HP Global Citizenship 2010: Custom Report

Letter from CEO Léo Apotheker

Hewlett-Packard (HP) is a company with a history of strong global citizenship. Social and environmental responsibility are essential to our business strategy and our value proposition for customers. They are also at the heart of an obligation we all share to help create a sustainable global society. I look forward to helping advance HP's commitment to making a positive difference in the world through our people; our portfolio of products, services and expertise; and our partnerships.

Our workforce of nearly 325,000 talented people is our greatest asset. Through their commitment, HP achieves extraordinary results both in our business and in our communities. With their expertise and innovative drive, we're pursuing a vision of corporate success that goes beyond just creating value for shareholders—we are helping to create a better world.

We're also using our position as the world's largest information technology (IT) company to help address some of society's most pressing challenges. Our strategy is to use our portfolio and expertise to tackle complex issues—such as improving energy efficiency, enhancing the quality and accessibility of education, and making healthcare more affordable, accessible, and effective. We approach these issues in a holistic way, stretching beyond quick fixes and piecemeal solutions.

We recognize that these problems are too big for any single organization to address alone, so we're teaming up with partners worldwide to find solutions. We cultivate relationships with diverse stakeholders, such as industry peers, governments, and nongovernmental organizations (NGOs). And to promote higher standards across sectors, we endorse the UN Global Compact.

Throughout this report, you'll see numerous examples of how HP works with partners to solve tough problems. For instance, the HP Catalyst Initiative is tearing down obstacles that prevent students from learning science, technology, engineering, and math (STEM) by bringing together some of the world's best educators to devise new ways of teaching. Through our partnership with the Clinton Health Access Initiative (CHAI), we're helping to reduce AIDS fatalities by bringing technology and healthcare together in innovative ways. And we're helping companies decrease their environmental impact through HP Energy and Sustainability Management (ESM), a portfolio of services that enables companies to better manage their use of energy and other natural resources.

Looking back at the milestones we reached in 2010, I'm proud of HP and our employees. HP's accomplishments span many areas, reflecting the breadth of our business and global scale of our operations. As we look forward, it's more important than ever for us to maintain our momentum, because the challenges we face—and the opportunities before us—have never been greater.

Léo Apotheker, president and chief executive officer

HP profile

HP facts and figures

- HP ships approximately 3.5 products every second.[1]
- HP has approximately 145,000 sales partners and 210,000 service partners.
- Nearly 90% of the world's largest electric and power companies depend on HP software and solutions.
- Our card processing services handle over 6.6 billion transactions annually.
- All of the Fortune 500 pharmaceutical companies and the world's largest healthcare payers and providers are HP customers.
- Eighty-four percent of the world's largest transportation companies and 88% of the world's largest consumer packaged goods companies are HP customers.
- We manage over 200 data centers, 380,000 servers, and 5.4 million desktops.
- HP operates IT product reuse and recycling services in 58 countries or territories.
- Our software solutions stop 1.7 billion spam messages a month.

At HP, we provide solutions that help people and organizations connect and create a better world. Millions of people are searching for new and better ways to live and work, increasing the demand for information technology (IT), especially in cloud computing and connectivity solutions that allow instant access to information from anywhere, at any time. This demand is emerging alongside extraordinary environmental, social, and economic forces such as climate change, rapid

population growth, and increasing urbanization.

In this new world, information is our most valuable resource and one of the keys to addressing today's global challenges while creating tomorrow's sustainable growth. Here are just a few ways HP solutions are helping to improve our environment, our communities, and how we live and work.

- **Making sense of a world of data** CeNSE (Central Nervous System for the Earth) enhances human interaction with the earth using an intelligent network of billions of inexpensive, highly receptive sensors. These perceive and analyze information around us with remarkable fidelity and then send the data they gather over fast computing networks to powerful data centers for real-time analysis and action.
- **Providing access to lifesaving information** HP is helping to pioneer an innovative pharmaceutical authentication system. It's quick, easy to use, and can be accessed via text message with a basic mobile phone. This technology empowers patients with timely information about their medications and has the potential to dramatically reduce deaths caused by counterfeit drugs.
- **Redefining the possible** HP Labs is moving memristor from theory to reality. A new element of electrical circuitry, memristor operates in ways that have been compared to brain synapses. We hope that this breakthrough will lead to increasingly energy-efficient, compact, and powerful computing systems that open up more sustainable, efficient, and creative solutions for customers.
- **Enabling the next billion Internet users** HP has introduced a cloud-based service to expand access to communication and information. HP SiteOnMobile allows people in developing countries to access the Internet—many for the first time—with a basic mobile phone, even if the phone lacks web browsing and email features.

Shared values

HP's shared values and companywide objectives include a longstanding commitment to global citizenship. Broader than any single organization or program, global citizenship at HP determines how we align our business goals with our impact on society and the environment.

A unique advantage

HP's size, scale, and global reach provide us with a unique advantage. Through investments in research and development (R&D), industry partnerships, and acquisitions, we have developed a comprehensive portfolio of IT hardware, software, and services, backed by nearly 325,000 employees[2] in approximately 170 countries. Our reach allows us to have a global impact on critical issues that affect communities worldwide, such as energy and climate change, education, and healthcare.

While we invest in R&D to support our business, we also search for ways to complement and further extend our existing capabilities and meet customer needs. For example, by combining the breadth and scale of our existing portfolio of products and services with the recently acquired webOS platform, we have critical pieces in place to respond to both our customers' desire for consistent, integrated access to information and the converging industry trends of mobility and cloud computing.

HP corporate summary

- Fortune 10 U.S.
- Fortune 26 Global
- Chief Executive Officer: Léo Apotheker
- Nearly 325,000 employees as of October 31, 2010
- Incorporated in Delaware, United States
- Listed on the New York Stock Exchange with the ticker symbol HPQ
- Corporate and regional headquarters
- Recorded $126 billion USD in net revenue for fiscal year 2010

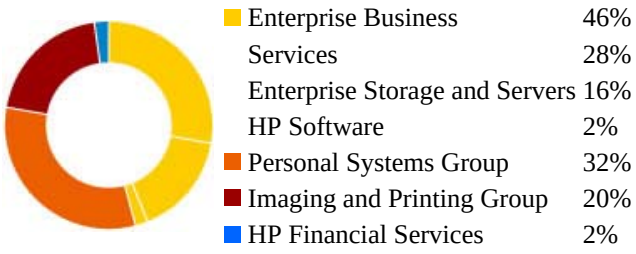
The scope of HP's business

- **Personal systems** HP is the world's leading vendor of personal computers, with the industry's broadest portfolio of notebooks, desktops, workstations, thin clients, displays, handheld devices, and personal storage solutions.
- **Imaging and printing** HP has been the worldwide leader in inkjet and laser printing for more than 20 years, advancing the digital transformation of printing while offering customers new ways to be creative, conserve resources, and improve productivity.
- **HP Enterprise Business** HP provides businesses and governments with services and technology infrastructure for the Instant-On Enterprise—helping them to serve their customers and citizens instantly, adapt easily, innovate rapidly, and manage risk and environmental responsibility.
- **HP Financial Services** HP helps customers reduce the cost of running their businesses—from planning and

acquiring technology to retiring and replacing it.

- **HP Corporate Investments** With hundreds of dedicated researchers in seven locations worldwide, HP Labs develops solutions designed to address the most complex challenges facing our customers in the coming decade. Within its Corporate Investments segment, HP also incubates innovations such as video collaboration solutions and mobile devices associated with the recently acquired webOS platform.

Revenue by segment, fiscal year 2010



Revenue by region, fiscal year 2010

1. [1] This number includes PCs, printers, and servers.
2. [2] As of October 31, 2010.

Global citizenship strategy

> At HP, global citizenship has always been about living our values and acting with purpose. It's a commitment that goes beyond pressing issues, such as climate change or human rights. It extends to the things we do, every day—every goal, every decision, every relationship—in empowering others across the globe to be more sustainable, productive, and successful.

–Michael Holston, executive vice president and general counsel, and executive sponsor of the HP Global Citizenship Council

Global citizenship is rooted in values that have driven our company for more than 70 successful years. Global citizenship is at the core of everything we do at HP. It is integral to our business strategy, guiding where we apply our technologies, influence, and expertise to make the greatest positive impact on the world around us.

Key issue essays

Our 2010 Global Citizenship Report features five essays, each exploring HP's response to an issue with far-reaching implications for our business, the information technology industry, and the world at large.

Read more about how HP is applying its leadership, expertise, and technology in response to global trends and challenges.

- Making the most of information in a connected world
- Transforming the lives of the next billion through technology
- HP in China: A snapshot of global citizenship in action
- Focusing technology on global health
- Energy unlocked

Pressing global challenges—such as responsibly meeting the needs of a fast-growing population, addressing the effects of climate change, and advancing global health solutions—cut across industries, economies, and borders. As a global citizen, we face these challenges head-on by providing solutions that fuel sustainable transformation and growth in communities and industries worldwide. These solutions improve the way people live, the way businesses operate, and the way the world works.

We believe that how we do things is just as important as what we do. And so global citizenship is also a commitment to

understand the needs of and improve society; respect universal human rights and the environment; act with integrity and accountability; and operate responsibly and sustainably.

From how we run our operations, develop products, and serve our customers, to how we address critical social needs, manage our supply chain, and engage with stakeholders, global citizenship drives us to create shared value among our stakeholders and for society as a whole.

Our efforts cover a broad spectrum of policies, programs, and initiatives, including ethics and compliance, environmental sustainability, supply chain responsibility, social innovation, and privacy.

Setting priorities

We regularly review our progress and adjust our strategies, considering the following factors:

- Collaboration with stakeholders including members of the HP Executive Environmental Advisory Council and more than 150 other organizations and thought leaders including: nongovernmental organizations, academics, think tanks, business consortia, and professional organizations
- Recommendations from our strategic and supply chain partners
- Employee input, including ideas for new programs and improvements to current initiatives
- Emerging trends covered by media and industry analysts
- External standards and regulations, including the Electronic Industry Code of Conduct, the UN Global Compact, and emerging environmental legislation in countries worldwide
- Risks and opportunities associated with our environmental footprint, supply chain management, and public policy activities, among others
- The priorities and expectations of customers and shareholders, including socially responsible investors

Global citizenship reporting

This is the 10th consecutive year that HP has reported on its global citizenship programs, performance, and goals. Over that period, we have broadened the scope of our Global Citizenship Report substantially, providing greater transparency into our operations, employee practices, product development process, supply chain management, social investments, and other aspects of our business. (See About this site for more detail.)

Why global citizenship?

Demonstrating strong global citizenship is essential to HP's long-term success. Our efforts enhance HP's brand reputation and value, deepen our relationship with customers and other stakeholders, open up new market opportunities, and provide us access to fresh ideas that feed innovation and creativity.

Perspective: Mark Kramer

Mark Kramer, managing director of FSG, comments on HP’s shared-value approach to business. Read what he has to say about how HP is moving beyond conventional business practices to create policies and products that benefit the company as well as improve social and environmental conditions.

Our investments in this area strengthen our business in numerous ways:

- **Customer insight** Global citizenship helps us understand and meet customer expectations in areas including product environmental performance, privacy, and supply chain responsibility. (See Customers.)
- **Market access** Preparing for upcoming legislation, participating in public policy discussions, and preserving our record of legal compliance help us maintain access to markets.
- **Competitiveness** Responsible supply chain management and strong environmental performance are increasingly important criteria for purchasing decisions in the enterprise and public sectors. (See Customers.) For example, ensuring diversity in our supplier base is critical, particularly for contracts with federal and state agencies in the United States. (See Supplier diversity.)
- **Employee engagement** With increased interest in environmental, ethical, and social concerns, demonstrating our commitment to global citizenship helps us attract and retain top talent. HP offers educational programs to show employees how to reduce their environmental impact, encourages and sponsors them to volunteer in their communities, and updates them on the company's global citizenship goals and progress. (See Employees and global citizenship.)
- **External engagement** When we engage with our stakeholders, we gain insight into emerging trends, risks, and opportunities. We can also better understand their perspectives and respond to their expectations. HP works with numerous global nongovernmental organizations (NGOs) to address issues ranging from energy use and climate

change to providing greater access to quality healthcare. (See Stakeholder engagement and Health.)

- **Reputation management** Our reputation as a responsible company is important to customers worldwide and integral to building trust with governments, NGOs, investors, and others.
- **Risk assessment and reduction** We exercise due diligence in evaluating social and environmental risks in areas such as supply chain responsibility, HP operations, human rights, health and safety, privacy, and ethics and compliance.
- **Cost savings** Efforts that improve energy efficiency and conserve resources reduce our costs and increase productivity. We also control costs by retaining skilled, engaged employees. (See Energy and climate—Operations, HP operations, and Employee engagement.)
- **Innovation** Developing groundbreaking technologies to help solve challenges in environmental sustainability, education, and health sharpens our competitive advantage and opens new markets. (See Environmental sustainability and Social innovation.)

Governance and management

Strong global citizenship performance depends on leadership, participation, and support throughout an organization, especially for a company as diverse and complex as HP. At HP, this begins at the top.

Global citizenship governance

Perspective: Margaret Jungk

HP has helped put human rights on the agenda for the IT industry, according to Margaret Jungk, the director for the Human Rights and Business Department at the Danish Institute for Human Rights. See what she has to say.

HP Board of Directors' Nominating and Governance Committee

The Board of Directors' Nominating and Governance Committee assists the board in fulfilling its responsibilities related to HP's public policy, government affairs, and global citizenship activities. The committee identifies, evaluates, and monitors social, political, and environmental trends and concerns as well as domestic and foreign legislative proposals and regulatory developments that could significantly affect HP's business. The committee may also report and make recommendations to the board relating to activities, policies, and programs with respect to matters of local, national, and international public policy affecting HP's business. These may include:

- Trade policy and major legislative and regulatory developments
- Relations with regulators, governmental agencies, public interest groups, and other stakeholders
- HP's policies with respect to global citizenship
- General guidelines for political contributions

Pan-HP Global Citizenship Council

Members include:

- EVP and general counsel (executive sponsor)
- VP, global social innovation (co-chair)
- Chief ethics and compliance officer (co-chair)
- VP and deputy general counsel, global functions
- VP, environmental sustainability
- VP, global government affairs
- VP, global labor relations and HR compliance
- VP, global security services
- Chief privacy officer
- Director, corporate communications
- Director, employee engagement
- Director, global social innovation
- Director, investor relations
- Director, social and environmental compliance

HP Global Citizenship Council

Our Global Citizenship Council promotes and advances global citizenship strategically across HP. It is made up of senior executives from across the company and meets bimonthly to ensure effective governance and integration of strategic priorities. The council seeks input from a cross-section of HP business groups and functions, as well as external stakeholders. It also advises HP's Executive council, which retains overall responsibility for global citizenship as part of our business strategy.

The Global Citizenship Council focuses on measures that integrate global citizenship into day-to-day functions and responsibilities, including:

- Strategy and planning
- Policies and standards
- Compliance and risk mitigation
- Advocacy and engagement
- Performance tracking and reporting

In 2010, the council conducted a comprehensive human rights policy assessment to review our policies against international laws and standards.The insights we gained from this evaluation have helped HP identify new opportunities for improvement and leadership in 2011 and beyond.

Issue-specific councils

HP also maintains separate councils dedicated to global citizenship issues such as the environment, supply chain, ethics, and privacy, as the graphic above illustrates. These councils include leaders with relevant expertise from our business units, regional organizations, and functions. Each council meets periodically to evaluate whether HP's global citizenship strategies are being implemented effectively, and to establish goals and assess progress. To ensure alignment, leaders from each focus area also sit on HP's Global Citizenship Council.

Stakeholder engagement

HP works to build strong, mutually productive relationships with our diverse stakeholders. We engage them to understand their perspectives and respond to their global citizenship expectations, as well as to gain their insights into emerging trends, risks, and opportunities. In turn, we share our positions, progress, and challenges on key issues such as sustainable product design, climate change, and supply chain responsibility, and demonstrate how global citizenship is integral to our business and brand.

We provide more detail on our relationships with many stakeholder groups throughout this report. They include:

- Communities
- Customers
- Employees
- Industry analysts and media
- Investors
- Legislators and regulators
- Nongovernmental organizations (NGOs)
- Suppliers

- Universities and academics

We also belong to numerous membership organizations focused on a wide range of global citizenship issues.

2010 highlights

In 2010, we engaged with NGOs and other stakeholder groups in areas such as:

- Environmental sustainability
- Supply chain responsibility
- Human rights
- Privacy

Environmental sustainability

HP collaborates with organizations on environmental issues including energy use and climate change. For details on our 2010 work with governments and industry groups in this area, see Energy and climate – Collaboration. In addition, HP formed the HP Executive Environmental Advisory Council (EEAC) to gain insights and feedback on environmental sustainability. Learn more about the EEAC.

The Climate Group

In 2010, HP held quarterly discussions on a variety of topics, including climate issues, with the Climate Group, an NGO that works internationally with business and government leaders to advance practical policies and technologies to reduce greenhouse gas (GHG) emissions and drive a prosperous low-carbon economy. During the COP 16 conference, HP sponsored the Climate Leaders Summit 2010, which highlighted the initiatives and actions that business and political leaders are taking to create economic growth and jobs, and develop low-carbon solutions.

World Wildlife Fund

HP continues to work with World Wildlife Fund (WWF) on environmental issues. Together, we are leveraging our experience in technology innovation and conservation to reduce GHG emissions, improve energy use, protect forests, influence policymakers on climate change, and showcase low-carbon information technology (IT) solutions.

Energy and climate change

In 2010, we renewed our commitment to WWF Climate Savers and continued to work toward our goals to reduce GHG emissions in our operations and product energy consumption. For more information about our progress during the year, see Energy and climate - Operations and Product, services and software use.

In addition, HP has sponsored a WWF project to assess adaptation to climate change. HP is providing WWF with resources to develop an extensive database and mapping tool that tracks the distribution of species in relationship to the shifting climate.

Responsible forestry management

HP is a member of the Global Forest & Trade Network (GFTN) in North America, a WWF initiative linking more than 275 companies globally that share a commitment to responsible forestry. We are engaging suppliers and educating customers about HP's commitment in this area, and WWF is providing technical assistance that will help us achieve our responsible paper-sourcing goals.

Our Environmentally Preferable Paper Policy details HP's principles for buying, selling, and using paper and paper-based packaging. It also outlines HP's goal to increasingly source paper from suppliers that demonstrate responsible forestry and manufacturing practices, reduce the paper we use in our operations, and recycle paper when possible.

Learn more about HP's paper use and how we are increasingly offering paper from sustainable sources.

Pew Center on Global Climate Change

The Pew Center on Global Climate Change seeks to inform the design and implementation of federal policies that will significantly reduce GHG emissions. In 2010, HP committed to serve as the sole sponsor of the Pew Center's research report on how companies innovate to develop low-carbon solutions. Scheduled for publication in fall 2011, the report will include survey results from more than 50 Fortune 500 companies, case studies from leading companies, including HP, and best practices for establishing management structures and financial mechanisms that reward innovative behavior in

this area. After publication, HP will work with the Pew Center to communicate the report's key findings to influential leaders in the business, policy, and NGO communities.

Global e-Sustainability Initiative (GeSI)

GeSI is an international strategic partnership of information and communication technology (ICT) companies and industry associations committed to creating and promoting technologies and practices that foster economic, environmental, and social sustainability, and drive economic growth and productivity. In 2010, HP supported GeSI's development of an assessment methodology and accompanying report to evaluate the carbon reduction impacts of ICT.

Ceres

HP holds quarterly discussions with Ceres, a network of investors, environmental organizations, and other public interest groups working to address sustainability challenges. We seek their input on HP's efforts in environmental sustainability and their advice on furthering employee engagement in this area. The report by Ceres, The 21st Century Corporation, highlights HP's sustainability efforts.

Forum for the Future

In 2010, HP hosted representatives from Forum for the Future, to tour HP's Wynyard data center and the "closed loop" recycling center HP uses in Montreal. In addition, Peter Madden, Forum's CEO , chaired an HP-hosted sustainability summit on low-carbon solutions, for which participants in Berlin, Geneva, London, and Paris met virtually via HP Visual Collaboration studio. For Madden's perspective on the summit and HP's technology, visit Forum of the Future's blog.

Greenpeace International

HP communicates with Greenpeace on a regular basis regarding topics such as forestry, climate, and our ongoing efforts to phase out substances of concern from our products.

We participate in the Greenpeace Cool IT Challenge, which evaluates global IT companies on their leadership in addressing climate change. HP was included in the April 2010 leaderboard, receiving high marks for our commitment to reduce the GHG emissions of HP-owned and HP-leased facilities.

HP also works with Greenpeace in its assessment of our products and services for its Guide to Greener Electronics. In 2010, HP moved to 4th place from 14th, in part as a result of our progress in phasing out polyvinyl chloride (PVC) and brominated flame retardants (BFRs) from our products. See the Materials section for more information. HP also received recognition from Greenpeace for the progress we've made in reducing the carbon footprint of our operations and supply chain.

In January 2011, HP products were featured in five categories in the Greenpeace annual Green Electronics Survey. The HP Compaq 6005 Pro Ultra-slim Desktop PC ranked first in the desktop category.

Supply chain responsibility

Collaboration is key to raising social and environmental responsibility (SER) standards in our supply chain and helping our suppliers build their SER capabilities. We align our supply-chain SER efforts with our peers, and collaborate with other organizations to tackle pressing SER issues.

For example, in 2010 we worked with Inno Community Development Organisation to educate employers about the risks of discriminating against employees who carry the hepatitis B virus (see case study). Please see Supply chain responsibility—Collaboration and Supply chain responsibility—Capability building for additional details about our efforts in 2010.

Human rights

HP works with organizations worldwide on a range of issues related to human rights.

Global Business Initiative on Human Rights (GBI)

HP was one of eight leading multinationals invited to found and steer the Global Business Initiative on Human Rights (GBI), the successor to the Business Leaders Initiative on Human Rights (BLIHR). As a member of the GBI steering committee, we are charged with demonstrating leadership in respecting human rights. We also contribute to the development of practical approaches to human rights issues by testing emerging best practices in our operations and supply chain. Through GBI, in 2010 we supported the work of UN Special Representative John Ruggie by raising

awareness of and advancing the human rights agenda within the business community. For more information on our work in this area, see Human rights.

Conflict minerals

HP is engaged with NGOs, industry groups, and others to create an approach that aims to ensure that the sourcing of tantalum, tin, tungsten, and gold for IT products does not support armed conflict in the Democratic Republic of Congo (DRC). In 2010, we remained involved with the Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI) Extractives Working Group in a range of activities. We were also one of a select group of corporations to join socially responsible investment (SRI) organizations and NGOs in providing recommendations to the U.S. Securities and Exchange Commission (SEC) regarding rulemaking in this area. For more information on our collaborations in this area, see Conflict minerals.

Privacy

HP works with regulators, industry, and consumer advocates to develop new frameworks for protecting privacy and personal data. For more information about our efforts in 2010, see Privacy.

Perspectives

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Aron Cramer

President and CEO
BSR

Information technology has the potential to solve some of the world's most pressing environmental challenges, and HP is aiming to demonstrate leadership through innovation on both business models and products.

HP has long been a creative leader in building new solutions that enable human progress. The big opportunity ahead for HP—as for most companies—is to create new business models that rely less on rapid product obsolescence, and create new forms of value that are radically less dependent on natural resource consumption. By creating 21st century solutions, HP can lead progress and sustain its position in a fast-changing global marketplace.

HP Labs can play a crucial role through efforts like its Central Nervous System for the Earth (CeNSE), which aims to create an information ecosystem that catalyzes major leaps in efficiency. These and other efforts by HP Labs show the way to a truly sustainable economy.

I hope that HP will use its innovation prowess not only to make current models more efficient, but also to build fundamentally new models that bring truly sustained prosperity.

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Amol Deshpande

Partner
Kleiner Perkins Caufield & Byers

The technology industry is a powerful force driving global sustainability. HP's innate strengths lie in the fact that their products and services result in efficiency gains, with meaningful returns on investment for both enterprises and consumers. The value of these solutions is often underestimated in the sustainability community, specifically in reducing environmental impact per unit of work product. Using HP Visual Collaboration to obviate the need for one trip per employee per year has a meaningful impact on the environment. More importantly, the impact is improving the quality of life for employees. Business is still done face to face, and will be forever; however, technology can help us to make all those face-to-face meetings more environmentally efficient and cost-effective, yet every bit as impactful.

HP has also been a leader in life cycles for its products. The "closed loop" ink recycling initiative has made sustainability in the printing industry more a best practice than an outlier or anomaly. This is more than a marketing initiative; it is true sustainability in the best interest of the environment, employees, and shareholders alike. The same can be said for HP's forward thinking on ewaste recycling and initiatives it has taken in this arena.

HP should continue to set the standard by which all other tech companies are measured when it comes to such initiatives. This will necessarily be done through continued focus on innovation as exemplified by systems like Visual Collaboration and "closed loop" recycling.

Besides its own core sustainable business practice, HP should stretch to influence new innovators around the world to start with a focus on sustainability from the design stage and participate in that process. With HP's considerable brand, positive influence, and global reach, it has the power to change the way business is done all over the world.

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Margaret Jungk, Ph.D.

Director, Human Rights and Business Department
Danish Institute for Human Rights

In 2010, HP commissioned the Danish Institute for Human Rights (DIHR) to conduct an assessment of HP's potential human rights impacts and an analysis of HP's existing policies. The research was led by DIHR with the support of Business for Social Responsibility.

High-level policies in HP contain clear commitments to human rights, and in critical areas the company has taken a proactive stance. HP is an industry leader in the area of Privacy and Data Protection (PDP). And through the Electronic Industry Citizenship Coalition, HP has helped put human rights on the industry agenda.

In its recommendations to HP, DIHR identified risk mitigation actions and leadership opportunities across four areas: employee rights, supply chain, products and customers, and environmental impact. Key challenges relate to speeding up progress on supply chain labour standards and preventing the use of HP products to limit privacy and freedom of expression.

So far, only very few multinational companies have done an enterprise-wide human rights assessment. To further galvanize its leadership position, HP now has the opportunity to systematically embed human rights in policy, technical, and commercial decisions across all functions and markets.

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Randolph Kirchain, Ph.D.

Principal Research Associate
Materials Systems Lab
Massachusetts Institute of Technology

Elsa Olivetti, Ph.D.

Research Scientist
Materials Systems Lab
Massachusetts Institute of Technology

Several factors are raising industry focus around environmental performance: changing market dynamics stemming from volatile energy and material prices, pressure from consumers and private groups, and rapidly developing labeling efforts. It is critical that efforts to improve environmental performance are based on quantitative metrics to prevent unintended consequences, and to target limited resources where they will be most effective.

Important tools for quantification, such as life cycle assessment (LCA), have been developed specific to several industries; however, they are particularly challenging for the IT industry because of the complexity and dynamics of products and supply chains.

HP has been a leader in bringing the industry together to develop efficient, convergent approaches to life cycle assessment of IT. The individuals I have worked with at HP provide the much needed enthusiasm and determination to make LCA integral and useful to the industry. HP has provided a critical networking function, building awareness around LCA within the industry, and keeping a pulse on several ongoing efforts to avoid a diverging plethora of standards and approaches to LCA.

While other companies may have executed important individual LCA studies, HP has played a leadership role in developing a consensus on how to address quantitative measurement of environmental performance for the entire IT industry. The next steps for HP will be to build upon this energy, momentum, and progress in measuring burden in order to push the industry towards strategic action to reduce environmental impact of their product portfolio. This will involve strengthening relationships deep upstream within the supply chain where information is scarce, and change and innovation are most needed to fully realize potential reductions.

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Mark Kramer

Founder and Managing Director
FSG

Meeting the needs of underserved populations can create enormous value for businesses and society, but only if products are genuinely aligned with the needs and capabilities of the people being served. Conventional business practices often overlook the opportunities hidden in unconventional markets, while corporate responsibility rarely looks beyond a company's own operations.

As my colleague Professor Michael E. Porter and I recently wrote in *Harvard Business Review*, innovative companies like HP have moved beyond these conventional limitations to embrace the idea of creating shared value. A shared-value approach initiates policies and practices that create economic benefits for companies, while simultaneously improving social and environmental conditions. Companies that pursue shared value have recognized that today's urgent societal needs also define new market opportunities that can propel the next wave of global growth.

Technology can play an enormous role in shared-value creation around the world. Solutions such as SiteOnMobile, the DreamScreen^{400}, and the medication authentication service recently pioneered by HP were all developed specifically to meet the needs of underserved markets. These innovations can connect individuals to critical information, including weather predictions vital to their crops, educational content for their children, and health information that can save lives.

HP's strategy to co-create products in their local markets, rather than just adapting products developed for markets in Europe and the United States, ensures that genuine value is created for an entirely new segment of customers. Products like these not only expand markets but play a crucial role in helping families from all over the world connect to information and lead healthier and more productive lives.

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Dee Lee

Founder and Director
Inno Community Development Organisation

Dee Lee is the founder and director of Inno Community Development Organisation, a nongovernmental community development organization in China. Established in 2007, the organization focuses on public health, poverty alleviation, and emerging issues such as labor law. HP collaborated with Inno in 2010 on an initiative to educate employers about the risks of discriminatory practices related to the hepatitis B virus (HBV), and to influence employee attitudes and enhance understanding in that area.

Why was training on anti-discrimination towards hepatitis B carriers necessary?

Discrimination against hepatitis B carriers is severe in the workplace in China, especially in factories. This is based in part on incorrect information—for example, that you can get the virus through the air and that you can eliminate the virus entirely through medication. It's necessary to work with factories as well as their customers to provide accurate knowledge.

What did the program involve?

The first part of the initiative involves innovative educational programs in the factories. We take a creative approach, not the traditional style with instructors standing in front of a classroom. For example, we created an anti-discrimination comic book that tells workers the right information about the disease and how it's transmitted. Many workers love to read stories in that format, so it's an effective way to reach them.

We also use educational games in the factory, such as a carnival or competition setting. In one game, workers tried to throw a ring over one of nine stakes on the floor that stated correct and incorrect ways to transmit the virus.

We deliver easily understandable information about HBV to management via different means of communication, such as peer education, classroom training, and simulation exercises.

The other part of the program involved launching a confidential, 24-hour hotline for employees to share concerns and gain accurate information. Every month, the hotline has received more than 200 calls regarding HBV and emotional issues related to the virus.

What was HP's role in the overall initiative?

HP acted as an advocate for the program, convening factory owners and financing the overall project. We're working together with them to continue the program in 2011 and help extend it to the Yangtze River Delta region.

How did workers and management respond?

Management has been very accepting of the approach, and not at all confrontational. They found the training very instructive. Now, management and workers have the same knowledge, which makes it easier for them to address these issues productively.

What were the results? What changes in attitudes towards hepatitis B carriers have you seen among workers and management since the training?

At seven factories where HP does business, we've reached nearly 20,000 people, including workers as well as management.

More broadly, we've worked with other factories through the program, including ones that work for companies other than HP. These factories no longer ban hepatitis B carriers from employment. Employee knowledge has increased dramatically—with the average worker answering 85% of questions correctly about hepatitis B, compared to 26% beforehand.

What is it like to work with HP?

HP has worked really hard on its supply chain social and environmental responsibility program. As a result, its factories are unusually well-managed and committed to transparency, providing a solid foundation to support workers' welfare. This makes it a bit more challenging to find opportunities for improvement. One must peel the apple to go inside and get closer to the core. That's a great experience for us.

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Richard A. Liroff, Ph.D.

Executive Director
Investor Environmental Health Network

I've been pleased to work closely with HP in the Business/NGO Working Group on Safer Chemicals and Sustainable Materials. "Biz/NGO" is a unique collaboration of business and NGO leaders creating a road map to the widespread use of safer chemicals in consumer products.

Hewlett-Packard is a signatory to Biz/NGO's "Guiding Principles for Chemicals Policy," which call upon companies to know the chemicals in their products and to work on assessing and reducing their hazards. HP staff members have made major contributions to developing implementation guidelines for the principles.

In my basic "Toxic Chemicals Challenges and Opportunities 101" presentation for corporate managers and investors, I highlight HP's pioneering adoption of "The Green Screen," an open-source tool developed by the nonprofit Clean Production Action. The Green Screen enables HP to identify substances that are inherently less hazardous for humans and the environment, and it facilitates their substitution for more worrisome chemicals.

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Dikembe Mutombo

Chairman and President
Dikembe Mutombo Foundation
During and since your sports career, you have devoted a great deal of effort trying to improve the lives of people in DRC. What motivates you to make this commitment?

I am motivated to improve the lives of Congolese citizens by family tradition and a desire to serve others.

What role does business have as an enabler of positive change?

In partnership with community organizations and leaders, business can play an important role in financing and supporting positive change.

How significant is the impact of the conflict minerals trade on the people of DRC?

The conflict mineral trade is significant to the people of the DRC, but it is important to remember that approximately one million Congolese depend on the mineral trade for their livelihood, and that not all of those involved in the mineral trade are mining "conflict minerals" per se. Of course, all people of good will want to see the violence related to the mineral trade end, but it is also important that legitimate trade be allowed to continue so that miners can earn a living and support their families. In this regard, the DRC government should lift the ban on mining in the eastern DRC as the ban has thus far resulted in more militarization of mines and many families are not able to earn an income while the ban continues. [Subsequent to this interview, the ban was lifted in March 2011.]

What do you think will be most critical moving forward in addressing this issue?

Moving forward, it will be very important to legitimize and tax the DRC mineral trade so that we can ensure that all Congolese benefit from their country's natural resources. It is also important not to focus only on the mineral issue; security sector reform, the reconstruction of the judicial sector, and the development of legitimate taxation systems are all of critical importance in ending the violence in the eastern Congo and restoring the rule of law there.

How do you view HP's leadership in addressing the issue of conflict minerals?

HP has been very involved in many aspects of the conflict minerals issue, working closely with NGOs on the ground such as the ENOUGH! Project and Global Witness to adequately assess conditions, and has provided legislative leadership in Washington DC to ensure appropriate actions are taken to mitigate the conflict and encourage responsible sourcing in the region. Moving forward, it will be important HP stays committed to monitoring their supply chain and remains actively engaged in finding a workable in-region sourcing solution.

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Yann Padova

Secrétaire General
Commission Nationale de l'Informatique et des Libertés (CNIL)

2010 should be a notable year for the HP privacy team, as it was committed to adopt Binding Corporate Rules (BCR) in Europe. Indeed, HP started to work on this project with the Commission Nationale de l'Informatique et des Libertés in

early 2010. The collaboration has been very fruitful, and we believe the HP BCR provides a very high level of protection for framing data transfers within the group. This demonstrates, one more time, HP's willingness to commit to upholding the EU Directive[1] and the rights it provides to data subjects.

BCRs are not simply another privacy policy on the top of others: They define the global policy with regard to transfers of personal data made within the group all over the world. While working on this project, the HP privacy team has been committed to demonstrating to the 27 authorities of the member states its compliance with the EU Directive for international data transfers. The adequate level of protection provided by the HP BCR has been recognised and approved by all member states in 2011—a significant achievement.

BCRs not only reinforce the level of data protection, but also data subjects' rights. Indeed, by providing third-party beneficiary rights, BCRs provide data subjects with a good level of information about their rights and the way they can exercise them. During our collaboration with HP, we understood how important it is to HP to make sure that its customers are informed of their rights and how they can exercise these rights.

The work carried out over the last months by HP is in line with its privacy commitments to demonstrate HP's compliance to EU legislation. Proactive measures, such as the BCR, audits, training, and a data protection officer network, contribute to the effectiveness of the HP privacy program.

Finally, we would like to congratulate HP for its involvement on privacy issues. HP is a key player on the international scene, and we believe that its involvement on the promotion of the European model of data protection is well recognised. To that extent, the role played by HP is fundamental in spreading the main principles contained in the EU Directive. This role will be particularly critical in the coming months with the development of cloud computing and with the revision of the EU Directive.

1. [1] Directive 95/46/EC on Personal Data Protection.

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Deborah L. Rhode

Director, Center on the Legal Profession
E.W. McFarland Professor of Law
Stanford Law School

HP's comprehensive ethics and compliance program is a model for socially responsible corporations. The program strikes principled balance between maintaining an ethical culture and minimizing legal and regulatory risks. Compliance efforts extend to all areas of corporate action, including relationships with suppliers and business partners. Efforts to build a more proactive governance structure have yielded an impressive increase in reports of ethical concerns.

As the publicity surrounding HP's recent change in leadership demonstrates, the company is committed to maintaining core values even when they come with consequences. HP's Board of Directors recognized what research demonstrates: the tone at the top is critical. In the long run, HP can only benefit from making ethics count—not just in principle but in practice.

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Ryan Schuchard

Manager, Climate and Energy
BSR

I have come to view HP as one of the foremost corporate leaders on climate and energy. The company routinely stands out as one of those who goes first, from its disclosure of its list of suppliers (in an industry famous for guarding them as secret), to being an outspoken advocate of progressive climate action in Cancun and beyond.

The company is a known pioneer in showing that transparency is a good thing, as is evidenced by all of its various disclosures. In a similar vein, HP has proven to be a champion for bringing about shared standards and helping stakeholders understand the difficult methodological challenges that stand in the way.

One area I am particularly excited about is HP's involvement as a co-founder of the Energy Efficiency Partnership, a collaboration of 11 companies and 70 suppliers to increase energy management capability in China. HP has played a key role in getting this influential initiative off the ground and, in doing so, raising the bar both for China suppliers and peers by showing that collaboration on climate change between suppliers and buyers is viable.

Going ahead, I'd like to see HP continue to find ways to drive scale and impact on greenhouse gas emissions in the supply chain, and encourage its industry to do more. Related to that, a priority should be better understanding and sharing insight about how to best increase supplier interest and investments in energy management.

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Steve Westly

Managing Partner
The Westly Group

Information technology has changed the way we store and manage data, communicate, and innovate—and HP has been the leader of that revolution.

Clean technology presents us with an opportunity to revolutionize another aspect of our lives—how we develop, use, and store energy. Clean tech is not just the development of alternative sources of energy; it's recycling, energy-efficient products, energy-management diagnostic software, and the full disclosure of energy inputs so consumers can make smart decisions about the products they buy.

HP is not the first company that comes to mind when you think of leaders in clean tech, but that is exactly what it is. Whether it is setting standards for transparency and disclosure throughout the industry's largest supply chain, or the use of recycled content in products and cartridges, HP is setting the standard for corporate America.

Bill Hewlett and Dave Packard believed the company had a responsibility to be a good corporate citizen. Today, HP's leadership in environmental sustainability and the deployment of clean technologies is the embodiment of that ethos.

Affiliations and memberships

We belong to many organizations that address global citizenship issues:

Business for Social Responsibility (BSR) , a global nonprofit organization that helps member companies enhance business performance while respecting ethical values, people, communities, and the environment

Carnegie Council for Ethics in International Affairs , a nonprofit, nonpartisan, educational institution dedicated to increasing understanding of the relationship between ethics and international affairs

Center for Corporate Citizenship at Boston College , a membership-based research organization associated with the Carroll School of Management, which is committed to helping a business leverage its social, economic, and human assets to ensure both its success and a more just and sustainable world

The Climate Group , an independent, not-for-profit organization working internationally with government and business leaders to advance smart policies and technologies to cut global emissions and accelerate a clean industrial revolution

Climate Savers Computing Initiative (CSCI) , a nonprofit organization committed to reducing carbon dioxide emissions through the development and deployment of smart technologies to improve efficiency and reduce the amount of energy a computer consumes

Clinton Global Initiative (CGI) , which convenes global leaders to devise and implement innovative solutions to some of the world's most pressing challenges

Combat Climate Change (3C) , a business leaders' initiative to support the negotiation process led by the United

Nations Framework Convention on Climate Change to establish a new global agreement

Corporate Eco Forum , an organization for large companies that demonstrate a serious commitment to environment as a business strategy issue

CSR Asia , which builds capacity in companies and their supply chains to promote awareness of CSR in order to advance sustainable development across the region

CSR Europe , a business membership network that promotes the business case for corporate social responsibility

Electronic Industry Citizenship Coalition (EICC) , a group of companies working together to create a comprehensive set of tools and methods that support credible implementation of the Code of Conduct throughout the Electronics and Information and Communications Technology (ICT) supply chain

EPEAT® , a leading global registry for greener electronics

eSkills Industry Leadership Board (ILB) , which is set to lead the ICT sector's contribution to the development and implementation of a long term e-skills and digital literacy agenda in Europe

Ethics & Compliance Officer Association , a non-consulting, member-driven association exclusively for individuals who are responsible for their organization's ethics, compliance, and business conduct programs

ETHOS Institute , a leading Brazilian CSR organization to mobilize, encourage and help companies manage their business in a socially responsible way

European Academy of Business in Society (EABIS) , a unique alliance of companies, business schools and academic institutions that is, with the support of the European Commission, committed to integrating business in society issues into the heart of business theory and practice in Europe

Global Business Initiative on Human Rights (GBI) , an initiative led by major corporations from around the world to support action-learning activities in relation to concrete human rights issues and core business activities

Global e-Sustainability Initiative (GeSI) , which fosters global and open cooperation, informs the public of its members' voluntary actions to improve their sustainability performance, and promotes technologies that foster sustainable development

Global Forest Trade Network (GFTN) , the World Wildlife Fund's (WWF) initiative to eliminate illegal logging and improve the management of valuable and threatened forests

Global Reporting Initiative (GRI) , a networked-based organization committed to transparency and accountability in reporting through use of the world's most widely adopted sustainability reporting framework

The Green Grid Association, a global consortium of IT companies and professionals seeking to improve energy efficiency in data centers and unite industry efforts to develop a common set of metrics, processes, methods, and new technologies

The International Climate Change Partnership (ICCP), a global membership-based coalition of companies committed to constructive and responsible participation in the international policy process concerning global climate change

Mexican Center for Philanthropy (CEMEFI) , whose mission is to foster and enhance a culture of philanthropy and social responsibility in Mexico

National Association for Environmental Management (NAEM) , a non-profit, non-partisan educational association dedicated to advancing the knowledge and practice of Environmental, Health & Safety (EHS) management

Pew Center on Global Climate Change , a nonprofit organization that brings together business leaders, policy makers, scientists, and other experts to bring a new approach to the complex issue of climate change while sustaining economic growth

The Sustainability Consortium , an independent organization of diverse global participants who work collaboratively to build a scientific foundation that drives innovation to improve consumer product sustainability through all stages of a product's life cycle

United Nations Global Compact , a voluntary and strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour,

environment, and anti-corruption. HP became a participant in 2002

World Economic Forum , an independent international organization committed to improving the state of the world by engaging leaders in partnerships to shape global, regional, and industry agendas

WWF Climate Savers , the World Wildlife Fund's initiative to mobilize companies to cut carbon dioxide by voluntarily reducing greenhouse gas emissions

Customers

Enterprises, government agencies, and consumers increasingly consider companies' global citizenship when choosing information technology (IT) products, solutions, and services. HP provides information, tools, and resources to educate customers about global citizenship issues and to help them evaluate our performance in areas such as the environment, supply chain management, and privacy.

Reducing the environmental impact of

IT and beyond

HP designs our products with the environment in mind, and we're also helping our customers use technology to decrease their environmental impact—even beyond their IT. For example, HP Energy and Sustainability Management (ESM) is a portfolio of services that helps companies manage and optimize energy use across the enterprise, including their commercial facilities, data centers, and supply chain.

See our Tech gallery for more about HP ESM solutions and other HP products and solutions that help our customers enhance their sustainability performance.

Enterprise customers

Issues such as environmental sustainability and supply chain responsibility are increasingly seen as key drivers of business performance for this customer group. For example, a recent Acccenture study reports that 93% of CEOs globally think that sustainability is critical to the future success of their business. Of that same group, 88% believe that they should integrate sustainability throughout their supply chain.[1]

Accordingly, many large organizations are choosing suppliers that can help them improve their own global citizenship performance. An increasing number of enterprise customers include criteria related to global citizenship in their procurement policies. For example, more than two-thirds of all requests for proposals (RFPs) HP receives contain environmental questions. (See table below for details.)

Our customers also request that we share or benchmark HP's expertise. For example, a leading telecommunications firm recently asked HP for a briefing about HP's programs as a step toward distinguishing itself in the cellular market as the "green" provider of choice. In another case, a leading consumer products company asked HP to share supply chain best practices as it begins its own supplier sustainability and assurance program.

HP offers free tools and resources to help enterprise customers understand and reduce the environmental impact of their IT.

- Our free, online HP Carbon Footprint Calculator helps customers build a baseline estimate of their HP computing and printing products' carbon footprint.
- The HP Green Procurement Guidance white paper is a vendor-neutral guide to help enterprise customers develop environmental procurement criteria for IT products and services. It outlines criteria, including eco-labels, product attributes, packaging, end-of-use services, and supply chain responsibility, and includes a sample questionnaire for evaluating IT vendors.

For more on how HP is helping enterprise companies reduce their environmental impact, see HP Energy and Sustainability Management solutions.

Government agencies

Government policies and priorities related to global citizenship affect our ability to access and compete in numerous markets. Public sector buyers worldwide consider numerous criteria in procurement, including many related to the environment, privacy, and data security. For example, the European Commission strongly recommends that its members

increase green public procurement, and urges each country to set targets and outline concrete steps for meeting them.[2] In addition, eco-labels are often a requirement for conducting business with the public sector. At present, HP supports many eco-labels, including the U.S. EPEAT-graded eco-label for personal computers and monitors, the TCO eco-label for monitors, and the German Blue Angel for select imaging equipment products.

Ensuring diversity among our suppliers is also critical, particularly for fulfilling contracts with federal and many state agencies in the United States. HP has maintained a Global Supplier Diversity Office for more than 30 years in the United States, and belongs to more than 20 supplier diversity organizations in the United States, Canada, and Europe. See Supplier diversity for more detail.

Consumers

Worldwide, consumers are increasingly attuned to a broad spectrum of global citizenship issues, including the environment, human rights and labor practices, privacy, and social investment. According to results from the *2010 Corporate Social Responsibility Perceptions Survey*, more than 75% of consumers say that it is important for companies to be socially responsible.[3]

However, consumers are often not willing to pay more for products made by responsible companies. For example, while more than 77% of consumers consider "green" brands to be somewhat or very important when making a purchasing decision,[4] research shows that many consumers are unwilling to pay a premium for "green" technology.[5]

HP highlights product features that help consumers reduce their environmental impact and save money. Many HP products meet eco-label programs, including EPEAT, ENERGY STAR®, China's Energy Conservation Program, Germany's Blue Angel, and Japan's Green Mark.

HP also engages consumers through the HP Live Green page on Facebook. It provides consumers information about HP Eco Highlights products, and other sustainability-related programs and tools from HP. Visitors can also post comments, ask questions, and provide feedback to HP.

In 2010, HP raised consumer awareness about environmental issues by joining the Plastiki expedition . As the voyage's official technology provider, HP helped spread the message about sustainable design and reducing waste. The Plastiki, a 60-foot catamaran created out of reclaimed and recycled materials, crossed the Pacific Ocean using HP technology to power its navigation system as well as document and communicate the impact of pollution on the environment. In an effort to raise awareness about the Plastiki, HP teamed up with MTV on the "Your Planet, Your Pledge" competition to encourage young people to get involved in environmental issues. Participants made pledges to make a difference for the planet for a chance to win HP technology and a trip to visit the Plastiki. Learn more about the winning ideas here .

HP employees making an impact:

Janet Morris

Janet Morris is a part of the HP Eco Advocates—a group of employees who publicly represent HP's commitment to environmental sustainability. Her dedication to the environment—in both her personal and professional life—helped her win a spot on the "Leadership on the Edge" Antarctic Expedition 2011. Learn more about Janet.

Insight and education

We continue to deepen our understanding of the global citizenship issues that matter most to our customers. In 2010, we did this by:

- Monitoring and evaluating customer inquiries on global citizenship issues, including RFPs from public sector and enterprise customers (see table below)
- Forming the HP Executive Environmental Advisory Council (EEAC) to gain insights on emerging trends in environmental sustainability
- Engaging with industry analysts who advise enterprise customers on purchasing decisions
- Analyzing results from public opinion surveys as well as syndicated and customized research
- Commissioning an annual, global reputation study regarding social responsibility and environment

Customer environmental requirements in requests for proposals (RFPs), 2007–2010[6]

	2007	2008	2009	2010

Product recycling	19%	28%	46%	42%
Eco-labels and declarations	18%	41%	13%	30%
Product design	28%	42%	24%	26%
Environmental management	24%	34%	20%	39%
Materials use	33%	25%	14%	36%
Supplies	8%	10%	9%	24%
Packaging	3%	8%	8%	22%

1. [1] *A New Era of Sustainability*, UN Global Compact-Accenture CEO Study 2010.
2. [2] EUROPA, EU Commission on the environment: http://ec.europa.eu/environment/gpp/index_en.htm.
3. [3] Penn Schoen Berland, in conjunction with Burson-Marsteller and Landor, conducted 1001 online interviews with the general public in the U.S. (ages 18+) from February 10–12, 2010.
4. [4] Findings from ImagePower Green Brands Survey 2009. More than 5000 people in seven countries were surveyed.
5. [5] *Capturing the Green Advantage for Consumer Companies*. Boston Consulting Group, 2009.
6. [6] Based on reported data for RFPs with environmental questions. Does not include RFPs for which environmental questions were addressed directly by customers or our sales force.

Investors

Socially responsible investors evaluate environmental, social, and governance (ESG) factors, as well as financial performance, in making investment decisions. HP is among the top 15 companies most widely held by socially responsible investor (SRI) funds, and there are more than 100 SRI funds that hold HP shares.[1]

Worldwide, socially responsible investors comprise a growing proportion of the investment community. According to Social Investment Forum, almost one out of every eight dollars under professional management in the United States is invested with consideration of ESG factors—that's 12.2% of the $25.2 trillion USD in total assets under management.[2] Since 2006, the number of signatories to the Principles for Responsible Investment (PRI), an investor partnership with the United Nations Environment Programme Finance Initiative and the UN Global Compact, has grown from 50 to more than 750, representing $22 trillion USD in assets and 45 countries.[3]

Although much of the focus of socially responsible investors is on risk mitigation, there is momentum behind investing in companies well-positioned to capitalize on opportunities related to creating a more sustainable economy. For example, more than 40% of respondents in PRI's annual Reporting and Assessment survey, an analysis of almost 300 global pension funds and fund manager signatories, said they invest in areas including microfinance, sustainable forestry, and clean technologies.[4]

Mainstream investors are also evaluating ESG factors that may impact the performance of their investment, specifically in identifying and mitigating risks, planning for long-term growth, and delivering strong financial returns.

Illustrating this trend, Bloomberg global financial information network launched a service in 2009, making ESG data from more than 2000 companies available via its 250,000 data terminals worldwide. Many analysts noted this as a signal that mainstream investors are requiring expanded access to this type of information.

This growing emphasis is influencing whether and how companies monitor and disclose performance across a broad range of global citizenship issues. For example, in 2010 an international investor coalition representing 13 countries and managing more than $2.1 trillion USD of assets, urged 86 major companies to honor the reporting requirements of the United Nations Global Compact. (HP was not among this group, as we are already a signatory).[5]

We expect that providing information about HP's global citizenship performance demonstrates that HP is an attractive long-term investment, which encourages investment in HP and facilitates access to capital.

Analysts from socially responsible investment firms and other investment-focused organizations regularly report on HP's performance. HP ranked highly with socially responsible investment analysts, media, and other organizations in 2010, as

outlined below.

Organization	2010 ranking or rating
Carbon Disclosure Project (CDP)	In 2010, HP scored 66 of 100 possible points, earning a "B" grade on the CDP Carbon Disclosure Leadership Index. This is lower than HP's score of 89 in 2009, despite HP's continued efforts to demonstrate business leadership in addressing climate change and provide a high level of transparency regarding the impact of our operations.
Dow Jones Sustainability Index (DJSI)	HP is one of six companies listed as a leader in both the DJSI World and North America indexes in the Computer Hardware and Electronic Office Equipment sectors.
FTSE4Good	HP is included in all four FTSE4Good indices for the eighth consecutive year.
Oekom Research	HP continues to be rated "Prime," which indicates that it is among the leaders in the information technology industry and meets the industry-specific minimum requirements defined by Oekom Research.

1. [1] Ipreo.
2. [2] *2010 Report on Socially Responsible Investing Trends in the United States*, Social Investment Forum, http://www.socialinvest.org/resources/research/documents/2010TrendsES.pdf.
3. [3] Annual Report of the PRI Initiative, Principles for Responsible Investment, 2010.
4. [4] Report on Progress, Principles for Responsible Investment, 2010.
5. [5] *Investors step up pressure on corporate responsibility reporting*. Social Investment Forum, February 2010.

Global citizenship policies

Accessibility

- HP Accessibility Policy

Business ethics

- HP Standards of Business Conduct

Corporate governance

- Corporate Governance Guidelines

Diversity

- HP Nondiscrimination Policy
- HP Harassment-Free Work Environment Policy

Environment

- Environment, Health and Safety Policy
- Environmentally Preferable Paper Policy
- Hardware Recycling Standards
- Printing Supplies Recycling Policy
- Paper Use

Global citizenship

- HP Global Citizenship Policy

Human rights

- HP Human Rights and Labor Policy

Labor practices

- HP Best Work Environment Policy

- HP Open Door Policy
  HP's Open Door Policy commits us to create a workplace where everyone's voice is heard, issues are promptly raised and resolved, and communication flows across all levels of the company.
- Personnel Policies and Guidelines (PPG)
  PPG cover staffing, work hour requirements, privacy, political activities, diversity, harassment, drug policy, compensation, benefits, time off, training and development, employee services, security, termination, etc. The PPG is not publicly available.

Privacy

- HP Global Master Privacy Policy

Products

- HP General Specification for the Environment

Supply chain

- HP Supply Chain Social and Environmental Responsibility Policy
- HP Electronic Industry Code of Conduct

About this site

HP's tenth Global Citizenship Report

This is HP's tenth annual Global Citizenship Report.

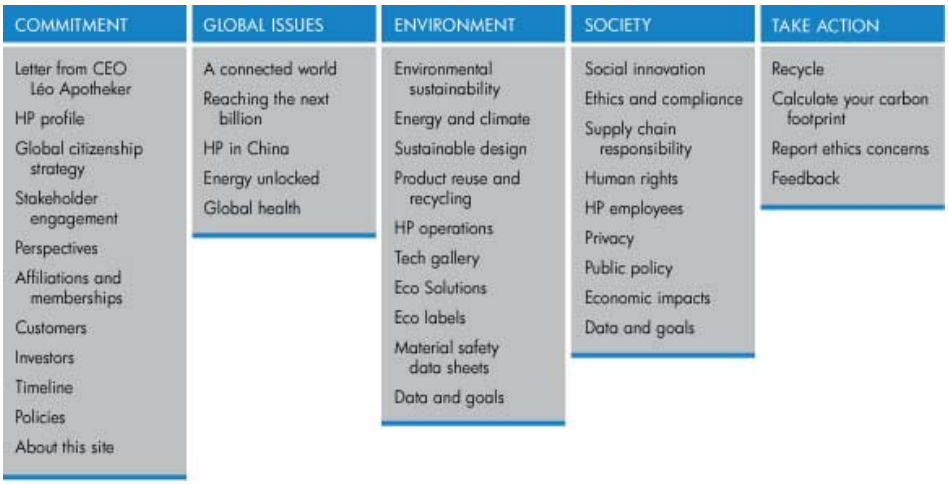
The sections of this website that form our Global Citizenship Report 2010 will be downloadable as a PDF shortly after initial online publication. We also produce a shorter print and PDF version that highlights HP's activities related to several issues of global concern—such as energy, health, and education—with relevant links to this website.

Previous reports are available from the Downloads page.

This comprehensive website describes HP's global citizenship policies and programs, as well as our performance through the 2010 fiscal year (which ended October 31, 2010). It is our primary communication to people who want in-depth information about our global citizenship efforts and progress. Our audience includes customers, industry analysts, socially responsible investors, nongovernmental organizations, employees, and corporate responsibility specialists.

We update this website yearly to reflect our progress, changes to our business, emerging issues, stakeholder feedback, external standards such as the Global Reporting Initiative, benchmarking of other citizenship reports, and assessment of reporting trends.

This website includes five main sections:



Reference pages

These reference pages provide quick access to commonly requested information:

- Assurance
- Awards
- Data and goals dashboard
- Employee profiles
- Perspectives summary
- Policies
- Tech gallery
- Site map

Scope, dates, and measures

- The information on this site covers all HP operations, but does not cover joint ventures.
- All references to years are to HP's fiscal year, which ends October 31, unless otherwise stated.
- All references to dollars are to U.S. dollars.
- "Tonnes" refers to metric tonnes. (One metric tonne is equivalent to 2205 pounds.)

Metrics and goals

The metrics and goals stated on this site are established by the HP teams responsible for measuring and achieving them, in consultation with internal, and in some cases external, stakeholders, and with reference to leadership practices. This ensures our metrics provide a meaningful and balanced picture of HP's performance, and that our goals are realistic yet challenging.

A global company of HP's size faces various challenges when measuring its performance. Collecting data from hundreds of sites worldwide is complex, and the process can vary by business unit, function, and geography. As a result, it can be difficult to define and implement measures appropriate for the whole company. We continue to work on standardizing our measurement systems and metrics.

Another challenge is to report performance beyond our immediate operations. For example, we must make assumptions when estimating product energy consumption and the resulting greenhouse gas emissions, or the percentage of HP products sold that are recycled.

Wherever possible, we describe the context for performance data so readers can understand any limitations and draw appropriate conclusions.

See HP's comprehensive data and goals dashboard for more detail.

Your feedback

We welcome feedback from our stakeholders—positive or critical—and consider it when reviewing our approach and reporting our performance. We invite all readers to provide feedback on our global citizenship activities and this site using our online form.

Forward-looking statements

This report contains forward-looking statements that involve risks, uncertainties, and assumptions. If the risks or uncertainties ever materialize or the assumptions prove incorrect, the results of HP may differ materially from those expressed or implied by such forward-looking statements and assumptions. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including but not limited to statements of the plans, strategies, and objectives of management for future operations, including the expected development, implementation, and achievement of environmental, social, and governance policies, goals and objectives; statements concerning the existing or expected development, performance, addressable market, or market share relating to products or services and the impact of those products and services on global issues, the environment, and other elements of society; statements regarding current or future macroeconomic or market trends and events and the impact of those trends and events on HP and its financial performance; statements about the merits of an investment in HP securities; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. Risks, uncertainties, and assumptions include the impact of macroeconomic, market, and geopolitical trends and events; the development and transition of new products and services and the enhancement of existing products and services to meet customer needs and respond to emerging technological or other trends; the competitive pressures faced by HP’s businesses; the protection of HP’s intellectual property assets, including intellectual property licensed from third parties; integration and other risks associated with business combination and investment transactions; the hiring and retention of

key employees; and other risks that are described in HP's filings with the Securities and Exchange Commission, including HP's Annual Report on Form 10-K for the fiscal year ended October 31, 2010. HP assumes no obligation and does not intend to update these forward-looking statements.

Assurance

We realize that many readers seek assurance that the information we provide on this site is an accurate and complete reflection of our performance. Our approach combines external verification of selected content, other forms of external review, and assessment by HP's internal audit group.

External verification

We provide external verification for information in three focus areas:

- **Greenhouse gas (GHG) emissions** In addition to an internal review, we commission independent auditor Bureau Veritas Certification to verify our global greenhouse gas (GHG) emissions measurements and annual reporting under the GHG measurement and reporting protocols of the World Resources Institute and World Economic Forum. Learn more.
- **Product reuse and recycling** In 2010, HP completed its third round of reuse and recycling vendor audits under its expanded program guidelines. Our third-party auditing firm, Environmental Resources Management (ERM), assessed 12 reuse and 25 recycling vendors in 17 countries. Learn more.
- **Supply chain responsibility** HP engages third-party audit firms, including ERM and Verité, to conduct verification audits of our suppliers, including suppliers associated with a specific allegation in non-governmental organization reports. Learn more.

Other external reviews

As part of HP's global ISO 14001 and site OHSAS 18001 registrations, we are assessed by independent, accredited auditors, including Bureau Veritas Certification and BSi Management Systems.

Internal Audit

HP Internal Audit assesses risk and evaluates control environments for, but not limited to, financial transactions and reporting, systems security, and process flows. However, compliance and ethics, privacy, and environment, health, and safety may be evaluated, depending on the nature of the operation being audited.

In addition, qualified HP professionals conduct internal audits of the environmental, health, and safety management systems at our operations, and we report the results to senior management.

GRI index

We considered the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3) when preparing this report. HP self-declares this report to GRI Application Level B, as stated in the table below.

GRI Guidelines Application Level	C	B	A
Self-declared		X	

Key: ■ Full coverage
▬ Partial coverage
□ No coverage

	GRI guideline	Coverage	Location within report
Vision and strategy			
1.1	Statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and its strategy.	■	Letter from CEO Léo Apotheker
1.2	Description of key impacts, risks, and opportunities.	■	Global citizenship strategy Performance and challenges are described throughout the report
Organizational profile			
2.1	Name of the organization.	■	HP profile

2.2	Primary brands, products, and/or services.	■	HP profile
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	▬	HP profile
2.4	Location of organization's headquarters.	■	HP profile
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.	■	HP profile HP operations HP list of major operations Supply chain responsibility – Detailed audit findings
2.6	Nature of ownership and legal form.	■	HP profile
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	■	HP profile
2.8	Scale of the reporting organization.	■	HP profile
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	▬	About this site HP operations
2.10	Awards received in the reporting period.	■	News and awards
Report parameters			
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	■	About this site
3.2	Date of most recent previous report (if any).	■	Downloads
3.3	Reporting cycle (annual, biennial, etc.).	▬	About this site
3.4	Contact point for questions regarding the report or its contents.	■	Feedback
3.5	Process for defining report content.		Global citizenship strategy About this site
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	■	About this site HP operations Supply chain responsibility
3.7	State any specific limitations on the scope or boundary of the report.	▬	About this site
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 site
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.	■	Data and goals Noted in relevant sections as appropriate
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).	■	Energy and climate – Operations HP operations Noted in relevant sections as appropriate
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	■	Energy and climate – Operations HP operations Noted in relevant sections as appropriate
3.12	Table identifying the location of the Standard Disclosures in the report.	■	GRI index
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).	■	Assurance
Governance			
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.	■	Ethics and compliance – Approach Governance and management

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).	■	Ethics and compliance – Approach
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	■	Ethics and compliance – Approach
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	■	HP investor relations
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).	▬	Director compensation and stock ownership guidelines
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	▬	Ethics and compliance – Approach
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	▬	Corporate governance guidelines
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.	■	Policies Ethics and compliance
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	▬	Ethics and compliance – Approach Governance and management
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	▬	Corporate governance guidelines
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	▬	Materials
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	■	Letter from CEO Léo Apotheker Supply chain responsibility Product manufacturing Energy and climate – Collaboration HP operations – Management and compliance Privacy – Approach Health and safety
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations.	■	Affiliations and memberships
4.14	List of stakeholder groups engaged by the organization.	■	Stakeholder engagement
4.15	Basis for identification and selection of stakeholders with whom to engage.	■	Stakeholder engagement
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	■	Stakeholder engagement Executive Environmental Advisory Council
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

Performance: Economic

	Management approach disclosures	■	Economic impacts HP 2010 Annual Report
	Direct economic value generated and distributed, including revenues, operating costs, employee		

EC1	compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. (Core)	■	Data and goals HP 2010 Annual Report
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change. (Core)	▬	Energy and climate
EC3	Coverage of the organization's defined benefit plan obligations. (Core)	▬	HP 2010 Annual Report
EC4	Significant financial assistance received from government. (Core)	□	
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation. (Additional)	□	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. (Core)	■	Supplier diversity
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation. (Core)	□	
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement. (Core)	■	Social innovation
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts. (Additional)	▬	Economic impacts
Performance: Environmental			
	Management approach disclosures	■	Energy and climate Sustainable design Product reuse and recycling HP operations – Management and compliance Supply chain responsibility
EN1	Materials used by weight or volume. (Core)	▬	Materials Packaging Paper
EN2	Percentage of materials used that are recycled input materials. (Core)	▬	Materials
EN3	Direct energy consumption by primary energy source. (Core)	■	Energy and climate – Operations
EN4	Indirect energy consumption by primary source. (Core)	■	Energy and climate – Operations
EN5	Energy saved due to conservation and efficiency improvements. (Additional)	■	Energy efficiency
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives. (Additional)	■	Products, services, and software use
EN7	Initiatives to reduce indirect energy consumption and reductions achieved. (Additional)	■	Energy efficiency
EN8	Total water withdrawal by source. (Core)	▬	Water
EN9	Water sources significantly affected by withdrawal of water. (Additional)	▬	Water
EN10	Percentage and total volume of water recycled and reused. (Additional)	□	
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. (Core)	▬	Therefore, we have elected to not report on this indicator.
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas. (Core)	▬	Remediation
EN13	Habitats protected or restored. (Additional)	□	

EN14	Strategies, current actions, and future plans for managing impacts on biodiversity. (Additional)	◒	Remediation
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk. (Additional)	☐	
EN16	Total direct and indirect greenhouse gas emissions by weight. (Core)	■	Energy and climate – Operations Travel
EN17	Other relevant indirect greenhouse gas emissions by weight. (Core)	■	Energy and climate – Operations Travel Product manufacturing Product transport
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved. (Additional)	■	Energy efficiency Renewable energy Travel Product manufacturing Product transport Products, services, and software use
EN19	Emissions of ozone-depleting substances by weight. (Core)	■	Ozone-depleting substances
EN20	NOx, SOx, and other significant air emissions by type and weight. (Core)	◒	HP does not report on this indicator because its emissions in this area are insignificant given our current operations.
EN21	Total water discharge by quality and destination. (Core)	■	Water
EN21	Total water discharge by quality and destination. (Core)	■	Water
EN22	Total weight of waste by type and disposal method. (Core)	■	Waste and recycling
EN23	Total number and volume of significant spills. (Core)	■	Remediation
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally. (Additional)	☐	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff. (Additional)	☐	
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation. (Core)	■	Product manufacturing Product transport Products, services, and software use Sustainable design Tech gallery
EN27	Percentage of products sold and their packaging materials that are reclaimed by category. (Core)	■	Product reuse and recycling
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations. (Core)	☐	
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce. (Additional)	■	Product transport Travel
EN30	Total environmental protection expenditures and investments by type. (Additional)	☐	
Performance: Labor practices and decent work			
	Management approach disclosures	■	Supply chain responsibility Human rights HP employees Diversity and inclusion Health and safety
LA1	Total workforce by employment type, employment	◒	HP employees

	contract, and region. (Core)		
LA2	Total number and rate of employee turnover by age group, gender, and region. (Core)	☐	
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations. (Additional)	☐	
LA4	Percentage of employees covered by collective bargaining agreements. (Core)	☐	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements. (Core)	☐	
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs. (Additional)	☐	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region. (Core)	■	Health and safety
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases. (Core)	■	Health and safety
LA9	Health and safety topics covered in formal agreements with trade unions. (Additional)	☐	
LA10	Average hours of training per year per employee by employee category. (Core)	▬	
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings. (Additional)	▬	People development
LA12	Percentage of employees receiving regular performance and career development reviews. (Additional)	☐	
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity. (Core)	■	Diversity and inclusion
LA14	Ratio of basic salary of men to women by employee category. (Core)	☐	
Performance: Human rights			
	Management approach disclosures	■	Human rights Supply chain responsibility
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening. (Core)	☐	
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken. (Core)	■	Supplier management system Summary audit results Detailed audit findings
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. (Additional)	☐	
HR4	Total number of incidents of discrimination and actions taken. (Core)	▬	Detailed audit findings
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights. (Core)	■	Detailed audit findings
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor. (Core)	■	Detailed audit findings
	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to		

HR7	contribute to the elimination of forced or compulsory labor. (Core)	■	Detailed audit findings
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations. (Additional)	□	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken. (Additional)	□	
Performance: Society			
	Management approach disclosures	■	HP operations – Management and compliance Ethics and compliance – Approach Public policy
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting. (Core)	▬	HP operations
SO2	Percentage and total number of business units analyzed for risks related to corruption. (Core)	□	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures. (Core)	▬	Ethics and compliance – Approach
SO4	Actions taken in response to incidents of corruption. (Core)	□	
SO5	Public policy positions and participation in public policy development and lobbying. (Core)	■	Public policy
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country. (Additional)	■	Public policy
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes. (Additional)	□	
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations. (Core)	□	
Performance: Product responsibility			
	Management approach disclosures	■	Products, services, and software use Sustainable design Product reuse and recycling Privacy
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. (Core)	■	Sustainable design Life cycle assessment Materials
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes. (Additional)	□	
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements. (Core)	▬	HP provides a wide range of information related to many of its products, including materials safety data sheets (MSDS), product environmental information, eco-labels, technical regulations and certificates, and disassembly documents to tell recyclers how to dismantle our products.
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes. (Additional)	□	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction. (Additional)	□	

PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship. (Core)	⬓	HP has various policies regarding its advertising practices. The policies require that advertisements and marketing collateral are fair, factual and complete. Advertising claims must be formally substantiated with current factual data before publishing.
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes. (Additional)	☐	
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data. (Additional)	☐	
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services. (Core)	☐	

United Nations Global Compact

HP is a signatory to the United Nations Global Compact, a set of voluntary commitments for companies to improve human rights, labor conditions, the environment, and anti-corruption controls. Our President and Chief Executive Officer, Léo Apotheker, references our support for the Global Compact in his executive letter. The table below links to the sections of this website that address the Global Compact's ten principles.

Principle	Information in site
Human rights	
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.	Human rights Conflict minerals Supply chain responsibility HP employees Privacy
Principle 2: Make sure that they are not complicit in human rights abuses.	Human rights Conflict minerals Supply chain responsibility
Labour standards	
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Human rights Supply chain responsibility
Principle 4: the elimination of all forms of forced and compulsory labour;	Human rights Supply chain responsibility
Principle 5: the effective abolition of child labour; and	Human rights Supply chain responsibility
Principle 6: the elimination of discrimination in respect of employment and occupation.	Human rights Supply chain responsibility Diversity and inclusion
Environment	
Principle 7: Businesses should support a precautionary approach to environmental challenges;	Materials
Principle 8: undertake initiatives to promote greater environmental responsibility; and	Environmental sustainability Supply chain responsibility
Principle 9: encourage the development and diffusion of environmentally friendly technologies.	Energy and climate Energy and climate – Operations Sustainable design
Anti-corruption	
Principle 10: Businesses should work against all forms of corruption, including extortion and bribery.	Ethics and compliance – Approach Supply chain responsibility

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Making the most of information in a connected world

In the era of anywhere, anytime connectivity, information is the world's most valuable resource. Today, about a quarter of the world's population is online. By 2020, that number will grow to roughly two-thirds.[1] As access to technology expands, countless gateways to communication and collaboration are opening up, accelerating how information is created, delivered, and consumed.

The implications are profound. With the swift advance of mobile technologies and the rise of cloud-based services, we carry our digital lives wherever we go. Increasingly sophisticated devices keep us connected to the cloud and to each other, delivering information through whatever screen we happen to be using, whether it's a smartphone, notebook, tablet, or web-connected printer.

As information flows freely, crossing borders and breaking down barriers, the lines between personal and professional lives are blurring. We want—and increasingly rely on—seamless and secure access to the information we need and value most, no matter where we are or what we're doing. This expectation is changing how people think and behave, and reshaping how businesses and governments operate.

At HP, we're developing solutions to deliver on the promise of connectivity and the cloud. From how information is created to all the ways it's shared, analyzed, and stored, our solutions transform data into insight, bytes into experience, and noise into knowledge. With our broad portfolio and nearly 325,000 employees[2] in 170 countries, we're driving innovation on a vast scale and helping to transform how people live, businesses operate, and the world works.

Advancing environmental sustainability

HP solutions create connections that help customers not only conserve natural resources, but also fuel sustainable transformation and growth.

Beyond greatly reducing the environmental impact of products throughout our portfolio, we are applying technology in innovative ways to build intelligent infrastructure and replace inefficient systems with more productive and sustainable alternatives.

Consider data centers. Most weren't designed with energy efficiency in mind. As their use climbs with the rapid expansion of the information economy, they're consuming more and more energy. By using technology to automatically monitor and gather accurate, up-to-the-instant information about how data center systems are performing, HP solutions help customers save money, conserve energy, and reduce associated greenhouse gas emissions.

For example, the HP Data Center Smart Grid creates an intelligent, energy-aware data center equipped with a sea of sensors that detect when servers are wasting power, allowing IT managers to make adjustments in real time. This information management solution can reduce a facility's power and cooling costs by up to 30%.

We're applying this idea on a much broader scale as well. HP's Central Nervous System for the Earth (CeNSE) is an IT ecosystem that senses, collects, sends, and analyzes information about the world's infrastructure in real time. The opportunities to increase efficiencies in urban infrastructure—from energy and water use to transportation and communications—are virtually unlimited, thanks to context-aware technologies such as CeNSE and widespread connectivity.

Read more about CeNSE and other HP innovations that are helping customers conserve energy and reduce environmental impact.

Improving healthcare

Information can make the difference between life and death. Yet the healthcare industry lags in using technology to help doctors, nurses, and patients make informed decisions as effectively and efficiently as possible. By helping organizations integrate technology into healthcare systems, we're making it easier for health professionals to quickly enter, retrieve, and share patient information, and deliver better care.

Moving from paper-based records to an integrated electronic medical record system provides health professionals easy access to up-to-date information. To help make this possible, HP is partnering with leading hospitals, doctors, and nonprofits to bring medical records into the digital age.

For example, we're working with the Clinton Health Access Initiative and the Kenya Ministry of Public Health and Sanitation to help babies born with HIV in Kenya receive prompt medical care that dramatically improves their chances of survival. Together, we've developed a new solution that automates the capture, processing, and publishing of test results, making that information available to caregivers online and sending them via text to printers in remote clinics. Test results that once took weeks by courier now arrive electronically in just days. In 2009, before this system was implemented, 45,000 infants in Kenya were tested. With this new program, HP expects the number of babies tested to jump to 70,000 in the year 2011.

Learn more about how HP innovations are transforming healthcare.

Strengthening education

Because young people are already enthusiastic technology users, technology is an ideal platform for deepening their engagement in learning. Technology also provides them the opportunity to develop many of the skills they'll need to compete in the information economy, such as conducting online research, using software to complete homework and perform analyses, and using email or instant chat to communicate with teachers and other students. For students pursuing careers in science, technology, engineering, and math (STEM), developing strong technology skills is even more critical.

At HP, we believe integrating technology into the learning experience is a pathway to developing the next generation of scientists, engineers, and innovators. It's why we created the HP Catalyst Initiative. Drawing on the expertise of 35 of the world's leading educational institutions, the initiative's goal is to rethink and revive STEM education by exploring new approaches to using technology to enrich teaching and learning.

For example, an HP Catalyst consortium led by the South Africa-based Council for Scientific and Industrial Research's Meraka Institute is charged with championing technology that connects students in developing parts of the world with the global research community. Its goal is to empower students to participate in collaborative problem-solving, helping to address some of the world's most urgent social challenges—such as climate change and food security—through the power of grid computing.

Known as the Global Collaboratory, this consortium is drawing on the success of the HP and UNESCO Brain Gain Initiative, which was created to slow the exodus of scientists and academics from Africa and the Middle East. The HP and UNESCO partnership launched a powerful grid computing network across 20 universities, providing researchers with shared computing power that supports their work.

Learn more about how HP is using technology to strengthen education, support teachers, and empower students.

Forging ahead

Even as billions gain access to technology and connect with the global community, we've only begun to unleash the full power of information. At HP, we're forging ahead by pioneering solutions and expertise that help make the most of information to enrich experiences, advance collaboration, and ignite innovation.

1. [1] Morgan Stanley Research, 2010.
2. [2] As of October 31, 2010.

Transforming the lives of the next billion through technology

In less than a decade, we've gone from a world where wired desktop PCs were the prevailing technology to one where notebooks, smartphones, and tablets can allow all of us to communicate wirelessly through the cloud. With every passing moment, information technology (IT) becomes more abundant, more affordable, and more capable. Today's average mobile phone has a thousand times the computing power of MIT's most advanced computer in 1965, but is one millionth the cost.[1] With such advances, we're more plugged in, and more empowered by technology than ever before.

We are in the age of ubiquitous computing, a phenomenon familiar to many living in the United States, Europe, and Japan. But recently, there's been a surge in IT use in other locations worldwide. China now has more Internet users than any other country—359 million in 2009 and expected to grow to 566 million by 2013.[2] And India has the fastest-growing population of Internet users, expected to double in the next few years.[2] Over the next four years, there will be an estimated one billion new PCs in the world, with most sold in rapidly developing countries such as Brazil, Russia, India, and China.[3]

These trends point to approximately a billion new people who will gain access to technology in the very near future. Some of these people are the more than 70 million individuals joining the middle class each year.[4] Others live on less than $2 a day.

Reaching out to the next billion IT users represents a significant business and global citizenship opportunity for HP. We're responding on many fronts: by innovating to best serve the needs of this diverse customer base, reducing the environmental footprint of our products, and empowering all of our customers—both the current billion and the next—with IT that helps them connect and improve the way they live and work.

Making technology more simple, relevant, and affordable

IT developed for western markets doesn't always meet the needs of people living in developing regions. To reach these customers, HP is going beyond activities such as placing a local-language keyboard on an existing product. We're shifting how we develop and design products, especially in emerging markets, striving to ensure that they are relevant to the needs of specific customer groups.

The HP DreamScreen^{400} —developed specifically for the Indian market—exemplifies our new approach. To design the HP DreamScreen^{400}, we interviewed 2,600 people in India to understand the barriers that keep them from purchasing and using a PC. We found that affordability of IT isn't the main issue; it's the complexity. A key factor behind low PC adoption rates in India is that many perceive PCs to be complicated to use. Unlike a camera or mobile phone, for instance, knowing how to use and navigate the menus of a typical PC isn't immediately obvious. People said they wanted an easy-to-use device to connect directly to the content and services most relevant to their lives.

We then spent three years working closely with about 200 Indian families to test a product prototype and refine the user experience. The result is a web-connectable touchscreen device that is intuitive enough for every family member to use—even first-time technology users. In addition, the HP DreamScreen^{400} can provide a connection to content and online services that are relevant to the Indian market—such as Bollywood movies, streaming religious services, and travel and bill payment services—with an interface that lets them navigate in either Hindi or English, a must-have for bilingual Indian families.

Simple, affordable, market-specific solutions like the HP DreamScreen^{400} represent a new way for HP to serve the next billion customers and deliver a world of new experiences.

Providing access to information—anytime, anywhere

As common as smartphones have become in some parts of the world, they still represent a small portion of the overall global market. In fact, many of the mobile phones sold today still lack features such as web browsing and email.

HP is bridging the gap by providing people access to the Internet via a basic mobile phone—no Internet connection required. A revolutionary new cloud service called SiteOnMobile, developed by HP Labs, allows people to surf web content via short message service (SMS) and voice commands. Instead of delivering a complete webpage, SiteOnMobile delivers short bits of content relevant to the user's task.

HP technologies such as SiteOnMobile open up new possibilities for potentially millions of people. Now, a farmer in rural Ethiopia can use her mobile phone to access commodity prices for her crops, send money to relatives electronically, book a train ticket, or check the weather forecast—activities that would have been difficult or impossible for her just a few years ago. For this farmer, HP technology helps clear a path to personal empowerment and financial independence. In the hands of many, it can drive economic growth for entire communities.

Helping people understand and use technology

Reaching a billion additional people is about more than developing new devices and providing more services. It's also about teaching people the skills to make the most of the opportunities technology offers.

Consider Tsedilin Arkadiy, a 41-year-old entrepreneur from Rybinsk, Russia, with a paper recycling business. Arkadiy took courses offered through the HP Learning Initiative for Entrepreneurs (HP LIFE) , a global training program that helps students, aspiring entrepreneurs, and small business owners acquire the IT skills they need to establish and grow their businesses. He learned to use the Internet to access rapidly changing supplier pricing lists, enabling him to price his services more competitively, and market his business effectively online. As a result, his business grew enough that he was able to build a new warehouse.

HP LIFE makes many of the same resources available to those out of the reach of the program's physical training centers with LIFE City, an online portal that offers hands-on resources and tools. Designed as an animated city, the portal allows users to learn and practice business skills though role-playing games, and provides training on common software used in

marketing, finance, operations and management, and business communications. Available in Chinese, Czech, English, French, Polish, Russian, and Turkish, LIFE City has received more than 42,000 visits since its launch in 2008.

Technology, and the know-how to use it, gives individuals—virtually anywhere in the world—the tools to improve their own lives, run successful businesses, and fuel economic growth in their communities.

Reducing the environmental footprint of technology and beyond

As more and more people gain access to technology, more energy and resources are needed to create, transport, and power that technology. Consequently, greenhouse gas emissions from the IT sector are predicted to increase over the coming years—from 500 million tonnes of carbon dioxide equivalent (CO_2e) in 2008 to 1.4 billion tonnes in 2020.[5]

At a minimum, we must design IT to be as energy- and resource-efficient as possible. At HP we've been focused on this for years. As a result, customers have saved 1.4 billion kilowatt hours of electricity through 2010 due to improved energy consumption in our high-volume desktop and notebook PC families, relative to 2008.[6] And we're reducing the amount of raw materials used in our products. In fact, we've manufactured more than 1 billion ink cartridges that contain post-consumer recycled plastic.[7] Of these, more than 800 million were manufactured with recycled plastic from the HP "closed loop" ink cartridge recycling process. The first of its kind—this process combines recycled HP ink cartridge material with other material such as recycled water bottles to create new Original HP ink cartridges.

But reducing the impact of IT products is just the beginning. IT can also be used to transform our world. By embedding IT into the world's infrastructure—our transportation systems, utility grids, and entire cities—we can monitor environmental conditions, align resource supply with demand in real time, and reduce waste and inefficiency. We can also use IT to replace outmoded systems with more productive and sustainable alternatives, such as using HP Visual Collaboration for a face-to-face meeting instead of traveling across continents. IT is also a means to help the next billion IT users, as well as current customers, understand their own environmental impact and provide them the information they need to make environmentally responsible choices. To learn more about HP's commitment to environmental sustainability, see our essay, Energy unlocked.

Improving the lives of people worldwide

At HP, we believe technology is a driver of social progress, environmental sustainability, and economic opportunity. We're committed to helping individuals everywhere use technology to connect and create a better world.

1. [1] *Q&A: Kurzweil on tech as a double-edged sword*, CNET, http://news.cnet.com/8301-11386_3-10102273-76.html, accessed December 14, 2010.
2. [2] IDC's Worldwide Digital Marketplace Model and Forecast, 2009.
3. [3] *Worldwide PC Adoption Forecast, 2007 To 2015*. Forrester, June 2007.
4. [4] *The Expanding Middle: The Exploding World Middle Class and Falling Global Inequality*. Goldman Sachs, July 2008.
5. [5] *Smart 2020*, The Climate Group, 2008.
6. [6] Energy savings calculated by comparing average 2008 HP product ENERGY STAR® TEC (typical energy consumption) value to average 2010 HP product ENERGY STAR TEC value multiplied over 2008 volume.
7. [7] Many of HP's ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model and over time, based on the availability of material.

HP in China: A snapshot of global citizenship in action

A nation in dramatic transition, China is poised to shape the global economic and environmental landscape for decades to come. It's the most populous nation on the planet, with 1.3 billion people.[1] It's the second largest economy in the world, with more than a trillion U.S. dollars in imports and exports each year.[2] It's home to more Internet and mobile-phone users than any other country on the planet.[1] And while China acknowledged in 2010 that it emits more greenhouse gases (GHG) by volume than any other nation,[3] it's also a leader in clean energy finance and investment. Current estimates put China on a path to attract $620 billion USD in investments in renewable energy over the next decade.[4]

In almost every issue dominating the international spotlight, China plays a critical role. It's integral to any discussion of where the world is now and where it's going, and the information technology (IT) industry is no exception.

HP has been conducting business in China since 1981, when we opened our first office there. We now have a headquarters and an HP Labs facility in Beijing, as well as eight regional offices to support our work in 689 Chinese

cities. And we continue to expand our presence there. In 2010, HP acquired 3Com Corporation, along with its China-based subsidiary, H3C.

As the world's largest IT company, our presence in China makes good business sense, given its large manufacturing workforce and consumer market. As a good global citizen, we also recognize our responsibility to make a bigger contribution. Beyond manufacturing and selling products, we create local jobs, work to improve labor conditions in the electronics industry supply chain, build IT skills in Chinese communities, and do our part to reduce the environmental impact of IT.

The scope of our efforts in China illustrates our broader commitment to global citizenship. We are in China for China, conducting efficient, responsible operations while contributing to economic and social progress in this dynamic nation.

Investing in the local economy

About 75% of HP's global spending on product materials, components, and manufacturing and distribution services is in the Asia Pacific region. Most of that is centered in China, helping to create jobs, open doors to new opportunities for skilled workers, and provide an economic boost to local communities.

Many of these newly created jobs are in manufacturing our products for the global market and, in many cases, for the Chinese market in particular. In fact, with the exception of some high-end workstations, 100% of HP PC products sold in China are made in China.

In 2010, we opened an HP-operated manufacturing facility in Chongqing, with the capacity to produce up to 40 million PCs a year. The new facility in central China moves Chongqing closer to its goal of becoming a major technology hub.

We also invest in China's enormous potential for innovation. In 2005, we established HP Labs China, where HP experts collaborate with Chinese academics and the larger research community. Their fresh ideas and creativity are expected to help us give consumers and businesses worldwide new ways to mine and manage ever-growing quantities of information, and advance innovations in networking and automated publishing.

Building a more responsible supply chain

HP manages one of the world's most extensive IT supply chains, and that comes with great responsibility. Around the world, we work closely with our suppliers to help ensure that they live up to HP's rigorous labor and environmental standards. Because a large proportion of HP suppliers have facilities in China, what we learn there provides valuable insight we can use to raise standards for all electronics manufacturers. When issues arise at our suppliers' facilities, we try to face them head on, with an approach grounded in collaboration and education.

For example, in 2010, HP supplier Foxconn faced unprecedented challenges when more than a dozen workers committed or attempted suicide at two factories in Shenzhen, China. In response, HP supplemented traditional audits and ongoing meetings with senior executives at Foxconn with third-party and HP-led worker attitude surveys at Foxconn facilities. Among other desires, the workers surveyed said they wanted better wages and communication between employees and management. Based on the results of the surveys and several group interview sessions, HP and Foxconn executives agreed on corrective action plans, including implementing supervisor training, reducing overtime working hours, and more. HP continues to work closely with Foxconn to support its SER efforts and ensure sustained progress. Learn more about HP's efforts with Foxconn.

We also addressed employer discrimination against workers with hepatitis B (HBV). In China, there are widespread misconceptions among employers about how the disease is transmitted. HBV only spreads through direct contact with bodily fluids, but many employers mistakenly fear that hiring someone with HBV will spread the disease throughout the workforce. As a result, HBV carriers are rarely hired, and those who are often face discrimination from co-workers. Some employers even include HBV tests in employee hiring processes, which HP considers to be a violation of the nondiscrimination provision of HP's Electronic Industry Code of Conduct. Working with the nongovernmental organization (NGO) Inno Community Development Organisation, we launched an entertaining and educational campaign to dispel misconceptions and combat discriminatory practices. The campaign reached nearly 20,000 employees at seven supplier sites. As a result, managers and employees have gained a more accurate understanding of HBV. HP identified several positive changes to supplier policies and attitudes following the training. In 2010, 4% of audits had nonconformances in this area—a reduction from previous years. Learn more about reducing HBV discrimination in China.

Developing skills in local communities

In our community outreach efforts around the world, we've seen how people thrive personally and professionally when given new technology and the skills to use it. Our programs in China support this.

Through our Rural Harvest Program in China, we've broadened access to technology for an estimated 2 million people from rural areas in 31 Chinese provinces. We're working with recent university graduates in villages across the country to find where we can make the biggest impact on people's everyday lives. For example, one project has enabled children in Sanwang Village, in Anhui Province, to use HP equipment to video chat with their parents working in urban areas.

To inspire and train aspiring small business pioneers worldwide, the HP Learning Initiative for Entrepreneurs (HP LIFE) offers business and IT skills training to help get new microenterprises off the ground and on to long-term prosperity. Case in point: In 2007, Xiao Shengzhang, an unemployed Chinese agricultural worker, started his own business growing and selling herbal remedies. With training from HP's Graduate Entrepreneurship Training through IT (GET-IT) program, now part of HP LIFE, he learned the business and IT skills he needed to help his new venture succeed. Before then, Xiao had never used the Internet. Now, his website is the cornerstone of his thriving business, which employs more than 2100 people.

Through HP LIFE, we also give young people a jump-start on successful careers, particularly in technology-related fields. In China, we offer IT training to students and new graduates at five major universities. HP provides many of the practical job skills students need to meet the increasing demand for technical expertise in the country's growing IT economy. To date, more than 13,000 students in China have participated in HP LIFE or a predecessor program.

Reducing environmental impact

As China's industrial economy continues to grow at a rapid rate, so do its GHG emissions. With our broad reach among suppliers and customers in China, we intend to be part of a long-term solution to this challenge.

HP was the first major IT company to report the GHG emissions of its suppliers in 2008, including many facilities in China. In 2009, the last year for which data are available, estimated total emissions were the same as we reported for 2007, despite being attributable to a higher proportion of our supplier spend and representing a 4% increase in absolute U.S. dollar spend covered by the data. A growing number of our suppliers worldwide, including in China, have set goals to improve performance. People.com.cn, an influential government website in China, recognized HP China as the country's Low Carbon Champion for 2010.

We are also working with Business for Social Responsibility (BSR) on a yearlong pilot program to help our suppliers in China reduce energy use, GHG emissions, and costs. Eight of our suppliers with 12 facilities in the country joined the initiative, which has helped them develop energy improvement plans, share best practices, and learn from energy-efficiency experts. The program shows promise as a model for future initiatives in China and other countries. Learn more about our partnership with BSR in China.

And, in China, as in all of the countries in which HP has a presence, we help businesses and consumers reduce their own environmental impact, conserve energy, and get the most out of the IT they use every day. Learn more about HP and energy efficiency.

Moving forward

Whether creating jobs, providing technology education, working with suppliers, or decreasing impact on the environment, we're making a difference in China beyond our own business operations. In China, and in every country in which we manufacture or sell our products, our commitment to global citizenship pushes us to work toward economic, social, and environmental progress, for our own success and for a more sustainable future.

1. [1] *The World Factbook 2009*. Washington, DC: Central Intelligence Agency, 2009. https://www.cia.gov/library/publications/the-world-factbook/index.html.
2. [2] The US-China Business Council, 2009 data, www.uschina.org/statistics/tradetable.html.
3. [3] "China says it is world's top greenhouse gas emitter," Reuters, November 23, 2010.
4. [4] Global Clean Power: A $2.3 Trillion Opportunity, Pew Charitable Trusts, 2010.

Energy unlocked

Energy sustains the global economy and powers most aspects of modern life. Yet many factors are driving energy use to new levels. The world's population is projected to top 9 billion by 2050.[1] Housing, manufacturing, transportation, and other needs are all expected to increase accordingly. Billions of new users will gain access to technology, swelling the ranks of the information economy.

Rising energy use is sure to strain supplies, drive prices higher, and increase greenhouse gas emissions, raising urgent economic and environmental challenges. We all have a stake in addressing these challenges. By unlocking the full potential of energy, we can unleash innovation, ignite economic growth, and lay the groundwork for a sustainable future.

HP is using technology to help build a path forward.

With our considerable scale and portfolio, HP offers solutions to help everyone—from individuals to enterprises—boost productivity, lower costs, cut power consumption, and reduce environmental impact. From data centers designed for significantly increased energy efficiency to streamlined printing and imaging environments, HP is working to improve the overall sustainability of its own operations and that of its customers, and lead the information technology (IT) industry with energy-efficient innovation.

Choose energy-efficient technology

Energy is affecting the way people choose and apply technology, making energy efficiency a priority. Individuals and small businesses are taking steps to reduce the energy consumed by their PCs, printers, and other devices to save money and reduce environmental impact. At the enterprise level, widespread adoption of energy-efficient IT can reduce costs, shrink the corporate environmental footprint, and provide a competitive edge.

Simply by choosing energy-efficient technology from HP—and enabling power settings—customers are cutting consumption approximately in half compared with our products introduced as recently as 2005. HP PCs, printers, servers, and other solutions that meet stringent ENERGY STAR® guidelines can save customers up to half the energy used by nonqualified products. For example, if all laser printers sold in 2005 were replaced by the ENERGY STAR qualified HP LaserJet CP1215, customers would save nearly $80 million USD in energy costs in the first year alone.[2]

Even a simple change in behavior can help save energy. Computers are frequently left on overnight and over weekends, wasting electricity. With HP Power Assistant, users can set their PC or notebook to automatically switch to a low-power state after a defined amount of idle time or according to a preset schedule.

Small changes have resulted in substantial progress, with the design innovations in our best-selling notebooks, PCs, and workstations. Thanks to these improvements, we have saved customers 1.4 billion kilowatt hours (kWh) of electricity through 2010.[3]

Yet such improvements can only take us so far. The long-term solution must include applying technology in new ways to fundamentally change how we use energy altogether.

Consolidate technology and increase efficiency

By shifting to HP products and solutions that streamline redundant systems or replace inefficient practices, customers can save even more energy while improving performance.

Enterprises often don't take full advantage of their printers' capacities—the typical ratio of users to devices is 3:1. Because networked HP printers can handle many more users, customers can retire redundant devices in favor of fewer energy-efficient HP LaserJet printers and multifunction products.

Disney seeks the best solutions to help deliver on its environmental promise and worked with HP to develop its Document Output Management Program using HP Managed Print Services. Disney reduced the number of printing devices by 59%. As a result, Disney reported that its energy consumption for printing dropped by 18%, and it avoided an estimated 185 tonnes of carbon dioxide equivalent (CO_2e) emissions over three years.

What's more, HP gives customers the power to move beyond energy efficiency to energy innovation, replacing inefficient practices with entirely new, more sustainable solutions. Global business travel can generate a big bill, both for companies and the environment. In addition to the time and expense of a typical trip, a round-trip flight between San Francisco and Singapore generates about 3.3 tonnes of CO_2e emissions per passenger.

But with HP Visual Collaboration, employees can walk down the hall to meet with colleagues around the world. Featuring immersive, real-time video conferencing, HP Visual Collaboration offers virtually all the benefits of meeting face to face with a fraction of the energy use and carbon emissions. In a 36-month period, HP Visual Collaboration Studios have allowed HP and its customers to save almost 175,000 tonnes of CO_2e emissions that would have been generated had the meetings taken place in person. That's equivalent to removing nearly 33,500 vehicles from the road for an entire year.[4]

Help control energy use with intelligent solutions

Technology that measures and manages energy use in real time is critical to unlocking energy's full potential. Imagine a data center so intelligent that it seems to monitor itself.

HP Data Center Smart Grid technology collects and communicates thousands of measurements across data center IT systems and facilities, all from an energy-information perspective.

With interconnected sensors that detect when power is being wasted, HP Data Center Smart Grid allows IT managers to make adjustments in real time. Businesses can quickly measure and control energy use across an entire data center, so they can more efficiently use power, reduce expenses, and shrink their environmental footprint.

Move forward

One of the fastest and easiest ways to reduce environmental impact and save money is to make the most of the energy we're using today.With innovative, energy-efficient IT products and solutions, HP is helping to improve how people live, businesses operate, and the world works.

1. [1] http://www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf
2. [2] We've compared the energy consumption of comparable HP products in 2005 with our latest models for each category of products. Estimations of the energy consumption of 2005 products were done by using worldwide IDC shipped volumes, HP products, U.S. Environmental Protection Agency's ENERGY STAR® program (http://www.energystar.gov/) product averages, and the typical energy consumption (TEC) method. The energy costs are based on U.S. Department of Energy data (http://www.eia.doe.gov/), and actual results may vary. We used the following products for this analysis: HP Deskjet 3050, HP LaserJet CP1215, HPLaserJet CP1025, HP Compaq 8200 Elite, HP Compaq 2310, HP Compaq 8000f Elite, HP Compaq LE19 monitor, HP Storage EVA, HP ProBook 6550b, HP G60t Series Notebook, HP TouchSmart^{610} PC, HP ProLiant DL380 G4 and G6 servers, and the HP ProLiant DL360 G7 server.
3. [3] Relative to 2008.
4. [4] For air travel avoidance, an average of 1,609 miles each way per round trip (average of short, medium, and long-haul flights at HP), and a CO_2 footprint per mile of 199g CO_2e (http://www.cleanairconservancy.org/) is used. Car travel to/from airport on both ends is also considered. Of the 35% of meetings that avoid travel, only 1.4 people are assumed to avoid travel in each meeting. Usage depends on a company's travel and meeting policies.

Focusing technology on global health

Putting the right information into the right hands at the right time is a prescription for better health. But because many health systems lack the technological infrastructure to easily capture and share information, it's easier said than done.

Cutting-edge diagnostic tools and breakthrough advances can help doctors treat patients and save lives as never before. However, healthcare systems worldwide remain fragmented and inefficient as the industry lags behind other sectors in adopting information technology (IT) to improve overall effectiveness. Providers lack an integrated view of their patients' conditions and medical histories. As a result, costs escalate and care suffers. An estimated $1.2 trillion USD is wasted every year in the U.S. healthcare system alone—up to $88 billion USD of that waste is the result of ineffective use of IT.[1]

HP is responding with innovative IT solutions that accelerate the transformation of healthcare. We're applying our expansive portfolio and problem-solving expertise to help empower healthcare providers and patients with lifesaving information, streamline and integrate processes, modernize health systems, and increase access to and quality of care around the world. We take a holistic view, collaborating with governments, healthcare practitioners, and other businesses to drive systemic change, and improve health systems for the long term.

Digital solutions increase efficiency

Today's hospitals often operate less efficiently than they should. Patients sometimes move through hospitals faster than their records can keep up because of slow, manual, paper-based processes. Outdated medication histories and delayed lab results can put caregivers in the precarious position of making life-altering decisions without a full picture of their patients' conditions.

But HP Digital Hospital unites people, processes, and technology to help create a more productive, secure, and safe healthcare environment. HP Digital Hospital uses technology to addresses complex, critical elements of care and give providers access to highly integrated, real-time information. As a result, patient care improves, staff efficiency increases, and hospital operating costs fall.

St. Olavs Hospital in Norway has embraced digital hospital solutions. With HP's help, it has implemented a single network that can be accessed wirelessly. Caregivers with mobile devices can capture, access, and share vital data, such as X-rays and lab results, in a timely way from any location. Automating tasks helps reduce errors, duplication, and other

time-consuming inefficiencies—leaving doctors and nurses more time for patients.

St. Olavs Hospital moved more than half of its patient care areas into its new facility in 2006 and the remainder in 2010. Over the past few years, the hospital has operated with a balanced budget, reduced patients' average length of stay, decreased turnaround time for discharge reports, and experienced an overall staff productivity gain of 6% per year.

Digital health solutions aren't just for high-tech hospitals in developed regions of the world. HP is also applying the advantages of digital hospitals in remote, rural environments. For example, mothers2mothers(m2m) is a nongovernmental organization that counsels more than 1.5 million women in sub-Saharan Africa each year. Their work is critical to reducing transmission of HIV from mother to child throughout the region.

With the help of HP, m2m is evaluating its current process and rethinking how it gathers, synthesizes, and reports information across its network of more than 700 clinics. New database technology and cloud and mobile services from HP are expected to help m2m migrate its paper-based records system to a digital environment. More effective sharing of information, increased reporting capabilities, and quicker access to critical information will help m2m make even more timely decisions—improving the health of patients and their unborn children. Learn more about our work with m2m.

The right IT for the right outcome

In some cases, addressing health challenges calls for the latest, most advanced technology. In others, bringing simple technologies to an underserved community can overcome problems that have gone unsolved for years. In another project that's having a big impact on the lives of HIV-positive patients in Africa, HP is working with the Clinton Health Access Initiative (CHAI) to help transform the HIV-testing process for infants in Kenya.

Many HIV-positive infants in Kenya die because antiquated, paper-based systems delay test results, diagnoses, and lifesaving treatment. A dose of HP technology is helping to reverse this devastating trend. Now, instead of waiting months for hard-copy documents to shuttle between clinics and labs, test results are sent by text message to short message service (SMS)-enabled HP printers in rural clinics. Health providers can receive the information just one to two days after the results are ready, which means babies can receive lifesaving treatments before it's too late.

In 2009, before this system was implemented, 45,000 children in Kenya were tested, and the HIV-positive children were put on treatment. With this system in place, HP expects the number of children tested to jump to 70,000 during 2011. Learn more about the early infant diagnosis project.

IT accelerates delivery of lifesaving information

All too often, people die from preventable or treatable diseases because they—and their doctors—lack information to make timely decisions about their health. HP technology is speeding up the delivery of critical health-related information so that patients and healthcare providers can make quick, informed decisions.

Use of counterfeit medications is estimated to cause at least 700,000 deaths a year.[2] These drugs may be placebos or include only a fraction of the active ingredient. Or—even worse—they could contain harmful ingredients. HP is working with the nonprofit organization mPedigree and companies in the pharmaceutical and telecommunications industries to combat counterfeit drugs through an innovative authentication system.

Using a basic mobile phone, consumers can send a code, printed on their medication packaging, via a free text or SMS message to the system. Within seconds, they receive a reply letting them know whether the medication is legitimate. In addition to designing, implementing, and managing the service, HP is also providing the cloud infrastructure necessary to make authentication and tracking fast, easy, and secure.

HP and mPedigree launched the drug authentication program in Nigeria and Ghana in December 2010. We expect the program will be expanded to additional countries and new pharmaceuticals in 2011. Learn more about our work with mPedigree.

The kinds of solutions we're pioneering with CHAI and mPedigree have tremendous potential to improve lives globally—addressing a number of diseases and cutting across demographics, geographies, and socio-economic levels.

IT enables research for customized medical treatments

Technology can deliver seamless, secure access to health information virtually anytime, anywhere—opening up avenues of collaboration and accelerating the speed of innovation.

Since 2003, HP and the Partners HealthCare Center for Personalized Genetic Medicine have collaborated to create an enterprise IT infrastructure designed to effectively bridge research and clinical care. In initial phases of the collaboration, HP and Partners HealthCare built a powerful IT infrastructure foundation with innovative software, ample storage

memory, and processing power to support advances in genetic sequencing technologies.

Today, researchers leverage this infrastructure to speed and support critical genetic discoveries underlying disease. Evolving the robust IT foundation to support modern clinical research is changing the practice of medicine—providing a significant social impact on human health.

Better IT, better health

The potential for IT to transform global health and improve care is virtually boundless: slashing inefficiencies and boosting the effectiveness of health systems globally. Helping to prevent unnecessary illness and death by alerting patients to counterfeit medications. Helping to save infants through timely diagnosis of HIV. Supporting modern clinical research to change the practice of medicine.

These aren't unachievable dreams. They are—or are quickly becoming—reality. HP is helping health organizations worldwide realize advances that empower patients and healthcare providers, reduce costs, and save lives.

1. [1] "The Price of Excess: Identifying Waste in Healthcare Spending," PricewaterhouseCoopers, 2010.
2. [2] " Keeping It Real: Protecting the world's poor from fake drugs," International Policy Network, May 2009. (Approximately 700,000 deaths from malaria and tuberculosis alone are attributable to fake drugs.)

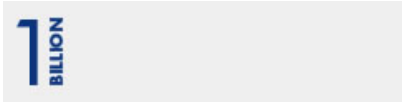
Environmental sustainability

> HP's commitment to environmental sustainability and energy efficiency spans our entire business—from how we design our products, empower our customers, and manage our supply chain to how we run our operations, develop partnerships, and engage in public policy.

–Engelina Jaspers, vice president, Environmental Sustainability

Highlights in 2010

Amount of electricity customers saved through 2010 using our high-volume HP desktop and notebook PC families, since 2008[1]



Number of HP ink cartridges containing post-consumer recycled plastic[2] (800 million of which were manufactured with recycled plastic from the HP "closed loop" process, which uses plastic from returned cartridges to make new ones)

Amount (45,000 tonnes) of recycled plastic used in our printing products since 2007, achieving our goal a year early

Amount of carbon dioxide equivalent emissions from our operations, 9% less than 2009

Volume of electronic products and supplies recovered and either reused (electronic products) or recycled (electronic products and supplies) by HP since 1987

The global population is projected to grow by more than 2 billion over the next few decades, reaching 9.3 billion by 2050.[3] Most of this growth will be concentrated in urban areas, which are projected to gain 2.8 billion residents, growing from 3.5 billion in 2010 to 6.3 billion 2050.[4] Rapid population growth is being accompanied by significant economic expansion and an increase in the global standard of living. More than 70 million people around the globe join the middle class each year.[5]

The convergence of these and other powerful forces are expected to drive up demand for energy by almost 50% by 2035.[6] It will also put intensifying pressure on other vital resources, such as water and raw materials, that has far-reaching implications on the environment.

To meet these challenges, it's clear that we need new ways of living and working. While we must be as efficient as possible with our resources today, we need to create sustainable solutions to meet the world's growing needs for tomorrow.

As the world's largest information technology (IT) company, we see unprecedented opportunities to apply the full weight of our size and scope, portfolio, best practices, and partnerships to drive gains in environmental sustainability—and turn those advances into solutions for everyone—from individuals to enterprises.

HP innovates at virtually every touchpoint of information—from the moment it's created and used to how it's shared, managed and stored. By applying technology in innovative ways to harness the power of information, we help customers optimize their use of energy and other resources; build intelligent infrastructure to make faster, better decisions; and replace outmoded systems with more productive and sustainable alternatives.

Even as we work to improve the environmental performance of our portfolio and operations, HP is taking the lead on a much bigger opportunity. Through the power of information, we are helping our customers better set priorities and weigh options; track and improve performance in real time; and apply IT in new, productive, and efficient ways.

HP environmental strategy

Our environmental strategy focuses on the ways we help customers improve their environmental performance. It has three dimensions: applying IT to optimize resource use, building intelligent infrastructure that enables more efficient management of complex systems (such as data centers, buildings, transportation networks, or utility grids), and helping businesses and individuals replace outmoded systems with more productive, sustainable alternatives.

Optimizing resources

HP is committed to applying IT to reduce waste and increase the efficiency of products, processes, and systems, beginning with our own operations.

For example, using innovative design and HP equipment, our data center in Wynyard, UK, is 40% more energy efficient than the industry average, while saving up to $4 million USD a year.

Also, HP's innovative "closed loop" ink cartridge recycling process—the first of its kind—conserves resources and reduces waste. The process combines recycled HP ink cartridge material with other material, such as recycled water bottles to create new Original HP ink cartridges.

Through leading-edge product design, we help customers save energy and conserve resources. From life cycle assessment to identifying key product impacts and improvement opportunities, we strive to enhance environmental performance from materials selection through product manufacturing, transport and use, and finally end-of-life.

HP was rated among the top environmental leaders on the *Newsweek* Green Rankings list for the second year in a row.

Building intelligent infrastructure

HP helps customers embed IT to better measure and monitor performance and make more informed decisions. Providing relevant information in real time, HP can help customers better set priorities and weigh options, encourage behavioral shifts, decrease environmental impact, and save money.

For instance, Detroit Water and Sewerage Department (DWSD) uses the HP Advanced Metering Infrastructure solution to monitor water consumption in real time. The HP-designed software and metering solution automatically extracts data from the field every five minutes, allowing DWSD to quickly identify and address problems in the system, analyze and forecast usage trends, and give customers a better picture of their water use. DWSD reported that its productivity has improved by 15%, and providing customers instant access to consumption and pricing data has encouraged conservation.

HP's Central Nervous System for the Earth (CeNSE) will further advance the way information is gathered, communicated, and analyzed. CeNSE's precise sensors are capable of measuring phenomena, such as light, temperature, and vibration with tremendous sensitivity. The data collected by these sensors are transmitted over extremely fast networks to be stored and processed by powerful HP computing systems, enabling analysis and action in real time.

Perspective: Steve Westly

Steve Westly, managing partner of The Westly Group, calls HP a leader in clean technology. Learn why.

We are working with Shell to put CeNSE into application, by developing a wireless sensing system to collect and store extremely high-resolution seismic data that are expected to help the oil company accurately assess exploration prospects, more effectively monitor producing reservoirs, save energy and resources by increasing the oil extracted from each well, and reduce environmental impact from having to drill as many exploratory wells. The companies recently announced a new onshore wireless seismic acquisition system designed to provide a clearer understanding of the earth's subsurface, thus increasing prospects for discovering greater quantities of oil and gas to meet the world's growing energy needs.

HP Energy and Sustainability

Management

In early 2011, we launched Energy and Sustainability Management (ESM) , helping customers to address sustainability and energy challenges and opportunities by measuring, planning for, and optimizing resources across the enterprise.

Driving sustainable transformation

HP is helping our customers transform IT to shift to more productive and sustainable ways of living and working. We provide solutions that can replace energy- and resource-intensive systems and processes with low-carbon alternatives that can help reduce energy use and GHG emissions, and decrease the use of raw materials, while saving money and increasing productivity.

For example, HP digital press technology can save energy and decrease waste by enabling the publishing industry to print what is needed, when it is needed. See Enabling a low-carbon economy for detail. HP Visual Collaboration, a suite of video conferencing tools and end-to-end managed services, offers the advantages of face-to-face meetings without the environmental impact of business travel.

1. [1] Energy savings calculated by comparing average 2008 HP product ENERGY STAR® TEC (typical energy consumption) value with average 2010 HP product ENERGY STAR TEC value multiplied over 2008 volume.
2. [2] As of September 2010. Many Original HP ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model over time, based on the availability of the material.
3. [3] *Total Midyear Population for the World: 1950-2050*. U.S. Census Bureau, International Data Base, www.census.gov/ipc/www/idb/worldpop.php. Accessed Feb 4, 2011.
4. [4] *2009 Revision of World Urbanization Prospects*, United Nations, http://esa.un.org/unpd/wup/Documents/WUP2009_Press-Release_Final_Rev1.pdf.
5. [5] The Expanding Middle: The Exploding World Middle Class and Falling Global Inequality. Goldman Sachs, 2008.
6. [6] International Energy Outlook 2010, U.S. Energy Information Administration.

HP Executive Environmental Advisory Council

In 2010, HP formed the Executive Environmental Advisory Council (Council), comprised of a group of high-profile business leaders who bring their unique perspective and insight on various aspects of the rapidly evolving field of environmental sustainability to the world's largest information technology (IT) company. The 12 experts, all from outside of HP, include industry, corporate, and nongovernmental leaders, as well as prominent members from academia and the venture capital community. The Council includes members from General Electric, United Parcel Service, Pacific Gas & Electric, Siemens AG, Kleiner Perkins Caufield & Byers, The University of California-Berkeley, Business for Social Responsibility, and Natural Resources Defense Council, among others.

The Council challenges HP to further its leadership in environmental sustainability by providing insights on emerging trends and critical feedback on the company's direction. The composition of the Council and meeting agendas are designed to achieve the following objectives:

- Solicit feedback and inform the direction of HP's environmental strategy.
- Deepen HP's understanding of major environmental trends, building greater capacity for strategic decision making.
- Provide thought leaders with a preview of HP research and innovation in the area of environmental sustainability.
- Reinforce sustainability among HP's most senior executives as a key business driver.

Council members provide a minimum two-year commitment under a nondisclosure agreement with HP, and convene in person every six months, with additional virtual meetings held to solicit insights and ideas from members on topics of strategic importance.

The Council met twice in 2010, each time in full-day sessions with HP senior leaders, including members of HP's Executive Team. The group discussed the company's strengths, gaps, and opportunities across the many facets of sustainability, including research in HP's Sustainable IT Ecosystem Lab, public policy, supply chain strategies, and go-to-market activities. The Council will meet again in the spring of 2011.

Energy and climate

The global demand for energy is forecast to rise nearly 50% by 2035.[1] As billions more people join the information economy, greater energy use will strain supplies, driving prices higher. This rise in energy consumption will also likely increase greenhouse gas (GHG) emissions that contribute to climate change.

Highlights

Our goal for cutting the energy use and GHG emissions from our operations by 2013, compared with 2005

Amount of electricity customers saved through 2010 using our high-volume HP desktop and notebook PC families, since 2008[3]

Demonstrated improvement in energy efficiency in our new facility in Wynyard, UK,[4] compared with the industry average data center

All of this is changing the way customers think about technology. Consumers and business leaders alike name energy efficiency as a top priority when in the market for "green" technology. At the enterprise level, adoption of energy-efficient information technology (IT) is growing as a way to reduce costs and the corporate carbon footprint while also helping to boost productivity and gain a competitive edge. Many individuals and small businesses are taking steps to minimize the energy consumed by their PCs, printers, and other devices to save money and reduce their environmental impact. These trends are picking up steam, but HP sees a larger solution to the challenge of "greening with IT"—applying technology to fundamentally change how people live, businesses operate, and the world works to use less energy and, in turn, emit less carbon over time.

Technology offers a way to advance energy-efficient solutions, help secure economic growth, and lay the groundwork for a sustainable future. As the largest IT company in the world, HP has a central role to play in addressing the world's growing energy needs—and mitigating the associated GHG emissions[2] that cause climate change.

We believe the fastest and easiest way to reduce environmental impact and save money is to help customers make the most of the energy they're using today. That starts with delivering the industry's leading energy-efficient portfolio, and HP is among the only companies with solutions for everyone from individuals to enterprises.

We're also creating solutions that help customers streamline redundant products and processes or displace inefficient practices, to save even more energy while achieving greater performance. And ultimately, to maximize energy efficiency, we're focusing on innovating solutions that help customers control consumption and dynamically match supply with demand while increasing productivity.

Energy and climate strategy

HP Energy and Sustainability

Management

In early 2011, we launched HP Energy and Sustainability Management (ESM), which helps customers optimize energy and other resource use across the enterprise.

We are working within our own business and collaborating with other organizations to optimize energy use, and reduce associated GHG emissions and resource consumption in IT product manufacturing, transport, and use (see table below). Tremendous opportunities also exist beyond the information and communications technology industry, which is

responsible for an estimated 2% of global GHG emissions. Our products and services can help reduce energy use and emissions throughout the global economy—the other 98%.

We help customers transform energy-intensive processes to become more:

- Efficient—doing more with less energy, as with our data centers, G7 servers, 87% efficient PC power supplies, and our HP LaserJet Pro P1100 Printer series
- Intelligent—providing information to improve management of processes and operations, such as the HP Advanced Metering Infrastructure solution for measuring water and electricity use and the CeNSE network of billions of nanoscale sensors, which provide real-time information on the physical environment to improve management of environmental, biological, and structural changes
- Sustainable—transforming or replacing inefficient processes to use fewer resources, such as using digital instead of analog printing and replacing business travel with virtual meetings using HP Visual Collaboration

Greenhouse gas emissions related to HP's business, 2010

Category (click on item for more detail)	2010 emissions [tonnes CO_2e]	Level of influence*	Our actions	Progress in 2010
HP operations	1,865,200	High	We manage our facilities and data centers with a goal to reduce energy consumption and purchase energy from renewable sources.	We invested more than $11 million USD in energy efficiency improvement projects to save an estimated 70 million kilowatt hours (kWh) a year. Our Wynyard (UK) data center opened with an energy-efficiency rating 40% better than the industry average. We purchased more than twice as much renewable energy as in 2009.
HP employee business travel	463,000	High	Our travel policies and HP Visual Collaboration decrease business travel.	We expanded the use of telepresence solutions to help reduce the need for business travel. We evaluate the purpose of employee travel and discourage unnecessary travel, especially for internal purposes.
Product manufacturing	3,500,000**	Medium	We work with our first-tier suppliers to report and reduce their energy use.	91% of first-tier suppliers reported estimated emissions (in 2009, the most recent year data is available). Aggregate estimated emissions in 2009 were roughly the same as 2007 despite being attributable to a higher proportion of and a 4% increase in absolute dollar spend.
Product transport	1,900,000	Medium	We optimize distribution networks and convert to lower-energy transport modes where appropriate. Improved packaging reduces waste and weight, saving shipping fuel and cutting GHG emissions.	Specific projects to improve transport efficiency reduced GHG emissions by 54,000 tonnes CO_2e. Switching transport of HP Visual Collaboration studios from air to ocean and optimizing shipping container size saved 880 tonnes CO_2e per shipment. We introduced the LaserJet Pro

				P1102, the most energy-efficient laser printer on the planet.***
Product use	Roughly an order of magnitude more than emissions from product transport	Medium	We design products, software and services that help customers to use less energy.	The HP ProLiant DL360 G7, one of several HP servers that meet the ENERGY STAR® standard, can complete over 65 times more operations per watt than our 2005 models.****
Product recycling (CO_2e avoided) *****	225,000	Medium	We offer customers a range of reuse and recycling services.	Our recycling programs recovered approximately 121,000 tonnes (266 million pounds) of products, including 70 million print cartridges.

- * Refers to the level of influence HP has on this category of emissions.
- ** 2009 is the most recent year for which this data is available.
- *** Energy consumed based on competitive TEC (typical energy consumption) measurement results found at http://www.energystar.gov/, http://www.eu-energystar.org/ and manufacturers' published data sheets for single-function mono and color laser printers as of November 2010. Individual product configuration and usage will affect power consumption.
- **** Compared with an HP ProLiant G4 Server.
- ***** According to the U.S. Environmental Protection Agency's Waste Reduction Model (WARM) Tool, CO_2e reductions from recycling are calculated per the following formula: 1.858 kg CO_2e/kg recovered electronic waste.

See Energy and climate – Operations.[5]

1. [1] http://www.eia.doe.gov/oiaf/ieo/index.html.
2. [2] Throughout this report, “greenhouse gas” or “GHG” refers to all greenhouse gases emitted by human activities, and “CO_2e” refers to “carbon dioxide equivalent,” the unit used to measure greenhouse gases. CO_2 is the main, but not the only, man-made greenhouse gas.
3. [3] Energy savings calculated by comparing average 2008 HP product ENERGY STAR® TEC (typical energy consumption) value with average 2010 HP product ENERGY STAR TEC value multiplied over 2008 volume.
4. [4] Wynyard achieves a power usage effectiveness (PUE) rating of 1.2, 40% better than the industry average (1.0 is the best possible rating). PUE is the accepted measure of data center energy efficiency.
5. [5] The World Resources Institute (WRI) defines Scope 1, 2 and 3 greenhouse gas emissions in its Greenhouse Gas Protocol.

Operations

HP is committed to making its global operations more energy efficient, seeking low-carbon energy sources where possible, and reducing employees’ business travel. These activities in turn help reduce our climate impact.

Our goal is to cut absolute greenhouse gas (GHG) emissions from our operations (not including travel) to 20% below 2005 levels by 2013. We adjust our baseline to account for acquisitions and divestitures.

In 2010, GHG emissions from our operations equaled 1.87 million tonnes of carbon dioxide equivalent (CO_2e), over 9% less than 2009. We achieved this reduction as a result of:

- Success in numerous energy-efficiency initiatives across HP, which helped to decrease overall energy use by 3% (See Energy efficiency for more information.)
- A decrease of 12,000 square meters in data center floor area, due to continued integration and consolidation of HP Enterprise Services facilities following the 2008 EDS acquisition (See Energy efficiency for more information.)
- More than doubling our renewable energy purchases (See Renewable energy for more information.)

In 2010, HP acquired several companies, including Palm and 3Com. As a result, we have restated our 2005 baseline for GHG emissions.

In addition to this section in our annual Global Citizenship Report, we also report our GHG emissions yearly through the Carbon Disclosure Project .

Energy use from operations, 2008–2010 [million kWh]

	2008	2009*	2010
Total energy use (million kWh)	4,441	4,249	4,140
Electricity use (million kWh)	3,972	3,850	3,704
Natural gas use (million kWh)	469	399	435

- * 2009 data was revised to correct incomplete reporting in 2009. This correction has been verified by a third party.

Greenhouse gas emissions from operations, 2008–2010 [tonnes CO_2e]

- (Hover over segments for detail by region)

	2008	2009	2010
Greenhouse gas emissions from operations (tonnes CO_2e)	2,165,500	2,060,300*	1,865,200

- * 2009 data was revised to correct incomplete reporting in 2009. This correction has been verified by a third party.

Sources of GHG emissions from operations

Energy use accounts for 98% of the GHG emissions generated by our operations and represents one of the largest costs of operating our facilities.

Refrigeration equipment, use of diesel for backup generators, and HP manufacturing processes generate the remaining 2% of our GHG emissions. This includes emissions from the use of perfluorocarbons (PFCs) for semiconductor manufacturing, which constituted less than 0.5% of our total GHG emissions in 2010. We have met our commitments under the United States Environmental Protection Agency-SIA PFC Emission Reduction Partnership to reduce emissions from the use of these gases with high global warming potential by 10% below our 1995 baseline. Overall we have reduced our emissions of PFCs by 87% since 1995. The small quantities now emitted are projected to remain at about this level in the foreseeable future. See the breakdown by type of PFC in the data dashboard.

Sources of GHG emissions from HP operations, 2010*

Electricity (Scope 2)**	93%
Natural gas (Scope 1)	5%
Refrigerant emissions (Scope 1)	<2%
Diesel (Scope 1)	<1%
Manufacturing emissions (Scope 1)	<1%

- * Numbers do not equal 100% due to rounding.
- ** Takes into account electricity generated from renewable energy.

About our GHG emissions data

We calculate our GHG emissions according to the GHG Protocol of the World Business Council for Sustainable Development and the World Resources Institute. In this section, we report HP's scope 1, 2, and 3 GHG emissions[1] arising from HP's operations, automotive, and air fleet, and employee business travel:

- Scope 1 emissions include those from the direct use of natural gas, diesel, refrigerants, and PFCs at operations, and from fuel used by HP's automotive and air fleet.
- Scope 2 emissions are from purchased electricity.
- Scope 3 emissions result from employee business travel by commercial airlines and rental cars. In other sections, we also report estimated scope 3 emissions from product manufacturing by suppliers, product transport, and product recycling (which has a net GHG emissions benefit).[2]

Data related to HP operations are based on our fiscal year (which ends October 31).

In 2010, we collected data from 269 sites (including all HP manufacturing sites and our largest office, warehouse, data center, and distribution sites). This accounted for 78% of our total floor space of approximately 7.3 million square meters. We extrapolated data from comparable operations, primarily data centers and office space, for the remaining 22% of floor space, unless stated otherwise.

We intend to continue to refine the process by which we collect data and calculate trends. In 2010, we began making our energy and water calculations quarterly to more accurately reflect changes to our real estate portfolio.

See a list of major operations.

1. [1] The World Resources Institute (WRI) defines scope 1, 2 and 3 greenhouse gas emissions in its Greenhouse Gas Protocol
2. [2] According to the U.S. Environmental Protection Agency's Waste Reduction Model (WARM) Tool, CO_2e reductions from recycling are calculated per the following formula: 1.858 kg CO_2e / kg recovered electronic waste.

Energy efficiency

We are in the second year of a companywide initiative to improve the energy efficiency of our operations. Energy efficiency will remain central to reducing our costs and greenhouse gas (GHG) emissions as our business—and especially our focus on data center services—grows.

Under our Global Workplace Initiative, we are streamlining our operations to use fewer sites more efficiently. Our activities include:

- Installing energy-efficient technology in offices, research labs, and data centers
- Adapting buildings to support a higher density and more mobile workforce, for example by increasing flexible workspace
- Consolidating operations—and especially data centers—into fewer, more efficient sites (see below), and decommissioning surplus office space
- Using recycled and recyclable materials in construction, and including sustainable design features in new buildings

In 2010, we invested over $11 million USD in energy-efficiency improvement projects. We anticipate that these projects will reduce our yearly energy use by approximately 70 million kWh, and save us $5.7 million USD annually. Lighting efficiency projects alone reduced our energy consumption by around 10 million kWh during 2010.

We encourage all HP employees to look for energy-efficiency opportunities at work, and to contribute daily by switching off lights and equipment when not in use.

All HP buildings in the UK (not including former EDS sites) met the Carbon Trust Standard during 2010, a certification based on reductions of carbon footprint and a company's commitment to ongoing reductions.

We are in the process of certifying our site in Shanghai, China, to the ISO 14064 GHG accounting standard, and anticipate completion during 2011.

Evaporation to save energy in Sydney

We plan to introduce an innovative, energy-efficient cooling system at our new data center in Sydney, Australia. The data center will replace four existing facilities, with construction work scheduled to begin in 2011.

Due to the favorable climate, we determined we could use evaporative cooling—instead of a more traditional and energy intensive chilled water cooling system—to maintain temperature control at the facility.

The Sydney facility will be the first HP Enterprise Services data center to use evaporative cooling, saving energy and money. With a PUE rating of 1.2, it matches the power reduction achievements of more complicated systems but at a lower installation cost and lower ongoing operation and maintenance cost.

Making data centers more efficient

HP operates over 100 client-serving data centers worldwide, in addition to our six internal data centers located in three cities in the United States. These meet the data services needs of our enterprise customers and our own internal

information technology (IT) activities, respectively.

We saw significant growth in customer demand for data services throughout 2010. This trend poses a challenge for our efforts to reduce absolute energy use and GHG emissions from operations, because data centers can consume 20 to 40 times as much energy per square meter as offices. As a result, energy efficiency and data center consolidation are becoming all the more important.

Our award-winning Wynyard data center in the UK, which opened in February 2010, demonstrates best-practice efficiency. One of the most efficient general purpose data centers in the world, it is cooled using ambient air nearly year-round, and features technology to humidify and re-circulate air as necessary to maintain constant conditions, white walls to reduce the amount of lighting needed, and a reflective roof to minimize heat absorption. Wynyard achieves a power usage effectiveness (PUE)[1] rating of 1.2, 40% better than the industry average (1.0 is the best possible rating). (See the Tech gallery for more detail.)

HP Enterprise Services is helping to shape global data center standards by participating at the board level in The Green Grid, as well as by its membership in the Site Uptime Network.

Data center consolidation

Data center consolidation helps us reduce costs, phase out older technologies, and improve service levels, while helping decrease energy use and associated GHG emissions.

In late 2009, HP Enterprise Services began a multiyear plan to reduce the number of internal and customer-facing data centers it operates worldwide, and to make the remainder more energy efficient. During 2010, consolidation enabled us to close 16 data centers and 447 computer labs and reduce floor space by around 12,000 square meters, while maintaining our presence in all the world's major regions and our ability to support customers worldwide. In turn, we estimate that this consolidation avoided 260,000 tonnes of carbon dioxide equivalent (CO_2e) emissions.

Our six internal data centers are located in or near Atlanta, Georgia, and Austin and Houston, Texas. They are the result of efforts between 2005 and 2008 to consolidate 85 data centers, helping reduce energy consumption while significantly increasing processing power. The six internal data centers are expandable to more than double their existing area, enabling us to accommodate substantial future growth. We built each of these facilities with the environment in mind, and have obtained the LEED® Gold sustainable building certification for one of them, in Hockley, near Houston. (See Sustainable building design to learn more.)

1. [1] Power usage effectiveness is the accepted measure of data center energy efficiency.

Renewable energy

Switching to renewable energy sources, in concert with energy-efficiency improvements, can reduce HP's contribution to climate change.

We purchased approximately 311 million kWh of renewable energy worldwide in 2010—more than twice the amount in 2009 and equivalent to over 8% of the overall electricity use in our facilities. This includes energy generated on-site and the renewable energy credits (RECs) we buy as part of electricity contracts in the United States. This is in addition to the renewable energy available by default in the power grid, and achieves our goal for 2012 ahead of time.

We are committed to maintaining the proportion of renewables in our energy mix through 2012. To do so, we are securing renewable energy contracts, exploring opportunities with providers of wind and solar power, and participating in green energy programs.

The following table includes renewable energy initiatives underway in 2010.

Ireland	We met 100% of our facility energy needs in the country with wind power throughout 2010.
Israel	We are expanding the photovoltaic solar power system that provides energy for the HP Indigo digital press facility at Kiryat Gat by 100kW. We expect this will bring its annual power generation capacity to 250,000 kWh by the end of 2011.
Mexico	Three sites in Guadalajara have solar water heaters for use in kitchens and restrooms. This project is expected to decrease the sites' use of electricity and gas by around 240,000 kWh annually.
United Kingdom	By the end of 2010, we upgraded our energy contracts for all major facilities (excluding small leased facilities) to source 100% renewable energy (primarily from wind). During the year, this equaled 88,000 MWh of electricity.

United States	**Palo Alto, California**—At HP Labs' research facility in Palo Alto, we launched a new rooftop solar power system that is expected to generate around 206,000 kWh of energy annually and avoid the emission of nearly 150 tonnes of CO_2e. **San Diego, California**—SunPower Corporation generates solar energy at HP's San Diego facility. Over 6,250 solar panels produce 1.7 million kWh per year, meeting over 10% of the facility's energy needs and reducing carbon dioxide equivalent (CO_2e) emissions by more than 550 tonnes annually. **Austin, Texas**—We have contracted an energy provider to supply one of our Austin data centers with 19 million kWh of wind power annually for 20 years, equivalent to 20% of that center's current energy needs. **Houston, Texas**—An on-site photovoltaic solar power system at our new Houston data center generates nearly 280,000 kWh of electricity annually. (Read more about this data center's sustainable design.)

Unfortunately, one planned solar power project—in Grenoble, France—was put on hold by energy providers in 2010 due to changes in government incentive programs.

See detail about renewable energy purchasing in the data dashboard.

Travel

We aim to reduce greenhouse gas (GHG) emissions from business travel, including commercial flights and the use of the HP air fleet and company cars. We do so by helping employees choose low-carbon forms of transport (such as rail travel instead of air), make transportation more efficient (for example by selecting smaller rental cars), or avoid travel altogether (see below). When employees book travel, we provide them with information about the emissions associated with their journey so that when multiple options are available, they can choose the one with the least environmental impact.

In some instances, air travel is unavoidable. In 2010, our employees traveled more than 1.7 billion miles by air, generating approximately 318,000 tonnes carbon dioxide equivalent (CO_2e) emissions. This represents a 49% increase in emissions compared with 2009 and a return to the levels generated in 2008. This can be attributed to more favorable business conditions compared with the previous year.

Our sales and services employees travel locally by company car. HP employee travel using the HP auto fleet generated GHG emissions of around 132,300 tonnes of CO_2e in 2010. To reduce emissions, we are working to eliminate high fuel consumption vehicles from our fleet.

Finding an alternative to travel is the best way to reduce GHG emissions and costs. HP Visual Collaboration allows us—and our customers—to have frequent, meaningful collaborations without travel. With real-time video conferencing, employees can walk down the hall for a face-to-face meeting that used to take them across continents.

See detailed travel data in the data dashboard.

Perspective: Amol Deshpande

Amol Deshpande, partner at Kleiner Perkins Caufield & Byers, talks about HP's leadership in environmental sustainability, and suggests a few ideas for how HP can do more. Read what he has to say.

Employee commuting

Although GHG emissions from employee commuting are not directly within HP's control, we offer programs designed to reduce them.

Many HP employees have the option of working outside the traditional office—at home, at customer facilities, or at shared offices where people are free to use any available desk—and often divide their work time between these locations. Allowing employees to choose where they work reduces commutes to the office and can improve efficiency and work-life balance.

In 2010, HP's facilities in Houston, Texas, won a Clean Air Action Leadership Award for the best regional telework program. The award recognizes our commitment to promote flexible and remote working, with the aim of reducing emissions from commuting. To be nominated, companies had to demonstrate that they actively promote telework, have an on-site champion who manages the program, estimate the emissions reduction associated with teleworking, and report a significant increase in the number of program participants. When employees do come to the office, we encourage them to minimize single-occupancy automobile trips by carpooling, compress their working week into fewer days, and commute by bicycle. Carpoolers can often park in designated parking spots, while most sites with bicycle commuters offer showers, bike lockers, and storage. In the United States, HP employees can purchase public transit and vanpool services through a payroll deduction with tax benefits. The program also offers an online system that makes ordering transit passes quicker and easier.

Reporting and verification

> Generally, I felt that HP management was very committed to providing accurate climate change reporting data. Bureau Veritas concludes that the information is reasonably complete and accurate in all respects ... Continual improvement in the data collection and review process was observed during the verification.

–Carol Osgood, Auditor, Bureau Veritas Certification

We commission independent auditor Bureau Veritas Certification to verify our global greenhouse gas (GHG) emissions measurements and annual reporting under the GHG measurement and reporting protocols of the World Resources Institute and World Economic Forum.

Product manufacturing

HP has long recognized the importance of energy efficiency in our own operations and in product performance. For the past three years, we have expanded this work to include suppliers' energy use. HP became the first major information technology (IT) company to publish aggregated supply chain greenhouse gas (GHG) emissions in 2008, and we have continued working with suppliers and industry bodies to improve energy management within our supplier base.

HP's strategy is to encourage transparency, accountability, and performance improvement throughout our supply chain. We want suppliers to manage energy as effectively as we do—setting targets, disclosing their performance, and engaging their own suppliers. Improving energy efficiency and increasing the use of renewable energy will help reduce their operating costs and GHG emissions.

Perspective: Ryan Schuchard

Ryan Schuchard from BSR believes HP's commitment to transparency, including the company's efforts to promote energy efficiency in its supply chain, helps it stand out as a leader in environmental sustainability. Read his comments.

China energy efficiency program

In 2010, we became the only information and communications technology (ICT) company to join a year-long pilot program engaging major suppliers in China, working with Business for Social Responsibility (BSR). The aim is to help suppliers reduce energy use, GHG emissions, and costs, as well as to measure their progress. Eight companies with 12 factories in China joined the initiative, which began by providing training in energy management. The program has helped the suppliers to develop energy improvement plans, and convenes the group every quarter to share best practices and meet with energy-efficiency experts and providers of technical and financial services. Based on the results, we will consider extending this program to more suppliers in China and other countries in the future.

Flextronics

Flextronics International provides state-of-the-art electronics manufacturing services for HP at its manufacturing site in Zhuhai, China. The company has responded to China's rigorous energy-saving policy, reducing electricity consumption in its production, lighting, and building operations.

Improvements range from simple measures, such as removing tubes from lighting panels, to technological developments including voice-activated lighting in staircases. The company has also reduced energy consumption by optimizing air compressor pressure settings.

Flextronics reported that these measures have saved the company almost 1.5 million kWh annually at the site, delivering substantial cost savings and helping to reduce GHG emissions.

Supplier programs

Several suppliers, including Flextronics (see sidebar), already have strong energy improvement programs in place, and we are working with them to identify initiatives specific to HP product manufacture.

Industry collaboration

We are working to standardize tools and methodologies to facilitate consistent, reliable, and comparable reporting among suppliers and establish a robust process throughout HP's supply chain.

HP co-chaired (until October 2010) the Environmental Sustainability Work Group of the Electronic Industry Citizenship Coalition, which has developed a tool for suppliers to report GHG emissions. In 2010, a revised version of the tool, which makes it easier for suppliers to respond while maintaining a high quality of information, helped to significantly increase the number of participants. This year, 251 suppliers responded to the Electronic Industry Citizenship Coalition request for information—more than three times the number in 2009.

HP was also a member of a working group sponsored by the World Business Council for Sustainable Development and World Resources Institute to develop a GHG reporting protocol for supply chain emissions, which fall under the category of Scope 3 emissions. The GHG Protocol Scope 3 is expected to be published in Spring 2011.

Supplier data

During the last three years, we have increased the level of engagement of first-tier suppliers, and have seen improvements in reported emissions and an increase in the number of suppliers disclosing reduction goals. Aggregate estimated emissions in 2009 (the most recent year data are available, see table) were 3.5 million tonnes of carbon dioxide equivalent (CO_2e). This is the same as we reported for 2007, despite being attributable to a higher proportion of our supplier spend, and it is also a 4% increase in absolute dollar spend covered by the data. A growing number of suppliers (representing more than three-quarters of our supplier spend in 2009) have set performance goals. Although these vary in scope and timeframe, typical targets equate to a 2–3% reduction per year in absolute emissions. In addition, more of our first-tier suppliers are estimating their suppliers' emissions.

	2007	**2008**	**2009**
Coverage [% of first-tier supplier spend captured]*	81%	86%	91%
Aggregate first-tier emissions [tonnes CO_2e]	3,500,000	4,100,000	3,500,000
% of supplier spend with reduction goals	NA	67%	76%
% of supplier spend of first-tier estimating GHG emissions of their suppliers (HP's second-tier suppliers)	NA	29%	47%

- * Percentage of first-tier spend captured refers to the percentage of first-tier suppliers for manufacturing, material, and component spend only. Emissions are estimated based on suppliers' dollar volume of HP business compared with their total revenue. The majority of these companies report on a calendar year basis, with some exceptions.

Product transport

Globally, product transport accounts for about 8% of energy-related carbon dioxide equivalent (CO_2e) emissions and the absolute amount is expected to grow over the next two decades.[1] We estimate the emissions from transporting more than a million HP products on a typical day are almost as much as those from our own operations (see Performance below) and we are committed to reducing this impact.

Most of our product transport emissions are from international airfreight, while roughly 25% are from road transport and parcel freight. Although we use ocean transport extensively, it is the least carbon-intensive mode (see table below), and we estimate it produces about 10% of our total greenhouse gas (GHG) emissions from logistics.

We are working to reduce fuel use and emissions relating to transport in the following four ways:

Influencing logistics providers

HP utilizes best-in-class logistics service providers (LSP) to transport our products. These LSPs maintain their own

programs and initiatives to help reduce their environmental impact as well as that of HP.

Our requirements for LSPs include environmental criteria such as calculating GHG emissions specific to HP's freight and developing proposals to help HP reduce emissions. We have also introduced environmental guidelines for HP warehouses,which encourage the use of zero-emission material-handling equipment, energy-efficient lighting, and no-idling policies for trucks entering and unloading at the warehouses.

In the United States and Canada, all HP products are shipped using a network composed entirely of surface transportation carriers certified by SmartWay SM , a partnership between the U.S. Environmental Protection Agency (EPA) and the U.S. surface freight industry that targets reductions in fuel consumption, GHG, and other air emissions.

Changing transport modes

Most of our computer and imaging products are assembled in Asia and transported to Europe, the Americas, and within the Asia Pacific region for sale. We typically ship these products by ocean or air to regional distribution centers, and then by truck or rail to their final destinations. We are continuing to convert some shipments from air to ocean, which reduces costs and GHG emissions because ocean shipment emissions per tonne of product are only about 1/60th of those from aircraft.[2] For example, in 2010, air to ocean conversions included notebook shipments from Asia Pacific to Europe, Latin America, and the United States, and 70% of HP Visual Collaboration products from Puerto Rico to all destinations worldwide (see more detail below). We also conducted a trial using the Trans-Siberian Railway for notebook shipments from China to Germany and the Netherlands.

HP employees making an impact:

Ann Hetherington

Ann Hetherington coordinated a team tasked with finding a more environmentally sustainable method to package and transport HP Visual Collaboration studios. The team’s efforts led to a substantial reduction in costs, materials use, and greenhouse gas (GHG) emissions. Learn more about Ann.

Optimizing distribution networks

Optimizing distribution networks decreases the distance products need to travel and therefore reduces fuel use and GHG emissions. This is one of four main aspects of a global supply chain optimization initiative started in 2010, designed to enhance, simplify, and standardize our supply chain systems and processes. We expect to decrease environmental impacts by consolidating shipments, optimizing routes, and making other improvements across our transportation supply chain. We will track and communicate related GHG emissions reductions throughout the process.

Decreasing the transport impact of HP

Visual Collaboration studios

In 2010, we introduced a new approach to shipments of our HP Visual Collaboration studio, combining packaging improvements as well as shifts in transport mode. Switching from wood crating and foam cushions to a corrugated fiber and "doughnut" cushion[3] (see photo) saved materials and reduced packaging weight substantially. Converting shipments from Puerto Rico to customers worldwide from air freight to ocean transport also saves fuel and decreases GHG emissions. We converted approximately 70% of these shipments in 2010 and plan to continually increase this number. We also use optimization software to determine whether a 20- or 40-foot ocean container is needed. Combined with converting the shipments from air to ocean, this results in average estimated savings of $7,000 USD and 880 tonnes of CO_2e per shipment.

Better utilizing pallets and containers

We save fuel in transport by increasingly using plastic pallets which are more than 70% lighter than wooden ones, reducing GHG emissions per product transported. After use, our pallet vendor reclaims the pallets from customers and reuses them if possible or sells the plastic to recyclers. The recapture rate is more than 90% for our Europe, Middle East, and Africa region, and more than 70% for the Americas.

In addition to improving pallet utilization, we continue to review and optimize the packaging of each individual product. This has yielded significant density improvements, allowing us to fit more products into the standard pallet cube volume and decreasing containers required for the same number of products.

We have also implemented the next generation of airfreight handling technology for notebook air shipments from Asia to

Europe. A process called clamp loading uses special forklifts to load notebooks on a single lightweight, low-cost foam pallet that is recycled by our freight forwarders. This allows us to stack shrink-wrapped notebooks on top of each other, avoiding the use of additional plastic pallets in between the products and enabling us to build loads to better fit specific airline configurations. Overall, we estimate this enables us to fit 11% more cargo on an airplane.

Transitioning from a wood crate to a cardboard crate saves more than 20 kilograms per crate. About 14 crates are included with each system.

Replacing one layer of a typical wooden pallet with doughnut cushions saves about 30 kilograms per crate.

Performance

In 2010, GHG emissions related to transporting our products equaled an estimated 1.9 million tonnes CO_2e. This is roughly comparable to GHG emissions from our own operations. Last year, estimated GHG emissions from product transport equaled 1.7 million tonnes CO_2e. This increase is due primarily to business growth, partially offset by specific projects in 2010 (including those described above), which reduced GHG emissions by more than 57,000 tonnes CO_2e. We have continued to enhance the GHG emissions calculation process through collaboration with our LSPs, which may have also contributed to the 2010 increase.

GHG emissions from product transport, 2010 [% by mode][4]

Mode	GHG emissions (approximate, CO_2e)	Shipment mix by weight/distance (approximate, kg/km)
Air	65%	10%
Ocean	10%	70%
Road (includes rail)	25%	20%

1. [1] The Potential of Economic Incentives to Reduce CO_2 Emissions from Goods Transport 1st International Transport Forum, Leipzig, 2008, Professor Alan McKinnon, Heriot-Watt University, Edinburgh, UK.
2. [2] According to the World Resources Institute GHG Protocol.
3. [3] According to http://skidmatesnow.com/ , air-dampened "doughnut" cushions provide maximum protection against shock and vibration with minimum size and weight—taking the place of wood skid runners.
4. [4] Does not include data from all recent HP acquisitions.

Products, services, and software use

HP Energy and Sustainability

Management

In early 2011, we launched HP Energy and Sustainability Management (ESM), a portfolio of services that help companies manage and optimize energy and other resource use across the enterprise, including their commercial facilities, data centers, operations, and supply chain.

HP helps customers save energy by improving the energy efficiency of our products, and by providing solutions that help customers manage and reduce their energy use.

We've steadily improved our products' energy efficiency since launching our Design for Environment program in 1992, and we are committed to making further progress. In 2009, we set a goal to reduce the energy consumption of our products by 40% from 2005 levels by the end of 2011. We achieved that goal nine months ahead of schedule, and today HP products are on average 50% more energy efficient than they were in 2005.

We consider energy efficiency across our entire portfolio, from the smallest devices to the largest data centers, and across product life cycle from design to end of life. We also make information about the energy use of HP products available to customers. For example, the web-based HP Carbon Footprint Calculator helps customers evaluate the energy use, estimated carbon emissions, and paper and usage costs of HP products. In 2010, we expanded the calculator to cover more than 8,000 HP and non-HP devices. The online calculator receives more than 5,000 visits per month.

Personal computers and devices

We have made substantial progress in reducing the energy use of our computing products. As a result, customers have saved 1.4 billion kilowatt hours (kWh) of electricity through 2010 due to improved energy efficiency of our high-volume HP desktop and notebook PC families, relative to 2008.[1]

Power usage of a typical HP 14" consumer notebook computer*

LCD panel	31%
Central processing unit	27%
Chipset	13%
Hard disk drive	11%
Memory	9%
Wireless LAN	9%

- * 15.7 watts total

We enable our customers to save even more energy with technologies such as HP Power Assistant. In 2010 alone, we estimate customers could have saved up to 3 billion kWh and reduced greenhouse gas (GHG) emissions by up to 1.5 million tonnes of carbon dioxide equivalent (CO_2e) by enabling these features, equal to taking almost 300,000 cars off the road for one year.

While ongoing progress is challenging at already high efficiency levels, we continue working to save customers energy. At the end of 2010, we had more than 280 HP PC and display product families with configurations that meet ENERGY STAR® 5.0 specifications, which include a requirement for 85% energy-efficient power supplies.

We have 18 desktop PCs and 48 notebooks that meet the EPEAT Gold® standard. The HP ProBook 4420s and 4421s notebooks are two examples, and they also exceed the ENERGY STAR typical energy consumption (TEC) standards by 37%. The HP t5500 series of thin client computers are the first thin clients worldwide to certify to EPEAT Gold and the entire series is ENERGY STAR qualified, also an industry first. (See the Tech gallery for more information on HP thin clients.)

The HP Compaq 6005 Pro Ultra-slim Desktop PC is another leading example. It has an 87% efficient power supply, and preinstalled HP Power Assistant[2] software can measure, record, and report energy use to IT managers.

HP employees making an impact:

Tara Agen

Every day around the world, HP helps its customers save money while reducing their environmental impact. Tara Agen created a program that helped businesses in her community do the same thing. Learn more about Tara.

Imaging and printing

HP empowers customers to make smart printing choices by providing products, services, and tools than can save energy and paper.

All new 2010 inkjet and LaserJet printer families have ENERGY STAR qualified offerings. The HP Officejet Pro 8500 Premier All-in-One is a leading example—it uses half the energy of comparable laser printers.[3]

We introduced the HP LaserJet Pro P1100 Printer series in 2010—including the HP LaserJet Pro P1102, the most energy-efficient laser printer on the planet.[4] It was the industry's first laser printer to feature HP Auto-On/Auto-Off technology, which saves customers up to 66% of operating energy by putting the printer into a mode that uses less than one watt of power when the device isn't in use. HP configures the printers to power down after a set time, which customers can adjust.

HP Instant-on Technology enables a printer to warm up in a matter of seconds from Sleep or even Off mode. HP estimates that for monochrome LaserJet products alone, Instant-on Technology helped customers avoid 1.3 million tonnes of CO_2e emissions in 2009.

Saving paper is another important way HP helps customers save energy and reduce environmental impact. According to some estimates, making 1 tonne of paper results in 1.9 tonnes of CO_2e emissions.[5] HP is enabling a shift to digital commercial printing, helping customers avoid the paper waste typical in traditional analog printing methods in applications ranging from books to advertising posters. (See Life cycle assessment and Enabling a low-carbon economy.)

HP also helps enterprise customers save paper. The HP Eco Solutions printing portfolio includes products and services such as HP Managed Print Services and HP Web Jetadmin, that help large organizations reduce their paper use, energy consumption, and overall environmental impact by improving the efficiency of their printing and imaging environments.

Servers and data centers

Data center energy use is significant and growing, driven partly by an information explosion. In 2009, the size of the digital universe was nearly 800 petabytes of data (one petabyte is a million gigabytes). By 2020, it will grow to 44 times that size.[6]

As a result, data centers are hitting limits of power and cooling capacity. Customers need to reclaim power and cooling capacity and better manage costs, which requires a more intelligent view of the entire information technology (IT) enterprise including the facilities, servers, storage, and networking.

HP helps customers look at data center energy use holistically, ranging from dynamically controlling server fan speed to optimizing power and cooling systems for the entire facility. We have applied these concepts and technologies in our own data centers such as Wynyard in the UK and those we operate on behalf of customers.

Energy-efficient data center analysis and design

HP Critical Facilities Services provides consulting, design, assurance, and implementation services for current and next generation data centers. We help customers use energy, water, and space more efficiently, considering local climate and power generation characteristics. For example, we conducted an HP Energy Efficiency Analysis of an existing data center in Tempe, Arizona, for Salt River Project, the third-largest public power utility in the United States. The analysis uncovered measures worth an estimated $53,000 in annual savings, resulting in annual energy savings of almost 700,000 kWh and a reduction of an estimated 289 tonnes of CO_2e emissions per year. (See our case study for more information.)

We have extensive capabilities in building design to align with the United States Green Building Council LEED and similar standards worldwide. Our Critical Facilities Services team has designed more than 25 LEED data centers and commercial building projects, and has worked on a task force with the U.S. government and industry to develop the paper Recommendations For Measuring and Reporting Overall Data Center Efficiency .

Modular data centers

HP is leading in the development of innovative modular data center solutions, from design to deployment. In 2010, we introduced HP Flex Data Center (FlexDC), a highly efficient modular data center solution that allows customers to add capacity as needed and reduces energy use related to power and cooling substantially compared with a traditional design. Energy efficiency is paramount in FlexDC design, beginning by selecting equipment with reduced energy consumption, including for partial-load operating conditions.

FlexDC is designed to work with the external environment, obtaining the majority of its cooling by using the local climate to absorb and dissipate the heat generated in the data center. As a result, although a typical one-megawatt data

center may use about 25 million liters of water annually for cooling, FlexDC uses no water for cooling in some climates and dramatically reduces water use in others. Although most effective in cool, dry places, this technology performs well in a range of locations.

The HP Performance Optimized Data Center (POD) can be deployed within weeks instead of the months or even years required to design, construct, and install a traditional HP data center and related IT equipment. The HP POD can ship empty or fully integrated with tested IT from an HP factory in as little as six weeks, slashing the time for data center build-out. Available in both 20-foot (6-meter) and 40-foot (12-meter) designs, HP POD is typically 20 to 40% more efficient than a traditional data center.

Energy-efficient infrastructure

HP's Converged Infrastructure integrates facility resources as well as servers, network devices, and storage, allowing facilities and IT managers to work together to save energy. Sharing a common, comprehensive view of data-center power and cooling enables new levels of energy efficiency and cost savings, matching computing provision to customer needs and maximizing equipment utilization.

HP Data Center Smart Grid

HP Data Center Smart Grid is a key element of the HP Converged Infrastructure, designed to maximize energy efficiency from platforms to rack to virtualization to cloud environments. It delivers the most performance per watt, and deploys an energy-aware infrastructure to optimize workload placement.

Key HP Data Center Smart Grid technologies include:

- **HP Thermal Logic** Our portfolio of energy-efficiency enhancing technologies embedded throughout our server product lines.
- **Sea of Sensors** A network of sensors used to collect, monitor, and communicate thousands of power and cooling measurements across the data center, enabling customers to visualize energy use and make adjustments in real time.
- **HP Intelligent Power Discovery (IPD)** The first technology to create an automated, energy-aware network between IT systems and facilities. Combining HP Intelligent Power Distribution Unit, HP Platinum power supplies (rated among the most efficient in the industry with a power efficiency of at least 94%) and HP Insight Control software, IPD tracks new server installation and provides higher precision, control, and automation to power distribution This helps reduce human error and downtime, allowing companies to reclaim wasted power capacity and downtime costs across data centers.
- **HP Insight Management** A central management console that allows IT professionals to deploy servers quickly, make power consumption more effective, and conduct effective capacity planning to get more out of infrastructure.

These technologies and capabilities are implemented across our entire line of servers, networking and connectivity equipment, and storage devices.

Servers

HP ProLiant G7 servers include Thermal Logic technology and other innovative features to reduce power consumption dramatically relative to work performed. The HP ProLiant DL360 G7, one of several HP servers that meet the ENERGY STAR standard, can complete over 65 times more operations per watt than 2005 HP models.[7]

Networking and connectivity

HP Virtual Connect FlexFabric consolidates data and storage connections, eliminating up to 95% of related infrastructure hardware and reducing power consumption by up to 40%. HP Networking technology allows customers to run applications in a switch, reducing the equipment and power needed.

Storage

Storage accounts for an estimated 37% of typical energy use in data centers. Our portfolio of highly efficient solutions helps meet the needs of cloud computing and the era of big data.

The HP StorageWorks Enterprise Virtual Array (EVA), 3PAR, and P4000 feature virtualization and thin storage technologies, and can reduce capacity requirements by 50%.[8] HP StoreOnce innovations eliminate duplication and can cut archive needs by up to 95%.[9] Autonomic management and data features reduce overhead by up to 90%,[10] and converged storage platforms cut power and cooling requirements by 50% or more.[11]

Software

HP software products also can help customers identify ways to cut costs and save energy by reducing unneeded computing and storage capacity.

- HP Performance Center helps customers analyze and validate the performance of applications against business requirements. It simulates resource requirements for new applications and identifies inefficiencies to better help customers avoid unneeded capacity and use energy efficiently.
- HP TRIM document and records management software helps customers efficiently manage storage requirements. It provides secure storage while helping customers dispose of redundant data that is unnecessarily taking up space and using energy.
- HP Business Service Automation works in conjunction with data center hardware to dynamically adjust capacity, switching off equipment when it is not needed.
- HP Integrated Archiving Platform is a secure, highly scalable archive for emails and files. It reduces customers' operational storage requirements and associated energy use by consolidating data into a low-cost central location.
- ArcSight Logger Universal Log Management compresses files to a 10:1 rate and archives them to a storage area network, reducing required storage space.
- Utilizing HP "software-as-a-service" (SaaS) decreases power consumption by distributing multiple customers across shared applications and/or infrastructure. By offering remote access to software via the Internet, SaaS also reduces the need for travel by enabling telecommuting and remote IT support. Additionally, accessing SaaS solutions through a browser reduces the need to upgrade to more powerful PCs.

1. [1] Energy savings calculated by comparing average 2008 HP product ENERGY STAR® TEC (typical energy consumption) value with average 2010 HP product ENERGY STAR TEC value multiplied over 2008 volume.
2. [2] Power Assistant requires a system with Microsoft Windows.
3. [3] Cost-per-page (CPP) and energy-savings claims are based, as of June 2008, on the majority of color laser all-in-ones costing less than $600 when using HP Officejet Pro products with high-capacity cartridges. Energy use is also based on the manufacturers' stated power consumption when printing. Test methods may vary.
4. [4] Energy consumed based on competitive TEC measurement results found at http://www.energystar.gov/ , http://www.eu-energystar.org/ , and manufacturers' published data sheets for single-function mono and color laser printers as of April 2010. Individual product configuration and usage will affect power consumption.
5. [5] Printing and Writing Papers: Life Cycle Assessment Summary Report, American Forest and Paper Association, January 3, 2011.
6. [6] IDC: The digital universe decade, http://www.emc.com/collateral/demos/microsites/idc-digital-universe/iview.htm .
7. [7] Compared with an HP ProLiant G4 Server.
8. [8] Based on documented experiences and business results of HP 3PAR Utility Storage in client deployments.
9. [9] Based on a 20:1 deduplication ratio.
10. [10] Based on documented experiences and business results of HP 3PAR Utility Storage in client deployments.
11. [11] Exchange 2010 Planning and Deployment Analysis, The Tolly Group, February 2010.

Enabling a low-carbon economy

Making the most of the energy we are using today is the fastest and most effective way to make an immediate impact in reducing carbon emissions. At the same time, we must fundamentally change how the world lives and works, replacing our inefficient, resource-heavy ways with more productive, sustainable alternatives. The use of technology can play a pivotal role on both counts.

Information and communications technology accounts for about 2% of the world's greenhouse gas (GHG) emissions.[1] While HP and our industry must continually work to reduce our carbon footprint, the larger opportunity lies in using the unique power of technology to reduce the other 98% of GHG emissions.

HP has a two-pronged approach. First, we are helping everyone from consumers to enterprises lower their energy consumption and reduce costs with a leading portfolio of energy-efficient information technology (IT) equipment.

The larger, longer-term solution is to use IT to transform the global economy through systemic change. HP is applying technology to replace outmoded, inefficient processes and behaviors with more sustainable alternatives, and also to provide technology solutions for managing the emerging low-carbon economy.

Addressing the impact of IT

Choosing energy-efficient technology from HP is helping customers cut energy consumption by more than half compared with products introduced just a few years ago. For example, the HP EliteBook 8440p Notebook PC consumes less than half the energy of an average 2005 notebook.[2] In the data center, HP ProLiant G7 servers deliver powerful computing performance while reducing energy consumption. If 10,000 servers from 2005 were recycled and refreshed with the HP DL360 G7 in an average data center, customers could reduce their energy consumption by nearly 19 million kWh per year and avoid the associated emissions of 9,600 tonnes of CO_2e. That's equivalent to taking more than 1,800 cars off the road for one year.[3]

HP is also innovating solutions that help customers control energy consumption. Technology that measures and manages energy use in real time is among the keys to reducing the consumption of energy while increasing productivity. For example, HP Data Center Smart Grid is helping enterprises see and control energy use across the data center, helping to reduce power consumption, expenses, and their carbon footprint. Smart Grid technology collects and communicates thousands of measurements across IT systems and facilities. Its system of interconnected sensors detect when power is being wasted, and allows IT managers to make adjustments in real time.

For more information about the energy efficiency of HP products, see Product use.

HP Energy and Sustainability

Management

In early 2011, we launched HP Energy and Sustainability Management (ESM), a portfolio of services to help transform processes and business models to increase resource efficiency.

Reducing energy use and GHG emissions throughout the global economy

HP is proactively working to help decrease the 98% of GHG emissions not caused by information and communications technology (ICT). A recent study identified ways that ICT can lead to emissions reductions, and estimated possible savings equivalent to five times the size of the sector's own footprint—up to 7.8 billion tonnes of CO_2e per year. This is equal to 15% of total worldwide emissions by 2020 compared with current "business as usual" projections.[4]

HP collaborates with many organizations to achieve our goals and to examine the potential for IT to enable GHG emissions reductions in several sectors and applications.

We also provide innovative applications of technology that are fundamentally changing how people live, businesses operate, and the way the world works.

Build intelligent infrastructure

Much of the legacy infrastructure of agriculture, construction, manufacturing, transportation, and other industries was not designed to conserve energy or scale effectively.

HP is working to embed IT into the world's built infrastructure, to monitor environmental conditions, align supply with demand in real time, and reduce waste and inefficiency.

For example, the Detroit Water and Sewerage Department (DWSD) is using HP's advanced metering infrastructure (AMI) solution to monitor water consumption in real time. HP designed software and metering solutions to automatically extract data from the field every five minutes, allowing DWSD to quickly identify and address problems in the system, analyze and forecast usage trends, and give customers a better picture of their water use. DWSD's productivity has improved by 15%, and providing customers instant access to consumption and pricing data encourages conservation.

HP's Central Nervous System for the Earth (CeNSE) is an IT ecosystem that senses, collects, sends, and analyzes information about the world's infrastructure in real time. CeNSE is another instance of how HP is helping customers use IT to guide research, help manage systems, reduce waste, and anticipate and respond to issues. HP is working with the major oil company Shell to put CeNSE into application, by producing a groundbreaking solution to sense, collect, and store geophysical data. The system is designed to integrate with Shell's high-performance computing and seismic imaging environment, and will vastly improve the quality of seismic data and help the company reduce the environmental impact of its exploratory operations.

For more information, see Environmental sustainability, and the Tech gallery.

Drive sustainable transformation

Beyond enhancing the ability of existing systems to reduce energy needs, sustainability also requires transformation of behaviors, systems, processes, and business models. We are using IT to drive this transformation, by replacing outmoded systems with more productive and innovative alternatives.

HP employees making an impact:

Ann Hetherington

Ann Hetherington coordinated a team tasked with finding a more environmentally sustainable method to package and transport HP Visual Collaboration studios. The team's efforts led to a substantial reduction in costs, materials use, and greenhouse gas (GHG) emissions. Learn more about Ann.

HP Visual Collaboration

Consider that travel to business meetings—especially air travel—results in extensive GHG emissions. For example, one round trip from New York to London for one person produces nearly 1250 kg (2750 pounds) of CO_2e.

HP Visual Collaboration, a suite of video conferencing tools and managed services, offers all the advantages of face-to-face meetings without the environmental impact of business travel. In 2010, we completed a portfolio of solutions from studios to room-based and desktop systems. The new software-based solutions make visual collaboration accessible to more users, and deliver high-definition video experiences with no need for a special room. In 2010, we estimate the use of HP Visual Collaboration avoided more than 70,000 tonnes of CO_2e emissions that would have been generated had the meetings taken place in person.[5] See the Tech gallery for more detail.

Digital commercial print and publishing

Conventional commercial printing of books, newspapers, magazines, and marketing materials typically results in high levels of overproduction and waste. This is mainly because large-scale traditional printing presses involve time-consuming setup and startup wastes, and therefore require longer print runs to achieve a low cost per page. As a consequence, publishers typically produce large batches based on anticipated sales, often resulting in overproduction.

For example, 20 to 30% of printed collateral is discarded before use due to obsolescence and waste,[6] up to 30% of book stock is never sold,[7] and up to 11% of newsprint is wasted.[8] Print-on-demand with digital press technology can reduce much of this waste because it enables the industry to print what is needed, when it is needed. It also allows for personalization and targeted content, which increase user satisfaction[9] and save paper by not printing pages that are not of interest to the reader.

Saving paper can reduce GHG emissions, because paper manufacture and transport represent an estimated 70% of the life cycle GHG emissions for typical large-scale print applications. We estimate that digital printing can save as much as 30% of the GHG emissions relative to traditional analog methods. (See Life cycle assessment to learn more.) Overall, the global shift to digital commercial printing, which currently represents only a small portion of total overall printing, has the potential to decrease annual GHG emissions by 114 million to 251 million tonnes of CO_2e by 2020.[10] This is roughly equivalent to the estimated potential savings that could be realized worldwide through either automating lighting or extensive use of telecommuting.[11]

HP provides a range of commercial digital printing products and services, including the following:

- Full-color, high-speed production printing, with products such as the HP T300 Color Inkjet Web Press (see Tech gallery)
- Sheet-fed printing for high-quality documents and publications, using the HP Indigo 7000 digital press
- Flatbed printing for applications, such as point-of-sale material and posters—for example, with the HP Scitex FB7500, a cloud-based, on-demand magazine published with MagCloud (see Tech gallery)
- Photo printing with the HP Photosmart ml1000d Minilab, which replaces traditional silver halide systems (see Tech gallery)

1. [1] SMART 2020: Enabling the low carbon economy in the information age, page 17.
2. [2] 2005 energy use estimated using HP technology and per EPA typical energy consumption (TEC) per Energy Star.
3. [3] This analysis compares the energy consumption of comparable HP products in 2005 with our latest models for each category of products. Even with conservative assumptions, you can see that the savings are notable. Estimations of the energy consumption of 2005 products were done by using worldwide IDC shipped volumes, HP products, U.S. Environmental Protection Agency's ENERGY STAR® program (www.energystar.gov) product averages, and the typical energy consumption (TEC) method. The energy costs are based on U.S. Department of

Energy data (http://www.eia.doe.gov/), and actual results may vary. We used the following products for this analysis: HP Deskjet 3050, HP LaserJet CP1215, HP LaserJet CP1025, HP Compaq 8200 Elite, HP Compaq 2310, HP Compaq 8000f Elite, HP Compaq LE19 monitor, HP Storage EVA, HP ProBook 6550b, HP G60t Series Notebook, HP TouchSmart[610] PC, HP ProLiant DL380 G4 and G6 servers, and the HP ProLiant DL360 G7 server.

4. [4]SMART 2020: Enabling the low carbon economy in the information age, page 6.
5. [5] For air travel avoidance, an average of 1609 miles each way per round trip (average of short, medium, and long-haul flights at HP), and a CO_2 footprint per mile of 199g CO_2e (http://www.cleanairconservancy.org/) is used. Car travel to/from airport on both ends is also considered. Of the 35% of meetings that avoid travel, only 1.4 persons are assumed to avoid travel in each meeting. Usage depends on a company's travel and meeting policies.
6. [6] PODI.
7. [7] PIRA 2007.
8. [8] Newspaper Association of America.
9. [9] CapV May 2003.
10. [10]Reducing the Greenhouse Gas Emissions of Commercial Print with Digital Technologies, page 4.
11. [11] See note 10, page 6.

Collaboration

Effectively addressing energy use and climate change requires collaboration across many organizations, due to the breadth and complexity of these issues.

Working with governments, nongovernmental organizations (NGOs), and other technology companies, HP advocates action on energy and climate policies to improve energy efficiency and reduce greenhouse gas (GHG) emissions throughout the global economy.

We also work with experts to improve our own performance and to develop industry standards. In 2010, we established the HP Executive Environmental Advisory Council, which consists of 12 prominent business, academic, and NGO thought leaders. It is chartered to review, assess, and help shape HP's strategy and action on the many aspects of environmental sustainability.

See more detail on our work in this area with World Wildlife Fund and others in Stakeholder engagement.

Public policy work

HP believes governments and businesses must meet the challenges of climate change with ingenuity, including collaboration on frameworks that leverage information technology (IT) to make GHG emissions reduction targets achievable and economically feasible.

We participated in COP16, the United Nations climate change conference in Cancun in 2010, demonstrating our support for international action to minimize the risks of serious environmental, economic, and social impact. The Mexican government, which hosted COP16, chose HP energy-efficient solutions for the conference's IT needs.

We support government efforts to reduce GHG emissions and regulations that foster innovation in this area, such as the California Global Warming Solutions Act. (See Public policy.)

HP also continues to work with customers, governments, NGOs, and investors to tackle climate change. We help develop white papers that explore ways to use technology to drive the low-carbon economy, and we address climate change and other environmental issues through engagement in regional and global organizations such as The Climate Group , Combat Climate Change , The International Climate Change Partnership , the Pew Center on Global Climate Change , and World Wildlife Fund (WWF).

Perspective: Aron Cramer

President and CEO of BSR, Aron Cramer, thinks that HP is playing a crucial role in developing solutions for a more sustainable future. Read what he has to say.

Industry collaboration

We also work closely with other IT companies in industry and other organizations to advance energy efficiency and climate protection. Examples include the following:

Energy efficiency

- Green Grid Association , a nonprofit global consortium focused on improving data center energy efficiency. HP is a founding board member and worked on a joint taskforce with U.S. government agencies and others to develop recommendations for measuring and reporting data center efficiency
- Climate Savers Computing Initiative (CSCI),which brings together businesses, consumers, and conservation organizations striving to produce more energy-efficient PCs and servers. HP is a board member.

External standards

- EPEAT®, which sets product environmental standards for IT equipment. HP participated in developing the standard that is the basis for the Electronic Products Environmental Assessment Tool (EPEAT) for desktop computers, notebooks, and monitors. We have also participated in the development of EPEAT standards for printers, to be launched in 2011. HP is a member of the EPEAT Board of Advisors, a 12-member, multistakeholder advisory board to the EPEAT program administrators.
- International Organization for Standardization (ISO), which develops international standards including several for environmental performance. HP is working on technical committees developing both product and print media carbon footprint standards, which will provide a common approach to measuring climate change impacts.
- World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). HP contributed to the GHG reporting protocol for supply chain emissions.

Printing

- Digital Print Deinking Alliance (DPDA), through which manufacturers of inkjet digital production printers jointly fund research on inkjet print compatibility with deinking and paper recycling processes. The DPDA published the first in a series of research studies in 2010 testing deinkability in a typical European mixed-grade waste paper recycling system.
- Sustainable Green Printing Partnership, a nonprofit organization that works to make the print and graphic communications industry in North America more sustainable, and which offers a sustainability certification program to print service providers.

Life cycle assessment

- MIT is leading a consortium of industry, academic, governmental, and nongovernmental organizations to develop a credible, transparent, and open methodology for estimating the carbon footprint of IT products. HP has contributed to the development of the first methodology, which is for notebooks. We continue to contribute to the ongoing second phase of the initiative, which focuses on desktops, monitors, and televisions. See Life cycle assessment.
- The Sustainability Consortium, an organization jointly administered by the University of Arizona and University of Arkansas, comprises diverse global participants who work collaboratively to build a scientific foundation that drives innovation to improve consumer product sustainability through all stages of a product's life cycle. HP is former board member and currently an active participant in the electronics sector working group.
- The International Organization for Standardization (ISO) is developing a carbon footprint standard, and HP has been a contributor.
- As a member of the U.S. technical advisory group to ISO/IEC JTC1 SC28, HP is contributing to the development of ISO/IEC 29142-3, an international standard to provide definitions and guidance for use in the development of print cartridge green procurement criteria, environmental standards, and environmental labels. This standard is expected to be published in 2012.

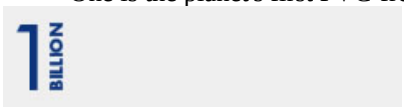
HP belongs to industry associations in our major product and geographic markets. HP's positions on public policy issues, including those related to environmental sustainability, are often communicated through these organizations. Learn more.

Sustainable design

The hundreds of millions of HP products in use worldwide collectively represent HP’s largest impact on sustainability. We continually challenge ourselves to improve the environmental performance of our products throughout their life cycle, as well as design solutions that support digital transformation to a low-carbon economy. Our goal is improved environmental performance, enhanced productivity and entertainment, and lower total cost of ownership for customers. We also design our products and website with consideration of the varied physical capabilities of our customers. (See accessibility.)

Highlights in 2010

At the end of 2010, 100% of all new HP notebook products are BFR- and PVC-free.[1] The HP ENVY[100] e-All-in-One is the planet's first PVC-free printer.[2]



Number of HP ink cartridges containing post-consumer recycled plastic[3] (800 million of which were manufactured with recycled plastic from the HP "closed loop" process, which uses plastic from returned cartridges and plastic bottles to make new cartridges).

Weight of packaging material saved by using our award-winning ClearView packaging.

Environmental issues have been integral to our research and development programs since the early 1990s, and we launched our Design for Environment (DfE) program in 1992. DfE is central to our design strategy and helps us meet increasing customer demand for improved environmental performance. More than 50 environmental product stewards globally work with design teams to decrease the impact of our products across their life cycles—including materials and energy used in manufacture, packaging and distribution, energy and resources (such as paper) consumed during use, and materials recovery at end of life.

Eco-labels

HP participates in a number of eco-label programs, including Electronic Product Environmental Assessment Tool (EPEAT®), ENERGY STAR®, China's Energy Conservation Project, Germany's Blue Angel, and Taiwan Green Mark. As of October 2010, HP is the only company with EPEAT Gold registered thin client computers, and we have the most U.S.-registered EPEAT desktop workstations in the industry (as of April 2011). We offer EPEAT registered products in 38 countries worldwide (as of November 2010).

Contributing to industry standards to enhance environmental performance

We regularly collaborate with other organizations to develop industry standards that encourage innovation, optimize environmental performance, and make it easier for customers to choose products that can help them reduce their impact on the environment. HP's participation in standards development in 2010 included:

- Contributing to development of the EPEAT standard for imaging products, launching in 2011. Previously, HP also helped develop the EPEAT standards for desktop computers, notebooks, and monitors.
- Working with the International Organization for Standardization (ISO) to develop a carbon footprint standard for print media.
- Contributing to the development of ISO/IEC 29142-3, an international standard to provide definitions and guidance for use in the development of print cartridge green procurement criteria, environmental standards, and environmental labels (expected to be published in 2012).

- Collaborating with the U.S. Green Building Council on the new Leadership in Energy and Environmental Design (LEED) Data Center standard.
- Participating in a U.S. government-led taskforce to develop recommendations for measuring data center efficiency.
- Assisting in the development of a new data center energy assessment certification program under the U.S. Department of Energy.
- Collaborating with the Green Grid in the development of new data center standards and protocols.
- Contributing to the development of the Greenhouse Gas Protocol Initiative's Product Life Cycle Accounting and Reporting Standard.
- Working with the International Electronics Manufacturing Initiative (iNEMI) Eco-Impact Evaluator Project for ICT Equipment to develop a simple way to determine the main life cycle environmental impacts and improvement opportunities for information and communications technology products. (See Life cycle assessment for more detail.)
- Collaborating with several universities, including Arizona State and MIT, as well as other organizations, in the Product Attribute to Impact Algorithm (PAIA) project, to identify and analyze the processes and components that contribute to the carbon footprint of a notebook PC. (See Life cycle assessment for more detail.)

Managing environmental performance

Our environmental product stewards engage design teams across the company to integrate environmental considerations and parameters into the product development process. Carefully designed metrics play an essential role in guiding design, enhancing the performance of HP products, measuring progress, setting appropriate goals, and communicating benefits to customers and other stakeholders. One example is our Product Environmental Metrics initiative for imaging and printing products. These cover life cycle energy consumption and carbon footprint, including materials processing, product manufacture and use, and ease of recovery or recycling. Learn more.

Recycling terms

Recycling Products are diverted from the waste stream via available processes and programs, and are collected, processed, and returned to use in the form of raw materials or products.

Recycled content Proportion of recycled material in a product or package.

Recycled material Material that has been reprocessed from recovered (or reclaimed) material by means of a manufacturing process and made into a final product or into a component for incorporation into a product.

Design for recyclability

Our objective is to design HP products to be increasingly easier to recycle, using common fasteners and snap-in features and avoiding the use of glues, adhesives, and welds where feasible. This makes it easier to dismantle products and to separate and identify different plastics. For example, new HP notebooks are more than 90% recyclable by weight on average,[4] and HP workstations and DC series desktop products have a tool-less chassis for easy upgrade and recycling at end of life.

Materials selection can further enhance recyclability. For example, in 2010 we launched several products free of brominated flame retardants (BFRs) and polyvinyl chloride (PVC),[1] and our entire notebook line is now mercury-free.

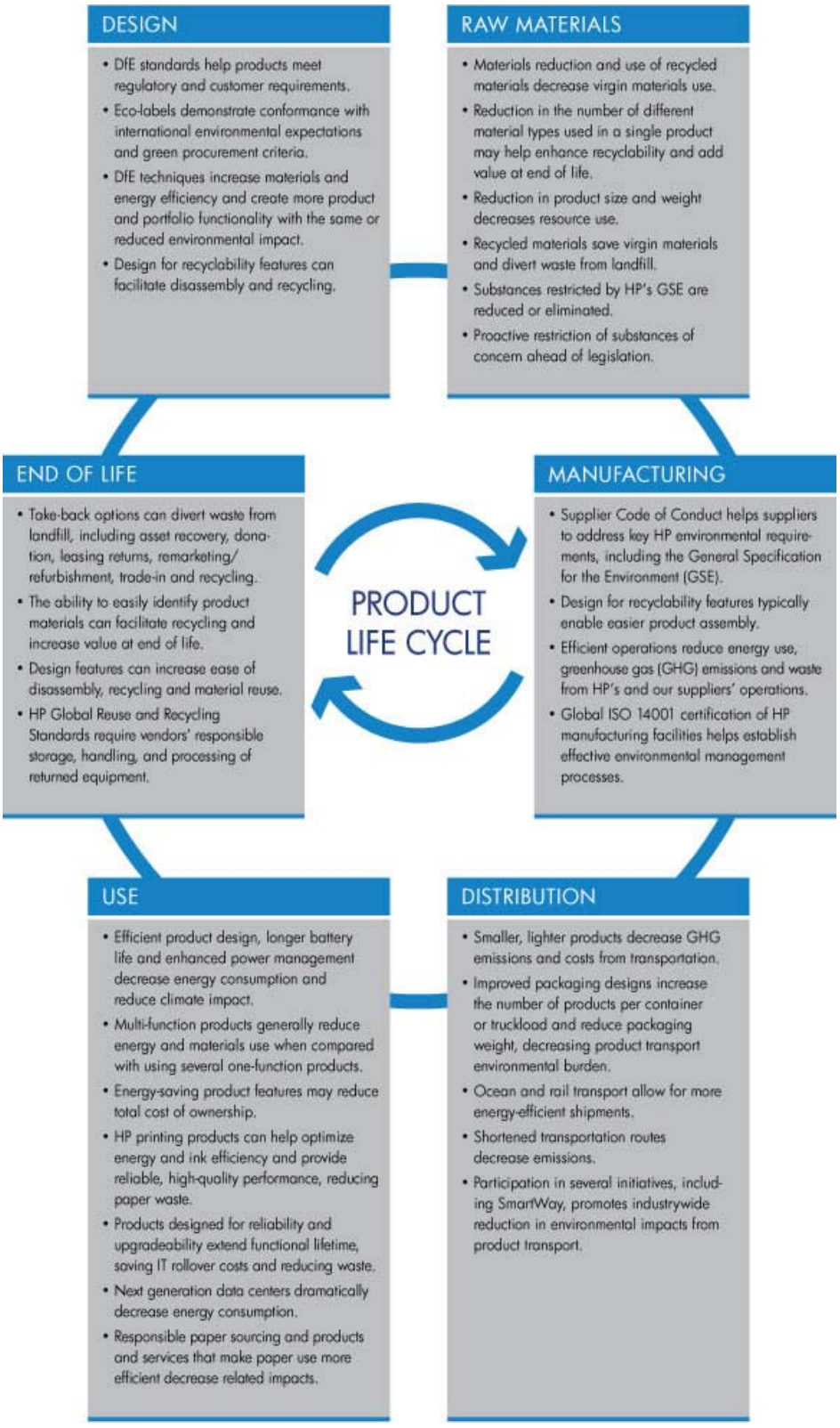
Paper use represents a significant environmental impact of printing, and recycling paper can save energy as well as the pulp required for making virgin material. Recyclers need to be able to remove ink on used paper to produce high-grade recycled pulp. We have a comprehensive “de-inking" research and development program to ensure that the growing volumes of paper printed digitally can continue to be a valuable part of the waste stream for recyclers. We have developed new and improved inks, demonstrated the enhanced deinkability of HP ColorLok® paper, and continued collaborating with major paper recyclers on de-inking research.

In 2010, we:

- Announced technical collaborations with AbitibiBowater, Stora Enso, and UPM, expanding on our existing partnership with NewPage Corporation. These companies are the largest de-inkers in Europe and North America and we are working together to examine aspects of ink, paper, and the deinking process to improve deinkability.
- Launched a new and improved HP Color Inkjet Web Press ink with enhanced de-inking characteristics.
- Identified aspects of paper design and pulp grades that improve deinkability in office and commercial printing.
- Published and presented data on improved deinkability of prototype inks for the HP inkjet web press at the Technical Association of the Pulp and Paper Industry (TAPPI) PEERS conference.
- Published data showing enhancement in deinkability due to use of HP ColorLok office papers.
- Conducted a large-scale pilot to test more responsible use of chemicals during the de-inking process itself, and published the results for the benefit of the paper industry.

See www.hp.com/go/deinking for more information.

Reducing environmental impacts across the product life cycle



Accessibility and aging

HP strives to create products, services, and information that are accessible to everyone, including people with disabilities or seniors with age-related limitations. HP's commitment is reflected in our:

- Product and website design process
- Partnerships with assistive technology vendors
- Education of employees about accessibility regulations and best practices
- Participation in efforts to update accessibility standards around the world, such as the refresh of U.S. Section 508.

Our product design teams explore ways to enhance accessibility, productivity, and user comfort. Accessibility features on HP products may include buttons identifiable by touch, ports and switches positioned within easy reach, and large adjustable displays. Product examples include dual-hinge widescreen monitors that can be lowered closer to the desk surface for bi-focal, tri-focal, or progressive lens wearers, and the Senior PC, which is configured to provide seniors easy access to e-mail and the Internet.

During 2010, we migrated our customer support from Teletype (TTY) to Telecommunications Relay Service (TRS), Video Relay Service (VRS), and Web Captioned Telephone. These new technologies provide enhanced support to customers who are deaf or hard of hearing.

See our HP Accessibility website for extensive additional information.

1. [1] Meeting the evolving definition of BFR/PVC-free as set forth in the "iNEMI Position Statement on the Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free)." Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). Power supply and power cords are not BFR/PVC-free. Service parts after purchase may not be BFR/PVC-free. WWAN is not BFR/PVC-free.
2. [2] HP ENVY^{100} e-All-in-One is polyvinyl chloride-free (PVC-free); meeting the evolving definition of PVC-free as set forth in the "iNEMI Position Statement on the Definition of Low-Halogen Electronics (BFR/CFR/PVC-free)." Plastic parts contain <1000 ppm (0.1%) of chlorine [if the CI source is from CFRs or PVC or PVC copolymers]. Printers sold in Korea are not PVC-free. USB cable, required in limited geographic areas, is not PVC-free.
3. [3] As of September 2010. Many Original HP ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model over time, based on the availability of the material.
4. [4] Calculated using HP's Recyclability Assessment Tool.

Research and development

Research and development (R&D) at HP focuses on creating the next generation of technology products and services, including those that promote sustainability, while creating value for HP and its customers.

HP Labs is our central research organization, complementing R&D that occurs throughout our business groups. It aims to:

- Create new technologies, as evidenced through intellectual property (IP) generation in the form of publications and patents.
- Ensure our innovations reach customers through technology transfer to existing HP businesses, new business creation, and IP licensing.
- Lead and work with others in the technology community through an open-innovation approach.

Sustainability is one of eight primary areas of HP's research strategy and is a consideration in all HP Labs' activities (see graphic). It is the focus of our Sustainable Ecosystems Research Group (SERG). In 2010 Chandrakant Patel, director of SERG, was promoted to the level of HP senior fellow. As one of the most senior technology experts within the company, he directs a team of researchers focused on creating new technologies, information technology (IT) infrastructures, and business models for the low-carbon economy.

HP Labs research areas

We made significant advances to incorporate the principles of sustainability in developing IT in 2010, including in the following areas:

HP employees making an impact:

Chandrakant Patel

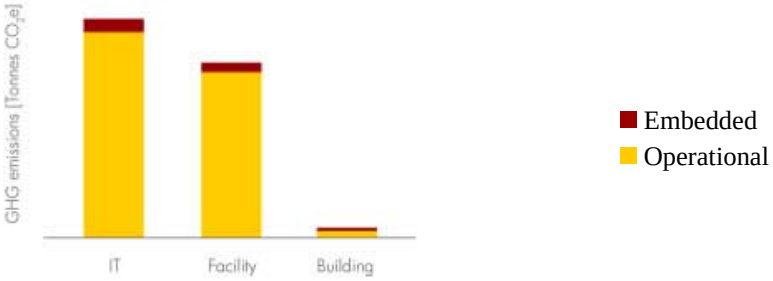
Chandrakant Patel is an HP senior fellow and director of the Sustainable Ecosystems Research Group at HP Labs. His vision for building a more sustainable world has helped make HP a leader in energy-efficient computing. Learn more about Chandrakant.

Sustainable data center design

Our objective is to develop a "net zero energy" facility, or a facility that uses renewable technologies to offset all of the energy it needs over its entire life cycle—from equipment manufacture to operation, disposal, and reclamation. In 2010, we used our internally developed Ecosystem Sustainability Assessment Tool to study a customer's data center life cycle GHG emissions. We found that:

- For this data center, operations constituted the bulk of its life cycle GHG emissions, so the greatest reduction opportunities involved IT and making energy efficiency improvements to facility infrastructure (see graph). See Products, services, and software use for examples of how we are addressing these opportunities.
- The IT equipment itself—which is replaced every few years—was the largest contributor to the data center's embedded GHG emissions. Embedded emissions are those associated with raw materials extraction, manufacture and transport of new equipment, and construction of the data center building and facilities.

Total greenhouse gas emissions across the data center life cycle (estimated)



- * “IT infrastructure” refers to the compute, storage, and networking equipment within the data center. “Facility” refers to the power delivery and cooling infrastructure required to support the data center. “Building” includes the shell of the data center itself as well as lighting loads.

We also use demonstration data centers to advance our research. For example, our Palo Alto, California, Sustainable Data Center facility can receive power from multiple sources, including photovoltaic cells. We are developing an end-to-end management system that improves efficiency by dynamically allocating IT, power, and cooling resources based on

demand, while automatically selecting more sustainable power and cooling options (such as outside air) when possible while maintaining required service levels.

Further research focuses on the use of alternative energy to reduce data center GHG emissions. In May 2010, we published a research paper that explains how waste from a farm of 10,000 dairy cows could generate enough methane to power a medium-sized data center, while heat generated by the data center could in turn increase the efficiency of the methane production process.

HP Home Energy Manager

HP Home Energy Manager includes an intuitive user interface that allows a home owner to view energy usage data alongside other resources, like natural gas and water.

We are developing a tool that we envision will one day enable home owners to better understand, manage, and reduce their energy and water use via a wireless network of sensors that continually feed information about resource use into a cloud-based system with a simple control panel user interface.

In 2010, we piloted HP Home Energy Manager in seven test homes, and collected more than 20 million sensor readings. This information is helping our research team to refine analytical methods to assess resource usage both holistically and at the level of individual devices. In addition to the home control panel, we are also developing a system that will enable utilities to use information collected to more effectively monitor and manage resources at the scale of cities.

Sustainable IT Ecosystems: enabling next-generation cities

We are researching the role of IT innovations in the cities of the future. As an example, we have explored the benefits that IT can bring to the design and efficient operation of municipal water and energy management systems. Improvements are urgently needed. In the United States alone, the amount of water leaked from homes could exceed 4 trillion liters a year (equivalent to the annual water use of Chicago, Los Angeles, and Miami combined),[1] while large-scale energy-efficiency measures could save $1.2 trillion USD a year.[2] In July 2010, we published a white paper on this topic that builds on our 2009 investigations into what a future city—which we call City 2.0—might look like.

Our approach to enabling the resource-efficient City 2.0 vision is based on a series of steps:

- Mapping the different parts of a city, to understand how they interconnect and how their life cycles overlap. Our multi-sector model predicts how material, energy, and water use within one sector of the economy may influence those aspects in other sectors, to minimize inefficiency and waste across the value chain. The farm-waste powered data center described above is an example.
- Designing city-wide infrastructure with flexible microgrids that can adapt to changing needs. For example, water transport requires energy, and traditional power plants require water, but both have seasonal fluctuations in demand. In some cases, enabling a network of regional water sources alongside localized renewable power sources may reduce energy used in transporting water—especially during off-peak periods.
- Establishing a network of sensors that provides a snapshot of the infrastructure's state at any point in time. As an

illustration, we use sensors to monitor energy use within data centers. Similar technology can be used in other types of facilities, including office buildings and manufacturing plants.
- Developing tools to analyze the vast volume of data that the sensor network will generate. For example, the HP Home Energy Manager described above uses advanced data mining algorithms to evaluate the millions of data points provided from sensors within the home, and we are evaluating similar techniques to make oil exploration more effective.
- After identifying trends, manipulating the infrastructure to make it more efficient and cost-effective. Based on insights gained from analytic tools, processes to minimize resource consumption can be identified. As an example, we have demonstrated automated control to minimize energy use within data centers.

Visit HP Labs for more information about innovation for the environment, in the areas described above as well as others, such as memristor, flexible displays, energy-efficient microchips, and nanotechnology.

1. [1] Source: U.S. Environmental Protection Agency, http://www.epa.gov/WaterSense/pubs/fixleak.html
2. [2] Source: McKinsey Global Energy and Materials, *Unlocking Energy Efficiency in the U.S. Economy*, http://www.mckinsey.com/clientservice/electricpowernaturalgas/downloads/US_energy_efficiency_full_report.pdf

Countering the counterfeiters with SPIEGEL

Imagine taking antibiotics to treat an infection, only to learn that the dose is insufficient, leaving you immune to the drug. Or unknowingly feeding your baby formula laced with dangerous chemicals. Events such as these are not unheard of, as counterfeiters produce increasingly convincing fakes. The World Economic Forum estimates that illegal drugs and fake products each represent roughly 8% of world trade.

Many industries are affected. We know that counterfeiters have created substantial amounts of fake HP products, diverting revenue from our business and damaging our reputation. To address this, experts in HP's Printing and Content Delivery Lab are working on a project called SPIEGEL (Secure Printing and Imaging Engineering Geared Toward Enterprise Lifecycle). SPIEGEL combines HP technologies including printing and imaging, content transformation, analytics, and cloud computing to identify and remove counterfeit products from the market.

Here's how. Every product carries printed information such as a barcode or label. Advances in printing technology make it easy to customize this information and harder for counterfeiters to copy it. Items can now be traced from point of origin throughout the supply chain.

Printing technologies are just the first step. HP uses forensic imaging hardware and analytical software to check unique printed information at various points in the supply chain, verify authentic products, and spot counterfeits. We then work with local authorities to remove the fakes. While we developed the technology to identify counterfeit HP products, we now also help customers monitor their own supply chains.

The SPIEGEL team continues to develop new uses for this innovative technology, such as streamlining food and product recalls to remove compromised products from the shelves as quickly as possible, and improving the security of online document storage. In Nigeria and Ghana, we have teamed up with a nonprofit organization called mPedigree and other organizations to provide a mobile phone-based medicine authentication system. (Learn more in Social innovation – Health.) This system enables patients to confirm that their medication is genuine when they purchase it, using only a basic mobile phone.

These efforts contribute to our broader goal of ensuring a seamless, transparent, secure, and traceable chain of information from the physical, printed world into the digital realm and back again.

Life cycle assessment

Life cycle assessment (LCA) analyses have helped HP to improve our product designs and processes, and we continue to use LCA to help us better evaluate life cycle environmental impacts. For example, based on LCA results as well as potential savings, we have improved the material yield and lowered the energy and water use over time in our cartridge recycling process by disassembling cartridges instead of shredding them.

LCA evaluates hundreds or even thousands of material and process flows, across life cycle stages from materials extraction, manufacturing, and transport to product use (including energy consumption, supplies, and media) and end-of-life management. This approach helps us understand the complexity of product environmental impacts and consider an extensive set of environmental issues, such as potential greenhouse gas (GHG) emissions and natural resource depletion.

Specifically, LCA enables us to:

- Model and assess material, packaging, and technology choices to help reduce environmental impact.
- Develop tools to estimate product GHG emissions.
- Assess which processes, components, and materials contribute the most significant environmental impacts and prioritize these for reduction.
- Develop metrics that help product designers compare alternative design options.
- Support design for recycling.

HP has applied LCA thinking and tools in our design process for more than a decade, as well as published several LCAs focused on print cartridges since 1996. We provide the HP Carbon Footprint Calculator for PCs and printers that enable users to compare the estimated GHG emissions from energy consumption during product use. However, the energy consumption and GHG emissions from the use phase are only part of the total impact. Therefore, during the last two years we have participated in the development of product carbon footprinting methodology for the information and communications technology (ICT) industry to advance our understanding of GHG emissions across the entire life cycle. (See below.)

Perspective: Randolph Kirchain

and Elsa Olivetti

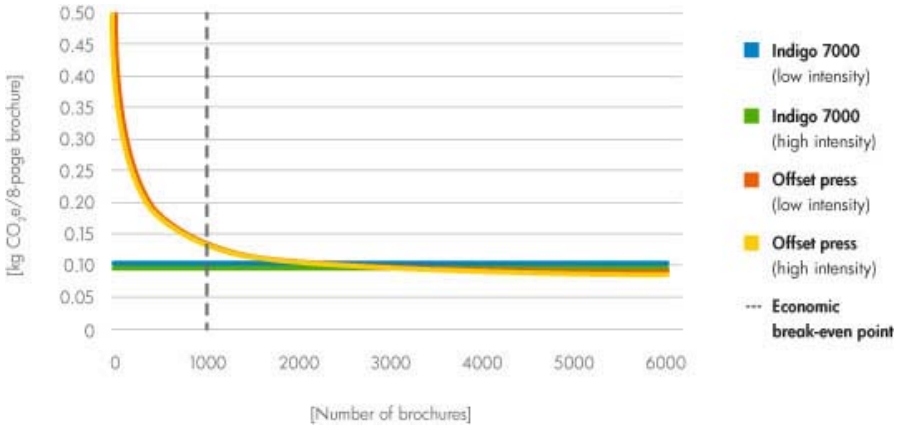
According to Randolph Kirchain and Elsa Olivetti from the Materials Systems Laboratory at the Massachusetts Institute of Technology, HP is a leader in developing efficient, convergent approaches to the life cycle assessment of IT. Read what they have to say.

LCA for printing technologies

In 2010, we carried out or commissioned several LCAs on imaging and printing products and print cartridge recycling:

- **Digital vs. offset printing** At the economic break-even point of just under 1000 brochures (where the overall cost of each process is the same), printing an eight-page, letter-sized, double-sided brochure on an HP Indigo 7000 Digital Press can result in a reduction of up to 30% in potential GHG emissions compared with products that use offset printing technology. The Indigo press demonstrated lower potential emissions when printing up to 3000 brochures (see graph).[1]

Relationship of carbon dioxide equivalent (CO_2e) emissions to printing volume



- **Digital vs. offset book publishing** Taking into account both manufacturing and distribution, a shift from offset book printing to digital printing can reduce the potential life cycle carbon footprint by up to 20% for a high-volume "best-seller" title, and up to 25% for a lower-volume "classic" title. The results are driven by a reduction in waste due to lower over-printing rates of books with the print-on-demand capability of digital printing.
- **Digital retail photo finishing vs. silver halide** In Europe, HP digital retail photo finishing products were found to perform better than the traditional silver halide products described in the study on 9 of the 12 indicators measured—most notably, energy use and carbon footprint. HP products in this category used up to 26% less energy over the lifetime of the HP product, with an estimated carbon footprint that is up to 33% smaller. For the other three indicators, the impacts of the HP products and the silver halide products described in the study were found to be equivalent.
- **High-density polyethylene (HDPE) banner vs. PVC for outdoor uses, such as billboards** HP HDPE products reduce the life cycle carbon footprint of banner printing by up to two-thirds.[2]
- **Recycled vs. virgin plastic used in manufacturing Original HP ink cartridges** The recycled plastic used in HP ink cartridges produced beginning in 2010 is estimated to reduce total water used in plastics production by up to

89%, compared with production of virgin plastic. And it has an estimated carbon footprint up to 33% smaller than the virgin plastic used in Original HP ink cartridges—even when accounting for the impact associated with collecting, transporting, and processing used cartridges and plastic bottles.[3]

We plan to carry out several additional LCAs on HP printers in 2011.

Developing processes for transparent LCA

Making product carbon footprinting results useful for our customers requires a universally accepted methodology based on open, transparent, and internationally recognized standards. We are working with other industry leaders and third-party organizations to develop such standards and methodologies to assess broader supply chain GHG emissions and estimate product carbon footprints related to information technology (IT) equipment, as well as to develop a customer-relevant product environmental reporting scheme.

To help customers understand the environmental impacts of the products they are purchasing, HP is collaborating with retailers, manufacturers, academia, governments, and nongovernmental organizations (NGOs) through The Sustainability Consortium (TSC) to understand the total life cycle environmental impacts of our products. Throughout 2010, TSC researched and documented the environmental impacts of notebook PCs. In 2011, the TSC team will expand this research to include other electronic products. Using life cycle environmental impacts, including those documented by TSC, HP is working with industry, retailers, and others to develop and pilot a consumer-facing reporting scheme initially for notebooks, then expanding to desktops, monitors, and eventually smartphones and printers.

We are also collaborating with several universities, including Arizona State and MIT, as well as other organizations, to identify and analyze the processes and components that contribute to the carbon footprint of a notebook PC. The purpose of the project, known as Product Attribute to Impact Algorithm (PAIA), is to develop a credible, transparent, and streamlined methodology for estimating the carbon footprint of IT products—initially for notebooks, and ultimately for all computing products. We plan to extend the methodology to our printing and imaging products as well.

HP also contributed to and worked with the following initiatives and organizations in 2010:

- A carbon footprint standard being developed through the International Organization for Standardization (ISO).
- GHG protocol standard development for the Product Life Cycle Accounting and Reporting Standard (see http://www.ghgprotocol.org/ for more information).
- The International Electronics Manufacturing Initiative (iNEMI) Eco-Impact Evaluator for ICT Equipment Project. This project provided a simplified means of determining the key environmental impacts and improvement opportunities of ICT products across the life cycle, and plans to develop a simplified tool for use by designers.

1. [1] A specialist consultancy conducted this analysis and independent experts provided critical review.
2. [2] Calculation by the HP IPG Environmental Technology Platform Team (and confirmed by an independent environmental life cycle assessment firm), based on the activities associated with the manufacturing of the product, and comparing 180 g/m2 (5.5-ounce) HP HDPE Reinforced Banner with 440 g/m2 (13-ounce) HP Outdoor Frontlit Scrim Banner using the Swiss Centre for Life Cycle Inventories ecoinvent 2.0 database and model IPCC 2007 version 1.01; primarily for the category of PVC/PET/HDPE, and measuring materials extraction, transportation to the manufacturing site, and GHG emissions generated during manufacturing.
3. [3] A 2010 life cycle assessment (LCA) performed by Four Elements Consulting, LLC and commissioned by HP. The study compared the environmental impact of using polyethylene terephthalate (PET) plastic with the environmental impact of using recycled polyethylene terephthalate (RPET) plastic to manufacture new Original HP cartridges.

Materials

Our materials choices affect the environmental performance of HP products, and we have a long history of improving product materials use (see the timeline). We focus on:

- Evaluating substances of concern
- Assessing alternative materials
- Supporting relevant government regulations
- Designing products that use less materials
- Using recycled materials

Evaluating substances of concern

HP has taken a proactive approach to evaluating materials that pose an environmental, health, or safety risk. We may restrict substances because of customer preferences, legal requirements, or because we believe it is appropriate based on a precautionary approach. We strive to replace legally permitted materials when scientific data has established a potential health or environmental risk, and when less risky, commercially viable alternatives are available.

We are working to better understand the materials used in our products so we can identify more appropriate alternatives. A typical notebook contains more than 100 substances, many in very small amounts (see graph).

Substances in a typical HP BFR- and PVC-free* notebook PC**

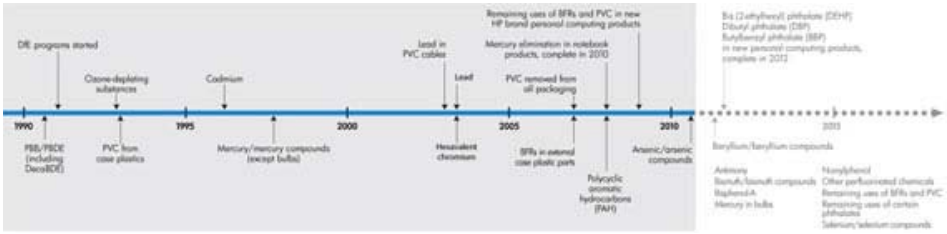
PC/ABS (plastic)	25.3%
Stainless steel	9.5%
Copper	8.3%
Aluminum	7.8%
Lithium compounds	7.5%
Glass	7.1%
PET/PBT plastic	6.8%
Carbon	3.2%
Organic solvents	2.8%
Flame retarded epoxy	2.6%
Polyethylene plastic	2.5%
Silicon dioxide	2.4%
ABS plastic	1.9%
Iron	1.9%
Nickel	1.1%
Low level additions (<1% of each)	9.2% total

- * Meeting the evolving definition of 'BFR/PVC-free' as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen' Electronics '(BFR/CFR/PVC-Free)'." Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%).
- ** Graphic is based on literature research and component based studies and not actual test results of a notebook. Weight and component composition is representative of a midsized notebook of approximately 2 kg. This analysis does not include the power supply and power cord. Data do not add up to 100% due to rounding.

We continue to remove substances of concern from our products. For example, we began using arsenic-free[1] display glass as of August 2010, and have tightened restrictions on mercury and beryllium. In 2010, we met our target to remove mercury in backlighting from HP's entire notebook line.

The timeline shows when HP proactively restricted substances, and identifies substances that HP is considering for restriction.

HP product proactive materials restriction/substitution timeline*



» Download timeline

- * Dates refer to when proactively adopted materials restrictions were first introduced on an HP product, eliminating that material ahead of regulatory requirements. Materials in gray text beyond 2010 have been identified by stakeholders as potential materials of concern. Future possible restriction of those materials depends, in part, on the qualification of acceptable alternative materials. For a comprehensive list of HP's materials restrictions, including numerous materials restricted by HP on a worldwide basis in response to regional regulations, refer to

HP's General Specification for the Environment.

Phasing out BFRs and PVC

At the end of 2010, 100% of all new HP notebook products and many other newly introduced personal computing products are BFR and PVC-free.[2] HP intends to complete our goal to phase out BFR and PVC where technically feasible in the few remaining new desktop and monitor PC products as market demand and customer expectations permit.

Examples of BFR- and PVC-free HP products include:

- The HP All-in-One^{200} PC, the first HP consumer desktop to contain some BFR-and PVC-free components[3]
- The HP EliteBook 8440p,[2] which also features a mercury-free LED-backlit display and won *LAPTOP Magazine's* Green Choice Awards 2010, All-Purpose Notebook (see case study)
- HP EliteBook and ProBook notebooks[2] and the HP Compaq 6005 Pro Ultra-slim Desktop (USDT) PC[4]
- HP 2310e LED consumer display, which also includes mercury-free LED backlights[3]
- The HP Compaq LE19f and LA22f widescreen LCD commercial monitors[3] are HP's first to feature a mercury-free WLED low-power-consumption backlit panel

Palm products, such as Pre and Pixi and the new Palm Pre 2, are also PVC-free. Additionally, in 2010, we introduced the HP ENVY^{100} e-All-in-One, the planet's first PVC-free printer.[5]

HP HDPE (high-density polyethylene) Reinforced Banner is a tough, lightweight alternative to PVC banner material. It is designed to stay vibrant and intact under the harshest outdoor conditions—with a carbon footprint up to 66% smaller than commonly used PVC fabric. (See case study.)

Perspective: Richard Liroff

Richard Liroff, executive director of Investor Environmental Health Network, talks about HP's pioneering adoption of "The Green Screen," an open-source tool that can help identify safer materials with decreased environmental impact for use in IT products. Read what he has to say.

Assessing alternative materials

To replace materials that may pose environmental or health hazards, it is necessary to find appropriate alternatives. However, many suppliers have found it difficult to identify alternatives for substances, such as brominated flame retardants (BFRs) and polyvinyl chloride (PVC), that are available at sufficient volumes and equivalent quality.

We work with suppliers to identify alternatives, and use the Green Screen[6] in our analysis of some replacement materials. Using Green Screen, we assess individual components of a formulation to obtain a simple one to four benchmark score. The benchmark scoring system enables engineers to quickly and easily evaluate the human health and environmental impacts of the substance. Since the pilot program began in 2007, we have performed more than 100 chemical assessments.

We identified potential replacements for PVC in power cords by first seeking information from manufacturers about their new PVC-free materials. HP conducted mandatory Green Screen training for formulators of PVC-free power cords, and the formulators performed assessments on alternative materials. Piloting the Green Screen on these formulations, we have identified alternatives to PVC with improved scores, including some that meet the criteria for power cords in some applications. We continue to pilot the Green Screen to assess other material classes, including structural plastics and soldering cleaning agents.

We are championing wider acceptance of the Green Screen within our industry, the environmental nongovernmental organization (NGO) community, and regulatory bodies. HP is working with Clean Production Action, the Lowell Center for Sustainable Production, and other partners to create an external repository for independently reviewed assessments that will be accessible to the entire electronics supply chain, researchers, and regulators to identify replacement materials with improved benchmark scores. This project is currently assessing alternatives to phthalates.

We would like to make the use of the Green Screen common practice for our partners and competitors, to select better materials from the beginning of the design process. Additionally, HP chairs the following projects of the International Electronics Manufacturing Initiative (iNEMI):

- Pb-free alloy characterization, evaluating second-generation lead-free solder alloys
- Test TIG, which leads efforts including the Board Flexure Standardization Project to develop standard methodologies to qualify the mechanical reliability of lead-free printed circuit assemblies

Supporting relevant government regulations

We communicate materials restrictions to our design teams and to our manufacturing suppliers through our General Specification for the Environment (GSE). The GSE is integrated into our product development process and into supplier contracts.

We use active verification to help ensure our specifications are applied to our products. In 2010, we introduced the HP Active Verification Material Testing Specification, which contractually requires suppliers to test parts for the presence of select restricted substances.

HP is fully compliant with materials regulations, and in some cases we go beyond compliance. In fact, we were one of the first companies to apply the initial European Union (EU) Restriction of Hazardous Substances (RoHS) directive materials restrictions to our products worldwide. We support global harmonization of materials restrictions to accelerate achievement of the environmental benefits. HP has contributed to the development of related legislation in Europe and China.

We believe that legislation such as the RoHS directive plays an important role in promoting industry-wide elimination of potentially hazardous substances. We have supported the inclusion of additional substances in the revision of the directive, and believe other substances should be restricted in future RoHS legislation, including PVC and BFRs in electrical and electronic products. (See our compliance statement.)

Our goal is to apply the EU RoHS 2 substance and exemption requirements voluntarily outside the EU (and European Free Trade Association) on a worldwide basis within six months of each of the EU's various legal compliance dates for virtually all HP-branded products in the scope of EU RoHS 2, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

We comply with the Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH) legislation in the EU. Compliance includes the registration and tracking of specific substances that exceed European Chemicals Agency thresholds. We continuously meet all applicable requirements including providing customers with product information as needed. To accomplish this, extensive supplier engagement occurs for gathering information on listed substances that may be in material provided to HP. With industry and government, we are working to improve the process that fulfils the goals of REACH.

Compliance also covers sourcing, including possible sourcing from conflict zones, especially for tin, tantalum, tungsten, and gold from the Democratic Republic of Congo (DRC) or adjoining countries.

Designing products that use less materials

HP saves materials through innovations in technology and product design and by delivering software and services that help customers use less paper.

Nanotechnology

We believe nanotechnology holds promise for electronics applications in the long term, and we have researched this area since 1995. Our labs have led research in the areas of nanoarchitectectonics, nanoelectronics, nanomechanics, and nanophotonics. HP recognizes that since the properties of matter depend on size and shape at the nanoscale, consideration of potential health and safety issues of nanostructured materials must be an integral part of any research program that seeks to bring such materials to market. (Also see HP's U.S. federal issue brief on this topic.)

Product design

- HP Thin Client computers (including packaging) are less than one-third the weight of a traditional HP desktop PC due to a significantly smaller size (See Tech gallery.)
- HP Officejet Pro printers generate up to 80% less supplies waste by weight when compared with competitive color laser printers[7]

Services and software

- Managed Print Services and HP Smart Print (which allows you to print only the sections of a webpage you want) save paper
- Digital printing of books, photos, and advertising banners achieve substantial material savings compared with analog printing (see Life cycle assessment studies)

Using recycled materials

HP continues to expand the use of recycled materials in our products. In 2010, we achieved our goal a year early to use a cumulative 100 million pounds (45,000 tonnes) of recycled plastic in our printing products, since 2007.

We also reached a milestone in 2010 by producing 1 billion HP ink cartridges containing post-consumer-recycled plastic.[8] Eight-hundred million of those cartridges were manufactured with recycled plastic from the HP “closed loop” ink cartridge recycling process, which uses plastic from returned cartridges to make new ones. (See how HP defines "recycled materials" and related terms.) HP was the first company to recycle old cartridge plastic in this way. We estimate this has kept 1.46 billion items out of landfill, including 1.3 billion plastic bottles and 160 million ink cartridges. Using recycled plastic instead of new plastic in Original HP cartridges is currently reducing fossil fuel use associated with HP cartridge manufacture, transport, and recycling by up to 62%.[9] (See case study.)

In 2010, we launched the EliteBook 2540p, our first notebook computer with more than 10% recycled plastic. (See case study.) The HP Deskjet 3050 printer (see case study) has the highest ever recycled content of any of our printers, with 35% recycled plastic.

1. [1] Arsenic and its compounds were not detected using U.S. EPA test methods 3052/6010b by ICP-AES.
2. [2] Meeting the evolving definition of ‘BFR/PVC-free’ as set forth in the “iNEMI Position Statement on the ‘Definition of Low-Halogen’ Electronics ‘(BFR/CFR/PVC-Free)’.” Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). Service parts after purchase may not be BFR/PVC free. WWAN is not BFR/PVC free. Power supply and power cords are not BFR/PVC free.
3. [3] Meeting the evolving definition of ‘BFR/PVC-free’ as set forth in the “iNEMI Position Statement on the ‘Definition of Low-Halogen’ Electronics ‘(BFR/CFR/PVC-Free)’.” Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). Service parts after purchase may not be BFR/PVC free. Power supply and power cords are not BFR/PVC free.
4. [4] Meeting the evolving definition of ‘BFR/PVC-free’ as set forth in the “iNEMI Position Statement on the ‘Definition of Low-Halogen’ Electronics ‘(BFR/CFR/PVC-Free)’.” Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). Service parts after purchase may not be BFR/PVC free.
5. [5] HP ENVY100 e-All-in-One is polyvinyl chloride-free (PVC free); meeting the evolving definition of PVC free as set forth in the iNEMI Position Statement on the Definition of "Low-Halogen Electronics" (BFR-/CFR-/PVC-free). Plastic parts contain <1000 ppm (0.1%) of chlorine [if the CI source is from CFRs or PVC or PVC copolymers]. Printers sold in Korea are not PVC free. USB cable, required in limited geographic areas, is not PVC free.
6. [6] Green Screen is a hazard-based assessment framework developed by the non-governmental organization Clean Production Action.
7. [7] Compared with the majority of color laser AiOs <$600, March 2010. Calculation compares weight of supplies and cartridge packaging needed for the same amount of pages based on ISO yield and continuous printing.
8. [8] As of September 2010. Many Original HP ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model over time, based on the availability of the material.
9. [9] Based on a 2010 life cycle assessment (LCA) performed by Four Elements Consulting and commissioned by HP. The study compared the environmental impact of using polyethylene terephthalate plastic (PET) with the environmental impact of using recycled polyethylene terephthalate plastic to manufacture new Original HP cartridges. See www.hp.com/go/RecycledPlasticsLCA for more details.

Packaging

A product's packaging can constitute a significant portion of its overall environmental footprint. We design packaging that cost-effectively helps to protect our products while reducing the environmental impacts associated with the raw materials used, production, transportation, and recycling or disposal of the packaging.

Designing packaging is complex and, to be effective, solutions must be tailored to each product. A product's size, weight, and durability influence the packaging materials that can be used and, in turn, the product and its packaging influence the environmental footprint of transportation. (Read more about product transport.)

HP's guidelines for third-party packaging vendors balance factors such as the availability, quantity, type, and recyclability of materials, as well as product transport methods. Our General Specification for the Environment (GSE) includes requirements on restricted substances and other substances of concern.

In 2010, we launched a new environmental strategy for packaging, consisting of the six dimensions described below. (See Data and goals dashboard for associated goals.)

Remove

We strive to eliminate the use of substances of concern when alternatives with lower impact are readily available. We began to phase out PVC in packaging in 2007, and completed this process for virtually all packaging in 2010. (See related information regarding products in the Materials section.)

Reduce

We increasingly work with third-party partners to reduce the amount of packaging used per product, while maintaining adequate protection of the products. We either stipulate that packaging cannot be more than twice the volume of the product it contains or require that local legal standards on packaging minimization are applied where they exist. This helps reduce the volume of materials used and packaging waste, and enhances the efficiency of product transport.

In 2010, HP took the following measures:

- We avoided the use of approximately 320 tonnes of packaging material by using our award-winning ClearView packaging to ship high-end printers. ClearView protects products using foam supports and a widely recyclable film wrapper, reducing packaging volume and decreasing weight by up to 70% compared with traditional corrugated cardboard and foam packaging (see photo).
- By removing polythene bags from HP Photosmart and Deskjet printer lines, we avoided enough plastic to cover 300 football fields.
- We introduced new packaging for the Palm Pre 2, which reduced packaging volume by 20%.

Customer demand for all-in-one products, such as the HP Compaq 6000 All-in-One PC, can also drive reductions in materials use and waste, while also helping to reduce shipping costs. We ship these products in one box, compared with traditional systems that require two boxes to transport a separate PC and monitor.

We have also reduced the amount of paper delivered with products, such as warranties and manuals. (See Paper for more information.)

Reuse

We design packaging to enable reuse where feasible, while providing sufficient protection for our products. For example, several HP products—including all HP Deskjet and Photosmart printers—are packed in reusable bags made from recycled plastic bottles (see photo). When feasible and where possible, we reduce overall environmental impact. We also return corrugated fiberboard trays to manufacturers after they have been used for bulk shipping products to retailers.

Recycle

We are working to increase the proportion of recycled content in all HP packaging materials, from the current average level of approximately 65%. The level of recycled content varies widely by region and by packaging material, so the minimum global level for a particular product type may be somewhat lower, while the proportion for some products, such as notebooks, is higher.

Where possible, we reduce our overall environmental impact. We are shifting from plastic packaging to paper, and molded pulp packaging that contains recycled content and/or has been certified according to a sustainable forest management standard. For many products—including some notebook and desktop computers, printers, and accessories—we use molded pulp made from post-consumer recycled and industrial paper waste, instead of expanded polystyrene.

Sometimes, plastic packaging may actually decrease environmental impact. For example, in some situations, molded pulp packaging would need to be significantly larger or heavier to provide a similar level of protection. In those cases, such as for large desktop PCs, we are increasingly using expanded polystyrene foam cushions that contain recycled plastic. All foam cushions used to package HP commercial desktops shipped in North America are made from 100% recycled material, and we are working to increase our use of recycled plastic material worldwide.

We have also replaced the 100% virgin fiber in retail packaging for HP consumer photo paper with 100% recycled fiber that contain a minimum of 35% post-consumer recycled content (with the balance being post-industrial recycled content).

Replace

Expanded polyethylene and molded pulp cushions

We are working to substitute packaging that is difficult to recycle with more easily recyclable materials. This is often combined with a move towards increased use of recycled materials. For example, we substitute recycled and recyclable molded pulp for plastic cushions (see photo), and switch to expanded polystyrene or expanded polyethylene foam cushions made from 100% recycled content.

Influence

As a major purchaser of packaging materials, HP uses its influence to encourage packaging vendors to develop materials that have a reduced environmental impact, such as molded cushions made from fungi, bamboo, and rice plants. This is important because our packaging strategy depends on a reliable and plentiful supply of responsibly sourced, recyclable, and recycled materials—the availability of sufficient amounts of such materials is currently a limitation given our product volume.

Under our broader Environmentally Preferable Paper Policy, we are working with packaging vendors to increase the use of recycled fiber content and sustainably harvested fiber in our paper-based packaging.

Paper

As a market leader in digital printing, HP is committed to sourcing and using paper responsibly. We sell paper and use it in our own offices, and we also produce manuals, product warranties, marketing materials, and paper-based packaging. HP digital-printing products can help customers use paper more effectively than traditional printing methods, using less paper overall and reducing paper waste.

Our Environmentally Preferable Paper Policy details HP's principles for buying, selling, and using paper and paper-based packaging. We aim to increasingly source paper from suppliers who demonstrate responsible forestry and manufacturing practices, reduce the paper we use in our operations, and recycle paper when possible.

HP engages with the World Wildlife Fund (WWF) and other organizations to share best practices. We benefit from the WWF's technical expertise and are members of its Global Forest and Trade Network (GFTN), a partnership that will help us achieve our responsible paper-sourcing goals. We have also provided financial support for GFTN forestry projects in Indonesia, which help to combat illegal logging and teach local communities about responsible forest management

Responsible paper sourcing and sales

We sell more than 280,000 tonnes of HP-branded printer and copier paper annually. We know the source of the pulp used to make all HP-branded papers, and are confident that it has been legally and responsibly produced. Furthermore, most HP-branded paper already contains a percentage of fiber that either comes from post-consumer recycled sources or is certified as sustainable by third-party organizations, including Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), and Programme for the Endorsement of Forest Certification (PEFC) (see table), and we are actively working to increase these percentages.

Under our collaboration with the GFTN, we have committed to progressively increase the amount of certified and post-consumer waste fiber used in HP-branded paper. We encourage our suppliers to become certified and emphasize that our preference is FSC certification, since this standard is seen as the leading one by many of our stakeholders.

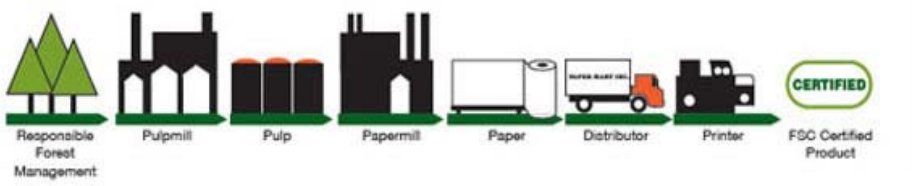
Our initial goal is for at least 40% of HP-branded paper to be FSC certified and/or have more than 30% post-consumer content by the end of 2011. We are on track to meet this target and have made progress: in 2010, 14% of the HP-branded paper we used or sold achieved these criteria—more than five times the amount in 2008.

HP-branded paper sustainability credentials

HP-branded paper	Markets	Sustainability credentials
Everyday Papers	North America	Certified by Forest Stewardship Council (FSC) and/or Sustainable Forestry Initiative (SFI); 30% post-consumer recycled grade
	Asia Pacific	
	Latin America	Certified by the Programme for the Endorsement of Forest Certification (PEFC); in Europe several papers also carry the EU Eco-label, and some contain FSC-certified pulp
	Europe (most Everyday Papers)	
Photo Papers	All regions	One-hundred percent of photo papers sold contains pulp from sustainable forest-certified suppliers
	All regions (except China)	Everyday Photo Paper is FSC chain-of-custody certified (see below)
Glossy specialty papers	North America	FSC chain-of-custody certified glossy papers include: • HP inkjet brochure, trifold brochure, and flyer paper • HP LaserJet presentation and trifold brochure paper • HP professional laser paper and laser photo paper
Matte specialty papers	North America	PEFC chain-of-custody certified matte papers include: • HP inkjet brochure, trifold brochure, flyer, and premium presentation paper • HP professional laser photo paper

Our Everyday Photo Paper was the first HP photo paper to achieve FSC "chain of custody" (CoC) certification (SCS-COC-002255), demonstrating that its fiber originates from a forest that is responsibly managed in accordance with FSC principles and criteria. FSC CoC analysis tracks material through the production process—from the forest to the

consumer, including all successive stages of processing, transformation, manufacturing, and distribution (see graphic). We have now also achieved FSC CoC certification for HP professional laser photo paper and several other specialty papers (see table), and are working towards certification for other HP papers.



To achieve our responsible paper-sourcing commitments, we assess and work to improve the environmental performance of our paper supply chain, and monitor the sustainability status of each type of HP-branded paper sold. In 2010, we continued to audit suppliers to ensure that our products remain responsibly sourced and produced.

We encourage manufacturers to implement environmental management systems, such as ISO14001, and have begun working with major paper suppliers to better understand their energy and water use, and help them set greenhouse gas (GHG) emissions reduction targets. We can then use their environmental data to improve the accuracy of our life cycle assessments related to paper and printing.

For more information, see our customer brochure, HP Home and Office Papers—designed with the environment in mind [add link to online/pdf brochure].

Services to customers

HP provides technology and services to make customers' printing and paper use more effective.
HP Digital Publishing, for example, helps publishing industry customers reduce waste by switching from analog batch printing to digital on-demand printing. (See case study, Life cycle assessment, and Enabling a low-carbon economy for detail.)

We help customers in other sectors to optimize their paper-based workflows, including to:

- Assess, understand, and reduce unnecessary paper use with the HP Eco Solutions Print Console service.
- Set automatic duplex printing for entire print fleets.
- Save money on paper and postage by using HP Exstream software to design statements, invoices, and marketing materials, and to consolidate household mailings instead of sending individual statements.
- Combine portions of numerous web pages onto one page using the HP Smart Web Printing software, eliminating extra pages and right-edge clippings.

HP is a leading supporter of the Sustainable Green Printing Partnership, a nonprofit organization that works to make the print and graphic communications industry in North America more sustainable, and which offers a sustainability certification program to print service providers.

We are also working to improve the deinkability of printed paper for improved recycling, focusing on innovative inks, additives, paper design, and deinking processes. HP promotes ColorLok® technology that enables paper manufacturers to develop higher-quality recycled papers, and makes it possible for all papers to be used by customers for duplex printing with minimal show-through. (Read about design for recyclability in Sustainable design.)

Efficient paper use at HP

For several years we have been implementing a program to make printing and paper use more efficient across HP.

Focus areas include:

- **Paper used in our offices** We use HP Everyday Papers, most of which are certified as derived from responsibly managed forests (see above), for internal office printing. Duplexing is standard for our office printers, and we have reduced the number and variety of printers used at HP—standardizing consumables procurement and reducing waste associated with printing, including paper.
- **Paper shipped "in the box"** This includes manuals, guides, and warranties. We are changing specifications (for example, using smaller fonts and thinner paper), reducing document length, and switching to electronic delivery (where legally permissible). In 2010, we shipped 63 million fewer documents than in 2009, removed remaining printed warranties from business desktops, workstations, and displays, and began providing software installation instructions for select HP Enterprise Services products electronically. Starting in 2011, we intend to remove printed

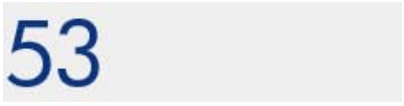
"getting started" guides and warranties from notebook products.

- **Paper used for commercial and promotional purposes** We strongly encourage our commercial print vendors to print all HP sales and marketing materials on certified paper (preferably FSC) and/or paper that contains post-consumer recycled content. In 2010, we printed all direct marketing catalogs for small and medium-sized businesses, homes, and home offices on FSC-certified paper, made using 10% post-consumer recycled fiber. Over the past three years, we have switched to print on demand for about half of our sales and marketing materials, dramatically reducing the storage required and eventual obsolescence of excess documents. We continue to look for ways to reduce the impact of commercial printing.

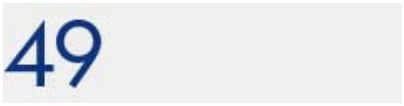
We are also focusing on shifting, where possible, to paper and molded pulp packaging that is made from responsibly sourced fiber. Our new environmental strategy for packaging prioritizes renewable, recycled, and recyclable materials. Read more about Packaging.

Product reuse and recycling

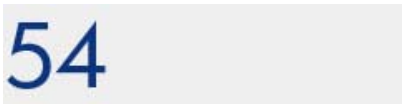
Highlights in 2010



The number of countries or territories where we offer a hardware reuse program



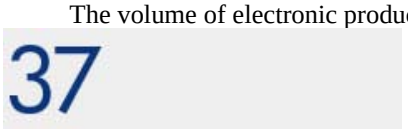
The number of countries or territories where we offer a hardware recycling program



The number of countries or territories where we offer a print cartridge recycling program

The amount of hardware recovered for reuse and remarketing (3.8 million units)

The volume of electronic products and supplies recovered for recycling, including 70 million print cartridges



The number of vendor audits carried out in 17 countries, including 12 reuse vendor audits and 25 recycling vendor audits

More than a billion PCs are in use worldwide, and the number is expected to reach nearly two billion by 2014.[1] As the quantity of electronic products increases, so does the challenge of managing them responsibly when they are no longer wanted.

Reusing an electronic product extends its life and often increases its value. But eventually all IT equipment reaches the end of its useful life, and recycling services are then essential. Recycling minimizes environmental impacts associated with waste disposal and reduces the need for raw materials and energy to manufacture new products.[2]

HP is a leader in the information technology (IT) industry in product reuse and recycling volume. In 2010, we recovered 30,000 tonnes of hardware for reuse and remarketing, and recycled 121,000 tonnes of electronic products and supplies. We estimate that we avoided approximately 225,000 tonnes of carbon dioxide equivalent (CO_2e) emissions through our recycling activities.[3] Our program and achievements were recognized in the inaugural "Magic Quadrant for North America Information Technology Asset Disposition," published by Gartner September 30, 2010. The report names HP as a leader in the responsible disposal of old or unwanted IT assets.

As well as being the right thing to do, offering product take back is commercially important for HP because businesses and consumers increasingly choose manufacturers that offer responsible take-back options for used equipment. We support the concept of individual producer responsibility (IPR), in which all manufacturers share with governments and

customers the responsibility to manage IT products at the end of their useful lives.

We engage with governments to develop appropriate legislation on reuse and recycling, and our approach also helps us address existing regional and local legislation, including the European Union waste electrical and electronic equipment (WEEE) directive, which requires the collection of discarded electronic equipment for recycling, reuse, or recovery.

Collaborations for reuse and recycling

We work with a global network of vendors to process, resell, and recycle returned IT products. We audit vendors annually to ensure they conform with our standards, policies, and Supplier Code of Conduct . To align with revised industry-wide recycling standards proposed by the Electronic Product Environmental Assessment Tool (EPEAT®) imaging products standard, we are in the process of transforming our vendor audit program.[4] (See Vendor audits for more information.)

We collaborate with governments and nongovernmental organizations (NGOs) in developing countries to boost local capabilities to properly repair, reuse, and recycle unwanted electronic equipment. To avoid illegal dumping of electronic waste, which poses a risk to the environment and human health, HP does not allow the export of electronic waste from developed to developing countries for recycling. (See our Policy on Export of Electronic Waste to Developing Countries.)

Product reuse and recycling options

- * The relationship is directly between customer and charity.

1. [1] "Forecast: PC Installed Base, Worldwide, 2005–2014, October 2009 Update ", Gartner Research Paper No. G00172111, 2009.
2. [2] Throughout this report, product "reuse" or "remarketing" refers to the return to use of complete electronic products and component parts. "Recycling" refers to the processing of waste electronic devices and consumable items for recovery of materials or energy.
3. [3] According to the U.S. Environmental Protection Agency's Waste Reduction Model (WARM) Tool, CO_2e reductions from recycling are calculated per the following formula: 1.858 kg CO_2e/kg recovered electronic waste.
4. [4] The requirement is to only use certified recyclers certified to R2 or eStewards in countries where HP registers products under EPEAT.

Programs

HP works with vendors to run product reuse and recycling programs covering most of our sales volume worldwide. These focus on:

- Hardware reuse
- Hardware recycling
- Print cartridge recycling

We are also involved in initiatives to help build reuse and recycling capabilities in developing countries.

Hardware reuse

Hardware reuse programs extend the useful life of returned HP products, from PCs to data center equipment, at the end of leasing agreements or as part of trade-in agreements. The hardware is refurbished or remanufactured as appropriate, and

then repackaged and resold. We offer remarketed equipment for many HP and non-HP products, and follow strict processes to protect user data and to meet environmental requirements. We offer hardware reuse programs in 53 countries or territories worldwide.

Hardware recycling

Returned products that are not suitable for reuse enter our recycling programs, along with equipment returned directly through HP recycling services. We offer hardware recycling services in 49 countries or territories worldwide. Consumer recycling services vary by country, depending partly on local regulations and infrastructure. We make appropriate recycling arrangements with commercial customers on a case-by-case basis. HP ensures protection of customers' data security for all returned products.

We are cofounders of the European Recycling Platform (ERP), which provides pan-European take-back and recycling services. In 2010, ERP recycled nearly 38,000 tonnes of equipment on behalf of HP.

In the United States, our consumer buyback program allows consumers to return information technology (IT) equipment of any brand, and check online to see how much cash they could receive for their equipment. Even if the product has no monetary value, consumers can recycle HP and Compaq products at no cost, and other brands for a small charge.

In 2010, we launched hardware recycling programs in Oman, South Africa, and United Arab Emirates.

Print cartridge recycling

We provide free recycling for HP print cartridges in 54 countries or territories covering approximately 90% of global print cartridge sales. We offer several free, postage-paid return options at www.hp.com/recycle, including printable labels, shipping envelopes, and collection boxes, and the option to order bulk pickup. Between 1991 and 2010,[1] we have recycled a cumulative 200,000 tonnes of returned cartridges—equivalent to 389 million LaserJet and ink cartridges.

HP employees making an impact:

Paul Nash

The HP “closed loop” ink cartridge recycling process is the first of its kind—and a groundbreaker in environmental sustainability. Paul Nash, a senior plastics engineer at HP, was instrumental in developing the initiative. Learn more about Paul.

Under our retail recycling program in North America, customers can return used HP ink and LaserJet toner cartridges to authorized retail collection sites, including the office supplies chain store Staples' 1,875 outlets in the United States and Canada.

Since we take back only our own cartridges, we know their material content, which makes it easier to process returned cartridges and use the material to manufacture new ones. (See Materials for more information.) Our pioneering program to manufacture new Original HP ink cartridges using plastic recycled materials from used cartridges is the first such "closed loop" process in the IT industry. In November 2010, we reached a milestone by producing a cumulative one billion HP ink cartridges containing post-consumer recycled plastic.[2] Eight-hundred million of those cartridges were manufactured with recycled plastic from the HP "closed loop" ink cartridge recycling process, which uses plastic from returned cartridges to make new ones.

We do not offer remanufactured print cartridges because they do not meet our quality and reliability standards.

Read more about our reuse and recycling programs. See a list of recycling options by country.

Building capabilities in developing countries

We aim to provide convenient, competitive, and high-quality product take-back services in all regions of the world, but capabilities in developing countries vary widely. Suitable take-back and recycling infrastructure does not exist in all locations. In many countries (including China and India), there are a relatively small number of formal collection and recycling systems, and an informal sector collects and processes the bulk of electronic waste.

HP engages with governments, nongovernmental organizations (NGOs), and other businesses to improve recycling capabilities. We promote solutions that improve worker health and safety and reduce potential environmental hazards, without undermining an important source of meaningful employment in disadvantaged communities.

In 2010, our activities in Africa included:

Country	Activity
Kenya	Work with Irish volunteer organization, Camara, to support the establishment of Kenya's first formal IT e-waste recycling facility: East African Computer Recycling (EACR). Located in Mombasa, the facility receives end-of-life IT equipment from Camara's school, business, and public sector customers, and will operate with high health, safety, and recycling standards. In the long term, we anticipate that the facility will capture up to 20% of Kenya's IT e-waste. HP and Camara will also engage with local informal recycling sector workers to explain that delivering whole products (rather than pre-separated components) to EACR will generate greater value, and reduce environmental and human health impacts.
Nigeria	Collaborate with academics from the University of Northampton, UK, to educate people about the hazards of scavenging for electronic waste. Together we delivered a series of workshops, attended by 80 people ranging from scavengers of e-waste dumps to representatives from the National Environmental Standards and Regulation Enforcement Agency (NESREA). Participants learned how to break electronic waste down safely and identify parts of value, and received equipment to help them do their jobs safely, including boots, gloves, dust masks, and high-visibility jackets.

1. [1] This is calendar year.
2. [2] As of September 2010. Many Original HP ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model over time, based on the availability of the material.

Performance

In 2010, we recovered 332 million pounds (151,000 tonnes) of hardware and supplies. This included:

- Approximately 3.8 million hardware units weighing 66 million pounds (30,000 tonnes) for reuse and remarketing, roughly 45% of which was returned by business customers.
- Approximately 121,000 tonnes (266 million pounds) for recycling, including 70 million ink and toner cartridges. More than 50% of recycling volume by weight was returned by consumers.

We achieved a total reuse and recycling rate in 2010 of 16% of relevant HP hardware sales worldwide, unchanged from 2009.[1] Overall, we have recovered a total of 2.36 billion pounds (1.07 million tonnes) of electronic products (for reuse and recycling) and supplies (for recycling) since 1987.

Product reuse and recycling, 2006–2010 [tonnes]

- (Hover over segments for detail by type)

See the data dashboard for detailed product reuse and recycling performance information.

1. [1] The recovery sales percentage is based on the following methodology:
2. • We calculate a ratio of the weights of hardware products returned for recycling against the weights of our product sales from seven years ago.
3. • We calculate a ratio of the weights of hardware products returned for reuse against the weights of our product sales from three years ago.
4. • The recycling and hardware refurbishment ratios are combined to provide an overall comparison to our product sales.
5. Beginning in 2008, we decided not to include recycled consumables in our recovery sales percentage, since our stakeholders are primarily concerned about the rate for hardware. We do not expect that this change will have a significant impact on the results. We have also made changes to our calculation methodology to be more consistent with others in our industry.

Vendor audits

HP uses a global network of vendors to process, resell, and recycle returned products. We have direct relationships with around 75 first-tier vendors, who in turn manage hundreds of sub-vendors in their own recycling networks.

Our stringent Global Reuse and Recycling Standards set our expectations for vendors' storage, handling, and processing of returned equipment to prevent the irresponsible disposal of potentially harmful substances. We set very high standards and, unlike most companies in the industry, publish them for full transparency. We do not allow vendors to export electronic waste from developed to developing countries for recycling. (See HP export policy.)

We contract Environmental Resources Management (ERM), a third party, to audit our first-tier vendors and ensure they conform to our standards, policies, and Supplier Code of Conduct. Audits include an assessment of environmental, health, and safety standards and performance against those standards, as well as checks on downstream material flows based on shipment and receipt records to ensure recyclable products are not sent to developing countries for processing. Increasingly, audits also focus on first-tier vendors' capabilities to audit their own sub-vendors' conformance to our standards.

When audits identify areas of nonconformance, vendors must create corrective action plans, and respond quickly to improve their performance. Once we receive a vendor's report of corrective actions, ERM conducts a repeat audit on our behalf to check that adequate action has been taken. In extreme cases we stop using vendors who lack transparency or the willingness to make the required changes.

Beyond audits, we also work with first-tier vendors to improve their performance and that of their downstream vendors. In addition, ERM's audit training program helps our first-tier vendors understand our audit process, how they should audit their vendors, and how to improve their operational performance.

Our vendor audit program satisfies and exceeds the current IEEE 1680.1 optional criteria of the Electronic Product Environmental Assessment Tool (EPEAT®), which adopt the auditing practices described in the EPA's "Plug-in to eCycling Guidelines for Materials Management." EPEAT is introducing new criteria for imaging products (IEEE 1680.2) that will require the use of recycling vendors who have obtained certification by a qualified third-party auditor. We expect the new EPEAT criteria to come into force in late 2011.

To meet this forthcoming requirement in the countries where we offer EPEAT registered products, we will only be able to use certified recyclers for imaging products. We are working with vendors to help them understand these changes and obtain certification. We engaged with governments and nongovernmental organizations (NGOs) to help shape the new requirements and ensure that certification audits are comparable with our previous vendor assessments.

Until we are confident that the quality of EPEAT certification audit protocols and practices match the quality of our audits we will supplement them with our own assessments, looking especially at downstream material flows. ERM will also continue to audit our non-certified vendors.

2010 audits and findings

Our vendor audit program went through a number of changes in 2010. We implemented a transition to industry-standard audits based on the coming changes to EPEAT (described above), and increasingly conducted observation audits of first-tier vendors' audit processes of their sub-vendors. Audit results are therefore not fully comparable with previous years. We can, however, provide the following summary of our facility audit results and program progress:

Facility audits: ERM audited 12 reuse and 25 recycling vendor locations in 17 countries on our behalf in 2010.[1] Fifteen of these were repeat audits that checked for vendors' ongoing commitment and improved performance. At the re-audited sites, we saw a 36% reduction in the number of major performance gaps identified, and a 45% reduction in the number of minor gaps, in each case relative to 2009. Furthermore, three of the repeat audits revealed no major or minor performance gaps—something we have not seen in previous years.

Corrective actions follow-up: Since we began our vendor audit program three years ago, we have received and reviewed 92 corrective action plans from 125 audits. In thirteen instances, these corrective action plans addressed major performance gaps identified during initial audits. ERM repeat audits have confirmed that major issues have now been fully rectified in more than half of these cases. The other vendors have addressed some of their major performance gaps, and HP vendor managers continue to work with them to facilitate progress. The largest number of gaps found is in the area of environmental, health, and safety, followed by security, logistics and asset tracking, and then management systems and practices. These three areas combined accounted for more than 80% of the gaps found during last year's audits.

Read a statement from ERM, HP's third-party auditor for reuse and recycling vendor audits.

1. [1] All initial audits were conducted on-site. Some re-audits were conducted remotely, as appropriate.

External verification

In 2010, HP completed its third round of reuse and recycling vendor audits under its expanded program guidelines. Our third-party auditing firm, Environmental Resources Management (ERM), assessed 12 reuse and 25 recycling vendors in 17 countries.

Program focus:

In 2010, ERM supported HP for the third year of implementing its expanded Reuse and Recycling Vendor Audit Program (Program). The year was characterized by the beginning of a transition for the Program to using vendors certified to R2 or e-Stewards recycling standards, and a continued uncompromising focus on its two central tenets:

1. Drive substantive performance improvements across the vendor network measured against the HP recycling and reuse standards; and
2. Report outcomes and challenges of the Program with transparency.

The following three components continue to be the dominant vehicles for implementing the Program and where ERM's resources are deployed:

- Performance audits: Vendor audits against HP standards continue to form the basis for deciding overall program direction and individual initiatives undertaken with specific vendors or vendor networks. The audits measure performance across a comprehensive portfolio of environmental, health, safety (EHS), and operations support topics.
- Corrective actions follow-up: Corrective action follow-up is carried out to ensure the timely receipt of corrective action plans, to review their adequacy, and to prompt or remind vendors about their implementation commitments well ahead of formal, follow-up audits. This emphasis has yielded a significant increase in the number of vendors who are successfully addressing findings, and notably of those who are eliminating major findings. Furthermore, some vendors who operate facilities in multiple locations applied corrective actions across their network of facilities, rather than solely at the vendor location where a finding originated.
- Knowledge transfer and capability building: Training to address EHS and operations gaps in vendors' processes for managing and auditing their own downstream vendors has been undertaken on a targeted basis. In addition, in a few cases where corrective action and follow-up efforts had not produced desired improvements in EHS performance, ERM resources were deployed to supplement the broader coaching focus of HP.

Transition to using vendors certified to R2 or e-Stewards

As a result of HP's transition to using vendors certified to industry-recognized standards that are independently audited, ERM resources are being focused on Program implementation in countries where certified vendors are not yet available, and, per HP's operational focus, on helping to develop one or two best-in-country vendors that the company can rely on with confidence. Work with these vendors constitutes a mix of capacity building through interactive audits, corrective action planning and follow-up, and/or direct coaching.

Ongoing challenge: Downstream material chain of custody

Performance audits include a downstream material-flow or chain-of-custody audit to check that material entering an HP tier-one vendor can be traced through the downstream vendor chain to final disposition. For the third year, our audits reveal that information from the first tier is well understood, but that ensuring that detailed information is forthcoming from second-tier and third-tier vendor audits persists as the primary challenge. Therefore, notwithstanding the intended transition of the HP Program away from auditing vendors that are certified to R2 or e-Stewards, ERM will continue to be deployed to conduct chain-of-custody audits and follow-up on behalf of HP for the immediate future.

Debora Bonner
Partner, Supply Chain and Sustainable Business Solutions
Environmental Resources Management

HP operations

HP owns and leases facilities worldwide. Our global scale brings obligations as well as opportunities to make a positive impact on communities and the environment. Managing our operations responsibly is a cornerstone of our commitment to environmental sustainability.

Our environment, health, and safety (EHS) management system ensures that we comply with regulations and meet company standards across all HP facilities.

Our most significant impact is greenhouse gas (GHG) emissions due to HP energy use. (See Energy and climate – Operations for detail.) Other environmental impacts from our operations are those associated with waste disposal, paper use, and water consumption.

Additional impacts include HP's wastewater discharges, Toxics Release Inventory releases, use of ozone-depleting substances, sites that require remediation, and impacts on biodiversity.

In 2010, HP acquired several companies, including Palm and 3Com. As a result, we have restated our 2005 baseline for GHG emissions. See Energy and climate – Operations for more details on our energy use and emissions.

About our operational data

Data relating to HP operations are based on our fiscal year (which ends October 31).

In 2010, we collected data from 269 sites (including all HP manufacturing sites and our largest owned and leased office, warehouse, data center, and distribution sites). This accounted for 78% of our total floor space of approximately 7.3 million square meters. We extrapolated data as available from comparable operations, primarily data centers and office space, for the remaining floor space, unless stated otherwise.

We continue to refine the process by which we collect data and calculate trends. In 2010, we began making quarterly energy and water calculations to more accurately reflect changes to our real estate portfolio.

See a list of major operations.

Management and compliance

HP is committed to leadership standards in environmental, health, and safety (EHS) performance. We aim to provide safe products and services, to reduce their impact on the environment, to conduct our operations in an environmentally responsible manner, and to ensure that our employees can work without injury at our facilities or other locations. Our EHS management system helps us achieve our EHS objectives at all sites. At its core is our EHS policy.

HP's internal EHS standards and management system are designed to achieve full legal compliance. We investigate any allegations of noncompliance with the law to determine the root causes and implement corrective action to help prevent recurrence.

HP manufacturing operations worldwide are certified to ISO 14001, the international standard for environmental management systems. Twenty HP locations are covered by the global certificate.

To ensure that we continue to meet our EHS objectives as we grow, we require newly acquired companies to implement our EHS management system as a part of their integration. In 2010, we brought our 3Com and Palm acquisitions in line with the system and our EHS Policy.

Our management of health and safety, and also wellness, are covered in the HP employees section of this report.

Environmental management system

HP's Environmental, Health and Safety Policy expresses our longstanding commitment to environmental management and employee safety. The Policy states that our goal is to '...conduct our operations in an environmentally responsible manner, and create health and safety practices and work environments that enable HP employees to work injury-free'. To accomplish this, the Policy specifies that we will:

- meet or exceed all applicable legal requirements;
- proactively reduce occupational injury and illness risks, and promote employee health and well-being (for more information, see Health and safety and Wellness;
- aggressively pursue pollution prevention, resource conservation and waste reduction in our operations;
- design and manufacture our products to be safe to use and to minimize their environmental impact;
- offer our customers environmentally responsible end-of-life management services for HP products; and
- require our suppliers to conduct their operations in a socially and environmentally responsible manner.

Environmental, health and safety management system

To achieve our EHS Policy goals, we implement an environmental, health and safety management system (EHS MS) as

an integral part of doing business. It is tailored to HP's business and is implemented globally, regionally and locally. To ensure that our EHS objectives continue to be met as we grow, we introduce our EHS management system to newly acquired companies as part of the integration process and require them to use our system.

HP's EHS MS is a structured approach to identifying EHS priorities, meeting HP and external requirements, controlling risk and improving performance. Our global EHS organization has stewardship of the EHS MS and collaborates with the appropriate HP organizations to recommend performance improvement goals. The EHS MS requires sites to monitor performance, conduct audits and management reviews and to implement corrective and preventive actions.

HP's EHS MS is based on recognized international models including ISO 14001 and OHSAS 18001. HP was one of the first multinational businesses to obtain a single, global ISO 14001 certification for worldwide manufacturing operations.

» HP's ISO 14001 certificate

Health and safety and Wellness management are covered in more detail in the HP employees section of this website.

Compliance

Legal compliance is HP's minimum requirement for EHS, and our internal EHS standards reflect this commitment. Our EHS management system ensures we have the processes needed to comply. We investigate any allegation of non-compliance with the law to determine the root causes and implement corrective action to prevent recurrence.

Audits and assurance

Audits of our EHS MS provide assurance that our EHS policies and standards are implemented worldwide. Audits are conducted by internal qualified professionals and the results are reported to senior management. The frequency of audits is based on site complexity and past performance. These audits complement regulatory compliance evaluations conducted by our region and local EHS staffs and third-party audits conducted by our ISO 14001 and OHSAS 18001 registrars.

We analyze instances of nonconformance to our policies and standards, take corrective action and establish preventive measures to reduce the likelihood of future nonconformance. This system provides a strong basis for continual improvement.

Employee awareness and training

HP provides EHS training for employees in local languages. EHS fundamentals are part of employees' orientation training and are regularly refreshed through an online EHS Policies and Standards training module, employee websites and EHS communications. Additionally, employees receive health and safety training specific to their job. (For more information, see Health and safety.)

Standards and guidance

HP EHS performance standards apply to all sites. The management system standard addresses EHS management processes such as risk assessment, objective setting, training and awareness, monitoring and measurement, inspections and auditing, and management responsibilities. Accompanying standards address specific operational controls, including energy management, chemical management, waste minimization, fire and life safety, ergonomics and electrical safety.

Emergency preparedness and response

HP's risk-based emergency preparedness and response programs are designed to protect people, property, the environment and continuity of operations. These programs cover planning, prevention, response and recovery. Response plans exist for chemical releases, evacuations, fires, natural disasters, security threats and other emergencies. Response teams are trained and tested in first aid, cardiopulmonary resuscitation, spill response and facility control operations, as appropriate to local working environments. Employees are trained on emergency response procedures and regularly participate in emergency evacuation and other drills.

Environmental, health, and safety policy

Standards for HP's work and business environment

Hewlett-Packard is committed to conducting its business in a manner that delivers leading environmental, health and safety performance. This is consistent with our commitment to corporate citizenship, social responsibility and sustainability.

Our goals are to provide products and services that are safe and environmentally sound throughout their lifecycles, conduct our operations in an environmentally responsible manner, and create health and safety practices and work environments that enable HP employees to work injury-free.

To accomplish this, we will:

- meet or exceed all applicable legal requirements;
- proactively reduce occupational injury and illness risks, and promote employee health and well-being;
- aggressively pursue pollution prevention, resource conservation and waste reduction in our operations;
- design and manufacture our products to be safe to use and to minimize their environmental impact;
- offer our customers environmentally responsible end-of-life management services for HP products; and
- require our suppliers to conduct their operations in a socially and environmentally responsible manner.

We achieve this high level of performance by integrating these objectives into our business planning, decision-making, performance tracking and governance processes to ensure we achieve and continually improve upon our goals.

Each employee has an individual responsibility to understand and support our environmental, health and safety policies and to actively participate in programs to ensure our goals are achieved.

We believe our company must work with employees, suppliers, partners, customers, and governmental, non-governmental and community organizations to protect and enhance health, safety and the environment. We foster open dialogue with our stakeholders to share relevant information and contribute to the development of sound public policy and business initiatives.

Sustainable building design

HP is implementing a three-year, companywide Global Workplace Initiative that will result in significantly improved utilization of our real estate assets. The initiative, launched in 2009, helps us work to reduce the space we occupy, use resources more efficiently, decrease our climate impact and water consumption, and cut costs. It has the additional benefit of freeing up office buildings for use by other organizations, so overall, fewer offices worldwide need to be constructed.

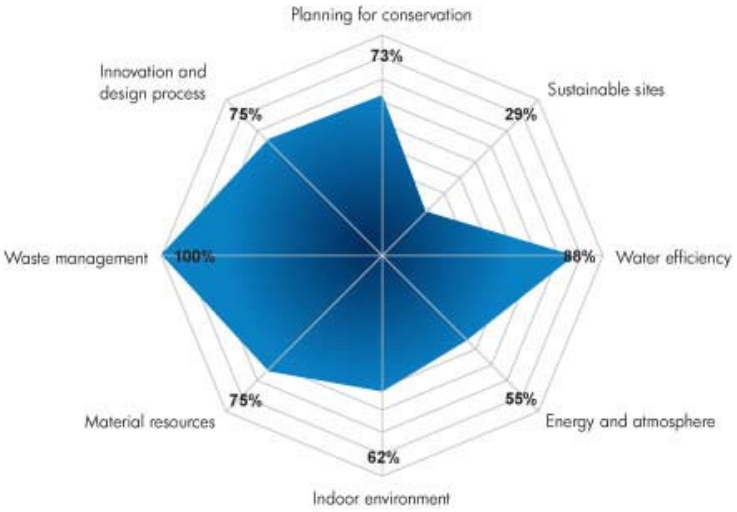
We strive to include sustainable design features such as use of renewable building materials and efficient lighting and water systems in the design of new buildings and renovations. Using such features helps us create comfortable and productive workplaces for HP employees and can help improve our facilities' appearance.

In 2010, we launched an updated version of our custom sustainable building design checklist, which raises HP project managers' awareness about the breadth of possible actions they can consider to help reduce environmental impact and helps them identify cost-effective options for each action. Most workplace projects (typically office improvements) are run by our internal HP Global Design Center, in partnership with one of our architecture firms. When one of these projects has been completed, the firm works with HP project managers as appropriate to provide a scorecard that lists the building's sustainable design features and helps identify areas for further improvement.

We compile scorecard information to obtain a picture of sustainable building design progress across HP (see graphic). As of the end of 2010, results indicate that all projects tracked incorporate sound waste management practices, while most also focus on issues such as water efficiency and efficient use of materials. Areas for further attention in future building developments include greater focus on energy efficiency as a criterion for selecting the buildings we lease, and planning new sites that implement sustainable building practices. About 10% of relevant workplace projects (those typically requiring investments of more than $500,000 USD) were tracked during the year.

Beginning in 2011, on the majority of workplace projects in the Americas, we request that project managers complete the scorecard as part of the project close-out exercise. The consolidated results will be reported in the Global Real Estate organization's balanced scorecard, to promote continual improvement. We plan to roll out this approach in our Europe, Middle East, and Africa region, as well as our Asia Pacific and Japan region in the second half of 2011.

Sustainable building design progress summary (% of eight projects tracked addressing each scorecard element through Q4 2010)



Using our own checklist enables us to pursue high standards that are at least as stringent as many LEED requirements. In some cases, we do apply for the U.S. Green Building Council's LEED certification. For example, our 35,000-square-meter data center in Hockley, Texas, was the first HP facility to be LEED certified to the Gold level. The facility was built using locally produced construction materials, features energy-saving systems, uses wastewater from the cooling process for landscaping, and encourages low-carbon commuting by offering bicycle racks and designated parking spaces for low-emission vehicles. The Hockley facility is about 15 percent more energy efficient than the average HP data center.

In 2010, we achieved LEED certification for two additional facilities:

- Our renovated HP Finland headquarters in Espoo, Finland, is LEED Gold certified. We installed upgraded cooling, heating, ventilation, and lighting systems, and modified the waste disposal and recycling system to collect waste suitable for energy generation, which is sent to a specialist waste-to-energy vendor for processing. Compared with the previous year, the building's carbon footprint decreased by an estimated 780 tonnes carbon dioxide equivalent—equivalent to removing 149 cars from the road for a year—while water use fell by 18% and the waste recovery rate rose to 95%.
- A new call center facility in Conway, Arkansas, provides employees with views to the outdoors from 90% of regularly occupied spaces. Window glazing and user-controlled ventilation reduce the energy needed for air conditioning, while highly efficient fixtures decrease water use by up to 45%. Bicycle racks and designated parking spaces for low-emission vehicles encourage low-carbon commuting.

Office furnishings

We increasingly select remanufactured carpet for our offices, as well as furniture designed to have a reduced environmental impact. Where possible, we source locally manufactured furnishings to reduce transport distance.

In selecting suppliers for carpet and furniture for HP offices, we evaluated submissions from each potential supplier detailing their company's overall environmental program along with environmental characteristics of each product. Companies we chose to work with include InterfaceFLOR for carpet; Steelcase for global seating; and Herman Miller, Haworth, and Teknion for systems furniture.

InterfaceFLOR

Steelcase

Herman Miller

Haworth

Teknion

Waste and recycling

HP subscribes to the philosophy of reduce, reuse, recycle.

In 2010, we generated approximately 87,500 tonnes of total waste, of which 91.2% was nonhazardous and 8.8% was

hazardous.[1] We diverted 84.3% of nonhazardous waste from landfill.

When disposal is necessary, HP confirms that waste is managed in an environmentally responsible manner, for example by auditing vendors that dispose of our hazardous waste.

Nonhazardous waste

Our nonhazardous waste consists primarily of paper, pallets, used electronic equipment (e-waste), metals, and packaging.

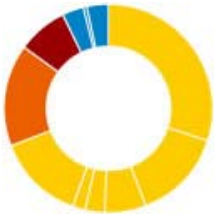
In 2010, HP generated approximately 79,800 tonnes of nonhazardous waste, a 32% decrease compared with the previous year.

Over 48% of nonhazardous waste generated in 2010 was made up of paper and pallets. We are committed to reducing the amount of paper we use and dispose of to help decrease our environmental impact and save money. Read about our efforts to reduce paper use and source paper from sustainable sources, and how we are decreasing our use of pallets for product transport.

Nonhazardous waste, 2006–2010 [tonnes]

- (Hover over segments for detail by region)

Global nonhazardous waste composition, 2010 [% of total]*



Recycled	
Paper	30.3%
Pallets	14.2%
E-waste	6.4%
Packaging materials	3.1%
Metals	2.0%
Other	13.7%
Landfill	15.7%
Incineration	7.8%
Reused	
Pallets	3.5%
Packaging materials	0.2%
Other	3.2%

- * Total is greater than 100% due to rounding.

Recycling programs

HP's worldwide recycling programs play an integral role in our efforts to increase our landfill diversion rate.

All HP employees can recycle paper, plastics, and batteries at convenient recycling points within our buildings. We recycle glass, plastic, and aluminum containers disposed of in our dining rooms and conference facilities. We also reuse and recycle our own electronic equipment and that of our customers.

We reclaim used carpet tiles from our offices and recycle them in partnership with InterfaceFLOR and local recycling companies. For example, as part of a building upgrade project, our site in Plano, Texas, engaged a local firm to process nearly 39 tonnes of carpet in 2010.

In 2010, we recycled, reused, or incinerated for energy 67,300 tonnes of waste, achieving a nonhazardous landfill diversion rate of 84.3%. This is a decrease from 88.8% last year, and means that we fell short of our 87% target for 2010. We believe this difference is predominantly the result of ongoing improvements in the quality and reliability of waste data from acquired facilities, though as newly acquired sites become integrated into HP, we expect their solid waste management practices will increasingly align with HP's over time. Additionally, we now have a single facility management supplier and anticipate that this will also increase our waste diversion rate during the coming years.

In the United States alone, in 2010 we saved over $8 million by reusing items, avoiding landfill fees, and selling

recyclable commodities such as paper, beverage containers, scrap metal, excess foam packaging, and cardboard.

Hazardous waste

HP generated approximately 7,700 tonnes of hazardous waste in 2010, a 13% increase compared with 2009. This is due to a combination of increased manufacturing of inks and an increase in battery waste from data centers.

Hazardous waste, 2006–2010 [tonnes]

- (Hover over segments for detail by region)

Global hazardous waste composition, 2010 [% of total]*

Incineration	36.9%
Recycled	
Batteries	21.0%
Back to HP	3.1%
Tubes and ballasts	0.5%
Other	3.6%
Treated	25.6%
Fuel blending	7.3%
Landfill	2.1%

- * Total is greater than 100% due to rounding.

1. [1] Hazardous waste classification varies by country. For our ease of calculation, HP data includes some waste not considered hazardous in the country where it is generated.

Water

Water usage

Although HP's operations are not water intensive, we recognize that water consumption is a growing concern globally. The availability and quality of water are key issues for communities and businesses alike.

To enhance our understanding of the issue and help provide a clearer picture of corporate water use, we participate in the Carbon Disclosure Project's water disclosure initiative. We are also exploring the use of tools designed to help us develop a clearer picture of the overlap between HP's operations and areas of water scarcity worldwide. This information will help us identify facilities where water scarcity is an issue, and guide our decisions that influence water use.

Our original water goal, to reduce water use by 5% from 2007 levels by 2010, is not appropriate following the integration of 465 facilities that we acquired as part of EDS (now HP Enterprise Services) in 2009. This, and subsequent acquisitions in 2010, have created an opportunity for us to reassess our water consumption and regional impact in 2011. We aim to increase the accuracy and breadth of our water data collection, improve our understanding of water-related impacts and opportunities, and continue our water conservation practices. We also plan to use 2011 to assess new ways to meaningfully reduce our impact and incorporate these into our plans for 2012.

In 2010, we used nearly 8.2 billion liters of water worldwide, predominantly for domestic use in buildings, cooling, and landscape irrigation. Although we are consolidating our operations into fewer buildings, water use grew by about 7%, for several reasons. The number of our facilities that use water for cooling (such as data centers) is growing, while our employee base—closely associated with water use—has also increased by 7% compared with 2009. We believe the increase is also in part due to our improved data collection processes compared with the previous year.

Water-saving activities are ongoing at our operations worldwide. In Boise, Idaho, for example, we saved nearly 20 million liters of water by switching to closed-loop water cooling for an environmental test chamber. This builds on our previous success in reducing the site's groundwater use by using water from on-site ponds for irrigation.

At our Forest Hill facility in Melbourne, Australia, we installed water-saving features such as sensor taps in all toilet facilities; planted native, drought-tolerant plants on-site; and set up a rainwater storage tank to feed garden watering systems. We also made books on water conservation and water flow meters available for employees to borrow, and gave staff the chance to win their own rainwater storage barrel. The local government of the city of Whitehorse selected HP for a 2010 Sustainable Business Award, in recognition of these activities and others.

See performance data, including regional breakdown, in the data dashboard.

Wastewater

Wastewater is not a significant environmental issue for HP operations.

HP water use that is for domestic purposes is discharged under local regulations and goes to local treatment facilities.

In 2010, we generated 1.2 billion liters of manufacturing wastewater from seven HP facilities. These effluents are discharged under a permit, and treated at a locally owned and operated treatment plant. We have procedures in place designed to prevent unauthorized discharges of chemicals to wastewater systems, and ensure we do not discharge wastewater directly from HP operations to surface water or groundwater.

See performance data, including regional breakdown, in the data dashboard.

Toxics Release Inventory

Our operations, primarily the manufacture of imaging and printing products, require the use of several chemicals listed on the U.S. Environmental Protection Agency (EPA) Toxics Release Inventory (TRI). We have equipment and processes designed to monitor and control releases that do occur and report site releases under relevant local law. For this report, we extend TRI reporting criteria to the five manufacturing sites worldwide that account for all of HP's reportable TRI releases.

Releases of these materials from HP manufacturing operations continue to decrease. This is in part because we have eliminated or scaled down the HP processes that use these chemicals due to changes in business operations.

Disposition by type of TRI material, 2007-2009 [tonnes]*,**

Chemical	Emitted to air			Discharged to water (to sewer/off-site treatment facility)			Shipped off-site for recycle/energy recovery			Shipped off-site for treatment or disposal			Total		
	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009
N-methyl pyrrolidone	0.0	0.0	0.0	0.0	0.0	0.0	451.5	357.6	268.1	0.0	0.0	0.0	451.5	357.6	268.1
Nitric acid	0.5	0.5	0.1	0.0	0.0	0.0	9.6	0.0	0.0	21.9	5.9	11.3	31.9	6.4	11.4
Nitrates	0.0	0.0	0.0	12.3	9.3	6.1	0.0	0.0	0.0	0.1	0.0	0.0	12.4	9.3	6.1
Lead	0.0	0.0	0.0	0.0	0.0	0.0	7.1	8.3	0.9	0.0	0.0	0.0	7.1	8.3	0.9
Xylene	5.3	6.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0	11.9	12.7	14.0	17.2	19.3	21.2
Glycol ethers	NA	9.4	13.3	NA	0.0	0.0	NA	0.0	0.0	NA	41.8	36.7	NA	51.2	50.0
All others	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.7	0.2	0.0
Total	**5.8**	**16.7**	**20.6**	**12.3**	**9.3**	**6.1**	**468.1**	**365.8**	**269.0**	**34.5**	**60.5**	**62.0**	**520.8**	**452.0**	**357.7**

- * The substances with global totals greater than 1 tonne are shown. TRI reports are due to the U.S. EPA July 1 each year, so the most recently completed reporting year is 2009.
- ** The increase in air emissions and TRI material shipped off-site for treatment or disposal (most notably of glycol ethers)from 2007 to 2008 is due to the integration of data from acquired operations. Data for these operations became available in 2008.

Ozone-depleting substances

HP facilities use ozone-depleting substances (ODSs) in cooling and air conditioning systems. Although these systems are sealed, leaks during operation and maintenance can result in emissions. We are replacing chlorofluorocarbons (CFCs) in our systems with hydrofluorocarbons (HFCs). Although these are greenhouse gases, they do not deplete the ozone layer.

We do not measure ODS emissions but rather estimate leakage using guidance from the Intergovernmental Panel on Climate Change.[1]

See performance data, including regional breakdown, in the data dashboard.

1. [1] See http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

Remediation

Where necessary, we conduct or contribute to soil and groundwater remediation to clean up contaminated sites.

This includes:

- Eighteen sites where chemical releases from historical HP or predecessor operations occurred.
- Six sites where HP's wastes were managed by third parties and releases occurred.
- One former industrial site where we are building a new HP facility.

We apply our environmental, health, and safety (EHS) management system to help prevent and respond to chemical spills at HP facilities. No significant spills occurred during 2010.

Biodiversity

HP's direct operational impact on biodiversity is minimal because we build very few facilities relative to our growth. When we do build, we often use previously developed land, which reduces our expansion into undeveloped areas.

We have an indirect impact on biodiversity, however, through forestry because we sell and use significant amounts of paper. We increasingly source paper from suppliers that demonstrate sustainable forestry and responsible manufacturing practices, and we strive to reduce the tonnage of paper we use in our operations and recycle paper when possible. Read more about paper at HP.

HP list of major operations

Over 100,000 square meters	
Americas	
Boise, ID*	United States
Colorado Springs, CO	United States
Corvallis, OR*	United States
Cupertino, CA	United States
Houston, TX*	United States
Palo Alto, CA	United States
Plano, TX	United States
Roseville, CA	United States
Europe, Middle East, and Africa	
Dublin Mfg*	Ireland
50,000-100,000 square meters	
Americas	

Aguadilla, PR*	Puerto Rico
Auburn Hills, MI	United States
Ft. Collins, CO	United States
Ft. Worth, TX	United States
Marlborough, MA	United States
Pontiac, MI	United States
San Diego, CA*	United States
Sandston, VA	United States
Sandston, VA	United States
Woodland, CA	United States
Asia Pacific and Japan	
Bangalore	India
Bangalore HPGS	India
Singapore DRD*,***	Singapore
Singapore SGP	Singapore
Europe, Middle East, and Africa	
Grenoble	France
Böblingen	Germany
Erskine**,***	United Kingdom
25,001-50,000 square meters	
Americas	
Sao Bernardo do Campo	Brazil
Mississauga	Canada
Mississauga - Canadian HQ	Canada
Heredia	Costa Rica
Guadalajara	Mexico
Alpharetta, GA	United States
Andover, MA	United States
Austin, TX	United States
Des Moines, IA	United States
Herndon, VA	United States
Hockley, TX	United States
Houston, TX	United States
Indianapolis, IN	United States
Irving, TX	United States
LaVergne, TN	United States
Louisville, CO	United States
Mountain View, CA	United States
Salt Lake City, UT	United States
Satellite Boulevard Data Center, GA	United States
Sunnyvale, CA	United States
Tulsa, OK	United States
Urbandale, IA	United States
Vancouver, WA	United States
Asia Pacific and Japan	
Burwood, NSW	Australia
Chongqing*	China
Dalian	China
Shanghai, GDCC	China
Shanghai, CMF*	China
Bangalore - Akash Block	India
Bangalore - GeBC Embassy Prime	India
Bangalore - ISO HP STS Whitefield	India
Chennai	India

First Software Park	India
Pune	India
Seoul	Republic of Korea
Cyberjaya HP Global Center (CJO)	Malaysia
Singapore	Singapore
Taipei	Taiwan
Europe, Middle East, and Africa	
Rüsselsheim	Germany
Rehovot*	Israel
Amersfoort	Netherlands
Barcelona Sant Cugat*	Spain
Sant Cugat del Valles	Spain
Billingham	United Kingdom
Bristol	United Kingdom

- * Site/operation included in HP's global ISO 14001 certificate. In some cases, multiple locations in close proximity are considered one “site” for the purposes of the certification.
- ** ISO 14001-certified but not part of the global certificate.
- *** OHSAS 18001 certified site.

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HP Advantage Series Widescreen Monitors

HP Advantage series widescreen monitors feature improved environmental design, providing more comfortable use while helping businesses cut costs and energy consumption.

The latest energy-saving features, such as low-power panels, enable the product to use up to 40% less energy than previous generations of HP products, and have helped the monitors achieve ENERGY STAR® qualification and the Gold rating in the Electronic Product Environmental Assessment Tool (EPEAT®).

The panels, cabinets, and stands are brominated flame retardant (BFR)- and polyvinyl chloride (PVC)-free,[1] and some of the monitors use up to 50% less mercury than previous HP models.

Corrugated cardboard packaging made from 25% recycled material protects the screens in transit. The new packaging design eliminates the need for traditional expanded polystyrene packaging cushions that are not readily recyclable in many communities. The monitors are available as a twin-pack option, further cutting energy and materials for packaging and transportation.

Learn more

1. [1] Meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen' Electronics (BFR/CFR/PVC-Free)." Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). Service parts after purchase may not be BFR/PVC-free.

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HP Auto-On/Auto-Off and Instant-on Technology

An industry first, HP Auto-On/Auto-Off Technology automatically turns off the device to help individuals and businesses conserve energy. The U.S. Environmental Protection Agency estimates that customers waste up to 66% of energy related to equipment use by leaving devices on during nights and weekends.

The Auto-On feature turns the printer to full power when a user sends a print job, pushes the power button, or opens a paper tray. After the printer has been idle for a period of time, the Auto-Off feature turns the device off. High-end HP devices turned off using HP Auto-Off technology consume up to 26 times less energy than most printers and MFPs on the market in traditional sleep mode, helping users save money and reduce greenhouse gas emissions by cutting energy that is wasted when the printer is not in use.

HP LaserJet products with Instant-on Technology use an innovative, quick-heating fuser system that warms rapidly and cools quickly. This, coupled with energy-efficient toner, helps users consume less printing-related energy, compared with using printers that don't have this technology.

Considering that HP ships two PCs and two printers every second, the savings add up. HP estimates that for monochrome LaserJet products alone, Instant-on Technology helped customers collectively avoid 1.3 million tonnes of carbon dioxide equivalent (CO_2e) emissions in 2009, equivalent to removing more than 240,000 cars from the road for one year.

Learn more

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Carbon Emissions Management Service

Global efforts to address climate change require many organizations to measure, report, and reduce energy use and

greenhouse gas (GHG) emissions. HP's Carbon Emissions Management Service, developed in collaboration with the business software provider SAP, enables businesses to respond to regulations requiring accurate reporting and to manage and reduce emissions. Users can calculate, record, and analyze their carbon emissions across an entire organization.

This offering builds on HP's Carbon Emissions Management System (CEMS) for IT infrastructure. CEMS users apply HP's C-Counter (patent pending) to measure, monitor, and store data related to energy use and GHG emissions in real time, over a period of eight weeks. This information can help businesses answer questions such as:

- Which business units have the highest IT GHG intensity?
- Are our IT systems appropriate for current and future business needs?
- Should we consolidate those systems? Do some need to be restructured or retired?
- How can we reduce GHG emissions?

HP works with each customer to develop its GHG emissions reporting capability and prepare an inventory of emissions. Accurate measurements enable users to manage energy use and emissions in every aspect of the IT infrastructure, from the desktop to the mainframe. For example, the Carbon Emissions Management Service enabled the Bank of Queensland to establish a baseline of its carbon impact and to set goals. The bank is on target to reduce carbon dioxide emissions by 33% by 2011, in compliance with the Australian government's National Greenhouse and Energy Reporting Act.

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HP Carbon Footprint Calculator

The free online HP Carbon Footprint Calculator[1] helps customers understand and identify steps to reduce the environmental impact and cost of their computing and printing. The data is based on energy assessments specific to the customer's country or even state—and includes information for 146 countries.

The calculator allows users to either review individual products or compare one product against another to understand potential energy savings. For printers, it is possible to evaluate a whole fleet.

Customers can compare current and legacy individual HP products. The calculator shows the estimated energy use and cost, and the associated greenhouse gas (GHG) emissions. Sliders on the screen allow customers comparing printers to vary factors such as pages printed per year and the lifetime of the equipment and immediately see the estimated effect on energy use and other factors. PC users can input alternative power supplies, graphics cards, and processors.

Printer fleet assessment

Business customers can work with HP to build a baseline estimate of their printing products' carbon footprint as a starting point for environmental improvements.

The assessment includes three simple steps:

1. Enter your country, region, or (in some cases) state.
2. Provide basic data about your organization and your printer fleet.
3. Define your energy- and paper-saving practices, such as powering off equipment daily, the number of hours of printer use each week, and printing on both sides of paper.

The calculator shows your current energy consumption and associated greenhouse gas (GHG) emissions, paper use, and annual cost. It then illustrates how HP business solutions can reduce your impact and save money. Alternatively, customers can opt for an advanced path that allows them to input the exact printers they use, resulting in more precise

outputs that better reflect the customer's current situation.

Learn more

1. [1] The Carbon Footprint Calculator generates estimates of energy consumption during use of a PC, monitor, or printer, emissions of carbon dioxide equivalent (CO_2e) from production of that electricity, and CO_2e emissions from production of estimated volumes of paper consumed during printing (i.e., estimated CO_2e from electricity production and CO_2e from paper production). It is based on certain key assumptions and makes use of data and models generated by third parties. For more information visit: www.hp.com/go/carbonfootprint.

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CeNSE

HP's Central Nervous System for the Earth (CeNSE), a project of HP Labs, will revolutionize the way information is gathered, communicated, and analyzed. CeNSE is a highly intelligent network of billions of nano-scale sensors that will feel, taste, smell, see, and hear what is going on in the world and communicate that information over fast and powerful computing networks to be analyzed and acted upon in real time by a new breed of business applications and web services.

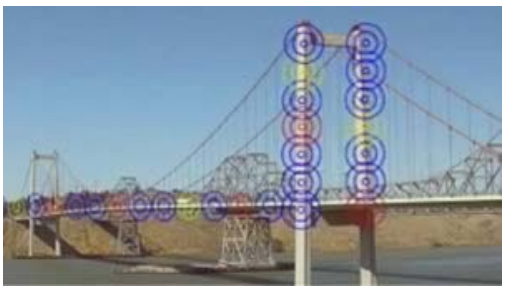
CeNSE will combine breakthrough innovations from HP Labs in nanotechnology, networking, business analytics, and optimization in ways that could make people and businesses safer, more secure, and more efficient.

The networks will be able to provide real-time information on the physical environment to improve the way governments, businesses, and society respond to and manage environmental, biological, and physical/structural changes. Small problems such as a worn steel rod can be fixed before they become big problems (the steel rod breaks), and other problems can be avoided altogether.

CeNSE will open up a new breed of business optimization applications using information ranging from operating capacity and merchandise tracking to environmental management and safety. The sensors will have the potential to "smell" a gas leak, monitor the speed and volume of freeway traffic, sense wear and tear on a bridge, or track the spread of the next flu virus. The result will be improved effectiveness and use of resources throughout the global economy. CeNSE could lead to ten-fold gains in production efficiencies and the ability to extend the life of manufacturing components by 50%.

HP aims to pilot CeNSE networks within the next three years and make them commercially available within four years.

Learn more



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HP Compaq 8200 Elite Ultra-slim Desktop PC

This HP ultra-slim desktop PC is designed to help reduce environmental impact and help businesses lower their operating costs. It's one of our highest performing and most energy-efficient business PCs to date, with up to 50% greater energy efficiency, compared with similarly configured HP models.[1]

The limited expansion options and smaller size of the chassis allow for a highly efficient 135W external power adapter rated at 87% efficiency. ENERGY STAR® qualified and EPEAT® Gold registered,[2] the HP Compaq 8200 puts customers in control of power settings with HP's exclusive Power Assistant, which provides an easy-to-use desktop application that lets users control the PC's energy use by scheduling various power settings throughout the day.

Designed with the environment in mind, the HP Compaq 8200 Elite Ultra-slim Desktop PC is also free of brominated flame retardants (BFRs) and polyvinyl chloride (PVC).[3]

Learn more

1. [1] Power benchmark and comparison testing performed on a similarly configured HP Compaq dc7900 SFF and HP Compaq 8200 Elite SFF. Power profiles: Power measurements were done with the "as shipped" defaults. Power measurements for idle, off, and sleep/standby were conducted per ENERGY STAR® guidelines. Actual results may vary based on system configuration, and performance will vary over time depending on software installed.
2. [2] EPEAT registered where applicable/supported. See epeat.net for registration status by country.
3. [3] HP Business Desktop PCs are brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free).'" Plastic parts contain <1,000 ppm (0.1%) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1%) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15%) with a maximum chlorine of 900 ppm (0.09%) and maximum bromine being 900 ppm (0.09%). Service parts after purchase may not be BFR/PVC-free. Power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter are not BFR/PVC-free.

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HP Critical Facilities Services

HP Critical Facilities Services (CFS) provides leading consulting, design, and technical innovation for data centers to transform computing performance and improve energy efficiency. The range of services includes:

- Consulting on data center strategy to help organizations decide the size and number of centers needed and where they should be located
- Professional analysis to develop innovative engineering design solutions
- Assurance services to enhance operational performance and reliability

- Advice on energy and sustainability as part of our Moving Toward Sustainability program

These services address the severe challenges data centers are facing as they struggle to meet growing demand for computing power while working to increase efficiency. Power and cooling is the number one challenge for data centers today,[1] with serious risks of limits on power availability halting data center operations at many companies. As requirements in this area for computing continue to grow, the optimization of energy use, the cost of energy, and associated greenhouse gas emissions have become increasingly important. By 2011, annual spending on powering and cooling at U.S. IT sites is expected to exceed that of new server spending.[1]

HP CFS helps organizations to meet those challenges. We help clients upgrade and modernize current data centers, design and build next-generation facilities, and transform data centers to be energy- and space-efficient. For example, we have been integral to Citi's leadership in highly reliable and more environmentally sustainable data centers, including the world's first center (in Frankfurt, Germany) rated as platinum on the Leadership in Energy and Environmental Design (LEED®) rating system. HP CFS helped lower Citi's energy costs by 30% at a facility in Georgetown, Texas.

These projects require close collaboration between the design team, including architects and engineers, and also from the client. HP contributes deep expertise in energy analysis, life cycle costing, computational fluid dynamics modeling, and building systems commissioning.

Learn more

1. [1] "Building, Planning, and Operating the Next -Generation Datacenter," IDC, 2008.

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HP Data Center Environmental Edge

Part of the HP Data Center Smart Grid portfolio of solutions, HP Data Center Environmental Edge is an easy and affordable way to monitor and manage the data center environment, addressing the critical issues of power and cooling.

HP Environmental Edge measures, analyzes and visualizes data center environmental parameters. With monitoring and reports on energy use, IT managers can improve the environmental performance of the data center, including:

- Improved airflow management at the rack
- Quick identification of hot and over-cooled locations
- Improved data center performance through metric benchmarking
- Enhanced ability to identify areas for reducing cooling and energy use
- Real-time feedback to optimize efficiency

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HP Data Center Smart Grid

The HP Data Center Smart Grid creates an intelligent data center that integrates and optimizes IT equipment and facilities from an energy information perspective. Smart Grid technology collects and communicates thousands of measurements across IT systems and facilities. Using extremely accurate power meters similar to those in energy-efficient homes, it evaluates and reports energy use and impact.

With interconnected sensors that detect when power is being wasted, Smart Grid allows IT managers to make adjustments in real time. Customers can accurately control energy use and environmental impact across the data center, getting all information needed to:

- Increase capacity and useful data center lifespan
- Reduce operating costs
- Control, postpone, or eliminate additional capital expenses
- Optimize the power and cooling efficiency of both IT equipment and facilities
- Provide insight and control over energy costs and environmental impact

For the first time, businesses can immediately see and control energy use across an entire data center, so they can minimize power consumption, reduce expenses, and cut their carbon footprint.

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HP 2310e Ultra-thin WLED backlit LCD monitor

The HP 2310e Ultra-thin WLED backlit LCD monitor uses white LED (WLED) technology to reduce the number and

overall size of components. The result? Lower power consumption and an ultra-thin, stylish design.

WLED backlights contain no mercury and help conserve power, making this monitor ENERGY STAR® 5.0 qualified, EPEAT® Gold registered,[1] and winner of *PC Magazine*'s 2010 GreenTech award.

Designed with the environment in mind, the HP 2310e is also made with arsenic-free display glass[2] and BFR/PVC-free[3] plastics and finishes for responsible recycling.

Learn more

1. [1] EPEAT registered where applicable/supported. See epeat.net for registration status by country.
2. [2] Arsenic and its compounds were not detected using U.S. EPA test methods 3052/6010b by ICP-AES.
3. [3] HP 2310e monitor is brominated flame retardant and polyvinyl chloride-free (BFR/PVC-free) in the plastics and finishing; meeting the evolving definition of "BFR/PVC-free" as set forth in iNEMI position statement on "Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free)". Plastic parts contain less than 1,000 ppm (0.1%) of bromine (if Br source is from BFRs) and less than 1000 ppm (0.1%) of chlorine (if Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total less than 1500 ppm (.15%) with maximum chlorine of 900 ppm (.09%) and maximum bromine 900 ppm (.09%).

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HP Deskjet 3050 All-in-One printer

This ENERGY STAR® qualified all-in-one not only reduces the number of devices businesses and individuals need—it's made with up to 35% recycled plastic. This helps to reduce demand for fossil fuels and the energy expended in extraction, transport, and processing of virgin plastic.

Businesses and individuals can recycle or reuse 99% of the HP Deskjet 3050 All-in-One's packaging—including a reusable bag.[1] And, it uses Original HP ink cartridges that contain 70% recycled content.[2]

When in sleep mode, the HP Deskjet 3050 All-in-One uses an amount of energy comparable to powering a clock radio. In fact, HP has performed an analysis and concluded that if all ink printers sold in 2005, including those from HP and all other printer manufacturers, were recycled and refreshed with the HP Deskjet 3050, customers could collectively save more than $688 million USD in one year.[2]

Learn more

1. [1] Some small pieces of tape are not recyclable.
2. [2] Percentage of recycled material is based on empty weight.
3. [3] Estimations of the energy consumption of 2005 products were done by using worldwide IDC shipped volumes, HP products, U.S. Environmental Protection Agency's ENERGY STAR® program (www.energystar.gov) product averages, and the typical energy consumption (TEC) method. The energy costs are based on U.S. Department of Energy data (www.eia.doe.gov), and actual results may vary.

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HP EliteBook 8440p

Business users need a hard-working, durable, powerful mobile computing solution that's environmentally responsible.

With manageability, security, upgradeable wireless, and enhanced system and graphics performance, the HP EliteBook 8440p Notebook PC is high performance on the go.

The HP EliteBook 8440p is free of brominated flame retardants (BFRs) and polyvinyl chloride (PVC) from the wall to the mouse, improving performance while eliminating substances of concern. It features a mercury-free LED-backlit display, and ENERGY STAR®-qualified configurations are available. The EliteBook 8440p is EPEAT® Gold registered in the U.S. and won *Laptop* magazine's 2010 Green Choice Award in the All-Purpose Notebook category.

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HP ENVY^{100} e-All-in-One printer

Aside from being the world's first PVC-free printer, the HP ENVY^{100} e-All-in-One is packed with cutting-edge features, including wireless, web-connected printing,[1] a high-resolution touchscreen, and automatic two-sided printing, for reducing paper use by up to 50%.

The HP ENVY^{100} e-All-in-One is also ENERGY STAR® qualified and uses Original HP ink cartridges made with up to 70% recycled plastic.[2] Using recycled plastic helps reduce demand for fossil fuels and the energy expended in extraction, transport, and processing of virgin materials. Reusable tote bags used for shipping this e-all-in-one reduce waste even further.

Customizable one-touch apps with the HP ENVY[100] e-All-in-One can access the Web for everyday printing needs, such as maps, movie tickets, and coupons. Using the HP ENVY[100], individuals can print and share from multiple PCs, and stay connected, using integrated wireless networking. And with the cloud-based mobile-printing solution HP ePrint,[1] they can print from across town or across the room.

Learn more

1. [1] Requires a wireless access point and an Internet connection to the printer. Apps availability varies by region and agreements. Services may require registration. For details, http://www.hp.com/go/ePrintCenter.
2. [2] Percentage of recycled material is based on empty weight.

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HP Handheld sp400 All-in-One

The HP Handheld sp400 All-in-One is a scan-and-print solution that integrates a 2-D barcode imager, a paperless inkjet printer and wireless communication into a single device.

HP developed the device in collaboration with UPS, the world's largest package delivery company, where it is already in use in the UPS network of package centers. UPS uses the device to scan packages, send data wirelessly to a server, and print handling instructions directly onto packages without the need for a paper label. It is small and light enough to wear on the hand—much more convenient than moving trolleys loaded with thermal printers, PCs, monitors and keyboards, as was necessary previously.

By 2010, UPS expects to process more than 3 million packages per business day in the United States using the HP Handheld sp400 All-in-One. This device stands to save UPS more than $30 million in labor, capital and consumables costs over the next five years alone, while saving more than 1,200 tonnes of paper per year once it is fully deployed.

The HP Handheld sp400 All-in-One is ideal for distribution centers but has many other applications as well, such as airline services. It is powered by a rechargeable lithium-ion battery that delivers more than 5,000 scans and prints per charge.

Dave Barnes, senior vice president and CIO of UPS, said: “The new HP handheld device means increased efficiency and effectiveness at a lower cost, with less waste. This is a perfect example of how technology helps to drive business solutions at UPS.”

See an extended case study and video for more detail.

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HP HDPE Reinforced Banner

PVC banner material has been the go-to substrate for outdoor banners for many print service providers. However, any benefits it might provide are sharply offset by the environmental downsides of the material, including the fact that it can last over 20 years in a landfill.

HP HDPE (high-density polyethylene) Reinforced Banner material is a tough, lightweight alternative designed to stay vibrant and intact under the harshest outdoor conditions—with a carbon footprint 66% smaller than PVC scrim. HDPE can also be recycled for free through the HP Large-format Media take-back program. Plus, the material is lighter than PVC scrim and can cut transportation costs in about half.

Compared with PVC scrim, HDPE banner material uses fewer raw materials, has reduced associated greenhouse gas emissions during the production process, and is easier to recycle after use, giving print providers a greener alternative with no trade-off in performance.

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HP “closed loop” ink cartridge recycling

The HP “closed loop” ink cartridge recycling process is the first of its kind. Recycled plastic from HP ink cartridges is combined with recycled plastic bottle materials to create new Original HP ink cartridges.

According to a life cycle assessment, the recycled plastic used in our Original HP ink cartridges has a carbon footprint up to 22% smaller than if virgin plastic had been used—even when accounting for the impact associated with collecting, transporting, and processing the empty cartridges and plastic bottles used to make the recycled PET.[1]

HP has produced 1 billion Original HP ink cartridges containing post-consumer recycled plastic[2, 3]—800 million of those cartridges were manufactured with recycled plastic from the HP “closed loop” process. As a result, we’ve helped reduce greenhouse gas emissions equivalent to taking 3000 cars off the road for a year, or curbing gasoline consumption by 1.7 million gallons.[4]

Using recycled materials saves energy, avoids waste, and keeps plastic out of landfills. Although achieving consistent quality and reliability can be difficult with recycled plastics, HP's engineers, chemists, and partners developed recycled materials that met HP's high performance standards.

Since HP began the pilot process in 2005, through the end of the 2009 fiscal year, HP used more than 20,000 tonnes (44 million pounds) of recycled plastic resin[5] in 760 million ink print cartridges.[6] Our goal is to use a cumulative total of 100 million pounds of recycled plastic in our printing products, including ink cartridges, between 2007 and 2011.

Learn more

1. [1] For cartridges produced between 2005 and 2010. Based on a 2010 life cycle assessment (LCA) performed by Four Elements Consulting and commissioned by HP. The study compared the environmental impact of using polyethylene terephthalate plastic (PET) with the environmental impact of using recycled polyethylene terephthalate (rPET) plastic to manufacture new Original HP cartridges. For details, see www.hp.com/go/RecycledPlasticsLCAs.
2. [2] Many Original HP ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model and over time, based on the availability of material.

3. [3] As of September 2010.
4. [4] Calculated with the EPA Greenhouse Gas Equivalencies Calculator. For details, see www.epa.gov/cleanenergy/energy-resources/calculator.html.
5. [5] At least 50% recycled plastic by weight, minimum 95% post-consumer.
6. [6] This is a large increase over the cumulative total HP announced in early 2008 (200 million ink print cartridges). HP has been working with suppliers to accurately account for the recycled content we use. In 2008, HP reconciled recycled plastic usage from one of our large resin suppliers; that usage is now included in HP's totals.

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HP LaserJet Pro CP1025nw

The HP LaserJet Pro CP1025nw is the most energy-efficient color laser printer on the planet.[1] HP Auto-On/Auto-Off Technology helps users save energy and money by turning the printer on when they need it and off when they don't. Instant-on Technology also enables a 50% reduction of energy use.[2]

Customers save energy and money, with a total annual energy cost of a little less than two dollars.

Learn more

1. [1] Energy consumed per printed page based on competitive TEC measurement results found at energystar.gov, eu-energystar.org and the HP Carbon Footprint Calculator at hp.com/go/carbonfootprint.
2. [2] Energy savings based on HP testing using the ENERGY STAR® program's typical electricity consumption (TEC) method on HP LaserJet products with Instant-on Technology vs. top competitive models as of March 2009.

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MagCloud

MagCloud, the new self-publishing web service from HP, is changing the way ideas, stories and images find their way into people's hands in a printed magazine format.

With MagCloud, photographers can create photo magazines for their next gallery exhibit, bands and celebrities can build buzz and connect with their fan bases, designers can create amazing brochures and catalogs, corporations can build a brand in style, and media companies can breathe new life into their valuable content catalogs. MagCloud delivers commercial-quality magazines printed on demand, doing its part to help reduce magazine waste. Last year, 2.3 billion magazines were wasted in the United States alone.[1]

Invented by HP Labs, MagCloud takes on the heavy lifting for publishers by providing automated ordering and print management services—all free of charge—and is currently available in the United States, UK and Canada (with plans to expand to other regions soon). Whether you order one or 100 copies, there are no up-front costs and no minimum orders, and the cost is only $0.20 a page (plus shipping). Think of HP MagCloud as a web-based marketplace where a new breed of magazine publishers can affordably turn their targeted content into beautiful printed magazines, and promote and sell their products to a broad range of readers. Or a place where existing media companies can repurpose print and online content to create targeted, special edition magazines printed on demand.

The service enables brands and content publishers to build and extend their community reach using highly targeted print products. Along with personalizing publications, on-demand publishing reduces the transport costs, waste and inventory issues associated with traditional magazine publishing, and all magazines are printed on FSC-certified 50% recycled paper (10% post-consumer, 40% pre-consumer).

Learn more

1. [1] "The Magazine Retail Sales Experience 2008," Harrington Associates.

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HP Managed Print Services

HP Managed Print Services (MPS) enables organizations to reduce their energy and paper use and cut costs related to printing.

With MPS, HP helps customers assess their requirements, design an imaging and printing infrastructure tailored to their specific needs, and then acquire, install, and manage the necessary equipment. MPS is a comprehensive, scalable suite of services that includes imaging and printing devices, software, supplies, support, professional services, and solutions—with flexible procurement, transition and management options to help companies meet their business and environmental goals.

Using MPS has enabled some HP customers to achieve energy savings of between 30% and 80% in their imaging and printing operations, and reduce paper consumption by millions of pages. In addition, MPS can help customers achieve more efficient workflows and increase recycling of used print supplies and old hardware.

HP MPS customer Viacom was able to achieve the following benefits:

- Anticipated cost reduction of 20% to 25% for printing and copying
- 50% reduction in the number of print, copy, or fax devices
- 12.5% reduction in number of pages printed (projecting savings of more than 10 million sheets of paper)
- Energy use for printing slashed by more than 60% and CO_2e emissions reduced by about 380 tonnes

Meanwhile, using MPS meant that our customer 3M:

- Reduced energy consumption by more than 75%, saving more than $1.2 million in energy costs
- Achieved a reduction of an estimated 8,240 tonnes of CO_2e emissions from energy and paper reductions
- Printed an estimated 353 million fewer pages over a three-year period

As part of our HP MPS portfolio, HP offers the HP Eco Printing Assessment for businesses interested in quantifying and reducing the energy consumption, wasted paper, and greenhouse gas emissions from imaging and printing. After analyzing a representative sample of a customer's printing environment, HP then recommends best practices and identifies a roadmap of recommended changes, helping customers reduce costs and save resources.

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HP Performance-Optimized Data Center (POD)

The HP POD can be deployed within weeks instead of requiring months or even years to design, construct and install a traditional data center and IT. The HP POD can ship empty or fully integrated with tested IT from an HP factory in as little as six weeks, slashing the time for data center build-out. Available in both 20-foot (6-meter) and 40-foot (12-meter) designs, the HP POD uses industry-standard 19-inch (48-centimeter) racks, providing a vendor-neutral platform.

Aging data centers often run out of power and cooling capacity, especially with the power density and thermal output of today's smaller IT hardware. Faced with the need to expand data centers, companies are forced to build new space, with high costs and long lead times. Alternatively, HP PODs add space as it is needed, with short lead times. The 40-foot HP POD delivers the equivalent of 5,000 or more square feet (460 square meters) of traditional data center space.

In addition to lower acquisition costs, the HP POD is typically 20% to 40% more energy efficient than a typical data center, reducing energy cost and greenhouse gas emissions. It offers configurations optimized for availability and high IT density, enabling users to quickly upgrade or extend the capacity of their physical infrastructure. The weatherized design allows for installation either outside or inside a shelter.

Excellent energy efficiency is due to factors such as the following:

- Close-coupled cooling eliminates wasted cooling energy through complete hot air isolation and short, concise airflow paths. As a result, HP POD can achieve average rack densities of 27 kW or more per rack at an unmatched efficiency.
- Ability to actively control air pressure and temperature to maintain a warmer IT cold-aisle and reduce the chilled water temperature load.

- High-efficiency power distribution and the elimination of waste means power goes directly to the IT with extremely low overhead.

Together, these and other innovations result in a Power Usage Effectiveness (PUE) ratio of 1.25, compared with typical values of 1.7–2.0.

HP PODs may also provide a more energy-efficient solution to disaster recovery needs. With increasing energy and real estate costs, additional capacity for disaster recovery can be expensive. HP PODs can help by being easy to place in lower-energy-cost areas, reducing the expense of disaster recovery plans.

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HP Photosmart ml1000d Minilab

HP offers dry printing solutions for commercial photo processing that reduce the environmental impact of standard photo printing. Whereas a typical silver-halide system discharges significant amounts of chemicals and water, HP Photosmart Microlab and Minilab printers are self-contained units that do not require a water source or drains, reducing the overflow of developer, fixer, and wash water to municipal and private waste treatment facilities. These products also eliminate the need for operators to interact with and handle potentially hazardous chemicals.

During a 2010 life cycle assessment, conducted by Four Elements Consulting and commissioned by HP, the HP Minilabs and HP Microlab outperformed the silver-halide systems in the majority of impact categories, including two areas of importance: carbon footprint and total energy use.[1] HP Retail Publishing Solutions supplies can be easily recycled after use, and HP provides free shipping materials and postage.

These systems have additional environmental benefits as well. The HP Photosmart ml1000d Minilab printer requires only ten minutes to start from standby mode, compared with an average of two hours for a typical silver-halide wet lab. Overall, retailers experience a 64% savings in energy use as well as an average yearly decrease of 800 gallons of chemicals and water discharge.[2]

The HP Photosmart ml1000d Minilab is the first dry, retail inkjet minilab capable of producing traditional single-sided photo prints as well as duplex photo book pages and calendars.

The overall quality of the digital prints and the accuracy of the color won HP Photosmart printers a Digital Imaging Marketing Association® (DIMA) Innovative Digital Product Award in 2008.

Learn more

1. [1] Based on a 2010 life cycle assessment (LCA) performed by Four Elements Consulting and commissioned by HP. The study compared the impact of using HP ML1000D, HP ML2000D and HP Microlab pm2000e printers with the impact of using Fuji Frontier 370 and Noritsu QSS-3502 printers to produce 450,000 4 x 6-inch photos a year in North America. For details, see www.hp.com/go/rps.
2. [2] Savings based on f/22 consulting data on HP vs. silver-halide systems. Assumes both photo finishing systems producing 1,250 prints per day, 360 days per year.

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HP Power Assistant for notebook PCs

Whether it's for business travelers who need to extend their notebook's battery life, or IT managers trying to evaluate companywide energy consumption, HP Power Assistant provides a detailed look at power management for notebook users.

HP Power Assistant provides HP notebook users real-time visibility and control to adjust power settings, stretch battery life, and meet their goals for greener computing. This easy-to-use tool also helps users estimate the costs of running their HP notebook—in dollars, kilowatt hours, and even CO_2.[1]

What's more, HP Power Assistant can be fully integrated with HP Client Automation software for a complete solution to measure, log, and report energy use of HP client devices throughout the enterprise. Administrators can set corporate client power policies and enforce power-on and power-off modes to reduce overall power consumption and expenses.

Learn more

1. [1] Power calculations and cost calculations are estimates. Results will vary based on variables, which include information provided by the user, time PC is in different power states (on, standby, hibernate, off), time PC is on battery or AC, hardware configuration, variable electricity rates and utilities provider. HP advises customers to use information reported by HP Power Assistant for reference only and to validate impact in their environment. Environmental calculations were based on U.S. EPA eGrid 2007 data found at www.epa.gov/egrid. Regional results will vary.

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HP ProCurve

HP ProCurve networking products, including network management and switches, complement energy-efficient servers to save even more energy.

Designing energy-efficient products is only the first step in helping customers address their green IT needs through networking. Remotely managing and controlling the power delivery to the endpoints in the network is equally important to reduce the energy consumption of facilities.

With ProCurve Manager Plus (PCM+), users can schedule shutting off idle devices when they are not in use, realizing up to 73% in energy savings.

HP ProCurve Networking switches, which connect network segments and route data, may also help customers reduce their energy consumption.

Miercom, a leading independent test lab, awarded several ProCurve switches the Miercom Green certification, recognizing their excellent environmental performance. Comparing how many watts the switch consumes with the throughput it delivers, Miercom found that all eight ProCurve switches it analyzed performed better than the industry average. The HP ProCurve Switch 5406zl delivered the best energy performance with up to 45% savings.

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HP ENVY^{14} notebook

The award-winning HP Envy^{14} notebook has power management settings designed to help you reduce your environmental impact and lower operating costs.

Chosen as *Wired* magazine's Computer of the Year in 2010, this notebook comes with a mercury-free LED display with arsenic-free display glass.[1] It is also BFR- and PVC-free.

The HP Envy^{14} notebook is ENERGY STAR® qualified and EPEAT Gold registered.[2] Using it with power management settings on for a total of 20 hours in one week saves an estimated 196 kWh.[3] That's a savings equivalent to driving 263 fewer miles.

Learn more

1. [1] Arsenic and its compounds were not detected using U.S. EPA test methods 3052/6010b by ICP-AES.
2. [2] EPEAT registered where applicable/supported. See epeat.net for registration status by country.
3. [3] Calculation per the HP Carbon Footprint Calculator. See www.hp.com/go/carbonfootprint.

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HP T300 Color Inkjet Web Press

The HP T300 Color Inkjet Web Press can help to reduce the environmental impact of printing books, direct mail material, and other types of commercial printing. Our thermal inkjet technology delivers excellent print quality and productivity while decreasing waste, paper use, and cost.

Digital on-demand printing using the Web Press can reduce much of the waste typically arising from offset printing. Paper waste is avoided in setup and changeover of print jobs. Printers can produce materials as needed rather than printing large volumes with significant overruns, storage, and waste costs. This decreases climate impact as well, since paper use is the leading contributor to greenhouse gas emissions from the commercial printing process. (See Enabling a low-carbon economy for details.)

The Web Press offers additional environmental benefits. It uses HP water-based pigment inks and specially engineered HP Bonding Agent. These non-flammable materials emit very low levels of volatile organic compounds and contain no detected hazardous air pollutants.[1] Inkjet printing deposits colorant on the surface of the paper directly, without the need for electrostatic charging, and therefore avoids creation of ozone and potential ozone management issues. The ink and bonding agent drums are also recyclable. These advantages improve the working environment for printing operation employees, reduce the environmental impact of printing, and help to address the storage, handling, and waste disposal challenges often associated with traditional offset printing.

Learn more

1. [1] The inks were tested for hazardous air pollutants per U.S. Environmental Protection Agency Method 311 (testing conducted in 2008) and none were detected. HAPs are air pollutants that are not covered by ambient air quality standards but which, as defined in the Clean Air Act, may present a threat of adverse human health effects or adverse environmental effects.

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HP Thermal Logic

Enterprises are looking for solutions to make the most of their existing infrastructure while reducing costs. So what's the solution when a company needs to add more servers to a data center with already limited power and cooling capacity?

HP Thermal Logic is a portfolio of technologies embedded in HP ProLiant G6 and G7 servers. They can help triple data center power and cooling capacity, and reduce server energy use by 25% over previous-generation servers. For a 1-megawatt data center, that's a yearly savings of $300,000.[1] It provides IT managers with the ability to see exactly how and where they're using power at the data center level.

HP Thermal Logic innovations include the use of up to 32 onboard sensors to adjust fan speeds based on changing temperatures; Dynamic Power Capping, which allows for three times the number of servers per rack by dynamically reallocating energy resources;[1] and Intelligent Power Discovery, which automatically maps new HP servers and delivers higher precision, control, and automation to power distribution.

HP Thermal Logic also features the Insight Control suite of management software, which makes it easy to track and finely tune server energy use. By tracking power usage at the data center level, IT managers can precisely track energy consumption and take clear steps to optimize performance.

Learn more

1. [1] HP Performance Engineering Team, 2008 research.

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HP thin client computers

HP was the first company to introduce thin client PCs that meet ENERGY STAR® 5.0 and Electronic Product Environmental Assessment Tool (EPEAT®) standards.

With overall fewer parts than traditional PCs, these computing devices completely eliminate moving parts such as fans and disk-based hard drives, so they produce very little heat, reducing air conditioning demands and lowering failure rates—potentially saving resources by extending their operational lifetimes.

Due to their significantly smaller size, an HP thin client and its packaging is less than one-third the weight of a traditional desktop PC, with 40% less corrugated board packaging and more than 55% less foam. Up to 98% of the materials used in HP thin clients and their packaging are recyclable.

HP MultiSeat Solution is a thin computing solution that allows up to ten people to use a single PC simultaneously, each with individually supported and licensed Windows® access. This cost-effective solution expands access for education, growing businesses, and emerging markets and reduces power consumption to as little as 2.3 watts per user, as compared with 80 to 120 watts for typical desktops.

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HP TouchSmart 610 series PCs

Award-winning HP TouchSmart 610 series PCs combine cutting-edge home computing and impressive energy efficiency. If only 10% of the desktops and associated monitors sold in 2005 were recycled and replaced with HP TouchSmart PCs, over 3.1 million tonnes of carbon dioxide equivalent (CO_2e) would be avoided in the first year. This is equivalent to removing more than 596,000 vehicles from the road for an entire year.[2]

HP designs the HP TouchSmart 610 series with the environment in mind. It cuts energy use via power management technology and provides up to 45% energy savings compared with PCs without power management enabled.[3] This energy-efficient PC also improves reliability by reducing heat output. All HP TouchSmart PCs meet ENERGY STAR® 5.0 requirements and are EPEAT® Silver registered in the United States and Canada. And HP TouchSmart 610 series PCs ship in packaging that is 100% recyclable[1] and contains a minimum of 60% recycled materials.

Learn more

1. [1] 100 % recyclable in the United States; recyclability may vary in other locations due to availability of recycling programs.
2. [2] HP compared the energy consumption of comparable HP products in 2005 with our latest models for each category of products, including the HP TouchSmart 610 series PCs. Estimations of the energy consumption of 2005 products were done by using worldwide IDC shipped volumes, HP products, U.S. Environmental Protection Agency's ENERGY STAR® program (_www.energystar.gov) product averages, and the typical energy consumption (TEC) method. The energy costs are based on U.S. Department of Energy data (_www.eia.doe.gov), and actual results may vary.
3. [3] According to estimates made using EPA statistics comparing PCs with and without power management. More info: http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/Calc_computers.xls.

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HP Visual Collaboration

Many employees of businesses and organizations spend a significant amount of time traveling by plane. In addition to the major financial cost, this also has a sizable impact on the environment due to aircraft emissions.

A roundtrip flight between San Francisco and Singapore can generate 3.3 tonnes of CO_2e emissions per passenger. Add the time and expense of an average trip, and business travel comes with a big bill, both for companies and the environment.

HP Visual Collaboration allows businesspeople to have frequent, meaningful collaborations without travel. With immersive, real-time video conferencing, employees can walk down the hall for a face-to-face meeting that used to take them across continents. HP provides a complete portfolio of solutions from studios to room-based and desktop systems, making it simple to meet the needs of any business.

The savings can be sizable. Within one 36-month period, HP Visual Collaboration has allowed HP and its customers to save 174,956 tonnes of CO_2e that would have been generated had the meetings taken place in person.[1] That's like removing 33,453 vehicles from the road for an entire year or eliminating more than 143,818 round-trip flights from New York to London.

HP Visual Collaboration is transforming businesses, extending the power of personal connections everywhere, while helping them spend less on travel and lower carbon emissions.

Learn more

1. [1] For air travel avoidance, an average of 1,609 miles each way per round trip (average of short, medium, and long-haul flights at HP), and a CO_2 footprint per mile of 199g CO_2e (www.cleanairconservancy.org) is used. Car travel to/from airport on both ends is also considered. In the 35% of meetings that avoid travel, only 1.4 people are assumed to avoid travel in each meeting. Usage depends on a company's travel and meeting policies.

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Wynyard data center

Data centers can be the single largest source of electrical power consumption and carbon emissions for corporations. On average, traditional data centers consume several thousand megawatt hours per year.

But an innovative new facility in Wynyard, UK, designed and managed by HP, has moved sustainable data centers forward by leaps and bounds. HP applied a systems-based approach, locating the Wynyard center on the coast of England's North Sea to take advantage of the cool climate. Frigid air is used to cool IT equipment, allowing the facility to go without air conditioning most of the year. Other design innovations create additional efficiencies. The Wynyard data center is expected to reduce energy consumption by 40% and save up to $4 million annually.

In a typical year, the facility is expected to produce 8,770 tonnes of CO_2—roughly half of what a standard data center would produce. HP's bold innovation is making energy-efficient computing space available to our clients, with a carbon footprint of less than half of typical data centers. Wynyard was selected as a winner of a prestigious 2010 Green

Enterprise IT Award, presented by the Uptime Institute.

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HP Z Workstations

The HP Z Workstations family, including the HP Z200, Z400, Z600, and Z800 workstations, continues the company's use of new technology designed to improve environmental impacts along with excellent performance, value, and serviceability. These workstations are the culmination of more than 20 HP design innovations, including, on the HP Z600 and Z800 workstations, a self-checking power supply that can be removed from the system with no tools and plugged directly into the power cord, where an LED indicates whether or not the power supply is good, making them easier to service.

These workstations are aimed at power-intensive applications in industries such as graphic arts, broadcast, computer-aided design, engineering, medical imaging, and oil and gas exploration. HP Z Workstations save energy with the energy-efficient Intel® Xeon® processor and include 85% efficient power supplies—reducing both overall energy use and waste heat. The HP Z800 Workstation also has an option for an 89% efficient power supply.

The family includes the new HP WattSaver—an HP exclusive feature that manages power in the "off" state between 0.5 and 1 watt when activated by the customer, compared with 2 to 6 watts for a typical product. The HP Z Workstations immediately qualified for the ENERGY STAR® 5.0 standard in July 2009.

All HP Z Workstations are more than 90% recyclable by weight, and the line achieved the Gold rating in the Electronic Product Environmental Assessment Tool (EPEAT®)—the highest rating available. HP SkyRoom, virtual collaboration, and video conferencing software that can decrease the need for business travel, is included free on HP Z Workstations.

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HP Color LaserJet CM4540 MFP

This ENERGY STAR® qualified multifunction powerhouse doesn't just combine printing, scanning, copying, and faxing into one package. It's got HP Auto-On/Auto-Off Technology, for energy savings up to 50%.[1] A built-in image preview function avoids waste from printing mistakes, and HP FutureSmart firmware allows you to easily update and extend capabilities, lowering the cost of future replacement.

Learn more

1. [1] HP Auto-Off capabilities subject to printer and settings. Compares energy consumption of HP LaserJets with HP Auto-Off Technology with top competing models based on market share as of September 2010. Energy consumption based on HP internal testing using the ENERGY STAR® program's typical electricity consumption (TEC) method or TEC value found at www.energystar.gov and www.eu-energystar.org using greatest TEC value reported. Actual power usage may vary.

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HP Storage Disk Systems

Storage accounts for an estimated 37% of total energy use in data centers. Our portfolio of highly efficient solutions meets the needs of cloud computing and the era of big data.

Virtualization and thin storage technology reduce capacity requirements by 50%.[1] HP StoreOnce innovations eliminate duplication and cut archive needs by 95%.[2] Autonomic management and data features reduce overhead by 90%,[1] and converged storage platforms cut power and cooling requirements by 50% or more.[3]

Learn more

1. [1] Based on documented experiences and business results of HP 3PAR Utility Storage in client deployments.
2. [2] Based on a 20:1 deduplication ratio.
3. [3] Exchange 2010 Planning and Deployment Analysis, The Tolly Group, February 2010.

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HP Energy and Sustainability Management (ESM)

HP Energy and Sustainability Management (ESM) is a complete portfolio of services for the enterprise to increase business value from energy and resource efficiency.

Enterprise businesses can take advantage of HP ESM to cut costs and boost efficiency across facilities, information technology (IT), supply chain, and the workforce. Making the most of existing energy can lead to millions in savings and revenue, along with a smaller carbon footprint. HP ESM helps measure and manage a company's vast network of valuable resources—from its facilities to its supply chain.

From an Energy and Sustainability Discovery Workshop to the Energy and Carbon Reporting Service, HP ESM promotes a strategic approach and deep technical transformation to enable growth, innovation, and transparency. HP ESM helps enterprises integrate sustainability directly into their business plans and gain control over their consumption of energy, water, and other resources.

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HP EcoSMART Fleet and Console

The HP EcoSMART Console provides centralized, easy access to usage data and customizable energy-saving options using the embedded web server on a customer's printer. With the HP EcoSMART Fleet—an extension of HP Web Jetadmin—users can collect data and control settings across the entire printing and imaging fleet, then create reports to establish and monitor progress toward environmental goals.

HP EcoSMART Console and Fleet deliver real-time performance information to help users save energy and paper, and track critical information to reduce their environmental impact. By implementing changes at the device or fleet level, businesses can manage their printing environments to reduce impact and achieve sustainability goals.

The console and fleet software options are part of the new HP EcoSMART portfolio, which delivers end-to-end solutions that help businesses print more responsibly. With these solutions, customers can optimize their printing environment, reduce environmental impact, and cut costs while still delivering business results.

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HP ProLiant DL360 G7 ENERGY STAR® server

Designed for space-constrained installations, the HP ProLiant DL360 G7 can deliver better performance, greater capacity, and higher efficiency in less space.

In fact, if 10,000 servers from 2005 were recycled and refreshed with the HP DL360 G7 in an average data center, customers could reduce their energy consumption by nearly 19 million kWh per year and avoid the associated emissions of 9,600 tonnes of carbon dioxide equivalent (CO_2e). That's equivalent to taking more than 1,800 cars off the road for one year.[2]

- **Sea of Sensors** HP unique Data Center Smart Grid Technologies provide intelligent automatic power and cooling with a "Sea of Sensors" that manage and adjust power and cooling throughout the server to provide continuous peak performance and efficient cooling throughout the data center.
- **The Common Power Slot design** A choice of four power supplies tailored to specific workloads enables customers to significantly reduce power waste. These power supplies deliver more than 92% energy efficiency in the majority of real-world configurations.[2]
- **HP Dynamic Power Capping and Insight Control** Customers can use these technologies to reclaim over-provisioned energy and improve capacity by precisely identifying power requirements for each server and setting a limit based on that usage. Dynamic Power Capping allows customers to cap the server's power use level, without impacting performance and still protecting the system circuit breakers.

Learn more

1. [1] Compared with an HP ProLiant G4 server.
2. [2] HP has compared the energy consumption of comparable HP products in 2005 with our latest models, including the HP ProLiant DL360 G7 server and the HP ProLiant DL380 G4 and G6 servers. Estimations of the energy consumption of 2005 products were done by using worldwide IDC shipped volumes, HP products, U.S. Environmental Protection Agency's ENERGY STAR® program (www.energystar.gov) product averages, and the typical energy consumption (TEC) method. The energy costs are based on U.S. Department of Energy data (www.eia.doe.gov), and actual results may vary.

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HP Officejet Pro 8500A Plus e-All-in-One

This ENERGY STAR® qualified printer offers several features to save paper, including automatic two-sided printing and copying, a junk fax blocker,[1] and the ability to fax to a network folder or email and scan to a computer. The Officejet Pro 8500A also delivers professional color printing at up to 50% lower cost per page than color laser printers.[2]

Learn more

1. [1] Requires caller ID service, not included. Price and service contract must be negotiated separately. Junk fax blocker available only in areas with caller ID services.
2. [2] Majority of color laser AiOs <$600 and printers <$300, July 2010; for details, go to hp.com/go/officejet. OJ Pro ISO yield with highest-capacity cartridges based on continuous printing; see hp.com/go/learnaboutsupplies. Energy use based on HP testing using the ENERGY STAR® program's TEC test method criteria.

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HP LaserJet Pro P1102 Printer

Other printers use power and cost money by staying on continuously, even when there is no printing activity.

The HP LaserJet Pro P1102 Printer is the most energy-efficient laser printer on the planet.[1] It features HP Auto-On/Auto-Off Technology that simply turns the printer on when you need it and off when you don’t. Customers save energy and money, with a total annual energy cost of a little more than one dollar.

The HP LaserJet Pro P1102 Printer sets a new standard for laser printers by offering a 65% energy savings over the previous generation of HP LaserJet printers and nearly twice the energy efficiency of its nearest competitor.

Learn more

1. [1] Energy consumed per printed page based on competitive TEC measurement results found at energystar.gov, eu-energystar.org and the HP Carbon Footprint Calculator at hp.com/go/carbonfootprint and the manufacturers' published data sheets for single-function mono and color laser printers as of April 2010. Individual product configuration and usage will affect power consumption.

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Energy and climate	Graph Goals	2006	2007	2008	2009	2010
Energy use from operations[1] [million kWh]				4,441	4,249	4,140
Electricity use from operations[1] [million kWh]				3,972	3,850	3,704
Americas				2,417	2,335	2,225
Europe, Middle East, and Africa				879	908	895
Asia Pacific and Japan				677	606	584
Natural gas use from operations[1] [million kWh]				469	399	435
Americas				296	266	266
Europe, Middle East, and Africa				153	127	160
Asia Pacific and Japan				20	6	9
Voluntary purchases of renewable energy [million kWh energy and renewable energy credits, in addition to the renewable energy available by default in the power grid]				102	131	311
GHG emissions from operations[1] [tonnes CO2e]				2,165,500	2,060,300	1,865,200
Americas				1,327,400	1,241,600	1,179,900
Europe, Middle East, and Africa				338,800	356,600	253,800
Asia Pacific and Japan				499,300	462,100	431,400
PFC emissions[2] [tonnes CO2e]		15,337	13,489	11,627	3,114	3,430
Americas		12,841	12,921	11,385	3,069	3,385
Europe, Middle East, and Africa		0	0	33	44	44
Asia Pacific and Japan		2,497	568	209	0	0
PFC emissions[2] [as a % of 1995 emissions]		59%	52%	45%	12%	13%
PFC emissions, by type[2] [tonnes CO2e]		15,337	13,489	11,627	3,114	3,430
C2F6		5,097	3,808	3,120	1,030	914
CF4		6,456	6,395	6,091	1,522	1,969
SF6		2,958	2,559	1,701	346	293
NF3		139	153	181	77	135
CHF3		545	371	384	110	93
C3F8		112	16	8	0	0
C4F8		29	187	141	29	27
GHG emissions from employee business travel [tonnes CO2e]						

Commercial air travel [tonnes CO2e]	289,000	289,000	320,000	214,000	318,000
HP air fleet [tonnes CO2e]	NA	14,300	21,600	13,400	12,500
HP auto fleet [tonnes CO2e]	174,800	161,100	168,900	138,400	132,300
United States and Canada	89,400	87,200	81,900	73,900	67,800
Europe, Middle East, and Africa	85,400	71,400	85,000	63,700	63,700
Asia Pacific and Japan	NA	2,500	2,000	800	800
Energy and climate - Operations goals					
GHG emissions from product manufacturing (estimated)[3] [tonnes CO2e]		3,500,000	4,100,000	3,500,000	
GHG emissions from product transport (estimated)[4] [tonnes CO2e]		2,000,000	1,800,000	1,700,000	1,900,000
Product use					

Sustainable design	**Graph Goals**	**2006**	**2007**	**2008**	**2009**	**2010**
Life cycle assessment						
Materials						
Packaging						
Paper						

Product reuse and recycling[5]	**Graph Goals**	**2006**	**2007**	**2008**	**2009**	**2010**
Total cumulative recycling [tonnes]		419,000	532,000	651,000	763,000	884,000
Total reuse and recycling combined [tonnes]		97,000	142,000	153,000	142,000	151,000
Recycling - computer hardware and supplies combined [tonnes]		75,000	113,000	119,000	112,000	121,000
Reuse of equipment [tonnes]		22,000	29,000	34,000	30,000	30,000
Number of countries or territories with HP return and recycling programs		45	52	53	56	58
Total recycling, by region[6] [tonnes]		75,000	113,000	119,000	112,000	121,000
Americas		29,300	30,200	36,000	37,500	38,600
Europe, Middle East, and Africa		41,600	76,500	76,700	69,300	76,300
Asia Pacific and Japan		4,000	6,100	6,700	5,600	5,900
Total recycling, by type[6] [tonnes]		75,000	113,000	119,000	112,000	121,000
Hardware		60,600	95,800	98,600	90,500	99,100
HP LaserJet print cartridges[7]		13,600	15,000	19,000	20,100	19,600
HP inkjet print cartridges		700	2,000	1,850	1,800	2,200
HP LaserJet print cartridge recycling						
% of LaserJet market covered by program		88%	88%	90%	90%	92%
% of materials recycled into new products		63%	59%	76%	80%	85%
% of materials used for energy recovery		37%	41%	24%	20%	15%
HP inkjet print cartridge recycling						
% of inkjet market covered by program		88%	89%	88%	88%	87%
% of materials recycled into new products		60%	53%	59%	64%	73%
% of materials used for energy recovery		23%	21%	38%	31%	23%
Product reuse and recycling goals						

HP operations[8]	**Graph Goals**	**2006**	**2007**	**2008**	**2009**	**2010**
Nonhazardous waste[9] [tonnes]		106,000	89,300	91,800	118,000	79,800
Americas		62,700	52,900	54,200	86,200	48,800
Europe, Middle East, and Africa		23,300	20,100	17,200	18,200	13,300
Asia Pacific and Japan		20,500	16,200	20,400	13,300	17,700
Nonhazardous waste landfill diversion rate [% of total produced]						
Global rate		88.2%	88.4%	91.3%	88.8%	84.3%
Americas		88.2%	87.3%	90.9%	89.8%	80.9%
Europe, Middle East, and Africa		87.4%	90.6%	90.6%	85.3%	87.9%
Asia Pacific and Japan		89.3%	89.4%	93.0%	88.7%	91.1%

Global nonhazardous waste composition, 2010 (see Waste and recycling section)					
Hazardous waste[9] [tonnes]	8,640	8,830	10,500	6,830	7,720
Americas	2,190	2,360	3,380	2,470	3,600
Europe, Middle East, and Africa	1,820	1,590	2,080	1,740	1,860
Asia Pacific and Japan	4,620	4,880	5,020	2,620	2,260
Global hazardous waste composition, 2010 (see Waste and recycling section)					
Water consumption[9] [million liters]	8,358	7,359	7,225	7,647	8,172
Americas	5,044	4,518	4,297	4,615	4,727
Europe, Middle East, and Africa	969	713	831	1,001	1,124
Asia Pacific and Japan	2,345	2,128	2,096	2,031	2,320
Wastewater generation, 2010 [million liters]					1,225
Americas					562
Europe, Middle East, and Africa					264
Asia Pacific and Japan					399
Ozone depletion potential of estimated emissions[9] [kg of CFC-11 equivalent]	3,935	6,690	4,543	4,407	4,473
Americas	3,850	2,886	2,776	3,573	3,106
Europe, Middle East, and Africa	30	25	32	70	17
Asia Pacific and Japan	55	3,778	1,735	764	1,350
Disposition by type of TRI material (See Toxics Release Inventory section)					
HP operations goals					

1. [1] HP reset its 2005 baseline in 2010 to reflect data from EDS and other acquisitions since 2005. Data for 2008-2010 include EDS and all other acquisitions. Revised calculations for 2006 and 2007 were not performed. 2009 data were revised to correct incomplete reporting in 2009. This correction has been verified by a third party.
2. [2] These data are based on the calendar year. Some segments do not add up exactly to total due to rounding.
3. [3] Aggregated emissions from first tier suppliers are based on suppliers' dollar volume of HP business compared to their total revenue. The Majority of these companies report on a calendar year basis, with some exceptions. 2009 is the latest year data are available.
4. [4] Does not include data from all recent HP acquisitions.
5. [5] Recycling totals include all hardware and supplies returned to HP for processing, with ultimate dispositions including recycling, energy recovery, and, where no suitable alternatives exist, responsible disposal. Hardware recycling data from Europe, the Middle East, and Africa, and HP LaserJet recycling data are calendar year. The remaining data are based on the HP fiscal year.
6. [6] Segments do not add up exactly to total due to rounding.
7. [7] Includes cartridges returned by customers and cartridges from HP internally.
8. [8] Data for 2009 and 2010 include sites gained since the acquisition of EDS in 2008. Data prior to 2009 are HP only.
9. [9] Some segments do not add up exactly to total due to rounding.

Social innovation

> It's no small feat to overcome the challenges we face as a global community. But at HP, we have the expertise, technology, and resources to make a real difference. And we're working with organizations around the world to innovate solutions that we believe will create lasting change for millions of people.

–Gabi Zedlmayer, vice president, Office of Global Social Innovation

At HP, our approach to social innovation is integrated into our overall business strategy. We apply our global reach, broad portfolio, and the expertise of our employees to help improve social and economic conditions worldwide in ways that only enterprises with HP's reach can. At the same time, our initiatives have successfully opened up new markets and developed existing ones.

In 2010, we expanded our priorities to include a commitment to health, while continuing to focus on education, entrepreneurship, and employee volunteerism and giving. This report details the progress we made during 2010 in each of

these areas.

Highlights in 2010

Value of cash, products, and services contributed

Employees volunteered more than 102,000 hours in communities worldwide

Number of students, recent graduates, and young entrepreneurs HP LIFE programs have reached since 2007

We help address critical social needs through a powerful union of innovation and collaboration. And we measure performance, not only by the extent of the resources we dedicate to projects, but more importantly by the impact our programs have on the people they benefit.

Our strategic approach involves treating our social innovation projects like other business engagements. We work with our partners to understand a targeted need, and then identify the capabilities and expertise we have to offer, harnessing all of HP's assets—human, technical, intellectual, and financial—to develop a solution.

Collaborations and partnerships

Many of society's challenges are complex and multifaceted. To develop solutions, we collaborate with a wide variety of organizations that bring different strengths and expertise to the table, including leading businesses, governments, nongovernmental organizations (NGOs), thought leaders, and academics, among others. Taking a holistic approach is essential to delivering successful, scalable solutions that benefit communities over the long term.

During 2010, we embarked on new partnerships and solidified our commitments to existing ones. Many of those collaborations support our efforts in education, entrepreneurship training, and health. However, our social innovation work is not confined to these three areas and neither are our partnerships. The complexity and interdependency of social challenges requires a comprehensive approach, and we work with a wide range of organizations to help them strengthen their capabilities and provide them with technology solutions that have a positive impact on communities around the world.

Following are a few examples of organizations that HP helps support whose efforts are not confined to education, entrepreneurship, or health:

Schwab Foundation for Social Entrepreneurship

The Schwab Foundation for Social Entrepreneurship is a dynamic community of social entrepreneurs, driving measurable social improvement around the globe. In 2010, HP began partnering with Schwab Foundation to connect social entrepreneurs with HP researchers and information technology experts, and to share the methodology, processes, and tools HP uses to innovate and problem solve.

NetHope

NetHope is a unique collaboration of 32 of the world's leading international humanitarian organizations. The organization is a catalyst for collaboration, helping humanitarian organizations work together to help solve problems in the developing world, share knowledge, foster strong relationships with private industry, and educate members and the wider community of humanitarian organizations worldwide.

In 2010, HP provided financial and technology support to NetHope as part of the Haiti disaster relief response. HP also began broader collaborative efforts with NetHope around the use of cloud-based computing and mobile solutions. In 2011, we intend to expand our efforts, working with NetHope to make new technology solutions available to the organization's members and to the broader community of NGOs.

Community Renewal International

Community Renewal International (CRI) operates in Cameroon and the United States, working to restore the foundation of safe and caring communities by rebuilding a system of strong relationships. Neighborhoods in Shreveport, Louisiana, United States, where CRI has a presence, have seen crime drop by an average of nearly 40%.[1]

In 2010, we provided CRI with $300,000 USD in financial contributions. HP's support allowed CRI to design and develop its first comprehensive evaluation plan—giving the organization critical insight into the impact it has in the communities it serves. CRI was also able to expand its presence in Shreveport, Louisiana, United States, increasing its volunteer base and the number of its neighborhood leaders, and extending the reach of programs that provide mentoring and life skills training. HP's support also enabled CRI to begin laying the groundwork for expansion into the Washington, D.C. area.

Other partnerships

In addition to all the partnerships described in greater detail throughout this report, HP works with other socially minded organizations, such as Business in the Community , Business for Social Responsibility (BSR) , Entrepreneurs Foundation , HandsOn Network , Points of Light Institute , and Taproot Foundation .

Global impact

The following map summarizes the geographical reach of our activities in 2010. (For more data, see Performance.)

Partial view of locations served by social innovation programs during fiscal year 2010*

- * Dots represent programs in that country; could be multiple locations.

1. [1] Crime rate data provided by Shreveport, Louisiana police department.

Education

Education creates opportunity and unleashes human potential. It drives personal achievement, seeds groundbreaking ideas, and fuels economic prosperity for individuals, communities, and countries. In addition to reflecting our core values and longstanding commitment to global citizenship, HP's focus on education is strategic to our business, both today and over the long term.

“We at Change the Equation are very excited to see the innovative way HP approaches its corporate social responsibility, especially in the area of STEM education.”
–Linda P. Rosen, CEO of Change the Equation

HP is a member of Change the Equation —a nonprofit organization involving a network of more than 100 CEOs with a goal of creating widespread literacy in science, technology, engineering, and math. It was formed in response to President Obama’s goal of dramatically improving STEM education.

Innovation is the lifeblood of our company, and of our customers and partners. HP is helping develop the next generation of innovators, business leaders, and skilled workers by promoting science, technology, engineering, and math (STEM) education. There's a global need for strong STEM education programs. Only 1.3% of 15 year olds reached the highest

proficiency level in science during an international test measuring student knowledge.[1] In the United States, most of the fastest-growing occupations in the next decade will require a solid background in STEM education.[2] And a survey of U.K. employers shows that half are concerned they won't be able to fill future jobs requiring STEM skills.[3]

By applying technology in creative ways to extend and enrich teaching and learning, we are helping the next generation of leaders, innovators, and workers develop the knowledge and skills they need to succeed in the global economy.

HP Catalyst Initiative

In 2010, HP launched the Catalyst Initiative to build a global network of education experts who explore new approaches to STEM education. The network uses an interdisciplinary approach and emphasizes creativity, collaboration, and cross-cultural expertise. Our goal is to transform STEM teaching and learning, and inspire students to use their technical and creative ingenuity to address urgent social challenges.

HP selects network members through a competitive call for proposals open to educational institutions, including schools, universities, and nonprofit and nongovernmental organizations.

In 2010, HP selected 30 organizations from 11 countries to join five international HP Catalyst Initiative network consortia in exploring ways to transform STEM education. Each consortium receives HP technology, cash, and professional support. Funding provided to the consortia by HP in 2010 totaled more than $6 million USD.

The 2010 Catalyst Initiative consortia are:

- Multi-Versity consortium, led by the Sloan Consortium (United States)
- Pedagogy 3.0 consortium, led by Futurelab (UK)
- Global Collaboratory consortium, led by CSIR Meraka Institute (South Africa)
- The New Learner consortium, led by Agastya International Foundation (India)
- Measuring Learning consortium, led by Carnegie Mellon University (United States)

Learn more about the HP Catalyst Initiative.

> Having a global community to engage in STEM education online will help fulfill our dream of providing education to everyone, everywhere. The work of the HP Catalyst Initiative provides a unique opportunity to uplift the STEM disciplines in a way that will truly make a difference.

–John Bourne, executive director of the Sloan Consortium (leader of the HP Catalyst Initiative Multi-Versity consortium)

HP employees making an impact:

Barath Venkatesh

Barath Venkatesh used his experience with India's education system, both as a child and an adult, to provide valuable insight to the HP Catalyst Initiative. Thanks to Barath, HP found an exciting partner—the Agastya International Foundation—to lead a Catalyst consortium. Learn more about Barath.

National Lab Network

Launched in 2010, National Lab Network (NLN) is a U.S. initiative to build local communities of volunteers, students, and educators in support of STEM education. The program matches professionals working in STEM-related careers with educators who want to implement hands-on learning experiences inside and outside their classrooms.

To support NLN's goal of reaching one million students, HP began a year-long program in 2010 to encourage skilled volunteerism in schools from its U.S. employees and retirees. HP complements these efforts with technology and cash awards, and provides pro bono services[4] to NLN for program analytics and measurement.

DonorsChoose.org

This year, in association with NLN, HP supported DonorsChoose.org , an online marketplace that matches funding requests from teachers with donors committed to improving public education.

- **Double Your Impact** Through this program, donors can give to a classroom requesting HP products. Once donors fund half of the request, HP contributes the other half. In 2010, 1920 projects were funded, including $400,000 USD contributed from HP. The program engaged almost 6,000 individual donors, benefiting more than 223,000

students.
- **GivingCards** In 2010, HP allocated $200,000 USD in DonorsChoose GivingCards to customers and employees who could then use the cards to support the classroom project of their choice.
- **Technology** Also in 2010, we awarded $150,000 USD worth of HP products to the DonorsChoose.org staff.

HP EdTech Innovators Award

Effective integration of technology into classrooms provides valuable learning opportunities for students entering a knowledge-based economy. Yet many schools and universities are struggling to keep pace with the rapid advance of information technology (IT).

In partnership with the New Media Consortium , we launched the HP EdTech Innovators Award, and attempted to address this challenge by supporting educators who use technology in creative ways inside and outside the classroom. By showcasing these educators—and helping them share their best practices—HP is helping to accelerate the integration of IT into curricula and teaching.

Winners of the EdTech Innovators Award receive technology valued at approximately $40,000 USD, as well as membership to a social network that includes support, training, and other resources to help educators develop and share their ideas.

Ten institutions globally received HP EdTech Innovators Awards in 2010.

1. [1] As cited in OECD (2007). PISA 2006: Science Competencies for Tomorrow's World Executive Summary. Available at http://www.pisa.oecd.org/dataoecd/15/13/39725224.pdf .
2. [2] U.S. Bureau of Labor Statistics, www.bls.gov/emp/ep_table_103.htm .
3. [3] University World News, www.universityworldnews.com/article.php?story=20100521153534898 .
4. [4] Pro bono: Contributed without compensation and for the public good.

Entrepreneurship

In the European Union (EU), 99.8% of businesses outside the financial sector are micro, small, and medium-sized enterprises (SMEs). Between 2002 and 2008, the number of SMEs in the EU increased by 13%, while the number of large enterprises increased by only 5%.[1] All over the world, entrepreneurs drive innovation, create jobs, and fuel economic opportunity. Entrepreneurs don't just transform their own lives—they frequently transform their communities.

We work with organizations all over the world to help recent graduates, young people, and aspiring entrepreneurs acquire the information technology (IT) skills and knowledge they need to launch successful businesses and help their local communities prosper.

HP LIFE

In 2010, we consolidated three previously existing programs to create the HP Learning Initiative for Entrepreneurs (HP LIFE). This global initiative helps entrepreneurs develop essential IT and business skills.

Case study: LIFE City

LIFE City is an online portal for current and aspiring entrepreneurs who live in remote areas or in locations without access to an HP LIFE center. It provides an innovative, user-friendly, and entertaining way to gain small business knowledge. Learn more.

The programs under the HP LIFE umbrella include:

- **GET-IT** The HP Graduate Entrepreneurship Training through IT (GET-IT) program develops business and IT skills in young people and recent graduates, ages 16–25. It includes a network of about 100 community training centers in more than 30 countries, in areas with low income, high unemployment, and limited job opportunities.
- **HELP** The HP Entrepreneurship Learning Program (HELP) supports the growth of microenterprises in communities across Asia that are experiencing high unemployment or economic decline.
- **MAP** Microenterprise Acceleration Program (MAP) provides small and medium-sized businesses access to technology and training that help them accelerate and sustain business growth and economic opportunity.

Collaborating with organizations worldwide is core to the success of HP LIFE, ensuring that young entrepreneurs receive training customized to local conditions and challenges. In 2010, HP worked with Micro-Enterprise Acceleration Institute (MEA-I), Education Development Center (EDC), World ORT, United Nations Industrial Development Organization

(UNIDO), and a network of nearly 300 other organizations to design and deliver training through the HP LIFE program.

Since 2007, HP LIFE programs have reached 500,000 students, recent graduates, and young entrepreneurs through nearly 300 training centers in 47 countries. Our goal is to reach one million people by the end of 2011. HP LIFE has facilitated the creation of more than 20,000 jobs and more than 6,500 businesses. Learn more about the impact HP LIFE is making.

Case study: Creating a Better Life

campaign

The economic divide between urban and rural areas of China is substantial. HP is working with university graduate village officials (UGVOs) to create economic opportunities and help improve social conditions in rural China by giving communities access to information technology (IT) and training programs. Learn more.

Junior Achievement

Getting young people excited about entrepreneurship is an investment in future job creation. HP has worked with Junior Achievement (JA) since 1996 to build entrepreneurship and business skills among young people in new ways, and many HP employees volunteer in JA tutorial and training programs.

HP and JA jointly conduct the annual HP Responsible Business Competition to encourage the development of business and work-readiness skills, and teach the value of corporate social responsibility. More than 200,000 students have benefited from the event since its inception in 2006. In 2010, one winning group of high school students created a solar-powered lantern company and demonstrated a commitment to corporate responsibility by supporting an international microlending organization that works with entrepreneurs in developing countries. Learn more about the Responsible Business Competition and its 2010 winners from Europe, Latin America, and North America.

HP and JA also conduct an online Responsible Business Ideas Contest, during which teams submit ideas for a business that integrates social and environmental responsibility. Learn more about the Responsible Business Ideas Contest and the 2010 winners.

In 2010, HP and JA also held Social Innovation Camps for students in Brussels, Belgium and Palo Alto, California, United States. The camps challenged students to find creative business solutions to a social challenge. In 2011, HP is taking the program further with a Social Innovation Relay, connecting young people around the world with HP Visual Collaboration technologies.

> Through its global infrastructure and talented employees, HP brings real-world knowledge and skills, plus the mentoring and role modeling so vital to unleashing entrepreneurial instincts in young people.

–Sean C. Rush, president of JA Worldwide

1. [1] European Commission, annual report on EU small and medium-sized enterprises, 2009. http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/pdf/dgentr_annual_report2010_100511.pdf.

Health

Good health is fundamental to a good quality of life. But today, access to even basic health services is beyond the reach of billions of people. Public and private health systems are struggling to deliver effective care in developed as well as in emerging markets. Technology can help us to address this global challenge.

Case study: mothers2mothers

Nonprofit organization mothers2mothers (m2m) provides counseling and antiretroviral support to pregnant women living with HIV in sub-Saharan Africa, to prevent the spread of the disease from mother to child. HP is working with m2m to transform its information technology infrastructure. By migrating a paper-based patient records system to a digital environment, m2m will be able to easily share information across its network of more than 700 sites. Learn more.

Historically, the health sector has lagged behind other industries in taking full advantage of technology. At HP, we are contributing our full range of assets, including our broad portfolio of products and solutions, our technical and business expertise, our partnerships, and the time and experience of our employees, to tackle pressing health needs and drive structural, systemic improvements throughout health systems globally. Our two primary focus areas in global health

include:

- **Strengthening health systems** We work closely with governments and strategic partners to fundamentally improve health systems around the world. Learn more.
- **Accelerating electronic and mobile health solutions** We apply our expertise in mobile and cloud-based solutions to improve and transform the way healthcare is accessed and delivered. Learn more.

We are addressing challenges in global health the same way we tackle the challenges of our own business and our customers' businesses. We listen and observe to develop a thorough understanding of the challenge, the environment, and the people involved. Then we put the full strength of our organization to work in order to deliver sustainable solutions that contribute to measurable improvements in health outcomes. By investing in the technological transformation of the global health sector, we help save lives and provide better care for billions of people. In addition, we gain insights to new markets and create new technologies that support our competitive advantage.

Early infant diagnosis

HP and the Clinton Health Access Initiative (CHAI) are working with the Kenyan government to reduce the amount of time it takes to diagnose an HIV-positive infant. Through collaboration and innovative solutions, we're automating the HIV testing process, speeding up reporting of test results, and helping to save lives. Learn more.

A collaborative approach to problem solving and a diverse set of skills and experience help drive innovation. HP works with nongovernmental organizations (NGOs), enterprises, governments, and health organizations to help deliver life-saving solutions. Following are some of the key relationships and programs we established in 2010.

mPedigree

An estimated 700,000 people, at minimum, die every year from ingesting counterfeit drugs.[1] HP is working with nonprofit mPedigree and companies in the pharmaceutical and telecommunications industries to combat counterfeit drugs through an innovative authentication system. With this technology, patients use a mobile phone to send a code, printed on their medication package, via a free text or SMS message to the system. Within seconds, they receive a reply letting them know whether the medication is legitimate.

HP designed, implemented, and provides ongoing management of the authentication service in addition to supplying the cloud infrastructure necessary to make authentication and tracking fast, easy, and secure. Our patented anti-counterfeiting technology is the result of work we've done to develop and refine technologies in imaging and printing, cloud computing, and analytics. It helps us identify and minimize counterfeit products in our own supply chain, and makes us ideally suited to this project.

HP and mPedigree launched the drug authentication program in Nigeria and Ghana in December 2010. The program is expected to be expanded to additional countries and new pharmaceuticals in 2011. Learn more.

Partners HealthCare

In 2010, HP continued its multi-year, strategic joint collaboration with Partners HealthCare to accelerate clinical genomics and advance personalized medicine. In initial phases of the collaboration, HP and Partners HealthCare built a powerful information technology (IT) infrastructure foundation with innovative software, ample storage memory, and processing power to support advances in genetic sequencing technologies. Today, researchers leverage this infrastructure to speed and support critical genetic discoveries. Evolving the robust IT foundation to support modern clinical research is changing the practice of medicine—providing a significant social impact on human health. Learn more.

Partners In Health

In 2010, HP began consulting on the IT architecture for a state-of-the art teaching hospital in Mirebalais, Haiti, through collaboration with Partners In Health (PIH). HP provided pro bono[2] technical expertise for the IT architectural design of the hospital. We also made technology contributions to support the overall mission and operations of PIH. During 2011, we intend to continue to collaborate with PIH and on the teaching hospital and other initiatives.

mHealth Alliance

In 2010, HP became a founding member of the mHealth Alliance—an organization that strives to improve health outcomes in underserved communities by developing and deploying innovative, integrated mobile health solutions. Along with the other mHealth Alliance members, HP will propose and develop standards of interoperability and attempt to accelerate efficient and easy-to-use mobile health solutions. In 2010, HP announced a two-year, $1 million USD commitment to the organization, as well as technical and project support. Learn more.

Global Health Corps

Global Health Corps (GHC) promotes global health equity by recruiting, training, and supporting future leaders. Their fellowship program connects young professionals with organizations worldwide that focus on global health challenges. In 2010, HP contributed $100,000 USD to GHC—allowing for the appointment of two additional fellows to the program. We also laid the groundwork for a mentoring program between HP employees and GHC fellows. The mentoring program is scheduled to formally kick off in early 2011. In 2011, we also intend to expand our support to include technology solutions.

ILA Trust

In India, HP worked with ILA Trust to bring healthcare to very poor people in suburbs of New Delhi. We helped equip mobile clinics to use electronic health records and better monitor patients who cannot afford hospitals. ILA Trust serves 10,000 patients per month with two mobile clinics.

1. [1] " Keeping It Real: Protecting the world's poor from fake drugs," International Policy Network, May 2009. (Approximately 700,000 deaths from malaria and tuberculosis alone are attributable to fake drugs.)
2. [2] Pro bono: Contributed without compensation and for the public good.

Employee volunteerism and giving

At HP, we see great value in supporting the communities in which we live, work, and sell our products. We applaud the HP employees who make an impact in communities worldwide through their volunteer efforts and financial gifts.

Thousands of HP employees around the world volunteered their time or donated money to support local communities and assist in disaster relief efforts during 2010. The following numbers reflect those employees that reported their volunteer efforts to HP or donated money through HP company channels.

- More than 8,500 HP employees donated more than 102,000 hours to volunteer projects.
- More than 11,000 HP employees donated money to nongovernmental organizations and disaster relief efforts.

Employee volunteering

HP encourages employees and retirees to apply their abilities and expertise to volunteer efforts. We engage, equip, and inspire our employees to share the knowledge and skills they use every day in their work at HP to improve their local communities. And we support their efforts to volunteer during both company and personal time.

Many HP employees find volunteer opportunities that match their skills through HP VolunteerMatch. Matches can include anything from empowering women entrepreneurs in India to restoring damaged habitats and protecting threatened native species in Germany. Beginning in 2010, employees can submit new volunteer opportunities for review and inclusion. Also in 2010, HP upgraded the VolunteerMatch site to make it easier to find volunteer activities and share experiences. We're also working to launch an internal website in 2011 that will allow employees around the world to share best practices, tools, and resources for effective community involvement.

Examples of employee volunteer activities in 2010 include the following projects:

HP employees making an impact:

Katrin Mondon

HP's pro bono legal efforts are having an impact all over the world. Katrin Mondon and her colleagues on the HP Germany legal team created a program to educate young people about online risks, such as fraud and piracy. Learn more about Katrin.

HP Legal pro bono work[1]

HP's legal team established a 2010 goal to involve at least half of its U.S. employees in pro bono work, with each of the participants averaging 20 pro bono hours during the year. HP's legal staff made the following progress toward that goal:

- 266 employees participated in pro bono efforts
- Staff donated 3,114 total hours of legal work

The team focuses on the needs of low-income individuals and organizations that serve them. In 2010, the Legal department's efforts expanded beyond the United States, and nearly 17% of HP's legal team outside the United States is currently participating in legal pro bono activities.

Examples of pro bono activities from 2010 include:

- Counseling U.S. veterans returning from Iraq and Afghanistan regarding health benefits through a partnership with National Veterans Legal Services Program
- Educating teenagers in Germany and the United States about the risks they face online, such as fraud, cyber bullying, and threats to data privacy (see sidebar)
- Providing legal support to clients facing eviction in San Francisco, California, United States, through work with the Volunteer Legal Services Program of The Bar Association of San Francisco
- Working with the Homelessness Prevention Project in the San Mateo and Santa Clara counties of California, United States
- Helping immigrants with their journey to become United States citizens
- Assisting low-income individuals in the United States to locate legal resources
- Exposing underserved high school students in the United States to legal concepts and professions

Job skills training for adults

HP human resources professionals are sharing their expertise to open up a world of opportunity for job seekers.

- **Singapore** HP volunteers supported the Women's Welfare Association of Singapore by providing students with a variety of job search tools, including resume writing and interviewing techniques.
- **United States** HP employees in Palo Alto, California began volunteering with JobTrain on a quarterly basis in 2010. Volunteers offer their expertise in resume writing, interviewing skills, presentation skills, career consulting, and teaching a life-skills curriculum developed by HP.

HP employees making an impact:

Aziz Mohamed

In 2010, Aziz Mohamed traveled to Kenya and visited an orphanage. The children there had been abandoned by their families due to disease or illness, and the majority of them are HIV-positive. The experience inspired Aziz to return and do whatever it takes to make a positive change. Learn more about Aziz.

East Africa volunteer team

In 2010, HP employees based in Kenya provided food, clothing, and mentoring support to children at the Kayole Children's Rehabilitation Center in Kenya. The employees also assisted with Junior Achievement programs in the country and collaborated with the Palmhouse Foundation—a charitable trust that sponsors gifted children from needy homes and provides mentorship to help them complete high school. This volunteer team is also helping to coordinate aspects of the early infant diagnosis project for HIV-positive infants in Kenya.

Retiree volunteerism

HP has about 79,000 retirees, many of whom remain involved in our volunteer efforts. Each year, HP retirees volunteer thousands of hours to support local charities and schools worldwide. In 2010, HP retirees lent their skills to organizations such as National Lab Network, Habitat for Humanity, and the Special Olympics. They also mentored at-risk youth, gave gifts and school supplies to children in need, and volunteered in their local schools.

The Encore Fellows program allows HP retirees to use the professional expertise they gained at HP in the nonprofit sector. In 2010, retirees who spent their careers at HP working in human resources, marketing, and customer support, began Encore Fellowships to oversee initiatives, conduct research, and improve the infrastructure and processes of nonprofit organizations.

For more information about how HP retirees continue to contribute after they leave the company, see Employee engagement.

Employee giving

The Hewlett-Packard Company Foundation provides employees in the United States with one-to-one cash matching for gifts to qualified nonprofit organizations, at up to $1,000 USD per employee, per fiscal year. In 2010, HP employees in the United States donated cash totaling approximately $3.2 million USD, matched by $2.7 million USD from the

Hewlett-Packard Company Foundation. In addition, U.S. employees can donate HP technology to qualified charitable organizations or schools. Employees contribute 25% of the product list price, up to $5,000 USD, and HP contributes the remaining amount. In 2010, employees in the United States donated products worth approximately $4.9 million USD (including the HP match).

In late 2010, we launched a one-month pilot employee product donation program in Canada. The pilot resulted in the donation of more than $56,000 USD in HP technology to Canadian charities.

Rosamystica Community School

In 2009, HP employees in Norway began working with Norwegian Church Aid to build a community school in a densely populated and poverty-stricken area near Lusaka, Zambia. In total, HP Norway contributed more than $46,000 USD to fund the building project and supply the school with essential materials, such as pencils, books, desks, and blackboards.The employees stayed connected with the project through newsletters, videos, and pictures, and even created T-shirts for the students to celebrate the grand opening of the school. Watch a video of the official 2010 opening of Rosamystica school.

Disaster relief

In 2010, HP employees, HP, and the Hewlett-Packard Company Foundation donated money, equipment, and expertise in response to natural disasters, including earthquakes in Chile, China, Haiti, and New Zealand, and responded to flooding in Eastern Europe, North India, and Pakistan.

Following are the approximate values of cash and product contributions from HP employees, HP, and the Hewlett-Packard Company Foundation in response to 2010 disasters:[2]

2010 donations for disaster relief [$USD]	
Chile (earthquake)	$695,800
China (earthquake)	$327,000
Eastern Europe (flooding)	$25,000
Haiti (earthquake)	$1,045,000
New Zealand (earthquake)	$50,000
North India (flooding)	$50,000
Pakistan (flooding)	$100,000

1. [1] Pro bono: Contributed without compensation and for the public good.
2. [2] Figures are for the 2010 calendar year.

Performance

HP addresses critical social needs through a powerful union of innovation and collaboration, measuring our progress by the positive impact our programs have. In 2011, we plan to begin reporting metrics that showcase:

- The social impact of our programs
- The business impact our programs have on our company
- The operational excellence of our programs

Although many benefits of our social innovation programs cannot be measured purely in terms of dollars spent or products and services donated, we do understand the importance of tracking and reporting our financial investments. The total value of our social investments, including contributions from HP's business units for social projects, was approximately $44.9 million USD in 2010.

Social investments, 2006–2010[1] [million $USD]

	2006	**2007**	**2008**	**2009**	**2010**
Overall					
Total	$46.1	$49.8	$52.5[2]	$56.1	$44.9[2]

Percentage of pre-tax profits	0.64%	0.54%	0.50%	0.60%	0.41%
Type					
Cash	$18.0	$23.3	$24.9	$21.1	$27.3
Products and services[3]	$28.1	$26.5	$27.5	$35.0	$17.7

We currently report employee volunteerism and contributions data from U.S. employees only.

Employee giving in the United States, 2007–2010

	2007	2008	2009	2010
Employees participating in our U.S. Employee Giving Program	5700	6700	5384	5562
Value of cash donated by U.S. employees [million $USD]	$3.0	$3.6	$3.4	$3.2
Value of cash from Hewlett-Packard Company Foundation matched funds [million $USD]	$2.0	$3.0	$2.3	$2.7
Value of products donated by U.S. employees [million $USD][3]	$1.9	$1.5	$1.4	$1.2
Value of products from HP matched funds [million $USD][3]	$6.5	$4.7	$4.2	$3.7
Total value of cash and products donated including HP and Hewlett-Packard Company Foundation matched funds [million $USD][4]	$13.4	$12.8	$11.3	$10.8

1. [1] Data excludes contributions to the Hewlett-Packard Company Foundation and employee donations, but includes HP's matching contributions and contributions from the Hewlett-Packard Company Foundation to other organizations. Prior to 2010, HP did not report contributions from the Hewlett-Packard Company Foundation to other organizations as a part of this data. All years represented in this chart have been updated to reflect these contributions.
2. [2] Due to rounding of this total, the sum of the constituent parts of this figure listed under the types of investments below does not match this figure.
3. [3] Product donations are valued at the Internet list price. This is the price a customer would have paid to purchase the equipment through the HP direct sales channel on the Internet at the time the grant was processed.
4. [4] Hewlett-Packard Company Foundation cash matching began in 2007.

Creating a Better Life campaign

The economic divide between urban and rural areas of China is substantial. The average income for a worker in rural China is approximately $690 USD a year, while those in cities earn an average of $2,290 USD—over three times more.[1] HP is working to create economic opportunities and improve social conditions by giving rural Chinese communities access to information technology (IT) and training programs.

Chinese university graduate village officials (UGVOs)—charged with putting their education to use in developing areas—are sent by the Chinese government to rural villages to act as community leaders. By interacting with UGVOs, who have a unique perspective on local needs, HP learns how to most effectively promote economic and social development.

As part of this partnership, HP held a nationwide "Creating a Better Life" contest in 2010 and invited UGVOs to compete for grants. More than 1,000 UVGOs submitted proposals describing how they would use HP equipment and support to enhance development in their local villages. Thirty finalists were invited to present their ideas in Beijing to HP directors, officers from the department in charge of UGVOs, and IT experts from the Chinese Academy of Social Science.

After multiple rounds of competition, judges selected 23 winners, who together received more than $75,000 USD worth of HP technology and support to make their visions a reality. Winning projects included:

- **Dandelion Paradise** A school in Anhui province that was developed for children of migrant workers so they can learn to video chat with their parents, who are working in urban areas
- **A village e-commerce site** A website that allows people worldwide to order delicacies from a village in the Hunan province
- **One Village** A website that provides policy advice, technology information, educational resources, and details on village affairs to residents in Linying County in Henan province

HP intends to continue helping the winning UVGOs to implement their projects in 2011. The strongest ideas will serve as models for other UVGOs, spurring new thinking about how technology can improve lives in rural China.

1. [1] Chen, Shirong. "China rural-urban wage gap widens," *BBC news*, January 16, 2009, http://news.bbc.co.uk/2/hi/asia-pacific/7833779.stm.

Early infant diagnosis

In Kenya, an estimated 7–15% of pregnant women are HIV positive, and the mother-to-child transmission is as high as 45%.[1] At least 120,000 Kenyan infants a year are exposed to HIV.[1]

Without immediate treatment, half of HIV-positive infants are unlikely to live past age two.[1] Although all infants are required to be tested, the country's HIV testing system has relied on the slow, inefficient mail system to send blood samples to national and regional labs. It can take up to four months for local clinics to receive results—far too long to make antiretroviral therapy effective.

HP and the Clinton Health Access Initiative (CHAI) are working in conjunction with the Kenyan government to change that. We're implementing technology that will reduce the response time for test results and help save lives.

HP is helping to automate the HIV-testing process and revolutionize how the data is collected and reported. Five state-of-the-art HP data centers—two of which are already installed—connect with four existing laboratories, providing a platform to speed the transmission of data. Samples are now assigned a barcode, tested, and then recorded in a database. Instead of waiting for results to arrive by mail, results are sent by text message to SMS-enabled HP printers in rural clinics. If clinics have Internet access, they can receive the results by email or access the data online. With these advances, health providers can receive the results just one to two days after the lab has analyzed the sample. That means babies can receive life-saving drugs before it's too late.

In 2009, before this system was implemented, 45,000 children in Kenya were tested, and HIV-positive children were put on treatment immediately. With this new program, HP expects the number of children tested to jump to 70,000 in the year 2011. The potential for this system to address other serious diseases (such as malaria and tuberculosis) in both infants and adults around the world is tremendous.

More information

- Learn more about HP's involvement.
- Read the HP press release.
- Learn how HP is working with mothers2mothers to help the organization reduce the HIV mother-to-child transmission rate in Sub-Saharan Africa.

1. [1] According to data provided by the Kenya Ministry of Public Health & Sanitation.

LIFE City

LIFE City is an interactive online portal with educational resources that focus on business applications for widely available information technology (IT) tools. The portal is a valuable asset for current and aspiring entrepreneurs who live in remote areas or in locations without access to an HP LIFE Center. The site allows HP and its partners to reach and support entrepreneurs whom we expect will foster future economic development and growth, and use their talents to address pressing world problems.

LIFE City provides an innovative, user-friendly, and entertaining way for aspiring entrepreneurs to gain small business knowledge. Users navigate through the site at their own pace, focusing on individual interests. Interactive and animated presentations help users learn about technological tools for marketing, finances, operations, management, and communications. And practical business games help players advance their IT knowledge, gain business acumen, and find out what goes into managing a small business.

For example, the Blossom Flowers game allows players to experience what it's like to be an entrepreneur. Users face business challenges commonly encountered by microenterprises. They manage costs, learn about marketing strategies, handle daily operational tasks, and avoid communications pitfalls. By successfully navigating these situations, players gain valuable technical skills and increase their business knowledge. Branded certificates are given to players who successfully complete the game.

Available in Chinese, Czech, English, French, Polish, Turkish, and Russian, LIFE City has received more than 42,000 visits since its launch in 2008. In 2011, we expect LIFE City to evolve into LIFE Community—an online meeting place where trainers, students, and entrepreneurs can go to share ideas, seek information, and start conversations with people all over the world. LIFE Community will feature tips and advice for entrepreneurs, success stories, and videos about how to start and grow a business. The community will be able to share its best practices and invite other entrepreneurs to join the LIFE experience.

mothers2mothers

Reducing the transmission risk of HIV from a mother to her infant is a straightforward process. A single dose of medication to a mother during labor, and a dose to her infant shortly after birth, can cut transmission risk nearly in half.[1] But in sub-Saharan Africa, where medical care can be a half-day's walk from home, pregnant women with HIV/AIDS do not consistently have access to these medicines and frequently pass the virus to their newborns. There are more than 1.3 million pregnant women living with HIV in Africa.[2] Without any interventions, 40% of those women are expected to have HIV-positive babies.[1]

South Africa-based nongovernmental organization, mothers2mothers (m2m), provides life-sustaining drugs, counseling, and educational services to HIV-positive pregnant women—helping to prevent the spread of HIV to the next generation. Each year, m2m counsels more than 1.5 million women in nine countries across sub-Saharan Africa.

HP is working with m2m to transform its information technology (IT) infrastructure and develop new processes for information access and management. These changes are designed to support the sustainable growth of the organization and enhance the services it is able to provide. In 2010, HP began working with m2m to assess its business processes and prioritize its technology plans. In 2011, HP plans to help m2m implement the large-scale changes.

New database technology and cloud and mobile services from HP are expected to help m2m migrate its current paper-based patient records system to a digital environment. This will enable more effective sharing of information across the m2m network of more than 700 sites. Not only will this increase m2m's reporting capabilities, it will enable quicker access to critical information. The organization will be in a better position to make even more timely decisions to improve the health of their patients—and their patients' unborn children.

In the next planned phase of the program, m2m employees will be able to collect and share data via basic mobile phones, supporting an "always connected" environment. This will enable employees to collect data more efficiently from patients and, over time, will help the operation scale to meet the demands of more patients.

More information

- Read the HP press release.
- Learn how HP is working with the Clinton Health Access Initiative to speed up HIV test results and diagnosis for infants in Kenya.

  With technological expertise from HP, we can modernize our paper-based infrastructure to a highly efficient digital model, allowing us to meet the growing demand for our services and put information directly into the hands of our Mentor Mothers. This new system will enable us to serve women much more effectively through improved knowledge and insight.

–Gene Falk, co-founder and chief executive officer of mothers2mothers

1. [1]Preventing mother-to-child transmission of HIV (PMTCT), Avert.
2. [2]"Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector," World Health Organization, September 2010.

Ethics and compliance

HP named one of the World's Most

Ethical Companies two years in a row

For the second consecutive year, the Ethisphere Institute named HP one of the World's Most Ethical Companies, out of thousands of nominations from more than 100 countries and 35 industries.

Technology is transforming the world, and companies such as HP must behave with uncompromising integrity to help ensure this transformation is for the better. Being honest and accountable at all times earns the confidence and support of investors, customers, and regulators, and inspires pride and loyalty in our employees.

HP takes our ethical responsibilities very seriously. We have fostered a culture built on trust and respect, guided by our shared values. Our robust and comprehensive ethics and compliance program requires that all employees and partners adhere to lawful and ethical business practices and conduct business honestly and with integrity. Our stringent internal standards, policies, and processes often go beyond legal obligations. As one of the world's largest companies, ethics issues sometimes arise and it is important that we work quickly to resolve them according to our policy and local laws.

HP's commitment to uncompromising integrity is further illustrated by the circumstances surrounding the departure of HP's CEO, Mark Hurd, in August 2010. On being notified that Mr. Hurd had allegedly engaged in certain inappropriate conduct, HP immediately launched a comprehensive investigation. As a result of the investigation the Board of Directors concluded that the only appropriate resolution was for Mr. Hurd to resign. In this respect the board's and the company's actions demonstrate that all employees—regardless of the position they hold or the quality of their performance—are held to a high standard of conduct that HP is unwilling to compromise.

This reinforces the message that everything we do and say counts, and we can't rest on past successes. We work diligently to maintain a strong ethical culture globally, regardless of cultural norms or the absence of laws and regulations in some locations. Our Standards of Business Conduct (SBC) apply to all employees, everywhere. We conduct additional training and audits in countries where ethical issues are more likely to occur, and integrate new employees into our ethics and compliance culture as soon as they join the company. See the Approach page for more details.

Report a concern

HP encourages anyone with a concern to speak up. Please contact us:

Email: corporate.compliance@hp.com

Phone:
From anywhere in the world, call the GuideLine, 24 hours a day. Translation is available and callers can remain anonymous, except where anonymous reporting is prohibited by local law.

From the U.S. and Canada: 800-424-2965

Outside the U.S. and Canada:

1. Go to the AT&T Access Codes page.
2. Find your country in the alphabetical listing.
3. Dial the AT&T Direct® Code.
4. When prompted, dial 800-424-2965.

Mail:
HP Ethics and Compliance Office
5400 Legacy Drive
Plano, TX 75024

Our approach

Every day, our actions influence our reputation. We work diligently to maintain a strong, global ethical culture that transcends cultural norms, regional variations in regulation, and challenges presented by changes to our business and markets.

For example, our continued expansion introduces new employees who are unfamiliar with our ethics and compliance culture. Accelerating growth in emerging markets means we increasingly operate in countries where regulations and cultural norms may be less stringent than our policies and standards. We use the Corruption Perceptions Index produced by Transparency International, in conjunction with internal data, to identify high-risk countries and raise awareness of ethical issues and perceptions in each market.

HP codes of conduct

Suppliers: HP's Electronic Industry Code of Conduct

Partners: Partner Code of Conduct

HP U.S. Public Sector Employees:
U.S. Public Sector Code of Conduct

Contingent Workers: Contingent
Worker Code of Conduct

Employees: Standards
of Business Conduct

Standards

Our Standards of Business Conduct (SBC) serves as our ethical compass, and sets non-negotiable expectations for all our decisions and actions.

The SBC provides guidance in difficult situations, such as avoiding conflicts of interest and rejecting bribery and corruption. Clear and engaging, the SBC is available in more than 20 languages and has also been adapted for contingent workers. We also have a code specific to doing business with the U.S. public sector. Our Supplier Code of Conduct describes the social and environmental standards we expect from suppliers, while our Partner Code of Conduct sets requirements for fair sales and marketing practices for parties selling HP products and services.

Governance structure and responsibilities

Our ethics and compliance office sits within HP's Legal and Government Affairs organization, with groups focused on specific tasks and oversight from the Board of Directors.

Ethics and compliance organization structure

Board responsibilities

The Board of Directors has four primary ethics and compliance responsibilities:

- Oversee ethics and compliance at HP.
- Set and enforce the "tone at the top."
- Encourage a culture of ethics and compliance.
- Establish procedures and a forum for reviewing significant ethics complaints.

The board has 13 members. Raymond J. Lane, the former president and chief operating officer of Oracle Corporation, joined HP's board in November 2010 as non-executive chairman. Léo Apotheker, who joined HP as president and chief executive officer in November 2010, also serves on HP's board. All members except Mr. Apotheker are independent directors, as defined by the New York Stock Exchange and HP's Corporate Governance Guidelines.

The board's Audit Committee guides HP's ethics and compliance program and supports the company's chief ethics and compliance officer. G. Kennedy Thompson chairs the Audit Committee, having succeeded Robert L. Ryan in that role in February 2011. Mr. Ryan also served as lead independent director until November 2010, when Mr. Lane was named non-executive chairman, at which time HP ceased having a lead independent director. Mr. Thompson is also the independent director responsible for providing specific oversight of the company's compliance with legal and ethical requirements related to the conduct of investigations and reporting to the board.

See also information on HP director independence, board committees and composition, and director compensation.

Perspective: Deborah Rhode

Deborah Rhode, director of the Stanford Center on the Legal Profession at Stanford Law School, considers HP’s ethics and compliance program to be a model for socially responsible corporations. Learn why.

Ethics and Compliance Office

Our ethics and compliance office is responsible for overseeing and implementing our ethics and compliance program. It is led by the chief ethics and compliance officer, who reports directly to the general counsel and the independent director responsible for providing specific oversight of the company's compliance with legal and ethical requirements related to the conduct of investigations and reporting to the board.

The **ethics and compliance committee** meets quarterly to give guidance on relevant issues. It consists of senior executives, including the general counsel, chief financial officer, and head of human resources.

Our **compliance council** includes members such as the chief privacy officer and senior leaders from HP's businesses, legal and compliance functions—including the head of internal audit. This council oversees related compliance council boards including those for compliance-related IT projects, market knowledge, environment, privacy, and personal data protection.

The **global ethics team** is a network including our ethics office, corporate SBC compliance team, and an ethics and compliance liaison group that reinforces collaboration across organizations. Senior employees in each business group,

function, and region serve as ethics and compliance champions. They engage with senior regional and business management teams and compliance functions to ensure local issues are identified and addressed. The corporate SBC compliance team, a partnership between the ethics office and legal investigations team, handles all significant internal ethics and compliance investigations worldwide. (See Ethics questions and concerns.)

In 2010, the ethics and compliance office became responsible for HP's Social and Environmental Sustainability and Compliance (SESC) program, which sets standards for suppliers, monitors their performance, and helps them enhance their capabilities in this area. This expands accountability for different compliance functions within the Ethics and Compliance Office and reflects the strategic importance of the SESC program.

Also in 2010, the ethics and compliance officer became the executive director for the HP Foundation, a separate legal entity. The role enhances the department's support of global citizenship.

Compliance activities

We develop and enforce policies, standards, and processes to help ensure HP identifies and addresses relevant legal and regulatory risks. The compliance office oversees the activities of compliance functions across the company, such as the privacy and global trade offices, and works closely with other risk functions, such as internal audit and enterprise risk management, to:

- Identify, assess, and prioritize risks.
- Engage with the personnel and functions responsible for addressing specific risks.
- Develop and implement mitigation plans.
- Determine where the company should invest resources to most effectively mitigate risk.

In 2010, the compliance office reassessed the least mature compliance functions, that were first identified through a rigorous assessment process started in 2009. The least mature compliance functions all moved to medium or high maturity. Some of the improvements they made include:

- Increased collaboration and alignment with dependent functions
- Established ownership and accountability for the risks within their domain
- Clarified roles, responsibilities, and requirements

In addition, the compliance office extended its assessment to include the business units and regions, and is tracking completion of mitigation plans, which includes improvements to the compliance risk management infrastructure.

Communication and training

Every person at HP is accountable for their actions—regardless of their role. We continue to strengthen our training and awareness program to keep ethics and compliance top of mind. Examples include:

- **Mandatory ethics and compliance annual refresher course** This 90-minute online session covers the SBC and select other topics, highlighting key policies, procedures, pervasive, and high-risk issues for HP. Between March 1 and June 30, 2010, 99% of employees (excluding new hires, those on leave of absence, and people leaving HP) completed the course. A more comprehensive course for new employees is required as part of their on-boarding process.

- ***Integrity Minutes*** **videos** These short, serialized videos depict ethics and compliance issues that might happen in the workplace and conclude with a senior leader speaking about how the lessons apply to HP employees. In 2010, the topics included anti-corruption, conflicts of interest, misuse of company assets and time, competitive information, and ethical relationships.
- ***Leaders on Ethics*** **videos** In this ongoing series, HP senior leaders provide guidance on company policies and workplace behavior. In 2010, the videos covered giving and receiving gifts, confidential competitive information, insider trading, sales compliance, marketing responsibly, slush funds, and intellectual capital.
- **Our *Ethics Bulletin*** Each bulletin is available to all employees, presents real-life case studies with personal details removed, and explains how they were resolved and the lessons learned.

Additional activities in 2010 included:

- Refreshing the Standards of Business Conduct.
- Boosting external communications on www.hp.com and our supplier and business partner websites to publicize the various ways to report ethics concerns and ask ethics and compliance questions.
- Training our public sector sales force globally, with a particularly extensive program in the United States. We require all public sector sales employees to complete annual training and periodic certifications.

- Enhancing our online reference library to provide an overview, example, recommended action, and contact information for each significant compliance risk.
- Conducting more than 40 meetings between senior members of the ethics and compliance office and leaders, employees, and legal staff at major sites in 12 countries.

Ethics questions and concerns

HP encourages employees to speak up, ask questions, and report anything that doesn't seem right without fear of retaliation.

HP employees making an impact:

Sylvia Burrow

An HP employee for 30 years, Sylvia Burrow plays an important role in maintaining high ethical standards at HP. Her job is to help people speak up if they have concerns about the way HP does business. Learn more about Sylvia.

Asking questions and reporting concerns

The ethics office encourages employees to seek advice anytime they are uncertain of the best course of action. Guidance is available in the Standards of Business Conduct (SBC), the accompanying quick reference guide and training module, our corporate policy directory, and the ethics and compliance website. Our goal is to increase the amount of counseling provided on ethical issues to prevent possible violations of the SBC. In 2010, we exceeded our target to increase the volume of ethics and compliance consulting matters by 10%.

Our Open Door Policy enables employees to talk to their manager or more senior levels of management if ethics issues arise. Employees can also seek advice from internal ethics and compliance experts or regional or business ethics and compliance liaisons.

When potential violations of law, company policy, or the SBC do occur, we provide formal, confidential communication channels through which employees and third parties can report. These include postal mail, email, and a global 24-hour toll-free hotline with translators available. This line is also accessible to external parties via our website, partner, and supplier portals. Where allowed by law, reporting can be anonymous.

See how to ask a question or report a concern.

Investigating concerns

HP's Global Case Management System records all ethics violations allegations in a worldwide database. The system provides management with access to incident details while protecting personally identifiable information. It also pinpoints locations where higher levels of ethics and compliance-related incidents are being reported, indicating additional action may be needed.

We promptly investigate and respond to all alleged violations. The person submitting a concern usually receives a response within two business days. Investigations led by the HP Litigation Investigations team may be local, regional, or corporate depending on the allegation, and may include members of other relevant functions, as needed. The legal department oversees all escalated, corporate-led investigations. Details and results of investigations are kept confidential to the extent reasonably practical.

Investigation process overview

Items reported to the Global SBC team or other compliance functions

	2007	2008	2009	2010
Human resources	37%	31%	34%	34%
Misuse of assets	20%	15%	20%	17%
Fraud	12%	16%	15%	15%
Sales channel violations	9%	12%	4%	3%
Conflicts of interest	7%	9%	6%	9%
Confidentiality	4%	3%	6%	5%
Customer relationships	1%	1%	2%	3%
Financial and public reporting	1%	2%	4%	4%
Competition	0%	1%	1%	2%
Other	9%	10%	8%	8%

Supply chain responsibility

HP supply chain facts

production suppliers in approximately 1200 locations, in addition to nearly 50,000 nonproduction suppliers

workers at sites audited in 2010 that produce HP products

HP ships approximately 3.5 products every second[1]

HP is the world's largest information technology (IT) company and has one of the industry's most extensive supply chains. We work with more than 1000 production suppliers (responsible for product materials, components, and manufacturing and distribution services) in more than 1200 locations worldwide (see map). Nearly 50,000 nonproduction suppliers provide goods and services not used in electronic product manufacturing. We take seriously the challenge of raising social and environmental responsibility (SER) standards in our supply chain and lead the IT industry in monitoring our suppliers and helping to build their SER capabilities.

The supply chain landscape is constantly evolving, and is vastly different than 10 years ago when we launched our supply chain SER program. For example, with its rapidly growing manufacturing economy, China is now the dominant electronics manufacturing region. These changes mean that while some supply chain concerns have been addressed, others continue to require attention, and new issues frequently emerge (see below).

As our supply chain develops, our priorities remain constant: to protect workers' rights and dignity, ensure strong health and safety standards, reduce environmental impacts, and uphold high standards of business ethics.

Stakeholder collaboration

We work with more than 95% of our high-risk profile suppliers as well as other stakeholders on SER issues. The collaboration includes:

- Setting clear expectations and integrating social and environmental requirements into our sourcing operations
- Evaluating performance through self-assessments, audits, and key performance indicators
- Improving performance by approving corrective action plans developed by suppliers, and engaging workers and management in capability-building initiatives
- Engaging with local and global stakeholders to better understand and address issues in our supply chain
- Reporting fully and transparently the results of our efforts to improve supplier SER performance

Prominent SER issues in 2010

Heightened media, government, and customer attention, as well as the involvement of new governmental and nongovernmental organizations (NGOs), has increased the public profile of many issues we are working to resolve.

Recent issues include:

- **Conflict minerals** Minerals used to derive tantalum, tin, tungsten and gold, which originate from the eastern Democratic Republic of Congo (DCR), have been associated with financing armed conflict. HP is taking many steps to enhance transparency in the supply chain and ensure that DRC conflict minerals are excluded from our products. (See Conflict minerals for more information.)
- **Foxconn suicides** In 2010, more than a dozen workers at Foxconn (a supplier to HP and other electronics companies) committed or attempted suicide in Shenzhen, China. HP's senior management has worked with Foxconn to improve conditions for workers. Our response included third-party worker surveys, corrective action, and monthly monitoring programs, among others. (See the case study for more information.)
- **Legislative focus on forced labor** There is a growing focus on the issue of forced labor, including the possibility of human trafficking or slavery, in product supply chains. In California for example, a new law will go into effect on January 1, 2012, that requires manufacturers and retailers doing business in the state to provide more transparency into efforts made to address this issue. The law is designed to help consumers make more informed decisions about the products they purchase. (Learn more about the California Transparency in Supply Chains Act of 2010.)
- **Student workers** NGOs have raised concern about suppliers in China recruiting labor from vocational schools under the pretense of internships to learn valuable technical skills. Reports suggest these young workers are used as cheap, unskilled labor for manufacturing, rather than in the stated capacity for which they were hired. In addition to our work to improve understanding of HP's Electronic Industry Code of Conduct (EICC), we are implementing pre-departure training for suppliers and schools to address the issue. (See Goals for more information.) This equips facility and school trainers with knowledge to teach students about preparing for work life, including knowledge of labor rights and occupational health.

Highlights in 2010

Successful expansion of HERproject	HP expanded our Health Enables Returns Project (HERproject) to China in 2010. A follow-up report by Business for Social Responsibility showed increased awareness of key reproductive health issues.
Integration of strategic nonproduction suppliers into supply chain SER program	All 56 of HP's most strategic nonproduction suppliers completed the introduction, assessment, validation, and improvement stages of our supplier management system.
Improved audit performance	Supplier audit results in 2010 showed improvements across a number of areas. In particular, we found reductions in nonconformances related to hazardous substances, environmental health and safety, industrial hygiene, and labor and ethics. (See Detailed audit findings for more information.)
Expanded worker-management communications training program	HP extended our successful 2009 pilot project to improve worker-management communications to five additional suppliers in 2010. The program helped workers set up independent grievance hotlines. (Learn more.)
Electronic Industry Citizenship Coalition Validated Audit Process launch	HP led the development of the Electronic Industry Citizenship Coalition Validated Audit Process (VAP), launched in 2010. The VAP eliminates duplication by providing a common auditing approach for companies in the industry. (See Audit strategy for more information.)

HP's Electronic Industry Code of Conduct and General Specification for the Environment

In 2003, HP was the first electronics company to publish a Social and Environmental Responsibility Supplier Code of Conduct. In 2004, we co-led the development of the EICC, the standard applied across the industry's global supply chain. HP endorses the EICC in its entirety. We have supplemented it with additional requirements specific to freedom of association (standard A7). We believe workers at supplier facilities have the right to freely choose employment and the right to associate freely and join or be represented by works councils or labor unions on a voluntary basis and bargain collectively as they choose. We refer to the EICC as supplemented by HP, collectively, as HP's EICC. All suppliers must conform to HP's EICC.

HP's suppliers must also comply with our General Specification for the Environment, which contains, among other things, HP's global product content requirements. This includes restricting or prohibiting certain chemical compounds or materials in HP brand products or manufacturing processes. (See Materials for more information.)

1. [1] This number includes PCs, printers, and servers.

California Transparency in Supply Chains Act of 2010

On January 1, 2012, the California Transparency in Supply Chains Act of 2010 (SB 657) will go into effect in the State of California. This law was designed to increase the amount of information made available by manufacturers and retailers regarding their efforts (if any) to address the issue of slavery and human trafficking, thereby allowing consumers to make better, more informed choices regarding the products they buy and the companies they choose to support.

HP's Electronic Industry Code of Conduct (EICC) is underpinned by international labor and human rights standards. We believe that workers at supplier facilities have the right to freely choose employment, the right to associate freely and join or be represented by worker councils or labor unions on a voluntary basis, and the right to bargain collectively as they choose. Workers also have the right to a workplace free of harassment and unlawful discrimination.

Slavery and human trafficking can take many forms, including forced labor and child labor. Since we began our supply chain social and environment responsibility (SER) program in 2000, HP has undertaken efforts to ensure and verify the absence of forced labor and child labor in our supply chain.

These efforts include:

- **Risk-based supplier assessments** HP performs assessments of potential suppliers according to our risk-based approach. This approach includes preliminary risk assessments and supplier assessment questionnaires.
- **Supplier audits** Our audit program (see Audit strategy) evaluates suppliers' compliance with HP's EICC, which prohibits forced labor and child labor. Various types of announced audits are conducted under this program, including onsite audits attended by HP, collaborative audits, and third-party on-site audits of practices and underlying management systems. A finding of nonconformance with HP's EICC relating to the issue of forced or child labor does not necessarily indicate that forced or child labor has occurred. For example, in 2010, we found a total of three major supplier audit nonconformances with HP's EICC related to EICC policy safeguards against forced labor. The three nonconformances included suppliers' lack of an explicit policy prohibiting forced labor, an absence of supplier records reflecting work permits or employee contracts, and payment by an employee of recruitment fees. Following audits, suppliers are required to produce corrective action plans, which HP reviews and approves. The corrective action plans outline how a supplier will resolve issues uncovered in audits. HP has a zero-tolerance policy for the presence of forced and child labor. If any zero-tolerance items are uncovered in audits, we require suppliers to rectify the problem within 30 days, and we return to the facility between 30 and 90 days after the audit to confirm resolution of the issue.
- **Supplier agreements** HP has purchasing agreements or purchase order terms and conditions in place with all our direct suppliers and ODM (original design and manufacturing) suppliers, requiring them to comply with international standards and applicable laws and regulations regarding forced labor and child labor as specified in HP's EICC.
- **Capability building programs** HP partners with a number of nongovernmental organizations (NGOs) and training partners to raise awareness of HP's EICC, which includes provisions related to forced labor and child labor. The programs also build capability among suppliers to reduce the risks of nonconformances with HP's EICC. Our capability building programs have included worker-management communications training, which provides employees access to mechanisms to raise grievances with management or superiors. (See Capability building for more information).
- **Procurement professionals training** HP trains employees responsible for supply chain management on how to identify and respond to supply chain issues, such as forced labor or child labor. We require all HP employees and contractors to comply with our Standards of Business Conduct (SBC), which includes provisions aimed to ensure

that child, prison, or forced labor are not permitted at any HP business partner or supplier operations. HP's SBC is enforced through the HP Global Misconduct Policy, and we train employees on these standards annually. HP's SBC has also been adapted for contingent workers in the HP Contingent Worker Code of Conduct, which is enforced through labor contracts.

Minerals mining in Democratic Republic of Congo conflict zones is an area of particular concern, and HP is working with industry partners to address these issues. (See Conflict minerals for more information.)

For full details of our supply chain SER program and specific audit findings, see Supply chain responsibility.

Supplier list

HP was the first electronics company to publish a list of suppliers in our 2007 Global Citizenship Report. The suppliers on our 2010 list represent more than 95% of our production supplier spend. Publishing this list remains an industry-leading practice. This year, we have added links when available to more information about our suppliers' social and environmental responsibility programs.

View a list of our production suppliers, as of the end of fiscal year 2010.

Our approach

We launched our supply chain social and environmental responsibility (SER) program in 2000 with a long-term vision to help improve labor management standards, human rights, and environmental performance. We work to achieve this vision in cooperation with the companies in our supplier base.

Our strategy for prompting suppliers to address SER issues includes:

- **Risk assessments** Risk assessments help us prioritize how we engage with suppliers through our supply chain SER program. Suppliers also complete a self-assessment questionnaire to help us identify SER performance risks. (See Supplier management system for more information.)
- **Capability building** Through programs and partnerships with nongovernmental organizations (NGOs), training partners, governmental organizations, and suppliers, we help management and workers improve SER performance. (See Capability building for more information.)
- **Measuring performance** Our audit program (see Detailed audit findings) and other performance measurements (see Key performance indicators) reveal issues and encourage suppliers to improve SER performance by helping us target areas of concern. (See Measuring performance).
- **Stakeholder engagement** HP engages with stakeholders to understand and respond to issues of concern regarding supply chain SER. (See Collaboration for more information.)

The emergence of new issues, such as conflict minerals, has highlighted the need to work beyond our first-tier suppliers to improve SER performance. Collaboration across the information and communications technology (ICT) industry, and with other industries, helps us achieve this objective. (See Conflict minerals for more information.)

HP employees making an impact:

Judy Glazer

Judy Glazer is director of HP’s Social and Environmental Sustainability and Compliance team. Judy and her team work with others throughout HP to help the company uphold high standards in social and environmental responsibility, as well as keep pace with trends in this rapidly changing field. Learn more about Judy.

Introducing nonproduction suppliers

We continue to expand our supply chain SER program to include more nonproduction suppliers. Awareness of our SER program and HP's Electronic Industry Code of Conduct (EICC) has increased among nonproduction suppliers since we began our program; however, it is still low overall. We are therefore focusing on improving understanding among these suppliers. (See Supplier management system for more information.)

SER and procurement from production suppliers

The success of HP's SER program depends, in part, on the successful integration of SER issues into procurement requirements. Through ongoing relationships with suppliers, HP's procurement team is uniquely positioned to help build

suppliers' understanding of how HP's SER requirements translate into business benefits. These relationships include quarterly supplier business reviews, and day-to-day engagement in a wide range of areas such as product quality, product delivery, business continuity, as well as SER. Our procurement team is trained to undertake SER performance evaluation, education, and mentoring. In 2010, HP refreshed our procurement professional training using new materials from the Electronic Industry Citizenship Coalition.

HP selects suppliers that agree to conform to the expectations and standards in HP's General Specification for the Environment, HP's EICC, and applicable laws and regulations, while meeting our other business requirements. We use High-Performance Supplier Scorecards (HPSS), which include SER parameters alongside traditional business criteria, to monitor the performance of suppliers with HP business worth more than $10 million USD. (See Supplier guidance for more information.)

We believe that higher labor and environmental standards lead to higher-quality products. They also protect our reputation and the continuity of our lines of supply by helping to ensure SER issues do not adversely affect a supplier's production capability. We believe that our sourcing needs should not result in nonconformances to our code. We recognize that lasting change takes time, however, and our suppliers must not only build their management capabilities but also often challenge a prevailing culture.

We believe that our suppliers' most senior management team needs to embrace social and environmental responsibility. In 2010, HP's General Counsel presented to 500 senior executives from approximately 125 of our largest product materials and manufacturing suppliers. The presentation focused on ethics and compliance, and the importance of setting the right management tone. We stressed the importance of investment from HP and suppliers to meet expectations, including conformance with HP's EICC.

Internal collaboration and governance

Our supply chain SER governance system defines responsibility and reporting across HP businesses and functions. All HP businesses support our supply chain SER program through the Supply Chain Board, which meets regularly and reports directly to the HP Executive Council. In 2010, senior leadership from our SER program worked with the HP Board of Directors to review our approach. (See Global citizenship strategy – Governance and management.)

Supply chain governance structure

Supplier management system

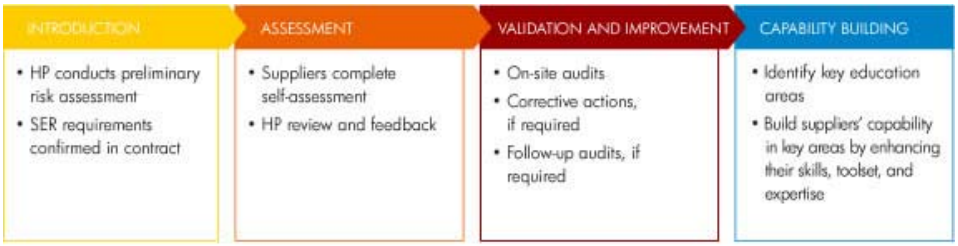
HP's four-phase supplier management system (see graphic below) provides an overarching framework for suppliers to progress through our supply chain social and environmental responsibility (SER) program. We focus our resources according to risks posed by supplier activities and assess each supplier in that regard. The system aims to improve long-term SER performance by building suppliers' capabilities. Over the past eight years, all of our key production suppliers have completed the introduction and assessment stages.

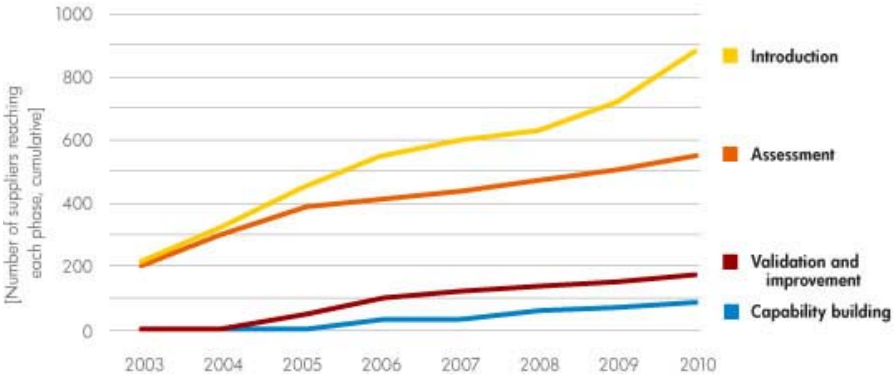
Nonproduction suppliers

HP's supply chain SER program has historically focused on production suppliers, which generally present the greatest risk of poor SER performance. Since 2009, we have also focused on introducing nonproduction suppliers to the program. HP uses nearly 50,000 nonproduction suppliers, which follow the same supplier management system as production suppliers.

We prioritize nonproduction suppliers to introduce to the SER program by considering the supplier's risk profile, strategic value to HP, and industry. All 56 of HP's most strategic global nonproduction suppliers, which represent around 30% of total nonproduction supplier spend, have completed the introduction, assessment, validation, and improvement stages of the program (see below). We continue to expand the program. In 2010, 34 nonproduction suppliers in Mexico completed the introduction stage (see below). In 2011, we intend to increase the number of nonproduction suppliers taking part in the program by expanding our geographical focus to China and India.

Four-phase supplier management system





The gap between introduction and assessment represents supplier sites that pose low risk. The gap between assessment and validation represents sites whose self-assessments indicate they are low risk. The increases in introduction and assessment starting in 2009 and 2010 are largely due to the expansion of our program to nonproduction suppliers. By the end of 2010, all 56 of HP's most strategic nonproduction suppliers had entered the program. More information will be reflected in our next report.

The following paragraphs explain each step in the four-phase supplier management system.

Phase 1: Introduction

HP considers supplier risk profiles and conducts a formal risk assessment if necessary. We then confirm the SER requirements in our contract.

The risk factors we use include:

- **Location** Risk is higher in some locations than others
- **Procurement category** Risk is higher in some procurement categories, such as manufactured parts, components, and real estate construction services, and lower in others, such as software licensing, marketing services, and telecom services
- **Company information** Insight from previous audits, press articles, incidents, or accidents may affect our assessment of supplier risk
- **NGO reports** We consider information highlighted in NGO reports and determine the likely impacts for suppliers

Our first-tier suppliers (see diagram below) select and manage their own suppliers (HP second-tier suppliers).

Phase 2: Assessment

If HP's risk assessments show a supplier poses high SER risk, they must complete a self-assessment questionnaire . These help us identify potential SER performance risks, and help suppliers understand our expectations for conformance to HP's Electronic Industry Code of Conduct (EICC) . HP reviews and provides feedback on the self-assessment, and suppliers create and implement an improvement plan, if required.

Phase 3: Validation and Improvement

Validating conformance

HP uses local internal auditing teams, backed by independent verification. We use three types of audits:

- Audits conducted by HP employees
- Audits conducted by an external organization to verify the results of HP audits or to investigate allegations
- Joint audits conducted by an external organization on behalf of HP and other Electronic Industry Citizenship Coalition member companies

Responding to nonconformance

We rank nonconformance to HP's EICC using standard ISO guidelines.

Major nonconformance

A significant failure in the management system that affects a company's ability to ensure conditions conform to HP's EICC or General Specification for the Environment . Suppliers must demonstrate that they have addressed major nonconformances within 180 days, by delivering appropriate documentation or other evidence of resolution. For major nonconformances that require subsequent monitoring, we return to all audited sites within two years.

The most serious types of nonconformance are zero-tolerance items. These include underage workers (below the local legal age for work or apprenticeship), forced labor, health and safety issues posing immediate danger to life or risk of serious injury, and violation of environmental laws posing serious and immediate harm to the community. Our zero-tolerance policy requires auditors to escalate such items immediately. They must then be rectified within 30 days of the original audit. HP re-examines the zero-tolerance item between 30 and 90 days after the audit with an in-person visual verification to confirm resolution of the issue.

Minor nonconformance

Not a systemic problem and typically an isolated finding, such as an overdue corrective action from an internal audit or a procedure that has not been revised to reflect a change in regulations. Suppliers have up to 360 days to address minor nonconformances.

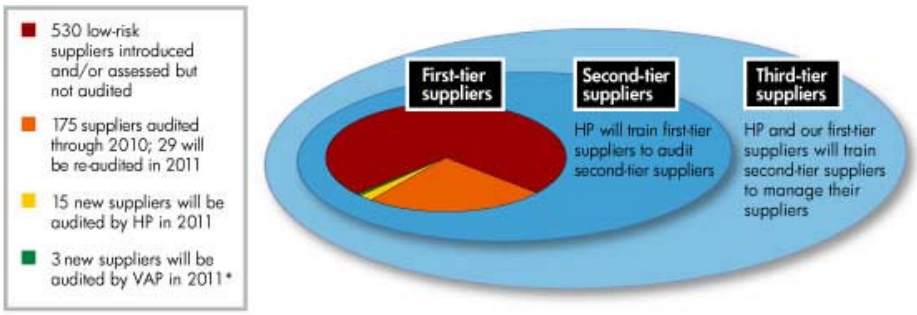
Corrective action plans

HP requires suppliers to provide a detailed corrective action plan (CAP) addressing all identified nonconformances (except zero-tolerance items, which are treated independently) within 30 days of receipt of the site audit report. We review these plans and request quarterly reports to allow us to monitor progress and subsequent closure of nonconformances. When progress is inadequate, we intervene to help create a more effective plan. We typically see substantial reductions in the number of instances of nonconformance between initial and follow-up audits. (See more in Audit results.)

Phase 4: Capability building

Remaining engaged with suppliers and providing support is as important to our SER program as uncovering problems. Our capability-building programs include collaboration with suppliers on key processes, such as reviewing CAPs, and implementing training programs in conjunction with local nongovernmental organizations (NGOs) and training groups.

Risk-based approach to supply chain social and environmental responsibility



- * In addition to EICC VAP audits performed by third party.

If a supplier rejects the continual improvement approach, we emphasize that we will not tolerate serious or repeated violations of HP's EICC and will terminate the relationship if needed. Terminating a contract can mean the loss of jobs, so we prefer to collaborate with suppliers to improve factory conditions where possible. (See Capability building for more information.)

Audit strategy

We use supplier audits to verify conformance with HP's Electronic Industry Code of Conduct (EICC) and establish whether the supplier has systems in place to facilitate continued conformance. Audits also enable HP to identify pressing issues and build corrective action plans with suppliers to address them. Our capability building programs train suppliers in areas of concern revealed in audits.

In 2011, HP plans to perform the first audits of our nonproduction suppliers. Nonproduction suppliers in some locations, such as call centers and temporary labor agencies, still present social and environmental responsibility risks, for example, related to excessive working hours and treatment of migrant labor. Global nonproduction suppliers generally have corporate strategies to mitigate these risks, and in 2011 we will audit five of these suppliers in China, India, and Mexico to confirm that local practices reflect those strategies.

Collaborative audits

Achieving suppliers' cooperation is essential to creating an environment conducive to lasting improvement. We usually announce audits in advance, and conduct them in the presence of facility management. Although this could allow suppliers to present an artificially positive picture, skilled local auditors and our robust audit methodology provide reasonable safeguards against suppliers hiding issues, and we believe this level of collaboration is an important aspect of building capability and helping management understand the issues. Announcing audits also contributes to building and maintaining strong relationships.

Unannounced investigative audits are an exception. We use these in response to a serious, credible allegation. Three such instances occurred in 2010, relating to a National Labor Committee report (see Measuring performance) and issues at Foxconn.

Electronic Industry Citizenship

Coalition Validated Audit Process

(VAP)

Launched in 2010, the VAP is designed to eliminate duplication by providing a common auditing approach for companies in the electronics industry. In 2010, HP used the VAP 22 times, representing 20–25% of our total audits. We expect this proportion to increase in 2011.

In 2010, six HP auditors—three in China and three in South East Asia—were trained to the VAP standard. All of our auditors will be certified as the Electronic Industry Citizenship Coalition introduces the certification to other regions.

Building suppliers' audit capabilities

We have begun to partner with some of our longer-standing suppliers to improve their own supplier auditing capabilities. This forges a better understanding of the requirements and processes needed to resolve issues, while encouraging greater ownership of the audit results, and of the overall performance. In 2010, HP trained SER auditors of a manufacturing

partner in Latin America, using the new Electronic Industry Citizenship Coalition Validated Audit Process (VAP) (see side panel). The training will also help build participants' ability to audit their own suppliers (our tier-two suppliers). Around 25 second-tier supplier audits will be performed by first-tier suppliers using the VAP methodology in 2011.

By building suppliers' internal audit competencies, we also allow our auditors to focus on capability building. We have trained ten HP auditors as SER consultants to suppliers, helping suppliers improve performance and strengthen their SER management systems.

Third-party audits

HP engages third-party audit firms, including Environmental Resources Management (ERM) and Verité, to conduct verification audits of our suppliers, including suppliers associated with a specific allegation in nongovernmental organization (NGO) reports. We also use their findings to validate our internal audit results. The audits conform to the Electronic Industry Citizenship Coalition's VAP (see side panel). All third-party auditors need to be certified as VAP auditors before auditing suppliers on behalf of coalition members.

Collaboration

Electronics suppliers are used by multiple major brands and/or major manufacturers, and many companies are both suppliers to and customers of each other. We need to align our supply chain social and environmental responsibility (SER) efforts with our peers, and collaborate with other organizations to tackle the most pressing SER issues.

Industry collaboration

Electronics companies benefit from collaboration across the industry by sharing knowledge and resources, standardizing tools and processes, avoiding duplication, and developing consistent approaches. Suppliers better appreciate the importance of SER performance when they receive a consistent message from many of their customers.

Examples of our industry collaboration include:

Environment

- **Energy Efficiency Partnership Program** HP works with Business for Social Responsibility (BSR) to create energy-efficiency programs at supplier factories. (See Product manufacturing for more information.)
- **Environmental management** HP works with the Global Social Compliance Program (GSCP), a group of leading companies from the retail, clothing, and food industries, to improve social and environmental conditions across multiple sectors. Working across sectors allows participants to exchange different perspectives and best practices. In 2010, the GSCP published its environmental reference tool, which provides a common understanding of good environmental management practices. The GSCP's Environmental Module Expert Working Group also released tools to define best practices for auditing factories' environmental performance.
- **Supplier greenhouse gas (GHG) emissions** In 2010, HP participated in a working group with the World Business Council for Sustainable Development and the World Resources Institute to develop a reporting protocol for supply chain GHG emissions (Scope 3 emissions). (See Product manufacturing for more information.) HP also co-led the development of the Electronic Industry Citizenship Coalition GHG emissions reporting framework for suppliers. (See Product manufacturing for more information.)

Health and safety

- **Women's health** HP works with BSR on the Health Enables Return Project (HERproject) to address the general and reproductive health needs of women working in manufacturing. (See Capability building for more information.) The program was expanded in 2010 to include five factories in China. Inno Community Development Organisation conducted training on the project. BSR's 2010 report about the project, "Investing in Women for a Better World ," included a case study regarding HP's work at Mexican supplier, Pegatron.

Human rights

- **Extractives issues** HP led the establishment of the Electronic Industry Citizenship Coalition(EICC)-Global e-Sustainability Initiative (GeSI) Extractives Work Group on extractives issues. HP was one of the leading member companies contributing to the development of a conflict-free smelter validation program, In-Region Sourcing panel, supplier survey tool, Organisation for Economic Co-operation Development (OECD) Due Diligence Guidance, and a concept paper for a public-private partnership. (See Conflict minerals for more information.)
- **Human Rights** HP is a founding member of the Global Business Initiative (GBI) on Human Rights. We aim to show leadership and raise awareness of human rights issues within the business community and to contribute to the

development of practical approaches by testing emerging best practices in our operations and supply chain. (See Human rights for more information.)

Labor

- **International labor migration** In 2010, HP sponsored BSR's research into international labor migration. The research aims to create a network of companies, suppliers, international organizations, and civil society groups that will develop tools and practices for managing migrant workers. It also aims to empower workers to make informed decisions, and strengthen migration policy reform. We helped develop tools and coordinate supplier assessments to aid best-practice sharing on the issue.

Perspective: Ryan Schuchard

Ryan Schuchard from BSR believes HP's commitment to transparency, including the company's efforts to promote energy efficiency in its supply chain, helps it stand out as a leader in environmental sustainability. Read his comments.

Sharing experiences

Our supply chain SER program staff members regularly contribute to external publications and share our experiences with other organizations. In 2010, these included:

- **BSR's *Unlocking Energy Efficiency in China*** HP contributed extensively to and was positively featured throughout the guide.
- ***Business Watch Magazine*, August 2010** The Chinese publication interviewed HP employees about supply chain SER, specifically regarding environmental issues.
- **Electronic Industry Citizenship Coalition and BSR's "Practical Approach to Greening the Electronics Supply Chain 2010 "** The report featured HP throughout.
- **Center for American Progress and Enough project** This campaign aims to end genocide and crimes against humanity. Its first report, "Getting to Conflict-Free, Assessing Corporate Action on Conflict Minerals " credits HP with making the most progress of any company in our sector. (See Conflict minerals for more information.)
- ***Inside Supply Chain Management* , May 2010** HP contributed the article "Raising Supply Chain Standards."
- **The Institute of Human Rights and Business "Moving Ahead Together: Evaluation of Business and Human Rights workshops within the Sino-Swiss Human Rights Dialogue "** HP supported the Sino-Swiss Human Rights Dialogue and shared supply chain SER program experiences.
- **The Mexico multi-industry SER initiative** This initiative aims to train 105 small- to medium-sized companies from different sectors in Jalisco, Mexico, on SER topics. The partnership between HP Guadalajara and the Mexican government's Council of Industrial Chambers in Jalisco includes students from the Tec de Monterrey University, who intend to follow up with suppliers to ensure SER plans developed during the training are implemented effectively.
- ***Outlook Weekly*, May 2010** The Chinese publication interviewed HP employees about global citizenship and HP's approach to SER in Asia Pacific.
- ***People* , May 2010** The Chinese publication highlighted HP's commitment to align business goals with social and environmental impacts.
- **United Nations Global Compact's "Supply Chain Sustainability Guide "** HP contributed best-practice examples. The Global Compact also selected the Portal for Responsible Supply Chain Management to join a collaborative venture that will give guidance to other companies developing their own approach to supply chain SER. HP is one of four companies leading the portal through the Responsible Supply Chain Laboratory.

Capability building

HP's capability-building programs are designed to deliver substantial and lasting improvements in the social and environmental responsibility (SER) performance of suppliers. To help implement these improvements, we work closely with 1) suppliers, to build knowledge and strengthen processes, and 2) supplier employees, to ensure that practices permeate the entire organization. Our aim is to instill behavioral changes that shift practices away from historical norms and towards ever improving everyday SER performance.

Capability is built most effectively through collaboration. HP works with local nongovernmental organizations (NGOs) and training groups to deliver capability-building programs. These programs are directed both toward supplier management and workers, and address general awareness of HP's Electronic Industry Code of Conduct (EICC), labor and ethics, health and safety, environment, and management systems.

We summarize our main capability-building programs active in 2010 in the table below. See Reducing hepatitis B discrimination and Building EICC awareness in Thailand for in-depth information about two of our recent programs.

New suppliers

We introduce new suppliers into our supply chain SER program each year and hold supplier education forums to communicate our SER expectations. In 2010, we held events in the Philippines, Israel, and Mexico. (See the interactive graphic below for more information.)

HP’s capability-building initiatives 2010

1. 1

EICC awareness

HP’s EICC awareness raising

- Audience: Management (over 100 participants from 55 suppliers)
- Partners: Nidec; Toshiba; Verite

In 2010, HP co-hosted Positive Change of Labor Communications, a conference in the Philippines aiming to raise awareness of HP’s Electronic Industry Code of Conduct (EICC). It also addressed suppliers’ concerns about code implementation. The workshop featured some of HP’s first- and second-tier suppliers. HP followed the conference with recommendations that key suppliers join training programs with local labor departments to further improve standards.

Supplier forums in Israel and Mexico

- Audience: Management (122 participants from 69 suppliers)
- Partners: CADELEC; the Mexican government (for the forum held in Mexico)

In 2010, HP hosted supplier forums in Israel and Mexico to refresh suppliers’ knowledge of HP’s EICC, as well as introduce new suppliers to our supply chain SER program. Production and nonproduction suppliers took part, and the forum in Israel also included supplier-facing HP procurement staff. In 2011, we plan to hold supplier forums in China and India.

2. 2

Labor and ethics

Hepatitis B anti-discrimination program

- Audience: Workers and management (20,000 workers at 7 suppliers)
- Partner: Inno Community Development Organisation

HP considers hepatitis B (HBV) tests in employee hiring processes to be violations of the nondiscrimination provision of HP’s EICC. We held training programs in China starting in 2009 to improve understanding of HBV transmission and prevention, and to reduce discrimination against patients. See case study for more information.

Labor agency policies and practices

- Audience: Management
- Partners: CADELEC; CANIETI; Electronic Industry Citizenship Coalition

HP uses labor agencies to hire temporary workers. In Guadalajara, Mexico, we have been part of an industrywide initiative to improve SER adoption by labor agencies through third-party assessments and consulting. In 2010, three agencies assessed in the previous year showed improved understanding of HP's EICC, and introduced programs to improve SER performance.

Worker-management communications

- Audience: Management and workers (over 10,000 workers from 9 supplier sites)
- Partners: Labor Education and Service Network; Xin Shi Min Zhi Jia (Chinese NGO)

HP piloted worker-management communications training with two Chinese suppliers, Chicony and Delta, in 2009. The training helped workers better understand their labor rights and provided an independent workers' grievance hotline for communicating concerns about their working environment. HP also provided training for a workers' representatives committee. In 2010, we expanded the pilot to include five more suppliers. We have plans to expand further to eight additional supplier sites in 2011.

3. 3

Health and safety

Health Enables Return (HER) Project

- Audience: Workers (approximately 20,000 workers at 5 facilities in China)
- Partner: BSR

The HERProject addresses the general and reproductive health needs of women working in manufacturing in a range of industries including electronics. HP joined the project in Mexico in 2008 (working with Pegatron) and extended it to China in 2010 (working with Foxconn, Jabil, Lite-on, Pegatron, and Wistron). At Foxconn, nearly 98% of the 6,000 women workers at the company's Shenzhen facility participated in the Foxconn project. On average, 95% of those participants showed an understanding of five key reproductive health issues after the training, compared with 77% before. HP intends to continue to promote the program in 2011.

4. 4

Environmental

Energy Efficiency Partnership Program

- Audience: Management
- Partner: BSR

In 2010, HP introduced 12 Chinese supplier sites to the Energy Efficiency Partnership Program. The initiative helps suppliers set energy-saving goals and provides necessary training and technical support, including energy audits and consultations, to help achieve those targets. See Product manufacturing for more information.

5. 5

Management systems

Hard disk drive supplier SER program implementation

- Audience: Management and workers (170 workers from 25 suppliers)
- Partners: Hitachi GST; Seagate; Toshiba; Western Digital

HP’s yearlong program (2009-2010) with hard disk drive suppliers in Thailand raised awareness of HP's EICC and facilitated best practice sharing among supplier management and supported their implementation of SER-related management systems. The program featured HP’s first-, second-, and third-tier suppliers. We will extend the training to hard disk drive suppliers in Malaysia in 2011. See case study for more information.

As our relationships with suppliers develop, we work to instill good practices among lower-tier suppliers as well. HP has trained over 160 second-tier suppliers through programs conducted jointly with our first-tier suppliers. Suppliers representing 60% of our total production spend have benefited from at least one program.

See descriptions of our historical capability-building initiatives in our 2008 and 2009 Global Citizenship Reports.

Measuring performance

We measure the social and environmental responsibility (SER) performance of some suppliers using the results of self-assessments, and of others using audits. (See Summary audit results for more information.) We measure the reach of our capability-building programs to increase our impact, and we consider post-program audit results when we assess the performance of those initiatives.

We have also introduced key performance indicators (KPIs) to a number of suppliers. These help HP track performance against areas of ongoing concern, particularly between HP audits. (See Key performance indicators for more information.) HP also shares best-practice examples from successes with suppliers.

External monitoring

A number of third-party organizations, particularly nongovernmental organizations (NGOs), raise concerns regarding specific issues in the electronics industry supply chain, and assess performance through reports and direct contact with companies. This input is an important barometer of current and emerging supply chain issues. HP engages with organizations to better understand their concerns, and to help us develop more successful capability-building programs for suppliers. We partner with some organizations to improve training and conditions for workers at our suppliers. (See a summary of our capability-building initiatives.)

The focus of external organizations in 2010 included:

Environment

- **Environmental leadership** Gartner and WWF produce a low-carbon and environmental leadership assessment for the information and communications technology industry. In 2010, HP ranked number one in supply chain energy efficiency and environmental performance. (See Product manufacturing for more information.)
- **River pollution in China** A report by 34 Chinese environmental NGOs raised concerns about suppliers to 29 electronics companies polluting rivers with heavy metals in the Pearl River Delta region. The report positively mentioned HP's work to ensure better regulatory compliance to improve conditions in its Chinese supplier factories overall. In 2010, HP joined the Electronic Industry Citizenship Coalition's Asia Water Task Force. The task force worked with Business for Social Responsibility (BSR) on its 2010 report "Electronics Supply Networks and Water Pollution in China."

Labor

- **Electronics manufacturing in Central Europe** makeITfair's Central Europe report analyzed the trend of electronics manufacturing in Central Europe. It highlighted concerns regarding labor conditions, and offered case studies showing where progress is being made, including HP's Central Europe Supplier Responsibility (CESR) project, which focused on small suppliers in the global supply chain.
- **Labor Rights in a Time of Crisis** CEREAL's third report on conditions in Mexican electronics factories raised

concern about employment instability for workers as a result of the economic crisis. The report ranked HP as very good—one of only two companies to achieve that status—based on a low number of worker complaints received, and all or most cases being resolved.

- **Supply Chain Ethic and Values Prize** The Confederation of Industrial Chambers of Mexico (CONCAMIN) awarded HP the Supply Chain Ethics and Values Prize, presented by the Mexican Secretary of Labor and Social Welfare and the Governor of Veracruz.
- **Working hours in China** Reports by the U.S. National Labor Committee (NLC) in 2010 alleged that workers at two supplier sites in China were being mistreated. While one report focused mainly on excessive working hours, the other also highlighted labor problems such as child labor, disciplinary wage deductions, and forced overtime. Both suppliers had previously been audited by HP, and following the allegations we initiated investigative audits of both sites. We continue to work with the suppliers to improve working conditions.

Summary audit results

Since we began auditing in 2005, rates of major nonconformances[1] have decreased across all of HP's Electronic Industry Code of Conduct (EICC) sections. The prevalence of specific issues varies substantially from region to region. (See our detailed results.)

The table below shows the growth of HP's supply chain social and environmental responsibility (SER) program. As our program matures, fewer suppliers enter it, and the proportion of initial audits is lower. We conduct a higher proportion of follow-up audits to help us resolve issues with our higher-risk profile suppliers. This reflects our focus on supporting long-term SER performance improvements.

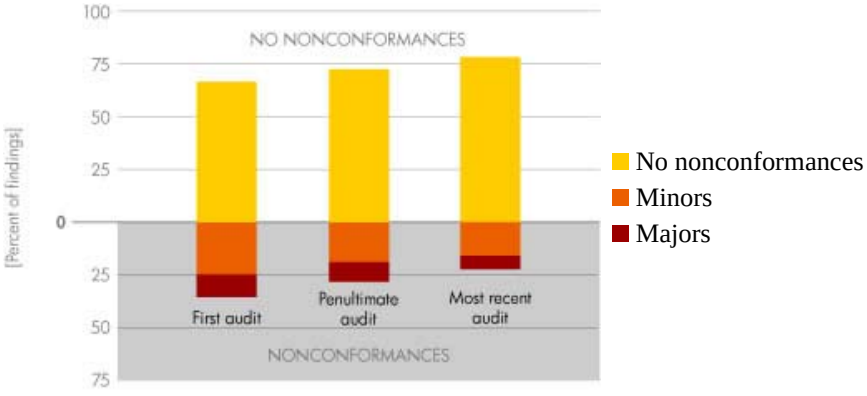
Audits conducted (cumulative)

	2005	2006	2007	2008	2009	2010
Initial audits	80	166	216	248	271	307
Follow-up audits	5	45	138	238	319	373
Total audits	85	211	354	486	590	680

Demonstrable improvements

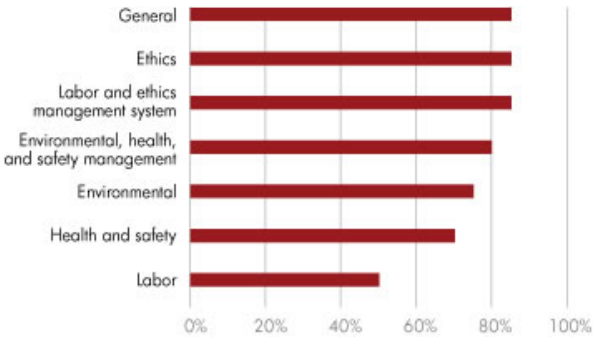
The chart below shows that as suppliers advance through HP's SER program, their performance improves. We believe this continual improvement is due to our validation system, with its focus on collaborative audits and corrective actions, and our efforts to build our suppliers' capabilities.

Distribution of audit findings, 2005–2010



The chart below lends support to the effectiveness of our validation and improvement process. The process involves auditing supplier sites, requiring corrective actions, and re-auditing to verify that nonconformances have been addressed. Across all provisions, between 70–75% of major nonconformances identified in initial audits have been subsequently addressed. The chart also demonstrates that nonconformances have been easier to address for some sections of the code than others.

Major nonconformances reduced by section of HP's EICC, 2005–2010*



- * Based on follow-up audits compared with initial audits at same sites; does not include new items identified.

The chart below shows the distribution of major nonconformances at audited facilities across the provisions of HP's EICC. Labor and health and safety account for the majority of major nonconformances.

Distribution by section of HP's EICC of major nonconformances in most recent audits of suppliers worldwide, 2009–2010

For details about other issues identified in audits and HP's response by region, see the Detailed audit findings section.

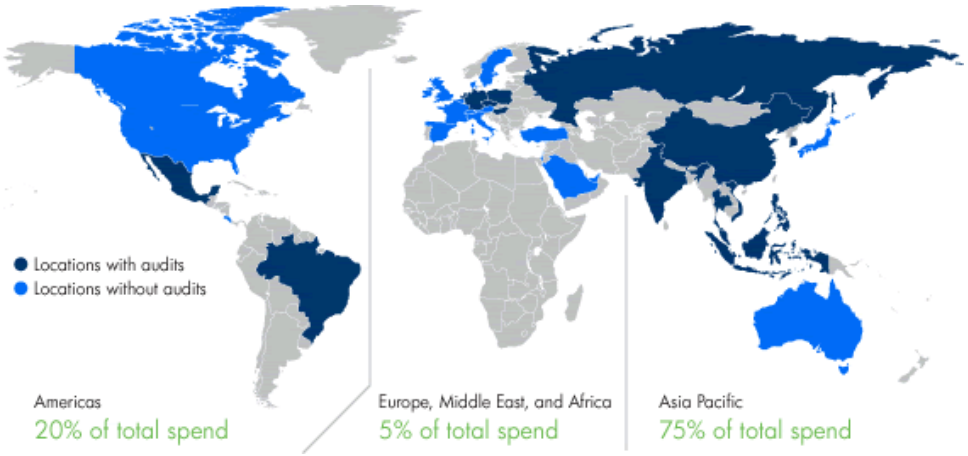
Nonproduction supplier self-assessment results

Fifty-six of our global strategic nonproduction suppliers have now performed self-assessments. (See Supplier management system for more information.) We considered supplier risk profiles, supplier's strategic importance to HP, and the supplier industry before we introduced nonproduction suppliers to our supplier management system. We found minor deficiencies—largely concerning SER management systems that do not fully cover HP's EICC—in 25% of these self-assessments. However, more than 50% of self-assessments in China, India, and Latin America had more serious deficiencies, including no SER management commitment or policy. We believe the higher number of serious deficiencies reflects lower levels of EICC awareness among country-level nonproduction suppliers compared with production suppliers. (See Supplier management system for more information.)

1. [1] See a definition of nonconformance types.

Detailed audit findings

- » Overview
- » Asia Pacific
- » Greater China
- » Central Europe
- » Latin America



In 2010, HP conducted 70 production supplier site audits (including third-party investigative audits) and 22 HP-initiated Electronic Industry Citizenship Coalition Validated Audit Process (VAP) audits, bringing our total since 2005 to 681. In 2010, we placed additional focus on helping to make key improvements with a small set of major suppliers. Fifty-two of our 2010 audits were follow-up audits to measure progress in reducing nonconformances found during initial reviews. The results of these follow-up site audits showed that major and minor nonconformances had on average reduced by 30%, from an average of 20 to an average of 14 findings per facility.

Working hours

Excessive working hours remains one of the most common issues in our audits, especially in China. HP is making a concerted effort to reduce the instances of working hour nonconformances. In 2010, we asked suppliers with major working hours nonconformances to regularly report key performance indicators (KPIs) to us. Chinese labor law stipulates a lower working hour limit than HP's EICC. Suppliers may therefore be in compliance with HP's EICC, but not with local law. Suppliers must comply with the stricter rules to avoid a nonconformance. Our working hours KPIs show that in the past year, 60% of suppliers with major nonconformances related to working hours were in compliance with HP's EICC requirement of fewer than 87 overtime working hours per month, but not in compliance with local law.

In 2011, we will continue to expand the number of suppliers reporting working hours KPIs.

Rate of nonconformance in sites audited:
0% 0% 1-10% 1-10% 11-25% 11-25% 26-50% 26-50% 51%+ 51%+

EICC provisions	Nonconformances*		
General	**Major**	**Minor**	**Trend****
EICC awareness	1-10%	11-25%	no change
Compliance with laws	0%	1-10%	no change
Supplier management program	11-25%	26-50%	decreasing
Labor	**Major**	**Minor**	**Trend**
Freely chosen employment	1-10%	1-10%	no change
Child labor avoidance***	1-10%	26-50%	decreasing
Working hours****	51%+	1-10%	no change
Wages and benefits	11-25%	11-25%	decreasing
Humane treatment	1-10%	1-10%	no change
Nondiscrimination	11-25%	11-25%	decreasing
Freedom of association	1-10%	1-10%	no change
Labor management system	**Major**	**Minor**	**Trend**
Overall	11-25%	1-10%	no change
Health and safety	**Major**	**Minor**	**Trend**
Occupational safety	11-25%	11-25%	decreasing
Emergency preparedness	26-50%	26-50%	decreasing
Occupational injury and illness	11-25%	11-25%	no change
Industrial hygiene	11-25%	26-50%	no change
Physically demanding work	1-10%	26-50%	decreasing
Machine safeguarding	1-10%	11-25%	no change

Dormitory and canteen	1-10%	11-25%	no change
Environmental health and safety management	**Major**	**Minor**	**Trend**
Overall	1-10%	1-10%	no change
Environmental	**Major**	**Minor**	**Trend**
Environmental permits and reporting	1-10%	1-10%	decreasing
Pollution prevention and resource reduction	1-10%	1-10%	no change
Hazardous substances	11-25%	26-50%	decreasing
Wastewater and solid waste	1-10%	1-10%	decreasing
Air emissions	1-10%	1-10%	no change
Product content restrictions	See Materials section		
Ethics	**Major**	**Minor**	**Trend**
Business integrity	1-10%	1-10%	no change
No improper advantage	1-10%	1-10%	no change
Disclosure of information	0%	0%	no change
Intellectual property	1-10%	1-10%	no change
Fair business, advertising and competition	1-10%	1-10%	no change
Protection of identity	1-10%	1-10%	no change
Community engagement	0%	1-10%	no change

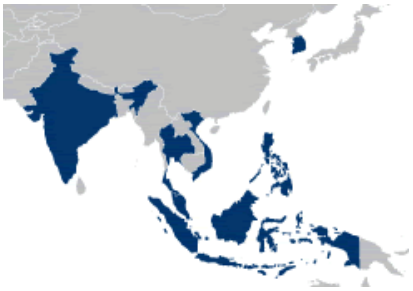
* These data reflect the results of HP's last site audit and do not show supplier corrective actions not yet validated by HP through a follow-up audit. Sites with follow-up audits tend to have higher initial levels of nonconformance than other audited sites.

** Increases are generally caused by auditing additional suppliers or facilities.

*** A major nonconformance in the underage worker provision of HP's Electronic Industry Code of Conduct (EICC) does not necessarily indicate the presence of child labor. For example, an auditor may uncover inappropriate working conditions for young workers (16–18 in China), or insufficient management systems and age checks to prevent child workers from being employed. These would be considered a major nonconformance, but do not necessarily signify the presence of workers under the legal minimum, or the minimum age specified by HP's EICC. While there were instances of underage worker nonconformances uncovered in 2010, no child labor was uncovered.

**** A major nonconformance in the working hours provision of HP's EICC indicates that at least one of the following requirements was not met:

- Workers are allowed mandated breaks, holidays, and vacation days to which they are legally entitled
- The average hours worked in a work week over the last 12 months at the facility do not exceed 60 hours or the legal limit (whichever is stricter)
- Workers are provided with at least one day off per every seven workdays on average



Asia Pacific findings

Location	Initial audits	Follow-up audits	Workers at site audited
Indonesia	1	1	3,000
Malaysia	2	2	4,000
Philippines	0	1	15,000
Singapore	4	1	2,000
South Korea	1	0	(Not available)
Thailand	1	2	5,000
Total	9	7	29,000

In 2010, we conducted nine initial and seven follow-up audits at 16 sites across Indonesia, Malaysia, the Philippines, Singapore, South Korea, and Thailand. Our audits identified working hours and hazardous substances handling as significant issues, similar to 2009. Nonconformances decreased in 2010, as capability-building programs such as our EICC labor rights awareness training helped to improve performance.

Supplier audits in 2010 showed a significant reduction in nonconformances relating to emergency preparedness in 2010, another major issue raised in 2009.

Rate of nonconformance in sites audited:
0% 0% 1-10% 1-10% 11-25% 11-25% 26-50% 26-50% 51%+ 51%+

EICC provisions	Nonconformances*		
General	**Major**	**Minor**	**Trend****
EICC awareness	1-10%	1-10%	decreasing
Compliance with laws	0%	1-10%	no change
Supplier management program	1-10%	11-25%	decreasing
Labor	**Major**	**Minor**	**Trend**
Freely chosen employment	1-10%	11-25%	no change
Child labor avoidance	0%	1-10%	no change
Working hours	26-50%	11-25%	decreasing
Wages and benefits	0%	1-10%	decreasing
Humane treatment	0%	1-10%	decreasing
Nondiscrimination	1-10%	11-25%	decreasing
Freedom of association	0%	0%	no change
Labor management system	**Major**	**Minor**	**Trend**
Overall	1-10%	0%	decreasing
Health and safety	**Major**	**Minor**	**Trend**
Occupational safety	1-10%	11-25%	decreasing
Emergency preparedness	11-25%	11-25%	decreasing
Occupational injury and illness	1-10%	11-25%	decreasing
Industrial hygiene	1-10%	11-25%	decreasing
Physically demanding work	1-10%	11-25%	no change
Machine safeguarding	1-10%	1-10%	no change
Dormitory and canteen	0%	11-25%	decreasing
Environmental health and safety management	**Major**	**Minor**	**Trend**
Overall	1-10%	0%	decreasing
Environmental	**Major**	**Minor**	**Trend**
Environmental permits and reporting	0%	0%	decreasing
Pollution prevention and resource reduction	0%	0%	no change
Hazardous substances	11-25%	11-25%	decreasing
Wastewater and solid waste	0%	1-10%	no change
Air emissions	0%	1-10%	no change
Product content restrictions	1-10%	1-10%	no change
Ethics	**Major**	**Minor**	**Trend**
Business integrity	0%	0%	no change
No improper advantage	0%	1-10%	no change
Disclosure of information	0%	0%	no change
Intellectual property	0%	0%	no change
Fair business, advertising and competition	0%	0%	no change
Protection of identity	0%	1-10%	no change
Community engagement	0%	0%	no change

* These data reflect the results of HP's last site audit and do not show supplier corrective actions not yet validated by HP through a follow-up audit. Sites with follow-up audits tend to have higher initial levels of nonconformance than other audited sites.

** Increases are generally caused by auditing additional suppliers or facilities.

Greater China findings

Location	Initial audits	Follow-up audits	Workers at site audited
China	19	31	220,000
Total	19	31	220,000

In 2010, we conducted 19 initial and 31 follow-up audits at 46 sites in Greater China. The major issues identified during the most recent audits included emergency preparedness, hazardous substances handling, occupational safety, wages and benefits, and working hours.

Since 2009, we have asked certain supplier sites in China with major nonconformances related to working hours to report monthly KPIs that track the average number of hours worked, and amount of overtime. (See Key performance indicators for more information.)

HP has introduced health-related educational programs, such as the Health Enables Returns Project (HERproject), to teach workers about general and reproductive health needs of women in manufacturing, as a way of addressing occupational safety concerns. HP's worker-management communications training program, started in China in 2009, also helps workers understand their labor rights, and provides an independent workers' grievance hotline for communicating concerns about their working environment. (See Capability building for more information.)

Rate of nonconformance in sites audited:
0% 0% 1-10% 1-10% 11-25% 11-25% 26-50% 26-50% 51%+ 51%+

EICC provisions	Nonconformances*		
General	**Major**	**Minor**	**Trend****
EICC awareness	1-10%	11-25%	decreasing
Compliance with laws	0%	1-10%	no change
Supplier management program	11-25%	26-50%	no change
Labor	**Major**	**Minor**	**Trend**
Freely chosen employment	1-10%	1-10%	decreasing
Child labor avoidance***	1-10%	26-50%	decreasing
Working hours****	51%+	1-10%	no change
Wages and benefits	26-50%	11-25%	decreasing
Humane treatment	11-25%	1-10%	no change
Nondiscrimination	11-25%	11-25%	decreasing
Freedom of association	1-10%	1-10%	no change
Labor management system	**Major**	**Minor**	**Trend**
Overall	26-50%	1-10%	increasing
Health and safety	**Major**	**Minor**	**Trend**
Occupational safety	11-25%	11-25%	no change
Emergency preparedness	26-50%	26-50%	decreasing
Occupational injury and illness	11-25%	26-50%	no change
Industrial hygiene	26-50%	26-50%	no change
Physically demanding work	11-25%	26-50%	no change
Machine safeguarding	1-10%	11-25%	decreasing
Dormitory and canteen	11-25%	26-50%	no change
Environmental health and safety management	**Major**	**Minor**	**Trend**
Overall	11-25%	1-10%	increasing

Environmental	Major	Minor	Trend
Environmental permits and reporting	1-10%	11-25%	decreasing
Pollution prevention and resource reduction	1-10%	1-10%	no change
Hazardous substances	26-50%	26-50%	decreasing
Wastewater and solid waste	1-10%	1-10%	decreasing
Air emissions	1-10%	1-10%	decreasing
Product content restrictions	1-10%	1-10%	no change
Ethics	**Major**	**Minor**	**Trend**
Business integrity	1-10%	11-25%	no change
No improper advantage	1-10%	1-10%	no change
Disclosure of information	0%	0%	no change
Intellectual property	1-10%	1-10%	no change
Fair business, advertising and competition	1-10%	11-25%	no change
Protection of identity	1-10%	1-10%	no change
Community engagement	0%	1-10%	no change

* These data reflect the results of HP's last site audit and do not show supplier corrective actions not yet validated by HP through a follow-up audit. Sites with follow-up audits tend to have higher initial levels of nonconformance than other audited sites.

** Increases are generally caused by auditing additional suppliers or facilities.

*** A major nonconformance in the underage worker provision of HP's Electronic Industry Code of Conduct (EICC) does not necessarily indicate the presence of child labor. For example, an auditor may uncover inappropriate working conditions for young workers (16–18 in China), or insufficient management systems and age checks to prevent child workers from being employed. These would be considered a major nonconformance, but do not necessarily signify the presence of workers under the legal minimum, or the minimum age specified by HP's EICC. While there were instances of underage worker nonconformances uncovered in 2010, no child labor was uncovered.

**** A major nonconformance in the working hours provision of HP's EICC indicates that at least one of the following requirements was not met:

- Workers are allowed mandated breaks, holidays, and vacation days to which they are legally entitled
- The average hours worked in a work week over the last 12 months at the facility do not exceed 60 hours or the legal limit (whichever is stricter)
- Workers are provided with at least one day off per every seven workdays on average

Eastern Europe findings (including Russia)

Location	Initial audits	Follow-up audits	Workers at site audited
Czech Republic	0	3	4,000
Germany	1	0	400
Hungary	0	3	400
Netherlands	0	1	1,500
Russia	1	0	100
Total	2	7	6,400

In 2010, we conducted two initial audits and seven follow-up audits at nine sites in Czech Republic, German, Hungary, the Netherlands, and Russia. The major issues identified during the most recent audits related to emergency preparedness and working hours. We found fewer nonconformances in provisions relating to occupational safety and industrial hygiene compared with previous audits.

Rate of nonconformance in sites audited:
0% 0% 1-10% 1-10% 11-25% 11-25% 26-50% 26-50% 51%+ 51%+

EICC provisions	Nonconformances*		
General	**Major**	**Minor**	**Trend****
EICC awareness	0%	11-25%	no change
Compliance with laws	0%	1-10%	no change
Supplier management program	1-10%	26-50%	decreasing
Labor	**Major**	**Minor**	**Trend**
Freely chosen employment	0%	0%	no change
Child labor avoidance	0%	0%	no change
Working hours	0%	0%	no change
Wages and benefits	0%	0%	no change
Humane treatment	0%	0%	no change
Nondiscrimination	0%	0%	no change
Freedom of association	0%	0%	no change
Labor management system	**Major**	**Minor**	**Trend**
Overall	0%	0%	no change
Health and safety	**Major**	**Minor**	**Trend**
Occupational safety	11-25%	26-50%	no change
Emergency preparedness	11-25%	26-50%	decreasing
Occupational injury and illness	0%	0%	no change
Industrial hygiene	1-10%	11-25%	no change
Physically demanding work	0%	26-50%	decreasing
Machine safeguarding	0%	1-10%	no change
Dormitory and canteen	0%	0%	no change
Environmental health and safety management	**Major**	**Minor**	**Trend**
Overall	0%	0%	no change
Environmental	**Major**	**Minor**	**Trend**
Environmental permits and reporting	0%	0%	no change
Pollution prevention and resource reduction	0%	0%	no change
Hazardous substances	11-25%	11-25%	increasing
Wastewater and solid waste	0%	0%	no change
Air emissions	0%	0%	no change
Product content restrictions	1-10%	26-50%	decreasing
Ethics	**Major**	**Minor**	**Trend**
Business integrity	0%	0%	no change
No improper advantage	0%	0%	no change
Disclosure of information	0%	0%	no change
Intellectual property	0%	0%	no change
Fair business, advertising and competition	0%	0%	no change
Protection of identity	0%	0%	no change
Community engagement	0%	0%	no change

* These data reflect the results of HP's last site audit and do not show supplier corrective actions not yet validated by HP through a follow-up audit. Sites with follow-up audits tend to have higher initial levels of nonconformance than other audited sites.

** Increases are generally caused by auditing additional suppliers or facilities.

Latin America findings

Location	Initial audits	Follow-up audits	Workers at site audited
Brazil	5	5	8,000
Mexico	1	2	3,000
Total	6	7	11,000

In 2010, we conducted six initial and seven follow-up audits at 13 sites in Brazil and Mexico. Major issues identified during the most recent audits in Brazil included emergency preparedness, nondiscrimination, and working hours. Mexico's primary issue identified during the most recent audits was working hours, although performance in this area has improved. In Brazil, we found improvements in labor and ethics management systems compared with previous audits.

Rate of nonconformance in sites audited:
0% 0% 1-10% 1-10% 11-25% 11-25% 26-50% 26-50% 51%+ 51%+

EICC provisions	Nonconformances*		
General	**Major**	**Minor**	**Trend****
EICC awareness	1-10%	11-25%	no change
Compliance with laws	0%	1-10%	no change
Supplier management program	11-25%	26-50%	increasing
Labor	**Major**	**Minor**	**Trend**
Freely chosen employment	0%	1-10%	no change
Child labor avoidance	0%	26-50%	no change
Working hours	26-50%	11-25%	no change
Wages and benefits	1-10%	1-10%	no change
Humane treatment	0%	11-25%	no change
Nondiscrimination	1-10%	11-25%	decreasing
Freedom of association	0%	0%	no change
Labor management system	**Major**	**Minor**	**Trend**
Overall	26-50%	1-10%	decreasing
Health and safety	**Major**	**Minor**	**Trend**
Occupational safety	1-10%	26-50%	decreasing
Emergency preparedness	26-50%	26-50%	no change
Occupational injury and illness	1-10%	26-50%	decreasing
Industrial hygiene	11-25%	11-25%	no change
Physically demanding work	1-10%	26-50%	decreasing
Machine safeguarding	11-25%	11-25%	no change
Dormitory and canteen	11-25%	11-25%	no change
Environmental health and safety management	**Major**	**Minor**	**Trend**
Overall	11-25%	11-25%	no change
Environmental	**Major**	**Minor**	**Trend**
Environmental permits and reporting	11-25%	1-10%	decreasing
Pollution prevention and resource reduction	0%	11-25%	no change
Hazardous substances	11-25%	26-50%	increasing
Wastewater and solid waste	0%	1-10%	decreasing
Air emissions	0%	0%	no change
Product content restrictions	26-50%	11-25%	increasing
Ethics	**Major**	**Minor**	**Trend**
Business integrity	1-10%	1-10%	decreasing
No improper advantage	1-10%	1-10%	increasing
Disclosure of information	0%	0%	no change
Intellectual property	0%	1-10%	no change
Fair business, advertising and competition	1-10%	1-10%	no change
Protection of identity	11-25%	11-25%	increasing
Community engagement	0%	0%	no change

* These data reflect the results of HP's last site audit and do not show supplier corrective actions not yet validated by HP through a follow-up audit. Sites with follow-up audits tend to have higher initial levels of nonconformance than other audited sites.

** Increases are generally caused by auditing additional suppliers or facilities.

Key performance indicators

Some specific social and environmental responsibility (SER) issues require frequent monitoring. Since 2009, we have asked certain supplier sites in China with major nonconformances related to working hours to report monthly key performance indicators (KPIs) that track the average number of hours worked, and amount of overtime.

In 2010, we integrated these KPIs into suppliers' corrective action plans. Of our high-risk profile suppliers with working hours major nonconformances, more than 40% (by spend) report monthly KPIs to us. This exceeds our goal of 25% by the end of 2010. These facilities represent more than 100,000 workers. We aim to have 75% (by spend) of suppliers with major nonconformances in working hours reporting related KPIs to us by the end of 2012.

Monitoring KPIs allows for delivery of real-time information about supplier performance between audit visits, providing further insight into suppliers' degree of performance, creating a bench line for monitoring future performance and improvement, and indicating where capability-building programs are needed. These benefits allow HP to further support suppliers' development. Our work is focused on:

- Eliminating the most excessive overtime
- Reducing average overtime
- Ensuring every employee has at least one day off per week

The KPIs have revealed variations in performance among suppliers and between the facilities of individual suppliers. Some suppliers with a major nonconformance improve performance consistently once corrective action plans have been implemented, while others struggle to avoid further excessive working hours, and some improve performance for several months before regressing when business conditions change. (This does not necessarily correlate to increased demand from HP.) In particular, we have seen positive results when a facility's management has acknowledged the benefits of reporting and monitoring these KPIs. Ongoing dialogue with facility management has helped us learn and disseminate best practices to all suppliers. The KPIs enable HP to focus on suppliers and factories that need the most help long before we conduct follow-up audits.

Building EICC awareness in Thailand

Participants discuss improvements in labor standards.

HP followed the success of our 2009 multi-stakeholder conference for hard disk drive (HDD) suppliers in Thailand with a year-long social and environmental responsibility (SER) capability-building program in 2010. In collaboration with HDD companies Hitachi GST, Seagate, Toshiba, and Western Digital, as well nongovernmental organizations (NGOs), the program aimed to:

- Raise awareness and improve implementation of labor standards among management.
- Share knowledge and skills among suppliers.
- Enhance human resources management practices to improve labor relations and handling of conflict.

Nearly 25 suppliers took part in the courses, which included a two-day roundtable for suppliers to discuss their training needs and raise concerns about implementation of HP's Electronic Industry Code of Conduct (HP's EICC); a five-day management training course focusing on awareness of HP's EICC and implementation, management systems, and conflict resolution (with 37 participants); and a best-practice sharing session.

Participants gave positive feedback and expressed a desire to attend quarterly meetings to share future challenges and best practices. HP and our partners plan to host follow-up meetings in 2011 and extend the training to HDD suppliers in Malaysia. We intend to use our 2011 audit results to judge the effectiveness of the training.

Foxconn employee health and wellness concerns in Shenzhen, China

Since 2003, HP has worked with Foxconn to improve its global social and environmental (SER) performance, as well as its conformance to HP's Electronic Industry Code of Conduct. Despite improvements in SER performance since then, the company (which supplies HP and many other electronics manufacturers) faced unprecedented challenges in 2010, when more than a dozen workers at two factories in Shenzhen, China, committed or attempted suicide. Media, customer, and executive attention on the industry and region increased heavily, with the incidents making front-page headlines at global news outlets.

Follow-up analyses by nongovernmental organizations (NGOs) and government departments identified a number of concerns. These related to facility-specific issues such as wages and benefits, high work intensity, occupational health and safety, work hours, management quality, employee breaks, grievance mechanisms, treatment of student workers, and dining and living conditions. Other concerns involved the implications of broader structural social changes in China, specifically with regards to Chinese migrant workers' well-being and needs.

HP's response

HP had been regularly meeting with senior executives at Foxconn to improve working conditions before the suicides occurred. In response to the tragic events, HP supplemented traditional audits, factory tours by senior executives, and senior executive meetings with third-party and HP-led worker attitude surveys. In May 2010, HP commissioned a third-party survey of workers in the HP production area at one of the Foxconn factories in Shenzhen. In addition, a similar survey was conducted in July 2010 at a different Foxconn factory in Chongqing, China. In total, 453 workers were surveyed by questionnaire, and 182 participated in group interview sessions. The objective of the research in both surveys was to understand sentiment among workers, explore attitudes to working at the facility, and gauge worker awareness and acceptance of employee assistance programs. The surveys found a desire for better wages and concerns about management style, including communication between line leaders, supervisors, and line workers.

Based on the results of the interviews and similar worker surveys conducted by Foxconn internally, senior executives from both companies (including senior vice presidents responsible for HP product manufacturing) agreed on corrective action plans, including implementing supervisor training, reducing overtime working hours, improving dormitory assignments based on shift patterns, and addressing laundry complaints. Every one to two weeks, through regular meetings and key performance indicators, HP tracked progress on these actions as well as other changes implemented by Foxconn. As several of those action areas concerned dormitories and other living arrangements at Foxconn, in July 2010, Tony Prophet, senior vice president of Operations in HP's Personal Systems Group, visited the facility and toured the dormitories, canteens, food preparation areas, employee hotline facility, wellness centers, and leisure areas of the facility to gain first-hand experience of the working conditions at the site and to see improvements being made.

In November 2010, HP invited 16 of our suppliers in the Shenzhen area, including Foxconn, to a workshop on job-related stress prevention. This workshop introduced a method for managing stress in workplaces that encourages active involvement of frontline workers in improving their work environment.

HP continues to work closely with Foxconn to support its SER efforts and help ensure that the progress observed in subsequent audits and key performance indicators is sustained.

Foxconn's response

Foxconn surveyed nearly 30,000 of its workers, asking where improvements could be made. In response to some of the findings, the company has introduced changes to factory conditions. These include increasing wages for many workers significantly above the local minimum wage; reducing overtime hours; improving worker care and grievance management; providing training to improve worker-management communication; monitoring and auditing food quality; allocating dormitories with consideration of workers' backgrounds; assigning more considerate work locations and shifts; improving dormitory cleanliness; and adding more entertainment facilities.

The tragic suicides and subsequent workforce analysis (see below) also raised broader questions about the manufacturing model in China. Foxconn has begun an extensive transformation of its manufacturing workplace conditions, with a focus on three key elements:

- Establishing new salary standards that reduce pressure for overtime as a personal necessity for employees

- Moving some manufacturing operations closer to migrant workers' hometowns, and thereby maintaining social structures and support systems
- Helping employees integrate better into the community to promote a positive work-life balance and create a more extensive support network

The changing Chinese workforce

In 2010, the All China Federation of Trade Unions released a study assessing the new generation of Chinese migrant workers. The study provided insight into labor challenges that face suppliers, despite improving labor and environmental standards in the country, and described several recent trends. Compared with previous generations, average workers from the post-1980s generation:

- Are slightly younger, with an average age of 23 compared with 26
- Have heightened career ambitions
- Are less likely to return to their home town, preferring to settle in their new community
- Are better educated, and place a higher value on challenges and skills development
- Expect a higher income from their work

Changes to Chinese policy have already begun to reflect the needs and desires of this new generation of workers. The government has increased minimum wages in 14 provinces, and analysis shows that further increases will follow in 2011. Senior politicians, including President Hu Jintao, have called for better treatment of workers in general, and particularly migrant workers.

Reducing hepatitis B discrimination in China

Participants received engaging comic booksthat reinforced positive messages and provided accurate information about HBV.

Approximately 15% of people in the Canton province of China carry the hepatitis B virus (HBV), according to the Guangdong Department of Health. Chinese employers often mistakenly fear that hiring an HBV carrier will lead to the spread of the disease throughout the workforce, despite the virus only being contractable through direct contact with blood or bodily fluids. As a result, they sometimes include HBV tests in employee hiring processes. Carriers are subject to heavy scrutiny by employers, are rarely hired, and are often discriminated against by colleagues.

We consider these to be violations of the nondiscrimination provision of HP's Electronic Industry Code of Conduct. We identified such instances of nonconformance in 10% of our 2009 audits in China, and developed an anti-discrimination education program in response.

Antidiscrimination awareness raising

HP collaborated with Inno Community Development Organisation, a nongovernmental organization (NGO) that focuses on community development in China, to educate employers about the risks of discriminatory practices, and to influence employee attitudes regarding the spread of HBV. The program also helped raise awareness of new Chinese regulations that allow HBV carriers to work in all industries.

Perspective: Dee Lee

Dee Lee, the founder and director of the Inno Community Development Organisation, recounts the group's collaboration with HP on an anti-discrimination initiative in supplier facilities related to the hepatitis B virus (HBV). Read what he has to say in this Q&A.

Seven factories and nearly 20,000 employees, including management and line workers, benefitted from the training. Engaging comic books were distributed and the messages were reinforced through entertaining carnival events at factories. Suppliers were also advised to establish a 24-hour helpline for all workers, allowing them to seek help and raise grievances. Several of HP's larger suppliers, including Chicony and Lite-On, have introduced these hotlines.

HP identified several changes to supplier policies and attitudes following the training. In 2010, 4% of audits had instances of nonconformance in this area—a reduction from previous years.

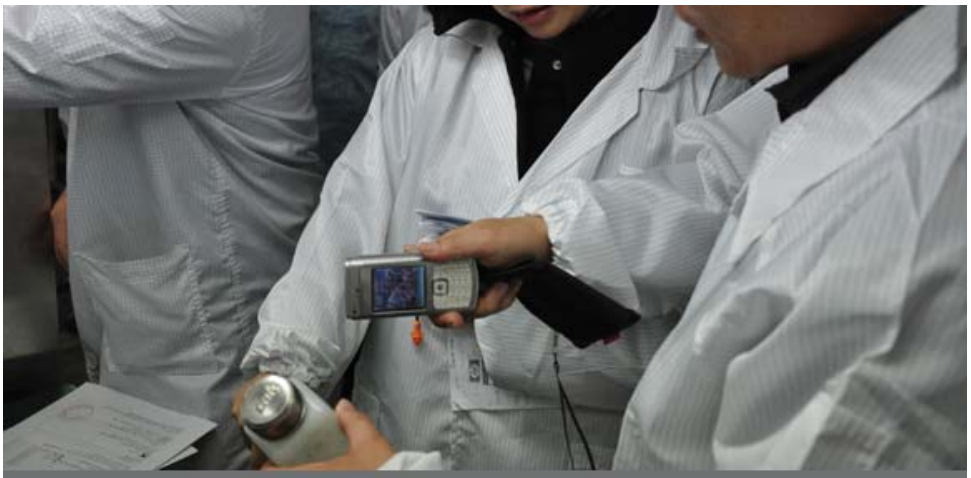
Perspectives of an HP Auditor

2 of 16

We start every audit with an opening meeting. The group includes our audit team (in this case me and my colleagues Emily Wang and Ivy Liu, who are responsible for assessing the labor, ethics and management systems sections of HP's Electronic Industry Code of Conduct) and factory management. In this meeting, we go over HP's social and environmental responsibility program and remind factory management of the standards we expect from their facility. It's really important for us to have a good relationship and to clearly convey our expectations with the management at this meeting, because it encourages them to take our recommendations on-board.

3 of 16

Management leads us on a tour of the factory, but we have access to any parts of the facility we want to see. We make sure to look everywhere, behind doors and in rooms that the managers may not guide us to.



4 of 16

While I walk through the factory, I speak to managers and workers. Here, for example, I am telling a worker that this cleaning agent should be properly labeled as hazardous, and that the work station needs a notice showing correct emergency procedures for working with the chemical. Because these oversights were a relatively isolated incident, it was a minor nonconformance. This assures that the supplier will address this issue in their corrective action plan, which HP will verify in its follow-up audit. I also ask if they know the correct equipment to wear to protect against the chemical. These conversations help indicate whether the correct training is being provided.

5 of 16

Audits can encourage good practices. When we worked with this management team at a different factory, we recommended that they install a barrier to prevent flooding if tanks in the wastewater treatment facility leaked. They've taken our advice and built a small curb around this tank.

6 of 16

Working for long periods over a conveyor belt presents an ergonomics risk. In this situation the risk for workers was too high because the conveyor belt was not at a comfortable height, so I advised the management team to better address these situations and to adopt practices like job rotations to minimize the risk of strains. This factory received a minor nonconformance for physically demanding work because it lacked a system to manage ergonomics risks and had not trained its workers to control them.

7 of 16

There are some circumstances that show management is on the right track, but not quite there yet. Here, for example, an enclosure reduces the sound from a very noisy stamping machine, which is a positive step. However, there is someone working inside the enclosure temporarily, which defeats the purpose. This observation will appear in HP's final audit report.

8 of 16

Fire safety is an issue we monitor in our audits. I often ask workers whether they know how to safely leave the factory if there is a fire, to check whether fire safety training is being given properly. I also check that the right information is adequately visible so workers can follow the correct procedures. On this audit, the chart provided was satisfactory. Read more about our efforts in fire safety on our Proactive engagement—Health and safety page.

9 of 16

We don't just inspect factory floors, but also communal areas such as canteens and workers' dormitories. This site is typical of other factories and also has recreational spaces, such as badminton courts and libraries. On-site health clinics are also common in larger facilities.

10 of 16

These machines are large rice cookers. The steam escaping is quite hot and shows that one is broken. I'm recommending to the kitchen manager that they stop using the broken device and put up a barrier to protect workers from being scalded. This problem will be noted as an observation on HP's audit report.

11 of 16

A worker explains to me how vegetables are cleaned (this must be done three times using fresh water). I've been on other audits where water is used more than once to wash vegetables, so it becomes dirty. In this kitchen, they change the water every time and use three different tanks, one after the other. I also asked the kitchen manager what else the tanks were used for, to check that meat or poultry were not cleaned in the same place as vegetables. On this occasion, everything was done appropriately.

12 of 16

I know that it can be difficult for workers to tell me the truth in front of their bosses, so we always spend several hours talking to them without their supervisors around. In this photo, my colleagues are talking to a small group of workers that they selected at random from a production line of 75.

13 of 16

We want workers to be honest with us, but often they are suspicious that we will report to management what they've said. I find the best way to develop a good relationship with workers is to spend a few minutes developing rapport by asking them about their background and interests outside work. That's what my colleague Emily is doing here.

14 of 16

We also take individual workers aside for private discussions. This sometimes reveals additional information. Here, Ivy is asking questions such as:

- Do you know about the Electronic Industry Code of Conduct?
- How many hours did you work last month?
- Have you suffered inhumane treatment?
- Do you know how to calculate your salary, including overtime?
- Do you feel comfortable speaking to management?
- Do you have adequate hot water in your dormitory?

These interviews corroborated findings from the factory tour and the document review (next slide).

15 of 16

We need three pieces of corroborating information to ensure there are no nonconformances in each provision of HP's Electronic Industry Code of Conduct. These can include items such as discussions with workers, documentation about training courses, or evidence of policies and procedures in employee handbooks as pictured here. HP needs to ensure employees are properly informed of their rights and given access to grievance procedures.

Supplier SER requirements

The following Supplier social and environmental responsibility (SER) requirements apply to any Supplier doing business with HP, and are part of any contract with an HP legal entity that obligates a Supplier to comply with HP's SER requirements or policies, including the Supplier Code of Conduct. For purposes of this section, the term "Supplier" refers to any party who provides goods or services for HP's internal use or in connection with a product that is sold, provided, or marketed by HP.

Supplier represents and warrants that it will:

1. Comply with all applicable laws and regulations and require their suppliers to do the same (including labor agencies)
2. Read and understand HP's Supply Chain Social and Environmental Responsibility Policy
3. Conform to the expectations and standards in HP's Electronic Industry Code of Conduct (a.k.a. Supplier Code of Conduct in certain agreements)
4. Comply with applicable environmental specifications and requirements set forth in HP's General Specification for the Environment

Promptly upon request by HP, Supplier agrees that it will:

1. Review and sign HP's Supplier Social and Environmental Responsibility Agreement
2. Complete the Information and Communications Technology (ICT) Supplier Self-Assessment Questionnaire
3. Obtain HP's review and feedback of the ICT Supplier Self-Assessment Questionnaire and create an improvement plan with defined timeline and metrics
4. Cooperate in periodic onsite-audits
5. Provide clear and accurate reporting to HP

Instructions to complete and submit the online Supplier Self-Assessment Questionnaire, if requested by HP

Print the questionnaire for review and preparation, and then complete and submit the questionnaire online using the EICC Internet database Electronics - Tool for Accountable Supply Chains (E-TASC). For information about E-TASC and how to join and upload questionnaires, please review the information on the E-TASC website.

- EICC/GeSI Self-Assessment Questionnaire

- E-TASC website

End of Supplier SER Requirements. Please see below for additional information concerning HP's SER Program Policies and Standards.

Supply Chain SER Program Policies and Standards

Strong and appropriate standards are essential to improving conditions in the information technology (IT) supply chain. In 2003, HP developed our industry's first social and environmental responsibility Supplier Code of Conduct. Recognizing that setting consistent industry standards sends a stronger message and enables our Suppliers to implement those standards more efficiently, in 2004, we helped lead the development of the Electronic Industry Code of Conduct (EICC). HP endorses the EICC in its entirety.

HP has supplemented the EICC with additional requirements specific to Freedom of Association. We refer to the EICC, as supplemented by HP, collectively, as HP's Electronic Industry Code of Conduct (HP's EICC), which is sometimes referred to as the Supplier Code of Conduct in certain supplier agreements. All new and existing suppliers must conform to HP's EICC.

Fundamental to HP's EICC is the understanding that suppliers, in all of their activities, must operate in full compliance with the laws, rules, and regulations of the countries in which they operate. HP's EICC further requires that Suppliers:

- Adopt sound human rights practices and treat workers fairly and with dignity and respect
- Provide a safe and healthy working environment for their workers
- Conduct business operations in a way that protects and sustains the environment
- Maintain management systems that measure, improve, and communicate their company's labor, health and safety, and environmental performance
- Uphold the highest standards of ethics

We ask that Suppliers pursue a policy of continuous improvement in this area and be forthright in sharing information with us. In selecting and retaining qualified Suppliers, HP will show preference to Suppliers who meet or exceed our expectations.

The specific standards in HP's EICC are:

Labor Standards

- Freely chosen employment
- Child labor avoidance
- Working hours
- Wages and benefits
- Humane treatment
- Nondiscrimination
- Freedom of association

Health and safety standards

- Occupational safety
- Emergency preparedness
- Occupational injury and illness
- Industrial hygiene
- Physically demanding work
- Machine safeguarding
- Dormitory and canteen

Environmental standards

- Environmental permits and reporting
- Pollution prevention and resource reduction
- Hazardous substances
- Wastewater and solid waste
- Air emissions
- Product content restrictions

Management system elements

- Statements of company commitment
- Management accountability and responsibility
- Legal and customer requirements
- Risk assessment and risk management
- Performance objectives with implementation plans and measures
- Training
- Communication
- Worker feedback and participation
- Audits and assessments
- Corrective action process
- Documentation and records

Ethics standards

- Business integrity
- No improper advantage
- Disclosure of information
- Intellectual property
- Fair business, advertising, and competition
- Protection of identity
- Community engagement

Related information

- Case study
- Supply chain SER policy
- Supplier agreement
- HP's Electronic Industry Code of Conduct
- General Specification for Environment
- Hardware recycling standards
- Supplier frequently asked questions

Supplier diversity

» Register your interest in becoming a supplier to HP.

Our Global Supplier Diversity program encourages a broad range of companies to join our supply chain. Diverse suppliers bring fresh ideas, offer innovative products and processes, and contribute to the economic strength of their communities. HP has maintained a Global Supplier Diversity Office for more than 40 years and currently belongs to more than 20 supplier diversity organizations in the United States, Canada, Europe, and Asia.

A diverse supplier base also helps us gain competitive advantage and supports our global citizenship efforts. Our supply chain mirrors our employee and customer base: global, diverse, and inclusive. In 2010, we estimate that more than $10 billion USD worth of business required HP to demonstrate our efforts in this area.

Supplier diversity is mandatory for fulfilling contracts with the U.S. government and with most U.S. states and municipalities. Large enterprise customers increasingly also have their own corporate responsibility policies and expect HP to demonstrate a commitment to diversity. In 2010, HP participated in supplier diversity sourcing events hosted by several enterprise customers, during which prospective suppliers met with HP and the procurement staff of the host companies.

Our supplier diversity program supports minority, woman, veteran, lesbian, bisexual, gay, and transgender-owned businesses, and small businesses generally to compete for HP business. Additionally, we continue to offer diverse supplier development programs, recommended technology solutions, and educational scholarship programs to ensure the next generation of leaders enjoys limitless opportunities.

Diverse supplier events

HP hosts events with local business councils and participates in national events that introduce diverse suppliers to potential customers. In 2010, HP procurement professionals participated in more than 20 such events in Canada, China, the United States, and the United Kingdom, resulting in opportunities for prospective diverse suppliers to participate in procurement sourcing initiatives. Constituents supported by HP’s sponsorship and participation include the National Minority Supplier Development Council (NMSDC) and its affiliates; Women’s Business Enterprise National Council (WBENC) and its affiliates; National Gay & Lesbian Chamber of Commerce (NGLCC) and its affiliates; and the

Canadian Aboriginal Supplier Council (CAMSC).

In the United States, HP collaborates with SCORE (Service Corps of Retired Executives) and The Latino Coalition to sponsor the multicity Business Matchmaking Program (BMM). This initiative offers small businesses the opportunity to participate in governmental and major corporate procurement opportunities. In 2010, HP supported sessions in Dallas, Los Angeles, San Jose, and Baltimore.

In 2010, these events facilitated more than 15,000 meetings (75,000 in total to date) between small business owners and procurement representatives, including 300 between potential suppliers and HP. Since its inception in 2003, BMM has led to more than $800 million USD in contracts with participating corporations and government purchasing entities. BMM events frequently create direct opportunities for small businesses. For example, several small businesses were invited to respond to an HP request for proposal issued in late 2010 after attending a BMM event.

HP Tier II Supplier Diversity Reporting Initiative

HP recognizes the influence we have beyond our first-tier suppliers, and we encourage diverse purchasing practices throughout our supply chain. The HP Tier II initiative expands our supplier diversity objectives by requesting that our primary suppliers utilize and report spending with diverse businesses in the fulfillment of their contracts with HP. This initiative enhances, but does not replace, our existing efforts aimed at first-tier diverse suppliers.

If you are an HP supplier that we have asked to participate in our Tier II Supplier Diversity Reporting Initiative, please log in here.

Global Supplier Diversity

We continue to expand our supplier diversity program beyond the United States into Canada, Europe, and Asia Pacific, and we are working with governments and others to establish appropriate regional definitions of diversity that reflect local society and culture.

In 2010, we maintained our financial sponsorship of the Canadian Aboriginal and Minority Supplier Council (CAMSC), WEConnect Europe, and Minority Supplier Development UK (MSDUK), and became corporate members of Minority Supplier Development China (MSD China) and the Australian Indigenous Minority Supplier Council (AIMSC). During the year, HP's Global Supplier Diversity program also worked with internal and external stakeholders to support government requirements for diversity spending in Australia.

China

In August 2010, HP's Global Supplier Diversity director joined a National Minority Supplier Development Council delegation of corporate executives and minority business owners on a business mission to support MSD China. The delegation visited government entities, state-owned enterprises, corporate facilities (including an HP facility), and Chinese ethnic minority business owners in Beijing, Chengdu, and Shanghai.

South Africa

In 2010, we continued our support of the HP Business Institute in South Africa. Established in 2008, the institute provides skills development to small Broad-Based Black Economic Empowerment (B-BBEE) information technology (IT) companies to help them break into the higher end of the IT market. Broadening their focus from selling commoditized products to selling IT solutions contributes to their long-term growth and sustainability. The institute plans to train 1,480 individuals within seven years and boost HP's overall investments in B-BBEE to more than $18 million USD.

HP's commitment to empowerment and transformation has been evidenced by its excellent scoring against the Department of Trade and Industry's gazetted Codes of Good Practice. HP is currently a Level 3 contributor to B-BBEE with a certified score of 80.55%, as externally verified by KPMG.

Diverse resellers

We also advance diversity among our resellers through our HP PartnerONE Diversity network. In 2010, we provided marketing and sales support to more than 250 diverse resellers, in the form of marketing subsidies, discounted products, and increased visibility. Learn more about this program.

Performance

In 2010, our total U.S. spending with small and diverse businesses increased by 17%. This is mainly due to our small and diverse supplier development programs, targeted outreach, and enhanced collaboration with HP's internal U.S. Public Sector and Commercial Small Business Subcontracting Programs.

U.S. Supplier Diversity purchasing results*, **, * [$ millions USD]**

	2006	2007	2008	2009	2010
Small businesses [$ million USD]	$3,510	$3,106	$3,365	$3,691	$4,316
Minority-owned businesses [$ million USD]****					$827
Women-owned businesses [$ million USD]****					$861

- * All figures are for U.S. purchases from U.S.-based businesses.
- ** Data are for the 12-month period ending September 30 of the year noted.
- *** 2009 and 2010 data include HP Enterprise Services (formerly EDS) spending. Data prior to 2009 do not.
- **** HP did not report this metric prior to 2010, so historical data are not available.

Useful links

U.S. government websites:

» Department of Defense

» General Services Administration

» NASA

» Small Business Administration

» Small Business Administration Pro-Net

State and local sites:

» California Small Business and Disabled Veteran Business Enterprise Services

Business agencies:

» National Minority Supplier Development Council

» Women's Business Enterprise National Council

» Minority Business Development Agency

» National Minority Business Council

» National Gay & Lesbian Chamber of Commerce

Human rights

Eliminating abuse of human rights remains a significant challenge for society. HP is pleased to see leading businesses and governments converge towards acceptance of the UN Special Representative's Guiding Principles. In April 2010, Professor John Ruggie published the follow-up to his seminal 2008 report, Protect, Respect and Remedy: a Framework for Business and Human Rights. The new report,Further steps toward the operationalization of the protect, respect and remedy framework, focuses on implementation of the framework, which as a work in progress HP generally supports. The report references HP's work in strengthening worker-management communications with two suppliers in China.

HP has a long history of commitment to respecting human rights wherever we operate, and believes it is our corporate responsibility to use our size and influence to promote human rights in the business community. We apply this commitment across our value chain, including our own operations and supply chain. Our formal commitments are outlined in HP's Human Rights and Labor Policy.

Fostering respect for human rights globally

HP's founding role and subsequent support for the Business Leaders Initiative on Human Rights (BLIHR) led to the development of tools and policy views aimed to reduce the number of human rights abuses by corporations. HP was one of eight leading multinationals invited to found and steer the successor to BLIHR, the Global Business Initiative on Human Rights (GBI). Through GBI, we support the work of John Ruggie by raising awareness of and advancing the human rights agenda within the business community. We are also developing local business networks of support for human rights around the world. HP uses the Ruggie Framework as the basis for our own work. Like others, we see the need for additional guidance, and are looking to GBI as a forum for tackling difficult issues together, such as how to source responsibly from conflict zones.

As a member of the GBI steering committee, we are charged with demonstrating leadership and contributing to the development of practical approaches by testing emerging best practice in our operations and supply chain. We are committed to engaging our stakeholders and other leading companies to tackle difficult human rights issues through collaborative working groups and pilot projects.

Perspective: Margaret Jungk

HP has helped put human rights on the agenda for the IT industry, according to Margaret Jungk, the director for the Human Rights and Business Department at the Danish Institute for Human Rights. See what she has to say.

Understanding our impacts through due diligence

HP has a longstanding policy to respect human rights wherever we operate. In 2010, our Global Citizenship Council conducted a comprehensive policy assessment that drew on inputs from a range of stakeholders, including nongovernmental organizations (NGOs), industry groups, thought leaders, and HP management teams. With the help of leading experts from the Danish Institute on Human Rights (DIHR), we compared more than 70 of our internal and external policies against some 200 clauses from international human rights standards. With the support of Business for Social Responsibility (BSR), we assessed the most material industry-specific impacts throughout our value chain.

Following the assessment, HP's senior leaders received an objective analysis of our strengths and opportunities for improvement. The recommendations encouraged HP to build on its traditional strengths in human rights by continuing to raise the bar in our policies and across our operations. Focal areas for further assessment include:

- Labor and employment, especially in our supply chain
- Conflict minerals
- Privacy and data protection
- Diversity and discrimination
- Freedom of expression
- Water
- Customer use of products and services

Our analysis also pointed to the benefits of more collaboration between HP, other leading businesses, and governments to fully understand the perspectives of our stakeholders.

We have shown leadership in tackling the human rights issues most relevant to HP where the electronics industry risks are high. However, each human right is independently important and we regularly encounter new challenges to protecting human rights. We will continue to conduct due diligence by assessing our risks, policies, and impacts to ensure we are positioned to address new challenges as they arise.

We are revising HP's Human Rights and Labor Policy to reflect our heightened understanding of international human rights laws and impacts to vulnerable groups where HP operates. We will continue to provide access to grievance mechanisms so that our stakeholders may raise concerns directly and confidentially. In cases where we identify human rights issues, we are committed to collaborating with stakeholders to remedy those situations through continual improvement and, as a last resort for severe abuses, by ending business relationships.

Summarized below are the areas where human rights considerations most directly impact our practices, with links to other sections in this report for additional information.

Our employees

Our values and Standards of Business Conduct (SBC) require integrity and ethical behavior. HP's Human Rights and Labor Policy commits us to the fair treatment of all employees wherever we operate. We generally align with the United Nations Universal Declaration of Human Rights (UDHR); in particular, we respect employees' rights to organize in labor

unions in accordance with local laws and established practice. Our diversity policies require that every employee is treated and treats others with dignity and respect. We do not under any circumstances tolerate discrimination or harassment. Our clear commitment to promoting human rights, as well as leadership in other global citizenship areas, is vital to retaining and recruiting employees.

HP provides several grievance mechanisms for our employees to raise concerns about potential misconduct. Our Open Door Policy enables employees to talk to their manager or more senior levels of management if ethics issues arise. Employees can also seek advice from internal ethics and compliance experts or regional or business ethics and compliance liaisons.

When potential violations of law, company policy, or the SBC do occur, we provide formal, confidential communication channels through which employees and third parties can report. These include postal mail, email, and a global 24-hour, toll-free hotline with translators available. This line is also accessible to external parties via our website, partner, and supplier portals. Where allowed by law, reporting can be anonymous.

See how to ask a question or report a concern.

For more information, see HP employees.

Our supply chain

Our Supply Chain Code of Conduct is underpinned by international labor and human rights standards. As our customer base and supply chain have become more global, we have encountered new challenges in ensuring that the rights of workers who manufacture our products and the communities in which are suppliers operate are respected. We aim to encourage high standards wherever we have influence and to promote the principles of the United Nations UDHR. Our supply chain social and environmental responsibility (SER) program reaches beyond our first-tier suppliers to second- and third-tier firms and beyond. However, the multi-tiered nature of the electronics industry supply chain creates challenges of visibility, transparency, and validation of standards. For example, HP is working to establish procedures for eliminating conflict minerals originating from the Democratic Republic of Congo from our products.

HP's supply chain SER program has been instrumental in raising awareness of human rights among the management and workers in our supply chain since its launch in 2000. The program encompasses supplier self-assessments, rigorous audits by HP and third parties, support for suppliers to improve their capability to identify human rights issues, and requirements for suppliers to take corrective actions in any cases where serious infringements are identified. For details of our supply chain SER program and specific audit findings, see Supply chain responsibility.

On January 1, 2012, a new law will come into effect in California, designed to increase transparency for consumers and allow them to make better, more informed choices. The new law will motivate businesses to ensure human rights are respected throughout their supply chains. Since the start of HP's supply chain SER program, we have undertaken efforts to ensure and verify the absence of forced labor and child labor in our supply chain. Learn more about the California Transparency in Supply Chains Act of 2010.

How HP promotes human rights

HP human rights declarations

HP endorses and works to uphold the following statements of human rights:

- The United Nations Universal Declaration of Human Rights (UDHR)
- Rights outlined in the principles of the United Nations Global Compact

HP's policies also reflect the International Labour Organization's (ILO) Fundamental Conventions.

Education, health, and community involvement

Our long-term commitment to social innovation and community involvement is focused on improving access to information technology (IT) around the world. Our programs and partnerships underpin our commitment to advancing the human right to healthcare (UDHR Article 25) and the right to education (Article 26). Our HP Volunteer Policy encourages and provides people the opportunity to participate in the cultural life and development of their community through volunteerism (Article 27).

We combine the enabling power of technology with our employees' skills to boost education around the world. HP partners with leading educational organizations to foster the future innovators and socially minded entrepreneurs who will

be instrumental in transforming society around the world.

HP also provides its technology and innovative solutions expertise to improve healthcare systems for underserved communities in the developed and developing world. We are partnering with health experts, governments, and aid organizations to make a tangible difference saving and improving lives.

Our support of organizations worldwide is made through a combination of cash, technology, and skilled employee volunteerism.

See Social innovation for more information.

Privacy

Privacy is a fundamental right of prime importance to our employees and customers.

People rely on information technology in many aspects of their daily lives. Organizations use sophisticated systems to collect, aggregate, and analyze personal information, enabling them to provide consumers with personalized products and services. With the proliferation of cloud computing, data can now be available 24/7 from virtually anywhere in the world. New technologies are collecting, using, and processing data in new, innovative ways; much of this occurs behind the scenes without the user's full awareness or understanding.

While these trends make products and services more personalized, convenient, efficient, and widely available, the ubiquitous collection and use of personal data also sparks concerns. Many consumers question whether social networking, profiling, location-aware services, and behavioral observation and targeting threaten their privacy. People also worry that authorities in some regions can access, analyze, and control citizens' personal information too easily—at times infringing on their right to privacy and freedom of expression.

We continue to develop and embed our accountability approach to privacy, to implement the concept of Privacy by Design in our products and services, and to consider the social impact our decisions may have.

See Privacy for details of our approaches and activities.

Conflict minerals

The issue

HP requires its suppliers to conduct their worldwide operations in a manner that respects labor and human rights, including sourcing minerals that do not directly or indirectly finance armed groups. (See the HP Supplier Code of Conduct .) We have, therefore, been deeply concerned by human rights violations related to the trade in minerals from conflict zones in the Democratic Republic of Congo (DRC).

The "conflict minerals" of concern are those used to produce tantalum, tin, tungsten, and gold. Global supplies of these metals come from many sources, including mines in the DRC, which are estimated to provide approximately 18% of global tantalum production, 4% of tin, 3% of tungsten, and 2% of gold.[1] Some of the mines in the DRC are controlled by militias responsible for atrocities that have been committed in that country's decades-long civil war. The background of the Congolese conflict is complicated and its resolution requires action on multiple fronts—but it's clear that promoting legitimate trade in minerals in the region can help.

HP's engagement with

nongovernmental organizations

HP collaborates with stakeholder and nongovernmental organizations (NGOs) to understand their perspectives and to work towards ending the link between minerals trade and the funding of armed conflict.
For example, HP was one of a select group of corporations to join socially responsible investment (SRI) organizations and NGOs in providing recommendations to the U.S. Securities and Exchange Commission (SEC) regarding rulemaking in this area. (See Influencing policy and legislation below.)

"As one of the key organizers of the multi-stakeholder comments on conflict minerals submitted to the SEC, I can say that it was valuable having HP involved in the process. HP was genuine and pragmatic in our consensus negotiations, and was realistic about what can actually be implemented by electronics companies while striving to do the most possible to ensure armed groups are not benefiting from mineral sales."

Patricia Jurewicz
director, Responsible Sourcing Network (RSN)

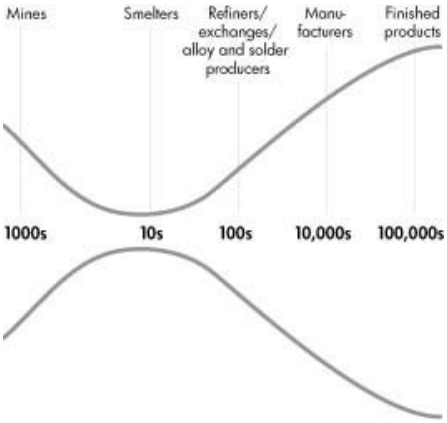
HP also received recognition for its efforts within the industry to address the DRC conflict minerals issue from Enough, a campaign project of the NGO, Center for American Progress, to end genocide and crimes against humanity. Founded in 2007, Enough focuses on crises in Sudan, eastern Congo, and areas of Africa affected by the Lord's Resistance Army. In its 2010 report, Getting to Conflict-Free: Assessing Corporate Action on Conflict Minerals, Enough credits HP with being the leader in the electronics sector.

Why HP is involved

Tantalum, tin, tungsten, and gold are used to varying degrees in components commonly found in electronic products,[2] although all are used extensively by other industries as well. Perhaps the most significant is tantalum, as more than half of its consumption relates to capacitors for electrical equipment. Tin is also used extensively, primarily in solder (which represents about a third of total tin use across all industries).

The minerals supply chain is long, complex, and involves several layers: from mining, through in-country traders and exporters, to smelters, refiners/metal exchanges/alloy producers, and finally to component and other manufacturers (see graphic). The smelter is a critical control point, because it is the stage where minerals from many sources are processed to produce a refined metal.

Illustration of global tin supply chain*



- * The supply chain varies significantly for each of the minerals/metals discussed in this section. This graphic is designed to illustrate the complexity of the tin supply chain and the relative number of the types of organizations involved, but not to provide precise information. Approximately 20% of the world's production of tin comes from recycled and scrap sources. This is not represented in this graphic.

The vast majority of refined metals used in HP products are sourced by companies within our multi-tier supply chain, typically several stages removed from HP. We are setting clear expectations with our suppliers regarding DRC conflict-free mineral sourcing, as described in our Supply Chain Social and Environmental Responsibility Policy.

HP's leadership

Our approach to establishing validated DRC conflict-free sources of these metals has four components:

- Tracing the metal to the source
- Developing a conflict-free smelter validation program
- Establishing an in-region mineral certification system
- Influencing policy and legislation

Tracing the metal to the source

HP was instrumental in establishing the Electronic Industry Citizenship Coalition (EICC) -Global e-Sustainability Initiative (GeSI) Extractives Work Group in 2007 and has helped to develop the common industry supplier survey tool as a part of a sub-team of the work group. HP and the industry are using the tool to obtain the names of smelters used and information about how this requirement is communicated to sub-tier suppliers. We have made progress in identifying smelters in our supply chain and are working to pinpoint the mines that supply each smelter.

Developing a conflict-free smelter validation program

Through the EICC-GeSI Extractives Work Group, we have helped to develop stakeholder-approved audit protocols for smelters, and have visited smelters to gain a better understanding of their operations. HP was one of four companies on the Extractives Work Group Executive Audit Review Committee charged with reviewing audit results. Through March 2011, the audit team has audited 14 facilities for tantalum and is currently facilitating an external review of the tin audit protocol. (See www.eicc.info/extractives.htm .) As DRC conflict-free smelters are validated through this program, HP plans to direct our suppliers to use these smelters.

Perspective: Dikembe Mutombo

Dikembe Mutombo, the chairman and president of the Dikembe Mutombo Foundation, shares his thoughts about what steps are most critical in halting the conflict mineral trade, and how HP can help. Read what he has to say.

Establishing an in-region mineral certification system

Conflict-free smelters require access to DRC conflict-free minerals. HP has provided leadership in three distinct efforts to advance responsible sourcing of minerals from the DRC region.

- Contributing financial and in-kind support to ITRI, formerly the International Tin Research Institute, and the Tin Supply Chain Initiative (iTSCi), aimed at developing a system to trace minerals between the mine and smelter.
- Participating in the EICC-GeSI In-Region Sourcing panel which engages government, NGOs, and industry to advance due-diligence, transparency, and certification initiatives in the DRC. In 2010, this body communicated the urgent need for an in-region mineral certification system to the International Conference on the Great Lakes Region (ICGLR).
- Developing a concept paper for a public-private partnership convening relevant stakeholders to advance a credible, market-driven, locally and internationally supported mineral development program in the African Great Lakes region. The mineral development operation would respect human rights and adhere to environmental principles, operate legally, and benefit people and communities as a path to peaceful economic development.

Dodd-Frank Wall Street Reform

and Consumer Protection Act

In the United States, new legislation is calling attention to the issue of DRC conflict minerals and requiring action by corporations to conduct and disclose due diligence on the source of these minerals used in products. The SEC has responsibility for administering Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The law requires due diligence with respect to the sourcing of columbite-tantalite, cassiterite, wolframite, gold, or their derivatives, including a determination as to whether trade in these minerals directly or indirectly finances or benefits armed groups in the DRC or adjoining countries. Publicly traded companies must conduct due-diligence measures to determine the source of these minerals in their products, and must disclose a description of their due-diligence measures and findings if they source conflict minerals from the DRC or an adjoining country (or if they are unable to determine the source of the minerals they use). HP fully supports this legislation.

Influencing Policy and Legislation

Progress on addressing the DRC conflict minerals issue also requires appropriate regulatory frameworks, and HP has been a leader in this area. We supported the objectives and passing of recent U.S. legislation, the Dodd-Frank Wall Street Reform and Consumer Protection Act (see sidebar). We also contributed to the Organisation for Economic Co-operation Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, endorsed by the United Nations and ICGLR, and referenced by the SEC's proposed rule.

1. [1] Gold usage from http://minerals.usgs.gov/minerals/pubs/commodity/gold/myb1-2008-gold.pdf , tin usage from http://minerals.usgs.gov/minerals/pubs/commodity/tin/myb1-2008-tin.pdf , tantalum usage from http://minerals.usgs.gov/minerals/pubs/commodity/niobium/mcs-2010-tanta.pdf , and tungsten usage from table 5 in http://minerals.usgs.gov/minerals/pubs/commodity/tungsten/myb1-2008-tungs.pdf .
2. [2] HP has taken steps to research and better understand the locations and quantities of these metals used in our products. We estimate that the average HP 2 kg notebook contains approximately 0.6g of tantalum, 10g of tin, 0.00009g tungsten, and 0.3g of gold.

HP employees

Our employees are integral to the ongoing success of our business. Recruiting and retaining the best people is a critical competitive advantage, and we strive to create a supportive, motivating work environment where all employees can flourish.

HP employees by the numbers[2]

- HP has doubled the size of its workforce over the past five years.
- Four generations work across the company with a balance across all age groups.
- Approximately 60% work at the same site as their manager, and the other 40% are managed by leaders who work with them in a virtual environment.
- 80% take advantage of HP's flexible work environment.
- 15% work full time from home.
- 25% report that they have changed jobs in the past year—an indication that there are many opportunities for job rotation and career growth at HP.

HP operates in a rapidly changing environment, requiring a global workforce strategy that is agile and can anticipate our future business needs. Some companies simply follow the talent, but HP takes a unique, proactive approach to help develop talent in the regions where we conduct business currently, and plan to do business in the future. We work to develop markets, and we also collaborate with universities, governments, non-governmental organizations, and other groups to develop people. We build facilities and invest in infrastructure, benefiting both local and national economies worldwide. (For more information, see Economic impacts.)

Who we are

HP has nearly 325,000 employees[1] that work in more than 170 countries worldwide. They are energetic people who can meet the demands of our fast-paced and ever-changing industry. They are innovators and problem solvers, continually seeking new career challenges. In fact, 25% of HP employees have been in their current role for less than a year, as they have recently gone through a job rotation or taken on a new level of responsibility with their teams.

How we work

HP employees collaborate and work virtually as often as they do face to face. As a part of a global company, they work across time zones and continents. Many HP employees (about 40%) work at a different location than their manager.[2]

Where we work

About 63% of HP employees commute to an HP office each day. But with the growth of our services business, our workforce is increasingly mobile. About 12% of our employees work from non-HP locations, such as customer sites, and another 15% primarily work remotely from home. The remaining employees work from a variety of locations.[2]

In this section, we describe our commitment to employees and our performance in the following areas:

- Employee engagement
- Diversity and inclusion
- Employees and global citizenship
- Wellness
- Health and safety

- People development
- Compensation and benefits

Visit our HP employee gallery to learn more about the exceptional contributions our people have made to global citizenship.

Employment policies

Our global employment policies reflect our commitment to treat all employees fairly. At a minimum, we comply with local laws, but our policies often set a more demanding standard:

- **Best Work Environment Policy** Defines the standards of personal conduct that we expect employees to meet to contribute to a positive, productive work environment
- **Open Door Policy** Reflects our commitment to open communications and a workplace where each person's voice is heard
- **Human Rights and Labor Policy** Commits us to fair treatment of all employees wherever we operate

We provide employees with the ability to report policy violations anonymously, and we fully investigate all issues raised.

1. [1] As of October 31, 2010.
2. [2] Percentages are based on employees' self-identified responses from an internal HP survey.

Employee engagement

An engaged workforce has a direct and significant impact on organizational performance. Employees who are invested in their company's success are more motivated to perform at a high level, more likely to promote their company's brand, and are more inclined to stay in their jobs.[1] A 2007–2008 study found a difference of more than 5% in operating margin and 3% in net profit margin between the companies with high employee engagement and those with low engagement, over a three-year period.[2]

In 2010, HP made employee engagement a top priority. We have initiated or reinvested in programs that drive employee engagement and support our business goals, including:

- Recognition programs
- Employee forums and networks
- Employee feedback
- On-boarding
- Retiree engagement

Recognition programs

Appreciating employees' efforts and achievements at all levels has always been important at HP. In 2010, we continued to acknowledge employee accomplishments through Recognition @ HP, a program that promotes a culture of appreciation and supports high performance through ongoing recognition, particularly in the areas of leadership, innovative thinking, and service excellence. Formal awards programs exist within each of the HP businesses, along with initiatives that encourage day-to-day and peer recognition.

Employee forums and networks

Our employees exchange ideas and views, and collaborate through a variety of online and in-person forums. Many employees maintain or contribute to company blogs or help build the internal HP wiki, HPedia.

HP employees making an impact:

Phillip Kong

Phillip Kong has helped make the Melbourne, Australia chapter of the HP Sustainability Network one of the fastest-growing and most active employee groups at HP. Learn more about Phillip.

In addition, HP sponsors employee networks and other groups that meet regularly and in person.

- **HP Sustainability Network** As of October 31, 2010, the HP Sustainability Network included 29 chapters

worldwide with more than 10,000 members total. The network helps employees learn about and share environmental practices that can benefit the company and the planet. For more information, see Employees and global citizenship.

- **Employee Resource Groups** (ERGs) Our ERGs help to enrich a diverse and inclusive culture at HP by bringing together employees with common interests and backgrounds. HP has 113 ERGs worldwide, representing aspects of diversity including gender, ethnicity or national origin, sexual orientation, age, and disability. See more information about HP's diversity and inclusion programs.
- **Wellness Ambassador Network** More than 100 Global Wellness Ambassadors promote HP wellness initiatives locally and help connect HP employees to our programs. They plan on-site, specific events and work with local company leadership to integrate health, financial, physical, stress management, and other well-being strategies into daily employee routines and special activities. Wellness ambassadors meet in person with other ambassadors at their location to plan site-specific events and also meet virtually as an entire group to share best practices from site to site. Read more about HP's wellness programs.

Employee feedback

Open, honest dialogue is crucial to HP's long-term success. Communications about HP's business and strategy help establish a shared set of goals and priorities throughout the company and give employees the power to influence future business decisions.

We ask our employees for feedback through the annual Voice of the Workforce (VoW) global survey, as well as through regular "pulse" surveys on specific issues.

In addition, employees can ask questions of HP leaders and review answers to commonly asked questions through the HP intranet "Top of Mind" feature and ongoing all-employee meetings and town halls.

In 2010, our new president and chief executive officer, Léo Apotheker met employees by going on an extensive Global Listening Tour. Mr. Apotheker traveled to several HP sites around the world to visit with employees, hear their insights, and listen to their ideas on how to strengthen HP.

HP employees making an impact:

Chantal Martineau-Kirse

Chantal Martineau-Kirse, a project manager for HP's internal IT group, also founded and coordinates the HP Women's Network in Munich. The group promotes the professional development, visibility, and retention of women at HP Germany. Learn more about Chantal.

Voice of the Workforce survey

Our annual VoW employee survey helps us assess employee perceptions of HP and enables our leaders to identify opportunities for improvement in their organizations. The survey asks employees for feedback on their team, manager, work environment, and organization, as well as key topics impacting their own job performance and perceptions of senior leaders and the company overall.

In 2010, more than 75% of employees participated confidentially in the VoW survey, available online in 26 languages.

Our CEO, Executive Council, and management analyzed the results and read employees' anonymous written comments in order to:

- Evaluate current year results and historical comparisons.
- Understand significant differences in employee perceptions across businesses, functions, job families, regions, and recently acquired companies.
- Compare HP with benchmarks for the information technology industry.

Senior managers assessed the data to gauge progress and identify company-wide issues requiring further attention. We then set targets at the business-group level and all managers with eight or more responses reviewed their own team results and action plans with employees at the workgroup level.

In 2010, we paid special attention to responses from former 3Com employees compared with HP results. This analysis helps us improve communications, training, and on-boarding processes for all acquisitions.

We conducted several additional surveys this year, including:

- Pulse surveys, as a follow-up to the annual VoW survey. These surveys identify trends and gauge any changes in employee perception.
- Business/account surveys, to seek feedback from a targeted group on specific programs or issues.
- Employee transition surveys, to capture feedback from employees from newly acquired companies within their first 45 days at HP.
- Employee on-boarding surveys, to capture feedback from new employees at six months and again at twelve months after they join HP.

On-boarding for 3Com and Palm employees

In 2010, we welcomed more than 7,000 employees through the acquisitions of Palm and 3Com. During our on-boarding process, we engage local leaders and HR within each region to ensure a high percentage of those employees choose to remain with HP.

In addition, HP helps new managers and employees transition to HP with welcome events and orientation sessions, buddy programs, and training sessions on topics such as IT systems, HP products and services, and HP Standards of Business Conduct.

Retiree engagement

Our nearly 79,000 HP retirees are important ambassadors for HP and we stay connected with them through engagement programs, frequent communications, and events, such as an annual briefing on company strategy, innovation, and highlights from the prior year. The HP retiree community comprises retirees not only from HP, but also of acquired companies that have joined the HP family.

> Even after they leave HP, retirees continue to support our brand and our success around the world. They promote HP's spirit of volunteerism—giving back to our communities and schools, and helping those less fortunate. They also are important advocates for HP products.

–Léo Apotheker, president and chief executive officer of HP

HP's retiree website includes information about benefits, available services, and upcoming events. In addition, HP retirees connect through social media, such as Facebook, LinkedIn, and Yahoo Groups. Retirees and alumni can also join the HP Alumni Association (HPAA), which has almost 21,000 registered members worldwide.

Retirees are involved at many HP sites in various capacities. We also organize and sponsor events and encourage retirees to continue to represent HP through community volunteerism. Every year, HP employees and retirees volunteer thousands of hours to support local charities and schools worldwide. (For more information, see Employee volunteerism and giving.)

This past year, our retiree program expanded beyond the United States to 34 additional countries. We also launched a program that engages retirees as brand ambassadors and key advisors.

1. [1] According to the Chartered Institute of Personnel and Development, Employee engagement, 2007.
2. [2] A study involving 40 global companies, *Towers Perrin Global Workforce Study*, 2007–2008.

Diversity and inclusion

A workforce that includes men and women from different nations, cultures, ethnic groups, generations, backgrounds, skills, and abilities gives HP a competitive advantage. A diverse and inclusive workplace is essential to understanding and reflecting the values and demographics of our customers, and is vital to attracting and retaining the best employees.

Our efforts to support diversity at HP include:

- Diversifying our talent through targeted outreach
- Building a pipeline of high-performing, diverse talent that are ready for expanded responsibilities, promotional opportunities, and leadership roles
- Building an inclusive workplace to allow all employees, including diverse talent, to contribute and be successful
- Helping employees manage their work and personal commitments while meeting HP's business needs

For additional information, see our Diversity and inclusion website.

Policies

Our diversity and inclusion policies and practices help foster a positive work environment at HP. We expect and require every employee to treat others and to be treated with dignity, respect, and courtesy. We do not, under any circumstances, tolerate discrimination or harassment. We comply with diversity laws as basic minimum requirements, and our policies often set a higher standard than is legally required.

We encourage employees to report suspected discrimination or harassment by contacting local Human Resources or using our confidential and anonymous 24-hour GuideLine. In the United States and Canada, the GuideLine number is 1-800-424-2965. For employees outside of North America, we publish numbers on our intranet.

Our vice president for Global Talent and vice president of Talent Management are responsible for compliance with these policies. Our vice president and chief ethics and compliance officer is responsible for the GuideLine.

Our approach

At HP, we expand workforce diversity in our recruiting efforts, people development processes, and by sponsoring development programs to prepare diverse talent for career advancement and professional growth. We also involve leadership across regions and business groups to drive and promote diversity, while engaging employees locally through employee resource groups (ERGs). For more information on ERGs, see employee engagement.

A sample of activities in 2010 includes:

Working with diversity organizations

HP is a sponsor of Catalyst, a leading nonprofit membership organization that works with businesses to build inclusive workplaces and expand opportunities for women. As a global research partner, HP has access to their global database of research on women in leadership, organizational change and effectiveness, and diverse women and inclusion, which we use to inform and support our diversity and inclusion priorities. We also participate in Catalyst's annual awards dinner and attend many local events.

HP has been a premiere sponsor of Out & Equal™ Workplace Advocates' Workplace Summit for more than ten years. Out & Equal is a nonprofit organization dedicated to achieving workplace equality for lesbian, gay, bisexual, and transgender employees and professionals. At the summit, HP employees present workshops, demonstrate HP products, and talk about job opportunities at HP.

Attracting recruits by working with strategic external partners

We are corporate members of the National Society of Black Engineers (NSBE), Society of Hispanic Professional Engineers (SHPE), and the Society of Women Engineers (SWE). We participate in each organization's national career fair to recruit high-performing, diverse talent. In addition, HP employees lead development workshops and participate in leadership panels at these events. We also engage with these organizations throughout the year on specific programs. For example, in 2010, HP sponsored SHPE's Management Growth Training program, a week-long seminar focused on

finance, communication skills, and project management. HP hosted 30 participants from global companies, five of whom were HP employees. All five employees earned their project management certification.

In addition, HP has strategic partnerships with universities that help us to recruit women for open employment opportunities.

Providing internal development opportunities

We offer a variety of internal development opportunities worldwide, including HP's Leadership on the Go program, which provide forums for minority employees to informally meet with senior leaders. In 2010, HP hosted forums in Barcelona, Bogota, Singapore, and Shanghai. We also held three virtual diversity leadership summits for employees from ethnic groups in the United States. More than 20 senior leaders spoke to over 300 attendees on topics including HP business strategy and career development.

Performance

We track gender diversity globally and ethnic diversity in our U.S. workforce. The charts below detail our performance over the past five years.

Executive diversity

In 2010, 19.8% of our top U.S. executives (director level and above) were women, compared with 17.2% in 2009. In the United States, minorities constituted 16.3%, compared with 15.0% in 2009.

Worldwide workforce demographics, 2006–2010 [women as a percentage of total employees]*

Region	2006	2007	2008	2009	2010
Americas—employees	31.4%	31.0%	30.8%	35.0%	34.3%
Americas—managers	26.0%	25.3%	25.2%	28.3%	27.8%
Asia Pacific and Japan—employees	29.6%	30.0%	30.9%	32.5%	33.1%
Asia Pacific and Japan—managers	18.4%	18.6%	20.2%	21.2%	21.8%
Europe, the Middle East, and Africa—employees	27.7%	28.4%	28.1%	30.0%	30.5%
Europe, the Middle East, and Africa–managers	17.0%	17.6%	18.5%	20.0%	19.8%
Worldwide—employees	29.9%	30.0%	30.1%	32.9%	32.9%
Worldwide—managers	21.7%	21.5%	22.0%	24.3%	24.1%

- * 2009 data excludes Brazil.

Global new hires, 2006–2010 [as a percentage of total]*, **

	2006	2007	2008	2009	2010
Female	31.9%	31.8%	34.9%	35.6%	35.2%
Male	68.1%	68.2%	65.1%	64.4%	64.8%

- * 2009 data excludes Brazil.
- ** 2009 data reflects the time period 1/01/09–11/30/09.

2010 U.S. workforce demographics [as a percentage of total]

Male	Female	White	All minorities	Black	Hispanic	Asian	Native Hawaiian or Other Pacific Islander	Two or more races	Native American
Officials and managers									
71.49%	28.51%	83.02%	16.98%	3.88%	4.61%	7.97%	0.00%	0.14%	0.37%
Total: 11.24%									
Professionals									
67.13%	32.87%	76.02%	23.98%	5.18%	4.78%	13.11%	0.07%	0.34%	0.50%
Total: 70.19%									
Technicians									
77.52%	22.48%	69.93%	30.07%	14.49%	6.82%	6.97%	0.26%	0.76%	0.78%
Total: 10.41%									
Sales workers									
61.53%	38.47%	71.89%	28.11%	6.65%	14.90%	2.78%	0.17%	3.20%	0.42%
Total: 1.35%									
Office and clerical									
17.85%	82.15%	66.13%	33.87%	16.62%	7.96%	7.47%	0.27%	0.74%	0.80%
Total: 5.83%									
Operatives (semi-skilled)									
49.74%	50.26%	61.78%	38.22%	13.61%	10.47%	13.09%	0.00%	0.00%	1.05%
Total: 0.22%									
Laborers									
49.11%	50.89%	48.82%	51.18%	14.5%	22.93%	13.17%	0.00%	0.15%	0.44%
Total: 0.77%									
Total									
65.57%	34.43%	75.30%	24.70%	6.78%	5.45%	11.43%	0.09%	0.42%	0.53%
Total: 100.00%*									

- * Subtotals may not add up exactly to total due to rounding.

U.S. new hires, 2006–2010 [as a percentage of total]*

	2006	2007	2008	2009	2010
White	69.8%	69.0%	67.2%	65.0%	61.7%
All minorities	28.4%	30.1%	32.4%	34.5%	34.8%
Black	6.1%	6.8%	8.1%	11.2%	14.5%
Hispanic	6.4%	6.3%	6.9%	7.1%	7.1%
Asian	15.6%	16.5%	15.7%	12.5%	10.5%
Native American	0.3%	0.5%	0.6%	0.7%	0.3%

- * Sum of “White” and “All minorities” does not equal 100% and the sum of “Black”, “Hispanic”, “Asian”, and “Native American” does not equal the total for “All minorities” due to people who do not declare or who do not fall into these categories.

View our U.S. workforce demographics data for 2005–2009.

Employees and global citizenship

The success of HP's global citizenship programs depends, in large part, on our employees' commitment and contributions. To increase engagement, we regularly share our progress, host educational events, and provide training and resources on core components of global citizenship, such as environmental sustainability, social innovation, ethics, and privacy. In addition, more than 50 employee councils at HP sites worldwide support local implementation of corporate initiatives, including global citizenship.

Following are examples of how we involved HP employees in our global citizenship efforts in 2010.

Ethics

Our Standards of Business Conduct (SBC) help HP maintain a strong ethical culture globally. The SBC apply to all employees, everywhere we do business. In 2010, more than 99% of employees completed annual SBC training. For more information, see Ethics and compliance.

Employee volunteerism and giving

HP employees contribute their time, skills, and expertise to their communities and also support HP's global social innovation programs. In addition, many employees make financial contributions to support their local communities and assist in disaster relief efforts.

In 2010, thousands of HP employees around the world volunteered their time or donated money. For additional details, see Employee volunteerism and giving.

Environmental sustainability

Environmental training

Environmental stewardship and environment, health, and safety are elements of the annual all-employee SBC training. Also, in 2010, HP integrated an environmental sustainability module into training for all new HP employees.

HP Environmental Ethos

In 2010, we created our HP Environmental Ethos to guide and inspire HP employees to make responsible choices for the environment and our business, and to help our customers to do the same.

HP employees making an impact:

Debbie Ledbetter

As office print manager for HP's global supply chain services, Debbie Ledbetter keeps HP's printer infrastructure streamlined and efficient across all of the company's offices. She also serves as the global lead for the HP Sustainability Network. Learn more about Debbie.

HP Sustainability Network

The HP Sustainability Network encourages and supports employees who want to learn about, share, and practice environmental sustainability at home, work, and in their communities. The company currently has 29 chapters worldwide (including six added in 2010) with more than 10,000 members. Projects undertaken by the various HP Sustainability Network chapters vary, but include organizing e-waste collection events, reducing the use of disposable cups and takeout containers in HP cafeterias, and coordinating bike-to-work programs.

Each year the Sustainability Network and other local teams organize Earth Day, United Nations World Environment Day, Earth Hour, and Green Week events at HP campuses. In 2010, 27 offices in 14 countries organized local events. Event activities included information fairs, tours of solar power, water treatment, and recycling facilities, bike tune-up clinics, free hardware recycling, and environmental speakers.

Environment@HP

Our internal Environment@HP website educates employees about environmental issues and encourages them to reduce their impact at work and at home. Employees can learn how to get involved with their local HP Sustainability Network, tap into training opportunities, receive updates on new HP employee and customer programs, and find resources to measure and reduce their environmental impact. For example, employees can borrow an HP Green Home Kit, a set of tools to evaluate indoor temperature, energy consumption, and water use.

Environmental advocate programs

HP has several programs that educate and empower employees to become ambassadors of the company's environmental initiatives.

HP in Canada encourages participation in Green Advocates, a program that gives employees the opportunity to complete training modules, where they learn about HP's leadership in environmental sustainability in areas such as product take back, and eco-labels. After training, employees are well equipped to address top-of-mind environmental issues for our customers and partners. Since we launched the program in 2008, more than 200 employees in Canada have become Green Advocates. We aim to train at least one representative per sales team. As of the end of fiscal year 2010, approximately 65% of sales teams in the country had a Green Advocate.

In the United States, the HP Eco Solutions Advocate program provides U.S. employees with the resources they need to talk with customers about HP's environmental stewardship and solutions. In 2010, nearly 1,000 employees attended live training sessions.

Wellness

HP invests in wellness to help our employees better understand and manage their health. We believe that when HP employees feel well, they perform well. Our programs support employees at all levels of health and fitness.

Our wellness programs vary by country, but all support HP employees' physical health, financial well-being, and stress management. In 2010, we launched an extensive wellness initiative in the United States with plans to extend the initiative to 17 countries by the end of 2011.

HP Wellness Central is the online hub for our wellness programs. Employees can find benefits and wellness contacts, link to online health forums, share stories with other HP employees, and access tools such as personal health action planners, financial planning tools, and stress-assessment tests. Employees can also access the HP Employee Discount Program on the site to receive discounts for gym memberships, sporting goods, and other wellness-related products and services.

Our wellness programs feature activities, challenges, and contests to increase employee involvement. Shape up HP, an online social networking tool, allows employees to organize fitness activities based on similar interests. In addition, in 2010, we held wellness fairs at ten HP sites in the United States, as well as sites in Canada and Mexico. Employees learned more about wellness vendors, and attended website demonstrations and wellness exhibits. They could also use the latest HP equipment to customize and print wellness goals as part of the fairs. To reach more employees, we also recorded the events and posted them online for a virtual wellness day.

Individual and group challenges keep the program engaging and help drive lasting impact. For example, as a part of a 12-week fitness challenge in the United States, HP employees walked nearly 7 billion steps, exercised more than 450,000 hours, and lost more than 16,300 kilograms.

This year, our annual Voice of the Workforce survey included a question designed to measure employee perceptions of their managers' interest in employee wellness. More than 75% of HP employees felt their managers take a genuine interest in the wellness of their employees.

Maintaining work-life balance

We offer programs to help our employees manage personal and work commitments, as we recognize that the fast pace of our industry can be exceptionally demanding. In many countries, our wellness programs offer concierge services, backup childcare services, and stress-management resources. In addition, many employees take advantage of work-life options we offer to balance busy work schedules and personal lives.

HP's fun-loving fowls

One team in HP's Personal Systems Group devised a creative way to help ensure employees take the time off that they have earned. Team members can check out one of six "fun-loving fowls" (FLVs) when they go on vacation. The toy FLVs can each travel with the employee and their family, and pose for photos, which employees can post and share when they return. The FLVs have traveled with employees from all regions, to destinations including Alaska, Costa Rica, and Singapore.

In our annual Voice of the Workforce survey, flexible work arrangements are one of the top features of the HP work environment that employees value. These include:

- **Flex time** Working a normal eight-hour workday, but adjusting start and departure times. Approximately 80% of our workforce takes advantage of this option.
- **Part time** Working reduced hours on an ongoing or temporary basis. About 2% of employees work part time.
- **Telework** Working full time from home. About 15% of employees are formally designated teleworkers.
- **Flexwork** Occasionally working from home, but primarily based on HP premises.

Flexible work arrangements have helped us optimize the use of our real estate and improve the environmental impact of our operations and overall employee productivity. (See more information about our Global Workplace Initiative.)

Additional programs that help employees improve work-life balance vary by country, including:

- Vacation and paid time off
- Adoption resources and assistance
- Dependent care resources
- Education resources
- Family and medical leave
- New parent leave

For additional details about work-life programs, visit the HP Benefits website.

Health and safety

Protecting our employees' health and safety is a natural extension of our commitment to make HP a great place to work. We take seriously our responsibility to provide a safe working environment and recognize that employees are most productive when they are healthy.

Among HP's challenges are meeting the needs of an increasingly mobile workforce—many of our employees telecommute or work from customer locations. We designed several of our 2010 initiatives to address this issue.

We emphasize preventing work-related injuries and illnesses, and we tailor our safety programs to minimize hazards. For example, as slips, trips, and falls are a leading cause of lost workdays at HP (see table below), we publish an online health advisory to raise awareness of the most frequent types of accidents. It includes practical tips for increasing safety in the office and manufacturing areas, and advice on avoiding incidents. We conduct regular inspections to identify potential hazards and use preventative housekeeping measures.

We administer our health and safety programs as part of a comprehensive environmental, health, and safety (EHS) management system that meets or exceeds applicable regulatory requirements globally. This system aligns with the internationally recognized Occupational Health and Safety Assessment Series standard OHSAS 18001 as well as the ANSI Z10 (American National Standard), and ILO-OSH 2001 standards. Three HP sites in Ireland, Scotland, and Singapore are registered to OHSAS 18001.

Health and wellness

We promote health and wellness through online educational materials, travel health advice, and health-awareness activities. In 2010, we launched a new employee wellness program, focusing on physical health, financial well-being, and stress management. For more information, see the Wellness section of this report.

We also provide access to health benefit programs and promote healthy lifestyles. Our global benefits policy applies to all HP employees. Depending on their location and other variables, employees can be eligible for programs including medical, dental, vision, disability, and life insurance.

To increase participation, U.S. employees and covered domestic partners who complete a health-risk questionnaire, participate in self-guided health education, and enroll in a lifestyle improvement program may receive funding from HP to purchase additional health and wellness benefits. In 2010, 63% of HP employees took part in the program.

Health and wellness are also central to our global real-estate initiative, a program designed to ensure that HP workspaces worldwide are fully aligned with the company's business needs. We have historically made a number of ergonomic accessories, such as keyboard trays and monitor arms, available to our employees so that they can improve the ergonomics of their workspaces. In 2010, we included ergonomic accessories in our global workplace standards.

Communications

Our HP Safety and Comfort Guide is available to all employees and customers, in 34 languages. The guide offers assessment strategies and recommendations to reduce ergonomic risks.

Our EHS intranet site includes resources for employees, such as:

- Self-audits that help sites assess how well employees manage health and safety risks.
- Searchable instructions for safe chemical handling.
- Information on emergency and disaster planning, prevention, response, and recovery.

In some countries, infectious diseases present a serious risk to our employees. We provide travel health advice and raise awareness about precautions, such as proper hygiene to prevent illness. We respond to specific infection risks by providing affected employees with information and access to health professionals to address questions confidentially.

Training

We emphasize health and safety (H&S) from the first day of employment. Our H&S training programs include:

- General education, such as employee orientation, to provide an overview of our policies and advice on preventing and responding to workplace injuries. Employees take a required online refresher course annually.
- Job-specific training that covers hazards relating to work environments or responsibilities. For example, HP provides courses for customer engineers and their managers about reducing risks while working at non-HP sites.
- Ergonomics training, to reduce the risk of injuries and illnesses related to materials handling and day-to-day office work. In 2010, we developed an online risk-assessment tool in conjunction with making the HP Safety and Comfort Guide available to employees through Grow@hp, giving us the ability to track participation. Designed for our increasingly mobile workforce, the risk-assessment tool addresses the risks associated with several types of working environments, including home offices, shared work spaces, dedicated offices, and customer locations.

We provide many of our training courses in multiple languages to meet the needs of our global workforce.

Performance

Health and safety metrics

We record and investigate work-related injuries and illnesses to identify and help eliminate their root causes, and to assess the effectiveness of our management systems. Our H&S data collection and tracking system, which tracks injury trends at the site and corporate levels, adheres to the International Labour Organization Code of Practice on Recording and Notification of Occupational Accidents and Diseases.

Our primary metric is the lost workday case rate (i.e., the number of work-related injuries that result in time away from work per 100 employees working a full year). We also measure recordable injuries and illnesses and incidents requiring medical attention beyond first aid. These include incidents both with and without lost time.

Please note that the following metrics do not include the Palm and 3Com employees who joined HP in 2010.

Lost workday case rate, 2006–2010*

- (Hover over segments for detail by region)
-
-
- * Lost workday case rate is the number of work-related injuries that result in time away from work per 100 employees working a full year. U.S. industry average in 2009: 0.3 (latest data available). Americas includes data from Argentina, Brazil, Canada, Colombia, Costa Rica, Mexico, Puerto Rico, and the United States. Europe, Middle East, and Africa Includes data from Belgium, France, Germany, Ireland, Israel, Italy, Poland, Spain, and the United Kingdom. Asia Pacific and Japan includes data from India, Japan, and Singapore.

Leading causes of lost workdays, 2010

Slips, trips, and falls	40%
Ergonomics—materials handling	12%

Ergonomics—office environment	12%
Struck by/against	9%
Automobile accidents	9%
Caught in/between	4%
Other	14%

In 2010, the proportion of lost workdays caused by slips, trips, and falls increased to 40% from 29% in 2009. We have indentified numerous and diverse causes for this increase and will continue to evaluate ways to address these hazards and make educational resources and training available on our EHS intranet.

Recordable incidence rate, 2007–2010*

- (Hover over segments for detail by region)
-
-
- * Recordable incidence rate is the number of all work-related lost-time and no-lost-time cases requiring more than first aid per 100 employees working a full year. U.S. industry average in 2009: 0.5 (latest data available). Americas includes data from Argentina, Brazil, Canada, Colombia, Costa Rica, Mexico, Puerto Rico, and the United States. Europe, Middle East, and Africa includes data from Belgium, France, Germany, Ireland, Israel, Italy, Poland, Romania, Spain, and the United Kingdom. Asia Pacific and Japan includes data from Australia, India, Japan, and Singapore.

Leading causes of all recordable cases (with and without lost time), 2010

Slips, trips, and falls	33%
Ergonomics—office environment	22%
Ergonomics—materials handling	12%
Struck by/against	10%
Automobile accidents	7%
Other	16%

People development

The strength of HP's business speaks volumes about the talent, expertise, and experience of our global workforce of nearly 325,000 employees.[1] We have a longstanding commitment to develop the best and most skilled workforce in our industry.

Our approach

HP offers every employee the opportunity to excel in their current role and prepare for new challenges. We believe learning by doing builds skills effectively and accelerates development, and we encourage employees to pursue hands-on experiences. Many of our developmental programs are on-the-job learning opportunities, such as job rotations and cross-functional team experiences. We also offer coaching, mentoring, and learning communities.

HP also offers development opportunities through face-to-face training programs, live virtual training, and interactive, self-directed web resources. Ninety-four percent of our training courses are delivered by videoconference or online. Technology-based training can reach more employees, better accommodate varied development needs, and enable flexible access for people to learn virtually anywhere and anytime. Our portfolios, which contain more than 10,000 active courses on subjects including sales, technical, leadership, and professional skills learning, resulted in 1.6 million learning instances over the past year.

We also support employees in pursuing external educational opportunities such as conferences, seminars, and training at accredited institutions, including for technical certifications, as time and budget allow.

In 2010, our learning investment was aligned to business priorities as follows:

- Sales: 28%
- Technical: 55%
- Leadership: 15%

- Professional skills: 2%

Career development fairs

In 2010, we hosted on-site and virtual career development fairs to help employees better understand available tools and resources as they develop their careers at HP. The fairs included keynotes from HP's leadership, career development workshops, and live and virtual networking. More than 15,000 HP employees attended the virtual career fair held in August 2010. On-site fairs occurred in Chennai, India; Guadalajara, Mexico; Madrid, Spain; and Plano, Texas, United States, with more than 1,800 total participants. Ninety-one percent of attendees said they intend to act on their career development plan in the coming months.

Mentoring

HP employees making an impact:

Shelley Jeffcoat

Shelley Jeffcoat's experience mentoring a struggling co-worker helped her realize other HP employees could benefit from the same kind of support. So she set out to create a department-wide peer-mentoring program. Learn more about Shelley.

One of the best professional development resources available to HP employees is the unique skills and expertise of their co-workers and HP retirees. HP facilitates mentoring experiences through the Mentoring @ hp intranet site, which contains advice and resources for both mentors and those seeking mentors. In addition, the site provides a directory of mentoring programs, which helps connect groups as diverse as young employees, senior women leaders, and professionals in finance, human resources, and sales with mentors in their fields. In 2010, more than 4,000 employees participated in HP's mentoring programs.

Learn more on our Learning and Development site.

Leading for results

In 2007, HP launched Leading for Results (LfR), a leadership development program to promote a consistent leadership approach across the company. In 2010, HP expanded the program to provide leadership and management learning modules, and allow each business group to add customized material.

LfR includes pre-program activities to establish baseline knowledge among participants, a two-day on-site program, and follow-up support activities and resources to promote ongoing learning and networking.

This program will run through early 2012, and we continually refresh content to reflect the dynamic nature of our business. In 2010, more than 4,200 HP leaders worldwide participated.

Leadership development

Leadership development is an essential driver of our business success. The ability to think and act as a leader is crucial for all HP employees, regardless of role. Every employee has the opportunity to assess him or herself against the HP Leadership Standards and develop leadership skills by attending training, engaging in self-directed online learning modules, or working with a coach or mentor.

The Executive and Leadership Development (ELD) team designs and implements leadership and management learning solutions for leaders at all levels. ELD also delivers specialized programs for HP leaders identified as having high potential for growth into senior leadership positions.

Nearly all of our leadership development offerings emphasize learning by doing. We choose projects with significant business impact to build and strengthen the leadership skills of high-potential employees. These projects, sponsored by senior company leaders, provide immersive learning experiences while supporting HP's business goals.

Most leadership development programs draw on senior HP leaders as faculty. In a typical year, more than 600 executives provide training and other developmental support for HP's leadership initiatives.

In addition to these formal learning opportunities, our Leadership Development Central Portal offers quick tips, videos, and learning solutions aligned to HP Leadership Standards.

1. [1] As of October 31, 2010.

Compensation and benefits

We believe that recognizing and rewarding excellent performance is the best motivation for high achievement. Our compensation and benefits philosophy, known as Total Rewards, states that:

- Our success depends on rewarding employees who achieve exceptional results.
- We reward strong company and individual performance with performance-based pay.
- Our managers differentiate rewards based on business unit results and individual performance.
- Our pay and benefits are competitive with relevant markets and can be differentiated by business, function, and job classification.

In addition to base and performance-related pay and stock ownership, we offer benefits everywhere we operate. These may include:

- Health plans
- Income protection (insurance to protect income in case of injury or illness)
- Retirement and savings packages

For more information, see the Wellness and Health and safety sections of this report.

Investments in employee compensation and benefits

During the worst of the economic downturn, many of our employees sacrificed to help position HP for success and preserve our strategic direction. However, economic conditions around the world are now more stable and HP's business is strong and well-positioned for growth. Accordingly, in 2010, HP made additional investments in our employees in several areas:

- Fiscal year 2010 bonus-pool funding was increased and distributed based on HP and business-segment achievements against revenue and net-profit goals, with bonus awards determinations made based on employee job level, role, and performance level.
- The HP U.S. 401(k) plan changed from a discretionary match based on business performance to a fixed matching contribution each quarter, equal to 100% of the employee pay period contributions up to 4% of eligible pay.
- HP's equity program eligibility expanded to more high-performing employees, so they could share in HP's success.

Diversity performance data

2005 U.S. workforce demographics

	Male	Female	White	All minorities	Black	Hispanic	Asian	Native American	Total
Officials and managers	5,701	2,158	6,634	1,225	256	405	538	26	7,859
Professionals	28,639	12,958	32,039	9,558	1,945	2,206	5,266	141	41,597
Technicians	4,292	624	3,822	1,094	371	316	374	33	4,916
Sales workers	726	323	1,340	135	48	61	23	3	1,049
Office and clerical	538	2,461	2,280	719	301	260	148	10	2,999
Craft workers (skilled)	45	1	40	6	3	1	2	0	46
Operatives (semi-skilled)	331	153	251	248	97	85	46	20	484
Laborers	795	629	898	526	150	185	184	7	1,424
Total	41,067	19,307	47,304	13,511	3,171	3,519	6,581	240	60,374
% of total	68.02%	31.98%	78.35%	22.38%	5.25%	5.83%	10.90%	0.40%	100%

2006 U.S. workforce demographics

	Male	Female	White	All minorities	Black	Hispanic	Asian	Native American	Total
Officials and managers	5,020	1,848	5,776	1,092	225	355	492	20	6,868
Professionals	26,578	11,747	29,338	8,987	1,782	2,054	5,023	128	38,325

Technicians	3,792	515	3,320	1,019	329	320	342	28	4,307
Sales workers	505	253	653	719	653	43	18	5	758
Office and clerical	371	1,939	1,736	574	231	214	123	6	2,310
Craft workers (skilled)	27	1	24	4	3	1	0	0	28
Operatives (semi-skilled)	212	99	192	130	43	38	35	14	311
Laborers	635	543	713	547	132	164	165	86	1,178
Total	37,140	16,945	41,752	13,072	3,398	3,189	6,198	287	54,085
% of total	69.32%	30.68%	76.12%	23.88%	4.99%	5.95%	12.58%	0.36%	100%

2007 U.S. workforce demographics

	Male	Female	White	All minorities	Black	Hispanic	Asian	Native American	Total
Officials and managers	5,067	1,802	5,718	1,151	206	371	554	20	6,869
Professionals	26,676	11,576	28,789	9,463	1,732	2,081	5,516	134	38,252
Technicians	3,769	465	3,222	1,012	360	290	338	24	4,234
Sales workers	493	266	641	118	41	50	22	5	759
Office and clerical	310	1,727	1,543	494	181	193	117	3	2,037
Craft workers (skilled)	17	1	15	3	3	0	0	0	18
Operatives (semi-skilled)	160	79	137	102	30	38	32	2	239
Laborers	609	502	676	435	116	162	154	3	1111
Total	37,101	16,418	40,741	12,778	2,669	3,185	6,733	191	53,519
% of total	69.32%	30.68%	76.12%	23.88%	4.99%	5.95%	12.58%	0.36%	100%

2008 U.S. workforce demographics

	Male	Female	White	All minorities	Black	Hispanic	Asian	Native Hawaiian or Other Pacific Islander	Two or more races	Native American	Total
Officials and managers	73.14%	25.87%	83.57%	16.43%	2.84%	5.25%	8.00%	0.00%	0.01%	0.33%	12.80%
Professionals	69.68%	30.32%	75.50%	24.50%	4.56%	5.41%	14.11%	0.01%	0.06%	0.35%	71.75%
Technicians	89.41%	10.59%	74.57%	25.43%	9.52%	7.05%	8.13%	0.00%	0.02%	0.72%	8.14%
Sales workers	62.62%	37.38%	84.22%	15.78%	5.52%	6.41%	3.25%	0.00%	0.30%	0.30%	1.85%
Office and clerical	12.45%	87.55%	75.97%	24.03%	7.76%	10.10%	5.84%	0.05%	0.00%	0.27%	3.35%
Craft workers (skilled)	93.33%	6.67%	86.67%	13.33%	6.67%	0.00%	0.00%	0.00%	0.00%	6.67%	0.03%
Operatives (semi-skilled)	64.52%	35.48%	52.15%	47.85%	13.44%	15.05%	18.82%	0.00%	0.00%	0.54%	0.34%
Laborers	54.26%	45.74%	57.51%	42.49%	9.95%	15.60%	16.46%	0.00%	0.00%	0.48%	1.91%
Total	69.51%	30.49%	76.21%	23.79%	5.01%	5.92%	12.42%	0.01%	0.05%	0.38%	100.00%

2009 U.S. workforce demographics [as a percentage of total]

	Male	Female	White	All minorities	Black	Hispanic	Asian	Native Hawaiian or Other Pacific Islander	Two or more races	Native American	Total
Officials and managers	70.25%	29.48%	84.47%	15.53%	3.78%	4.11%	7.16%	0.01%	0.06%	0.42%	12.58%
Professionals	65.95%	34.05%	76.30%	23.70%	5.31%	4.69%	12.87%	0.07%	0.23%	0.52%	71.75%

Technicians	81.90%	18.10%	73.48%	26.52%	11.63%	6.63%	6.96%	0.18%	0.33%	0.80%	9.78%
Sales workers	61.24%	38.76%	81.11%	18.89%	6.66%	8.30%	2.18%	0.00%	1.42%	0.33%	1.00%
Office and clerical	20.07%	79.93%	63.51%	36.49%	18.97%	8.22%	7.69%	0.21%	0.67%	0.72%	6.69%
Craft workers (skilled)*	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operatives (semi-skilled)	63.43%	36.57%	56.72%	43.28%	14.93%	11.94%	14.18%	0.00%	0.00%	2.24%	0.34%
Laborers	48.72%	51.28%	49.17%	50.83%	13.98%	20.75%	15.94%	0.00%	0.00%	0.15%	1.91%
Service workers	88.89%	11.11%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
Total	64.84%	35.16%	76.02%	23.98%	6.74%	5.21%	11.14%	0.08%	0.26%	0.55%	100.00%

- * There are only three people in this category.

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Tara Agen

Every day around the world, HP helps its customers save money while reducing their environmental impact. Tara Agen, chief of staff and business strategy manager for the Americas LaserJet and Enterprise Solutions (LES) organization, brought this approach to her own community in order to help local businesses.

Tara saw that the small businesses in her Suffern, New York community were hard-hit during the recent economic downturn. So she worked with the local government and chamber of commerce, and other area businesses to launch the Suffern Go Green community printing project. Through the project, 35 small businesses and local government organizations received a free assessment of their printing environments. Once complete, HP donated and installed a new HP LaserJet 2055d Printer and print console for each business.

"By deploying these printers, Suffern businesses and the local government cut printer energy use an estimated 60%, carbon dioxide equivalent (CO_2e) emissions by 41%, and paper use by 37%," Agen says. "This program combined the community values that Bill Hewlett and Dave Packard held so dear with a common-sense approach to cost savings."

Tara's Suffern Go Green project was so successful that other HP employees have created similar programs in their communities. The LES Americas organization introduced a new Business Advocate program in Boise, Idaho that matches the expertise of HP employees with the needs of small businesses. Plans are underway to expand the Business Advocate program to other locations around the world.

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Sylvia Burrow

As intake manager for inquiries and allegations of misconduct to HP's corporate compliance email address and confidential resource line (GuideLine), Sylvia Burrow helps people speak up when they have concerns about the way we do business.

Anyone can use the address to raise concerns or ask questions. Sylvia manages all the contacts received, acting as a "triage nurse" to decide which queries need what type of action and who in HP should respond. She answers queries if she can, and forwards others to relevant areas of HP, such as the Standards of Business Conduct team, the Human Resources department, Legal Affairs, Global Security, or the Environmental Sustainability team.

While it's not always possible to resolve matters to everyone's satisfaction—especially when confidential investigations prevent her from sharing information—Sylvia enjoys being in a job where she helps people. She gains satisfaction from applying the same rules to everyone, and handling such a variety of issues keeps her motivated and engaged.

Sylvia also compiles compliance statistics, including reports for HP's ethics and compliance committee. These reports support the ethical culture HP wants to be known for, arming our senior leaders with the information needed to make decisions, such as whether changes to ethics training are required.

In April 2011, Sylvia celebrated 30 years with HP. She has worked in roles as diverse as receptionist, administrative office supervisor, technical development program administrative supervisor, Accounting and Financial Development (AFD) program manager, resource information analyst, and facilities planning manager, and has been in the Ethics and Compliance office since HP Enterprise Services (then EDS) first introduced the function in 1997. The job has increased in prominence during this time, as public expectations of company behavior have risen and legal requirements have increased.

"People are now more aware that their actions have consequences—for them and for the company," says Sylvia. "And they're more willing to speak up when they think something's wrong, because they know it's the right thing to do and they feel confident the issue will be handled professionally and their anonymity will be respected."

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Judy Glazer

In her 21 years with HP, Judy Glazer has made significant contributions across HP's business. An engineer by training, her first position at HP focused on manufacturing processes. In that role, Judy made a product design improvement to certain ink cartridges that is still in use.

Today, Judy is director of HP's Social and Environmental Sustainability and Compliance team. She is responsible for developing cross-company social and environmental responsibility (SER) policies and compliance programs. Judy collaborates with product line and regional partners to implement these policies and programs across HP. "My team works on many aspects of social and environmental responsibility throughout the product life cycle, from the elimination of substances of concern in electronic equipment, to decreasing the environmental impacts of manufacturing, packaging,

and logistics, to responsible recycling," explains Judy. "We also help ensure that HP's high standards for labor management, human rights, and environmental responsibility are met throughout our supply chain."

In her current role, Judy builds on the extensive experience she's gained throughout her career. In 2003, she launched HP's team responsible for managing the company's response to the European Union's Restriction of Hazardous Substances (RoHS) legislation. HP was one of the first companies to apply RoHS regulations to products worldwide.

Judy was also instrumental in helping HP co-lead the development of the Electronic Industry Code of Conduct (EICC), which fosters responsible management and operational practices in labor, human rights, ethics, the environment, and health and safety across the industry's global supply chain.

With such an extensive program to manage, Judy has assembled a team of experts that work across HP's business groups, regions, and global functions. She relies on them to keep pace with the increasing expectations surrounding SER performance, and to understand and help shape trends in this rapidly changing field. "We're tasked with determining how to address emerging and quickly evolving issues, such as conflict minerals, water use, and paper sourcing, and assessing their potential impact on HP and our customers." The key to HP's success is cross-organizational teamwork. Working together, SER teams across HP business units and regions create a network that has a substantial influence on our business.

"HP has made notable progress in supply chain SER, especially over the past ten years," says Judy. "And given HP's scale, even incremental changes can have a large impact. Despite these gains, it's important to continually push forward. What we've achieved keeps me motivated to do even more."

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Ann Hetherington

As the environmental compliance manager for HP Visual Collaboration, Ann Hetherington spends much of her time helping to ensure that HP meets the legal requirements of the countries where it does business. But when Ann was asked by her colleagues in Puerto Rico to help change the way HP packages and ships its studio solution, Ann saw an opportunity to make a significant impact.

Ann served as coordinator for a team of HP experts whose task it was to develop a more environmentally sustainable method for packaging and transporting the studios. The team spent months researching, conducting hands-on experiments, and analyzing the results.

In the end, the team found a way for HP to ship the Visual Collaboration studios using corrugated fiber and rubberized doughnut-shaped cushions instead of wood crating and foam cushions, saving materials and reducing packaging weight. They also found that by shipping the studios to customers by ocean instead of by air, they could save fuel and decrease greenhouse gas emissions. As a result, the changes have saved an average of $7000 USD and 880 tonnes of carbon dioxide equivalent (CO_2e) per shipment. See Product transport for more information.

"HP Visual Collaboration is a breakthrough product that helps customers be environmentally conscious and reduce their carbon footprint," Ann says. "This project helped us expand the environmental benefits of our own product by changing how we work."

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Shelley Jeffcoat

Shelley Jeffcoat supports members of the HP sales force, ensuring they have the right training and most up-to-date resources. In addition to her daily responsibilities, Shelley leads a program that helps HP employees develop successful careers and discover their untapped talents.

It all began in February, 2010, when Shelley started mentoring a struggling co-worker. She realized other HP employees could benefit from the same kind of support, so she launched a department-wide peer-mentoring program.

Shelley encourages members of the group to solve problems together, exchange advice, and help each other develop the skills needed to accomplish their goals. For example, they often use meetings to practice public speaking. She also works with 11 volunteers to host monthly lunch–and-learns, facilitate a Breakfast with a Leader series, coordinate a loaner library, and organize special events designed to empower employees to network and learn from HP business leaders.

Another big focus of the mentoring program is to help members build on their skill sets and keep growing professionally. "I'm passionate about motivating people and encouraging them to do their very best. I try to find out what their strengths and weaknesses are, and help them find the right career path," Shelley says.

Over time, Shelley has seen firsthand how the career development and peer-mentoring program has helped boost over 270 members' confidence levels. For instance, the struggling employee that inspired the program eventually won recognition as its most improved employee.

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Phillip Kong

As the HP Enterprise Services' green practice lead for the South Pacific, Phillip Kong works with some of HP's largest customers to calculate the carbon emissions created by their IT infrastructures and shows them how best to reduce those

emissions. Phillip also shares his skills and expertise with a broader group of HP employees in his role as lead of the HP Melbourne, Australia chapter of the HP Sustainability Network.

Phillip has helped make the chapter one of the fastest-growing and most active employee groups at HP with more than 300 members. Their activities include fundraising for environmental nonprofits and holding educational events on topics such as solar power, green building design, and reuse and recycling. They also publish a quarterly newsletter with information about upcoming events and tips for reducing energy use and waste. "We have a fantastic group of committed people who work really hard to make the network a success," says Phillip.

The Melbourne chapter has made a commitment to support local businesses and community initiatives that reflect the group's sustainability objectives. For example, numerous HP employees negotiated a deal with a local solar power vendor to install solar panels on their homes at a reduced rate.

The work of the Melbourne chapter hasn't gone without notice. In 2010, Phillip worked with the local HP Global Real Estate organization to submit a nomination for—and win—the City of Whitehorse's Sustainable Business Award.

"This award recognizes HP's commitment to environmental sustainability and our support of the local community," Phillip says. "It highlights HP's strategy of building sustainability into our operations, processes, and facilities."

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Debbie Ledbetter

As the green procurement manager for HP's Global Procurement organization, Debbie Ledbetter works to reduce HP's environmental impact by sourcing environmentally responsible products for HP's operations, business travel, and printing. As an example, she's played a central role in our program to make printing and paper use more efficient across HP.

Debbie also serves as the global lead for the HP Sustainability Network, a volunteer group of more than 10,000 HP employees who are committed to making the world a better place. Her role is to work with employees around the world, implementing and sharing practices that help HP reduce its environmental impact. Each of the 30 chapters tailors its programs to the concerns of local employees. Projects have included bike-to-work events, on-site gardens, and water conservation initiatives.

Debbie is especially proud of the network's effort started in 2008 to reduce the use of polystyrene cups at HP employee coffee stations. By collaborating with HP's Global Real Estate organization, site councils, and SODEXO, HP's cafeteria vendor, the HP Sustainability Network dramatically reduced the number of foam cups used at 10 of HP's biggest campuses in the United States.

"Prior to our campaign, approximately 10 million cups were used yearly in the United States. Over three million cups per year were reduced at the 10 sites," Debbie says. "And unfortunately, all of those cups went directly to landfill. Today, polystyrene cups are used only by visitors."

Debbie noted that successful initiatives quickly spread from one HP site to another, in part because of the HP Sustainability Network. "When people hear the words 'environmental sustainability,' they often think of large, company-driven initiatives," says Debbie. "But the truth is that each of us can make subtle changes that collectively have a big

impact. The employees who participate in our Sustainability Network are passionate about making a difference at work and in the communities in which they live."

Debbie Ledbetter (second from the left) and other members of the HP Sustainability Network help middle school students plant an organic garden at a local school on Earth Day, 2010.

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Chantal Martineau-Kirse

Chantal Martineau-Kirse is a project manager for HP Enterprise Services. She was one of the founding team members of the HP Women's Network in Munich (one of four in Germany) in 2007, and currently serves as the coordinator. The network promotes the professional development, visibility, and retention of women at HP.

Through the network, Chantal encourages women to take control of their careers and to support each other, and she assists them in numerous ways. She ensures that the network's members are aware of the many resources available to them through HP's professional development programs. Chantal promotes networking opportunities, such as HP's Employee Resource Groups (ERGs), diversity conferences, and events like the HP German Women's Summit. She also facilitates career development events including speakers, lunch-and-learns, and workshops, in addition to mentoring new hires and students. And she supports HP women as they strive to achieve work-life balance, by organizing events, such as yoga classes.

"I have a very positive outlook on life, and I'm good at bringing people together to collaborate. Even though the work I do is not a part of my daily job, I love it," says Chantal.

Over the years, the HP Women's Network in Munich has grown to more than 260 members. The success of the group in part reflects Chantal's dedication to creating a work environment where women are heard, feel supported, and can thrive.

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Aziz Mohamed

Aziz Mohamed is the health initiatives manager for the Office of Corporate Strategy and Technology. He is responsible for coordinating HP's partnerships with organizations, such as the Clinton Health Access Initiative and Partners HealthCare, and helping HP deliver innovative health programs to underserved people and communities.

Despite his work in the area of global health, Aziz had never volunteered before he took a life-changing trip to Kenya.

In 2010, Aziz and 20 HP colleagues traveled to an orphanage for children abandoned by their families due to disease or illness. The majority of the 200 children, ages 2–18, had been diagnosed with HIV. The team brought food and essential supplies, but one of their most important contributions was time. The volunteers spent hours playing games, singing, dancing, and talking with the kids.

After half a day being surrounded by such courageous but sick boys and girls, Aziz came home a different person. "I was personally touched and affected," he says. "I saw tears in the eyes of my HP colleagues and friends, but I also saw determination and the will to make the world a better place."

Aziz was so moved by his experiences that when he returned home to his wife and three children he announced that he was going back—and taking his family with him—in the summer of 2011. "I will spend my time, and my family's time, to do whatever it takes to make a positive change," he explains.

Hear more about Aziz's time as a volunteer in Kenya, in his own words.

Aziz Mohamed (sixth from the left) set out to change the lives of children at an orphanage in Kenya, and found himself changed too.

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Katrin Mondon

As an attorney on HP's legal team in Germany, Katrin Mondon supports various HP businesses to ensure everything from contracts to marketing materials are in line with the law. She also applies her knowledge and skill in local schools as a volunteer for HP Germany's legal pro bono program.

In 2009, the HP Legal team set a goal for at least half of its U.S. employees to volunteer an average of 20 hours of pro bono work a year. In 2010, when HP expanded the program to various countries around the world, Katrin and her colleagues joined in. They decided to use their blend of expertise in technology and law to create a mentoring program for young people about risks they are facing using the Internet. "Most kids in Germany have one thing in common, no matter their age or race—they use the Internet," says Katrin.

They developed the program to focus on specific areas of risk in the online world for children and young adults between the ages of 12–23. It covers topics such as Internet piracy, avoiding fraud, and freedom of speech. Over the course of the year, Katrin and her colleagues mentored about 300 students and even held evening sessions to help educate their parents and teachers.

When they first began, Katrin and her colleagues had to reach out to schools to advertise their program. Now the schools are sending requests to them, and the number of HP volunteers participating in the program in Germany has increased from 7 to 17. They are considering extending the program to include HP colleagues from other businesses and functions, such as IT, human resources, or marketing.

Katrin's personal motivation for continuing the program is simple. "It's great to see the impact you've had on the kids," she says. "Plus, it's fun. We learn as much from the kids as they learn from us."

Katrin Mondon (third row back, on the left) and her colleague Daniel Wollenberg (far back), posed with a class of 13 and 14 year-old students from a local school.

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Janet Morris

Janet Morris combines her firsthand knowledge of HP customers with her passion for the environment.

Janet is the Americas Small Medium Business Market lead for the LaserJet and Enterprise Solutions organization as well as an HP Eco Advocate. As an HP Eco Advocate, she is one of more than 400 employees in the Americas who publicly represent HP's commitment to the environment through speaking engagements as well as virtually through social media. "As I engage with HP small medium business customers and channel partners, I hear what's on their minds regarding environmental issues and opportunities. Sustainability is a topic that is coming up more and more," Janet explains. "I represent HP's environmental leadership position along with tangible information on HP resources, programs, tools, and solutions that can help businesses reduce environmental impact as well as become more sustainable."

Janet is an environmental advocate in her personal life too. In 2009, she successfully followed through on her pledge to abstain from buying new items for an entire year, except for a few personal necessities. "Just making small changes helps you create a big impact," she says.

Janet's commitment to environmental sustainability helped her stand out to win a spot on the international "Leadership on the Edge" Antarctica expedition in March 2011. The expedition was led by the 2041 Group's renowned polar explorer and environmental leader Robert Swan, OBE. The contest and member challenge were sponsored by the Corporate Eco Forum (CEF) in November 2010, across 80 of its member companies, which includes HP. Janet was selected from over 100 applicants, from 11 countries and across six continents, to win this incredible opportunity.

Follow Janet on Twitter @JanetAtHP.

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Paul Nash

Paul Nash, a senior plastics engineer in HP's Inkjet Supplies Operations organization, has played a central role in developing the HP "closed loop" ink cartridge recycling process. The first of its kind, the process combines recycled content from HP ink cartridges with recycled plastic bottle materials to create new Original HP ink cartridges.

Collaborating with HP design engineers and an external supplier, Paul helped determine the type and amount of recycled materials needed to produce ink cartridges that meet HP's demanding standards for quality and reliability. HP's recycling program reduces the amount of virgin materials used, the energy required to process new materials, and the amount of waste sent to landfills. The program has also reduced costs for HP because it is less expensive to use recycled materials than virgin materials.
As of September, 2010, HP has produced one billion Original HP ink cartridges containing post-consumer recycled plastic.[1] Eight hundred million of those cartridges were manufactured with recycled plastic from the HP "closed loop" process. Through these and other efforts, HP has pledged to use a cumulative total of 100 million pounds of recycled plastic in printing products by 2011 (since 2007).

"Being a part of this program was incredibly satisfying. It was very challenging because it was so large in scale and required engineering contributions from HP employees and suppliers worldwide. It's a great success story," says Paul.

Paul's passion isn't limited to his work at HP. He also cofounded EcNow Tech, a company that develops and markets recycled, reusable, and compostable products. In 2009, EcNow Tech won the Corvallis, Oregon, Entrepreneur of the Year award.

1. [1] Many of HP's ink cartridges with recycled content include at least 50% recycled plastic by weight. Exact percentage of recycled plastic varies by model and over time, based on the availability of material.

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Chandrakant Patel

Chandrakant Patel, HP senior fellow and director of the Sustainable Ecosystems Research Group at HP Labs, brings tremendous enthusiasm to his profession. He often says "I am as excited Friday night as I am on Monday morning." For more than 20 years, Chandrakant has played a central role in making HP a leader in energy-efficient computing. His research with HP Labs in the early 1990s led to the next generation of microprocessors and data centers. Later that decade, Chandrakant began investigating the concept of "smart data centers" that dynamically provision computing, power, and cooling for optimum efficiency.

More recently, he has extended his research beyond data centers to cities in what he refers to as "City 2.0." His vision is to create more sustainable urban infrastructures by embedding IT to monitor and manage resources, such as water, power, and waste. "It's not just about making a better handheld device or a better desktop computer. It's about using those devices to make a better future," he says.

Experience has taught Chandrakant that building a more sustainable world requires a diversity of expertise. He assembled and leads a multidisciplinary team of mechanical engineers, computer scientists, and even an economist—all collaborating to build solutions that are holistic and comprehensive. "I have built a very dedicated and passionate team. They are all here because they want to address society's needs."

Chandrakant's passion for a more sustainable future doesn't begin or end at the lab. As he has done for the past 20 years,

he starts and ends his days by taking San Francisco Bay Area public transportation to and from work, often engaged in animated conversations with colleagues, and he carries a sketchbook to capture ideas whenever they come to him. He's also a prolific writer—having published numerous articles and more than 125 papers, many on the importance of implementing sustainable IT.

Chandrakant sees boundless potential to create business and social value through sustainability. "I wish I was 20 years younger, because there are so many advancements that lie ahead," he says. "We are not limited by technology. The challenges—and the opportunities—are in how we apply IT for sustainability."

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Scott Taylor

As HP's chief privacy officer, Scott Taylor and his team work with our business groups, regions, and corporate functions to integrate privacy and data protection into our processes, products, and services.

Scott has been with HP for 23 years, gaining experience with the company while still in college and joining full time after graduation. Having majored in biochemistry and public relations, he forged an early career as a marketer who could speak the language of science. After establishing HP's first direct marketing efforts, from 1994 to 2006, he led the team that launched our Internet presence.

This role made Scott acutely aware of how much personal data was collected online, so his transition to chief privacy officer in 2006 felt natural. He's continually motivated by the potential his work has to make a difference for the typical person. "It's great to lead a program that impacts people's lives every day," says Scott. "One of our industry's greatest challenges is to ensure personal data remains secure while providing more and better services. This requires putting privacy and data protection at the heart of all we do, so customers understand and have real choices about how their data is used."

To accomplish this, Scott and his team have created a holistic privacy accountability model that ensures the people handling data are accountable and their practices transparent. One tangible example is the deployment of HP's Privacy Advisor tool, which employees use daily to put the company's privacy policies into practice.

This approach is influencing regulatory models around the world, and Scott believes other companies should develop similar mechanisms for privacy protection, working closely with non-governmental partners and regulators. He's optimistic that this will happen, as consumers demand higher standards and some companies' high-profile missteps focus media attention on privacy. Importantly, Scott sees that leadership in this area provides competitive advantage: "Customers increasingly care about what happens to their data, and seek companies they can trust to protect them from financial and personal harm."

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Barath Venkatesh

Barath Venkatesh leads a team of 15 people as a manager with HP Global Business Services Analytics in Chennai, India, supporting the Enterprise Business Marketing Operations team. Shortly after starting at HP in 2007, he took a one-year leave of absence to work as an education fellow for a social enterprise that expands access to financial services for educators. When he returned to HP, Barath knew the skills he garnered and contacts he made could be valuable to the newly formed HP Catalyst Initiative, a program aimed at helping young individuals develop skills in science, technology, engineering, and math (STEM). So he reached out to HP's Office of Global Social Innovation (OGSI) and offered his help.

The OGSI team was looking for partners for the Catalyst Initiative in India, and Barath used his experience over the prior year to help them identify several organizations, including the Agastya International Foundation. Agastya is a hands-on science education program focused on bringing mobile labs to poor, rural parts of India—helping children learn about science by experiencing it firsthand. The organization operates 47 labs that reach nearly two million children a year. Barath visited Agastya and saw how the program brought science lessons to life, and then introduced the organization to HP.

Agastya applied to become a leader for the HP Catalyst Initiative's New Learner consortium. Together with researchers and experts from six other leading educational institutions around the world, Agaysta is exploring how to create new, engaging models of student-driven STEM learning that lead to higher school completion rates and promote "learning how to learn."

Barath continues to support HP's Office of Global Social Innovation on special projects, particularly those that impact India. His involvement allows him to combine his commitment to social enterprise with his personal background. "Growing up in India, my own education was unconventional in that we focused on specific areas of interest rather than traditional classroom subjects. It was an engaging way to learn," he says. "My experience gave me many ideas about how our educational systems could be improved. I am pleased to be helping HP innovate in education and make those improvements happen."

Barath Venkatesh tries his hand at assembling a model rocket during a visit to the Agastya campus.

Privacy

Leading the way in privacy policy

- Received Binding Corporate Rules (BCR) approval from the European data protection authorities under the European Union BCR framework.
- Active leadership in the Accountability Project, Phase III, the third phase of an industry initiative to define, measure, and validate accountability for privacy practices. See the discussion document for more details.

Privacy is a fundamental right of prime importance to our employees and customers.

People rely on information technology in many aspects of their daily lives. Organizations use sophisticated systems to collect, aggregate, and analyze personal information, enabling them to provide consumers with personalized products and services. With the proliferation of cloud computing, data can now be available 24/7 from virtually anywhere in the world. New technologies are collecting, using, and processing data in new, innovative ways; much of this occurs behind the scenes without the user's full awareness or understanding.

While these trends make products and services more personalized, convenient, efficient, and widely available, the ubiquitous collection and use of personal data also sparks concerns. Many consumers question whether social networking, profiling, location-aware services, and behavioral observation and targeting threaten their privacy. People also worry that authorities in some regions can access, analyze, and control citizens' personal information too easily, at times infringing upon their right to privacy and freedom of expression.

These issues are compounded by a gap between the pace of technological advances and the evolution of new regulatory frameworks—many privacy laws were created before the widespread use of the Internet and certainly before robust behavioral tracking. Governments worldwide are taking steps to address this gap by enacting new legislation, increasing enforcement actions, providing guidance documents and education, encouraging industry standards and self-regulation, and other related initiatives. We remain heavily involved in the development of privacy policies and frameworks, and encourage cross-border collaboration to promote well-defined and consistent rules.

HP employees making an impact:

Scott Taylor

As HP’s chief privacy officer, Scott Taylor and his team work to ensure the personal data of HP customers remains secure by integrating privacy and data protection into HP’s processes, products, and services. Learn more about Scott.

Clear accountability for handling personal information is critical as the technology economy evolves and personal data moves increasingly to the cloud. (See Making the most of information in a connected world.) We continue to develop and embed our accountability approach to privacy, to implement the concept of Privacy by Design in our products and services, and to consider the social impact our decisions may have.

For more information, read the HP Global Master Privacy Policy.

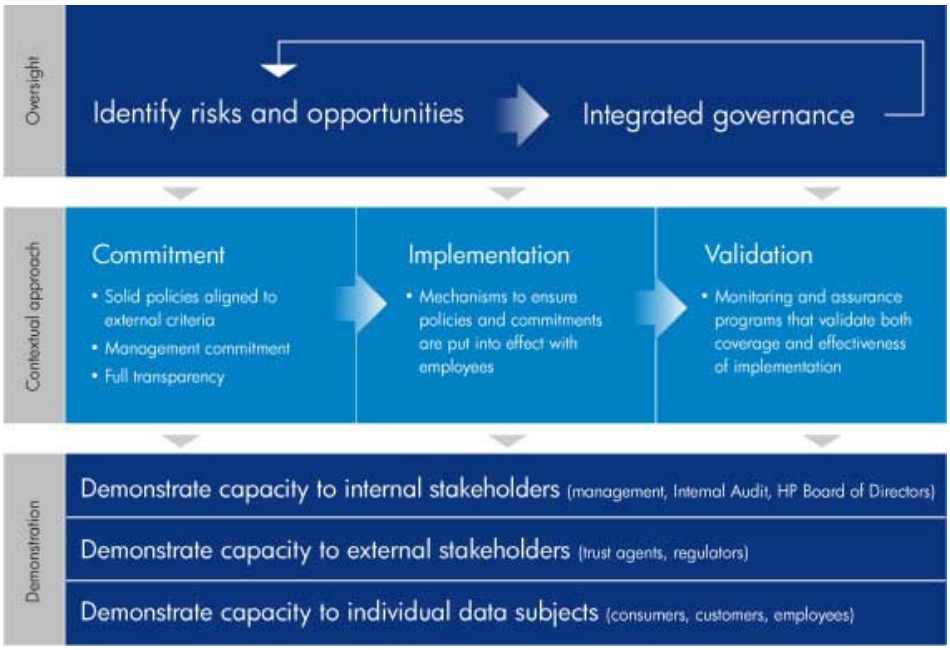
Approach

It is critical to ensure organizations and their employees are accountable for privacy and data protection, especially as regulatory frameworks struggle to keep pace with technological advances. We seek to create a chain of accountability for the information we handle, ensuring responsibility for data privacy and security at every stage of the process. HP teams work together to implement and monitor our privacy model, and collaborate with external partners to improve privacy protection for those who interact with HP worldwide.

Accountability approach to privacy

The HP Privacy Accountability Framework (see graphic), developed in collaboration with the Centre for Information Policy Leadership, is a decision-making framework that helps our employees assess and manage the risks associated with collecting and handling personal data. It goes beyond legal requirements to ensure the people handling data are accountable and their practices transparent. The model takes into account ethical considerations, contractual agreements, regulations, and local culture, and encourages employees to consider decisions based on our company values, customer expectations, and potential risks.

HP Privacy Accountability Framework



In 2010, more than 262,000 employees completed our mandated privacy training. Employees in functions that routinely handle personal information, such as human resources, marketing, and client services, receive additional training. Because training alone is not enough, in 2010 we also developed and launched an internal, dynamic, context-based tool—the HP Privacy Advisor—to guide employees through a privacy impact assessment and risk-management process. Beginning in 2011, all employees who collect or use personal information will be required to vet their project through the HP Privacy Advisor.

Monitoring compliance

We use internal assessments/audits, third-party certifications, and dispute-resolution mechanisms (e.g., TRUSTe and Better Business Bureau) as well as customer and employee feedback to monitor compliance with our privacy policies.

All suppliers and third-party vendors who handle HP customer and employee data are contractually bound to comply with the applicable portions of our privacy policies and data security requirements. As HP Enterprise Services handles personal data on behalf of customers, we define our commitments in our client contracts.

Employees and customers can contact our privacy office in more than 30 languages with queries, concerns, praise, or complaints. We are committed and resourced to respond to inquiries within 48 hours, and we have developed detailed protocols to ensure we handle complaints effectively, promptly, and appropriately.

As part of HP Internal Audit's Integrated Assurance Program, we created a new function called HP Privacy Assurance to assess company compliance with our privacy policies and standards, and to track and mitigate any identified risks and

potential noncompliance. The program is pan-HP and covers any division or business unit that collects, uses, accesses, or stores personal information.

Privacy and Data Protection Board

The HP Privacy and Data Protection Board (PDPB) identifies and provides guidance on priority and perceived risk areas. In 2010, the PDPB initiated and oversaw an audit of our online collection of consumer personal information and the use of that information for email marketing globally.

The PDPB is part of the overall HP Corporate Ethics and Compliance governance structure. Comprising senior managers from business units and functions throughout the company, it is chartered to manage HP's overall risk profile on privacy and personal data protection and to serve as a focal point for any related escalations. The PDPB meets quarterly to discuss strategy and priorities, identify and prioritize privacy and personal data protection risks, launch new projects, oversee mitigation plans, and resolve issues identified through our monitoring programs.

Introducing our new privacy audit program was a major focus for the PDPB in 2010. Related activities included updating and documenting our privacy risk management process.

Privacy and our products and services

We use companywide product development standards to integrate privacy and data protection into new products and services. Our Secure Advantage portfolio for enterprise customers offers hardware, software, and services that help protect data stored on computers, printers, and in data centers. Privacy enhancing features include:

- Software that asks users if they want to be notified when updates are available, rather than sending notices automatically
- Disk encryption that protects the data on each drive with minimal impact on performance
- Automated encryption devices to increase protection

HP ArcSight helps leading commercial and government organizations ensure the privacy and security of their information by detecting threats and risks early enough to take action and prevent loss. For example, the U.S. Department of Defense is subjected to approximately 3 million network attacks every day. ArcSight's Enterprise Threat and Risk Management solutions help it and other organizations detect even the most sophisticated attempts to steal private information.

HP scientists continue to undertake research projects on privacy. They lead EnCoRe (Ensuring Consent and Revocation), a partnership of six organizations investigating how to make giving and revoking consent for the use of personal information as easy as turning a tap on or off. In 2010, EnCoRe published and demonstrated its first technical architecture.

Perspective: Yann Padova

Learn about HP’s role in protecting privacy and its commitment to adopting Binding Corporate Rules from Yann Padova, secrétaire general of the Commission Nationale de l’Informatique et des Libertés. Read his comments.

External policy development

Policymakers worldwide are pushing for much-needed change in privacy regulation. New frameworks from Europe to Asia Pacific to the Americas are incorporating accountability and the concept of Privacy by Design. This is shifting the concept of compliance away from simply following rules, and instead requiring organizations to demonstrate they have the capacity to protect privacy and personal data. HP is working closely with regulators and industry and consumer advocates around the world to develop these new frameworks.

In 2010, the European Commission (EC) began a major review of its existing data protection framework to make sure it remains relevant and can evolve as needed over the coming decade. HP has maintained an open dialog with key EC members and data protection regulators for several years to share thoughts on central issues and possible solutions. This relationship has positioned HP as a trusted advisor, involving us in the revision process from an early stage and enabling us to provide balanced perspectives to commission members during public consultations.

We are very proud to have received approval from the European data protection authorities in 2010 for our Binding Corporate Rules (BCRs). BCRs are a way for multinational companies to be recognized as having adequate processes in place to uphold the European Directive for Privacy and protect personal data when transferring it between countries. HP is one of a handful of U.S.-based, multinational companies who have obtained such approval.

Asia-Pacific Economic Cooperation (APEC) is developing a privacy framework that drives improved accountability and governs data flows between countries within that region. From the beginning, HP has been actively engaged in this process and continues to contribute to establishing a new approach to cross-border collaboration.

Our HP Privacy Office continues to work with regulators and industry groups to define accountability and what it means for a company to be accountable for its privacy practices. The first phase of this work, known as the Galway Project as it was sponsored by the Irish Data Protection Commissioner, identified the essential elements of accountability in 2009. The second phase, sponsored by the Commission Nationale de l'Informatique et des Libertés (CNIL), began in 2010 and defined ways to measure accountability. The third and final phase, sponsored by the Spanish Data Protection Authority, will complete the framework. We are working to ensure the results will effectively protect privacy without hampering business innovation. See the project's discussion document for more details.

We also aim to use our experience and expertise in privacy and data protection to become a trusted advisor to countries and regulators that are introducing new regulations. In Latin America, for example, HP is actively engaged with key regulators in establishing secondary legislation and guidance documents. We regularly meet with several regulators and present and speak at various international conferences, e.g., Ibero-American Data Protection meeting in Mexico City and the 32nd International Conference of Data Protection and Privacy Commissioners.

Public policy

Sharing HP's knowledge and experience with government officials and regulators is an important role for business, as industry insights can contribute to effective policies. In an economy increasingly driven by technology, policies that promote innovation and reward companies for investing in research and development are essential.

HP's public policy work complies with all applicable laws and our Standards of Business Conduct. HP's board-level Public Policy Committee assists the HP Board of Directors in fulfilling its responsibilities related to public policy, government affairs, and global citizenship activities. (See Governance and management for more information.)

As a large, multinational company, HP is affected by numerous public policies in multiple ways. We aim to resolve any conflicts that may arise between these policies and our practices and promote effective regulations in partnership with governments and industries where we operate.

Policy priorities in 2010

Our public policy work focuses on the areas below. More detail on these and other issues is available in our global issue briefs.

Promoting Iberian innovation

With the support of six other multinational companies, HP has created Fundación I+E (Innovación España) , a foundation that promotes Spain as an ideal location for corporate innovation. The foundation seeks to attract investment, create jobs, and influence major policy initiatives on IT, innovation, and growth. The foundation has also collaborated with the IESE Business School and University of Barcelona to produce two academic reports on related topics (see links).

Innovation

HP's continuing success relies on inventing products and services that help improve how people live and work. We promote public policies that support innovation, including:

- **Intellectual property rights** Innovation is central to our business. We hold approximately 37,000 patents worldwide and invested nearly $3 billion USD in R&D in 2010. Such innovation relies on fair and efficient intellectual property protection. However, many current patent and copyright systems hinder digital content distribution, and we support policy reform that provides for a fair balance between the interests of consumers, manufacturers, and intellectual property rights holders. For example, we strongly support implementation of changes to copyright levy schemes traditionally in effect in many European Union countries to conform to recent judgment of the Court of Justice of the European Union in October 2010 on the Padawan case. This provides that copyright levies must necessarily be calculated on the basis of harm caused only by legitimate private copying and prohibiting the indiscriminate application of copyright levies to digital devices acquired by business and professional users. See also our global policy issue brief on Copyright levies. HP has long supported reforms to curb abusive patent litigation and strengthen the patent system in the United States as well. Litigation costs associated with frivolous lawsuits adversely affect innovation. We will continue to work with policy makers to ensure the U.S. Patent and Trade Office is equipped with 21st century tools and resources to foster future innovation.

- **Competitiveness** HP supports public policies that enable fair global competition and sustainable economic growth, such as global corporate tax competitiveness, appropriate regulation, immigration reform, and R&D incentives. We support comprehensive corporate tax reform that would bring the U.S. system into harmony with the majority of OECD countries, leveling the playing field for HP with its global competitors.
- **Market access** Sixty-four percent of HP's sales were outside the United States in 2010. Open trade is vital for our plans to build sales globally—helping create jobs and expand access to the benefits our products and services bring. We support comprehensive and progressive bilateral and regional trade agreements that include commitments to liberalization and transparency in government procurement, services, and standards.

Education

We work with policymakers and educators to create country-led programs that reduce inequality in education. Examples include:

- **China** In 2010, we worked with several Chinese universities to deliver a career skills program for graduate students, in order to help reduce youth unemployment. The program boosts basic workplace skills and helps students to understand the technology industry. Since the program began in 2008, more than 80% of its participants have found full-time employment, while most of the remaining students are continuing their studies. We are working with the Ministry of Education and relevant authorities in 20 cities to expand the program across China.
- **United States** HP supports legislation, such as Texas House Bill 4294, passed in 2009, which allows public schools to spend funds intended for textbooks on digital learning materials. Previously, schools that lacked additional funds were unable to provide more innovative and up-to-date materials. HP contributed to drafting the bill, formed a coalition to promote it, supported it through the legislative process, and informed school districts of its passage and benefits. This landmark legislation has served as a model for efforts in other U.S. states during 2010, including Florida, Georgia, and Louisiana, and could give officials in those states much needed flexibility in obtaining digital learning materials from HP and other vendors.

Energy and environment

Concerns about climate change, resource depletion, and pollution are leading to new regulations, as well as new business opportunities. HP is committed to reducing its own environmental impact, as well as that of its customers and suppliers. Environmental legislation relevant to HP includes:

- **Energy efficiency** HP works to improve energy efficiency in our products and operations as this is the quickest and most cost-effective way to cut energy costs for customers and for HP. We also work with governments to help shape energy legislation. For example, in April 2010 we ran a panel discussion for regulators in Washington, DC, to promote the role of smart grids and advanced metering systems in reducing energy consumption and increasing use of renewable energy. Watch contributors from HP , EDF Energy , and Baltimore Gas and Electric speak at the event. (See Energy and climate – Enabling a low-carbon economy.)
- **Climate change** HP promotes the role IT can play in the transition to a low-carbon economy. We support government efforts to reduce greenhouse gas (GHG) emissions and regulations that foster innovation in this area, such as the California Global Warming Solutions Act. In 2010, we strongly opposed the unsuccessful ballot proposition 23, which sought to postpone the Global Warming Solutions Act until unemployment dropped to 5.5% or below, for four consecutive quarters. This would have impaired the state’s leadership in reducing GHG emissions.
- **Electronics recycling** Electronic equipment is frequently replaced, creating a growing surplus of unwanted items. We support the concept of individual producer responsibility (IPR), in which all manufacturers share with governments and customers the responsibility to manage IT products at the end of their useful lives. We run recycling programs in developed countries and increasingly in emerging markets, where we are helping to develop a blueprint for wider recycling initiatives. (See Product reuse and recycling – Programs for more details.)

Healthcare

Information technology (IT) has the potential to dramatically improve inefficient and costly healthcare administration systems. The U.S. system in particular needs fundamental reform to improve care, cost control, and overall effectiveness. The enactment of the Patient Protection and Affordable Care Act in March 2010 has underlined this need. HP’s Medical Assistance Provider Incentive Repository (MAPIR) helps by linking state and federal systems for administering Medicaid and tracking payments to healthcare providers. In 2011, 15 states will be using the system to pay providers under “meaningful use” federal guidelines. In Wisconsin, HP worked with state Medicaid officials to develop and implement efficiencies in the state payment system we installed in 2009. The flexible new IT system enabled the state to change its benefits structure, saving millions of dollars.

Supply chain

HP contributed to the Dodd-Frank Wall Street Reform and Consumer Protection Act , which President Obama signed

into U.S. law in July 2010. This law requires publicly traded companies to disclose how they assure that products containing tantalum, tin, tungsten, and gold do not finance armed conflict in the Democratic Republic of Congo (DRC). HP provided feedback on the draft legislation to promote a workable and effective solution. We also collaborated with several nongovernmental organizations and socially responsible investors to develop recommendations for the U.S. Securities and Exchange Commission on how to enforce the new law. These recommendations aim to promote industry leadership on responsible sourcing and avoid a de facto ban of minerals from the DRC and adjoining countries. See Conflict minerals for more detail.

Memberships and coalitions

Industry associations provide a collective voice that can reach government officials more efficiently. We list the major associations we belong to worldwide on our Government Affairs website. In addition, we disclose the proportion of our membership fees that each trade association in the United States used for lobbying purposes in 2010.

We also participate in standards bodies and industry coalitions. For example, we continue collaborating to develop industry standards for energy efficiency, supply chain responsibility, and product carbon footprinting that will improve performance globally and support fair competition.

Political engagement

Employees can participate in public debate through the HP Government Affairs Network, which provides members with regular updates on policy issues important to HP. In the United States, we encourage members to express their views on pending legislation to elected officials.

In 2010, HP contributed $1,284,900 USD to state and local candidates, political memberships/sponsorships, and ballot measure campaigns in the United States. These contributions aligned with our policy positions and complied with HP's political guidelines and applicable laws.

U.S. law prohibits corporate contributions to federal political candidates. However, eligible employees can make voluntary donations to the HP Political Action Committee (PAC) and legacy EDS PAC. These are separate legal entities from HP that contribute to bipartisan campaigns for U.S. congressional candidates who share our policy views. In 2010, the PACs contributed a combined $378,000 USD. HP does not make political contributions outside the United States.

See historical data in our data dashboard.

Learn more on our Government Affairs website:

- Policies for corporate and PAC political contributions
- Criteria and responsibilities for approving political contributions
- List of candidates receiving corporate or PAC contributions in 2010
- List of section 527 organizations[1] receiving contributions from HP in 2010

1. [1] The term "527 organization" refers to a U.S. political organization that is not regulated by the Federal Election Commission. These organizations are created under Section 527 of the Internal Revenue Code.

Economic impacts

The burgeoning global population is predicted to grow by more than 1 billion in the next 15 years, hitting 8 billion by 2025.[1] Most of this growth is expected to be in urban areas in emerging markets, where cities are currently expanding at a rate of 60 million people per year—the equivalent of another Paris, Beijing, or Cairo every other month.[2] By 2030, the global middle class could swell from 440 million to 1.2 billion people.[3]

These trends present serious challenges. As living standards improve, people live longer and use more resources such as materials, energy, water, and land, placing increasing stress on the environment. Health and education systems are ill-equipped to cope with rapidly growing demand, and infrastructure such as utilities and transportation systems are inadequate.

The IT sector has an essential role to play in providing sustainable solutions that will help satisfy the needs of a growing and more affluent population. However, while information is a powerful force, realizing its full value depends on how we manage and use it. HP solutions and expertise provide the means to harness, understand, and apply information to advance opportunity, innovation, and economic well-being. Read more in our essay on the making the most of information in a connected world.

Along with the many advantages of IT come challenges that we must manage carefully. For example, we work to reduce the environmental impacts of the infrastructure required to provide our products and services. See Climate and energy – Products, services, and software, Sustainable design, and Product reuse and recycling for more information.

We have also established robust procedures to keep our customers' personal data secure. Read more about how HP protects customer privacy.

HP's economic impacts

As the world's largest technology company, HP makes a substantial contribution to economies worldwide. With approximately 88,000 retail locations and 145,000 sales partners, we ship approximately 3.5 products per second.[4] The technology and services market that HP currently addresses will be approximately $1.6 trillion in 2013 and is growing in the mid-single digits.

In FY10, HP's revenue increased by 10% to $126 billion, compared with FY09. Non-Generally Accepted Accounting Principles (non-GAAP) diluted earnings per share (EPS) increased 19 percent to $4.58.[5] On a GAAP basis, diluted EPS increased 18 percent to $3.69.

Our financial transactions directly impact various groups:

- Suppliers through our purchase of goods and services
- Employees through wages paid
- Customers through sales
- Sales, marketing, and distribution partners through our commercial interactions
- Governments through tax payments
- Communities through social investment
- Investors through dividends and our financial performance

We also indirectly affect individuals, businesses, and wider systems as the money we spend circulates through the economy. Additionally, HP products and services are designed to increase productivity, potentially boosting our customers' profitability and economic contributions.

The table below outlines our direct and indirect economic impacts on each group. The Data dashboard summarizes HP's economic performance. For more details, please see our financial statements, interactive stock chart, and annual report and 10K.

Group	Direct economic impacts	Indirect economic impacts
Suppliers	HP spends money on products, materials, components, and services from suppliers around the world.	Our spending supports job creation in supplier companies. Suppliers and their workers pay taxes and support their local economies. Suppliers may also pay dividends to their investors.
Employees	Compensation and benefits are a significant proportion of HP's expenses. We invest in training and development, which expands employees' opportunities.	Employees pay taxes and generate further economic activity by spending the money they earn.
Customers	HP's net revenue was $126 billion in fiscal year 2010.	Offering reliable, high-quality products and services benefits our customers. Our products and services also are designed to improve productivity, which may increase customers' contributions to society through business expansion and increased taxes paid.
Sales, marketing, and distribution partners	HP works with a wide range of partners such as retailers, resellers, distribution partners, independent software vendors, and systems integrators to reach various customer groups.	The benefits derived by our partners as a result of their commercial relationship with HP can contribute to their growth.
Local, state, and national governments	Local, state, and national governments benefit from taxes paid by HP and our employees.	Taxes paid help enable government spending and programs.
Local, regional, and national communities	Social investment ($44.9 million in cash, products, and services in 2010), financial or in-kind support for nongovernmental organizations and employee giving all benefit communities.	Social investment activities in turn support further economic activity by, for example, improving education and employment opportunities.

Investors	Shareholders receive dividends, and the value of their investment may grow.	Investors may pay taxes on dividends and on stock gains.

1. [1] United Nations *World Population Prospects*: 2008 Revision.
2. [2] Ng, Edward. *Designing high-density cities for social and environmental sustainability*. Earthscan, 2009.
3. [3] US National Intelligence Council, *Global Trends 2025*, p 41.
4. [4] This number includes PCs, printers, and servers.
5. [5] Fiscal year 2010 non-GAAP financial information excludes $2.1 billion of adjustments on an after-tax basis, or $0.89 per diluted share, related primarily to the amortization of purchased intangible assets, restructuring charges, and acquisition-related charges. HP's management uses non-GAAP operating profit and non-GAAP diluted earnings per share (EPS) to evaluate and forecast HP's performance before gains, losses, or other charges that are considered by HP's management to be outside of HP's core business segment operating results. HP believes that presenting non-GAAP operating profit and non-GAAP diluted EPS, in addition to GAAP operating profit and GAAP diluted EPS, provides investors with greater transparency to the information used by HP's management in its financial and operational decision making. HP further believes that providing this additional non-GAAP information helps investors understand HP's operating performance and evaluate the efficacy of the methodology and information used by management to evaluate and measure such performance. This additional non-GAAP information is not intended to be considered in isolation or as a substitute for GAAP operating profit and GAAP diluted EPS.

Data table

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Social innovation	Graph Goals	2006	2007	2008	2009	2010
Social investments[1] [million $USD]		$46.1	$49.8	$52.5	$56.1	$44.9
Cash		$18.0	$23.3	$24.9	$21.1	$27.3
Products and services[2]		$28.1	$26.5	$27.5	$35.0	$17.7
Social investments, % of pre-tax profits		0.64%	0.54%	0.50%	0.60%	0.41%
Employees participating in HP U.S. employee giving program			5,700	6,700	5,400	5,600
Total employee giving including HP and Hewlett-Packard Company Foundation matched funds[3] [million $USD]			$13.4	$12.8	$11.3	$10.8
Cash donated by U.S. employees			$3.0	$3.6	$3.4	$3.2
Cash from Hewlett-Packard Company Foundation matched funds			$2.0	$3.0	$2.3	$2.7
Value of products donated by U.S. employees[2]			$1.9	$1.5	$1.4	$1.2
Value of products from HP matched funds[2]			$6.5	$4.7	$4.2	$3.7
Social innovation goals						

Ethics and compliance	Graph Goals	2006	2007	2008	2009	2010
Ethics and compliance goals						

Supply chain responsibility	Graph Goals	2006	2007	2008	2009	2010
Suppliers engaged and audits conducted, cumulative						
Suppliers engaged in SER program [total, cumulative]		543	601	631	716	879
Audits conducted (detailed audit findings in SER section) [total including re-audits, cumulative]		211	354	486	590	680
Audit findings (See Supply chain responsibility—Detailed audit findings section)						
U.S. purchasing with small businesses[4] [million $USD]		$3,510	$3,106	$3,365	$3,691	$4,316
Minority-owned businesses[5] [million $USD]						$827
Women-owned businesses[5] [million $USD]						$861
Supply chain responsibility goals						

Human rights	Graph Goals	2006	2007	2008	2009	2010

Human rights goals

Employee engagement **Graph Goals 2006 2007 2008 2009 2010**

Employee engagement goals

Diversity and inclusion	Graph Goals	2006	2007	2008	2009	2010
Number of HP employees[6] [approximate]		156,000	172,000	321,000	304,000	325,000
Worldwide gender diversity, managers[7] [women as a % of total]						
Global rate		21.7%	21.5%	22.0%	24.3%	24.1%
Americas		26.0%	25.3%	25.2%	28.3%	27.8%
Europe, Middle East, and Africa		17.0%	17.6%	18.5%	20.0%	19.8%
Asia Pacific and Japan		18.4%	18.6%	20.2%	21.2%	21.8%
Worldwide gender diversity, all employees[7] [women as a % of total]						
Global rate		29.9%	30.0%	30.1%	32.9%	32.9%
Americas		31.4%	31.0%	30.8%	35.0%	34.3%
Europe, Middle East, and Africa		27.7%	28.4%	28.1%	30.0%	30.5%
Asia Pacific and Japan		29.6%	30.0%	30.9%	32.5%	33.1%
Global new hires, by gender[8] [% of total]						
Female		31.9%	31.8%	34.9%	35.6%	35.2%
Male		68.1%	68.2%	65.1%	64.4%	64.8%
U.S. workforce demographics (See HP employees—Diversity and inclusion for detailed data)						
U.S. new hires, by ethnicity[9] [% of total]						
White		69.8%	69.0%	67.2%	65.0%	61.7%
All minorities		28.4%	30.1%	32.4%	34.5%	34.8%
Black		6.1%	6.8%	8.1%	11.2%	14.5%
Hispanic		6.4%	6.3%	6.9%	7.1%	7.1%
Asian		15.6%	16.5%	15.7%	12.5%	10.5%
Native American		0.3%	0.5%	0.6%	0.7%	0.3%

Diversity and inclusion goals

Health and safety	Graph Goals	2006	2007	2008	2009	2010
Lost workday case rate[10]						
Global rate		0.13	0.10	0.07	0.08	0.10
Americas[11]		0.16	0.16	0.13	0.17[12]	0.16
Europe, Middle East, and Africa[13]		0.20	0.14	0.08	0.04	0.11
Asia Pacific and Japan[14]		0.03	0.01	0.01	0.01	0.02
Recordable incidence rate[15]						
Global rate			0.38	0.31	0.30	0.24
Americas[16]			0.75	0.66	0.57[17]	0.43
Europe, Middle East, and Africa[18]			0.30	0.25	0.29	0.18
Asia Pacific and Japan[19]			0.04	0.05	0.03	0.03

Health and safety goals

People development **Graph Goals 2006 2007 2008 2009 2010**

People development goals

Privacy **Graph Goals 2006 2007 2008 2009 2010**

Privacy goals

Public policy	Graph Goals	2006	2007	2008	2009	2010
Contributions to U.S. state and local candidates, political memberships/sponsorships, and ballot measure campaigns [$USD]		$731,440	$888,416	$1,035,650	$1,052,400	$1,284,900
HP Political Action Committee contributions[20]		$220,100	$225,300	$219,600	$260,000	$378,000

[$USD]

Economic impacts	Graph Goals 2006 2007	2008	2009	2010
Net revenue [million $USD]		$118,364	$114,552	$126,033
Net investment in property, plant and equipment [million $USD]		$2,565	$3,200	$3,500
Research and development spending [million $USD]		$3,543	$2,819	$2,959
Number of patents (total)		32,000	33,000	37,000
401(k) expense[21] [million $USD]		$548	$568	$535
Advertising cost [million $USD]		$1,000	$700	$1,000
Cash dividends declared per share		$0.32	$0.32	$0.32
Total dividend payments [million $USD]		$796	$766	$771
Share repurchases [million $USD]		$9,620	$5,140	$11,042

1. [1] Data exclude contributions to the Hewlett-Packard Company Foundation and employee donations, but include HP's matching contributions and contributions from the Hewlett-Packard Company Foundation to other organizations. Prior to 2010, HP did not report contributions from the Hewlett-Packard Company Foundation to other organizations as a part of this data. All years represented in this chart have been updated to reflect these contributions.
2. [2] Product donations are valued at the Internet list price. This is the price a customer would have paid to purchase the equipment through the HP direct sales channel on the Internet at the time the grant was processed.
3. [3] Hewlett-Packard Company Foundation cash matching began in 2007.
4. [4] All figures are for U.S. purchases from U.S.-based businesses. Data are for the 12-month period ending September 30 of the year noted. 2009 and 2010 data include HP Enterprise Services (formerly EDS) spending. Data prior to 2009 do not.
5. [5] All figures are for U.S. purchases from U.S.-based businesses. Data are for the 12-month period ending September 30 of the year noted. HP did not report this metric prior to 2010, so historical data are not available.
6. [6] As of October 31 of the year noted. Numbers are rounded.
7. [7] 2009 data exclude Brazil.
8. [8] 2009 data exclude Brazil and reflect the time period January 1, 2009 - November 30, 2009.
9. [9] Sum of “White” and “All minorities” does not equal 100% and the sum of “Black”, “Hispanic”, “Asian”, and “Native American” does not equal the total for “All minorities” due to people who do not declare or who do not fall into these categories.
10. [10] Lost workday case rate is the number of work-related injuries that result in time away from work per 100 employees working a full year.
11. [11] Includes data from Argentina, Brazil, Canada, Colombia, Costa Rica, Mexico, Puerto Rico, and the United States.
12. [12] U.S. industry average in 2009: 0.3 (latest data available).
13. [13] Includes data from Belgium, France, Germany, Ireland, Israel, Italy, Poland, Spain, and the United Kingdom.
14. [14] Includes data from India, Japan, and Singapore.
15. [15] Recordable incidence rate is the number of all work-related lost-time and no-lost-time cases requiring more than first aid per 100 employees working a full year.
16. [16] Includes data from Argentina, Brazil, Canada, Colombia, Costa Rica, Mexico, Puerto Rico, and the United States.
17. [17] U.S. industry average in 2009: 0.5 (latest data available).
18. [18] Includes data from Belgium, France, Germany, Ireland, Israel, Italy, Poland, Romania, Spain, and the United Kingdom.
19. [19] Includes data from Australia, India, Japan, and Singapore.
20. [20] Reflects combined HP Political Action Committee and legacy EDS Political Action Committee contributions.
21. [21] HP match and expenses for employee 401(k) retirement accounts.

Report ethics concerns

HP encourages anyone with a concern to speak up and report things that don’t seem right.

We provide multiple channels, making it easy to ask questions or report a concern. Use any of the options listed on this page when you have questions or concerns about a potential violation of law, company policy or the HP’s Standards of Business Conduct.

Reports are kept confidential and can even be submitted anonymously. We take each and every report seriously; we investigate and resolve all complaints and take action to address every issue.

For assistance or to report a concern:

E-mail: corporate.compliance@hp.com

Phone: From anywhere in the world, call the GuideLine, 24 hours a day. Translation is available and callers can remain anonymous, except where anonymous reporting is prohibited by local law.

From the U.S. and Canada: 800-424-2965

Outside the U.S. and Canada:

1. Go to the AT&T Access Codes page
2. Find your country in the alphabetical listing
3. Dial the AT&T Direct® Code
4. When prompted, dial 800-424-2965

Mail: HP Ethics and Compliance Office
5400 Legacy Drive
Plano, TX 75024

Feedback

Please provide your feedback on HP's global citizenship performance, website, or report. Your comments and suggestions are important to us.

If you need help, other information or wish to send an e-mail about particular HP products or services, please refer to our company-wide contact information page.

HP does not accept unsolicited or commercial sponsorship proposals. For non-profit grants, please refer to our grants page.

1. Which part of HP's global citizenship efforts does your feedback pertain to?
   - ○ HP's global citizenship performance, priorities and activities,
   - ○ the 2010 HP Global Citizenship Report,
   - ○ the "A Connected World" brochure, or
   - ○ the HP global citizenship website
2. Overall, how would you rate HP's global citizenship website and/or report?

Not at all useful 1	2	3	4	Extremely useful 5
○	○	○	○	○

3. Please rate this website/report on the following criteria

	Poor 1	2	3	4	Excellent 5	Comments
Substance	○	○	○	○	○	
Credibility	○	○	○	○	○	
Clarity	○	○	○	○	○	
Completeness	○	○	○	○	○	
Appearance/format	○	○	○	○	○	

4. What do you think of HP's current performance in global citizenship?

Poor 1	2	3	4	Excellent 5
○	○	○	○	○

5. How has this website/report changed your opinion of HP?

Much worse				Much better

1	2	3	4	5	Comments
○	○	○	○	○	

6. What additional information would you like to see?

7. Other comments or questions on report or HP's global citizenship program.

8. Which of the following best describes you?

- ☐ HP customer
- ☐ HP shareholder
- ☐ HP employee
- ☐ HP partner
- ☐ Community member
- ☐ Press
- ☐ Government
- ☐ NGO
- ☐ Academic
- ☐ Other

9. If you would like us to respond to your comments, please include your email address.

Thank you for your feedback.

Submit