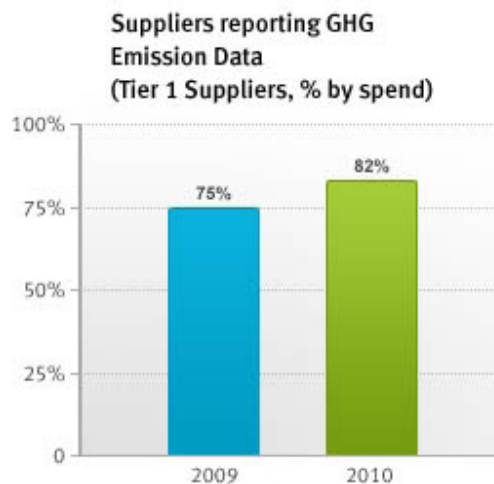
2010: Suppliers constituting 77% of direct Tier 1 spend responded to the E-TASC SAQ



2010: 100% of the suppliers who completed the SAQs received detailed feedback from EMC on their performance

2010— Suppliers representing 29% of Tier 1 direct spend were asked for corrective action plans at the corporate or the facility level.

2010: Of the 29% of Tier 1 direct spend suppliers, 79% completed their improvement plans by the end of 2010



## LOGISTICS

### PERFORMANCE

2010—Moved over 98% of our domestic freight with SmartWay certified logistics providers

### GOALS

2011— Determine GHG emissions baseline, and set GHG reduction goals and strategy for global logistics

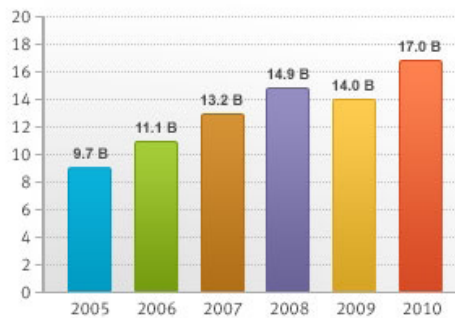
## REVENUE

### PERFORMANCE

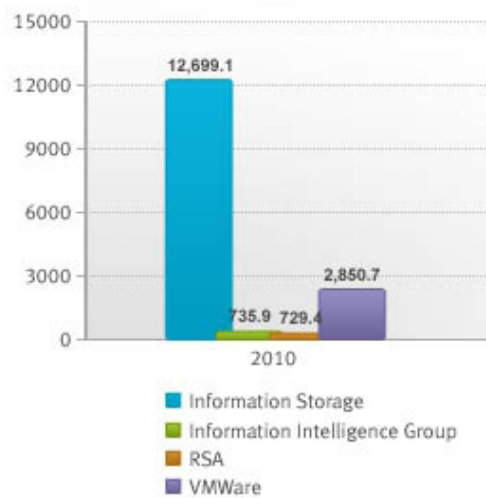
2010: Full-year 2010 consolidated revenue was \$17.0 billion

## SHARED VALUE: ECONOMIC PERFORMANCE

EMC Revenue in Billions USD, 2005–2010

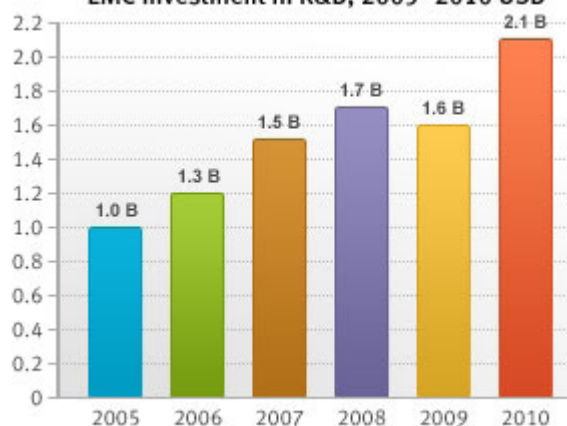


Revenue by Segment



## RESEARCH AND DEVELOPMENT INVESTMENT

EMC Investment in R&D, 2005–2010 USD





## ADITYA SREENIVAS

Age 10

Parent: Karthik Jeyaraman

EMC India

## EMC SUSTAINABILITY REPORTS

[2008](#)

[2009](#)

[EMC Sustainability website](#)

EMC's Office of Sustainability is responsible for the preparation and integrity of the information in this report. We believe this report fairly represents our sustainability activities and results for FY 2010.

We intend to publish updated reports annually, and continually update information on our [Sustainability Web site](#) on emc.com.

### Contact

Please send any questions about this report or its contents to the Office of Sustainability at [Office\\_of\\_Sustainability@emc.com](mailto:Office_of_Sustainability@emc.com)

# ABOUT THIS REPORT

## BOUNDARY AND SCOPE

This 2010 report represents an update of our 2009 report.

Unless otherwise noted, this report covers EMC and its subsidiaries for the 2010 fiscal year (January 1, 2010 to December 31, 2010). However, where the scope is explicitly defined as "EMC core," it does not include subsidiaries such as RSA, Iomega, and Data Domain. We acquired Isilon in December 2010; this unit will be covered in the 2011 report.

Our global greenhouse gas (GHG) emissions data from our operations includes our subsidiaries as well as VMware. These emissions calculations were compiled according to the World Resources Institute Greenhouse Gas Protocol.

Information in this report on the environmental impact of our products, supply chain and operations (excluding GHG emissions from our operations) is generally limited to EMC core. We are continuing to work diligently toward establishing enterprise wide metrics and will report on our progress in subsequent sustainability reports.

Where we refer to "owned and operated" facilities, we include buildings that we fully own, and buildings that we lease and over which we have operational control. These owned and operated facilities are primarily located in: Bedford, Franklin, Hopkinton, Southborough, and Westborough in Massachusetts, Apex and Research Triangle Park in North Carolina, Pleasanton and Santa Clara in California and Cork, Ireland.

The information on our workplace policies and programs is global and includes EMC and all of our subsidiaries.

## CONTENT AND MATERIALITY

A third party conducted a full issues assessment to identify the most material content relevant to EMC, our industry and stakeholders. The process involved gathering input from external and internal sources and stakeholder feedback. Internal subject matter experts also set priorities based on both internal and external views of materiality. A system of internal controls and a verification process is used to maintain the integrity of the report.

We use the Global Reporting Initiative (GRI) framework. CERES offered feedback on the report content, and we appreciate their guidance and recommendations.

## RESTATEMENTS

We are restating EMC's performance in the following measures. In all cases, these were due to missed data or errors in calculation. No goals previously stated as achieved were missed as a result.

- 2009 GHG Emissions from Corporate Travel was restated as 68,082 tonnes (previously reported as 70,787 tonnes)
- 2009 Natural Gas Use was restated as 3,911,361 Therms and 412,288 GJ (previously reported as 173,831 Therms and 651,374 GJ). The discrepancy was due to a transcription error and does not affect any data related to our total GHG emissions reporting.
- 2009 Total Electricity Use was restated as 761,614 MWh and 2,741,810 GJ (previously reported as 751,571 MWh and 705,654 GJ). The discrepancy was due to a transcription error and does not affect any data related to our total GHG emissions reporting.
- 2009 Destination of Returned Product by Weight was restated as 8,014 tonnes (previously reported as 7,900 tonnes). The percentages are not changed.
- 2008 Destination of Returned Product by Weight was restated as 6,713 tonnes (previously reported as 6,000 tonnes). The percentages are not changed.

- We are restating our Lost Time Injury Rate (LTIR). The European Union (EU) and United States of America (USA) each maintain different qualifications and methodologies for computing the LTIR. We will state each geographic area separately. We have restated the 2007 to 2010 data (please refer to the Goals and Performance section for detailed information).
- We have not included Packaging Metrics in this report; we are reevaluating our metrics internally and anticipate stating related metrics in a future report.

## MEASURES

Throughout this report “tonnes” refers to metric tonnes. All monetary units are stated in U.S. dollars. Starting this year we are reporting our water use in gallons rather than liters for consistency with internal measurement systems.



# GRI INDEX

The Global Reporting Initiative (GRI) is an international standard for sustainability reporting. EMC is self declaring this report to GRI Application Level B. To help our readers, we provide here a table of the GRI indicators covered in this document.

## STRATEGY AND ANALYSIS

GRI Indicator	Topic	Location	Coverage (Full or Partial)
1.1	Statement from the CEO	Letter from the CEO	F
1.2	Description of key impacts, risks, and opportunities	Letter from the CEO Our Priorities	F

## ORGANIZATIONAL PROFILE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
2.1	Name of the organization.	Corporate Profile	F
2.2	Primary brands, products, and/or services.	Corporate Profile EMC Products EMC Solutions EMC Consulting and IT Services	F
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Corporate Profile 10K	
2.4	Location of organization's headquarters.	Contact Us	
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Corporate Profile Contact Us	
2.6	Nature of ownership and legal form.	Corporate Profile	
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Corporate Profile Shared Value 10K	
2.8	Scale of the reporting organization.	10K	
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	10K	
2.10	Awards received in the reporting period.	Awards and Recognition	

## REPORT PARAMETERS

### REPORT PROFILE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
3.1	Reporting period (e.g., fiscal/ calendar year) for information provided.	About This Report	F
3.2	Date of most recent previous report (if any).	About This Report	F
3.3	Reporting cycle (annual, biennial, etc.).	About This Report	F
3.4	Contact point for questions regarding the report or its contents.	About This Report	F

### REPORT SCOPE AND BOUNDARY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
3.5	Process for defining report content, including: <ul style="list-style-type: none"> <li>• Determining materiality.</li> <li>• Prioritizing topics within the report.</li> <li>• Identifying stakeholders the organization expects to use the report.</li> </ul>	About This Report	F
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	About This Report	F
3.7	State any specific limitations on the boundary of the report	About This Report	F
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	About This Report	F
3.9	Data measurement techniques and the basis of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report.	About This Report	F
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	About This Report	F
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	About This Report	F

## REPORT SCOPE AND BOUNDARY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
3.12	Table identifying the location of the Standard Disclosures in the report.	GRI Index	F
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided.	About This Report	F

## GOVERNANCE, COMMITMENTS, AND ENGAGEMENT

### GOVERNANCE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Corporate Governance Environmental Strategy	F
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Corporate Governance	F
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Corporate Governance	F
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Contact the Board	F
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Corporate Governance Guidelines Proxy Statement	F
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Corporate Governance Guidelines	F
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	Corporate Governance Guidelines	F
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Ethics	F

4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.  Include frequency with which the highest governance body assesses sustainability performance.	Proxy Statement Environmental Strategy	F
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Corporate Governance Guidelines	F

## COMMITMENTS TO EXTERNAL INITIATIVES

GRI Indicator	Topic	Location	Coverage (Full or Partial)
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Product Material Content Our Commitments	F
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Environmental Strategy	F
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies.</li> <li>• Participates in projects or committees.</li> <li>• Provides substantive funding.</li> </ul>	Trade and Policy Organization Memberships	F

## STAKEHOLDER ENGAGEMENT

GRI Indicator	Topic	Location	Coverage (Full or Partial)
4.15	List of stakeholder groups engaged by the organization. Examples of stakeholder groups are: <ul style="list-style-type: none"> <li>• Communities</li> <li>• Civil society</li> <li>• Customers</li> <li>• Shareholders and providers of capital</li> <li>• Suppliers</li> <li>• Employees, other workers, and their trade unions</li> </ul>	Stakeholder Engagement Shared Value Our Workplace Our Communities Supply Chain	F

4.15	Basis for identification and selection of stakeholders with whom to engage. This includes the organization's process for defining its stakeholder groups, and for determining the groups with which to engage and not to engage.	Stakeholder Engagement	P
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Stakeholder Engagement Customer Relations Supply Chain Our Workplace Our Communities	F
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Stakeholder Engagement Customer Relations Supply Chain	F

## ENVIRONMENTAL

Management Approach: Our Environmental Strategy provides the overview for our environmental management approach. Each of the topics in this indicator is covered within the environmental section of the report. Our impact on biodiversity is largely indirect, and we are evaluating how and when to approach this topic.

## ENERGY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN3	Direct energy consumption by primary energy source.	2010 Goals and Performance - Environment	F
EN4	Indirect energy consumption by primary source.	2010 Goals and Performance - Environment	P
EN5	Energy saved due to conservation and efficiency improvements.	Efficient Facilities	F
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Energy-Efficient Hardware Efficient Data Centers	F
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Efficient Facilities	F

## WATER

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN8	Total water withdrawal by source.	Water	P
EN9	Water sources significantly affected by withdrawal of water.	Water	P
EN10	Percentage and total volume of water recycled and reused.	Water	P

## BIODIVERSITY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Biodiversity	P
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Biodiversity	P
EN13	Habitats protected or restored.	Biodiversity	P
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	Biodiversity	P

## EMISSIONS, EFFLUENTS, AND WASTE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN16	Total direct and indirect greenhouse gas emissions by weight.	2010 Goals and Performance - Environment	F
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Efficient Facilities Data Centers and IT Travel and Commuting 2010 Goals and Performance - Environment 2010 Carbon Disclosure Project Report	F
EN23	Total number and volume of significant spills.	Facilities Recycling and Waste	F

## PRODUCTS AND SERVICES

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Energy-Efficient Hardware Efficient Data Centers Product Material Content Product End-of-Life Industry Standards Supply Chain Responsibility Supply Chain Emissions	F
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Packaging	P

## COMPLIANCE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	Environmental Strategy 10K	F

## HUMAN RIGHTS

Management Approach: EMC is committed to respecting our employees' basic human rights. Our Global Labor Principles set the standard for non-discrimination, freedom of association, and non-use of child, forced, or compulsory labor. The EMC Supplier Code of Conduct also sets the minimum levels of behavior as a condition to do business with EMC, including labor, health and safety, and non-discrimination standards. We cover the practice of reporting of concerns and ethical breaches in the Ethics section, and security of employee and contractor information in the Information Privacy section. At this time, any impact of our operations on indigenous rights is indirect, and we are not yet reporting on this topic.

## INVESTMENT AND PROCUREMENT PRACTICES

GRI Indicator	Topic	Location	Coverage (Full or Partial)
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	Ethics Supply Chain	P
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	Supply Chain Responsibility	P
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Ethics	P

## NON-DISCRIMINATION

GRI Indicator	Topic	Location	Coverage (Full or Partial)
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	Ethics Supply Chain	P

## CHILD LABOR

GRI Indicator	Topic	Location	Coverage (Full or Partial)
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	Ethics Supply Chain	P

## FORCED AND COMPULSORY LABOR

GRI Indicator	Topic	Location	Coverage (Full or Partial)
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	Ethics Supply Chain	P

## LABOR PRACTICES AND DECENT WORK

Management Approach: At EMC, we seek to create a safe, healthy, engaging, and supportive workplace for diverse employees to thrive. Employment, Health and Safety, Training and Education, and Diversity are covered in the Workplace section of this report. We discuss communications between employees and management in the Stakeholder Engagement section. And our Global Labor Principles state our commitment to respecting our employees' basic human rights.

## OCCUPATIONAL HEALTH AND SAFETY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	2010 Goals and Performance - Workplace	F
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Health and Well-Being 2010 Goals and Performance - Workplace	F

## TRAINING AND EDUCATION

GRI Indicator	Topic	Location	Coverage (Full or Partial)
LA10	Average hours of training per year per employee by employee category.	2010 Goals and Performance - Workplace	F
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Career Development and Training Managing Change	F
LA12	Percentage of employees receiving regular performance and career development reviews.	Career Development and Training	F

## SOCIETY

Management Approach: Our investment in our local communities, which focuses on education and academic partnerships, is covered in the Social Investment section of this report. In the Ethics section of Governance and Integrity we discuss our corporate compliance program which drives employee awareness of ethical conduct. Our Political Contributions Policy states how EMC participates responsibly in the political process, and we disclose our political contributions twice a year. EMC's Business Conduct Guidelines, include guidelines for anti-competitive behavior and compliance with the law.



## COMMUNITY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
501	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	Our Workplace Our Communities	F

## CORRUPTION

GRI Indicator	Topic	Location	Coverage (Full or Partial)
502	Percentage and total number of business units analyzed for risks related to corruption.	Ethics	F
503	Percentage of employees trained in organization's anti-corruption policies and procedures.	Ethics	F
504	Actions taken in response to incidents of corruption.	Ethics	F

## PUBLIC POLICY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
505	Public policy positions and participation in public policy development.	Working for Global Change EMC Policy Statement on Climate Change Education Policy Trade and Policy Organization Memberships	F
506	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Political Contributions Disclosure Statements: Six Months Ended June 30, 2010	F

## ANTI COMPETITIVE BEHAVIOR

GRI Indicator	Topic	Location	Coverage (Full or Partial)
507	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	10K	F

## ANTI COMPETITIVE BEHAVIOR

GRI Indicator	Topic	Location	Coverage (Full or Partial)
508	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	10K	F

## PRODUCT RESPONSIBILITY

Management Approach: Our Product Safety section discusses how we work across the product lifecycle to assess and improve product safety, as well as labeling our products for different markets. Customer Privacy is addressed in our Information Privacy section.

## CONSUMER HEALTH AND SAFETY

GRI Indicator	Topic	Location	Coverage (Full or Partial)
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Product Safety	F
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Customer Relations	P
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Marketing Communications	F

## ECONOMIC

Management Approach: Our Annual Report on Form 10K document provides an overview of our economic performance, results of operations, and market presence. Our Corporate Governance Guidelines and Proxy Statement state the responsibilities and organization of our board of directors.

## ECONOMIC PERFORMANCE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	10K Our Financial Performance	F
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	2010 Carbon Disclosure Project Report	F

## MARKET PRESENCE

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation	Our Workplace Global Presence	P

## INDIRECT ECONOMIC IMPACTS

GRI Indicator	Topic	Location	Coverage (Full or Partial)
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Citizenship and Social Investment	F
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Shared Value Our Indirect Impact	

## CONTACT US

To learn more about how EMC products, services, and solutions help solve your business and IT challenges contact your local representative or authorized reseller—or visit us at [www.EMC.com](http://www.EMC.com)

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