

# TRANSFORMATION WITH PURPOSE

2011 EMC Sustainability Report



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#### FROM THE CHAIRMAN AND CEO

At EMC, we are transforming how we deliver innovative IT solutions for a more sustainable world.

The IT industry is undergoing a once-in-a-generation transformation. Cloud Computing represents one of the biggest waves of change in IT history, transforming the way IT is built, operated and consumed. Data growth is exploding: industry experts expect data to grow 44-fold this decade. IT leaders are eager for smarter ways to manage their data safely and securely while controlling costs, energy use and resource consumption.

All this presents a massive opportunity for EMC. Our strategy is focused on delivering bestof-breed products and services that allow IT departments to move to a Cloud Computing model, analyze vast quantities of "Big Data" and do so in a secure, trusted and efficient way. At the same time, we are also focused on continuing our commitment toward a sustainable economy.

This is not about choosing between good business and good citizenship. Rather, this represents our determination to drive technological development, business process, and collaboration in new and creative ways. Long-term success for EMC will happen because we know that we can, and must, conduct business in a way that's good for our investors, our employees, our communities and the planet. Integrating financial, environmental, and social considerations in how we define our business strategy and make our daily decisions is integral to our success.

I'm extremely proud of the work that EMC employees around the world are doing every day—improving the sustainability and energy efficiency of our operations, products and packaging; finding creative approaches to reduce waste and lower our greenhouse gas emissions; collaborating with local communities to improve math and science education; and working with our suppliers and partners to build a value chain that increasingly protects the workforce, the planet and the business.

These transformations are exciting. And while I'm pleased with our track record of delivering innovative approaches to sustainability, we fully realize that there's plenty of work in front of us at EMC to shape our industry—and the planet—for the better.

JOSEPH M. TUCCI



#### FROM THE CHIEF SUSTAINABILITY OFFICER

In 2011, EMC continued paving our path toward a more sustainable future. This report's theme, Transformation with Purpose, is reflective of our progress and efforts to ingrain sustainability into all that we do. Sustainability is much more than energy efficiency or product take-back programs—it's about being purposeful in how we identify, manage and consider environmental and social impacts in the decisions we make every day.

It has been my privilege and pleasure to lead EMC's sustainability program for the past four years. But the really hard work of driving change and generating new ideas is being done on a daily basis by the unsung heroes throughout our company—from the hardware designers, manufacturing engineers and scientists to the facilities managers and operations team to the legal, investor relations and finance departments. The commitment of my colleagues is truly permeating all corners of our business.

More and more, individuals are stepping up. Cross-functional coalitions are forming to drive change simply because they see the potential and want to be part of this transformational wave. I couldn't be more proud of how my co-workers have holistically embraced the sustainability model, both inside and outside of our company walls.

There are many examples within this report of how we are transforming everything we do in order to integrate sustainability into our business. This year, you'll also find data dashboards at the beginning of each section to better evaluate our year-over-year performance toward key performance indicators. But our sustainability story is so much more than the numbers—please check out the infographics, videos and case studies to learn more about our journey in 2011.

As always, input from our stakeholders is critically important to guiding our priorities. I ask you to share your thoughts on our progress as we partner in pursuit of a more sustainable world.

KATHRIN WINKLER

### **EMC 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.		

### **EMC SUSTAINABILITY** MATERIALITY ASSESSMENT

We undertake materiality assessments to identify and prioritize sustainability issues that are "material" to EMC's business. Areas considered by the assessment include those with which external stakeholders are most concerned as well as those we believe present the greatest risks and opportunities for our business. We are leveraging the results of the materiality assessment to provide strategic direction to the business, drive resources and goals, and guide communications.

#### 2011 MATERIALITY ASSESSMENT PROCESS

In 2011, EMC expanded the materiality assessment to include the results of an internal and external materiality survey, an external stakeholder engagement forum, and an internal materiality assessment. Both internal and external stakeholder perspectives are a critical part of the assessment. To learn more about our stakeholder engagement process, visit Stakeholder Engagement.

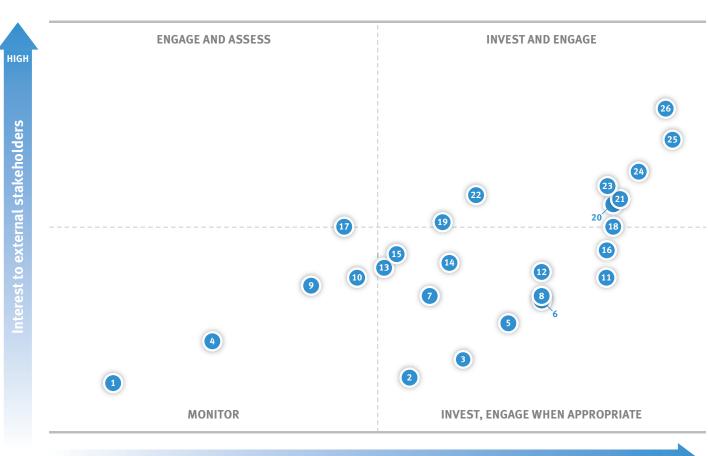
Our 2011 sustainability materiality assessment included the following elements:

- Materiality Survey: We distributed a survey to global stakeholders, including academics, NGOs, investors, suppliers, and customers, as well as EMC employees with responsibilities in manufacturing, sales, engineering, facilities and marketing. Fifty stakeholders responded from multiple countries including the United States, Canada, India, Ireland, and Egypt. The survey asked respondents to rank issues based on magnitude of risk or opportunity for EMC, asked for more feedback on those ranked as high priority, and asked in which issues they thought EMC could take a leadership position. In 2012, we plan to send the survey to a broader constituency for a more comprehensive perspective.
- Stakeholder Forum: We presented the results of our materiality survey to stakeholders for discussion and detailed feedback at our annual stakeholder forum facilitated by
- Internal Impact Discussion: Internal subject matter experts reviewed and ranked the issues based on their potential impact to EMC's business and the extent of the risks or opportunities involved. Among other things, we took into account each issue's perceived impact to EMC, relationship to our values, importance to our organizational success and relationship to our core competencies as well as EMC's ability to influence change.

#### **2011 MATERIALITY ASSESSMENT RESULTS**

The issues were ranked along two axes: importance to our stakeholders, and relevance to EMC's business (see figure below). The quadrant into which each issue falls provides guidance for EMC's response to that issue.

#### **EMC SUSTAINABILITY MATERIALITY ASSESSMENT**



Impact to EMC LOW HIGH

- Biodiversity
- Preservation of cultural heritage
- 3 Volunteerism/community support
- 4 Nanomaterials
- 5 Health care and public health
- **6** Employer responsibilities
- Resource consumption
- 8 Inclusion and diversity
- Renewable energy

- 10 Digital inclusion
- 11 Employee engagement
- **12** Education
- **13** Occupational health and safety
- 14 Climate change adaption
- **15** Waste and emissions
- **16** Positive impact of IT
- 17 Water
- 18 Human rights

- 19 Conflict materials
- 20 Climate change mitigation
- 21 eWaste
- 22 Hazardous substances
- 23 Innovation
- 24 Information privacy and security
- 25 Business ethics
- **26** Energy efficiency

- Monitor Follow the issue to see how the issue trends and develops. Over time, if the
  relevance to EMC changes, then EMC has the foundation to address the issue more
  actively.
- **Engage and Assess**—Engage external stakeholders to ensure a common understanding and shape our approach. Evaluate EMC's position in light of high stakeholder interest to deepen understanding of potential risks and opportunities.
- Invest, Engage when appropriate Devote resources towards mitigating and minimizing the issue and/or realizing the opportunity. Engage external stakeholders on a caseby-case basis.
- **Invest and Engage**—Devote resources towards mitigating and minimizing the issue and/or realizing the opportunity, and work with external stakeholders to ensure a common understanding and shape our approach.

The issues set forth below ranked highest in the 2011 materiality assessment, falling into the "invest and engage" category. The definitions used reflect those presented to stakeholders in the survey.

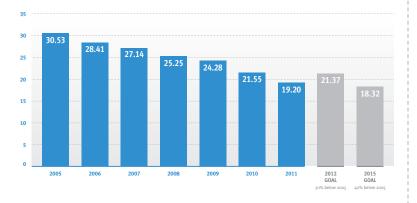
- **Energy Efficiency:** The ratio between the consumption of energy and a given production output or delivered service. An increase in energy efficiency is a change in energy use that results in an increase in net benefits per unit of energy. Includes: data center energy efficiency, product energy efficiency, facility energy efficiency, and cooling efficiency.
- Business Ethics: The moral value of human conduct and the rules and principles that
  ought to govern it. Acting through a set of principles of right conduct. Includes: antibribery and corruption, political contributions, executive compensation, and supplier
  ethics.
- Information Privacy and Security: Information privacy defines the relationship between
  collection and dissemination of data, technology, the public expectation of privacy, and
  legal and political implications. Information security refers to protecting information
  and information systems from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. Includes: physical and virtual
  security systems, end of life management of data, fraud and identity theft, hacking,
  cyber warfare, and transparency.
- Innovation: The creation of better or more effective products, processes, technologies, or ideas that are accepted by markets, governments and society, offering a substantial positive change compared to incremental changes.
- **eWaste:** Discarded, surplus, obsolete, or broken electrical or electronic devices. Includes: manufacturing eWaste, recycling, end of life planning, transfrontier shipments of eWaste, illegal shipments, and disassembly and recycling.
- **Climate Change Mitigation:** Lessening the force or intensity of the effects of climate change through strategies such as reduction or stabilization of greenhouse gas concentration in the atmosphere or increasing the reflectivity of solar radiation.

- Human Rights: The basic rights and freedoms to which all people are entitled, often
  held to include the right to life and liberty, freedom of thought and expression, and
  equality before the law. Includes: supply chain human rights, freedom of expression
  and the press, anti-discrimination, and protection of civil liberties.
- Hazardous Substances: Issues related to solids, liquids, or gases that can harm people, other living organisms, property, or the environment. Includes: toxic substances in products and in manufacturing processes, full material disclosure, Green IT, Design for the Environment, and substance regulations.
- **Conflict Minerals:** Materials sourced with ethical standards in mind, taking into account armed conflict and human rights abuses associated with sourcing of the materials.
- Positive Impact of Information Technology (IT): The positive impact of IT includes
  increased productivity, communication, and social understanding. IT has sped up research and scientific discovery, improved medicine, and allows for increased discourse.
  IT can affect other areas such as increasing innovation, decreasing energy consumption
  through intelligent monitoring, and decreasing climate change through video conferencing versus business travel. IT, used intelligently, will continue to positively affect our
  lives, and act as a catalyst for future advances.

### **KEY PERFORMANCE INDICATORS DASHBOARD**

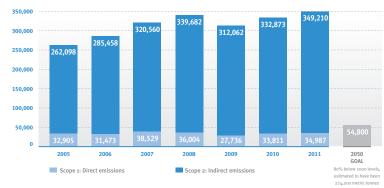
### EMC GLOBAL GHG EMISSIONS INTENSITY PER \$1M REVENUE SCOPE 1 AND 2

ALL LEASED AND OWNED GLOBAL FACILITIES AND MOBILE ASSETS, INCLUDES VMWARE—METRIC TONNES



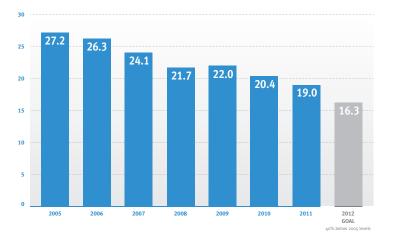
### EMC GLOBAL ABSOLUTE GHG EMISSIONS SCOPE 1 AND 2

ALL LEASED AND OWNED GLOBAL FACILITIES AND MOBILE ASSETS, INCLUDES VMWARE—METRIC TONNES



#### **ENERGY CONSUMPTION PER EMPLOYEE**

ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE—MWH/EMPLOYEE



#### **GLOBAL WATER WITHDRAWAL**

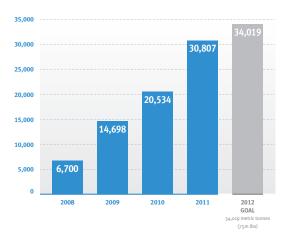
ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE—CUBIC METERS (M³)





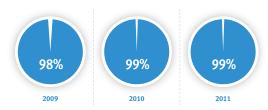
#### **CUMULATIVE EWASTE DIVERTED FROM LANDFILLS**

GLOBAL—METRIC TONNES



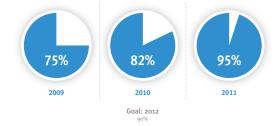
### PERCENT OF SUPPLIERS ACKNOWLEDGING THE SUPPLIER CODE OF CONDUCT

PERCENT OF DIRECT TIER 1 AND MANAGED TIER 2



Goal: 100% acknowledgement within 1 year of Supplier Code of Conduct release

### PERCENT BY SPEND OF SUPPLIERS REPORTING SCOPE 1 AND 2 GHG EMISSIONS DATA



### INNOVATION CONFERENCE PARTICIPATION GLOBAL

1900 }
1300 }
1300 }
1311 }
1214 }

2010

2011

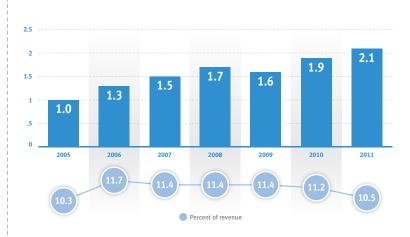
Ideas submitted

2009

Number of idea submitters

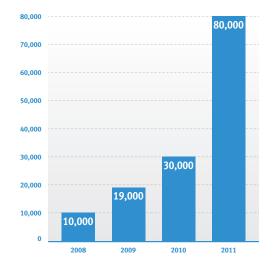
2008

### EMC INVESTMENT IN R&D BILLION \$USD



### NUMBER OF STUDENTS EDUCATED ON INFORMATION STORAGE AND MANAGEMENT

GLOBAL, CUMULATIVE



### **SUSTAINING ECOSYSTEMS**

EMC is committed to addressing and reporting on the impacts of our business and value chain on both the environment and people. Our top priorities continue to be energy use and climate change, and material use and waste. We are optimizing operations, engaging with suppliers, and leveraging the transformative power of our staff and technology to drive progress beyond the boundaries of our business.

THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

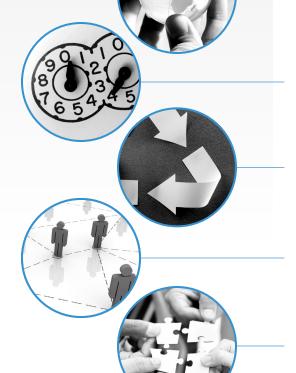
**Environmental Strategy** 

**Energy Use & Climate Change** 

Material & Resource Use

**Supply Chain** 

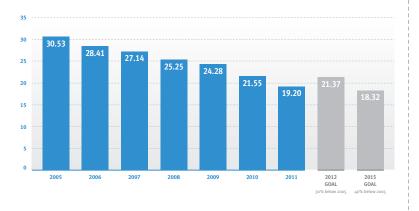
**Collaboration & Engagement** 



### SUSTAINING ECOSYSTEMS DASHBOARD

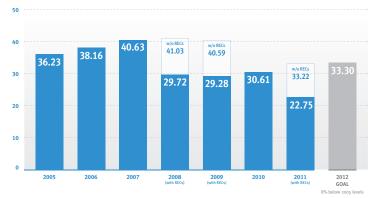
### EMC GLOBAL GHG EMISSIONS INTENSITY PER \$1M REVENUE SCOPE 1 AND 2

ALL LEASED AND OWNED GLOBAL FACILITIES AND MOBILE ASSETS, INCLUDES VMWARE—METRIC TONNES



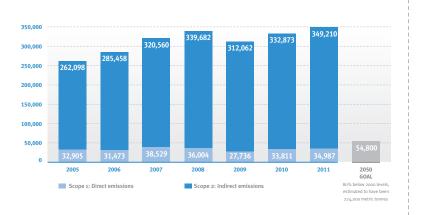
### CLIMATE LEADERS GOAL: EMC U.S. GHG EMISSIONS SCOPE 1 AND 2

ALL U.S. OPERATIONALLY-CONTROLLED LEASED AND
OWNED FACILITIES AND MOBILE ASSETS, EXCLUDES VMWARE—
METRIC TONNES PER 1000FT<sup>2</sup>



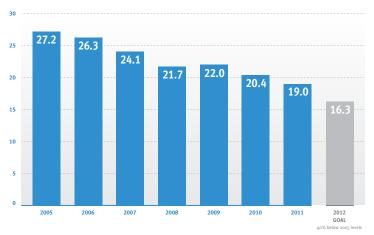
### EMC GLOBAL ABSOLUTE GHG EMISSIONS SCOPE 1 AND 2

ALL LEASED AND OWNED GLOBAL FACILITIES AND MOBILE ASSETS, INCLUDES VMWARE—METRIC TONNES



#### **ENERGY CONSUMPTION PER EMPLOYEE**

ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE—MWH/EMPLOYEE



#### PERCENT OF GLOBAL FACILITIES ELECTRICITY **CONSUMPTION FROM RENEWABLES**



GOAL: 2040

#### **EMC GLOBAL FACILITIES: ELECTRICITY CONSUMPTION**

ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE







#### **EMC GLOBAL FACILITIES: NATURAL GAS CONSUMPTION**

ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE







#### **SCOPE 3 GHG EMISSIONS**

**GLOBAL-METRIC TONNES** 





307,554



TRANSPORTATION AND LOGISTICS

157,207



3,512,000

2011

#### PHTHALATE SUBSTITUTION ASSESSMENTS **ACTION PLAN**

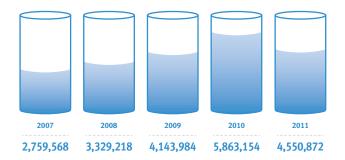
ALL EMC CORE PRODUCTS

Develop an action plan for phthalate substitution assessments, based on recommendations from consortia such as GC3 and the EPA Partnership on Alternatives to Certain Phthalates

**GOAL: COMPLETE IN 2012** 

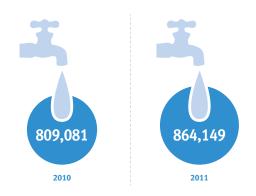
#### **EMC CORPORATE WATER REUSE**

MASSACHUSETTS FACILITIES—GALLONS



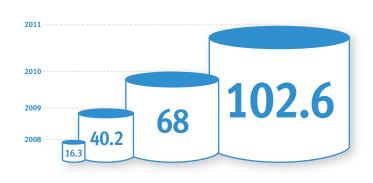
#### **GLOBAL WATER WITHDRAWAL**

ALL LEASED AND OWNED GLOBAL FACILITIES, INCLUDES VMWARE—CUBIC METERS (M³)



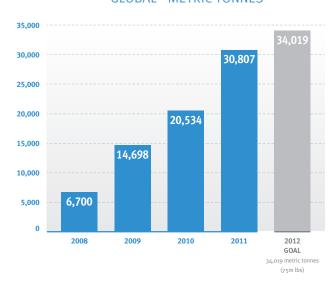
### COMPOST MADE FROM EMC MASSACHUSETTS CAFETERIA WASTE

**METRIC TONNES** 



#### **CUMULATIVE EWASTE DIVERTED FROM LANDFILLS**

GLOBAL—METRIC TONNES



### PERCENT OF OUR ITAD VENDORS AUDITED BY A THIRD PARTY

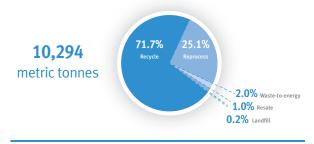
**GLOBAL** 



GOAL: 2012

#### **DESTINATION OF RETURNED PRODUCTS BY WEIGHT**

**GLOBAL-METRIC TONNES** 



2011

Goal: Continue to send less than 1% of eWaste to landfills

#### **ENVIRONMENTAL ASPECTS OF OUTBOUND PACKAGING**

GLOBAL, EMC CORE

15%

85%

99%

**RECYCLED** 

**RENEWABLE** 

**RECYCLABLE** 

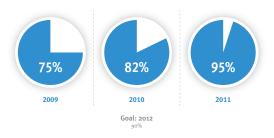
### PERCENT OF SUPPLIERS ACKNOWLEDGING THE SUPPLIER CODE OF CONDUCT

PERCENT OF DIRECT TIER 1 AND MANAGED TIER 2



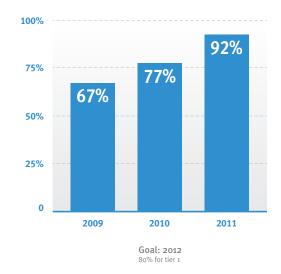
Goal: 100% acknowledgement within 1 year of Supplier Code of Conduct release

### PERCENT BY SPEND OF SUPPLIERS REPORTING SCOPE 1 AND 2 GHG EMISSIONS DATA



### PERCENT OF SPEND OF SUPPLIERS SUBMITTING SELF-ASSESSMENT QUESTIONNAIRE (SAQ)

PERCENT BY SPEND OF DIRECT TIER 1



### PERCENT OF HIGH RISK SUPPLIER FACILITIES AUDITED ON THE EMC SUPPLIER CODE OF CONDUCT

**GLOBAL** 



GOAL: 2012

### ADDITIONAL INFORMATION EMC'S ENVIRONMENTAL POLICY

#### **ENVIRONMENTAL STRATEGY**

EMC's environmental strategy guides our approach to business and day-to-day operations on a global scale. Through the Office of Sustainability and commitments from partners throughout the company, we manage our environmental impacts and provide the unified direction and purpose for our efforts based on the areas of greatest potential impact. These include:

- · Energy and climate change
- Material use and waste
- Collaboration and engagement with external groups

#### DEFINING ENVIRONMENTAL SUSTAINABILITY AT EMC

Environmental sustainability is defined by those we serve: our employees and their families, customers, suppliers, investors and the greater global community. By conducting and transforming the company in a purposeful manner, we can serve these groups by:

- · Conserving and enriching the environment in which we live and work
- Creating value in the adaptations that are required to thrive into the future
- Mitigating the risks from changes in the planet that we cannot influence

#### GOVERNANCE AND SUSTAINABILITY OVERSIGHT

The Corporate Governance and Nominating Committee (the "Governance Committee") of EMC's Board of Directors is responsible for overseeing our sustainability program. The Governance Committee meets with the Chief Sustainability Officer throughout the year to provide board-level oversight. Our operating model can be seen below.

#### **ENVIRONMENTAL MANAGEMENT SYSTEM**

Our environmental management system covers waste reduction, conservation of energy and materials, and overall environmental impact—using the same policies and procedures at all company operated facilities worldwide. This has allowed us to certify all our global manufacturing sites with ISO 14001 and limit noncompliance. We did not incur fines or nonmonetary sanctions for noncompliance with environmental laws and regulations in 2011.

#### ENVIRONMENTAL SUSTAINABILITY OPERATING MODEL **GREEN TEAMS Environmental** Office of **Board Of Directors** Drive initiatives **Sustainability Board Sustainability** within business function Corporate Governance Senior executives review Develops strategy and Nominating and ensure execution of **GREEN BUSINESS FUNCTIONAL** GREEN Committee provides strategy CHAMPIONS ORGANIZATIONS board level oversight LEADERSHIP Cross-functional **Functional** Raise awareness team coordinates. business leads and drive aligns, and drives initiatives in local initiatives offices

#### **ADDITIONAL INFORMATION CLIMATE CHANGE POLICY STATEMENT**

#### **ENERGY USE & CLIMATE CHANGE**

As a global enterprise, EMC recognizes and embraces our role in helping mitigate the impacts of climate change. We are utilizing our holistic view of energy efficiency to realize innovation throughout the business and address impacts. Transformative information technology (IT) is driving efficiency in our facilities and data centers, inspiring innovation in products and services we deliver and creating meaningful engagement with customers and supply chain partners.

#### THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Energy & Climate Change Strategy** 

**Efficient Facilities** 

**Efficient Products** 

**Efficient Data Centers** 

**Transportation & Logistics** 

**Employee Travel & Commuting** 

#### **ENERGY & CLIMATE CHANGE STRATEGY**

EMC's primary GHG emissions arise from the electricity needed to run our business, including our supply chain, and power our products. Therefore, EMC's energy and climate change strategy focuses on the following key areas:

#### I. Reducing emissions from our own operations by

- Decreasing the demand for energy
- Maintaining a highly efficient infrastructure
- Identifying opportunities to adopt renewable energy sources that are economically and environmentally sound

#### II. Reducing emissions in our supply chain by

- Engaging suppliers in measuring and reporting
- Collaborating with suppliers to reduce their emissions
- Working with the IT industry to develop standards for reporting supply chain emissions

#### III. Reducing energy demand in our customers' IT infrastructures by

- Supplying energy-efficient products
- Developing innovative approaches to increase data center operation efficiencies
- Delivering services to help customers implement the most energy-efficient solutions for their business

#### IV. Reducing global energy demand by

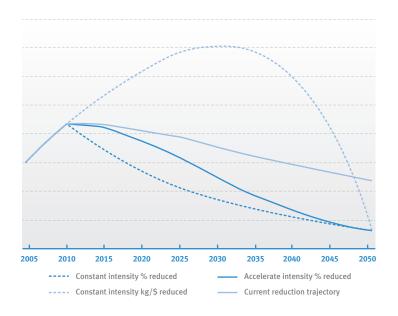
• Supplying information solutions to optimize business functions, accelerate research, and enhance public infrastructure

#### **GOAL SETTING**

We began measuring our GHG emissions in 2005. Since then, our energy intensity by revenue—the amount of GHG we emit per \$1 million we earn—has declined by 37%, from 30.5 to 19.2 metric tonnes. While we are pleased to have met our 2011 goals, we recognize there is more we can do to reduce emissions on a global scale. Below is a snapshot of our goal setting and revision process during the past six years.

2006	2009	2010	2011
As one of the first 40 companies to join the U.S. Environmental Protection Agency (EPA) Climate Leaders Program, EMC set an initial goal to reduce our GHG emissions by 8 percent per 1,000 square feet at our operationally-controlled U.S. facilities by 2012.	We realized that our Climate Leaders Goal was suboptimal since it penalized consolidation of office space that actually con- tributed to absolute emissions reductions. Nonetheless, we ex- pect to meet and retire this goal in 2012 with the aid of purchased Renewable Energy Credits.	EMC established new corporate GHG reduction targets:  • 30 percent reduction in GHG intensity below 2005 levels by 2012  • 40 percent reduction in GHG intensity below 2005 levels by 2015  • 80 percent absolute reduction in GHG emissions below 2005 levels by 2050  Supporting these emissions targets, we also established the following goals:  • Achieve a 40 percent reduction in energy consumption per employee by 2012  • Purchase 50 percent of all energy from non-fossil fuels sources by 2040	EMC's commitment includes a periodic review of targets by adjusting the model's assumptions regarding actual business performance and developments in climate science. In 2011 we reviewed our targets and decided to retain them through 2012.

#### TRAJECTORY DIAGRAM



#### **DETERMINING OUR GOALS**

To set our emissions targets, we began with the imperative to achieve an absolute reduction of at least 80 percent by 2050 in accordance with the Intergovernmental Panel on Climate Change's (IPCC's) Fourth Assessment Report recommendations. We then modeled various reduction trajectories to help us identify a solution that would be elastic enough to adjust to changes in our business while achieving a peak in absolute emissions by 2015, in accordance with recommendations from the 2007 Bali Climate Declaration.

Our model was based on the Corporate Finance Approach to Climate-stabilizing Targets (C-FACT) proposal presented by Autodesk in 2009. The model calculates the annual percentage reduction in intensity required to achieve an absolute goal. It aligns business performance and emissions reductions performance, rather than forcing tradeoffs between them, and drives investment beyond onetime reductions to those that can be sustained into the future.

The C-FACT system, however, is "front-loaded" as it requires a declining absolute reduction in intensity each year. EMC developed a variant of the model that requires reductions to be more aggressive than the previous year. This makes better economic sense for the company as it leverages the learning curve for alternative fuels as they become more efficient and cost-effective. Please see figure at left for more information about the trajectories studied.

#### **RELATED MATERIALS**

EMC'S RESPONSES TO CARBON DISCLOSURE PROJECT REPORT

#### REPORTING AND ACCOUNTABILITY

We are committed to reporting our progress transparently and disclosing our GHG emissions annually to the Carbon Disclosure Project (CDP). We have been listed on the Carbon Disclosure Leadership Index (CDLI) since 2008, the first year the index was published. The CDLI is comprised of the top 10 percent of disclosing Standard and Poor's 500 companies.

Our Ireland Center of Excellence (COE) also continues to participate in the European Emissions Trading Schemes, which is managed by the Ireland Environmental Protection Agency. While we have been significantly below our emissions allowances the past several years, the next period from 2013 to 2020 will be particularly challenging as it is expected that our allowance will be cut by an additional 30 percent.

#### RENEWABLE ENERGY

EMC's reduction targets cannot be achieved through operational energy efficiency alone. Our corporate goal is to obtain 50 percent of electrical needs from renewable sources by 2040 and we have continued working toward this goal by seeking renewable energy sources that are economically and environmentally sound. In 2011, we performed a feasibility study to determine the applicability of a combined heat and power plant for a large U.S. site. The findings showed that the system is feasible for the proposed application and location. The next step is to perform an internal benefit/cost analysis and, if the results are favorable, move forward with a more in-depth investigation of the proposed plant. We have also initiated a feasibility study on the use of fuel cell technology at another one of our U.S. locations. In addition, EMC constructed a meteorological tower in 2011 for the collection of wind data at our headquarters in Hopkinton, Massachusetts. Data will be collected for one year and analyzed to determine if wind conditions favor installation of one or more wind turbines.

EMC purchased 65,000 Renewable Energy Certificates (RECs) in support of renewable energy generated in the U.S. during 2011. Each of these RECs represents one megawatt-hour of renewable electricity delivered to the power grid by alternative energy sources. The RECs are third-party verified to meet strict environmental and consumer protection standards. The 65,000 megawatt-hours purchase represents approximately 10% of the grid electricity consumed at all U.S. EMC facilities including VMware® and all divisions during 2011.

In our Ireland COE, we have conducted feasibility studies on various solar and wind energy options. Though they are not viable options currently, this may change as we continue to improve our energy requirements and see improvements in the technology. In addition to renewable energy, we are starting to explore geo-thermal heating.

#### SCOPE 3 EMISSIONS

At EMC, we strive to increase the breadth and depth of our GHG reporting. In 2011, we started to report on 5 of the 15 categories of scope 3¹ emissions based on the WRI Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

#### **Business Travel**

We track corporate business travel miles from commercial flight and rail via our corporate American Express accounts. The methodology for calculating the emissions associated with business travel is aligned with the GHG Protocol Corporate Accounting and Reporting Standard.

We are undertaking specific actions to reduce GHG emissions associated with employee business travel by implementing changes in technology, business processes, and resource management. We have expanded technology to perform changes to customer technical environments from remote support centers in lieu of sending an engineer to the customer's

<sup>&</sup>lt;sup>1</sup> Scope 3 emissions are all the indirect emissions occur from sources owned or controlled by other entities in the reporting company's value chain.

site resulting in reduced travel emissions. A substantial amount of work that previously required travel to a customer location is now being performed remotely. We have implemented other initiatives that will impact Scope 3 business travel emissions over time including increased use of high-definition video conferencing and job role/skill redesign to reduce the number of different individuals required to perform common services. To learn more, visit Employee Travel & Commuting.

#### **Employee Commuting**

EMC maintains a comprehensive employee commuter services program focused on minimizing single-occupancy vehicles and unnecessary local employee travel. In 2011, EMC was bestowed the Massachusetts Excellence in Commuter Options (ECO) award including designation at the highest Pinnacle level. The Massachusetts Department of Transportation recognized EMC with this award for our exemplary commuter benefits program. EMC has also been recognized as one of the Best Workplaces for Commuters by the U.S. EPA. To learn more about our employee commuting programs, visit Employee Travel & Commuting.

#### **Purchased Goods & Services**

In 2011, we collected Scope 1 & 2 emissions data from direct Tier I suppliers comprising 95 percent of annual spend. Using economic allocation, we then approximated our share of these emissions. This involves determining the ratio of our spend to each company's revenue, and applying that ratio to their reported emissions. While approximate at best, this methodology follows the WRI GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and is currently the best available option given the level of data reported. Because this allocation approach requires access to supplier revenues, a small number of private companies were excluded from the analysis.

To learn more, visit Supply Chain Environmental Impacts.

#### **Transportation & Logistics**

In 2011, we collected GHG emissions reports from logistics partners totalling 89 percent of spend. These reports included only the GHG emissions from the freight that our logistics partners carried for EMC. We projected our total emissions based on this percentage of reporting. These emissions include inbound and outbound, interplant, and customer service logistics.

To learn more, visit Transportation & Logistics.

#### **Use of Sold Products**

EMC estimates that the lifetime GHG emissions from use of EMC products² shipped to customers during 2011 will be approximately 3,512,000 metric tonnes CO2e. This value represents our customers' Scope 2 emissions from powering our equipment. It is based on an estimated product lifespan of five years, and includes overhead for power distribution and cooling with an average Power Usage Efficiency (PUE) of 1.8. EMC used GHG Protocol methodology and a global average emissions factor of 504.33 g CO2e per kWh. The IEA 2009 World CO2 emissions factor and IEA 1999-2002 CH4 and N2O emissions factors were applied. The global warming potentials, which were obtained from the IPCC SAR-100, are 1 for carbon dioxide, 21 for methane, and 310 for nitrous oxide. We believe the total is conservative (i.e., that the directly measured value, if feasible, would be lower) as our calculation takes into consideration neither the reduction over time in carbon-intensity of fuel used by our customers, nor improvements in data center power and cooling efficiency.

In late 2010 and 2011, EMC collaborated with an external third-party to complete two Environmental Lifecycle Analyses using industry-recognized tools. The results confirmed our expectations that more than 90 percent of lifecycle impacts were due to electricity consumed during the product use phase. To learn more, visit Efficient Products.

<sup>&</sup>lt;sup>2</sup> Does not include Iomega®, RSA®, Data Domain®, Greenplum™ or Isilon® products.

#### **EFFICIENT FACILITIES**

Energy efficiency is an important component of EMC's climate change and energy strategy. Since 1987, it has been a priority in our owned and operated facilities. Today, it continues to play a critical role in how we operate and is an important area of focus in our engagement with suppliers around the world.

EMC's three-pronged approach to managing energy use and associated GHG emissions comprises:

- · An aggressive pursuit of energy efficiency
- Collaboration with our engineering and information technology (IT) teams
- Exploring opportunities for the use of renewable energy

#### **ENERGY EFFICIENCY**

In 2011, we implemented energy-efficiency initiatives at our owned and operated facilities ranging from the Free Fresh Air Cooling project at the Ireland Center of Excellence (COE) to installation of energy-efficient lighting systems at multiple facilities in Massachusetts.

This year we also reduced energy use through our Environmental Stress Screening (ESS) optimization project. The project, now in its third year, focuses on increasing the capacity and efficiency of ESS chambers. It was further expanded to global EMC sites in 2011 and has led to an annual decrease of 1.4 million kWh of energy and 9,620 MT of CO2e. The project earned the Irish Independent Green Award in 2011.

Beyond our facilities, we realize the importance of accounting for suppliers' GHG emissions in order to understand our full environmental impact. We began collecting emissions data from direct Tier 1 suppliers in 2009 and have expanded our program every year. In 2011, our Social and Environmental Responsibility (SER) initiative engaged suppliers once again – gathering greenhouse gas emissions data from suppliers representing 95% of our direct spend.

To learn more about supplier emissions and engagement, visit Supply Chain **Environmental Impacts and Energy & Climate Change Strategy.** 

#### EFFICIENCIES VIA INTERNAL COLLABORATION

The facilities team works closely with engineering and IT to manage global energy consumption by monitoring power use and implementing energy efficiency initiatives. Our data centers are designed to automatically capture and report PUE, which is The Green Grid standard for measuring the energy efficiency of data center infrastructures. We use the PUE system across all facilities, including our Hopkinton, Massachusetts and Cork, Ireland locations, as well as our new facility in Durham, North Carolina. These systems allow data center managers to consistently monitor and measure the impact of changes they make.

In 2011, we saw the PUE of the Ireland COE data centers/labs fall from 1.4 to 1.11, a direct result of the initiatives we put in place. This decline means we have moved even closer to the "very efficient" end of the PUE scale.

Read more about the energy efficient design and construction at Durham Cloud Data Center in our **EMC DURHAM CLOUD DATA CENTER** WHITE PAPER.

#### EFFICIENT FACILITIES AROUND THE GLOBE

#### **Durham, North Carolina**

In 2011, we completed construction on our new energy-efficient, 100-percent virtual data center in Durham, North Carolina. We officially opened on September 15, 2011.

Efficient technologies being utilized at this site include:

- Free air cooling for more than half of the year
- Flywheel technology that eliminates the need for batteries in uninterruptable power systems
- Cold aisle containment that increases temperature regulation control for high-density equipment

#### Hopkinton, Massachusetts

In October 2011, our 650,000 square foot corporate headquarters located at 176 South Street, Hopkinton, Massachusetts earned the Leadership in Energy and Environmental Design (LEED) Gold—Existing Buildings certification. The building, which was occupied by EMC in 2002, was awarded 61 points, just four points shy of Platinum certification. Certification highlights include:

- Energy efficiency projects totaling over 1.9 million annual kWh savings
- Enhanced recycling of more than 60 percent and composting with zero waste to landfill
- Environmentally friendly cleaning and pest management programs
- Organic landscaping and gray water irrigation
- Hybrid shuttle vehicles
- Wastewater treatment facility recycling 100 percent of sewage water with 5.8 million gallons of water recycled in 2010

#### Cork, Ireland

In 2010, the Ireland COE undertook a project to assess the viability of using outside air, or "free fresh air", to assist with cooling at this location. Taking advantage of a low local average air temperature, the team developed a plan to utilize new cooling units to maximize energy savings. The resulting Free Fresh Air program reduced total annual electricity consumption by 10 percent in 2011.

In 2011, the Sustainable Energy Authority of Ireland (SEAI) awarded the Ireland COE with the Major User Energy Efficiency Award for this project.

#### Bangalore, India

Our India COE has continued to drive energy efficiencies throughout the facility. The process started in 2008, when the lab began a Weekend Shutdown Program initiative to reduce its carbon footprint by turning off unnecessary servers. The initiative has reduced power consumption by 10 to 15 percent since it was implemented.

The India COE has since focused on renovating the location to meet LEED certification requirements. In 2011, during the second phase of changes, the COE earned LEED Platinum certification.

#### Milan, Italy

In June 2011, the building CENTRO LEONI, where our Milan office is located, received the LEED "Core & Shell" SILVER Certification.

#### PURCHASING EFFICIENT EQUIPMENT

We purchase energy efficient servers, printers, photocopiers, and personal computers for our operations worldwide. The purchases are guided by explicit efficiency requirements (including ENERGY STAR certification) and help achieve efficiencies by replacing older equipment with more efficient equipment and by creating energy reductions through consolidation and virtualization.

#### **EFFICIENT PRODUCTS**

EMC's global carbon footprint expands far beyond the technologies and resources needed to create our products—the biggest environmental impacts occur as a result of the energy consumed during product use.

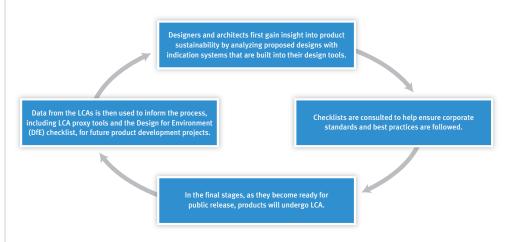
We are continuously working to improve the energy efficiency of all of our products—hardware and software—in order to generate savings for our customers and help them reduce their environmental impact. This involves efficiencies that can be gained by the products themselves as well as efficiencies realized when products are used in combination.

To learn more about how data center efficiencies come to life at EMC, visit **Efficient Data Centers.** 

#### **ENVIRONMENTAL LIFECYCLE ANALYSIS**

We employ tools and processes to measure and improve the sustainability of our products—allowing us to use current product development to help inform future sustainability practices. This process starts with our designers and architects, who gain insights into sustainable product design by using proxy indication systems that are embedded into their design tools. As the process continues, our engineers consult development checklists to ensure products adhere to our corporate standards and best practices. During the final stage, when products become ready for general release, we conduct a lifecycle analysis (LCA) on representative product configurations to inform future efforts.

#### LIFECYCLE ANALYSIS PROCESS



In late 2010 and 2011, EMC collaborated with an external third party to complete two LCAs using industry-recognized tools. The first was a cradle-to-gate analysis of one of our highest volume subsystem products. The other was a cradle-to-grave analysis (including use) of a typical configuration of one of our midrange products.

The LCA projects measured the following impacts:

- Water (kg water use)
- **Resource Depletion** (kg Sb-equiv)
- Primary Energy Demand, Non-Renewable (MJ)
- Acidification (kg SO2-equiv)
- Eutrophication (kg PO43-equiv)
- Global Warming (kg CO2-equiv)
- Ozone Depletion (kg R11-equiv)
- Smog Creation (kg C2H4-equiv)

The project evaluated these specific environmental indicators, but did not address community or social issues, finance and governance or other aspects of environmental sustainability, such as waste generation, toxic materials or impact on biodiversity. As a result, the outcomes are not the sole consideration but serve as a guide to focus efforts and inform decisions.

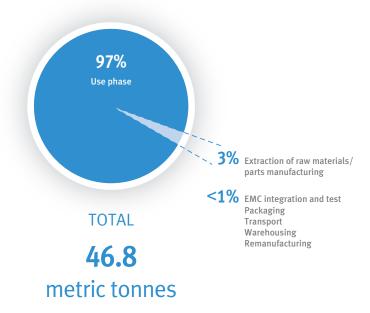
EMC had several goals for the project, including:

- Providing sustainability guidance for designers
- Informing and improving our proxy LCA tool and Design for Environment (DfE) checklist
- Confirming our most material impacts in order to prioritize efforts
- Helping us gain knowledge in how best to utilize LCAs to inform product development

The results confirmed our expectations that more than 90 percent of lifecycle impacts were due to electricity consumed during the product use phase. Other areas of impact include the manufacturing of disk drives, transportation of materials to and from the customer, energy consumed during testing and semiconductor manufacturing. Areas of relatively low impact include equipment warehousing, inbound transport from suppliers, internal transport between facilities and packaging.

#### **GHG EMISSIONS PER STAGE OF A REPRESENTATIVE EMC MIDRANGE PRODUCT (LCA)**

5 YEAR USE PHASE—METRIC TONNES



These findings help guide our strategy and focus our efforts. Moving forward, we will continue:

- · Increasing the energy efficiency of our products
- Advocating for best practices in reduction of PUE
- Implementing standards that help measure and define areas for energy-efficient operations of information technology (IT) equipment
- Working with suppliers to reduce impacts of manufacturing disk drives
- Investigating less carbon intensive options for transport of products and components
- Working to minimize transportation of cabinets and other high volume, heavy components
- Exploring lightweighting techniques
- · Reducing material impacts by informing design decisions
- Improving packaging efficiency without compromising efficacy
- Maximizing recovery and recycling of products at end-of-use

#### **EFFICIENT DRIVES**

EMC offers a variety of disk drives to meet varying needs of capacity, performance and cost—each with its own set of characteristics to consider when pursuing energy efficiency. For example, high-capacity SATA drives use less power but have slower performance. In contrast, lower capacity FC/SAS drives use more energy but have a higher performance. In addition, there are innumerable efficiencies that can be explored with using data drives in tandem with other technologies.

We were the first in the industry to use flash, or solid state, drives in enterprise storage systems. Enterprise flash drives offer energy efficiency in high-performance computing, using up to 97.7 percent less energy per IOP (operations per second) than FC/SAS drives, and up to 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 stringent performance targets. Fully Automated Storage Tiering (FAST™) technology can leverage the more efficient enterprise drives at the highest tier and the more efficient ATA drives at the lowest tier to achieve both greater efficiency and greater performance across the spectrum of service levels.

#### **EFFICIENT POWER & COOLING**

Beyond drives, there are three other key initiatives for reducing power use in our storage platforms:

- 1. Using more efficient power supplies to reduce energy loss as power is delivered to the storage platform. The use of high efficiency, capacity optimized power supplies reduces total equipment power and minimizes the generation of waste heat. This can yield significant savings in the facility cooling and power distribution infrastructure.
- **2.** Embedding instrumentation and utilizing effective tools to monitor and report power use and ambient temperature.
- 3. Embracing adaptive cooling technology to save energy by dynamically adjusting fan speeds in the storage platform. Our adaptive cooling technology continuously samples the external environment and adjusts its operation to minimize power consumption while maintaining reliability.

EMC's newest power supplies now operate with up to 92% efficiency, improving by several percentage points on the previous power supplies from the previous class.

#### **EFFICIENT DATA CENTERS**

Each and every day, EMC IT strives to advance EMC's vision and strategy for delivering secure Cloud Computing and Big Data while delivering IT services to our business units.

EMC leverages our leadership in information management and Cloud Computing to transform our own IT operations to deliver IT-as-a-Service to the business. We develop and apply our technology solutions and other industry best practices for energy-efficient virtual data centers. In doing so we are addressing the same challenges EMC customers face in their respective organizations - providing purposeful, innovative and transformative options to manage digital information growth, while working within the constraints of energy availability and space.

#### **OUR CLOUD TRANSFORMATION**

EMC IT supports approximately 53,000 "internal" users working in 150 corporate offices in more than 50 countries. EMC's Global IT environment spans five data centers hosting more than 500 applications and twelve petabytes (12 PB) of information storage. EMC IT collaborates closely with the EMC global sales and services organization, which supports more than 400,000 customers and partners in 80 countries across 20 languages.

To gain agility, improve efficiency, and enable business innovation and competitive advantage for the company, EMC IT embarked on a multi-year Journey to the Cloud moving from a physical to a highly virtualized IT infrastructure and more automated processes that will enable IT-as-a-Service. While our journey was fueled initially for economic reasons, it has also produced environmental benefits from reduced GHG emissions and material consumption.

Learn more about our Cloud journey at EMC IT Proven.

#### LEVERAGING OUR TECHNOLOGY FOR EFFICIENCY

Virtualization and Cloud Computing are improving energy efficiency in our data centers. By leveraging our own technologies—virtualization, data deduplication and Fully Automated Storage Tiering (FAST) — we are delivering significant energy and cost savings on the journey to the Cloud.

Dynamic allocation of server and storage resources in a virtual IT infrastructure allows us to strike the right balance between energy-efficiency and business performance. Our virtualization strategy includes:

- Tiered, shared and virtualized server and storage clusters
- Virtual (thin) provisioning of IT infrastructure
- Integrated management and automation for virtualized infrastructure

In 2004, we began our virtualization journey. By the end of 2011, EMC IT had virtualized 85 percent of OS images and 100 percent of our x86 server environment. On average, we are achieving virtual to physical consolidation ratios of 22:1. We have realized a four-fold gain in server and storage utilization and a 170 percent improvement in storage administration productivity. In addition we reduced the number of databases from 51 to six.

By deploying our Avamar® and Data Domain® data deduplication solutions, we have reduced the backup storage capacity required by 70 percent while considerably shrinking the backup windows. Disk-based backup, archiving and data deduplication have significantly improved the overall efficiency of our backup and recovery environment.

FAST technology, which automatically moves data to the appropriate tier of storage, such as flash drives for ultra-high performance, or SATA drives for infrequently used information, is further optimizing our storage infrastructure for performance, energy-efficiency and cost.

#### **RESULTS TO-DATE OF EMC'S CLOUD TRANSFORMATION**

	2004	2011
EMC REVENUE	\$8.2 billion	\$20 billion
# OF EMPLOYEES	22,700	53,000
AMOUNT OF INFORMATION	1 PB	12 PB
# DATA CENTERS	5	5
INFRASTRUCTURE VIRTUALIZED %	0%	85%
# OF SERVERS	2,000 Physical servers	1,800 physical servers hosting 7000 OS images
% OF IT SPEND ON NEW CAPABILITIES VS. KEEPING THE LIGHTS ON (MAINTENANCE)	23%	42%
TIME TO PROVISION IT INFRASTRUCTURE	90 days	~1 day

Operationally, from 2004-2011 our Cloud journey has saved the company millions of dollars while improving productivity and driving value and agility for the business. During this period, EMC IT realized capital savings of \$120 million and operational savings of \$66 million. We also managed to reduce energy consumption by 34 percent and shrink our carbon footprint by nearly 100 million pounds of CO2e.

#### NEW EMC DATA CENTER IN DURHAM, NORTH CAROLINA

EMC officially opened the doors to its new Durham Cloud data center on September 15, 2011.

Built with leading technology solutions from EMC, VMware and the VCE Company, the 100 percent virtualized Durham datacenter is the foundation for EMC IT's Cloud vision and transformation to IT-as-a-Service. The new data center will enable EMC IT to deliver the agility, flexibility and scalability needed for current and future business needs. Additionally, this state-of-the-art facility provides a world-class showcase for customers and enables employees to tap into Cloud capabilities through its global R&D labs.

The Tier III data center meets stringent PUE objectives of 1.3 and is on course to being LEED Corporate Interiors (CI) certified. Environmental 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). To learn more about the energy efficient design and construction at Durham Cloud data center, visit **Efficient Facilities.** 

#### DATA CENTER ENERGY EFFICIENCY TRANSFORMATION

		OLD PHYSICAL DATA CENTER	DURHAM CLOUD DATA CENTER	DELTA	PERCENT IMPROVED	ANALYSIS
PHYSICAL A	ND VIRTUAL SERVERS	ON THE JOURNEY	TO THE CLOUD			
Servers	Servers	2,120	3,550	1,430	+67%	Server demand grew by 67%
	% Virtual	32	100	68	+213%	100% virtual servers, up from only 32% virtual
	Watts/Server	399	128	-271	-68%	271 watts saved per server by leveraging virtualization
INFORMATIO	ON LIFECYCLE MANAG	EMENT STORAGE E	BY TIER			
Storage	Storage (TB)	2,808	5,518	2,710	+97%	During the project, storage demand grew by 97%
	Watts (TB)	302	82	-219	-73%	The project was able to reduce power per TB by 73%
DATA CENTE	R INFRASTRUCTURE (	OPTIMIZATION				
Power	IT Load (KW)	1,270	1,050	-220	-17%	IT demand continued to grow, while power was decreased
	Total Load (KW)	2,540	1,365	-1,175	-46%	Overall the project saved 1.2 Megawatts of power demand
	PUE	2	1.3	-0.7	-35%	PUE improved by 35%

## NO IDLING TURN OFF ENGINE

"NO IDLING" SIGN AT EMC'S FACILITIES

AND CHOCK WHEELS

#### **TRANSPORTATION & LOGISTICS**

EMC is reducing energy consumption and material waste in the transport of our goods around the world. Internally, our Global Sustainable Logistics Workgroup works with others to analyze the drivers of greenhouse gas emissions in EMC Logistics, prioritize impact areas and reduce our environmental footprint. Externally, we engage our logistics carriers to increase efficiency and adopt environmentally-friendly practices.

#### IMPROVING OUR LOGISTICS OPERATIONS EVERY DAY

We believe that efficiency, environmental benefit, and cost savings can go hand in hand. In each of our global locations, our teams are evaluating packaging, processes, modes of transit and consolidation to identify opportunities for improvement. In 2011, we executed projects that avoided over 7,000 metric tons of CO2e emissions and saved more than \$3.5 million. Active interest and participation from our various business units and recent acquisitions has allowed us to broadly implement better practices, such as implementing "no idling" policies for logistics partners' vehicles at our facilities.

In 2011, we began to consolidate freight shipped in the same lanes but managed by different organizations within EMC. Consolidation resulted in higher capacity utilization, improved transit times, reduced freight costs, and environmental benefits. We also expanded efficiencies developed in previous years such as our Merge-In-Transit centers, where customer deliveries and returns are consolidated and bundled to maximize truck utilization and minimize miles travelled. In 2011, the Ireland and Netherlands Logistics Centres consolidated 14 logistics operations supporting the international market.

The Logistics organization also drives projects in sustainable packaging, reducing both material use and emissions. To learn more, visit Packaging.

#### PARTNERING WITH OUR CARRIERS TO DRIVE CHANGE

Sustainability has become an integral part of the business relationship with our logistics carriers. We require major carriers to provide CO2 emissions reporting on the freight they carry for EMC. Carriers are also asked to present their companies' sustainability programs and goals during quarterly business reviews. In the United States, we require our carriers to join the SmartWay Transport Partnership, a program of the U.S. Environmental Protection Agency, which works with carriers to increase efficiency and reduce GHG emissions. More than 98 percent of our domestic freight volume is moved using SmartWay-certified providers.

We collaborate with our carriers to optimize routes, leveraging their logistics networks and process capabilities to meet EMC's requirements for cost, timeliness, and reduced environmental impact, and share strategies and GHG accounting methodologies with our logistics partners through quarterly business reviews and in meetings with their sustainability teams. Knowledge transfer is beneficial and crucial to advancing industry standards.

#### MEASURING OUR IMPACT

EMC's Global Logistics Operations generated approximately 157,207 MT CO2e in 2011. This number is estimated using the GHG emissions reports from our logistics partners directly relating to EMC freight movement. We collected emissions reports that represented 89% of our 2011 logistics spend, and projected our total emissions based on this percentage of reporting. These emissions include inbound and outbound, interplant, and customer service logistics relating directly to EMC freight movement. We encourage partners to report based on their own fleets' emissions factors to more accurately gauge performance. We also set standards to quantify the environmental impact of sustainable logistics projects that will help us both measure our progress and identify projects with the highest potential to reduce GHG emissions.

#### MEETING CHALLENGES HEAD ON

A key challenge has been to aggregate our logistics GHG data due to the different reporting formats used by our many carriers worldwide. In 2012, we will collaborate with carriers to develop a common template for reporting environmental impact data. This will reduce complexity, as well as time and effort required by our vendors, and enable us to more accurately compare carrier performance and prioritize opportunities for improvement.

Another key challenge is balancing the business need for low inventory and high availability with the sustainability drive for low emission transport modes. In 2012, we will expand internal discussions to identify strategic opportunities to use sea or rail transport rather than air for certain transport lanes or products.

Our objective is to position EMC Logistics to succeed in shaping a low carbon future by continually integrating sustainability practices into strategy development and every day operations, and by collaborating with logistics partners to achieve reductions. We will continue to report our progress, launch projects to make incremental improvements, and aspire for big changes to significantly reduce our impact worldwide.

#### **EMPLOYEE TRAVEL & COMMUTING**

EMC encourages alternative travel, commuting and communications methods, including e-conferencing, virtual meetings, remote work assignment programs and shuttle services. We encourage employees to reduce their environmental impact, and achieve savings for our business at the same time. In addition, we are creating efficiencies in our corporate fleet.

#### E-CONFERENCING

We provide a number of technology options for employees to collaborate more effectively and more often without having to travel. Our options for e-conferencing include teleconferencing, web meetings and audio conferencing. We have 43 Cisco TelePresence facilities around the globe, including the nine facilities we added in 2011, which has encouraged further company collaboration. Our three-screen TelePresence facility in the main plant at the Cork, Ireland Center of Excellence (COE), was even used by the mayor of Cork in 2011 for a meeting with the mayor of San Francisco, California.

In 2011, our e-conferencing technology was also used to support an online dialog on "Social Enterprise Education in Universities." The dialog successfully brought together academics and students from London, Boston and Beijing to share knowledge, ideas and experience on running social enterprise courses and promoting social entrepreneurship on campus. It was co-organized by the British Council and Social Enterprise London.

#### **CORPORATE FLEET**

We have shifted to more energy-efficient models in our fleet of corporate cars available to employees in Europe. In 2011, we reduced fuel consumption in our European fleet by about 20 percent working towards our 2013 goal of 25 percent.

We continually examine our fleet and potential replacement aircraft to improve fuel efficiency and reduce emissions. In 2011, the fuel consumed per mile in our corporate aircraft fleet decreased 2.5% from 2010 due to a more efficient jet fleet. We are aligned to participate in the EU-Aviation Emissions Trading Scheme (EU-ETS or AVETS) and have already reported our 2010 CO2 emissions as our benchmark year. The EU-ETS or AVETS goes live in 2012, with active credit trading commencing January 1, 2013.

#### TELECOMMUTING/WORKWISE

More and more of our employees are working remotely and with other flexible work arrangements. Our WorkWise program, for example, empowers eligible employees in either a partial or full commitment to work remotely. The environmental benefits include reduced emissions from and time lost to commuting and facility consolidation which allows more efficient use of space and energy.

### **CYCLE TO WORK PROGRAM FROM CORK**

The Cycle to Work program was an initiative launched by the Irish Government in 2009 and was first offered to our Ireland Center of Excellence (COE) in 2010. The program offers several benefits, including:

- Personal health and fitness: Employees can burn approximately 4,000 calories per week by cycling to/from work.
- Reduced environmental impact: Cycling is a zero emission form of transportation.
- Financial savings: Employees can save up to 52 percent off the retail cost of a bicycle through the program. It also covers bicycle accessories up to €1,000 per employee.

In 2011, we expanded the program to offer employees two separate five-week windows to learn about the program benefits and research bikes before purchasing. Since 2010, 377 employees have used the program.

#### EMPLOYEE COMMUTING AND SHUTTLE PROGRAMS

Our corporate facilities in the U.S. and the Ireland COE offer carpool matching programs for employees. This was the first year of participation for the Ireland COE and was part of their larger partnership with Smarter Travel, an arm of Ireland's Department of Transport, Tourism and Sport that aims to provide resources for sustainable travel and transport. We also expanded our U.S. program to include all of our California locations.

Looking forward to 2012, our India COE plans to launch a web-enabled carpooling initiative called iPool and will continue discussions with the Bangalore Metropolitan Transport Corporation about Common Bus Routing Service. We also are exploring options for installing electric car charging stations in the U.S.—a perk we hope to one day offer our employees.

Other EMC commuting projects and programs include:

- Bike racks and showers for employees who bike to work
- Incentives to encourage employees to use public transportation, including direct service to our locations from some local train stations and a commuter pretax savings plan
- Shuttle services between buildings at our central Massachusetts facilities to limit employees' use of their own vehicles
- Shuttle fleets with hybrid vehicles

#### **MATERIAL & RESOURCE USE**

EMC is constantly pursuing opportunities to eliminate waste throughout the value chain and at all of our owned and operated locations. We are continuously working to encourage conservation and improve recycling and re-use, from facilities to product development and packaging to end-of-life management. We are committed to using less and reusing more, while protecting environmental and human health from risks throughout the value chain.

THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Product End-of-Life** 

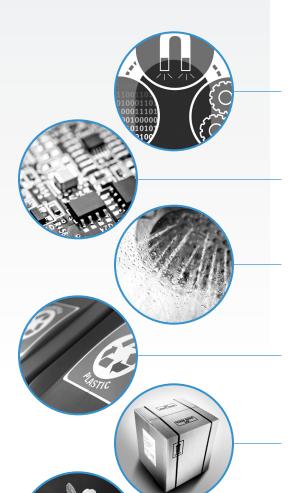
**Product Material Content** 

Water Use & Management

**Recycling & Waste** 

**Packaging** 

**Biodiversity** 



## **EMC's Commitment**

- 1. EMC will take back all EMCbrand equipment
- 2. EMC does not export eWaste from developed to developing countries
- 3. EMC does not use forced, prison, or child labor to process eWaste

**READ OUR PRODUCT TAKE BACK AND EWASTE PRINCIPLES** 

ADDITIONAL INFORMATION **IOMEGA MAKES IT EASY FOR YOU TO RECYCLE** 

PRESS RELEASE ON INNOCENTIVE CHALLENGE

#### **PRODUCT END-OF-LIFE**

EMC aims to meet the highest standards of environmental stewardship, maximize the economic value of returned products, and effectively manage risks associated with product end-of-life processes. Our global eWaste program offers product take back to all of our customers worldwide to help ensure those products are recycled or disposed of responsibly and in compliance with the law.

#### **DESIGN FOR DISASSEMBLY**

A truly effective take back and eWaste program starts with product design. The easier a product is to disassemble, the easier it is to reclaim, recycle and dispose of in a responsible manner. This reduces waste and recaptures the value of recyclable and reusable materials.

Our standard design specifications include easy component recovery and improved disassembly procedures. EMC engineers work closely with IT asset disposal (ITAD) vendors to better understand how EMC's products are broken down in the recycling process, and to identify opportunities to design for more efficient recycling and recovery.

### RESPONSIBLE HANDLING OF CUSTOMER RETURNS

We accept returns of all EMC-branded products at the end of their useful life. Where appropriate, we recondition products for donation or internal deployment. All remaining products are disassembled and some subassemblies are re-manufactured and tested to new product standards so that subassemblies that pass the testing can be used again. Approximately one-quarter of returned material (by weight) is processed at our manufacturing facilities. The remainder is sent to our ITAD vendors who responsibly reclaim, recycle or resell the remaining material, sending less than three percent to waste-to-energy facilities or landfill. To protect customers' information, disk drives are degaussed (magnetically erased) and/or physically shredded prior to recycling.

In 2011, Iomega®, a wholly-owned subsidiary of EMC, instituted a take back program for U.S. residents. This was done to help consumers ensure safe and responsible recycling and for lomega to comply with expanding U.S. state regulations. To learn more, visit iomega.com/recycle.

#### GLOBAL ALIGNMENT FOR GREATER EFFICIENCY

In 2011, we harmonized policies and practices across our business and geographies. Our internal Take Back and eWaste Governance Committee, which includes representatives from the Office of Sustainability, Global Product Operations, Environmental Health & Safety, Security, and the Office of the General Counsel organizations, oversees consistent implementation of our policies throughout the company.

In 2012, we will continue working to establish in-region eWaste handling to reduce GHG emissions from transportation of goods, and prepare for compliance with evolving international regulations. EMC is committed to developing recycling solutions that conform to our eWaste principles, regardless of location.

#### ITAD VENDOR SELECTION, AUDITING AND COLLABORATION

Partnering with responsible and transparent ITAD vendors is crucial to proper eWaste management. In 2011, we implemented a new ITAD selection process which requires our Take Back and eWaste Governance Committee to approve each new vendor, with preference

given to vendors that have achieved e-Stewards, R2 or equivalent certifications. The committee also initiated a retroactive review of ITAD contracts to determine conformance to new standards.

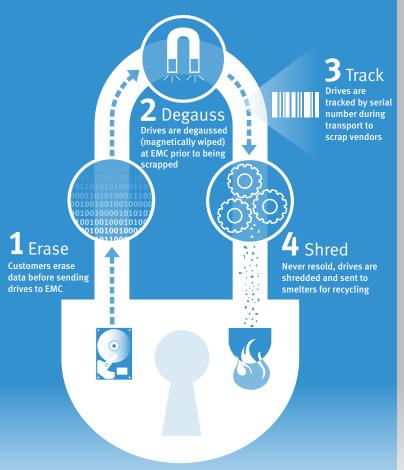
In 2011, EMC launched a program for third-party audits of our ITAD vendors. Our goal is to have 80 percent of our ITAD vendors audited by a third party in 2012. These audits will complement existing EMC audits to verify security and regulatory compliance. EMC is committed to continued engagement with our ITAD vendors and downstream partners to collaborate on best practices.

### COLLABORATING TO SET INDUSTRY STANDARDS AND CREATE INNOVATIVE SOLUTIONS

Rigorous standards and metrics are essential for building effective global eWaste programs. EMC is actively engaged with The Green Grid to develop and promote consistent, industrywide eWaste metrics that measure and account for responsible recycling and disposal.

## THE EMC APPROACH TO eWASTE PROTECTING OUR CUSTOMERS' DATA

EMC is committed to protecting customer data in our eWaste management. We take steps far beyond industry standards to ensure data security.



## WASTE DISPOSAL

Less than 1% of all of EMC's eWaste, including drives, goes to landfills

In 2012, EMC will partner with the Environmental Defense Fund and Innocentive to crowd-source solutions to effectively track eWaste throughout the waste stream. Through this process, we hope to identify ideas to help responsibly manage waste, and plan to share key learnings with the industry.

EMC supports industry collaboration to balance the economic benefits to people in developing countries involved in the eWaste process, while also protecting human health and the environment. In 2012, we will partner with the Massachusetts Institute of Technology Sloan School of Management to explore alternative eWaste economic models to these goals.

#### PRODUCT MATERIAL CONTENT

Information technology (IT) devices contain potentially hazardous chemicals and heavy metals that can adversely impact 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 researching and identifying 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 designs and use that knowledge to implement best practices for ongoing design.

#### **IDENTIFYING ALTERNATIVES**

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

Our Material Sciences lab collaborates across industry and academia to identify and qualify alternatives that meet the same or higher standards 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 whenever technically and economically feasible—even if use of that material is permitted by law.

As an example, in 2010 EMC identified a halogen free printed circuit board (PCB) material that did not contain brominated flame retardants. This new material met EMC's rigorous requirements for product performance, availability, continuity of supply, cost viability, and long term reliability. In 2011, we shifted over the majority of our PCB designs to this new material and have recently begun working with our partners to develop a newer halogen free material with improved electrical characteristics to enable the deployment of next generation products.

EMC is also a member of the Center for Advanced Lifecycle Engineering (CALCE) and we use their research and resources for information on the environmental impact of materials in our products.

We continue to work with the Green Chemistry and Commerce Council (GC<sub>3</sub>) to identify alternatives for phthalates that will both meet the qualifications for use in our products and reduce their impact on the environment and human health. GC<sub>3</sub> has selected certain phthalates used by EMC and other industry partners and is conducting a GreenScreen to better understand their impacts on human health. GC<sub>3</sub> will report their findings in 2012. EMC intends to use the findings to work with the other GC<sub>3</sub> industry participants and suppliers to determine whether suitable alternatives can be found.

In addition, we participate in the U.S. Environmental Protection Agency Partnership on Alternatives to Certain Phthalates, a project of their Design for Environment Program. In 2011, this project published alternatives for eight phthalates of high concern. We are currently working with our suppliers to evaluate these alternatives for use in our products.

Independent of these industry partnerships, EMC has identified and qualified a plasticizer for our cable sheathing that is free of halogens, PVCs, and phthalates. However, there is insufficient demand within the supply chain for this alternative material, as the chemicals it replaces are not currently regulated. Without demand, there are challenges of cost and continuity of supply, and it is not viable for EMC to use the substitute material.

#### FULL MATERIAL DISCLOSURE

In 2010, EMC launched a Full Material Disclosure (FMD) database to catalogue and trace substances used in EMC products. This database enables us to quickly and easily identify the presence of substances to restrict their usage in response to regulation or as part of our own programs. To gather this information, we asked direct suppliers to identify, by CAS number (a unique identifier for chemical substances), materials used in every part of EMC products.

Compiling this database is complex due to the vast 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 achieved our goal of 65 percent<sup>3</sup> completion of the FMD database in 2011. We continue to gather this information from our suppliers, adding data for our new products and backfilling data from our older product releases.

The FMD database also helps with non-environmental programs, such as identifying where "conflict minerals" (tin, tantalum, tungsten and gold) are used in our products so that we can trace their source. To learn more, visit Supply Chain.

#### MEETING COMPLIANCE AND CUSTOMER REQUIREMENTS

As interest in reducing the environmental impact of IT products has grown, regulations on product material content worldwide have followed. There has also been an increase in requests for information from our customers on specific substances in our products. The above mentioned initiatives are crucial to our efforts to stay ahead of government regulations and customer desires, but the proliferation of regulations and the lack of global harmonization can be a challenge. EMC has a governance body which oversees environmental product compliance and regularly anticipates and communicates requirements to our engineering organization and supply chain. In 2012, we plan to increase education for our suppliers to help them understand and prepare for the quickly changing regulatory landscape.

#### VOC EMISSIONS

VOC is not material to EMC's manufacturing operations and our VOC emissions are negligible. Other than minor spray paint touch-up processes, we do not have painting or coating operations or other VOC-containing processes. Our supplier specifications require the use of non-VOC powder coating or water-based paints, with the exception of a small number of decorative parts.

#### **WATER USE & MANAGEMENT**

Although EMC has a relatively small water footprint throughout our operations, we take a conscientious approach to conserving this important global resource. In our owned and operated facilities, we minimize water consumption and manage wastewater to protect local water quality. Our owned global manufacturing facilities produce no industrial wastewater.

#### WATER CONSERVATION

We use various water efficiency and conservation features in our facilities worldwide, such as low-flow plumbing fixtures, rainwater capture systems and free air cooling. We also consider water conservation and efficiency elements when designing and constructing new facilities.

At our headquarters in Hopkinton, Massachusetts, wastewater is reclaimed at an on-site treatment plant which filters wastewater through three treatment and disinfection processes, resulting in treated "gray" water. In 2011, we reused more than 4.55 million gallons of gray water for cooling, sanitation, and irrigation. Unused gray water is returned to the ground through infiltration systems to replenish local watersheds. The amount of water reused was down from over 5.8 million gallons in 2010 due to a 10-week disruption in treatment plant operation while we worked to resolve a quality issue.

#### STORMWATER MANAGEMENT

At our Massachusetts facilities, which account for more than 25 percent of our corporate physical footprint, we have implemented a stringent Stormwater Management System to help protect and maintain the integrity of the surrounding resources. At these facilities, we have also implemented an Integrated Pest Management program to minimize and eliminate, where possible, the use of chemical herbicides, insecticides, and pesticides. Through diligent management efforts, we ensure a high quality of stormwater runoff from our facilities which minimizes the impact of our operations on natural resources including groundwater and surface water.

#### WATER FOOTPRINTING

Since 2007, we have tracked water consumption data for all of our owned facilities and most of the larger facilities that we lease. We use the World Business Council on Sustainable Development's Global Water Tool to analyze our operations and calculate our water footprint in water-stressed areas.

Our total 2011 global water withdrawal was 864,149 cubic meters. 81 percent of the water withdrawal data were compiled from reliable water bills and water meter readings. The remaining annual corporate water consumption was estimated using a water intensity factor calculated by benchmarking consumption at metered EMC facilities.

In our new Durham Data Center in North Carolina, efficiency design innovations include a rooftop water collection system that has reduced our water usage at the facility by more than 40 percent—one inch of rain on the 450,000 square foot roof equals 280,000 gallons of water. Air-intake plenums around the perimeter of the building and air-side economizers provide free cooling during the months of cool weather - approximately 5,000 hours per year - reducing water consumption required to cool the data center.

EMC has incorporated various innovative and efficient technologies to reduce the amount of water needed to cool our data centers. One example is adaptive cooling which is used in all of our storage platforms and reduces blower and fan speeds to cool in proportion to the ambient temperature. We are also leading a shift to Cloud Computing, which is converting Information Technology infrastructure into a highly efficient, shared, dynamic, and flexible service for substantial improvements in power and cooling efficiency. Through dynamic provisioning of resources, the Cloud enables the spread of peak demands across a pool of resources which requires less energy and water to serve the data center's aggregate needs. Our virtualization software has the potential to greatly improve the energy efficiency of existing data centers/servers by consolidating hardware assets, thereby significantly reducing energy and water consumption, and avoiding the need for additional data center facilities.

ADDITIONAL INFORMATION
CDP WATER DISCLOSURE
REPORT RESPONSE

#### **ENERGY-WATER NEXUS**

We recognize that water, energy and carbon emissions are interconnected. Water is required to generate and transmit the energy we consume, and energy is used to supply the water we use. Our suppliers use water in their operations to produce the material components in our products. Water conservation and efficiency activities save energy and help reduce the carbon emissions generated from these activities.

We also understand that there can be trade-offs between water and carbon emissions. Water and energy are needed to power and cool our own data centers as well as those of our customers, and our wastewater treatment plant consumes energy while reducing our water footprint.

We take a holistic view of energy and water use and the resulting carbon emissions, and thus focus on driving efficiencies in our products and operations. For example, applying free air cooling technology has allowed us to reduce the amount of energy and water consumed in our data centers and labs.

Moving forward, we plan to conduct a deeper analysis to further understand the links and trade-offs between water and carbon emissions. We will use the findings to develop strategies to help minimize our overall impact on the environment.

#### **RECYCLING & WASTE**

EMC encourages recycling in our owned and operated facilities to reduce the amount of waste that ends up in landfills.

#### RECYCLING & COMPOSTING

We use the following approach to capture recyclable materials in our facilities around the world:

- In our Massachusetts, North Carolina, California, and Cork locations, recyclables are removed from the waste stream by waste management contractors or municipal providers.
- In our manufacturing operations, recyclables are sorted and resold to recycling vendors —reducing waste and costs, and making the process more efficient.

Realizing that recycling is managed and controlled in our company-owned facilities, we have begun to explore recycling opportunities and efficiencies in leased facilities. Starting in 2011, we now require specific sustainability information, including details on facility recycling, in all new lease agreements.

We also are always looking for opportunities to improve and innovate. We compost cafeteria waste at several facilities worldwide and added Apex, North Carolina to the list in 2011.

Other highlights from 2011 include:

- Our Massachusetts locations alone composted more than 102 tonnes.
- Our Cork, Ireland location recycled 1577 tonnes.
- Our Bangalore, India location recycled 20.16 tonnes.

#### **EWASTE**

We strive to re-use office electronics, extend their useful life and reduce waste at all of our company-owned and operated facilities. When office electronics reach the end of their useful life, they are returned to manufacturers who accept them for take back, or sent to disposal vendors for responsible reuse or recycling.

In 2011, the India Center of Excellence (COE) was authorized by the Karnataka State Pollution Control Board to store, handle and dispose of its own eWaste. This will help us dispose of about 12.7 tonnes of eWaste annually.

To learn more about EMC's vision for eWaste, visit Product End-of-Life.

#### HAZARDOUS WASTE

We are committed to reducing and eliminating the use of hazardous materials in our operations wherever possible. Our manufacturing operations generate only small quantities of hazardous waste, as defined by the U.S. and Ireland Environmental Protection Agencies. For example:

- The Apex, North Carolina manufacturing facility is a Conditionally Exempt Small
  Quantity Generator (CESQG) of hazardous waste and a Small Quantity Handler (SQH)
  of universal waste. As a CESQG, the Apex facility generates less than 220 pounds of
  hazardous waste in any calendar month.
- The Franklin, Massachusetts manufacturing facility is registered as a Small Quantity Generator (SQG) of hazardous waste and waste oil, and is considered a SQH of universal waste. As an SQG, the Franklin facility generates less than 2,200 pounds of hazardous waste in any calendar month.
- As SQHs, the Apex and Franklin facilities accumulate less than 11,000 pounds of universal waste on-site at any time.

In 2011, there were no significant spills on any EMC property. However, there was a small release (less than 30 gallons) of hydraulic oil at one of our campus locations. The required regulatory agency notifications were made, the released material was recovered to the extent possible, and other appropriate remedial actions were executed. Also, an assessment of the subsurface conditions confirmed that residual hydraulic oil impacts following remedial actions were minor and localized to the release area. Lastly, a risk characterization confirmed that the conditions at the release site pose no significant risk to human health, public welfare and the environment, and a closure report was filed with state authorities. No further actions are required.

#### **PACKAGING**

Product packaging touches many business functions. That's why EMC's Sustainable Packaging working group includes representatives from the Engineering, Supply Chain, Purchasing, Manufacturing, Logistics, and Global Facilities organizations. Together, we work to maximize environmental benefits across the package lifespan. Our scope includes inbound packaging from our suppliers, packaging used to transport products between EMC facilities, and outbound packaging to our customers. We collaborate to identify opportunities, generate ideas, and implement projects that reduce the direct and indirect impacts from product packaging. Our strategy focuses on two key areas: Design and Use.

#### DESIGN

The size and weight of EMC's packaging impacts material consumption, GHG emissions related to transport and costs. Because of the high volumes of material we ship through our inbound, interplant and outbound value chains, seemingly small adjustments in the makeup of packaging can have significant results. At the same time, it is crucial that we maintain product protection as the overriding purpose of packaging; the environmental impacts of replacing damaged product would outweigh the benefits of marginally improved packaging.

The practice of balancing these objectives is called "right-sizing". For example, in 2011 our Logistics organization worked with a supplier to modify the packaging used to ship product to us. By putting more products into smaller, yet fully protective packages, we avoided 4,450 tonnes of GHG emissions and saved more than \$2 million in transport costs annually.

We also incorporate as much renewable, recycled, and recyclable material as possible in our own packaging designs. In 2011, the materials in EMC's hardware outbound packaging were4:

- 15% recycled (post-consumer content, excluding re-use of EMC returnable packaging)
- 85% renewable (derived from biological sources and biodegradable)
- 99% recyclable

In 2011, we introduced bamboo fiber cushioning for disk drives, replacing polyethylene foam. The bamboo fiber material is not only renewable, it is also compostable to ASTM, BPI, and EN 13432 standards. We also have a partnership with a waste management provider and a packaging supplier to recycle our corrugated cardboard and re-use that material in new EMC packaging.

Our packaging is free of polyvinyl chlorides (PVCs) and polystyrenes, and we have eliminated the use of polyurethane in all new packages. Our shipping pallet suppliers purchase



WATCH THIS VIDEO to learn more about how EMC is using innovative packaging design to reduce its environmental impact.

<sup>&</sup>lt;sup>4</sup> Data does not include Iomega, RSA, Data Domain, Greenplum and Isilon products.

# **EMC PACKAGING AND LOGISTICS GETTING IT RIGHT**

dramatically reduces CO2 emissions.

Kg CO<sub>2</sub>e released per tonne.km









## THE RIGHT **MODE**



We design our own packages to use as much renewable, recycled, and recyclable materials as possible.











Our logistics team uses innovative packaging design and shipping techniques to avoid potential CO<sub>2</sub> emissions of more than

4,450 metric tons and save over \$2 million annually. THE RIGHT SI7F

THE RIGHT **RE-USE**  15%

recycled

Post-consumer content, excluding re-use of EMC returnable packaging

85%

renewable Derived from biological sources and biodegradable

99% recyclable



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 pest infestations without using harsh chemicals.

#### **USE**

We are building out our returnable packaging program, and work with customers and suppliers to recapture and reuse as much of these packages as possible. In 2011, all of our storage cabinets in the U.S., and some in Brazil, were shipped to customers in reusable packaging, eliminating two million pounds of waste and \$1 million in costs. To encourage the use of these packages to their full potential, we provide customers with a brochure containing all of the information needed for them to return the packaging easily. To learn more, review the EMC Packaging Return Program brochure for more information.

#### **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 take a proactive approach by engaging with organizations and undertaking 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 effects of our office buildings, our operations do not have any significant direct impacts on biodiversity.

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

Our 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, we work with ESI on reducing our environmental impacts beyond regulatory requirements, including a commitment to environmental protection by finding effective ways to act as stewards of our natural resources.

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

Our Apex manufacturing facility is recognized as a Wildlife And Industry Together (WAIT) site by the NC Wildlife Federation. The WAIT designation is a workplace stewardship program which 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, we assist the NC Wildlife Federation with statewide conservation efforts, habitat protection and the connection of people to nature.



We are committed to establishing and maintaining a world-class supply network in a competitive landscape. Environmental and social responsibility within our supply chain is central to our commitment.

THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Supply Chain Principles** 

**Supply Chain Environmental Impact** 

**Supply Chain Engagement** 

**Supply Chain Business Continuity** 



#### **SUPPLY CHAIN PRINCIPLES**

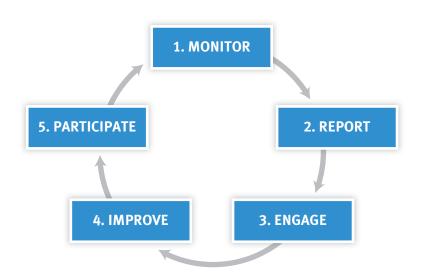
Being a good corporate citizen is about more than EMC's own operations. It is also about understanding the balance of the global ecosystem of social, environmental, and economic issues, and our role in managing the dynamic changes and demands facing our business, industry and society today.

EMC works directly with suppliers in more than 20 countries. We indirectly rely on many more. Given the complexity of supply chains and supplier relationships, we have different degrees of control and influence on these suppliers. However, we believe we must continually engage with our suppliers to develop a shared mindset and drive positive change throughout our supply chain.

#### SUPPLY CHAIN SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

We believe it is critical that conditions in our global supply chain be fair and legal, and that they protect human health and the environment. We do this through our Supply Chain Social and Environmental Responsibility (SER) program.

## Our strategy for this year is to augment monitoring with education and incentives



The SER program is underpinned by our Supplier Code of Conduct, which sets a minimum standard of expectations for our suppliers. The Supplier Code of Conduct includes the industry-standard EICC Code of Conduct and supplemental guidance from EMC. We monitor our suppliers' conformance to the Supplier Code of Conduct through Self-Assessment Questionnaires (SAQs) and third-party audits. In addition, we ask our suppliers to report on their greenhouse gas emissions and water management practices. We have a zero tolerance policy regarding slavery and human trafficking, and are actively engaged in work to trace the source of tantalum, tin, tungsten and gold (sometimes referred to collectively as "conflict minerals") used in our products. Assessing social and environmental risk is also a key component of EMC's Supply Chain Business Continuity Planning (BCP) program.

Recognizing that monitoring and reporting alone are often not enough to drive change, we are increasingly emphasizing communication and education, and embedding SER throughout our business relationships with our suppliers. Advancing SER requires collaboration with suppliers on creative and innovative solutions that take into consideration the constraints and complexities they may face operating in various regions and business cultures worldwide.

To learn more, visit Supply Chain Engagement, Supply Chain Environmental Impacts, Supply Chain Business Continuity and Ethics.

#### ADDRESSING ENVIRONMENTAL IMPACTS OF OUR PRODUCTS

We also expect suppliers to be partners in our work to reduce the environmental impact of our products. EMC Supply Chain Engineers work directly with suppliers to develop and test alternatives to substances in our products that may pose risks to environmental and human health. To keep potentially harmful substances out of the ecosystem, we work closely with our Information Technology Asset Disposal vendors to advance responsible recycling and disposal. Our goal is to maintain the high performance of our products and continually reduce negative environmental impacts throughout the product value cycle.

To learn more, visit Product Material Content and Product End-of-Life.

In all that we do, we leverage what we learn and work closely with suppliers and industry peers to promote solutions that will benefit not only our own supply chain, but that of our entire industry.

#### SUPPLY CHAIN ENVIRONMENTAL IMPACT

As a multinational company, our supply chain has a global environmental impact—an impact that is felt by the local communities in which our suppliers operate. While we do not have direct control over our suppliers' operations, we are committed to working with them to continually improve and to mitigate negative environmental impacts. We currently monitor and require reporting from our suppliers on environmental issues, score them according to their performance, and provide one-on-one coaching. We will be expanding training and incentives in this area in 2012.

#### MONITORING

We work closely with our suppliers to address environmental issues. Suppliers are asked to meet standards set in our Supplier Code of Conduct for environmental reporting, pollution prevention and resource reduction, wastewater and solid waste, air emissions, and product content. We also ask suppliers to obtain environmental permits as required by applicable law. Supplier audits cover these elements, and EMC tracks and monitors findings, providing individual coaching as needed, until the supplier completes corrective actions.

In 2011, we cross-referenced our Chinese supplier list against the database of companies with pollution violations maintained by the Institute of Public & Environmental Affairs (IPE), a non-governmental organization based in China. Any suppliers found with violations are expected to submit plans with corrective actions and to take the necessary steps to be removed from IPE's list. They will also be prioritized for audits and environmental training.

#### REPORTING

We ask our direct Tier 1 suppliers representing 97 percent of spend, as well as strategic Tier 2 suppliers, to report on their carbon emissions and water management. We do this as part of the EICC's Carbon and Water Reporting Initiative, and accept reporting using either the EICC or the Carbon Disclosure Project questionnaire.

EMC has collected greenhouse gas emissions data from key Tier 1 direct suppliers since 2009. In previous years, we encountered challenges in obtaining complete and accurate emissions data from our suppliers who are at varying stages of maturity in their reporting. In 2011, we saw improvement in the data reported by many suppliers, and we also offered more education and guidance for those suppliers who needed support to complete their reporting.

As a result, we were able to collect emissions data from suppliers representing 95 percent of our direct spend, surpassing our 2011 goal of 85 percent. The Scope 3 Purchased Goods and Services emissions from these direct materials suppliers—determined using financial allocation methods consistent with the guidelines from the World Resources Institute's Corporate Value Chain (Scope 3) Accounting and Reporting Standard—are part of our Scope 3 emissions. To learn more, visit Energy & Climate Change Strategy.

EMC suppliers are expected to have goals for reducing emissions and to demonstrate progress to those goals. These factors are integrated into our supplier performance scorecard which guides our purchasing decisions. In 2011, 60 percent of suppliers on our scorecard reported all three of the required elements—i.e. Scope 1 and 2 emissions, goals, and performance. We continue to work with the others to bring resource reduction goals and performance tracking systematically into their operations.

Water was also included in our data collection for the first time in 2011. Management systems and reporting are generally less mature in this area than for carbon emissions. We plan to use this information to guide decisions on where to focus data collection and training in 2012 and beyond.

#### **SUPPLY CHAIN ENGAGEMENT**

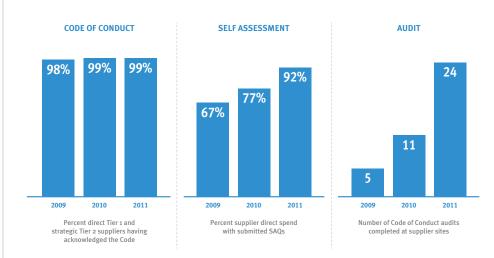
We work closely with our suppliers and industry peers to advance Supply Chain Social and Environmental Responsibility (SER). With suppliers, we communicate our standards, examine their programs and performance, and engage with them to educate, collaborate and drive improvement. As a member of the Electronic Industry Citizenship Coalition (EICC), we work with our peers to improve industry-wide SER practices. EMC co-chairs the EICC Environmental Sustainability Working Group, and participates in other EICC working groups, including Extractives (Conflict Minerals), Learning & Capabilities Building, and Tools Management.

### SETTING STANDARDS, MONITORING PERFORMANCE, AND HOLDING SUPPLIERS ACCOUNTABLE

We set standards, monitor performance, and hold suppliers accountable through a multistep process. Suppliers are expected to 1) acknowledge our Supplier Code of Conduct, 2) complete Self-Assessment Questionnaires (SAQs), 3) complete audits, when required, and 4) correct any issues identified through the SAQs or audits. We follow EICC standard protocols for this process in an effort to enforce industry best practices while also minimizing survey and audit fatigue.

In 2009, we began evaluating SAQ data to better understand the SER status and risk in our supply chain. We have increased the number of audits conducted each year as the program has matured.

#### We set standards and monitor our suppliers through a three-step process



## ADDITIONAL INFORMATION **ELECTRONIC INDUSTRY** CITIZENSHIP COALITION

**EMC POLICY STATEMENT ON SLAVERY AND HUMAN TRAFFICKING** 

#### **Supplier Code of Conduct**

EMC asks suppliers<sup>5</sup> to acknowledge our Supplier Code of Conduct, which sets the baseline social and environmental responsibility requirements for companies doing business with EMC. Our Supplier Code of Conduct includes the industry-standard EICC Code of Conduct and supplemental guidance from EMC.

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 & Safety
- Environment
- Management Systems
- Ethics

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

- Industry Standards
- Compliance with Applicable Laws and Regulations
- Sub-Tier Management
- Combating Trafficking in Persons
- · Gift Giving

In 2011, 99 percent of suppliers acknowledged our Supplier Code of Conduct. We will refresh these acknowledgements in 2012, following the release of the updated EICC Code.

#### **Self-Assessment Questionnaires and Audits**

The SAQ reviews policies and procedures—both at corporate and individual facility levels —to determine how well a supplier is implementing and adhering to the standards in the EICC Code. EMC uses the SAQ results to gain visibility into the supply chain and to identify areas of potential risk. We require SAQs from more than 80 percent of our direct suppliers by spend.

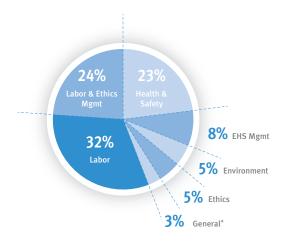
The audit is an on-site assessment of practices and conditions. We use third-party auditors to identify areas of concern. Each audited site must create an approved Corrective Action Plan to address any findings. EMC monitors suppliers' progress on these corrective actions until they are complete.

Our audit list prioritizes high-risk suppliers and is informed each year by geographic risk analysis combined with spend data, SAQ results, and on-the-ground EMC staff knowledge. Geographic risk is determined using multiple global indicators of risk in areas that include human rights, ethics, and environmental perceptions and performance. Our goal in 2012 is to audit 20 percent of our high-risk supplier facilities.

Analysis of our audit results over the last two years (2010-2011) shows results similar to those found throughout the industry. Labor, Labor & Ethics Management Systems, and Health & Safety continue to be the biggest problem areas across geographies, with working hours accounting for the largest percentage of overall findings. Follow-up audits show considerably fewer findings, suggesting that improvements are being made. We are working to identify areas where additional training or stronger incentives could address the root causes of the findings.

<sup>&</sup>lt;sup>5</sup> Tier 1 direct suppliers, defined as suppliers that sell to EMC materials used directly in our products, and managed Tier 2 direct suppliers

#### 2010-2011 Audit Findings by Type



<sup>\*</sup> General includes Code management and regulatory violations

EMC believes that more positive impact will result from continuing to do business with, rather than disengaging from, suppliers who have challenges as long as they are committed to improve. Working with our suppliers to remedy issues raised helps the workers in their factories and the communities in which they operate. We have seen multiple instances where our continued engagement has ultimately resulted in significant improvements being made.

#### INCORPORATING SER INTO SUPPLY CHAIN OPERATIONS AND STRATEGY

Integrating SER into EMC's business processes is critical. 100 percent of targeted EMC Global Supply Chain Management employees have been trained on our Supplier Code of Conduct. SER indicators are also included in our supplier performance scorecard, which guides our purchasing decisions. In 2011, we began incorporating SER requirements and performance results into quarterly business reviews with suppliers in order to raise awareness and promote accountability. In 2012, we will continue and add to these efforts.

We are excited to be joining the Stanford Initiative for the Study of Supply Chain Responsibility, which seeks to illuminate methods for taking supply chain SER management to the next level, and to quantitatively analyze the correlation between business results and responsible supply chains. We will use this information, along with other analyses, to better understand, communicate, and translate into action the most strategic and impactful actions that will help EMC achieve environmental, social and business success.

## ADDITIONAL INFORMATION **EMC STATEMENT ON CONFLICT MINERALS**

#### **CONFLICT MINERALS**

EMC is committed to the ethical sourcing of minerals used in our products. See our **Statement on Conflict Minerals.** 

Tracing minerals that are "conflict-free" is a complex process. In 2011, we launched a pilot survey of our suppliers to determine the source of the minerals used in our products. We intend to roll out this survey to all of our suppliers in 2012.

We are also working diligently with other stakeholders to improve and systematically address this critical issue in the global supply chain. We are members of the EICC-GeSI Extractives workgroup, which is developing common reporting protocols for the supply chain and driving programs for the responsible sourcing of minerals such as Conflict-Free Smelter Validation. Through the EICC, we also support the U.S. State Department's Public-Private Alliance for Responsible Minerals Trade. This joint initiative between industry, governmental agencies, and civil society was formed to support the development of solutions to source responsibly-mined, conflict-free minerals from the Democratic Republic of Congo and the region.

#### ADDRESSING CHALLENGES

A key challenge in advancing Social and Environmental Responsibility is transparency and influence throughout the supply chain. EMC suppliers are at varying stages of maturity in their SER reporting, and the data and information we receive is not always complete or consistent with industry standards. We also work with companies operating in different cultures with different incentives, needs, priorities, resources, and constraints. As we develop our SER program, we continually seek to better understand what we can do to effectively drive change, and to prioritize accordingly.

In 2012, we will continue to mature our monitoring and reporting expectations while also building knowledge in our supply base and emphasizing the importance of good practices through the integration of SER into business decisions. We will also encourage all of our suppliers to publish sustainability reports that align with Global Reporting Index (GRI) standards.

As our program continues to mature and the quality of our data improves, we can undertake more rigorous analyses to inform and transform our strategies.

#### **SUPPLY CHAIN BUSINESS CONTINUITY**

Supply chain resiliency in the face of unexpected disruptions is essential to meeting customer expectations for quality and availability. EMC's Supply Chain Business Continuity Planning (BCP) program sets strategies to prepare for potential disruptions from environmental and social events such as natural disasters, civil unrest and pandemics. This planning makes our supply chain more resilient in the face of large-scale events that could create delivery, quality or production issues.

In 2011, EMC's BCP emergency response planning was tested by the earthquake and tsunami in Japan, and the flooding in Thailand. Our preparations enabled us to respond quickly to determine the impact and execute recovery plans where necessary.

EMC's BCP program focuses on assessing suppliers' vulnerabilities to disruptions and establishing plans to reduce potential impact. EMC expects all of our suppliers to incorporate business continuity practices into their operations, and we use the international standard of ISO 22399 as a benchmark against which we measure our suppliers' BCP programs. We also include BCP indictors in our supplier performance scorecard which guides purchasing decisions.

We work closely with suppliers to understand and improve BCP. In this regard, we:

- Request supplier self-assessments of their business continuity plans;
- Conduct on-site audits of strategic suppliers;
- Work with suppliers to make improvements if weaknesses are discovered;
- Engage in simulations of business disruptions to test suppliers' ability to activate emergency response plans and crisis management; and
- Continually measure against key indicators through on-site visits.

In addition, members of our BCP program and our Supply Chain Social and Environmental Responsibility program collaborate on risk assessment in and education of the supply chain, bringing a holistic approach to both preventing and managing risks.

We have established a 2012 goal to collect supplier self-assessments from 80 percent of our Tier 1 suppliers and managed Tier 2 suppliers. We will also integrate BCP more fully into the day-to-day operations of supply chain management, and incorporate BCP requirements and performance in our supplier quarterly business reviews.

#### **SECURITY CERTIFICATIONS**

To sustain our global business, EMC must rely on secure and timely transport of international supply chain shipments. We work with governments to attain certifications for our supply chain security programs. These certifications allow for faster, simpler processing for our shipments through customs inspections, and help government officials with securing their harbors and borders.

Our supply chain security certifications are especially important for our manufacturing facilities based in the U.S and Ireland. 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 address and cooperatively develop solutions for potential vulnerabilities in shipments coming into the U.S.

EMC Ireland has been a certified European Union Commission Authorized Economic Operator (AEO) since 2009. In 2012, EMC Canada plans to apply for membership in Partners in Protection, the Canadian Customs/Trade supply chain security program.

#### **COLLABORATION & ENGAGEMENT**

We've made good progress on our sustainability journey, but we realize we can't solve these issues alone. EMC leverages the collective power and expertise of our employees and industry peers to influence change and transformation throughout our ecosystem.

#### **EMPLOYEE ENGAGEMENT**

The success of our company, including our never-ending pursuit to be more environmentally responsible, rests on the shoulders of the 53,000 people who work at our company. We engage employees throughout the year in several ways, the most noteworthy being our Innovation Conference's Sustainability Awards, the Green Business Leadership team, and our quarterly employee sustainability awareness surveys.

- EMC's annual Innovation Conference encourages and recognizes the power of employee innovation to shape the future. Since launching the program in 2009, we have identified—and implemented—employee ideas focused on data center energy consumption, monitoring enterprise information technology's (IT's) carbon footprint and sustainable packaging practices. In 2011, we received 1,590 entries from 25 participating countries and selected 28 winning entries. To learn more about this award, visit Innovation Showcase.
- EMC's Office of Sustainability, aided by commitments from partners throughout the company, is applying a unified environmental strategy across our business and dayto-day operations. The cross-functional Green Business Leadership team, with 20 participating business units and functions, collaborates to share ideas and practices, align programs, and drive sustainability throughout our operations.
- EMC conducts a quarterly Environmental Sustainability Awareness Survey to better understand employee awareness. The survey is given to 500 randomly-selected employees from our global work base and gives us insight into issues that are most important to employees as well as their understanding of our sustainability programs. Survey questions have included:
  - Awareness of what EMC is doing to protect the environment
  - Awareness of how EMC is helping our customers reduce their environmental impact
  - Whether employees feel good about EMC as an environmental steward
  - Whether employees look for ways to reduce EMC's environmental impact when doing their job

In addition to the initiatives mentioned above, we also engage employees throughout the year by hosting Earth Day events, leveraging social media to share tools and ideas, hosting an EcoKids contest and using online tools for comparing impact and taking quizzes.

#### **INDUSTRY COLLABORATION**

Aside from leveraging the tens of thousands of company employees, we also reach out to external stakeholders as a guide to sustainable innovation at the company. This includes a long list of community leaders, civil society organizations, non-profit organizations, industry experts, customers, shareholders and suppliers.

In 2011, we collaborated with many different partners, industry groups and universities, including Ceres, the Carbon Disclosure Project, the U.S. and Ireland Environmental Protection Agencies, the U.S. EPA SmartWay Transport Partnership, the Environmental Defense Fund, the Product Stewardship Institute, the Center for Advanced Life Cycle Engineering, the Irish Government, Stanford, MIT and Yale. To learn more, visit Stakeholder Engagement.

Consortium memberships are another important way to participate in the greater IT community. Our employees – ranging from engineers to sustainability professionals — actively participate with industry groups to transform the future landscape. Our memberships include The Green Grid, the Storage Networking Industry Association (SNIA), the Electronic Industry Citizenship Coalition (EICC), the Information Technology Industry Council (ITIC), and the Distributed Management Task Force (DMTF). For a full list of organizations and memberships, visit Corporate Profile.

## **DELIVERING VALUE**

EMC's culture is underpinned by ten core values that demonstrate our commitment to delivering value for customers, employees, shareholders and other stakeholders. These core values guide our work to leverage innovation to meet customer needs, cultivate a collaborative and inclusive workplace, and build open and honest relationships with all of our stakeholders.

THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Customers** 

**Employees & Workplace** 

**Global Inclusion** 

**Innovation Network** 

**Stakeholder Engagement** 

**Governance & Integrity** 

**Positive Impact of IT** 

**Economic Performance** 



## **DELIVERING VALUE DASHBOARD**

### **2011 INTERNS AND HIRING OUT OF SCHOOL GLOBAL**

24%

DOMESTIC COLLEGE HIRES WERE FORMER INTERNS AND COOPS

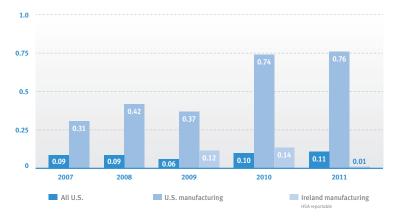
**U.S. DOMESTIC CHANGE** IN COLLEGE HIRES

45%

**CHANGE IN COLLEGE HIRES** 

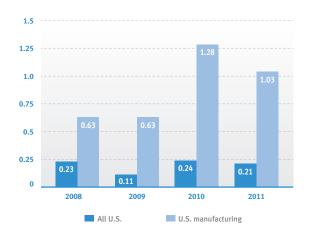
**CHANGE IN INTERN PROGRAM HIRING** 

### **LOST TIME INCIDENT RATE (LTIR)**



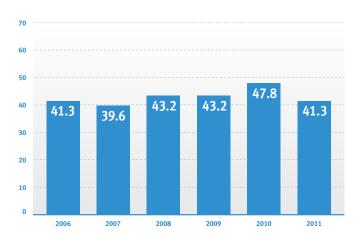
## **U.S. OSHA RECORDABLE INCIDENT RATE (ORIR)**

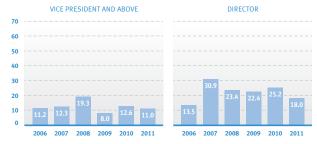
U.S.



## **AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE**

**GLOBAL** 

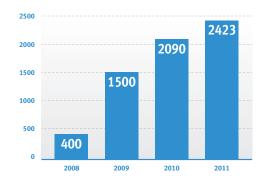






### **TOTAL NUMBER OF IDENTIFIED HIGH-POTENTIAL EMPLOYEES**

**GLOBAL** 



## PERCENT OF EMPLOYEES AND THEIR SPOUSES WHO ACCESSED HEALTH LINK

U.S. ONLY, INCLUDES DEPENDENTS OVER 18

90%

55%

**EMPLOYEES** 

SPOUSES/
DOMESTIC PARTNERS

## PARTICIPATION IN EMC'S 2011 WOMEN'S LEADERSHIP FORUM

GLOBAL

**15** 

14

600+

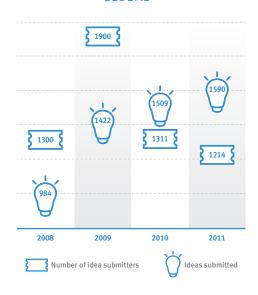
CAREER
DEVELOPMENT
EVENTS

COMMUNITY VOLUNTEER ACTIVITIES

EMC WOMEN
ATTENDING MA CONFERENCE
FOR WOMEN

## **INNOVATION CONFERENCE PARTICIPATION**

**GLOBAL** 



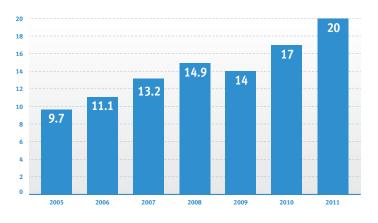
## COUNTRIES PARTICIPATING IN THE 2011 INNOVATION CONFERENCE

**GLOBAL** 

Australia • Belgium • Brazil
Canada • China • Columbia • Egypt
France • Germany • India • Ireland
Israel • Italy • Japan • Mexico
Netherlands • Norway • Russia
Singapore • South Africa • Switzerland
Turkey • UAE • UK • US

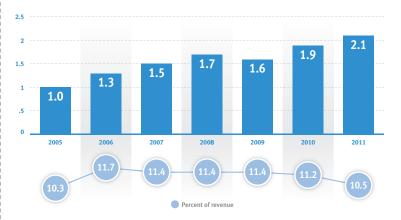
#### **EMC REVENUE**

GLOBAL-\$USB



#### **EMC INVESTMENT IN R&D**

BILLION \$USD



## **DELIVERING VALUE**

#### **CUSTOMER STORIES**

#### **CONCERN WORLDWIDE**

Concern Worldwide is a non-governmental organization that mobilizes people for emergencies and long-term development in impoverished communities. EMC helped the organization transition to the Cloud, enabling its more than 3,200 humanitarian staff and volunteers to access data remotely across the world.

#### **NEW YORK CITY CITISERV**

New York City CITIServ delivers technology services or support to more than 50 city agencies, 300,000 employees, 225,000 businesses and 8.2 million residents. EMC helped the organization modernize and consolidate their data infrastructure, resulting in forecasted savings of \$100M over five years, 20:1 server consolidation ratio, and 4X more calls through their Service Desk.

#### **ZIONS BANCORPORATION**

Zions Bancorporation, one of the nation's premier financial services companies, consists of 17 banks and companies. When faced with the challenge of massive data growth and limited resources, Zions came to Greenplum™ for tangible business solutions. Because the company's growth strategy focuses on utilizing Big Datahigh-volume, varied data assets — Zions needed a solution to engage customers in new ways, generate business demand and increase revenue streams. With our help, they were able to cut database loading, accelerate queries in seconds, free up database administrators to spend more time on data analysis versus maintenance, and improve customer relationship management.

#### **CUSTOMERS**

Understanding and anticipating customer needs has been the keystone of EMC's success. Not only do we deliver products that meet customers' needs, but we also deliver them in a way that can help their journey to sustainability. Driving our efforts is the Total Customer Experience (TCE).

#### TOTAL CUSTOMER EXPERIENCE

Our TCE operating model is a company-wide commitment to exceed customer expectations for quality, service, innovation and interaction. One way this model comes to life is through the extensive Voice of The Customer survey which evaluates our entire relationship with customers. We use these findings to establish initiatives in critical areas, prioritize projects, and identify metrics and goals that are important to our customers. Within the survey, we explicitly request customers' views on sustainability concerns to ensure their voices are integrated into our strategy and programs.

To drive the importance of TCE at EMC, an annual TCE Excellence Award is presented to an individual or team who best demonstrates our commitment to the Total Customer Experience. In 2011, 35 candidates were nominated by EMC executives for the TCE Excellence Award. For the second consecutive year, we awarded recipients in the following three categories:

- The 2011 TCE Excellence Award was awarded to an organization that instituted a holistic and customer-centric quality and customer experience program to manage a diverse set of products. The initiative was recognized for its innovation and facilitation of the overall customer experience by leveraging operational key performance indicators (KPI's) to drive product and process improvements.
- The 2011 TCE Excellence Field Award recognized a team that responded to customer needs in the aftermath of the magnitude 9.1 earthquake in Japan. This support team braved hazardous travel conditions to bring its customer back online. As a result, this particular account enabled EMC Secure Remote Support to streamline future support services.
- The 2011 TCE Excellence Individual Award recognized an EMC employee who provided
  outstanding service to the United States Air Force. As a trusted advisor, this individual
  partnered with the Air Force to deliver high system availability, protecting the lives of
  American soldiers.

The TCE program also leverages EMC's annual Innovation Conference to recognize innovative approaches to customer service and engagement. The 2011, the TCE Innovation Award was awarded to a team that integrated Big Data analytics with customer environment information to drive performance improvements. To learn more, visit Innovation Network

#### **ECN INTRODUCTION VIDEO**

" Executive Briefing Sessions help us develop a more complete picture of your business and how you deliver value to your customers. When you attend an Executive Briefing, you receive an experience designed around your needs and goals. In turn, you get to learn how EMC can be more of a strategic partner and help you achieve the results you want."

### JOE TUCCI

CHAIRMAN AND CEO, EMC CORPORATION

#### CUSTOMER FEEDBACK

EMC places high importance on measuring customer satisfaction (CSAT), maintaining industry-leading levels and using feedback to continually drive improvements. This includes setting quarterly CSAT targets both across "the field" and remote organizations, as well as posting the surveys on our internal dashboard site for EMC's Customer Support Services to reference.

#### 2011 Highlights

- Our Global Customer Support group achieved EMC's "TCE Proven" status, demonstrating their commitment to TCE improvements and sustained performance.
- We introduced "Your Support Experience," an EMC Community Network that engages customers with discussion forums and highlights our commitment to CSAT and TCE.
- We launched Advancing Customer Experience and Satisfaction (ACES), an internal forum for employees to discuss and share insights about CSAT.

#### **CUSTOMER FORUMS**

The Information Technology (IT) Leadership Council—formerly EMC Customer Council—is EMC's premier program to help customers accelerate their IT transformation. It helps us to share our vision, validate strategy, and foster continuous engagement with EMC's most important constituents—our customers. In 2011, we hosted more than 100 IT leaders from around the globe to participate in a unique peer-to-peer workshop. Customers had the opportunities to chart their IT strategy, understand EMC's architectural vision, engage with their peers and EMC executives, and deepen their relationship with us.

In addition, our Chief Technology Officer (CTO) meets with a select group of customers that comprise an Industry Technical Advisory Council. They discuss IT challenges and how our evolving technical strategy can help develop solutions.

#### EMC COMMUNITY NETWORK

The EMC Community Network (ECN) on EMC.com launched in 2008 and continues to evolve. The site is a social network that links stakeholders—our employees, customers and partners—who have common interests in collaborating and innovating on everything from EMC products to industry practices. Members can find and share ideas through blogs, social networking tools and RSS feeds—providing a direct connection to our leaders, experts and products teams. As of December 2011, approximately 200,000 people have registered as members.

#### **EXECUTIVE BRIEFING PROGRAM**

EMC founded the worldwide Executive Briefing Program in 1994 and has since hosted more than 30,000 individual customer briefings across the globe. The briefings are designed to bring EMC customers together with executives and experts, in order to encourage multiway discussions about industry-leading technology and strategy. The meetings are catered to specific customer needs and the local market, but we have noticed a reoccurring interest in the topic of sustainability and EMC's efforts in this area.

We have briefing centers located in Hopkinton, Massachusetts; Santa Clara, California; Bedford, Massachusetts; Cork, Ireland; Bangalore, India; Singapore; and Tokyo, Japan and we have future plans to open centers in Beijing, China and Rio de Janeiro, Brazil. To learn more, visit EMC Worldwide Executive Briefing Program on EMC.com.

### **EMPLOYEES & WORKPLACE**

EMC believes we must offer a workplace where innovation thrives. Our efforts focus on instilling a sense of urgency, a drive for excellence, and a hunger for continuous learning among employees. We cultivate a safe and healthy workplace and are transforming our approach to delivering industry-leading talent programs around the world.

THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Recruiting & University Relations** 

**Employee Development** 

**Workplace Health & Safety** 

**Health & Wealth Benefits** 

**Global Expansion** 



#### **RECRUITING & UNIVERSITY RELATIONS**

EMC is always on the lookout for the biggest thinkers and most innovative minds in our communities and on campuses around the world. We collaborate with academic institutions to identify prospective employees, as they are sources of talent and often partners in advanced research. EMC University Relations is our centralized resource for identifying, cultivating and managing strategic partnerships between universities and our global business groups.

#### COLLABORATING TO SUPPORT 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 informs the selection of EMC's key schools, where we have developed recruiting, research, and faculty relationships.

In 2011, we evolved our intern program and increased participation by 30 percent. We also introduced a process to extend full-time employment to interns graduating the year following a summer internship with EMC. This resulted in hiring 70 percent of available and qualified graduating interns, a 45 percent increase over 2010. 47 percent of new hires in the U.S. were from key partner schools.

#### RECRUITING FOR DIVERSITY

EMC strives to attract talented people who reflect the diversity of our global communities. In 2011, we partnered with five Historically Black Colleges and Universities (HBCUs) to offer students programming and mentoring opportunities and to cultivate relationships with faculty, students and administration. We collaborate with schools to offer students opportunities for mentoring, internships, and Industrial Advisory Board memberships.

Our goal is to nurture strong relationships with students so they consider EMC as a potential employer upon graduation. To learn more about diversity at EMC, visit Global Inclusion.

#### **EMPLOYEE DEVELOPMENT**

EMC offers an array of programs to guide employees on their journey at EMC and beyond. We believe individuals should play an active role in their own career development to achieve their professional goals. We empower employees to develop their careers, and task managers with helping people to hone skills and seek development opportunities.

#### PERFORMANCE MANAGEMENT

Every EMC employee receives a performance review at least annually to discuss strengths, skills, and opportunities for growth. Employees and managers work together to develop and execute Individual Development Plans (IDPs). The IDP serves as an employee's professional transformation plan, and outlines development goals that align with individual career aspirations and the needs of the business. More than 60 percent of EMC's employees have IDPs in place.

#### LEARNING AND DEVELOPMENT PROGRAMS

New employees are introduced to EMC through our award-winning Proven Professional Program, where they receive an overview of the Information Technology industry and learn about EMC's values, best practices and methodologies.

We offer rotational development programs for recent graduates to provide job-specific skills, mentoring, peer networking opportunities and a holistic understanding of EMC's business. Our rotational leadership development programs include:

- Business Operations Leadership Development Program
- **Finance Training Program**
- Global Services Leadership Development Program
- Human Resources Leadership Development Program
- Information Technology Leadership Development Program
- Leadership Engineering Accelerated Program
- Marketing Development Program

Learning and development programs are designed to attract, retain, and develop the best talent and enhance their ability to execute corporate strategy. Regular training opportunities are offered through Education Services and EMC University (EMCU). Our Education Services team is responsible for all technical and functional training as well as Sales and Customer training. EMCU offers enterprise training on topics such as management and leadership development, business writing and conflict management. In 2012, we will be focusing our efforts on streamlining the offerings between EMCU and Education Services.

EMC's Essential Curriculum is a learning path tailored for each level within the organization. EMCU designs and delivers this curriculum, which teaches employees core competencies needed to succeed in their current role and advance to the next level. The curriculum consists of a development roadmap for each career level, including robust and targeted portfolios of courses that are custom-developed for managers and directors. There are hundreds of courses to choose from for specific skills development, plus specialized development programs for specific fields or functional organizations.

We also encourage continuous learning and offer eligible employees reimbursement for qualified education expenses, including undergraduate or graduate degree programs, external work-related programs or formal certifications.

#### TALENT REVIEW PROCESS

Our talent is the engine that fosters innovation for EMC's growth and transformation. 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 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.

#### **WORKPLACE HEALTH & SAFETY**

EMC knows that we cannot compromise when it comes to the health and safety of our employees. We work to ensure that our facilities worldwide provide safe and healthy environments for employees, visitors, and anyone who may be impacted by our operations. Professionals manage our occupational health and safety programs, and we engage employees to help improve our performance.

#### **HEALTH AND SAFETY MANAGEMENT**

Our manufacturing facilities located in the United States and Ireland are certified to OHSAS 18001, the global standard for excellence. As an Information Technology (IT) company, our health and safety risks are primarily in manufacturing facilities. As of 2011, our OHSAS 18001 facilities certification statuses are as follows:

- Manufacturing facility in Cork, Ireland certified since 2005
- Manufacturing facility in Franklin, Massachusetts certified since 2009
- Shipping and warehouse facility in Franklin, Massachusetts certified since 2011
- Manufacturing facility in Apex, North Carolina certified since 2010

EMC has developed comprehensive health and safety procedures. 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 being effectively carried out. Employees take health and safety training relevant to their work through online and instructor-led courses. Employee-led Safety Action Teams also meet regularly to review safety issues, perform audits, and organize training programs.

#### **HEALTH AND SAFETY VIOLATIONS**

EMC was not cited for any health and safety violations in 2011.

#### 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. Our Global Pandemic Preparedness Team has a detailed plan to help employees and customers around the world deal with pandemics at every phase.

In the event of a declared pandemic, we will take direction from health experts to minimize the impact. Our Global Preparedness Plan is designed to minimize disruptions to our operations, our customers' operations, and the supply chain.

# **SHARING OUR KNOWLEDGE** AND EXPERIENCE

The road to EMC's environment of health and wellness started over a decade ago. Our philosophy, Driving Partnership in Health, has remained consistent, with consumerism the basic tenet of our healthcare strategy. We believe that, with the right tools and information, individuals can be empowered to make informed decisions.

Healthcare reform requires health organizations to meet criteria for accountable care. One of the requirements of accountable care is the use of patientcentric technologies - providing patients access to their information. The Personal Health Record on HealthLink is the very technology needed to help improve access to health information.

We believe it is our responsibility to share our story and experience with other employers and health organizations. Our newly established Choice & Responsibility Advisory Services provides customers with a road map for creating a culture of wellness. Our willingness to share key learnings demonstrates our commitment to help improve the healthcare system.



# **HEALTH & WEALTH BENEFITS**

At EMC, we use the power of innovative Information Technology (IT) to help employees manage their health and wealth. Our tools and resources enable employees and their family members to understand individual statuses, get targeted information, improve health, and grow wealth.

We offer a comprehensive benefits package for our more than 53,000 employees around the world. In the U.S., we provide health, dental, vision and prescription insurance; adoption assistance; autism benefits; retirement planning through a 401(k) plan; and access to an Employee Stock Purchase Plan (ESPP). Employees scheduled to work at least 20 hours per week are eligible for the benefits package. More information about benefits for EMC's U.S. employees can be found at www.peoplelinkbenefits.com. Information about benefits offered to employees in other countries where we conduct business can be found on the appropriate EMC local website.

### HEALTHLINK

EMC believes that patients should be in control of their own health information, and have access to it anytime, anywhere. Our commitment to creating an all-in-one secure, meaningful, actionable, relevant, technologically-based Personal Health Record (PHR) is a safety imperative—and we've been doing it for more than a decade.

HealthLink, EMC's health management portal is powered by WebMD and secured by RSA®, The Security Division of EMC. It provides employees and their family members the ability to manage healthcare information 24x7 anywhere in the world. 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 individual health needs. Users may also choose to share information in the PHR with healthcare providers.

The PHR helps employees and 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 outcomes and contained costs for employees and for EMC. Since implementing the wellness program in 2004, our average per capita cost increase is 6.8 percent, as compared to the national average of 10.3 percent6.

We are committed to continuous enhancement of the PHR. In 2012, HealthLink will launch a Mobile PHR app as well as the ability for users to access their images (e.g., x-rays).

<sup>&</sup>lt;sup>6</sup> Source: Watson Wyatt National Employer Survey

# INFLUENCING THE HEALTHCARE IT MARKETPLACE

EMC was the first employer to sponsor an electronic Personal Health Record, having launched it in 2004. Since then, we have been 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.

We are committed to sharing our story with healthcare organizations and other employers—because we all deserve a more efficient healthcare system.

# WEALTHLINK

WealthLink is EMC's wealth accumulation and protection program. It provides employees with the opportunity to learn how to develop their own wealth management plans to meet their individual and family needs and goals while optimizing the benefits provided by EMC. Through WealthLink, employees have access to onsite seminars, webinars, financial planning sessions, the Employee Stock Purchase Plan (ESPP), 401(k) Plan, and other programs.

# **GLOBAL EXPANSION**

EMC serves customers in more than 100 countries, and it is important for us to be in close proximity to customers in growing markets. New pools of talent are blossoming around the world, and we are on a journey to find the best minds.

# CENTERS OF EXCELLENCE

EMC's Centers of Excellence (COEs) are the foundation of our strategy for cultivating talent and expanding our presence in key markets around the globe. 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 local talent. COEs coordinate initiatives with local university programs, government representatives and community partners 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 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 local recruiting strategies. We continue to emphasize employee retention, and have kept attrition rates below the market average in each of our COE locations.

# MANAGING CHANGE

Global economic upheaval, industry consolidation, 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 employees.

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.

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 investments 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. We also work to exhaust all options before making the difficult decision to reduce the size of our workforce. This strategy increases operational efficiency, improves fiscal strength, generates goodwill and helps us to retain highly talented people.

When we are required to take the difficult action of severing employment, our mission is to assure each individual is treated with dignity, compassion, 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 and are in compliance with local laws.

# **GLOBAL INCLUSION**

At EMC, we view diversity and inclusion as a business imperative because we believe that innovation happens when we encourage and bring together diverse perspectives. We seek to cultivate a diverse workforce that is reflective of the world around us. Our mission is to foster a culture where everyone is valued for their unique talents and perspectives. Through various programs and initiatives, we provide employees with the resources and tools needed to continue to grow.

# **EXECUTIVE ACCOUNTABILITY**

EMC's diversity and inclusion strategy is backed by executive commitment. Company leaders support our goal of instilling a culture of inclusion into every region where EMC does business. Senior executives review key diversity metrics regularly during the year and are directly involved in developing new strategies and action plans. Each executive has established performance incentives related to diversity and inclusion on which they are measured.

#### TALENT MANAGEMENT

Investing in diverse, high potential employees helps build an inclusive environment. We support recruitment, retention, development and advancement across constituencies through mentoring and coaching programs. For example, we have summer internship programs with Sponsors for Educational Opportunity and the National Action Council for Minorities in Engineering to aid in developing a diverse pipeline of future employees.

In 2011, we launched an online portal to educate prospective employees about EMC's commitment to diversity and inclusion, and to highlight potential employment opportunities with the company.

EMC's Office of Global Workforce Inclusion sponsors programs to advance employees from diverse backgrounds into leadership roles. One example is the "Leadership in the FastLane at EMC" program which is designed to prepare senior women with executive aspirations for C-suite opportunities. Our Executive Vice Presidents nominate candidates for this program ensuring participation and representation across our global enterprise. More than 100 women have participated in this program since its launch in 2008.

In 2011, EMC's Black Employee Affinity Group launched a diversity recruitment initiative to bolster our talent pipeline to include more African American prospects. Through this initiative, EMC evaluated new recruitment opportunities at Historically Black Colleges and Universities (HBCUs) where we have existing partnerships, including Howard University and North Carolina A&T State University. We also launched new partnerships with Morehouse College, Spelman College and Morgan State University to expand EMC's recruitment footprint at these HBCUs. The Initiative helped increased the diversity of applicants for internships and full-time employment opportunities in 2011, and we will continue advancing the HBCU Initiative moving forward.

# EMPLOYEE EDUCATION AND ENGAGEMENT

Our goal is that all EMC employees will become daily practitioners of our inclusion philosophy. EMC's Essential Curriculum includes courses that promote inclusion and engagement as part of everyday business. We believe that this yields higher levels of productivity for the company.

In 2012, we will launch an initiative focused on the topic of implicit bias, also known as hidden or unconscious bias. Our objective will be to help managers understand bias and to raise awareness of its presence in the workplace. This comprehensive training will provide managers with strategies and tools to help them identify and mitigate bias to improve decision-making around recruiting and employee development.

#### **Employee Circles**

EMC engages employees through Employee Circles, our internal affinity networking groups, which are organized by employees with executive support. The Circles help new employees get assimilated, foster networking with current employees, and offer personal and professional development opportunities. EMC's nine Employee Circles span eight countries and involve more than 4,000 members.

Employee Circles are involved in activities such as volunteering, speaking at external conferences, and participating in EMC recruitment efforts – all of which contribute to building the EMC brand. In 2011, we launched a new Employee Circle in India and expanded the Black Employee Affinity Group by adding chapters on the West Coast.

# **Simmons Leadership Conference**

EMC is proud to be a platinum sponsor of the annual Simmons Leadership Conference, one of the best-known women's leadership events in the United States. The 2011 event was attended by more than 2,700 professional women, including 500 female employees from EMC.

#### Robotics Partnership with 100 Black Men of America

We partner with 100 Black Men—an organization that seeks to improve the quality of life and enhance educational and economic opportunities for African Americans—by supporting high school robotics competitions. EMC sponsored and mentored eight robotics teams in 2011, an increase from four in 2010.

# **Women's Leadership Forum**

EMC's Women's Leadership Forum (WLF) aims to help women advance their careers at EMC. In 2011, WLF ran 15 career development events, organized 14 community volunteer activities, helped inspire more than 600 EMC women to attend the Massachusetts Conference for Women and delivered its "Women of the World" presentation at the EMC World conference. WLF is the company's oldest affinity group, and engaged nearly 1,000 members worldwide in 2011.

# SUPPLIER DIVERSITY

Supplier Diversity broadens our supplier base, expands opportunities for historically disadvantaged businesses, and builds economic strength in our communities. Our Supplier Diversity Program promotes diverse suppliers' 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 and EMC tools is the essential second step. Our program activities include:

- Workshops, seminars, and trade fairs geared for diverse suppliers
- A semi-annual Supplier Diversity training program for EMC purchasing personnel.
   In 2012, the training will be updated to showcase the tools available to EMC commodity specialists.
- A database of prospective diverse suppliers for EMC buyers

Memberships with national organizations give us greater access to diverse suppliers. EMC's Office of Global Workforce Inclusion and Corporate Indirect Procurement partner to manage and make the best use of our relationships with these organizations. In 2011, EMC hosted the Greater New England Minority Supplier Diversity Council Quarterly meeting.

# **Goals and measurement**

EMC sets goals and assesses performance regularly, including measuring and tracking activity with Small Businesses and Minority/Women-owned Business Enterprises. We report to the U.S. Federal Government in compliance with regulations.

# INNOVATION NETWORK

At EMC, innovation is at the core of everything we do—from how we run our operations to how we develop and deliver new products and services. We rely on innovation to survive and thrive, and believe the intersection of innovation and sustainability is where we can uncover solutions to our greatest business, social and environmental challenges.

The EMC Innovation Network is our innovation engine, an internal team whose efforts aim to spark the creation and delivery of high-value ideas that accelerate innovation and drive progress. The Innovation Network runs ongoing programs and annual events that help expand our knowledge of the issues and challenges facing our company, customers, and industry, as well as the world around us. With this knowledge, we identify innovative opportunities to create the future of our company and shape the world we live in.

#### INNOVATION SHOWCASE

Our Innovation Showcase is a competition that invites EMC teams or individual employees to submit ideas for solutions to company or customer challenges. The Showcase generates breakthrough ideas for technical innovations and business process improvements that will help EMC, our customers and the Information Technology industry continue to thrive over the long term.

Employees use EMClONE, our internal social media site, to collaborate and develop ideas. Submissions are evaluated and voted on by the EMC community and expert judges select ideas to be incubated for development. Winning ideas are announced at the annual Innovation Conference.

In addition to overall "best-in-show" winners, ideas are selected for awards from specific organizations and functions including each of our Center of Excellence, CTO office, 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 included Environmental Stewardship, Sales Innovation, Social Innovation, Information Technology (IT), Total Customer Experience, and Diversity and Inclusion.

# INNOVATION CONFERENCE

The Innovation Conference is our annual celebration of innovation and innovators. Through the conference, we unite employees globally, provide a forum for knowledge sharing, and recognize and reward employees for innovation leadership.

2011 marked the fifth year of the Innovation Conference. A record 1,590 proposals in the Innovation Showcase were submitted by 1,214 employees representing 25 countries.
28 entries were selected as "winners" for each of the Sponsored awards, and recognized at the Conference hosted in Santa Clara, California. More than a dozen EMC locations around the world simultaneously hosted regional conferences, connecting to the event via live webcast.

# EMC FELLOW & DISTINGUISHED ENGINEER PROGRAM

Our Corporate EMC Fellow & Distinguished Engineer (FDE) Program honors those individual contributors who have demonstrated outstanding achievement and a broad range of technical leadership across the company. After the Innovation Showcase and Conference, FDEs provide support as teams and individuals to incubate and advance winning ideas across EMC and our subsidiaries. FDEs also serve as mentors for our employees and contribute to the company's overall strategy development.

The following individuals were honored at an Induction gala and welcomed into the 2011 class of EMC Fellows and Distinguished Engineers:

#### **EMC Fellows**

# • Percy Tzelnic

Sr. VP, Office of the CTO, Hopkinton, MA

# **EMC Distinguished Engineers**

#### Paul Austin

Global Presales Lead, Flash Business Unit, McLean, VA

#### John Cardente

Distinguished Engineer, Unified Storage Division, Hopkinton, MA

#### Arieh Don

Sr. Consulting Engineer, Symmetrix and Virtualization Products Division, Hopkinton, MA

#### · Mike Evans

Sr. Consulting Engineer, Unified Storage Division, Hopkinton, MA

# · Christopher Gaudlip

CTO, Managed Services Division, Dallas, TX

# • John Hayden

VP, CTO, Unified Storage and Isilon Storage Divisions, Hopkinton, MA

# • Windsor Hsu

CTO, Data Domain/Backup Recovery Systems Division, Santa Clara, CA

#### · Paul Linstead

Sr. Consultant Engineer, Symmetrix Software Engineering, Hopkinton, MA

#### Zachary Loafman

Distinguished Engineer, Isilon Storage Division, Seattle, WA

#### Charles McDevitt

Chief Architect, Data Computing Division/Greenplum R&D, San Mateo, CA

### Mark Parenti

Chief Architect, Unified Storage Division, Nashua, NH

#### · Sazzala Reddy

CTO, Emerging Technologies/Data Domain, Santa Clara, CA—no longer at EMC

#### · Jeroen vanRotterdam

CTO, Information Intelligence Group, Pleasanton, CA

### · Yael Villa

CTO, Identity Protection and Verification Group/RSA, Herzliya, Israel

# Jonathon Walton

Distinguished Engineer, Isilon Storage Division, Seattle, WA

### • Riaz Zolfonoon

Architect/Technologist, Identity and Data Protection, RSA, Bedford, MA

# GLOBAL INNOVATION NETWORK ANALYTICS

The Global Innovation Network Analytics (GINA) initiative was created, designed and tested within EMC's Centers of Excellence in 2011 and will be implemented company-wide in 2012. It is a powerful tool that provides the Innovation Network and EMC's executive management with a visual representation of "knowledge transfer" across the company's global employee base.

Leveraging a Greenplum-based repository, GINA allows employees to submit meeting agendas or minutes to a central database and then automatically maps EMC's global activities, showing the specific lines of connection across the company through recruiting, innovation activities, research and development, publications, patents, and more. GINA allows users to learn more about specific areas, providing links to additional information about each activity.

GINA provides a single pane-of-glass view of major collaboration and knowledge transfer across the globe, enabling the Innovation Network to achieve its mission to "expand knowledge locally, transfer it globally, and leverage it strategically."

# STAKEHOLDER ENGAGEMENT

Stakeholder engagement is a continual process at EMC. We actively engage with stakeholders to build trust, gain perspective, and to leverage our collective expertise to address the issues and strengthen our business. We believe effective and productive engagement not only helps identify emerging issues, but also creates opportunities to develop innovative approaches to addressing the issues important to stakeholders and our business.

In 2011, EMC held our second Stakeholder Forum facilitated by Ceres, a network of investors, companies, and public interest groups working to accelerate the adoption of sustainable practices. Stakeholders representing the NGO community, academia, investors, and customers were joined by more than 30 EMC executives, managers, and individual contributors from all parts of the organization in a constructive dialog covering topics including EMC's reporting strategy, the results of our materiality survey, our take back and eWaste principles and programs, and our approach to building a diverse and inclusive workforce.

Key feedback from the forum included:

- Governance—our stakeholders commended EMC for the strength of its governance process and encouraged us to expand executive incentives based on social and environmental metrics.
- Materiality—stakeholders supported EMC's expansion of our materiality process, and
  encouraged us to highlight issues in which we believe EMC could take a leadership role.
  In particular, they suggested that Information Privacy should take a greater role in our
  sustainability materials. To learn more, visit Materiality Assessment.
- Climate Change and Renewable Energy—in addition to continued emissions reductions in our own operations and the energy consumed by our products, our stakeholders suggested EMC set shorter-term goals for renewable energy and engage customers in their transitions to cleaner fuels. We are exploring various alternative energy sources at this time, as described in Efficient Facilities.
- Report Format Stakeholders encouraged EMC to be sure that quantitative and critical
  qualitative material are available and downloadable in text form for ease of review and
  analysis, and that video and other multimedia content be used primarily for supporting
  examples and stories. The design of this report is in direct response to that feedback.
- eWaste—In response to our stakeholders, we have provided more detail about EMC's
  performance in Product End-of-Life, and have published EMC's Take Back and eWaste
  Principles on our public website. We are actively working both internally and with The
  Green Grid to establish performance metrics.
- Inclusion and diversity—our stakeholders were impressed with the breadth of EMC's
  programs and asked us to consider providing more quantitative data and goals. This
  productive discussion with the interested stakeholders is ongoing.
- Public policy—EMC was encouraged to continue and expand active engagement on sustainability policy issues aligned with our strategy, and to disclose our positions.
   For more information, see Public Policy.

# Below are some additional examples of how we engaged with stakeholders in 2011 and responded to issues raised.

STAKEHOLDER GROUP	HOW WE ENGAGE	EXAMPLES OF HOW WE RESPOND TO ISSUES RAISED
EMPLOYEES	Employee Satisfaction Measurement Survey (ESMS)  Annual Innovation Conference Recognition@EMC Ongoing Learning & Development Programs Green teams Social media (EMC   One) On-line sustainability tool Employee sustainability awareness survey	In response to interest by employees, EMC Ireland COE offered the Cycle to Work scheme to employees in 2011. The scheme offers a number of benefits including employee health and fitness and monetary savings. Nearly 400 employees have taken advantage of the scheme since it began.  In EMC's Customer Services organization, initiatives resulting from our ESMS survey included:  • Development of a Technology Talent Program to cultivate and mentor high potential technical leaders in direct response to employees' expressed desire for clearer definition of and greater focus on technical career paths.  • Creation of a council to provide a communication and feedback mechanism for employees who work at customer sites and may be less visible to their colleagues to ensure their voices are heard and represented in strategic planning.  A Process Engineer in Franklin, Massachusetts identified an opportunity for packaging efficiency by reusing corrugated inserts from a specific supplier's packaging in EMC packaging when shipping those same parts to another facility. He worked with the packaging supplier to design a new box that could reuse the supplier's corrugated insert. With this change, EMC will avoid 12,125 pounds of CO2e and \$57,000 in costs annually.
CUSTOMERS	Quarterly "Voice of the Customer" survey  Customer counsel focus group  One-on-one meetings  CDP Supplier Reports  Extensive RFP questions and supplier questionnaires  Executive Briefing Center  Engagement at EMC World	We produced a summary brochure in English and Chinese to use as a communication tool to share our sustainability strategy, goals and performance with customers.  For more information, visit 2010 EMC Sustainability Brochure.  In 2011, we added a GHG emissions calculation in the Power Calculator to help our customers better understand the impact associated with using our products.
SUPPLIERS	Supplier and SAQs Audits  Annual Supplier Day  Supplier Scorecard  Regular business reviews  Requests for Proposals (RFPs)	In 2011, we launched a project in collaboration with one of our largest logistics partners to help analyze our global logistics carbon footprint in more detail. Leveraging our partner's expertise in the area of GHG accounting and analysis, our goal is to develop reporting capabilities for total carbon emissions, allocated by business units, with breakdown by scope.  To learn more, visit Supply Chain Engagement and Transportation & Logistics.

STAKEHOLDER GROUP	HOW WE ENGAGE	EXAMPLES OF HOW WE RESPOND TO ISSUES RAISED	
SHAREHOLDERS	Regular outreach with institutional investors and other shareholders  Annual shareholder meeting  Bloomberg Sustainability Survey  Inclusion of Sustainability overview in 10K, Shareholder Letter and Earnings presentations  CDP reports (water and carbon)	When designing our 2012 executive compensation program, the Leadership and Compensation Committee of our Board of Directors considered, among other things, the results of the 2011 advisory vote on executive compensation and comments received during our active shareholder engagement following the 2011 Annual Meeting of Shareholders, including feedback on our compensation program.  Included sustainability information in our quarterly earnings communication materials.  Enhanced discussion of sustainability in Annual Report on Form 10-K.  Expanded disclosure regarding trade association memberships and percentage of dues used for political spending.	
NGOS	Specific projects and initiatives exploring solutions to particular issues impacting issues industry & company  Annual Stakeholder Forum  Materiality Survey	Partnered with Ceres to host our Annual Stakeholder Forum, an opportunity for stakeholders to provide input on our sustainability strategy, priorities, and challenges. Also invited Ceres to review a detailed outline of our sustainability report and offer guidance on the content.  Provided grant money to support CDP's development in Brazil in 2011.  During the past year, CDP has continued to work with both investors and companies on climate change through the Investor CDP program.  In 2011, the number of Brazilian signatories increased again, reaching a new record of 59.	
INDUSTRY GROUPS	Corporate Membership  Board Participation  Committee Participation  Public Policy advocacy	EMC is a member of the EICC-GeSI Extractives workgroup to develop programs for the responsible sourcing of minerals, including the Conflict-Free Smelter program and mineral traceability schemes.  Partnered with The Green Grid to establish industry-wide standards for energy efficiency metrics  To learn more, visit Collaboration & Engagement.	
PROSPECTIVE EMPLOYEES	Engaging with universities Internships Career days	EMC collaborates with colleges and universities globally to incorporate storage as part of the IT curriculum.  To learn more, visit Academic Alliance.	
LOCAL SCHOOLS AND COMMUNITIES	Town meetings  Volunteerism with community organizations	In October 2011, RSA employees volunteered to teach children safe and responsible use of the Internet to support National Cyber Security Awareness Month.  To learn more, visit Strengthening Communities.	

# **GOVERNANCE & INTEGRITY**

At EMC, governance and integrity involve many actions, such as understanding our customers, setting clear goals and priorities, having an informed and engaged Board of Directors, developing new leaders and building a culture that supports employees. Through our strong governance practices, we aim to be transparent and accountable to our stakeholders.

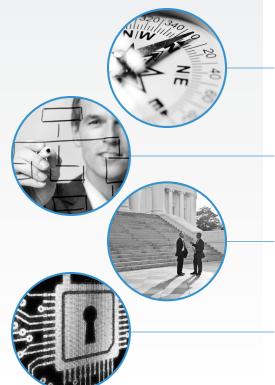


**Corporate Governance** 

**Ethics** 

**Public Policy** 

**Information Privacy & Security** 



# **CORPORATE GOVERNANCE**

# **GOVERNANCE GUIDELINES**

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

#### **GOVERNANCE STRUCTURE**

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

We currently have 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. We require each Board member to stand for election annually, and have adopted a majority vote standard for the election of directors.

The Board of Directors has established five standing committees:

- Audit Committee
- Corporate Governance and Nominating Committee ("Governance Committee")
- Finance Committee
- · Leadership and Compensation Committee
- Mergers and Acquisitions Committee

The Audit, Governance, and Leadership and Compensation Committees consist entirely of independent directors.

#### **BOARD LEADERSHIP**

Our Bylaws and Corporate Governance Guidelines permit the roles of Chairman and CEO to be filled by the same or different individuals. The Board believes that EMC and its share-holders are best served at this time by having Joe Tucci serve as our Chairman and CEO, and David N. Strohm, an independent director, to serve as our Lead Director. The Board believes that a Lead Director is an integral part of our Board structure and facilitates the effective performance of the Board in its role of providing governance and oversight. The active involvement of the independent directors, combined with the qualifications and significant responsibilities of our Lead Director, promote strong, independent oversight of EMC's management and affairs.

### SUSTAINABILITY OVERSIGHT

The Governance Committee is responsible for overseeing our sustainability program. The Governance Committee meets regularly with the Chief Sustainability Officer throughout the year. To learn more, visit Environmental Strategy.

# CONTACTING THE BOARD

To enable open communications, we provide various means for shareholders and other interested parties to contact the non-management directors, the Audit Committee and the Leadership and Compensation Committee. The Board strives to provide clear, candid and timely responses to any substantive communication it receives. To build constructive, informed relationships with shareholders and encourage transparency and accountability, directors may also be available for dialogue with shareholders from time to time, as appropriate. During 2011, members of the Board and EMC management met and engaged with stakeholders on a variety of topics. To learn more, visit Stakeholder Engagement.

# **CONTACT THE BOARD**

# ADDITIONAL INFORMATION BUSINESS CONDUCT GUIDELINES

SUPPLIER CODE OF CONDUCT

HUMAN RIGHTS AND GLOBAL LABOR PRINCIPLES

# **ETHICS**

Ethical conduct builds relationships of trust among employees, customers, partners, shareholders, communities, and other stakeholders. EMC's corporate compliance program educates employees about our ethical standards and monitors compliance with those standards. The Audit Committee of the Board of Directors oversees the corporate compliance program.

# **BUSINESS CONDUCT GUIDELINES**

The keystone 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 are available on EMC's corporate website and the translations are available on EMC's intranet.

The Business Conduct Guidelines provide guidance and link to EMC's policies on key topics, including anti-bribery, insider trading, equal employment, anti-harassment, privacy and information security, confidentiality, antitrust and competition, environmental sustainability, trade compliance, and financial reporting.

#### **HUMAN RIGHTS**

EMC is a member of the Electronic Industry Citizenship Coalition (EICC), a collaboration of the world's leading information and communications technology companies, whose aim is to improve efficiency and social responsibility in the global supply chain.

We have adopted the EICC's Supplier Code of Conduct (the "EICC Code") for ourselves and our suppliers, and added supplemental requirements, including provisions against trafficking in persons. We ask all Tier 1 direct suppliers and managed Tier 2 direct suppliers to acknowledge the EICC Code and consider each supplier's conduct vis-à-vis the EICC Code when awarding and/or renewing business with the supplier. To learn more, visit Supply Chain Engagement.

Consistent with the EICC Code, we have adopted principles that demonstrate our commitment to upholding workers' human rights. Areas covered by these principles include: freely chosen employment, child labor avoidance, working hours, wages and benefits, humane treatment, non-discrimination and freedom of association.

Our Human Rights and Global Labor Principles are based on the United Nations Global Compact, International Labour Organization standards and similar doctrines. These principles reinforce our commitment to the rights of our employees, as well as workers throughout our supply chain and our global community. We updated the principles in May 2011 and make them publicly available on our website.

There is a process in place for clear and accurate communication of our policies, practices, and performance expectations to workers, suppliers and customers. We encourage worker feedback and regularly review results of audits and assessments.

# **ETHICS TRAINING**

All new hires are required to complete corporate compliance training. This online training covers numerous topics, including the Business Conduct Guidelines, as well as EMC's anti-bribery, insider trading, equal opportunity, anti-harassment, privacy and information security, confidentiality, and antitrust and competition policies.

We also provide online and live compliance training to existing employees tailored to their particular organization or geographic region. In 2011, for example, we provided online or live training sessions to various groups of employees, including sessions on export compliance and supply chain integrity, information security and protecting personal information, discrimination and sexual harassment, the Fair Labor Standards Act, the UK Bribery and U.S. Foreign Corrupt Practices Acts, and numerous health and safety-related topics. All Global Supply Chain Management employees, as well as additional employees from other organizations, are required to undergo training on the EICC Code.

# **INVESTIGATIONS**

EMC takes seriously any reports of misconduct or unethical behavior, and offers 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, regulation, 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 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).
- Contact EMC's hotline by telephone (877-764-0557) or via a secure web report to <a href="https://emccorporation.alertline.com">https://emccorporation.alertline.com</a>.

# **PUBLIC POLICY**

EMC participates in the political process to help shape public policy and address legislation that impacts the company and our industry. Our involvement aims to ensure that the interests of customers, shareholders, employees and other stakeholders are fairly represented at all levels of government. Some of the key issues on which we focus include the following:

- Informing Federal Cloud Computing Policies. Federal investments in Cloud Computing
  and data center consolidation are important steps to increase productivity and achieve
  cost savings. We work with trade associations and industry partners to educate policy
  makers on these topics, including enhancing their understanding of Cloud Computing
  deployment, service models, and information security and privacy issues. In 2011, we
  participated in forums on Cloud Computing issues including TechAmerica Foundation's
  Commission on the Leadership Opportunity in U.S. Deployment of the Cloud. EMC was
  also invited to various other sessions to provide our expertise regarding the consolidation of federal data centers.
- Leveraging Big Data to Advance Key Public Sector Missions. The era of Big Data has
  spurred organizations to find new ways to scale and manage their storage environments and to develop and leverage advanced data analytics capabilities. We support
  policies that harness Big Data to enhance intelligence and defense programs and
  advance health sciences by meeting massive storage requirements through costeffective and scalable solutions.
- Promoting Effective Sustainability/Energy Efficiency Approaches. Through
  Congressional testimony and other outreach, we communicate frequently with federal
  stakeholders about our sustainability strategy and Green IT policies in the Public
  Sector. For example, we believe consumers have a right to access their electricity usage
  information, and that improved understanding would help them make better decisions
  around energy use. EMC supports the proposed "Electronic Consumers Right To Know"
  ("E-Know") Act, bi-partisan legislation to advance this type of approach.
- Promoting Policies to Address Advanced Cyber Threats. Organizations face cyber
  threats every day—including increased attempts to steal sensitive data such as
  intellectual property—and cyber security has become a major national and economic
  security priority. The U.S. Congress is actively considering federal cyber security
  legislation and EMC, along with RSA, our Security Division, have weighed in with
  policy recommendations.
- Advancing Effective Education Policy and Math and Science. As a technology company, our primary interest and expertise lies in advancing Science, Technology, Engineering, and Math (STEM) education to build a highly diverse, trained and innovative workforce for the future. We also work to strengthen broader educational systems around the world through our involvement in the World Economic Forum's Global Education Initiative (GEI). The GEI facilitates partnerships between public and private sectors to support relevant, sustainable, and scalable education plans.

ADDITIONAL INFORMATION POLITICAL CONTRIBUTIONS POLICY

**DECEMBER 2011 CORPORATE POLITICAL CONTRIBUTIONS DISCLOSURE STATEMENT** 

EMC Chairman and CEO Joe Tucci has been a leader in education reform in the U.S. for more than a decade. Joe served as co-chair of the Massachusetts Readiness Project, a collaboration of business, education, and community leaders. At the request of the Governor, this group created a long range strategic plan for K-12 education and beyond in Massachusetts. He also served as the Chairman of the Business Roundtable's Education Task Force for more than four years. We also advocated for the expansion of charter schools. In addition, we are a member of Governor Deval Patrick's STEM Advisor Council, which was launched in 2010. To learn more about our support for STEM education programs, visit Education Partnerships.

# POLITICAL CONTRIBUTIONS

EMC is committed to responsible participation in the political process in compliance with applicable federal, state and local laws and reporting requirements. We adhere to our Political Contributions Policy which outlines procedures for contributions made with corporate funds.

We make information about our corporate political contributions publicly available on a semi-annual basis. A listing of our 2011 corporate political contributions is available here.

As with many corporations, we have established a Political Action Committee (the "EMC PAC"), a nonpartisan committee registered with the Federal Election Commission. The purpose of the EMC PAC is to promote good citizenship and further business interests that are of concern to shareholders and employees of EMC. The EMC PAC provides eligible employees an opportunity to participate in the elective process at the federal level of government and encourages the election of qualified, informed and constructive candidates for office and to support or oppose any political party committee or political committee. The EMC PAC is funded entirely by voluntary employee contributions; no corporate funds are used to fund the EMC PAC.

# TRADE ASSOCIATION MEMBERSHIPS

EMC participates in various trade associations and organizations that engage in activities such as education, lobbying, advertising and knowledge sharing. We disclose the major U.S. trade associations, the amount of our annual membership dues and information we received from these organizations regarding lobbying expenses and political expenditures using membership dues. Details regarding our trade association memberships and dues paid are updated annually and available here.

# **INFORMATION PRIVACY & SECURITY**

EMC's goal is to balance innovation and collaboration within our company while securing personal and confidential information and preserving the trust of our customers and stakeholders. Information privacy and security oversight are critical components in our efforts to protect the confidential information that is entrusted to us.

We implement solutions to mitigate risk and protect personal and confidential information. Our Governance Risk and Compliance Council, which includes senior management, meets quarterly to review and implement our internal information security strategy, which is carried out by our Global Security Organization (GSO).

# PROTECTING PERSONAL INFORMATION

We have established and trained our workforce on internal policies that require employees and contractors to protect the privacy and security of confidential and personal information. From a privacy standpoint, personal information may not be used or disclosed except as necessary for legitimate business purposes such as for human resources and employment functions or as otherwise permitted or required by applicable law. From a data security standpoint, we use reasonable administrative, technical and physical measures to safeguard confidential and personal information.

EMC complies with the U.S.-E.U. Safe Harbor Framework and the U.S.-Swiss Safe Harbor Framework as set forth by the U.S. Department of Commerce regarding the collection, use, and retention of personal information from the European Union and Switzerland. In addition, EMC has been awarded TRUSTe's Privacy Seal signifying that the EMC.com privacy statement and EMC's practices have been reviewed by TRUSTe for compliance with TRUSTe's program requirements, including transparency, accountability and choice, regarding the collection and use personal information.

# RESPONDING TO CYBER SECURITY RISKS

Like any large company, EMC experiences and successfully repels multiple cyber attacks on its Information Technology (IT) infrastructure every day.

In March 2011, an extremely sophisticated attack occurred against RSA and resulted in certain information being extracted from RSA's systems. We were able to identify the attack in progress, and we took immediate steps to disclose the event to our customers and to provide resources and tools to help them strengthen the security of their IT systems.

We remain committed to our relentless pursuit of building trust in the digital world. Long before and since the breach at RSA, we've dedicated ourselves to maintaining the confidence of our customers and partners. We are working aggressively to enhance our products and services and strengthen our internal security to better protect our business and our customers from these sophisticated cyber threats.

An unprecedented number of targeted, high-profile attacks on companies over the last year remind us that the question is not whether a company can be breached, but how fast it can react. This sense of urgency drives our strategy to apply lessons learned throughout our product roadmap.

# **ADDITIONAL INFORMATION** TRUST IN THE CLOUD WHITE PAPER

# TRUST IN THE CLOUD RESOURCES **WEBSITE ON EMC.COM**

# TRUST IN THE CLOUD

Cloud Computing and virtualization are powerful tools to manage and use digital information. These tools foster innovative approaches to resource conservation and efficiencies through principles of multi-tenancy, resource sharing, and rapid resource elasticity.

However, these approaches also create new complexities for organizations, including the fundamental challenge of getting the right information to the right people over an infrastructure they can trust. Cloud Computing and virtualization have irrevocably changed the nature of control and visibility: infrastructure becomes virtual, not physical, and people access infrastructure from devices that are outside of IT's direct control.

Information moves with incredible speed across networks and the Cloud, which can make it difficult to know where sensitive information resides. With an IT infrastructure that is shared via the Cloud, organizations must learn new ways to identify and monitor potential 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 required to achieve this level of control and visibility already exist for both internal (private) Clouds and Cloud services delivered through external providers.

EMC offers 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 white paper.

#### IT PROVEN PROGRAM

Through the IT Proven Program, EMC's GSO implements our security solutions across IT operations throughout the enterprise. By tackling the same problems our customers face, we can test our own products and provide realistic feedback on their performance.

The GSO also develops prototypes of new security solutions for EMC. For example, the GSO developed a Secure Management Infrastructure, using VMware®, Cisco, and RSA technology to create a security management portal to manage our data centers.

# CRITICAL INCIDENT RESPONSE CENTER

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 is designed to provide more efficient and effective resolution.

#### CUSTOMER SECURITY MANAGEMENT OFFICE

The Customer Security Management Office (CSMO) serves as an internal resource to help our sales teams and business units effectively respond to customers' security-related inquiries. The CSMO works directly with internal departments as a customer advocate to enhance our operations to meet or exceed customer expectations.

# ISO 27001 CERTIFICATIONS

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 regular security training related to protecting confidential and personal information. Employees who work on customer sites, including sales force members and field engineers, must undergo supplemental annual training. Additionally, our credentialing program makes a consistent, global practice of conducting employee background checks. This background screening is another effort to help reduce the potential risk to corporate and customer information posed by possible internal threats.

#### SECURITY IN A CHANGING WORLD

An ongoing challenge for EMC and its divisions is implementing security processes for new, rapidly changing technologies. As our company evolves, we are becoming a hyperextended enterprise, sharing information with more people and using more technology tools across more geographies than ever before.

Our stringent information security strategy and practices are preparing us for this challenge. We also recognize that we don't have all the solutions, and we are working with others to address the evolving landscape of security technology. For instance, RSA is an active member of the Cloud Security Alliance, a nonprofit organization promoting best practices for security assurance within Cloud Computing.

#### SUPPLY CHAIN SECURITY

Another component of EMC's security strategy is to securely design, implement, deliver, and service our products. Our Product Security Office manages risk across the full supply chain including credentialing, secure product design, the product development life cycle, the protection of intellectual property, and our support and service delivery capabilities. To learn more, visit Supply Chain Business Continuity.

# **WATCH THIS VIDEO**

to learn more about how EMC is using Big Data to help our customers transform renewable energy

# **POSITIVE IMPACT OF IT**

Today, the environmental and social challenges facing the world are of unprecedented scale and scope. Information Technology (IT) can help overcome these challenges by creating new sources of knowledge, facilitating previously unforeseen methods of collaboration and delivering technological efficiencies.

At EMC, we are developing Cloud Computing and Big Data technologies that are transforming entire fields and industries. For example, we are contributing to a more effective health care system by increasing access to patient information through secure and reliable electronic health records. We are also offering technological advancements that help customers reduce resource use and manage climate change impacts.

We believe that harnessing the power of IT will shape the future of business, shift paradigms, and transform our world for the better.

#### JOURNEY TO THE CLOUD

Cloud Computing is changing the way information is built, stored and consumed. Data centers now are transformed into dynamic, virtualized infrastructure that delivers IT in a more agile and cost-efficient way, while maintaining reliability and security.

In a traditional data center, applications are provisioned to the maximum amount of storage they could potentially require — not to the amount of storage they actually require at the present time. The agile nature of the Cloud reduces the need for such "overprovisioning". Cloud Computing enables more efficient use of IT assets by consolidating hardware resources and reducing energy consumption. The Cloud also creates a more resilient platform for delivering IT, which helps ensure business continuity in the face of physical, weather, or social disruption.

Cloud infrastructure continues to evolve, but represents a fundamental shift that, over time, will be as impactful as the adoption of personal computers was a generation ago.

# THE BROAD INSTITUTE: **2011 LIFE SCIENCES DATA HERO AWARD WINNER**

The Human Genome Project, which sequenced 20,000+ genes and three billion chemical base pairs that make up human DNA, was an impressive accomplishment when completed in 2003. But it was only the beginning. The Project proved that genes comprise only a small portion of the human genome, and that there are more fundamental elements to identify.

Identifying elements, and recognizing how they operate, is a top priority for the Broad Institute, a genomic medicine research center comprised of scientists from the Massachusetts Institute of Technology (MIT) and Harvard University. The Broad Institute seeks to understand how cell circuits process information. This research expands knowledge of the genome and informs the Broad Institute's search for therapeutic applications.

Genome biology and cell circuit research comprise one of the most significant Big Data challenges today. The Broad Institute's data footprint grew to eight petabytes in the past year, with a throughput (the amount of data analyzed in a given time period) that doubles every five months. To contend with the everincreasing large datasets, researchers rely on Isilon® clustered storage and have developed more than 30 custom tools for data analysis.

The Broad Institute's work presents a unique opportunity in human history to comprehend the building blocks of life and apply these insights to accelerate treatment of cancer, viruses, and other serious diseases.

# **BIG DATA**

The rapid increase of digital information has spawned the Big Data revolution, uncovering opportunities to analyze massive volumes of information and glean insights that drive business and societal change.

Big Data consolidates information from disparate sources to create innovative solutions to some of business and society's most pressing challenges. Our Big Data solutions enable organizations to realize value from all data sources and gain efficiencies, agility and business breakthroughs. Today, organizations leverage Big Data to discover new medicines, isolate and prevent diseases, identify business trends, improve disaster response, unite children from around the world, and alter how we work and play.

The rise of Big Data has led to the emergence of a new role—the Data Scientist. Data Scientists analyze and interpret data to extract meaningful insights, then explore their potential to change business and society in unprecedented ways. EMC recognizes and celebrates this role in the Big Data era through our Data Scientist Summit and Data Hero Awards, which provide opportunities for collaboration and knowledge sharing among this new type of scientist.

#### **Data Science Summit**

In 2011, EMC hosted the world's first Data Scientist Summit to convene leaders from industry and academia to exchange ideas, explore new perspectives and challenge current theories on how to extract the most value from the world's data. Summit attendees also discussed how the industry can equip current and future data scientists with the tools, education and resources needed to succeed. Following the success of this inaugural event, EMC plans to continue to host the Data Science Summit on an annual basis.

#### **Data Hero Awards**

EMC's Data Hero Awards honor individuals and organizations exploring innovative uses of Big Data technologies and techniques. These often-unsung Data Heroes are at the forefront of pioneering solutions that have a profound impact on the way individuals, organizations, entire industries and societies function. The Data Hero Awards recognize business and IT leaders who have leveraged Big Data for competitive advantage.

# **ECONOMIC PERFORMANCE**

We believe that a sustainable business is one that treats environmental, societal, economic and governance practices holistically and creates value for all of our shareholders and stakeholders. Our ability to identify opportunities and effectively manage risks such as competition, regulation, disruptive technologies, social developments and environmental changes plays a significant role in our economic performance. This section further explores our financial performance and indirect economic opportunities.

# FINANCIAL PERFORMANCE

Our Annual Report on Form 10-K provides an overview of the company's business and financial condition.

In 2011, EMC's performance was the best in our company history. Equipped with the 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 2011, we reported consolidated revenue of \$20.0 billion, which represents an increase of 18% year over year. GAAP net income increased 30 percent year over year to \$2.5 billion. Our GAAP diluted earnings per share (EPS) increased 25 percent year over year to \$1.10 per share. We achieved record full-year operating cash flow of \$5.7 billion, an increase of 25 percent compared with 2010.

With 2011 behind us, we remain committed to double-digit revenue and profit growth for the next several years and stand poised to continue strengthening our competitive position for the long term. Our goal is to achieve \$28 billion in revenue by 2014, which represents a compound annual growth rate of 13% from 2010, and to grow EPS even faster over the same period.

To learn more, visit Corporate Profile.

# INDIRECT ECONOMIC OPPORTUNITIES

EMC provides information solutions to optimize business functions, accelerate research, and enhance public infrastructure. Our goal is to offer Information Technology (IT) departments the foundation to store, manage, protect and analyze their most valuable asset — information — in a more agile, trusted and cost-efficient way through Cloud Computing. This shift to Cloud Computing should deliver greater economies of scale as data and applications become more centralized and consolidated.

Our products and services help organizations leverage the value in stored data, which creates economic benefits that extend beyond EMC and our customers. As companies seek to unlock the information contained in the enormous volumes of data, the insights they gain hold promise for many of today's challenges.

# **Indirect Opportunities in our Communities**

EMC works to create value for our global communities and the Information Heritage project is one example of these efforts. The Information Heritage project assists organizations with digitizing and preserving cultural collections around the world, and has the opportunity to reach virtually every person on the globe. To learn more, visit Strengthening Communities.

# **Indirect Opportunities through Public Policy**

We also create indirect economic opportunities through our public policy involvement. EMC is actively engaged with organizations that encourage action on public policy in the key areas of education, competitiveness, cyber-security and energy. To learn more, visit **Public Policy.** 

# STRENGTHENING COMMUNITIES

At EMC, we believe we have an important role to play in strengthening and transforming our communities around the world. Our employees volunteer their time and talent to make a difference where we live and work. We also invest time and funds to support global education initiatives, and leverage our technology to digitally preserve and protect cultural treasures for future generations.

# THE FOLLOWING TOPICS ARE COVERED IN THIS SECTION:

**Education Partnerships** 

**Community Involvement** 

**Academic Alliance** 

**Information Heritage** 

**Funding Guidelines** 



# STRENGTHENING COMMUNITIES DASHBOARD

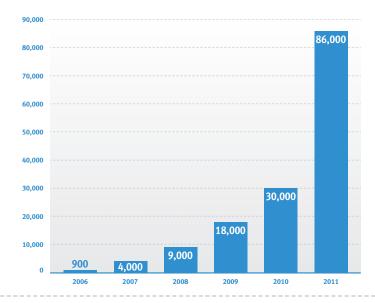
# COUNTRIES WITH EMC EDUCATION AND COMMUNITY PARTNERSHIPS

**GLOBAL** 

APJ		AMERICAS	E	EMEA	
Australia	Korea	Argentina	Austria	Italy	
Cambodia	Malaysia	Brazil	Egypt	Kenya	
China	NZ	Chile	Ghana	Russia	
India	Philippines	Colombia	Ireland	South Africa	
Indonesia	Singapore	Haiti	Israel	Turkey	
Japan	Thailand	Mexico			
•		US			

# NUMBER OF STUDENTS PARTICIPATING IN EMC'S ACADEMIC ALLIANCE PARTNERSHIP

**GLOBAL** 



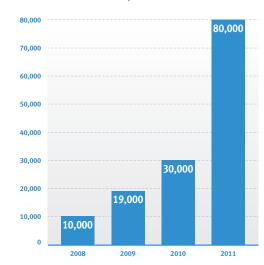
# DONATIONS MADE IN RESPONSE TO DISASTER RELIEF (INCLUDING MATCHING) 2011

GLOBAL-\$US

\$780,000

# NUMBER OF STUDENTS EDUCATED ON INFORMATION STORAGE AND MANAGEMENT

GLOBAL, CUMULATIVE



# **COMMUNITY SERVICE AWARDS**

GLOBAL-\$US

2010



2011



# **EDUCATION PARTNERSHIPS**

EMC believes access to education can have a transformational impact on people around the world, as well as on society at large. In developed countries, we support programs that encourage students, particularly from underrepresented groups, to pursue programs in the areas of science, technology, engineering and math (STEM). Globally, we help communities gain access to the education and IT resources needed to succeed in the global information age.

In 2011, we supported education programs in 29 countries, and hope to extend the reach of these programs and partnerships in 2012. For instance, we are planning to expand our partnership with the Vex Robotics' Education & Competition Foundation to several international locations.

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

We are launching a pilot program with Vex robotics and our COE in Cork, Ireland in 2012, which will serve as a model for other EMC locations in the future.

Read below to learn more about the impact of our education partnerships in 2011.

#### **AMERICAS**

# **Transforming Communities One Student at a Time**

Since 2009, EMC has partnered with Citizen Schools to support afterschool programs for lower-income middle school students and cultivate their interest in science, technology, engineering and math. We support Citizen Schools programs in Massachusetts, North Carolina and California through financial donations and employee volunteer time.

Each semester, employees serve as "Citizen Teachers" and teach "apprenticeships" that guide students in various engineering and science projects. Past topics have included aviation, electrical engineering, and how to build a radio and computer. In some locations, we have invited students to visit and tour our manufacturing facilities.

In 2011, nearly 140 employees volunteered to teach eight apprenticeships, reaching more than 530 students in California, Massachusetts and North Carolina.

# **WATCH THIS VIDEO**

to learn more about Citizen Schools from EMC employee MacCalvin Romain, former Citizen Schools student and current volunteer. "At first the children were so shy and tried not to have eyecontact with us. But one hour later they made their own small stage and performed a dancing show. They were so happy with new books EMC provided and curious about what kind of company EMC is. I feel really great about participating in the community engagement activity and proud of EMC."

#### **CLARA LEE**

EMC BUSINESS OPERATIONS ANALYST SEOUL, KOREA

"EMC's programme will enable students to undertake experiments they normally would not have studied due to the lack of equipment or expertise, which EMC now provides through donations and employee volunteers. It is also beneficial for the morale of the students and schools to be involved with a company such as EMC, because students can see what's possible and are inspired to dream of what they can achieve."

**DR. SHARON LAWTON**CIT SCIENCE FOR LIFE PROGRAM
CORK, IRELAND

# **Promoting Literacy and Inclusive Education**

In Brazil, EMC has supported the work of Alfasol, an organization committed to improving literacy around the world. Since 2008, our financial contributions and employee volunteer time have helped provide programming for more than 500 adults in underserved areas of Rio de Janeiro.

We also support Diversa, an organization that strives to ensure disabled children in Brazil receive quality education. Since 2011, EMC funding has helped provide education programs and resources to students, parents and teachers.

#### **ASIA PACIFIC & JAPAN**

# **Providing Hands-on Learning Experiences**

Our Center of Excellence (COE) in China sponsors Junior Achievement's Management and Economic Simulation Exercise (MESE) program. The computer simulation competition enables students to create "companies" and vie against one another as they manufacture products and bring them to market.

The competition teaches students about the fundamentals of business and economics. Students determine product price, invest in manufacturing equipment, estimate production levels, and plan marketing and R&D budgets.

In 2011, 16 EMC employees volunteered to teach in the MESE program at nine universities in Shanghai. Following the competition, the students were invited to tour EMC's local facilities.

# **Making Dreams Reality**

In 2009, EMC launched the "Dream Library" campaign in Korea, in partnership with the Association of Community Centers for Children. Through the campaign, we donate books, laptops and other learning resources to community centers in underserved parts of Seoul. Employees also volunteer their time to educational activities at the centers.

In 2011, more than 40 RSA and EMC employees volunteered at the JARAM Community Child Center in Seoul to deliver 800 new books and build book shelves for more than 150 children who visit the Center. The children prepared a dance performance to express gratitude to the volunteers.

# EUROPE, MIDDLE EAST & AFRICA

# **Giving a Second Life to EMC Equipment**

EMC Engineer Martin O'Flaherty's 2010 Innovation Showcase idea became reality in 2011 when EMC partnered with Cork Institute of Technology's (CIT) Science for Life program to donate the company's test lab equipment to schools in the community. Flaherty's idea extended the useful life of EMC's testing equipment; provided an opportunity for EMC employees to volunteer and offer their expertise; and reinforced EMC's support for STEM programs.

In 2011, EMC Ireland collaborated with CIT to develop an innovative pilot program in two Cork schools. We hope to expand the program and encourage participation by other companies in Ireland.

#### **Bringing ICT Training to Rural Communities**

In Kenya, we are working to advance computer literacy by supporting the **ZOO Foundation**, which provides Information Communications Technology (ICT) training to children and adults in rural Kenya.

In 2011, EMC's contributions of funds to The ZOO Foundation enabled more than 4,200 children and adults to access computer labs and gain ICT training and development.

# **EMC GIVES BACK**

In 2011, we launched the EMC Gives Back program, led by our Global Marketing team, to improve local communities through partnerships and employee volunteer efforts.

The program's first activity, EMC Fights Hunger, took place in 14 countries. More than 450 employees volunteered at their local food banks and community shelters, and donated over 40,000 pounds of food, impacting more than 20,000 individuals. EMC Fights Cancer, the program's second 2011 activity, engaged more than 1,500 employees worldwide through a series of events that fostered awareness, encouraged teambuilding, and promoted fundraising for all types of cancer. The initiative raised \$100,000 in support of cancer charities around the world.

What began as a Marketing-led community service effort transformed into a company-wide program surpassing all expectations. Moving forward, EMC Gives Back will foster awareness and raise funds for two select causes each year.

# **COMMUNITY INVOLVEMENT**

EMC employees actively participate in Community Involvement Committees. These committees support health, human services and arts programs, as well as disaster relief efforts in the communities where we operate. Formal Community Involvement Committees have been introduced at our locations in California, Massachusetts, Minnesota and North Carolina. Employees around the world also participate in activities in their communities through locally organized initiatives.

#### COMMUNITY PARTNERSHIPS

EMC's corporate giving and volunteerism efforts are focused on supporting programs that provide access to education. We also recognize our responsibility to give back to the communities in which we live and work. Please see the sidebar for a list of the partner organizations we proudly support through in-kind and financial contributions.

We also encourage employees to organize grassroots volunteer activities. Our dedicated Community Involvement team provides guidance and resources to support these efforts, including promoting activities internally and recognizing employees through the Community Service Awards.

# **EMC'S MAJOR COMMUNITY PARTNERS AROUND THE WORLD**

Aiutare i Bambini Onlus

AlfaSol

**Australian Red Cross** 

Association for Sustainable Development

**Big Brothers Big Sisters** 

Boston Healthcare for the Homeless Program

**Boston Symphony Orchestra** 

California Academy of Sciences

**Camp Harborview** 

Citizen Schools

Conaniquen

Diversa

Friends of NC State Museum of Natural Sciences

**Fundacion Leer** 

**Funding for Catholic Schools** 

Girls for a Change

**Habitat For Humanity** 

Hard Hats for Haiti

**Hope Foundation** 

Hope Worldwide (Philippines, Indonesia, Singapore, Mayasia)

Industry Initiatives for Science and Math Education

Inner-City Scholarship Fund

International Red Cross & Red Crescent Societies: Japan, Thailand

Junior Achievement (China and Ireland)

Kinder-Krebshilfe Elterninitiative Lazos

Leonhard Euler International Charitable Foundation for Mathematics

Massachusetts State Science Fair

Michael Carter Lisnow Respite Center

Museum of Science

**New England Aquarium** 

New Zealand Red Cross

North Carolina Council of Teachers of Mathematics

Pan American Development Foundation

**Phoenix House** 

Pisgah Astronomical Research Institute Resala

Resource Area for Teaching

Rising Star School

Robotics Education & Competition Foundation

San Jose State MESA

**Science Buddies** 

Tabitha: Cambodia

Tech Museum of San Jose

The Massachusetts Green High Performance Computing Center

TOCEV (Foundation for Educating Children)

United Way Australia

United Way New Zealand

Wardrobe for Opportunity

**ZOO** Memorial Foundation

# **COMMUNITY SERVICE AWARDS**

We foster a culture of giving back by recognizing employees who volunteer and contribute resources to their communities. Established in 2009, EMC's annual Community Service Awards (CSA) recognize employees for their contribution to communities outside of causes we support at the corporate level.

CSA winners are recognized internally and a one-time financial grant is contributed to the organization in their honor. In 2011, 41 employees received Community Service Awards, and \$60,000 was donated to the respective organizations. To date, EMC has contributed \$120,000 to organizations on behalf of CSA winners. Please see the sidebar for a list of 2011 CSA recipients and organizations.

#### **DISASTER RELIEF**

In the wake of natural disasters and emergencies, EMC assists communities with support for relief and recovery efforts. We respond by donating corporate funds, as well as matching employee donations to benefit service organizations, including the American Red Cross, Australian Red Cross, New Zealand Red Cross, Give 2 Asia, International Red Cross, and Red Crescent Societies.

In 2011, EMC contributed \$250,000 to response efforts and matched \$265,000 in employee donations. Contributions totaling \$780,000 were distributed to support disaster relief activities in response to emergencies in Japan, Brazil, New Zealand, Australia, Thailand, Turkey, as well as the tornadoes in Central Massachusetts and Joplin, Missouri.

# 2011 COMMUNITY SERVICE AWARD WINNERS

EXEMPLARY SERVICE AWARD (\$10,000 DONATION)

Lowe Syndrome Trust (Andrew Thomas)

MOTIVATOR AWARDS (\$5,000 DONATION)

Cystic Fibrosis Foundation (Christine McCarthy)

Hands of Compassion International (Bob Bell, Ir)

Children's Heart Foundation Nevada (John Stewart)

Baker MSA Research Fund (Jillian Baker)

Rebel Wheelers (Jerry O'Regan)

Stewardship Awards (\$1,000 donation)

Surf2Heal (Nollaig Hayes)

Creative Children's Therapy (Alex Perez)

Barton Center for Diabetes (Joyce Flannery)

**ECOCEAN USA (Jason Holmberg)** 

**CdLS Foundation (Dianne Lessa)** 

Hope and Play (Iyas AlQasem)

Chernobyl Children's Trust (Paul Bates)

Navy and Marine Living History Association (Chuck Veit)

YMCA (Ron Sha)

Loaves and Fishes Food Pantry (Monica Pepicelli)

Miami Achievement Center (Bill Salazar)

Friends of Londiani (James Curtin)

USO NC International (Mark Palmer)

Avon Walk for Breast Cancer (Michael Guthrie)

CICPF CBC Foundation (June Yee)

CAPACITY BUILDER AWARDS (\$500 DONATION)

American Cancer Society Relay for Life (Deb Jacobsen)

BAEOM (Bill Stout)

Brown Dog Foundation (Amy Wolanski)

Free Geek Providence (Tom Houde)

Friends of CASA (Terri Wallace)

Friends of the Blue Hills (Robert Romeri)

Gently Giant Rowing Club (Hillary Abbey)

Girl Scouts of North Carolina Coastal Pines (Haley Gray)

Global Women's Leadership Network (Sheryl Chamberlain)

Jimmy Gavin Foundation (Chris Hill)

LiveSTRONG (Robert Glanzman)

MA Youth Leadership Foundation (Joette Breor)

Mission E4 (Gerry Linden)

Motherly Care Children's Home (Joseph Nyamwange)

**NEADS** (Carol Coffey)

North TV (Bob Cote)

Omprakash Foundation (Sunita Casula)

Soccer in the Streets (Ramiro Canovas)

Swans (Steven Denman)

Urban Assembly School for Wildlife Conservation (NY/NJ Division)

# **ACADEMIC ALLIANCE**

According to a 2011 study by IDC7, the world is doubling the amount of information created every two years and, by 2020, will generate 50 times the amount of information that exists today. At the same time, Information Technology (IT) staff to manage this influx of information is predicted to grow less than 1.5 times.

EMC Academic Alliance is a collaboration with global educational institutions that is working to address this dilemma. The program is designed to prepare the next generation of IT professionals and provide the industry with a strong pipeline of graduates who will be well-positioned for IT roles as the landscape of storage, Cloud Computing and Big Data continues to grow and evolve.

More than 750 institutions, representing more than 40 countries, are members of the Academic Alliance. In 2011, 250 new universities and colleges joined from over 20 countries. More than 50,000 students received education on Information Storage and Management in 2011, and over 80,000 students have been reached since the program launched in 2006.

# **CURRICULUM & TOOLS**

Membership in the Academic Alliance provides free access to "open" curriculum-based education covering topics such as information storage and management (ISM), virtualization, Cloud Computing, and Big Data analytics.

EMC subject matter experts work with professors to validate the curriculum, ensuring technical relevance and easy integration into academic programs. The ISM textbook, produced by EMC in 2009, serves as the information storage industry's only definitive reference resource.

Registered students have access to an online portal that includes case studies, videos, podcasts, and white papers. We also encourage students to connect with their global peers and industry experts through Facebook and Twitter, and the EMC Proven Professional online community.

# **FACULTY ENGAGEMENT**

EMC's Academic Alliance team engages with faculty to continually update and enhance the program. The team encourages feedback through our faculty portal, regular e-mail communications, and interactions with Academic Alliance program managers.

To learn more, visit **ACADEMIC ALLIANCE WEBSITE** on EMC.com.

# PROGRAM EXPANSION

In 2011, the Academic Alliance updated offerings in response to new IT trends and to incorporate feedback gleaned through faculty outreach and engagement. Three new course offerings, outlined below, have been developed to prepare students to plan, deploy, and manage complex IT infrastructures.

- · Cloud Infrastructure and Services
- · Backup Recovery Systems and Architecture
- Data Science and Big Data Analytics

The Academic Alliance program expanded engagement with the global higher education community through events and seminars, including hosting the third annual Academic Alliance Conference in 2011. Held in Chennai, India, the two-day event attracted more than 4,000 students and 250 faculty members.

#### EMC LOCALIZATION INTERNSHIP PROGRAM

In 2009, EMC launched the Localization Internship Program (ELI), a joint program of the Academic Alliance and EMC's Localization organization. The Localization team translates and tailors materials about EMC products and services so they can be easily used in languages other than English. Through the ELI program, students can apply what they have learned in the Academic Alliance and explore the possibilities of a career in translation and localization.

Students from universities around the world connect with each other via the ELI online community, fostering international and intercultural communication. In 2011, ELI launched partnerships with universities in China, Italy and Japan.

# **INFORMATION HERITAGE**

Cultural heritage is captured in books, photographs, music, and letters stored in museums and libraries around the world, yet many of these historical documents and cultural artifacts are at risk of disappearing. EMC is dedicated to supporting the efforts of organizations and individuals to preserve and protect these pieces of history.

Digitizing efforts not only prevent these pieces from disappearing, but often increases access for students, academics, and others who are interested in exploring these items. Since 2007, we have provided more than \$20 million in products, services, and financial assistance for digital information heritage programs worldwide.

# EMC INFORMATION HERITAGE INITIATIVE

EMC's Information Heritage Initiative partners with cultural institutions to capture, store, and share digital images of their priceless collections. We offer financial assistance, hardware and software products, and technical expertise to help preserve the world's heritage and increase digital accessibility for research and education.

In 2011, we partnered with JPMorgan Chase and AT&T Business Solutions to support The King Center Imaging Project, a collaborative effort to digitize, preserve and share more than one million documents belonging to Dr. Martin Luther King, Jr. These include copies of his most famous speeches, such as the "I Have a Dream" speech, his Nobel Peace Prize acceptance speech, and correspondence such as a letter from Birmingham Jail.

The team created an educational website based on the comprehensive collection of Dr. King's papers and audio-visual materials and original documents from other notable civil rights figures and groups. EMC and AT&T donated technology and storage solutions, as well as advisory support. Two EMC employees from EMC's Storage Managed Services group provide ongoing day-to-day management and support for the project. The King Center Imaging Project's digitized archive, unveiled on January 16, 2012, is showcased on Center's website at www.thekingcenter.org/archive.

# **ADDITIONAL INFORMATION EMC FACEBOOK PAGE**

# **HERITAGE TRUST PROJECT PAGE ON FACEBOOK**

# **EMC HERITAGE TRUST PROJECT**

We recognize the importance of local preservation projects and, through the EMC Heritage Trust Project, support community-based digital curation efforts. 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 2011 grantees were:

- · Organización Comunitaria Funcional (OCF) Londres 38, Chile
- The General Historic Archives of the Ministry of Foreign Affairs of Chile
- · Tongji University Library Shanghai, China
- · C.B "Bud" Johnston Library University of Western Ontario, Canada
- The George Boole Papers Digitization Project Boole Library, University College Cork
- The "Kyrgyz Kitep Borboru" Project (Kyrgyz State Book Chamber), Kyrgyzstan
- The Crimean Tatar Library Preservation Project Autonomous Republic of Crimea in Ukraine
- · Aegis Trust of Rwanda

Beginning in 2012, the Heritage Trust Project will be showcased on EMC's Facebook page, where applicants will submit their proposals. An internal group will judge all proposed projects and submit the seven finalists to the public who will then vote for the top three winners.

# **FUNDING GUIDELINES**

We are proud to support the work of our nonprofit partners who are advancing important causes in communities around the world. Through these partnerships, EMC contributes funds, in-kind products and services, and employee volunteer time.

#### **FUNDING CRITERIA**

To be eligible for funding, organizations must meet the following criteria:

- Must be a nonprofit and tax-exempt organization according to section 501(c)(3) of the Internal Revenue Code, a publicly funded academic institution, or a municipality
- Must support an EMC site community
- Overhead expenses must not exceed 25% of total operating budget

### INELIGIBLE FOR FUNDING

The following are not eligible for funding:

- Organizations without 501(c)(3) status with the exception of publicly funded academic institutions and municipalities
- Individuals; religious, veteran or fraternal organizations; political causes or candidates
- Organizations that promote or practice discrimination
- Direct mail solicitations
- Courtesy advertising
- **Endowments**
- Tickets for contests
- Reduction of debt

# SUBMITTING A PROPOSAL FOR FUNDING

EMC considers proposals bi-monthly, and the review process takes approximately eight weeks. There is no set financial range for the grant awards. All proposals should be e-mailed to CommunityInvolvement@emc.com and must include the following information:

- Application form (download and complete this form)
- A listing of all current funding sources and amounts, and other revenue
- Names of board of directors and affiliations

Incomplete proposals will not be considered. EMC will respond to you in writing. If your proposal is selected for funding, EMC will require the following additional attachments:

- Copy of IRS 501(c)(3) determination letter
- Audited financial statement for most recent fiscal year
- Annual report, if available

# FINAL REPORT

All EMC grant recipients must submit a report outlining the expenditures of the funds within 12 months of receiving the award. New requests will not be considered until the evaluation for the last grant is submitted.

# **CORPORATE PROFILE**

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 Information Technology (IT) departments to store, manage, protect and analyze their most valuable asset—information—in a more agile, trusted and cost-efficient way. We are positioned at the intersection of Cloud Computing and Big Data, two trends that promise to transform IT and business.

We are committed to providing the products and services our customers need to realize the benefits of Cloud Computing, unlock the opportunities hidden in vast quantities of Big Data, and do so in an agile, sustainable and trusted way.

# **BROAD RANGE OF CUSTOMERS**

We work with organizations around the world, in every industry, across the public and private sectors, from Fortune Global 500 to small and medium-sized businesses.

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

# STRONG LEADERSHIP RECORD

Our differentiated value stems from sustained and substantial investment in research and development which totaled \$12.7 billion from 2003 to 2011, including \$2.1 billion in 2011. To strengthen our core business and expand to new areas, we have also invested \$12 billion in acquisitions over the same period, including the acquisition and integration of 62 growth-oriented technology companies since 2006.

EMC's success is delivered through our technical experts around the world; the industry's broadest portfolio of systems, software, and services; our ability to create integrated solutions; and a commitment to delivering the best Total Customer Experience. Our service excellence has been recognized by distinguished awards from the Technology Services Industry Association and is validated by the all-time high customer satisfaction scores we achieved in 2011. 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.

As of December 31, 2011, EMC ranked 152 in the Fortune 500 and reported revenues of \$20 billion in 2011, the largest revenue year in EMC's 33-year history.

### **GLOBAL PRESENCE**

We believe our advantages in distribution include the world's largest information infrastructure-focused direct sales force and a broad network of channel partners. EMC works closely with a global network of technology, outsourcing, systems integration, service, and distribution partners. Our headquarters are based in Hopkinton, Massachusetts, and we are represented by approximately 400 sales offices and partners in 83 countries around the world. We operate R&D centers in Belgium, Brazil, China, France, Ireland, India, Israel, the Netherlands, Russia, Singapore, and the U.S. Our systems are manufactured at EMC's and contract manufacturers' facilities in the United States, Brazil, China, Hungary and Ireland. We employed more than 53,000 people worldwide at the end of 2011, and are proud to score at or near the top of regional rankings of the best places to work.

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. In 2011, EMC was included in the Dow Jones Sustainability Index (DJSI) for North America, which tracks the financial performance of leading sustainability-driven companies.

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.

# **ABOUT THIS REPORT**

### **BOUNDARY AND SCOPE**

This is EMC's fifth annual Sustainability Report. We published our last report, "Accelerating our Journey to Sustainability" in 2011, and prior reports are available for download here. This report covers EMC and its subsidiaries for the 2011 fiscal year (January 1, 2011 to December 31, 2011), except where otherwise noted or where intermediary updates are made, and indicated, prior to the next full report.

In areas where the scope is defined as "EMC", information includes all our subsidiaries other than VMware, unless otherwise specified.

Global greenhouse gas (GHG) emissions data from our operations includes EMC subsidiaries and VMware. These emissions calculations were compiled according to the World Resources Institute Greenhouse Gas Protocol.

We continue to evolve the scope of our reporting and have expanded the discussion and disclosure around specific topics, such as eWaste and take-back programs, Lifecycle Analysis projects, and Scope 3 GHG emissions that include data from Tier 1 suppliers.

Where we refer to "owned and operated" facilities, we include buildings that we fully own, as well as 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, USA
- Apex and Research Triangle Park in North Carolina, USA
- Pleasanton, Santa Clara and Palo Alto in California, USA
- · Cork, Ireland
- · Bangalore, India

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

# **CONTENT AND MATERIALITY**

To determine the content for this report, we conducted a materiality assessment to identify the most relevant issues to EMC and our industry, as well as expectations and requirements of our stakeholders. The process involved gathering input from external and internal sources, as well as feedback gleaned from our annual Stakeholder Forum facilitated by Ceres.

We convened internal subject-matter experts to review the findings, provide insights and prioritize issues based on internal and external views of materiality. This process complies with the AA1000 AccountAbility Standard (2008) on "the Principle of Materiality." A more detailed overview of the materiality assessment process, findings and prioritized issues is included in this report and available here.

EMC's Office of Sustainability is responsible for the preparation and integrity of the information in this report. Through a system of internal controls, including a verification process we continue to strengthen each year, we believe this report fairly represents our sustainability activities and results in 2011.

# **DISCLOSURE AND ASSURANCE**

This report was not externally assured or verified by an independent third party. Ceres offered feedback on the report content, and we appreciate their guidance and recommendations. We also contracted with a third-party consultancy that specializes in sustainability reporting to assist us with the process and content development.

We engaged an independent third party to review our 2011 GHG inventory and received limited assurance of its accuracy and completeness. The scope of the review includes all Scope 1 and Scope 2 emission sources. The GHG inventory applies to all our owned and leased facilities around the world.

This report was produced in accordance with the Global Reporting Initiative (GRI) G<sub>3.1</sub> Sustainability Reporting Guidelines. EMC has self-declared an application Level B for this report. Please refer to the GRI Index for a listing of all disclosures covered in this report.

# **MEASURES**

Throughout this report, "tonnes" refers to metric tonnes and all monetary units are in U.S. dollars.

### CONTACT

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

# **RE-STATEMENTS**

We are restating EMC's performance and metrics in the following areas. These restatements are due to previously unavailable or missed data, calculation errors, or changing methodologies.

- In the 2010 Sustainability Report, the goal of achieving a 40 percent reduction in "Energy Consumption per Employee" by 2012 based on 2005 levels was incorrectly attributed to "GHG Emissions per Employee." The 2005 2011 numbers have been calculated for Energy Consumption per Employee and have been included in this report. Due to the restatement of Global Facilities Electricity Consumption and Global Facilities Natural Gas Consumption for years 2005 and 2010, Energy Consumption per Employee is accurate for 2005, 2010, and 2011, and 2006 2009 were calculated using previously stated numbers. A sensitivity analysis was completed to determine the potential error for those years, and it was not determined to be significant nor material to the goal or our progress towards it.
- Energy consumption, GHG emissions, and associated metrics for 2005 and 2010 have been restated due to adjustments for newly released emissions factors, improved carbon accounting methodologies, and receipt of additional historical energy consumption data. 2006 through 2009 have not been restated.
  - EMC Global GHG Emissions Intensity per \$1M Revenue Scope 1 and 2
    - 2005 changed from 30.89 to 30.53 metric tonnes
    - 2010 changed from 19.81 to 21.55 metric tonnes
  - EMC Global GHG Emissions Intensity per 1000 ft2 Scope 1 and 2
    - 2005 changed from 28.55 to 27.57 metric tonnes
    - 2010 changed from 30.16 to 27.11 metric tonnes
  - EMC Global Absolute GHG Emissions Scope 1 and 2
    - 2005, Scope 1 changed from 32,473 to 32,905 metric tonnes
    - 2010, Scope 1 changed from 26,736 to 33,811 metric tonnes
    - 2005, Scope 2 changed from 266,014 to 262,098 metric tonnes
    - 2010, Scope 2 changed from 310,940 to 332,873 metric tonnes
  - Climate Leaders Goal: EMC U.S. GHG Emissions Scope 1 and 2
    - 2005, GHG per 1000 ft2 changed from 37.02 to 36.23 metric tonnes
    - 2010, GHG per 1000 ft2 changed from 30.16 to 30.61 metric tonnes
    - 2009, GHG per 1000 ft2 with RECs changed from 25.99 to 29.28 metric tonnes
  - Global Facilities Electricity Consumption
    - 2005 MWh changed from 570,839 to 557,643 MWh
    - 2010 MWh changed from 779,444 to 814,603 MWh
    - 2005 GJ changed from 2,055,019 to 2,007,516 GJ
    - 2010 GJ changed from 2,805,994 to 2,932,569 GJ
  - Global Facilities Natural Gas Consumption
    - 2005 Therms changed from 4,326,235 to 4,373,423 Therms
    - 2010 Therms changed from 3,873,596 to 5,058,015 Therms
    - 2005 GJ changed from 456,442 to 460,994 GJ
    - 2010 GJ changed from 408,308 to 533,155 GJ

- EMC Corporate Water Reuse numbers changed due to use of a new, more accurate calculation methodology.
  - 2007 changed from 2,745,481 to 2,759,568 gallons
  - 2008 changed from 3,315,419 to 3,329,218 gallons
  - 2009 changed from 4,020,538 to 4,143,984 gallons
  - 2010 changed from 5,498,646 to 5,863,154 gallons
- The number of ideas submitted to the 2010 Innovation Conference increased from 1506 to 1509.
- Compost made from EMC Massachusetts Facility Cafeteria Waste was identified in 2010 as 75 (metric) tonnes when it should have been 75 tons. This figure is restated as 68 metric tonnes in the 2011 Sustainability Report.
- EMC Investment in R&D for 2010 was incorrectly stated as \$2.1B, and has been corrected at \$1.9B.
- GHG Emissions due to Corporate Travel for 2010 was restated from 95,037 metric tonnes to 100,727 metric tonnes.

# **GRI INDEX**

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)
STRATEGY AN	D ANALYSIS		
1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	A Message from Our CEO	F
1.2	Description of key impacts, risks, and opportunities.	A Message from Our CEO EMC Sustainability Materiality Assessment	F
ORGANIZATIO	NAL PROFILE	1	
2.1	Name of the organization.	Corporate Profile	F
2.2	Primary brands, products, and/or services.	Corporate Profile 2011 10-K	F
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Corporate Profile 2011 10-K	F
2.4	Location of organization's headquarters.	Corporate Profile	F
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	F
2.6	Nature of ownership and legal form.	Corporate Profile	F
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Corporate Profile	F
2.8	Scale of the reporting organization.	Corporate Profile 2011 10-K	F
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Corporate Profile 2011 10-K	F
2.10	Awards received in the reporting period.	Awards & Recognition	F

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)		
REPORT PARA	REPORT PARAMETERS				
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		
3.5	Process for defining report content.	About this Report EMC Sustainability Materiality Assessment	F		
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	About this Report	F		
3.7	State any specific limitations on the scope or 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 bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	About this Report 2011 Carbon Disclosure Project 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 (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	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		
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. Also explain the relationship between the reporting organization and the assurance provider(s).	About this Report	F		

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)
GOVERNANCE	E, COMMITMENTS, AND ENGAGEMENT		'
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	F
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	2012 Proxy Statement	F
4.3	For organizations that have a unitary board structure, state the number and gender 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. Identify topics related to economic, environmental, and social performance raised through these mechanisms during the reporting period.	Corporate Governance 2012 Proxy Statement	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	F
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Corporate Governance Guidelines Ethics	F
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	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 over- seeing the organization's identification and manage- ment of economic, environmental, and social perfor- mance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Corporate Governance Environmental Strategy 2012 Proxy Statement	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

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)
GOVERNANCE	C, COMMITMENTS, AND ENGAGEMENT (CONTINUED)		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Product Material Content Supply Chain Principles	F
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Ethics	F
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations.	Public Policy	F
4.14	List of stakeholder groups engaged by the organization.	Stakeholder Engagement	F
4.15	Basis for identification and selection of stakeholders with whom to engage.	Stakeholder Engagement	F
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Stakeholder Engagement	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	F
ECONOMIC PE	ERFORMANCE INDICATORS		'
5.o - DMA	Disclosure on the organization's management approach regarding its economic impacts on society.	Community Involvement Economic Performance Corporate Profile 2011 10-K	F
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.	Community Involvement Economic Performance Corporate Profile	F
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	2011 Carbon Disclosure Project Report	F
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Economic Performance Information Heritage	Р
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Economic Performance	F

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)		
ENVIRONMEN	ENVIRONMENT PERFORMANCE INDICATORS				
5.0 - DMA	Disclosure on the organization's management approach to environmental sustainability.	Sustaining Ecosystems	F		
EN <sub>3</sub>	Direct energy consumption by primary energy source.	Sustaining Ecosystems Dashboard	F		
EN4	Indirect energy consumption by primary source.	Sustaining Ecosystems Dashboard	F		
EN <sub>5</sub>	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.	Efficient Data Centers Efficient Products	F		
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Efficient Facilities Efficient Data Centers Employee Travel & Commuting	F		
EN8	Total water withdrawal by source.	Water Use	Р		
EN10	Percentage and total volume of water recycled and reused.	Water Use	Р		
EN 11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Biodiversity	Р		
EN 12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Biodiversity	Р		
EN 13	Habitats protected or restored.	Biodiversity	Р		
EN 14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Biodiversity	Р		
EN16	Total direct and indirect greenhouse gas emissions by weight.	Sustaining Ecosystems Dashboard	F		
EN17	Other relevant indirect greenhouse gas emissions by weight.	Sustaining Ecosystems Dashboard	F		
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Efficient Data Centers Employee Travel & Commuting	F		
EN23	Total number and volume of significant spills.	Recycling & Waste	F		

INDICATOR	TOPIC	LOCATION	COVERAGE (FULL OR PARTIAL)
ENVIRONMEN	IT PERFORMANCE INDICATORS (CONTINUED)		·
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Efficient Products Efficient Data Centers Product Material Content Supply Chain Engagement	F
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Sustaining Ecosystems Dashboard	Р
EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	Environmental Strategy	F
HUMAN RIGH	TS PERFORMANCE INDICATORS		
5.0 - DMA	Disclosure on the organization's management approach regarding human rights in its operations and throughout the supply chain.	EMC Supplier Code of Conduct Ethics Supply Chain	F
HR1	Percentage and total number of significant invest- ment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	Ethics Supply Chain Engagement Human Rights and Global Labor Principles	F
HR2	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.	Supply Chain Engagement EMC Supplier Code of Conduct	Р
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	F
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	Ethics Human Rights and Global Labor Principles	Р
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	Ethics Human Rights and Global Labor Principles	Р
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	Ethics Human Rights and Global Labor Principles	Р

INDICATOR	ТОРІС	LOCATION	COVERAGE (FULL OR PARTIAL)
LABOR PRACT	TICES & DECENT WORK PERFORMANCE INDICATORS	·	
5.0 - DMA	Disclosure on the organization's management approach to workforce development, workplace safety and employee advancement.	Employees & Workplace	F
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	Health & Wealth Benefits	F
LA <sub>7</sub>	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.	Delivering Value Dashboard	Р
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Health & Wealth Benefits	Р
LA10	Average hours of training per year per employee, by gender, and by employee category.	Employee Development Delivering Value Dashboard	Р
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Employee Development Global Expansion	F
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	Employee Development	Р
SOCIETY PER	FORMANCE INDICATORS		
5.0 - DMA	Disclosure on the organization's management approach to anti-corruption practices, good business practices and participation in public policy and the political process.	Ethics Public Policy	F
S0 <sub>2</sub>	Percentage and total number of business units analyzed for risks related to corruption.	Business Conduct Guidelines	F
503	Percentage of employees trained in organization's anti-corruption policies and procedures.	Ethics	F
S04	Actions taken in response to incidents of corruption.	Business Conduct Guidelines Ethics	F
S0 <sub>5</sub>	Public policy positions and participation in public policy development and lobbying.	Public Policy	F
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Public Policy	F

INDICATOR	ТОРІС	LOCATION	COVERAGE (FULL OR PARTIAL)
PRODUCT RES	PONSIBILITY PERFORMANCE INDICATORS		
5.0 - DMA	Disclosure on the organization's management approach to product responsibility and safety and customer engagement.	Product Material Content Efficient Products Customers	F
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 Material Content Efficient Products	F
PR <sub>5</sub>	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Customers Stakeholder Engagement	F





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Questions or comments about this report? Contact us at

OFFICE\_OF\_SUSTAINABILITY@EMC.COM

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