

Collaboration That Matters

IBM 2006 Corporate Responsibility Report





Within IBM, with our clients and in communities around the world, we have seen the power of collaborative innovation to solve our toughest problems.

Over the past several years, we have transformed our company—from our portfolio to our management systems, from our products and services to our culture and policies—with one goal in mind: to make IBM the “innovators’ innovator.”

For IBMers, this has a very specific meaning: it’s not about being the world’s most “innovative” company (though our patent records would argue that we are). Rather, it’s about becoming the ideal partner to make our clients, our partners and our communities into world-class innovators.

IBMers collaborate every day with their 330,000 colleagues...with growing networks of clients, advocates, experts and peers...and with our neighbors, local organizations and millions of people they have never met and never will meet. This is simply how business is done in a globally integrating economy. But it’s also how society itself is evolving in an increasingly “flat” world. And the points of contact, impact and collaboration between a business and its broader ecosystem are both multiplying and deepening daily.



Samuel J. Palmisano visits with IBM employees in Bangalore, India

Obviously, for any given company, this involves far more than “giving back to the community.” We might think of this new approach as “collaborative citizenship”—and the accounts in this report of how IBMers demonstrate it are varied and inspiring. Some have to do with creating new technology, some with new business and societal models. Some are focused on organizational culture and management systems, some on public policy. IBMers are partnering with neighbors on issues that live at the local level, and with broad societal ecosystems on problems and opportunities that are truly global in scope.

In all this work, we use in the not-for-profit world the same collaborative approach that we bring to business. Together with our partners, IBMers are spawning new ways to combat poverty and infectious disease...to transform education, and bring its benefits to the displaced and dispossessed...to secure the world's trade lanes and electronic commerce...and to enable our joint stewardship of a fragile planet.

All of the stories here reveal two consistent characteristics. First, IBMers do not simply invent technologies or products, they innovate models, policies and solutions. Second, they do so not in isolation, but by working shoulder-to-shoulder to enhance and transform civil society, to develop innovative approaches to corporate responsibility—and to reimagine the process of collaboration itself.

From World Community Grid, to our Global Innovation Outlook, to HabitatJam, to On Demand Community, to our Global Pandemic Initiative, to our work with the open source community and more, our people are building broad industry, business and societal ecosystems that draw upon the “wisdom of crowds” to accelerate progressive change—for our company, and for the world.



Samuel J. Palmisano
Chairman, President and Chief Executive Officer

Today, there are billions of people doing their part to shape our planet's future, and not one of them is doing it on his own.

Government officials. Corporate leaders. Educators. Even concerned citizens in developing countries. The innovators of 21st-century business and society are of every stripe.

Thanks to technology, people are finding collaborators all around the world in circles they might never otherwise have explored. And as companies rapidly spread their global reach, they gain greater access to resources, people and communities long closed off. With this greater access comes a greater responsibility—to find new and lasting solutions to the world's most vexing problems.

At IBM, we are meeting this challenge with the help of our many collaborators:

The hundreds of millions of people across our rapidly integrating world.
The millions of partners, experts and specialists outside our company.
The 330,000 IBMers around the world.



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Global Collaboration

IBMers are building innovation partnerships both intimate and vast in scope—from shoulder-to-shoulder collaboration with our neighbors and communities, to Net-based breakthroughs that reach out to millions, leveraging the “wisdom of crowds” on a global scale.



* More than 450,000 PCs and 210,000 people in 191 countries have completed the equivalent of 60,000 years of humanitarian research.

* 75,000 current and retired IBMers have volunteered 3.7 million community service hours in 80 countries.

* 25,000 slum dwellers from India, Kenya, Senegal, the Philippines and Nigeria shared their real-world views on urban reform in a global online “jam” with thousands of urban experts, government officials and business leaders from 194 countries.

With Educators

Worldwide education is a top priority for IBM. Whether we're helping children and adults learn to read, or master's candidates find their strides, we recognize that one person's education has lasting effects on the global community.

KidSmart

Working with educators and governments to benefit young children and society

Improving public school education worldwide is IBM's top social priority. KidSmart is among several IBM global initiatives that bring innovative technology to the crucial work of raising achievement in schools. To date, IBM has donated more than 32,000 Young Explorer learning centers in partnership with schools and early-learning organizations in the United States and ministries of education abroad to ensure that high-quality teacher training is a key part of the program.

Begun in 1998 as a pilot program in a few U.S. communities, IBM's KidSmart Early Learning Program now operates in 57 countries, reaching tens of thousands of teachers and millions of students. KidSmart now serves as a vital component of education reform initiatives throughout North America, the Middle East, Europe, Latin America and Asia.

At the heart of its success is one undeniable fact: young children love to learn. Indeed, they are determined to learn. IBM's KidSmart program provides educational technology designed specifically to advance the skills young children need to thrive in school. But simply donating computers to schools is



Children enjoying the KidSmart kiosk in their classroom in the United Arab Emirates with H.E. Dr. Hanif Hassan Ali, Minister of Education, United Arab Emirates

not enough. IBM's program also includes training for teachers, enabling them to effectively weave technology into the early-learning classroom, as well as a Web site in multiple languages to help parents guide their children's use of technology.

During the summer of 2006, 1,500 disadvantaged children living in remote villages in India attended camps operating in 34 IBM KidSmart centers. Some of the children had never attended a regular school and most had never seen a computer—certainly none like the ones they were about to discover. Using the colorful Young Explorer workstations, specially designed for young children, the children learned concepts in math, science and language while gaining new technology skills. They are now among the growing numbers of children worldwide who are proving that appropriate technology, combined with professional development, will elevate teaching and learning for the world's youngest students.

KidSmart was already in place when many countries began focusing on the importance of early education as the first step toward an integrated strategy of raising achievement in their public schools. In the last few years, KidSmart has scaled upward throughout the Middle East, where ministries of education in Israel, Jordan, Egypt and the United Arab Emirates have announced that the IBM program will figure prominently in country-wide educational initiatives.

In Israel, a country with a strong kindergarten system, the Young Explorer workstations provide age-appropriate PCs as a vital classroom tool for learning. In addition, IBM helped the ministry design its first teacher-training program, which is now cascading throughout the country.

In Jordan, KidSmart is also part of the country's national education reform program, with Young Explorer computers donated to many classrooms in disadvantaged areas and a teacher-training program that is integrated with the country's overall education strategy.

"The support of IBM for innovation in learning and teaching is greatly appreciated by the Ministry of Education, since it adds another important initiative to all of the others we are implementing within the Education Reform for Knowledge Economy Program throughout the kingdom," said Dr. Khaled Toukan, minister of education for the Hashemite Kingdom of Jordan. The IBM program launched in Egypt in 2005, and in the United Arab Emirates in the spring of 2006. While still in the early stages, KidSmart is supporting high-level strategies for curriculum development and teacher training.

Featured in educational symposiums in Europe and Asia, KidSmart has also been the subject of independent studies in the United States, in six European countries, in Australia and in Latin America. The studies all conclude that the IBM program leads to substantial improvements in teaching and learning, and that teachers participating in KidSmart are more confident in their approach to using computers in their classrooms.

In the Asian-Pacific countries of Australia, China, Japan and Singapore, IBM has focused its KidSmart donations on early-childhood centers and kindergartens for children with disabilities. In China, KidSmart has expanded to every province, including Tibet. Many Asian-Pacific countries now sponsor annual KidSmart teacher conferences to provide professional development for teachers and encourage the sharing of best practices, ideas and resources.

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Similarly, IBM's KidSmart has now reached every province in Vietnam, where the Ministry of Education and Training has even included a segment on KidSmart in a new book for preschool principals.

This extraordinary program will continue to scale up in 2007, with an additional 5,000 Young Explorers planned for early-learning organizations throughout the world. The company's investment so far is \$68 million.

Reading Companion

Increasing literacy among children and adults

In a worldwide first, IBM researchers have combined speech recognition technology with Internet access to create an online interactive program destined to change the lives of children and adults who need help improving their ability to read.

Reading Companion, IBM's newest education initiative, is the latest step in a 10-year journey to adapt speech recognition technology to the classroom. IBM's primary philanthropic effort is improving teaching and learning in public schools worldwide through innovative technology. The ability to read is at the very foundation of learning, and a vital skill necessary for success in life. Literacy experts say approximately 90 million adults in the United States alone have limited literacy skills.

"Literacy has been described as the next vital civil right, and the most critical issue that impacts a society's ability to innovate and advance," said Stanley S. Litow, president of the IBM International Foundation and vice president of IBM Corporate Community Relations. "Our goal is to provide this technology to anyone who needs help learning to read."

In 2006, IBM launched a \$2 million effort to provide Reading Companion to more than 100 schools and not-for-profit organizations in the United States, Canada and other international sites. Reading Companion uses innovative speech recognition technology that "listens" and provides individualized feedback to the user, enabling new readers to practice pronunciation as they acquire fundamental reading skills. This Web-based integration has never been available before.



A student using Reading Companion

Children at the John F. Kennedy Magnet School in New York had no idea they were participating in breakthrough technology when their classrooms became one of IBM's grant sites. "After one year of training and observing students using this exciting software, we see its possibilities and potential in so many ways," said Louis Cuglietto, principal of the Port Chester, New York, school.

"However, we are also excited by the prospect this voice-recognition software has for English language learners of all grade levels, as well as for children identified as having specific learning disabilities," he continued. "Our reading teachers will use this software for hesitant readers who are preparing to crack the code of fluent reading."

He also observed that federal legislation now requires research-based academic intervention services for struggling readers and learners. "Reading Companion covers all these areas and arrives at just the right time in the lives of our students," Cuglietto said. "We believe deeply in the social implications and freedoms the ability to read will provide children and adults all over the world," he said. "It's also exciting to witness a new era of reading instruction."

In the mid-1990s, IBM researchers traveled throughout the United States to collect more than 110,000 words spoken by nearly 2,000 children to capture the variety of intonations and accents that would enable technology to "listen" and respond to children from a wide range of backgrounds. From that effort came Watch-me!-Read, a software application designed for elementary schools as part of IBM's Reinventing Education initiative.

Independent evaluations determined that students using Watch-me!-Read tested significantly higher on word recognition and comprehension tasks. When parents of immigrant children asked to use the technology after school hours to increase their own reading and English speaking abilities, IBM created an adult version. The next step was to transfer the CD-ROM technology to the Web for both adults and children as a means of dramatically scaling up use and impact.

Reading Companion software is tailored to the needs of the individual learner. A cheerful panda bear guides young learners through the virtual books, prompting them to read into the microphone and providing immediate feedback and praise. "While this is pretty sophisticated technology, let's not forget that Reading Companion is also fun for our students," Cuglietto said. "That panda bear is going to become famous!"

The software generates reports for teachers that include how many books students complete, the percentage of words read accurately, information about how students are progressing and skill areas where they need more focus.

"What's great about this program is that the panda engages the students in active participation. They don't just sit there with headphones," said Paige Sileo, one of the second-grade teachers at the Port Chester school. "If I'm working with one group of students, another group is practicing their reading at the computers. Quite a few of my students have jumped several reading levels."

"Literacy has been described as the next civil right, and the most critical issue that impacts a society's ability to innovate and advance."

—Stanley S. Litow, president, IBM International Foundation, vice president, IBM Corporate Community Relations

"This is teaching me to say the words the right way," said one of Sileo's students, a recent arrival from India. The adult version of Reading Companion enables users to gain literacy skills while reading content that is relevant to them, such as searching for a job, visiting their child's school, understanding their health or obtaining a driver's license. Reading Companion is a vital component to many workforce development initiatives, particularly those geared toward new immigrants who must learn how to read and speak English to qualify for a better job.

According to Jennifer Lai of IBM Research, who led the team that transformed Reading Companion to the Web, this initiative draws on 40 years of expertise in speech recognition technology. Lai is also an expert in human-computer interaction and helped guide challenges around interaction and engagement to achieve the best results among multicultural users.

"I love Web-based projects. Just think of how many people worldwide you can help through the Web," Lai said. "This is an example of innovation that is truly making a difference."

Extreme Blue

Pairing computer science and business students to start something big

The Extreme Blue program is IBM's premier internship for high-potential students pursuing software development and MBA degrees. Programs are held at a dozen IBM locations around the world, where teams are challenged to develop the technology and business plan for a new product or service to address an existing market challenge. "Start something big" is the program's unofficial motto.

While originally focused on software development work, Extreme Blue continues to explore strategic and business opportunities that leverage and impact all of IBM's core businesses, including business strategy, hardware, software, research and other services.

Students have the opportunity to work and learn with cross-functional teams of IBM leaders with the sole purpose of driving innovation. In some cases the innovative outcome is new technology, such as in the United Kingdom, where an Extreme Blue team developed Peridot, which scans company Web links and replaces outdated information with other relevant documents and links. In Raleigh, North Carolina, another team created new software called Socializer, which enables people to quickly and efficiently connect to others in their areas of interest.

In all instances, Extreme Blue strives to provide an exceptional experience to the students, to develop a stronger association between IBM and top talent and, ultimately, to act as a pipeline for future IBM leaders. The students have just 15 weeks to create a technical solution that meets a real business need. At the end of the program, the teams travel to IBM headquarters in New York to present their work to a group of worldwide IBM executives.

In Toronto, the Extreme Blue team focused on a public sector client issue: increasing citizen participation in the government policy process and fostering greater accountability on the part of political leaders.

"Our Extreme Blue project had two main goals: to innovate for the benefit of society and to provide an exciting, challenging real-world management consulting experience for these gifted students," says Peter Zakarow, national client executive for

Public Sector, at IBM Canada. "Programs such as Extreme Blue offer students a better glimpse of the full breadth and depth of what IBM does to help clients around the world, and exposes them to experiences that could expand their career horizons."

The Toronto team focused on the Province of Ontario's Democratic Renewal initiative where four students found innovative ways to eliminate barriers to public engagement by making it easier for citizens to convey their opinions to government officials. Through extensive business strategy work, the main enabler of the solution would be technology innovation.

"Extreme Blue was an amazing experience," says Wojciech Gryc, one of the Toronto team student members. "It combined my interests in politics, technology and business, and allowed me to see what potential all three hold for our society. It's the only time in my life when graph theory, application servers and participatory governance were not only mentioned in the same sentence, but were the focus of entire meetings. I loved it."

Extreme Blue's goal:

To incubate talent, technology and business innovation by empowering gifted students to start something big.

"What this project helped us understand is that we can and should expect that the Internet will help us to connect and interact on an increasingly meaningful level, and that the benefits can range from just one individual to the broader society," says Ned Picard, another member of the Toronto team. "More and more, the Web is being used to collect and extract meaning from large amounts of useful information. The result is greater awareness and involvement."



IBMers Amol Mahamuni and Gopal Sharma discussing a project at the Extreme Blue Expo in Bangalore

Where is the next generation of great teachers?

by Governor
James Hunt

*Former Governor of North Carolina;
Chairman, James B. Hunt, Jr. Institute
for Educational Leadership and Policy*

It was reported in the media that more than half of American parents think their children get about the right amount of math and science in high school,

while only three out of 10 say students don't get enough. Meanwhile, American 15-year-olds placed 24th among students in 40 countries in a test of ability to apply math concepts to real-world problems.

These statistics make it abundantly clear that we must make science and math courses more exacting and exciting—not just in our high schools, but also our middle schools. We won't get more bright college students majoring in science and math unless we increase the flow out of our public schools. To do that, we need math and

science teachers who are as well-trained and knowledgeable as the young people hired by IBM and other high-technology companies. And, we need lots of new math and science teachers who come out of business and industry and decide to teach—like those in the IBM Transition to Teaching program.

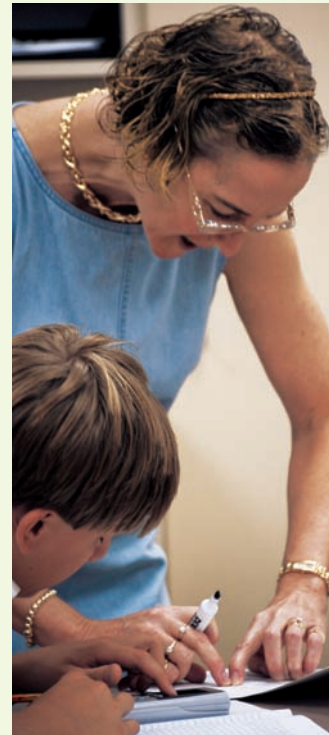
It will require public expenditures to outfit laboratories in high schools and to pay higher salaries to attract teachers capable of instilling the desire for math and science careers in their students. We need more mid-career enrichment opportunities for these teachers.

This means cooperative arrangements between public schools, universities and businesses. Our colleges and universities need to forge stronger linkages between schools of education and the academic departments in the sciences, engineering and mathematics.

We need to recapture the sense of challenge known during the early laps of the space race. President Kennedy not only sent Americans off to the moon but also stimulated a generation of research and development. If we don't run faster in producing more scientists, mathematicians and engineers, we will almost surely leave the next generation worse off than their parents.



Former Governor James Hunt



IBM's Transition to Teaching Program

Transition to Teaching

Answering the call for math and science teachers

A new IBM program is harnessing the experience and brainpower of seasoned employees to advance the study of math and science among young people. Recognizing the national need for teachers, the company launched Transition to Teaching with two clear goals: to help veteran employees who possess math and science skills pursue second careers and to inspire a new generation of engineers and scientists.

In the world of technology, the practical and the theoretical are inseparable. "Life is word problems," says Terri Indyk, an IBM product engineer who has enrolled in Transition to Teaching. In the fall of 2008, she plans to take 25 years of experience in hardware development into the classroom. "When students ask me, 'Where are we going to use this stuff?'" explains Indyk, "I can come up with real-life examples from work."



The need for highly qualified teachers is real. After a decade in which jobs requiring technical, scientific and engineering training have increased by 51 percent, the burgeoning demand for high-quality teachers in math

and science poses a large challenge. According to the U.S. Department of Labor, between 260,000 and 290,000 new high school math and science teachers will be needed for the academic year 2008-2009.

Acknowledging that a shift in vocation takes time and training, the Transition to Teaching initiative helps underwrite the costs associated with earning a teaching certificate. The program pays for course work in either traditional college settings or online and it offers mentoring during the transition from IBM employment to full-time teaching. IBM also provides up to four months leave of absence to facilitate student teaching. Employees are eligible for a total of \$15,000 for tuition and leave-of-absence stipend.

Announced in the fall of 2005, the pilot program is rapidly approaching its goal of enrolling 100 IBM veterans in its first year. Among those who have joined its ranks are managers, software designers and hardware engineers from 20 states. Partnerships have been forged with a range of colleges and universities, among them the University at Albany, State University of New York and the University of North Carolina at Chapel Hill and at Charlotte. The New York State Education Department and the North Carolina Public Schools, along with many individual school districts, have also joined with IBM in shaping the program.

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For some participants, Transition to Teaching has provided the needed impetus to pursue a relatively new passion. Tucson-based software engineer Bill Bennett recalls that, four years ago, he volunteered to mentor his son's high school robotics team in a nationwide competition. He encountered youngsters with math and science phobia but, as they devised and fabricated their robot, the students suddenly saw beyond their fears. "There was an 'Aha!' reaction," Bennett remembers, as the youngsters came to appreciate real applications for textbook physics. The experience helped inspire Bennett to join Transition to Teaching.

The mother of two teenaged daughters, Indyk's desire to teach reaches further back. "I had actually explored the teaching option before I had children and even took some teaching classes. It's always been in the back of my mind, so when IBM introduced the program, it was just the push I needed to pursue it."

Global Corporate Contributions by Type (\$ in millions)					
	2001	2002	2003	2004	2005
Cash	35.6	31.3	25.7	28.2	38.8
Technology	62.2	78.3	73.9	70.5	64.4
Services	29.3	30.6	43.2	45.0	45.3
Total	127.1	140.2	142.8	143.7	148.5

The program has several prerequisites. Each participating employee must have a bachelor's degree in math or science or a higher degree in a related field; 10 years or more of service at IBM; and the approval of his or her manager. Some experience in teaching, tutoring or volunteering in an educational setting is also required.

The program specifies that teachers-to-be fulfill certification requirements within three years and then seek jobs within the following nine months. For some, however, the segue to teaching can happen more quickly, since some states offer intensive teaching skills development courses for potential teachers. Thirty-two-year IBM veteran Larry Leise calls the North Carolina crash course "boot camp." He will be taking NC Teach in the summer of 2007, after completing courses in oceanography and earth science to round out his engineering and math training. He envisions teaching physics by the fall of 2007, perhaps in one of seven new schools soon to open in Wake County next year. "I'm looking forward to this," Leise says. "All but one of the teachers I've talked to have said, 'Great! Come help us.'"

Leise is not alone. His wife, Susan Luerich, who herself has spent 32 years at IBM, is also making the move into teaching. The couple recognize that they face a financial adjustment. The pay scale for teachers is typically lower than IBM's, but pension income will help make up the difference, as will other less tangible compensations. "For me, teaching definitely is a way to give back because I don't have children of my own," says Luerich. "My objective is to be able to spark an interest in children who may not previously have been interested—too hard, too bored—and to try and get them as interested in science as I am. We all remember teachers who had wonderful impacts on us. It's my aspiration to be one of them."

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—Susan Luerich

The scale of the program in its first year is modest compared to the enormous need for teachers, but the expectation is that Transition to Teaching will expand, welcoming more and more IBM participants and proving adaptable for other companies. The response to date has been strong. In a classic collaboration between corporation and community, excellent minds are making their way to the classroom, seeking to contribute to their communities by inspiring students to explore new territories.



Two IBMers who have enrolled in the Transition to Teaching program, Larry Leise and Susan Luerich, volunteer at a high school in North Carolina

Among Volunteers

Some problems are best solved through collaboration among dedicated individuals. That's why we go beyond volunteering our time and donating money to provide the tools and expertise that make such collaborations possible.

World Community Grid

Linking PC users to advance humanitarian research

IBM develops some of the world's most powerful supercomputers, but one of the most notable belongs to no one and can't be seen.

Enabled by IBM technology, World Community Grid is powered by a tremendous—and growing—volunteer force of more than 210,000 people worldwide who donate the idle processing power of more than 450,000 computers to create a “virtual supercomputer” devoted solely to humanitarian research.

This innovative application of grid technology extends the idea of collaboration to include anyone with a PC and an Internet connection. Launched in November 2004, World Community Grid exemplifies IBM's dedication to innovation that matters—within two years, its processors completed more than the equivalent of 60,000 years of computing time to advance medical research.

The computing power of World Community Grid
far exceeds that of most
of the world's largest
supercomputers.

World Community Grid also demonstrates IBM's commitment to applying new and leading-edge technologies to humanitarian efforts.

Grid computing aggregates the power of thousands, even millions, of individual computers to create a system with computational strength far in excess of most of the world's largest supercomputers. IBM works with public and not-for-profit organizations to make World Community Grid available for projects in the fields of medicine, environmental sciences and basic research.

Its inaugural effort was the Human Proteome Folding Project, helping scientists build the understanding needed for novel and effective treatments for diseases such as cancer, Alzheimer's, SARS and malaria. That project began a second phase in June 2006, overseen by New York University's Department of Biology and Computer Science.

The system's second project, launched in November 2005, is FightAIDS@Home. Says Arthur J. Olson, the project's leader: “We don't know when our work might lead to better HIV drugs, but we are closer to that goal and moving faster toward it, because of IBM and World Community Grid.”

In July 2006, “Help Defeat Cancer” became World Community Grid's third project, helping researchers understand the underlying mechanisms of cancer in order to speed and improve treatment and therapy planning for cancer patients. The project is a partnership among the Cancer Institute of New Jersey, the Robert Wood Johnson Medical School at the University of Medicine and Dentistry of New Jersey, Rutgers University and the University of Pennsylvania.

Researchers use World Community Grid's combined resources to analyze large numbers of cancer tissue microarrays (TMAs), improving the understanding of cancer biology. This could uncover new sub-classifications of cancers and lead to new and more effective courses of treatment. Researchers also are exploring how patient populations respond to different treatment regimens—information needed for future drug design.

“Without World Community Grid, TMAs are processed in individual or small batches that are analyzed on standard computers,” says Dr. David J. Foran, the project's lead researcher and director of the medical school's Center for Biomedical Imaging. “The Help Defeat Cancer project makes it possible to analyze in one day the number of specimens that would take approximately 130 years to complete using a traditional computer.”

Anyone can join World Community Grid by registering at www.worldcommunitygrid.org and downloading the free software. It's safe, easy to install, doesn't interfere with normal PC use and is available for Windows, Linux and Macintosh systems.



How can we fight the greatest pandemic of our time?

by Arthur J. Olson, Ph.D.

Professor of Molecular Biology and Director, Molecular Graphics Laboratory, The Scripps Research Institute

AIDS remains the major pandemic of our time, and an unsolved scientific problem. Although drug therapies have commuted the AIDS “death sentence” for people in wealthier countries, there is no cure or vaccine, and HIV’s ability to mutate into drug-resistant strains is a continuing problem.

My team is working to discover new drugs that will remain effective even as HIV continues to mutate. We use software to evaluate thousands of chemical compounds’ effectiveness against hundreds of variants of the HIV protease protein. When a promising compound is found, we collaborate with synthetic chemists and experimental virologists to verify the results in a laboratory.

With so many complex combinations to analyze, our work requires enormous computing power. That’s why FightAIDS@Home, on World Community Grid, is so valuable. Launched in November 2005, the project performed more than 2 quadrillion computations inside six months—work that would take decades in a conventional laboratory computing environment, or 300 years on a single PC.

Early results from those computations revealed some initial candidate compounds that might have better resistance profiles than existing, clinically approved HIV drugs. While those undergo further testing, FightAIDS@Home continues screening more compounds every

day. We don’t know when our work might lead to better HIV drugs, but we are closer to that goal and moving faster toward it, because of IBM and World Community Grid.



On Demand Community

Bringing technology to volunteerism

A new kind of corporate volunteerism is emerging among organizations that goes beyond checkbook philanthropy programs. According to a published study by the Points of Light Foundation, IBM's employee and retiree volunteer program, On Demand Community is the archetypical model for this new approach to corporate community involvement.

On Demand Community is a first-of-its kind, global initiative that facilitates employee and retiree community service by providing volunteers with the tools and resources necessary to improve services in schools and community organizations worldwide. The study by the Washington-based foundation concluded that IBM's On Demand Community is "without peer" among corporate volunteer programs.

"On Demand Community is a unique model for other companies to emulate when structuring their own corporate giving and volunteering programs," said Bob Goodwin, president, the Points of Light Foundation. "IBM's commitment to successful business practices is equally apparent in its dedication to new and innovative approaches that seek to improve the quality of life in communities worldwide."

The program operates through a constantly evolving Web site that gives employees and retirees access to an array of interactive tools and other assets. As of September 2006, 75,000 IBM employees and retirees in 80 countries have registered at the site to be On Demand Community volunteers, and these employees have logged more than 3.7 million hours of volunteer time, for an average of 100,000 monthly hours of volunteer activities. (Of the total IBMers involved, more than 10,000 are IBM retirees, who also have access to the program's tools and online resources.)

On Demand Community			
	Dec. 2003	2004	2005
Registrants	7,905	33,606	57,284
Employee Hours Donated	177,211	930,904	2,062,006

Introducing not-for-profit organizations to open source tools was the recent work of On Demand Community volunteers Jonathan Dunne and Alex Markelov, IBM Software Group employees in Ireland. While open source software is free, installation can be a challenge, especially for small nonprofits. Dunne and Markelov helped a local nonprofit overcome that obstacle by installing and customizing the software for the agency, which allowed the nonprofit to leverage a technology grant it had received.

Meanwhile, in India, IBMer Ashish Tuli accessed the technology planning for nonprofits tool to streamline the processes for an organization serving the disabled. Among the benefits were better managed projects, streamlined organizational processes and reductions in time and staff needed to perform certain key functions. The project also led to a decrease in the number of errors in reports. The Indian organization is now planning for country-wide outreach.

75,000 IBM employees and retirees
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hours in 80 countries.**

And in Los Angeles, IBM is seeking committed volunteers to mentor students online at local elementary schools. The Web site includes information about whom to contact, skills needed to be an effective volunteer, time commitment required and On Demand Community tools that will help volunteers receive training to achieve the best results with their students.

At the close of 2005, the breakdown of U.S. and international employee participation in the volunteer efforts had reached the 50-50 mark. In 2006, the pendulum swung to increased volunteerism at IBM locations abroad, with 55 percent of the volunteers now living outside the United States.

"The international growth speaks volumes about how well On Demand Community is integrated throughout the company," says Diane Melley, IBM's director of Corporate Community Relations and leader of the On Demand Community program. "We've worked systemically in all the countries involved. New hires are introduced to On Demand Community during their orientations. This purely voluntary program is part of management training, and the managers go on to use it with their own employees in team building and professional development. If there was less awareness about volunteerism outside the United States, our corporate culture has superseded that."

IBM Employee Charitable Contribution Campaign					
U.S.	2001	2002	2003	2004	2005
Amount donated (\$ in millions)	32.8	30.4	32.3	33.1	34.6
Participation rate	61%	57%	56%	58%	58%
Recipient agencies	10,250	10,300	11,200	11,300	12,104
CANADA	2001	2002	2003	2004	2005
Amount donated (\$ in millions)	1.6	1.9	2.2	2.3	3.6
Participation rate	57%	56%	53%	55%	55%
Recipient agencies	1,028	1,060	1,132	1,199	1,246

The Employee Charitable Contribution Campaign gives IBMers the opportunity to contribute financially to a charity of their choosing. Currently, there are more than 4,000 not-for-profit health and human services agencies that benefit from the annual giving in October.



Jockin Arputham, president of the National Slum Dwellers Federation and Slum/Shack Dwellers International, speaking at the World Urban Forum in Vancouver, British Columbia

Across Open Networks

Bringing communities of people together means creating more opportunity for everyone. We believe this greater democratization will lead to fresh insights and stronger foundations for progress.

HabitatJam

A biennial exchange of ideas on urban reform

During the next 50 years, the proportion of people living in cities around the world is expected to grow from half the global citizenry to two-thirds of that total. Most of this urban growth is in developing countries, where the major challenges are combating poverty and improving access to basic shelter and services, including clean water and sanitation. Cities in wealthier nations also face problems: crumbling infrastructure, smog and social exclusion.

To explore these challenges and find solutions, the United Nations established the World Urban Forum in 2002. Held every two years, the event brings together thousands of people from more than 150 countries.

IBM's contribution to this project is HabitatJam, a groundbreaking event that brought together 39,000 people from 194 countries in a collaborative online conference to solicit, rate and refine ideas for making our cities better places to live. Held in December 2005, the virtual, worldwide forum produced 70 ideas for further discussion and debate at the third World Urban Forum, which, in turn, was held in Vancouver, British Columbia, in June 2006.

Sponsored by the Government of Canada, UN-HABITAT and IBM, HabitatJam included people from all walks of life: teachers and children, activists and urban planners, government leaders and slum dwellers from countries rich and poor. Participants generated more than 4,000 pages of dialogue in six forums addressing the topics of sustainable access to water, environmental sustainability, finance and government, safety and security, improvement of slum-dweller life and the future of global cities.

UN-HABITAT partner organizations worked to include and seek viewpoints from 25,000 people who otherwise have no access to the Internet. In Kibera, Kenya, for instance, hundreds of slum dwellers lined up at Internet cafes to share their messages. In India, 10,000 participants gathered in the slums of Delhi to express their views. Other nations among the 10 with highest levels of participation included Senegal, the Philippines and Nigeria.

HabitatJam did far more than simply accommodate 39,000 people in an online conference. IBM's Jam technology provides a structured system for participants not only to present ideas, but also to rate and refine them so that the best and most promising gradually emerge from the collective knowledge and opinions of all participants. It enables interactive collaboration and problem-solving never before possible on a global scale.

IBM developed Jam technology in 2001 and uses it regularly to solicit ideas from more than 330,000 employees worldwide—perhaps most notably in a collaborative effort to redefine the core values by which IBM operates as a company. Jam technology applies sophisticated data mining tools and expertise to help analyze millions of words of dialogue, along with tools for facilitators to manage and promote discussion.

HabitatJam marked the first time IBM shared this technology for an external event, along with offering its experience in planning, managing, promoting and hosting an online conference capable of including hundreds of thousands of participants.

Learn more about HabitatJam and the 70 ideas its participants produced at www.habitatjam.com

Open Source Computing

Ideas from many can create opportunity for all

Whatever is the state of the art evolves every day as collaboration often makes today's model even better tomorrow. That's the basic premise behind open source computing, and why IBM advocates aggressively for the open source community.

"To me, open source is all about collaborative innovation—working with smart people all over the world as a community to solve important problems," observed Irving Wladawsky-Berger, IBM vice president, Technical Strategy and Innovation.

At the heart of open source is public collaboration. When computer codes are available to everyone in the software development community, they are open to modification. The best minds will improve and advance codes, speeding to market the next iteration of leading-edge technologies. Community collaboration also drives the creation of common platforms where people can innovate with the understanding that the new technologies will integrate with existing technologies. The results are greater flexibility and interoperability, plus considerable savings.

Today, the open source community is poised to get much, much bigger. In its march toward globalization, China is graduating hundreds of thousands of university students a year with engineering degrees. To help foster the innovation that is likely to result, IBM has launched key initiatives in China and other developing countries where interest in open source computing is high and where the results will add innovation and value for IBM clients.

When computer codes are available to everyone, the best minds are able to improve and advance them, speeding to market the next iteration of leading-edge technologies.

Over the last year, IBM Linux sales in the key emerging markets of Brazil, Russia, India and China grew 75 percent, and in 2006, IBM announced a \$2.2 million investment to expand its Linux Technology Center in Brazil. The center is now one of the five largest of its kind in the world and is rapidly becoming a worldwide leader for driving innovative Linux and open source technologies into emerging markets.

Also in 2006, IBM announced free software and educational resources to help developers in Russia build and deploy innovative applications based on open standards and open source. Tapping into the booming software market in Russia, IBM is giving software developers, architects and students free access to software and hundreds of new tools and technical and educational resources that will enable them to build open standards-based applications more easily.

For a massive country like China, which is working hard to close the digital divide, reduce IT dependence on foreign firms and jump-start local innovation, open computing is the logical solution. Nonetheless, providing its new generation of developers with access to the most advanced technologies and experienced developers is a challenge.

Open source is an integral piece of IBM's overall strategy. In the last few years, the company has made significant contributions to more than 120 projects aimed at fueling the open source initiative and has invested more than \$1 billion in Linux development. Millions of that amount are targeted in China, where IBM is now enabling software developers to leverage the knowledge and experience of the international open source community.

IBM has opened new Innovation Centers in China and other developing countries to provide developers and business partners with easy access to IBM's technical skills, resources and business expertise to help build and deploy open standards-based solutions.

IBM has also expanded the scope of its technical briefings and University Days program to cities in China. And last year, IBM announced the formation of a new Venture Capital Advisory Council to work with IBM to speed innovation around the development of open standards-based solutions, particularly in emerging markets like China.

According to Wladawsky-Berger, technology and open standards are on the brink of a new era. "We are connecting all society's institutions across a global IT infrastructure. People by the hundreds of millions are communicating across it—people with different languages, cultures and values; people who see things from a different point of view. All of them are captivated by the opportunity to collaborate on the myriad challenges before us."

Toward Environmental Stewardship

Collaboration with key partners, including suppliers, industry associations, non-governmental organizations and governments, plays an important role in IBM's ongoing commitment to environmental citizenship.

Protecting the environment is a strategic imperative for IBM and an integral part of the company's values. "IBM is committed to environmental leadership across its operations, products and services," says Wayne Balta, vice president, Corporate Environmental Affairs and Product Safety. "We strive to create shareholder value while also providing innovative solutions for the environmental benefit of our clients and our planet." IBM's environmental programs range from pollution prevention, waste recycling and water conservation to climate protection and product stewardship.

"IBM is committed to environmental leadership across its operations, products and services."

—Wayne Balta, vice president,
Corporate Environmental Affairs and Product Safety

An important aspect of our environmental programs is collaboration and participation in voluntary partnerships and initiatives. Examples include the World Resources Institute's Green Power Market Development Group, the U.S. Environmental Protection Agency (EPA) Climate Leaders program, the World Environment Center's International Environment Forum and the U.S. EPA's development of its new Electronic Products Environmental Assessment Tool (EPEAT).

IBM was recently recognized for its achievements in climate protection with awards from the U.S. EPA, the Climate Group and the World Wildlife Fund.

Other recent recognition included the top Premier League rating from Business in the Community's Environment Index in the U.K. and inclusion in the Dow Jones Sustainability Index.

Product Stewardship

Protecting the environment throughout the product life cycle

IBM's Product Stewardship program was established in 1991 as a proactive and strategic approach to the company's environmental management of products. The program's objectives are to develop, manufacture and market products with improved energy efficiency, which can be upgraded to extend product life, which incorporate recycled content and environmentally preferable materials and finishes and which can be recycled and disposed of safely.

Materials Use

IBM's environmental policy includes objectives to design and implement development and manufacturing processes that do not adversely affect the environment, as well as to design, develop, manufacture and market products that protect the environment. Careful attention to the basic tenets of precaution, thorough scientific analysis and review and continual improvement in environmental performance have long characterized IBM's leadership in environmentally preferable chemical and materials use.

The company's precautionary approach includes careful scientific review and assessment of certain substances prior to our approval of their use in IBM's processes and products. In specific instances, IBM has chosen to ban, restrict or

substitute substances used in IBM processes and products when sound science determines an adverse effect upon human health or the environment from that use, even when their use is permitted by law.

In addition, IBM conducts scientific investigations of approved substances when new processes or major modifications to existing processes are being developed. The objective of these scientific investigations is to identify potential substitutes that may be environmentally preferable. IBM believes that the same scientific rigor is required when investigating the human health and environmental preferability of potential alternative substances as that given the original substance.

IBM routinely works with industry associations and suppliers to develop and qualify alternatives with preferable human health and environmental attributes in our applications. IBM is participating in two external programs focused on finding environmentally preferable flame retardants for printed circuit boards. The company is currently collaborating with the High Density Packaging User Group to identify and qualify non-brominated flame retardants for use in printed circuit boards. IBM is also contributing to the U.S. EPA Design for the Environment Program—Flame Retardants in Printed Circuit Board project, a partnership to explore and understand the environmental profiles of flame retardants used in the printed circuit boards. IBM serves on the Steering Committee of this project.

IBM's environmental requirements for its products may be found in its Engineering Specification: Baseline Environmental Requirements for Materials, Parts and Products for IBM Logo Hardware Products. The most recent version of the specification may be found at: www.ibm.com/ibm/environment/products/especs.shtml

Restriction of Hazardous Substances (RoHS) Directive

IBM eliminated most of the applicable substances subject to restrictions under the European Union (E.U.) RoHS Directive many years ago and had restricted use of the others. Accordingly, IBM's primary emphasis in meeting the requirements of the RoHS Directive has been on finding alternatives for hexavalent chromium (used as a surface treatment for sheet metal) and lead and lead solder.

IBM initiated an aggressive development program to offer new products that comply with the requirements of the RoHS Directive. This program included internal development efforts, as well as collaborating with the supply chain and various consortia, universities and national laboratories. IBM's objective is that new products and incorporated parts be functionally equivalent to or better than those being replaced, while providing the same high degree of reliability. Two examples of innovative new solutions:

- IBM has worked with suppliers to develop hexavalent chromium-free coatings that meet our demanding requirements for both corrosion resistance and conductivity. The company developed an effective measuring tool now used by suppliers to test resistance of alternate coatings. As suppliers sought to achieve the proper coating thicknesses for different IBM product applications, coatings that were too thick performed well in corrosion testing but did not meet conductivity requirements. IBM collaborated with individual suppliers to assist them in developing the right balance of these properties for their sheet metal products. Other companies are now seeking IBM's expertise in the requirements and techniques for qualification of hexavalent chromium-free coatings.
- Despite the availability of a RoHS Directive exemption for the use of lead in pin connectors used to connect circuit boards, IBM has worked aggressively to qualify lead-free versions that meet stringent reliability requirements. With the collaboration of our principal suppliers and contract manufacturers, we expect more than 75 percent of the connectors covering more than 95 percent of IBM's server products to be qualified in 2007. Efforts are continuing to identify and qualify additional high reliability lead-free connectors to replace the remaining lead-containing technologies.

In addition to addressing the technological challenges, IBM and its suppliers have focused on the implementation of new compliance management processes and tools for RoHS readiness. IBM's RoHS requirements are communicated to suppliers through a series of engineering specifications that address not only the substance restrictions of the E.U. Directive, but also the permissible alternatives that IBM requires for the reliability of its products with respect to circuit board finishes, metal surface treatments and solders.

Equally important is the information received by IBM from suppliers to verify that the materials, parts and products procured by IBM for its products are in conformity with compliance criteria for RoHS. To that end, in 2005, IBM conducted training for hundreds of IBM suppliers worldwide in the use of a Product Content Declaration form for reporting on the conformity of their products to IBM's environmental specifications and RoHS requirements.

IBM also developed a management system for assessing RoHS compliance of IBM's products. Product Content Declarations returned by suppliers are reviewed using a variety of methods by IBM procurement engineers. This process and the supporting IT tools enable IBM to report the compliance status of assemblies or full systems against RoHS criteria and other IBM environmental specification requirements.

All IBM products impacted by the RoHS Directive that IBM puts on the market in the European Economic Area and Switzerland on or after July 1, 2006, have been designed to comply with the RoHS requirements. In addition, it is IBM's goal to transition all of its products to meet restrictions on RoHS substances worldwide.

Product Energy Efficiency

One of the objectives of IBM's Product Stewardship program is to develop products with improved energy efficiency. This increased efficiency assists our clients in reducing their energy usage and associated CO₂ emissions, as well as their operational costs.

IBM Has a Number of Goals for Its Product Stewardship Program (2005)

	GOALS AND PERFORMANCE*
Powder Coatings	97.2 percent of the decorative metal covers of IBM products were finished using powder coatings, versus IBM's goal of maintaining powder use at or above 90 percent. This environmentally preferred material enabled IBM suppliers to avoid the emission of more than 192 metric tons of volatile organic compounds.
Recycled Plastics	28 percent (by weight) of all plastic resins IBM procured through its corporate contracts contained recycled plastic content. The net recycled plastic content weight represented 8.1 percent of IBM's total purchases (recycled and virgin plastics) versus the corporate goal of 5 percent.
Use of Landfills	IBM's product end-of-life management operations worldwide processed 53,670 metric tons of end-of-life products and product waste, and sent only 1.59 percent of the total to landfills, versus IBM's goal to minimize its product landfill use rate to no more than 3 percent.
Product Energy Efficiency	
Printers, monitors and personal computers**	Of all the applicable new products first shipped in 2005, 100 percent met ENERGY STAR criteria, meeting our goal of 100 percent of personal computers and other applicable products.
Servers	System i: There were no new System i models offered in 2005. System p: Two new models reported a respective 11.5 percent and an 11.6 percent reduction in operating power consumption per unit of relative performance against comparable previous generation models. System x: Metrics vary by machine type and customer application. System z: Models reported a 20 percent to 33 percent reduction in operating power consumption per unit of relative performance against comparable previous-generation models.
Point-of-sale terminals	The SurePOS 700-4800 achieved a 36.1 percent reduction in maximum power consumption in watts per composite theoretical performance. Two other SurePOS models (300-4810 and 500-4851) and the IBM AnyPlace Kiosk 4838 were released but there was no comparable previous generation model/system against which energy efficiency improvement could be calculated.
Storage subsystems	Two models of the high-end DASD subsystem (TotalStorage 210792E/9AE) were released in 2005. There were no comparable previous generation models against which energy efficiency improvements could be calculated.
Tape drives	The IBM TotalStorage Ultium Tape 2U Autoload 3581 achieved a 50 percent reduction in watts per gigabyte.

* Product energy efficiency goals vary by product type but all are measured by their increase in energy efficiency over previous generation products or models.

** IBM no longer manufactures personal computers. In 2005, the company sold its personal computer division to Lenovo. Although personal computers and monitors were no longer manufactured by IBM as of May 1, 2005, all IBM branded personal computers and monitors first shipped throughout 2005 met ENERGY STAR criteria.

IBM innovations in both hardware and software are critical to driving product energy improvements, including:

- IBM has developed a number of smarter IT cooling solutions. On larger, high-performance servers, such as System p and System z, the processor systems are cooled with small refrigeration units—the most efficient cooling solution. BladeCenter products offer CoolBlue, a solution in which water cooling is combined with a chassis design that optimizes cooling air flow to efficiently cool the server.
- On our System z server, we have pioneered virtualization technology that allows a single server to concurrently operate multiple operating systems and applications. Virtualization allows many disparate workloads to be consolidated onto a single server—delivering the maximum amount of work for the energy applied. In one example, we were able to help a client consolidate the workload from multiple servers onto a single high-end system, reducing space requirements by 300 square meters and energy costs by \$300,000 per year. This capability is being extended to our full line of server and storage products.
- In the area of data center management, IBM is combining its product energy efficiency capabilities with innovative tools for modeling data center cooling solutions to help our data services groups and our clients design and implement data center “ecosystems” that integrate the IT and facilities systems to minimize the energy requirements of data centers.
- PowerExecutive is a combination hardware/software tool that helps automate the management of power consumption in data centers, enabling customers to “meter” actual power usage, cap and monitor server power usage, and optimize the power/performance relationship on an individual server.

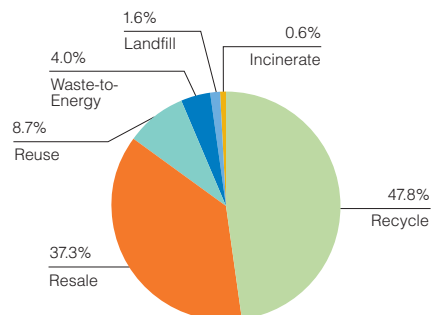
Product Recycling and Reuse

As part of its product end-of-life management (PELM) activities, IBM began offering product take-back programs in Europe in 1989 and has extended and enhanced them over the years. IBM's Global Asset Recovery Services organization currently offers Asset Recovery Solutions to commercial customers in 21 countries. This includes the management of data security and disk overwrite services, a worldwide remarketing network for product resale and state-of-the-art refurbishing and recycling capability for IT equipment. Additionally, in many countries, IBM offers solutions to household consumers for the end-of-life management of computer equipment, either through voluntary IBM initiatives or country programs in which the company participates.

In 2005, IBM's PELM operations worldwide processed 53,670 metric tons of end-of-life products and product waste. This represents greater than 41 percent of the estimated 130,000 metric tons of new IBM IT equipment manufactured and sold in 2005. These PELM operations sent only 854 metric tons (1.59 percent) of the total amount processed to landfills, a 16.26 percent decrease in volume compared with 2004.

Since 1995, when IBM first began reporting the volumes of product waste it collected and recovered (resold, refurbished or recycled) in the company's annual corporate environmental report, IBM has documented the collection and recovery of more than 1.3 billion pounds (593 million kilograms) of product and product waste worldwide through year-end 2005.

Product End-of-Life Management Operations
(2005—percentage by weight)



Pollution Prevention

Reducing hazardous waste

One way to prevent pollution is to reduce the generation of hazardous waste at its source. This has been a basic philosophy behind IBM's pollution prevention program since 1971.

Where possible, IBM redesigns processes to eliminate or reduce chemical use and substitute more environmentally preferable chemicals. Chemicals needed for research, development and manufacturing must be properly managed, from selection and purchase through storage, use and disposal.

For the waste that is generated, IBM focuses on preventing pollution through a comprehensive, proactive waste management program.

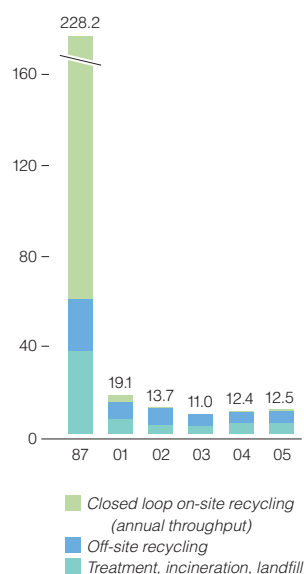
In 2005, IBM's hazardous waste generation indexed to output was reduced 19 percent. This means that source reduction efforts reduced the generation of hazardous waste by 847 metric tons. IBM's goal in this area is to achieve a continual reduction of hazardous waste indexed to output over the previous year's generation. The goal covers 90 percent of IBM's manufacturing and hardware development-related hazardous waste, which comes from four sites. Hazardous waste from other operations, such as assembly and facility operations, is not included in this metric.

Though the vast majority of IBM locations decreased their hazardous waste generation from 2004 to 2005, the company's overall hazardous waste generation increased by 124 metric tons. This was due to some unusual waste that is not part of our indexed-to-output waste metric. IBM's Burlington, Vermont, facility generated an additional 1,300 metric tons of sludge from the cleaning of holding tanks used for wastewater storage. Such cleaning is performed infrequently (once in 5-7 years) and impacted the 2005 results. In Guadalajara, Mexico, a remediation project required the disposition of 900 metric tons of soils and water.

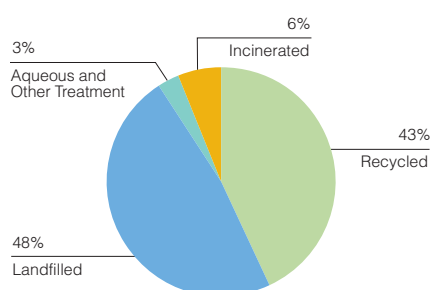
In 2005, IBM recycled 43 percent of its hazardous waste and 48 percent was sent to landfills. Of the total amount landfilled, 93 percent was sludge from industrial wastewater treatment plants. Local government regulations required disposition of this sludge in secure hazardous waste landfills.

IBM's total hazardous waste decreased by 35 percent over the past five years, and has decreased by 94.5 percent since 1987, the base year of this metric.

Hazardous Waste Quantities Worldwide
(2005—metric tons x 1,000)

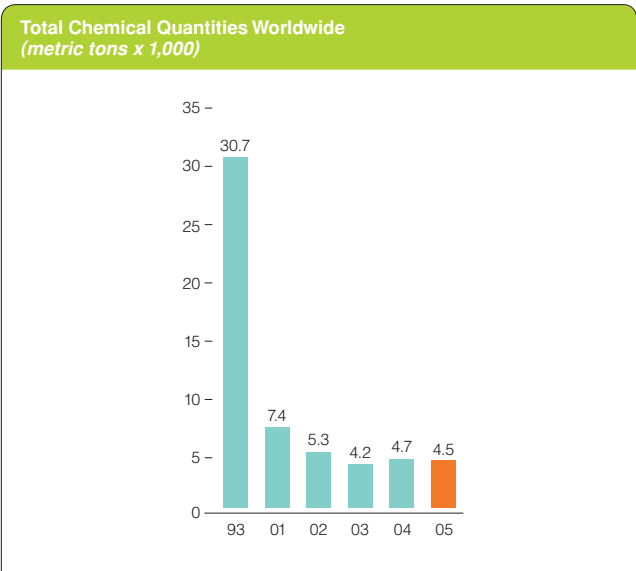


Hazardous Waste Management Worldwide
(2005 quantities—12,483 metric tons)

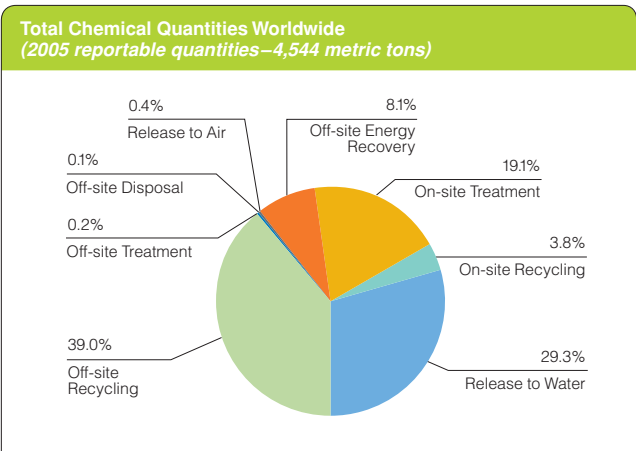


Chemical Use and Management

IBM's operations rely on the use of some chemicals on the U.S. Toxic Release Inventory (TRI) list and the company uses this list to track its chemical use and management globally. Since 1993, the base year of this metric, IBM has reduced its total TRI chemical quantities worldwide by 85.3 percent.



As defined by U.S. SARA Section 313 and PPA. Includes recycling, treatment, energy recovery, releases and off-site transfers.

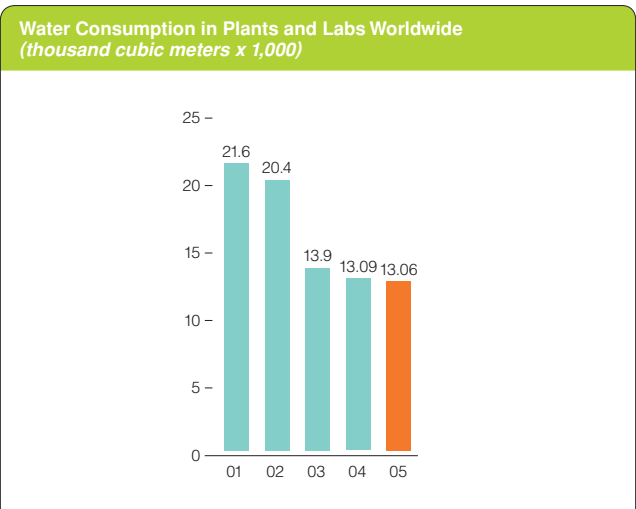


As defined by U.S. SARA Section 313 and PPA.

Increasing Water Conservation

In 2000, IBM's semiconductor manufacturing operations established an annual water savings goal of 2 percent of total water usage, based on the water usage of the previous year and measured as an average over a rolling 5-year period. In 2005, the division achieved a 3.7 percent savings rate, translating to a savings of 306 thousand cubic meters (TCM) of water. In addition, ongoing recycling and reuse activities in semiconductor manufacturing operations accounted for an additional 1,252 TCM of water conserved. Over the past five years, the IBM Microelectronics Division has achieved an average annual water savings of 7 percent versus the 2 percent goal established in 2000.

Overall, IBM's water consumption at its plants and labs worldwide decreased slightly in 2005, from 13,093 TCM in 2004 to 13,057 TCM in 2005.



What can we do to reverse current climate trends?

by Hon. Eileen
Claussen

*President, Pew Center on
Global Climate Change*



The scientific community has reached a strong consensus that the world is warming, due largely to emissions of carbon dioxide and other greenhouse gases from human activities.

If emissions continue to grow at their current pace, scientists project average global temperatures to increase between about 2 and 10 degrees Fahrenheit by 2100, posing potentially dangerous consequences for the United States and the rest of the world. Temperature increases of this magnitude will bring additional sea-level rise, changes in rainfall patterns, increased risk of droughts and floods, threats to biodiversity, and a range of public health challenges. The climate change problem is becoming more immediate and the need to take meaningful action is growing more urgent.

Meeting this challenge will require all segments of society—business, consumers and government—to act, and it is crucial that the corporate community actively lead in finding solutions. Each company has a role to play in the effort. Reducing direct emissions from operations is just one of several contributions; we also need businesses to develop innovative ways to reduce their total carbon footprint. To do so, businesses will have to tap their

best resources in technology, innovation, problem solving, and investment—in fact the complexity of the problem will require a combination of all four.

Fortunately, many forward thinking companies, including IBM, recognize this and are stepping up to the challenge. IBM's Global Innovation Outlook, which provides a forum for thought leaders from around the world to discuss key challenges facing business and society, is a perfect example of the creative steps needed to confront global problems like climate change. And IBM is moving forward with a groundbreaking initiative that seeks to harness and share intellectual property rights that advance environmental solutions. This effort has the potential to mine untapped value, unleash creative power and accelerate the development and dissemination of technologies that protect and improve the environment. The Pew Center looks forward to working with IBM as it continues to put its talents and resources to use in confronting climate change.

Climate Protection

Lowering emissions and conserving energy

IBM believes there are cost-effective strategies available to reduce greenhouse gas emissions, and the company has a comprehensive program to address climate change. IBM has applied technical and engineering expertise to voluntarily reduce emissions associated with its own operations and to help our clients by creating products and offering solutions that are increasingly energy efficient. This not only protects the environment but also enhances the value of our products, offerings and "green" business solutions.



Energy conservation is a major component of IBM's climate protection program because the release of CO₂ by utility companies that power our facilities represents the greatest potential climate impact from our operations.

IBM's energy goal is to achieve annual energy conservation savings equal to 4 percent of the company's actual annual electricity and fuel use by improving energy efficiency and crediting renewable energy use. The company's stringent energy conservation standard recognizes only those projects which actually reduce or avoid the consumption of energy in its operations. Reductions in energy consumption from downsizings, the sale of operations and cost avoidance actions, such as fuel switching and off-peak load shifting, are not included in the energy conservation goal.

In 2005, the energy IBM saved through energy conservation projects was equivalent to 3.4 percent of its actual energy use. Credit for the use of renewable energy equaled 2.1 percent for a total savings of 5.5 percent against the 4 percent goal.

These energy conservation efforts and renewable energy use avoided the emissions of more than 156,000 tons of CO₂ and other combustion-related gases. These actions avoided the consumption of 161 million kWh of electricity and 1.82 million gallons of fuel worldwide, and saved IBM \$10.6 million in energy costs. IBM saved a further \$12.3 million through cost-avoidance actions. This brings the total savings from energy management in 2005 to \$22.9 million.

Between 1990 and 2005, IBM avoided more than 8.98 million metric tons of CO₂ emissions

by conserving a cumulative 17.2 billion kWh of electricity through energy conservation. This equates to a 40 percent reduction in its total worldwide CO₂ emissions since 1990.

Despite the significant amount of energy IBM saved in 2005, the company's actual energy usage and CO₂ emissions increased slightly from 2004. This was driven in part by business growth in some countries, particularly India, Brazil and Australia. In addition, IBM established an enhanced tracking process that enabled the company to capture energy data from small facilities whose data we have not previously been able to gather.

The limited amount of cost-competitive renewable energy available for procurement continues to pose a challenge to our efforts to use more green power. IBM's worldwide use of renewable energy decreased from 4 percent in 2004 to 2.7 percent of its worldwide electrical usage in 2005. However, for 2006, IBM has been able to contract for approximately 175,000 MWh of renewable energy in the U.K., which will increase IBM's worldwide direct purchases of renewable energy to more than 200,000 MWh for 2006.

Electricity and Fuel Use and Related CO₂ Emissions

YEAR	ELECTRICITY AND FUEL USE (THOUSAND MMBTU)	CO ₂ (EST) (TONS X 1,000)
2001	26,190	3,247
2002	25,044	2,902
2003	21,695	2,573
2004	21,360	2,416
2005	22,630	2,810

The above figures include estimates for portions of IBM's office space that are leased. CO₂ emissions are calculated for all energy use, including electricity, fuel oil and natural gas.

IBM uses the greenhouse gas reporting protocol developed by the World Resources Institute and the World Business Council for Sustainable Development to gather and report its CO₂ emissions.

In 2006, IBM has contracted for 96,000 MWh of renewable energy certificates (RECs), which allows us to purchase the CO₂ emission reductions associated with electricity generated from renewable energy sources—in this case, wind turbines. In the U.S., IBM's direct purchases of renewable energy and purchases of RECs currently total 106,725 MWh, ranking IBM as the 10th largest purchaser of renewable energy in the United States Environmental Protection Agency Green Power Partners program at the beginning of 2006.

The evolution of IBM's energy conservation initiatives necessitates new approaches and technologies to capture further opportunities for energy efficiency, and we are increasingly deploying our information technology solutions to assist us in our efforts. For example, we have connected more than 540 electrical meters at 20 of our U.S. locations to perform real-time monitoring of electrical usage. This system collects energy readings every 15 minutes and allows our energy team to identify savings opportunities that may be embedded in day-to-day operations. The system enabled IBM to reduce energy usage at the 20 locations by 1.5 percent in 2005, saving \$747,000.

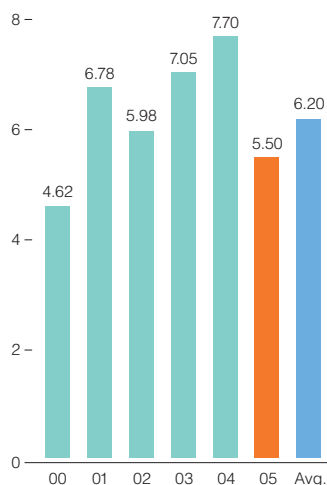
Achieving IBM's Climate Leaders Goals

As a charter member of the U.S. EPA's Climate Leaders program, IBM established a two-part greenhouse gas emissions reduction target associated with energy use and perfluorocompound emissions:

1. Achieve average annual CO₂ emissions reductions equivalent to 4 percent of the emissions associated with the company's worldwide annual electricity and fuel use over the six-year period from 2000 through 2005. These reductions would be achieved through further energy conservation actions and renewable energy purchases.
2. Achieve an absolute 10 percent reduction in perfluorocompound emissions from IBM's semiconductor manufacturing processes by year-end 2005 against a year-2000 base.

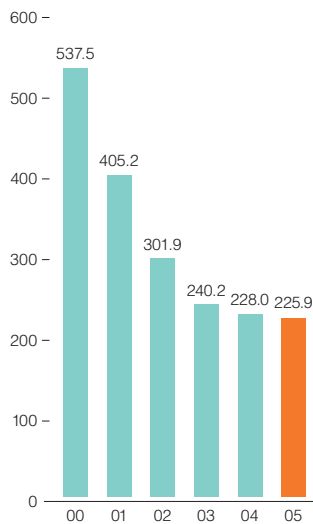
At year-end 2005, IBM had exceeded both of these goals, as can be seen in the two bar charts that follow.

CO₂ Emissions Reductions and Avoidance
(reductions in percent)



Achieved average annual CO₂ emissions reductions equal to 6.2% of the emissions associated with our actual annual energy use (equating to 162,000 metric tons of CO₂ emissions per year) 2000–2005 versus the 4% goal.

PFC Emissions Reductions
(in metric tons CO₂ equivalent x 1,000)



PFC emissions were reduced more than 57% 2000–2005 versus the 10% goal, while our capacity to make semiconductor chips was roughly doubled.

IBM joined the Chicago Climate Exchange (CCX) as a charter member in November 2003. Under the CCX pilot program, IBM committed to reducing its direct CO₂ and CO₂ equivalent emissions and electrical usage by 1 percent per year (4 percent total) from 2003 to 2006. This reduction is measured against a baseline that represents the annual average emissions and electrical usage from 1998 to 2001. The program covers IBM's facilities in Canada, Mexico and the United States.

Two benchmarks were set, one for direct emissions and one for electricity purchases.

- **Direct Emissions:** At year-end 2005, IBM reduced its direct emissions of CO₂ equivalent in North America, including Mexico, by 31 percent below its 2004 CCX baseline, which includes a 3 percent reduction in baseline CO₂ emissions.
- **Electricity Purchases:** At year-end 2005, IBM North American electricity purchases increased by 3 percent above the adjusted 2004 CCX baseline, as discussed above. These increases are covered by the significant reductions in direct emissions, allowing IBM to surpass its overall greenhouse gas reduction commitments to the CCX.

Transportation Initiatives

IBM has also been active in promoting commutation reduction programs for its employees. Two key contributors to this effort are our work-at-home program, which allows employees "work" office to be in their home, and our mobile employees program, which enables employees to work from home a designated number of days each week. These important aspects of IBM's work/life balance programs help our employees better balance their personal and work responsibilities. They also benefit the environment.

More than one-third of IBM's global workforce (more than 100,000 employees) participates in one of these two flexible work programs. In the United States alone, our work-at-home program conserved more than 5 million gallons of fuel and avoided more than 50,000 tons of CO₂ emissions last year and assisted us to rank 15th on the 2006 list of FORTUNE 500 companies participating in the U.S. EPA's Best Workplaces for Commuters program.

In addition, more than 4,000 tons of CO₂ emissions were avoided in 2005 by employees using other commute-choice programs such as carpooling, vanpooling, etc. This was the third year in a row that IBM has been named to the EPA's Top 20 Best Workplaces for Commuters. The company ranked 17th last year.

Globally, many IBM locations provide support for the use of public transit systems, including shuttles from locations to mass transit stations, and alternate transportation or "loaner" cars for work trips during the work day. Where IBM provides leased vehicles for employees, the company is seeking to increase the use of more fuel-efficient vehicles. In France and Belgium, programs to offer fuel-efficient vehicles have resulted in more than 95 percent of 2,600 leased vehicles emitting 140 gm of CO₂/km or less, despite the availability of vehicles with emission levels up to 200 gm of CO₂/km. A similar program is being offered in the United Kingdom.

IBM is also applying its IT expertise to solve environmental challenges through the application of IT hardware and software. IBM Global Business Services is the lead consultant on a project that integrates radio frequency identification (RFID), character recognition and data management software into a real time traffic management system for the city of Stockholm. The system identifies when vehicles enter and leave Stockholm and charges a toll based on the time(s) in which the vehicles were in the city center. In the first month of a seven-month trial in January 2006, the system reduced rush-hour traffic by 100,000 vehicles, reduced congestion by 25 percent and incited 40,000 people to use mass transit—improving people's quality of life as well as the environment.

Environmental Investment and Return

The returns far surpass the cost

Over the past five years, IBM has spent \$278 million in capital and \$546 million in operating expense to build, maintain and upgrade the infrastructure for environmental protection at its plants and labs, and to manage its worldwide environmental programs.

IBM compares its environmental expenses to the estimated savings resulting from its policy of environmental leadership. Savings come from energy; material and water conservation; recycling; packaging improvement initiatives; reductions in chemical use and waste; and process improvements from pollution prevention. Ongoing savings from previous years' initiatives are not carried over in this comparison, yielding very conservative estimates.

IBM also realizes savings through the avoidance of costs that likely would occur in the absence of its environmentally related management system. These savings are not measurable in the same way that expenses are, but avoiding these environmentally related costs does result in savings for IBM, and a reasonable attempt has been made to quantify them.

IBM estimates that over the past eight years, annual savings from its focus on pollution prevention and design for the environment have exceeded environmental expenses by an average of two to one.

For more information on IBM's efforts to protect the environment, visit our Environment Web site: www.ibm.com/ibm/environment

Environmental Expenses Worldwide
(2005—\$ in millions)

Personnel	35.3
Consultant fees	2.8
Laboratory fees	1.7
Permit fees	0.8
Waste treatment and disposal	13.8
Water and wastewater management operations	21.6
Air emission control operations	1.7
Groundwater protection operations	2.7
Other environmental systems operations	2.9
Waste and materials recycling	2.3
Superfund and former IBM site remediation	15.2
Miscellaneous/other	4.8
TOTAL	105.6

Estimated Environmental Savings and Cost Avoidance Worldwide
(2005—\$ in millions)

Location pollution prevention and operations	65.0
Corporate operations*	5.4
Packaging improvements	11.3
Environmentally preferable materials usage	3.5
Energy conservation and cost avoidance	22.9
Superfund and site remediation efficiencies	2.6
Insurance savings**	12.5
Spill remediation cost avoidance***	1.7
Compliance cost avoidance***	130.6
TOTAL	255.5

* Savings or costs avoided by having internal professional staff and tools versus using external consultants and tools.

** Savings achieved through use of U.S. RCRA financial assurance in lieu of environmental impairment insurance.

*** These savings are estimates based upon certain assumptions. The figure for spill remediation cost avoidance is estimated from IBM's actual experience with remediation costs. Compliance cost avoidance includes consideration of potential penalties, legal fees, and business interruptions that are avoided. A figure for potential penalties and legal fees was estimated from an analysis of 2005 U.S. EPA data. An estimate for business interruption was based upon potential impact of a plant shutdown.

2

Expert Collaboration

IBMers aim not just to be innovative ourselves, but to enable our clients, partners and neighbors to innovate—to be “the innovators’ innovator.” And we put it into practice with business leaders, scientists and policy-makers around the world—from universities, to NGOs, to cross-industry initiatives, to new multidisciplinary explorations.



* IBM's Global Innovation Outlook brought 248 leaders from 178 organizations together to discuss today's most pressing sustainability issues in the environment, transportation and the future of the enterprise.

* Working with 20 global health agencies and using advanced computer technology donated to the open source community to combat viral pandemics, IBM has enlisted five of its research centers to enable medical facilities, laboratories and public health agencies to share data and work to prevent global pandemics.

* In 2005, IBM spent more than \$2 billion on goods and services provided by a diverse network of businesses owned by women, lesbians, gays, veterans and minorities in the United States and around the world.

Is it possible to sustain the planet while building the economy?

by Björn Stigson

President, World Business Council for Sustainable Development

When I look at where we're going as a global society, it's not a sustainable direction. We have a carbon-constrained world where carbon emissions could limit economic growth. We have a water-constrained world. We face issues around biodiversity, land use and more. If we don't change direction, we are heading for un-sustainability.

There is a proverb that says:
**If you do not change
direction, you will end up
where you are going.**

Governments are struggling to develop infrastructure and societal services—energy, water, transportation, healthcare, pensions—and they're looking to business to be involved. This has consequences for individual companies and for the business community as a whole. We need to understand these issues. We need business models that take these constraints and opportunities into account.

What can we do, what must we do, and what can we not do if we want to maintain our license to operate and innovate and grow? Are we waiting for regulation, or will we try to form these roles for ourselves?

For example, we have a project at the World Business Council to improve energy efficiency in buildings. By combining the best technologies already available—micro-power, IT controls—we could reduce energy use by more than 50 percent. Our vision is to have buildings that are completely self-sufficient in their energy use by 2050.

That's a huge opportunity for innovation, for business and there are many others—for energy use, water use, climate issues, for recycling and reverse supply chains.

At a World Business Council meeting a couple of years ago, the head of Greenpeace addressed a group of chief executives. He said, "If you guys, who represent the most progressive companies in the world, cannot figure out how we create a sustainable world, it won't happen."

He's right: if business cannot figure this out, then we have a problem. It's up to us to create a sustainable world. No one is going to do it for us.



Björn Stigson (far right) participating in a panel discussion at GIO 2.0

In Business

Working with partners who share similar values and place the same importance on the issues that matter to us is essential to creating a better model for global commerce.

Global Innovation Outlook

A symposium of forward-thinkers and experts on sustainability

IBM's Global Innovation Outlook (GIO) opens the company's technical and business forecasting processes to include external thought leaders in a series of "deep dive" sessions to discuss the emerging trends, challenges and opportunities that affect business and society.

The first GIO, in 2004, focused on healthcare, government and its citizens, and the business of work and life. For its second iteration in 2005–06, the GIO significantly expanded its efforts to identify potential projects and initiatives to change business, society and the world for the better. When we solicited ideas for GIO 2.0 from our innovation partners, nearly 90 percent suggested issues related to the environment and energy.

That became one of three focus areas—along with transportation and the future of the enterprise—for GIO 2.0. Its 15 sessions gathered many of IBM's top researchers, consultants and business leaders, along with 248 leaders from business, academia, the public sector, NGOs and other influential constituents—representing 178 organizations from nearly three dozen countries and regions.



Discussions about the environment tend to place preservation on one side and business interests on the other. Environmental and economic agendas frequently clash, but notions of ecological responsibility and business

responsibility are actually similar—both disdain waste while embracing the notion of responsible stewardship and investment of assets in order to reap greater returns in the long term.

Viewed that way, it's easier to imagine environmental protection and economic prosperity as not only compatible, but also simultaneously attainable. GIO 2.0 sought ideas for innovation to advance both agendas, by asking broad questions:

- What areas of environmental sustainability hold the most promise for private and public sector innovation?
- What are the management implications when well-known environmental issues are confronted?
- Does increased regulation accelerate or impede innovation around eco-efficient technologies?

The GIO participants' broad ecosystems of expertise ensured perspectives both conflicting and complementary—a potent combination for innovative thinking—and resulted in six insights:

- Significant opportunities for innovation and entirely new business models exist at the back end of the product life cycle—in how products and their component parts are reused, redistributed and disposed of.
- Companies might develop "reverse supply networks" through which they exchange used components and manufacturing by-products with other companies that can use them.
- Companies can create competitive advantage through voluntary eco-friendly initiatives that get ahead of government regulations and restrictions.
- Landfills might become mines—some natural resources are now more plentiful in landfills than in the earth, and could be easier to retrieve.
- Common, verifiable approaches to disclosing product contents might encourage smarter, more informed purchase decisions, and drive manufacturing innovations that minimize environmental damage.
- Micropower—small-scale energy sources such as wind or solar—could not only help overburdened power grids in the developed world, but also serve as the catalyst for modernization in developing countries.

Insights from both GIOs are already shaping IBM's internal research, policies and practices, but we are actively sharing them with as wide an audience as we can in the hope that they provoke and stimulate new approaches, new thinking, and a better world.

You can read more about the Global Innovation Outlook, and download full reports from both events, at www.ibm.com/gio

Global Leadership Network

Consortium advocates corporate transparency

Over the last decade, examples of lapses in corporate behavior have dramatically impacted shareholders and the effects have spilled over and affected corporate reputations more broadly. An increasing number of issues—globalization, the climate crisis, human rights abuses, instability—are being linked by our customers, suppliers and society to corporate behavior. As a recent McKinsey executive survey demonstrated, a majority of companies “admit they are ineffective at managing wider social and political issues.”

Last year IBM introduced the Global Leadership Network (GLN) to help companies be more effective managing these issues through performance excellence in corporate citizenship.

The GLN started with a 10-member steering committee: IBM, GE, GM, Cemex, Diageo, Omron, FedEx, Manpower, Cargill and 3M. These firms represent more than \$544 billion in annual revenues, employing some 1.4 million people. As expectations of corporate behavior have intensified, so has GLN membership. New members include Nokia, Pfizer, Prudential, Alcoa Latin America, BASF Brazil, Petrobras, Philips Latin America, Santander Banespa, Vivo and South Korea Telecom.

The GLN, with research assistance provided by AccountAbility in the United Kingdom and the Boston College Center for Corporate Citizenship in the United States, is more than a group that has signed on to a set of aspirational goals or precepts. And its activities go beyond an agreement to file social reports or sign nonbinding resolutions. Rather, the GLN's core is a notion that a corporation, by linking arms with peers in similar businesses or with similar goals, can develop a strategic network and become more effective at managing a wider range of social and political issues by improving its performance as a corporate citizen.

To that end, the group has developed a multiuser, Web-based benchmarking and assessment tool for globally integrated enterprises to quantitatively and qualitatively determine what are the material corporate citizenship drivers that impact business strategy and operations. Once corporate citizenship drivers are established, the tool helps the GLN member develop and execute an enterprise plan to achieve effective management of wider social and political issues.

“The GLN is an effort by companies themselves to define what about their social performance is of material business benefit to the company, and then to use that data and analysis compared against other companies, as a means of figuring out how to improve,” said Stanley S. Litow, president of the IBM International Foundation and vice president of IBM Corporate

Community Relations. Moreover, added Litow: “It allows you to do much of this work online, saving both time and money and permitting participating companies to get the strategic guidance and assistance they need to become truly world-class.”

So, for example, a firm might discover through use of the assessment tool that its environmental programs are not prioritizing issues related to climate change or that philanthropic program achievements are not being communicated to key stakeholders effectively and that, as a consequence, the firm is losing customers whose buyer behavior is influenced by these issues. With benchmarking data in hand and examples of what practices are successful, and how to do it, the firm can work to improve its performance and measure its success.

The GLN's work has earned praise from experts around the world, including Harvard Business School Professor Rosabeth Moss Kanter and AccountAbility Chief Executive Simon Zadek. According to Kanter: “IBM has moved the state of the dialogue to say, ‘Let's not just all have a foundation and write checks. Rather, let's ask: How do we run the business so that we are also addressing the most pressing problems of the world from basic education and world pandemics to global warming?’”

“IBM has taken real leadership in catalyzing the creation of the Global Leadership Network,” says Zadek, “both in leading by example, and by bringing other corporate leaders together to create this new entity to develop the thinking, tools and practice needed to take corporate citizenship to the next level. And they have continued to go the extra mile, applying their core competencies in creating a Web-based tool that now enables any company, anywhere in the world, to benefit as part of the network's community of practice through engagement, learning and benchmarking.”

The “network” component of the GLN allows member companies to benchmark their performance against best-in-class peers. The network is also a learning vehicle where member companies learn from each other.

The goal of the corporate citizenship planning and assessment tool is to help a company understand how well it is aligned internally so that it can perform at world-class levels as a business and as a corporate citizen. “The value of the tool is completely dependent on the openness, candor and depth that a company representative brings to the process of completing it,” concludes Litow.



Why does corporate responsibility matter?

by Rosabeth Moss Kanter

Ernest L. Arbuckle Professor of Business Administration, Harvard Business School



Corporate responsibility today is demanded by all the key constituencies of a company. Increasingly, investors demand it. Customers demand it because it shows the trustworthiness of a company. Employees demand it because they want to go home to their families and be proud of what the company stands for. It's become an expectation.

The GLN started with a
10-member steering committee:

IBM, GE, GM, Cemex, Diageo,
Omron, FedEx, Manpower, Cargill and 3M.

I believe that all companies can participate in corporate responsibility at some level. The size of the company doesn't matter. What's important is that corporate responsibility is a priority of the company.

Some companies make it harder than it should be. Smart companies are able to find ways to benefit the communities in which they operate by looking at what they do best—it's not hard to do. The most significant and sustainable activities emanate from certain key skills of the business. Companies that find ways to parlay their strengths into corporate responsibility programs are most successful. Asking how a company's product or service can benefit the community is a good start.

I think the most important thing is that there are some active champions within a company for these efforts. They can come from many different roles. What's important is that there is a leader who's convinced that corporate responsibility is important and who will actively champion the goals and sell them to other people.

IBM has done things ahead of the curve. It is pushing the state of the art of corporate responsibility. What's interesting to me is that IBM has brought this work full circle to products and services. Like another company in the Global Leadership Network, Omron in Japan, the purpose of the business is to produce products and services that will help the society. Sometimes it's a philanthropic contribution that drives the development of a product or service. In the end, many companies realize that corporate responsibility is just good business.

IBM Accessibility Around the World

With the help of IBM, innovative technologies are appearing in a diverse range of settings.

At the Alexander Graham Bell National Historic Site in Baddock, Nova Scotia, visitors with hearing difficulties use a handheld wireless computer to enhance their museum experience. The software rapidly converts spoken words into text for visitors who tour the Cape Breton village where Bell spent summers.

Mitsukoshi, the oldest department store in Japan, engaged IBM's Tokyo Research Lab and Business Consulting Service to make its Web site more accessible to older customers. Today, the blind or low-vision shopper on Mitsukoshi's Web site can utilize IBM's Home Page Reader. This talking Web browser uses a text-to-speech synthesizer that reads aloud the text and describes the graphics on the screen. Character enlargement, easily adjustable font size and varied color schemes made possible with IBM Easy Web Browsing have also proved valuable in assisting customers with low vision, cataracts, color blindness and other visual difficulties. Now these customers shop anywhere, anytime.

In the United States, collaboration between IBM and Hamer Enterprises on behalf of Travis County, Texas, has created an enhanced county Web site that gives residents entry to multiple Web applications from a single point of access. Users can register to vote, transact business with the Department of Motor Vehicles, pay court fees and track tax payments. The accessible site enables users to manage multiple applications, easily navigating between them. The instructions, data and other information on the site are coded so screen readers clearly guide those with diminished vision and allow them to complete tasks in the appropriate order.

IBM assisted the Italian Senato della Repubblica in complying with the World Wide Web Consortium's Web Content Accessibility Guidelines by making Home Page Reader and Easy Web Browsing available. Here, too, a new and simplified Web site makes it easier for elderly and disabled constituents to gain electronic access to government information. The site now meets the specifications of the World Wide Web Consortium's Web Content Accessibility Guidelines AA level, making it fully accessible to people with a wide range of needs.

Center for Human Capability

A new space to share ideas on enabling access and potential

Shorter employment tenures. An aging workforce. New employee work-at-home models. Cultural divides within increasingly global companies. All of these stressors, and more, are placing demands on IBM and many of its peer companies.

With the goal of bringing together experts from business, academia, nonprofit, government, and other sectors to examine and solve these issues, IBM opened the Center for Human Capability (CHC) in December 2005. Based in Washington, D.C., the Center's creation is the successful result of months of collaborative efforts between internal and external parties.

This first-of-a-kind demonstration space is both a physical space at which meetings and collaborative brainstorming among IBM employees can take place, and a resource intended to bring together previously independent parties to promote discussions around the topic of maximizing human potential. Subject matter experts from both inside and outside of IBM can engage in an ongoing dialog in an open environment and discover successful solutions to advance human achievement in the 21st century and beyond.

The mission of the CHC is prominently displayed at its entrance: "Enabling individuals and organizations to maximize human capability, regardless of age or ability, through innovative technology and new models of working." To accomplish this objective successfully, the Center raises abstract concepts and provides examples of solutions that organizations—both public and private—can consider implementing at the individual, organizational and cross-enterprise level. It also showcases examples of technology designed to address each of these areas.

The CHC is organized into a series of centers or areas that educate visitors about the issues and challenges expected to arise in the coming decades, as well as provide opportunities for discussion. For example, the first station provides the context for significant societal changes in the upcoming decades, including demographic shifts, increasing diversity, new models of employment and shrinking employment tenures. As one moves through the CHC, examples of tools and methodologies to enable individuals, equip organizations or reimagine the structure of a given corporation or enterprise are available.

Moving forward, the CHC will be a location to convene leaders for dialog and identification and resolution of common issues.

For Healthcare Reform

Few issues matter more or are more complex than the health of individuals and communities. By facilitating the creation and improvement of the tools used by healthcare specialists, it's possible to lower costs and raise the quality of care for everyone.

Transforming Healthcare

Leveraging technology and collaboration in primary care

Improving healthcare at a broad, societal level would require advances on many fronts. Chief among them, the ability to apply information technology in ways that both lower costs and improve the quality of care has the potential to transform healthcare for practitioners, providers and patients. IBM sees this as an opportunity to innovate in an industry that currently is immersed in paper records, bureaucratic dysfunction and unnecessary patient error. Ultimately, and beyond discussions of specific technologies and business models, such a transformation will require collaboration across the owners of currently discrete storehouses of data and expertise.

As a global purchaser of healthcare for our employees, IBM is taking an active role in this transformation in ways that not only promote reform but also bring benefits to IBM employees.

Using incentives for wellness activities to encourage and reward healthy behavior, IBM's programs foster a culture of physical activity while providing resources and tools to assess and plan improvement actions. Those earning IBM's Physical Activity Rebate (committed to exercise 4 times a week) increased by 21 percent in 2005 and nearly 104,000 employees participated in the Health Risk Assessment, resulting in health risk reductions and health risk profile improvements. This does not just help the employees. Participants with fewer health risks cost less for IBM to insure.

IBM's Electronic Personal Health Record and other Web-based tools make wellness activities easier. Employees can enter and store their personal medical information in one place, take an online health risk assessment, use online tools to do such things as evaluate stress and create an action plan for improvement, and take advantage of technical Web resources related to health and wellness. Coupled with this is a program to focus more support on employees who need the most care, those with specific chronic illnesses. Support includes medical evaluations, telephone and other support, follow-on consultations and more to assist employees and drive improvements for these individuals.

IBM uses financial incentives to shape and change the way that medical care is delivered. IBM uses value-based purchasing including incentives to providers to re-engineer their practice, adopt information technology and reward physicians who have

been recognized for outstanding quality under the National Committee for Quality Assurance's (NCQA) physician practice connection and the new Bridges to Excellence (B2E) healthcare quality initiative. Central to IBM's wellness program is the concept of Patient Centric Primary Care—each patient has an ongoing relationship with his or her Primary Care Physician, who can both provide care and coordinate care with other medical disciplines as needed. To encourage this relationship, IBM offers free preventive care with a focus on the Primary Care Physician. IBM calls its efforts and focus "Patient Centric Primary Care."

In some countries, like the United States, primary care from general practitioners, family practice and general internists whom patients know and trust has gradually given way to an era of specialists—but regular contact with these primary care practitioners is a vital element of healthcare that delivers high impact at lower cost.

"Connected healthcare" would permit the instantaneous access and exchange of information between doctors, hospitals, pharmacies and insurers.

"The decline of primary care is a neglected but critical root cause of the dysfunction in our healthcare delivery system in the United States," says Dr. Martin Sepulveda, IBM's vice president of Global Well-Being Services and Health Benefits. "We have a stake in changing this, by improving the frequency and quality of interactions between patients and their primary care providers."

Reviving primary care includes supporting primary care doctors with technology that enables them to fulfill this role more effectively. For example, IBM is participating in Bridges to Excellence, a nonprofit effort to encourage a more uniform and efficient level of primary care by rewarding providers who follow "best practices" from the NCQA.

In Georgia, IBM and 14 other employers pay physicians an extra fee for every diabetic patient covered under those companies' insurance plans—if the physicians follow guidelines

for diabetes care and use electronic medical records systems that help implement the guidelines and improve efficiency. IBM also participates in a B2E program in the Boston area that includes diabetes treatment, cardiac care and physician practice re-engineering based on information technology.

Ultimately, this vision of primary care would create a “medical home” for each patient to receive first contact, comprehensive and continuous care from primary care practitioners with technology-enabled “best practice” knowledge and complete medical information based on electronic health records. A networked healthcare industry would permit exchange and access to information among doctors, hospitals, pharmacies and insurers—with tremendous potential for reducing costs and improving the quality of care.

If a patient’s complete health records were stored electronically, for example, a new prescription could be checked automatically against allergies or for interactions it could have with other drugs already being taken. Likewise, connecting healthcare providers with an information network creates further opportunities. Instant transmission of test results from a laboratory to a doctor, for example, can save critical time in making a diagnosis and starting treatment—as well as reduce the number of duplicate tests performed.

Systems like this already exist in countries including Denmark and Singapore, but wider adoption will take time, effort and considerable investment. Meanwhile, IBM is finding opportunities to make this vision of connected healthcare a reality for our employees.

For example, the Taconic Health Information Network and Community (THINC) connects doctors, hospitals, laboratories, pharmacies and insurers in New York’s Mid-Hudson Valley. IBM supports THINC by joining other regional employers and insurers in providing incentives to physicians who use it and meet quality standards. This helps smaller medical offices to make the required investments of time and money to participate.

Physicians use THINC to retrieve test results and medical images such as x-rays from hospitals and labs, and to transmit prescriptions to pharmacies. The system will eventually let any doctor or hospital retrieve a patient’s complete health record when needed.

Personal Health Records

Digitizing health records will save lives and lower costs

IBM’s decision to implement a first-generation personal health record system in December 2005 is just part of its commitment to better the health of its 133,000 U.S.-based employees and their dependents. Through the IBM Wellness Center, employees can also partake of a variety of wellness programs, including

smoking cessation and weight control. The personal health record is also linked to customized information to help employees take better control of chronic conditions, such as diabetes.

The personal health record system, already used by 60,000 employees, is part of a much broader vision with national reach and global promise. For all the high-tech in healthcare, the sector remains highly fragmented in terms of electronic data exchange.

Regionally, IBM hopes the personalized health records will be integrated with a vast array of additional healthcare data for each employee, so that medical care can be more thorough, efficient and inexpensive. At the federal level, IBM is working with other technology vendors to develop the National Healthcare Information Network, the prototype for a vast electronic health record system for all Americans that will create seamless “interoperability,” to link the medical records—pharmacy details, doctors’ notes, hospital visit details, insurance data and more—of every individual.

If the creation of such an infrastructure for “e-health,” proposed by President Bush in 2004 with a 10-year timeline for development, sounds like a daunting task, that’s because it is. While much health information on individuals is already available in electronic form, much more is not. And the information that is available is fragmented for almost every citizen, with records scattered in myriad locations, in paper files or in electronic formats that can’t yet “talk” to one another.

Meanwhile, many doctors resist the change to an electronic office, for which they say they do not have funds for equipment or training.

“The irony is that much of the system could be better quality and lower cost if we had a deeply digital infrastructure, so that all of your records and prescriptions could be sent electronically,” says IBM’s Dr. Jane Barlow, a Board-certified medical physician and certified Physician Executive who oversees the company’s healthcare integration practices. Also, if specialists could access an individual’s electronic health record, patients would be relieved of filling out lengthy medical forms each time they see a new doctor.

IBM already is reaching out to secure contracts that will put it at the forefront of creating medical-record systems. In June 2006, the company announced a \$10 million contract to provide patient information to Alberta, Canada, physicians and other healthcare workers and facilities in an attempt to reduce medical errors and adverse drug reactions and improve the quality and speed of service.

Over the course of the two-year contract with the Alberta government, IBM will help manage the rollout of the system and will recruit, enroll and train users such as physicians, pharmacists and other healthcare providers in health region

facilities, offices and pharmacies across the province. IBM will also operate a toll-free user helpline. Meanwhile, the concept of electronic healthcare is advancing on national levels. For instance, in Denmark, a national e-health network that IBM helped establish assures that any individual can make an appointment to see a doctor who will view that patient's entire medical history online, create a treatment plan targeted to the data available and submit prescriptions over the Internet.

In the United States, the impediments to creation of such a system are much more complex, in part because a vast array of computer systems, many running on incompatible data standards, must be linked to connect with one another electronically. Meanwhile, privacy concerns must be overcome. While recent surveys show that more than three-quarters of the American population understands, and believes in, the goals of an electronic health record system, roughly half fear it will be used against them to deny insurance coverage or to access information they deem private.

Experts, however, note that a great deal of the information individuals think is private because it's paper-based is already widely available in insurance records. Moreover, experts point out that granting accessibility to the e-information can, and likely will, be controlled by the patient. "The goal here is to enhance patient control of medical care, not to invade a

patient's delicate health history," notes Dr. Barlow. "And in the end, patients will get much better treatment at lower cost to them and to the health-care system."

Workplace Safety

Today, IBM's safety record continues to be among the best in the industry, as documented in the rates of illness and injury as measured by the U.S. Occupational Safety and Health Administration (OSHA), as well as our participation in OSHA's Voluntary Protection Program (VPP). IBM sites that have received recognition as VPP Star sites are located in Rochester, Minnesota; San Jose, California; Yorktown Heights, New York; and Tucson, Arizona. For more information about IBM's workplace safety record, refer to the online version of this report.

Global Pandemic Initiative

Coordinating preparedness with health organizations

Even as headlines warn of the dangers of diseases such as avian influenza, the ability of the world's health agencies to react in concert is far from certain, and the behavior of the diseases themselves is wildly unpredictable.

Launched in May 2006, the Global Pandemic Initiative seeks to help monitor, control and prevent widespread

The Goals of This Federal Initiative Are as Ambitious as They Are Pressing

To alter dramatically the way healthcare data is collected, disseminated and accessed—with privacy for patients assured—by physicians, pharmacists, lab companies and hospitals.

To ensure that doctors treating patients who are away from home but who become ill or injured can access any record they may need: from a CT scan to the latest prescription a patient has been given.

To enhance research. Information from thousands, even millions, of patient records could be "de-personalized"—that is, personal information could be extracted—and that data used to lend insights into immunization rates, common symptoms of a vast array of diseases or treatments that work in a wide swath of the population. Similarly, epidemiologists would have a central repository that would recognize dangerous trends quickly. "You could truly catch an epidemic in its initial stages," says Stacie Propst, Ph.D., director of science policy for Research America in Alexandria, Virginia. "Now, though we track every epidemic feasible in this country, doctors have to report isolated cases of a potentially critical disease to their local health department. The data is haphazard and sometimes incomplete."

To prevent the 100,000 medical errors in the United States each year that experts say are the direct result of handwriting that can't be read or instructions that are misunderstood by medical personnel because they're not logged electronically.

To give new doctors in a patient's life better information. A patient may visit an orthopedist for an immediate and acute problem—say, a sprained ankle—but something else more significant in the patient's history, such as high blood pressure or a history of high cholesterol, may be essential to the doctor's treatment or may motivate the doctor to suggest additional care in other specialties. "The idea of this deep and rich record of medical history is valuable on so many different fronts," notes Dr. Jane Barlow, IBM Global Well-Being and Health Benefits director.

To render feasible, as future developments from the Human Genome project unfold, the targeting of care to an individual's genetic predisposition. Genetic tests that reveal an individual's propensity for disease could be countered with a lifetime of preventative treatments tailored to that person's unique genome.

To eliminate the need for a patient to remember, and recite, his entire medical history to a physician, especially at a time when acute care must be rendered. Barlow notes that patients often have fragmented memories and may not remember all the medications they're taking, the treatments they've had or the drugs to which they're allergic. Such data would be stored in the electronic health record system, and new communication systems could prompt a patient to take his or her medicine, or perform a daily test, with the results captured into his or her digital history.

Global Corporate Contributions by Geography (in millions)

	2001	2002	2003	2004	2005
United States	102.3	100.7	99.4	99.9	103.0
Asia Pacific	7.3	12.4	12.5	12.9	13.5
Canada	2.7	7.0	4.3	3.4	3.6
Europe, Middle East and Africa	12.5	16.3	22.1	23.1	23.9
Latin America	2.3	3.8	4.5	4.4	4.5
Total	127.1	140.2	142.8	143.7	148.5

Global Corporate Contributions by Issue (in millions)

	2001	2002	2003	2004	2005
K-12 Education	53.2	56.3	54.6	47.7	55.6
Higher/Other Education	44.6	54.0	55.2	54.7	44.7
Culture	10.4	11.5	13.1	13.3	11.2
Human Services	13.4	14.2	12.8	15.2	18.9
Health	1.8	1.4	1.4	3.2	7.8
Other	3.0	2.2	5.1	8.9	9.7
Environment	0.7	0.6	0.6	0.7	0.6
Total	127.1	140.2	142.8	143.7	148.5

outbreaks of infectious disease through a collaborative effort by more than 20 worldwide health agencies. Among IBM's partners are the World Health Organization, the Centers for Disease Control and Prevention, the U.S. Agency for International Development and the Center for Biosecurity at the University of Pittsburgh Medical Center.

Coordinated efforts that cross political and economic boundaries are essential in confronting infectious disease. The ease with which people and goods travel the globe means that disease transmission from nation to nation and continent to continent can occur with stunning speed. The much-publicized concern the avian flu will mutate into a form that one human can transmit directly to another has sparked public health officials to seek ways to monitor its development. Tracking new strains of a virus has become essential so that agencies can react in real time, can plan for the future and can even anticipate how a disease will progress.

Healthcare "innovation centers," which IBM will establish at existing company research facilities in China, Israel, India, Switzerland and the United States, are at the core of the Global Pandemic Initiative. Using advanced computer technology that IBM will contribute to the open source community, the centers will collect fresh information emerging from hospitals. The software, called the Interoperable Healthcare Information Infrastructure (IHII), will enable a range of medical facilities, laboratories and public health agencies to share data. The

assemblage of clinical data will make possible the tracking of emerging disease outbreaks.

According to Joseph M. Jasinski, program director for Healthcare and Life Sciences Research at the Thomas J. Watson Research Center in New York, "Our goal is to allow the entire modeling community to reach a consensus view of what data sets best describe the world from a disease transmission point of view." The initiative will employ a second open source program, the Spatio-Temporal Epidemiological Modeler (STEM), which utilizes information assembled by IHII. The STEM software integrates topographical information, human and bird travel patterns and airport locations to produce models that predict the likely geographical spread of disease.

STEM's predictive capability will enable governments and healthcare organizations to prepare plans that anticipate patterns of disease transmission and that assess the risks posed by the infection. By presenting policy makers with what-if scenarios as they consider a potential pandemic, response times may be shortened so treatments can be delivered more rapidly and more informed decisions can be made regarding isolation, school closures or travel bans.

"Project Checkmate" embodies another critical goal of the Global Pandemic initiative: to enhance the development and distribution of new vaccines. A collaboration between IBM and The Scripps Research Institute's new biomedical research facility, Scripps Florida, Checkmate will use the ultra-high speed Blue Gene supercomputer to model and simulate pandemic viruses such as the avian flu virus. By studying the genetic variations in a virus and how the immune systems in its hosts respond, the rate at which drug makers can develop vaccines may be accelerated in the hope of making them available to slow the spread of disease.

By exploiting and testing new information technologies to capture and analyze epidemiological and even molecular data, the emerging worldwide collaboration involving industry, medicine, governments and public health agencies aims to anticipate and prepare for future outbreaks.

With Memorial Sloan-Kettering

A new tool for cancer research

The fight against cancer has been a process of evolution, with a range of established and emerging treatments available today for hundreds of cancer types. Knowledge of these many options, and their record of success, is crucial to effective care and to developing new treatments.

Researchers and clinicians at the Memorial Sloan-Kettering Cancer Center (MSKCC) in New York now have a powerful new

tool for providing this information—a system to extract useful information faster and more easily from the Center's records on more than 1 million patients.

IBM collaborated with MSKCC to create the system, funding its development with a \$3 million grant that included technical specialists, linguistic experts, consulting resources, as well as hardware and software.

MSKCC is among the world's leading cancer treatment and research institutions, as well as the oldest and largest. More than 600 attending staff treat tens of thousands of patients annually, while more than 100 researchers work in its biomedical research institute.

MSKCC's extensive data warehouse contains information on patient visits and admissions, diagnoses and procedures, lab results, surgeries and details of every patient's individual cancer and treatment—and more. The new system allows researchers and clinicians to view, analyze and mine this data from their own desktops, with little technical assistance—providing better ways to use it in answering questions about diagnosis, treatment and prognosis.

For example, a researcher investigating the effects of simultaneous treatments might want to examine the progress of patients who received concurrent therapies, such as chemotherapy and radiation, for a specific type of cancer. Another might want to identify patients with a specific type

of cancer cell (such as adenocarcinoma) in order to study the genetic features of these tumors and the outcomes of patients with this form of cancer.

Inquiries like these—and ones even more complex—were previously possible but required sophisticated technical expertise or had to involve MSKCC's information systems department in a time-consuming process. The new system gives researchers and clinicians direct access, while removing from the results any details that identify individual patients, to comply with regulations protecting the privacy of health records.

IBM researchers, working with MSKCC, also developed an automated method of identifying cancer characteristics described in free-text pathology reports. This enables pathology information such as diagnosis and tumor grade to be extracted from the reports and integrated with other clinical data—a new capability.

"Faster, easier access to this vast resource of information improves its value," says John R. Gunn, executive vice president, Memorial Sloan-Kettering Cancer Center. "Direct access to the data encourages researchers to explore it and to adjust inquiries more frequently to better understand cancer.

"There is knowledge embedded in all that information, perhaps even answers to questions that haven't yet been asked in a particular way. Asking more questions can produce not only more answers, but sometimes unexpected ones."

For Progressive Policy

Progress often brings far-reaching implications and unexpected consequences. Whenever possible, we try to preempt complications inherent in technological advancements by setting and maintaining higher standards to which we hold our employees, partners, clients and, of course, ourselves.

Genetic Non-discrimination Policy

Safeguarding genetic privacy

Recognizing that advances in healthcare and uses of health information—in particular genetic information—have created a new set of policy implications, IBM made a sweeping decision in October 2005 by announcing a landmark Genetic Non-discrimination Policy for its worldwide employees.

"What IBM did is remarkable," says Sharon Terry, president and chief executive officer of the Genetic Alliance, a consortium of 600 organizations that represent the millions of individuals suffering from genetic conditions. "IBM is essentially saying, 'You don't have to worry about employment or health insurance decisions being made on the basis of things you can't control, like your own genetic makeup. It's about your skills and what you bring to the company.'"

The full promise of genomics-based medicine can only be realized if we properly address genetic privacy.

IBM's action, widely reported in the press, reflects decades of leadership in equal opportunity and respect for employee privacy. The company has for years prohibited workplace discrimination and hiring decisions based on race, gender, age, disability or sexual orientation. "IBM is taking this step because it is the right thing to do for our employees, for our communities and for promoting continued life-saving innovation in life sciences," Chairman and Chief Executive Officer Samuel J. Palmisano told employees in a corporate memo.

IBM's announcement applies to all 330,000 of its employees worldwide. In fact, in IBM's view, if other companies, states and the federal government don't act similarly regarding genetic privacy, the full promise of genomics-based medicine will not be realized. And that promise is too good to compromise, experts say. On one hand, curative treatments targeted to particular genetic disorders may be found, extending lives or, at least, mitigating symptoms. Physicians can already test for certain mutations to determine optimal treatments for diseases like cancer and diabetes. Moreover, known in advance, information could be used to prevent onset of certain diseases or to avail doctors and their patients of the sorts of lifestyle information that would be most likely to deter disease.

On the other hand, if inappropriately used, the outcomes of this fascinating new information could be devastating. If health insurers have the data, for instance, they could choose to deny benefits to a given person or to members of his or her family, or raise premiums based on the information. And if corporations inappropriately use genetic information about employees, they could negatively impact a productive employee's career.

"This field of study is moving with remarkable speed," says Stacie Propst, Ph.D., director of science policy for Research America in Alexandria, Virginia. "Researchers are identifying more and more genes that correlate with specific diseases and conditions. Imagine discrimination of an employee based on her potential to become obese, or his potential to develop Alzheimer's disease. The nightmare scenarios are frightening."

Terry suggests another possibility—that an individual learns through genetic testing that he is "a slow metabolizer" of drugs and, therefore, is less likely to respond to treatments, more likely

to stay sick longer and may have greater healthcare costs associated with his treatment. Yet, under the company's policy, such an employee will not face discrimination at IBM.

IBM's commitment and attention to privacy in healthcare is not new. Another example came about three years ago when IBM informed its health insurance plans that, in order to prevent identity fraud, it would expect them not to use Social Security numbers unless absolutely necessary—and then, only under appropriate security precautions. IBM's announcement on genetic screening seeks to protect employees in similar ways, say some of the policy makers who have advised the company, such as Alan Westin, professor emeritus at Columbia University and president of the Center for Social and Legal Research.

"For the past 20 years, the privacy advocacy position has been that, unless forbidden by law, insurers and employers will rush to embrace this technology and force it on us," says Westin. "The assumption has been that, if it can be done, if technology makes it possible, it will be done and it will be done badly. While true for some technological capabilities," Westin says, "this has not, in fact, been true so far with adoption of required genetic testing by employers or insurers."

1914

IBM hires its first employee with a disability

1953

IBM establishes a formal equal opportunity policy

1984

IBM adds sexual orientation to company policies regarding non-discrimination

2005

IBM adds genetic privacy to company policies regarding non-discrimination

In fact, some 31 states already have laws relating to employers' use of genetic screening information. However, there is no settled federal law, although there is federal legislation pending in Congress that would prohibit discrimination on the basis of genetic tests. President Bill Clinton signed an executive order in the 1990s to prohibit genetic discrimination for all federal employees.

So far, no other major companies have followed IBM's lead. But IBM executives hope and expect that will change. "Organizations will grapple with this issue," says Harriet Pearson, vice president of Corporate Affairs and IBM's Chief Privacy Officer. "At this point, it seems we've made a policy decision a little earlier than others. That's simply because we take seriously our responsibility and the influence we might have. We want very much to have a positive impact on society."

Is your retirement ready for you?

by Dallas Salisbury

President and CEO, Employee Benefit Research Institute

Retirement in the United States has changed dramatically over the last 100 years. The most significant single factor has been the extension of life expectancy. Those born in 1900 had an average life expectancy of 47 years. Today at birth it is 77.5.

Boomers began to turn 60 this year. Of every 100 born in 1946, about 88 percent are still alive today. Life expectancy continues to extend due to medical advances and behavioral change.

The second significant factor is job mobility. Job mobility means that workers need to save each and every year they work, and keep the savings when they change jobs. The employment-tied retirement savings system in the nation today is building value for half of all wage and salary workers. Fourteen percent are in only a defined benefit plan, 20 percent are in only a defined contribution plan like a 401(k), and 9 percent are in both types of plans. More workers each year are being moved to defined contribution only. Half of all workers have no plan at work. Nearly 40 percent of workers report doing no savings at all toward retirement.

The first implication of these trends is the absolute necessity of Social Security if Americans are going to be able to retire in the future. The second implication is that the workers, like those at IBM, with plans, are in the winning opportunity group. The third implication is that the 30 percent of workers who have employers, like IBM, that make automatic contributions to a plan are in the best position. The fourth implication is that workers in a plan that offers lifetime income annuity options, like IBM, have the best opportunity to be assured of lifetime income in a world where none of us know how long we could live, but know that it could be 100+ years. The fifth implication is that plans that allow the full benefit value to move with the worker from job to job, like the IBM 401(k), and keep growing, provide the best prospect of widespread success over the work span. The sixth implication is the need for extensive financial and life-span education, like IBM will implement, in order to move more workers to save more, plan for long life spans, choose income options that will last a lifetime, and make the right decisions upon job and life-stage changes to assure that savings are preserved for the future.

Non-exempt employees participating in the Pension Credit Formula, or prior plan, will be eligible for an additional Special Savings Award to boost their personal savings.



Dallas Salisbury is a pension and benefits expert based in Washington, D.C.

PLANSPONSOR magazine recognized IBM in February 2006 as Plan Sponsor of the Year. The article highlighted innovations in employee education, the 401(k) and options for workers. And, it underlined the open and transparent communication with employees as IBM announced major plan changes in January 2006.

The March 2006 National Summit on Retirement Savings spent two days highlighting best practices in plan design and 401(k) plan design. The IBM plan and education programs incorporate all of the identified best practices and move beyond them to incorporate items that were on the delegate "wish lists," like an automatic base employer contribution, one-on-one financial planning, disability insurance for contributions and life income annuity options for full life-span income security.

IBM designed, announced and is now implementing changes against the backdrop of a public policy debate over pensions and 401(k) plans. There is little in that debate that will affect IBM, its employees or retirees, as IBM has embraced and exceeded in its actions the debated "reforms." The defined benefit plans are funded and do not present a risk to the Pension Benefit Guaranty

Corporation. The 401(k) has automatic enrollment, default diversification, auto-rebalancing and extensive opportunities for professional education and advice. IBM has moved beyond most with a base automatic contribution—available to less than 7 percent of defined contribution plan participants—and other changes discussed above.

The IBM 401(k) auto contribution assures a solid floor on top of the Social Security basement. The 100 percent matching contributions provide the basis for a solid first level on the financial security house. The default diversification, planning tools, education and direct planning offer the opportunity for added stories, and the rollover IRA life income annuity offers the ability to top the structure with a roof that will assure income for a lifetime. For the mobile employee it provides a solid beginning to savings equal to that of all others as a percent of pay before the first full year of work passes, and for the long-service employee it offers opportunities and options that can produce lifetime income security. Mobility. Longevity. Responsibility. Choices. In a nation where half of employees have no plan at all, IBM is giving meaning to tomorrow, today.

Benefits

Retirement planning and financial security

Financial security and retirement planning are part of any family's well-being, and IBM has in recent years evolved its benefit programs to meet the needs of today's workforce and business environment.

IBM was one of the first plan sponsors to introduce a way for 401(k) participants to roll over all or part of their accounts into an IRA annuity—a lifetime stream of payments—when they retire. IBM's rollover offering allows participants the ability to choose annuities from multiple insurers (not just one) and at institutional pricing (not retail). Nearly 100 other companies have followed IBM's lead, introducing access to IRA rollover annuities from their 401(k) plans over the past year.

IBM was also the first to adopt disability protection insurance for 401(k) participants—an insurance policy that continues 401(k) contributions should a participant become disabled and unable to work. IBMers have the option to enroll annually.

With \$27 billion in assets, the IBM Savings Plan is the country's largest, and its administrative expenses are among the lowest—an average of 10 basis points, or 1/10 of 1 percent per year, compared with 50 to 100 basis points at most Fortune 500 companies. This allows IBM to deliver more value to participants—potentially 35 percent more income to participants over time.



IBM redesigned the plan in 2006, making its enhanced 401(k) plan one of the richest in the country, and providing employees with the financial planning tools to optimally leverage the new plan once it becomes effective in 2008.

Beginning January 1, 2008, IBM will stop future pension accruals for those currently participating in the U.S. pension plan as of December 31, 2007. While not without controversy, this new approach has also been lauded as an innovative solution to the difficult challenge of funding long-term retirement plans.

Among the key features of the 401(k) Plus Plan is an enhanced company match—IBM will match 100 percent of participant contributions, up to 6 percent of pay, doubling the match most participants receive today. And, all IBMers will receive automatic company contributions of 1 percent, 2 percent, or 4 percent of their pay, depending on the pension program in which they currently participate. Through the plan's after-tax feature, participants can invest additional dollars (up to 10 percent of eligible pay) even after they reach the before-tax limits set by the IRS. Earnings in after-tax accounts grow tax-deferred, and are taxed as ordinary income upon distribution from the plan.

Non-exempt employees participating in the Pension Credit Formula (PCF), or prior plan, will be eligible for an additional Special Savings Award to boost their personal savings. The U.S. pension plan includes eligible participants in the Pension Credit Formula (PCF), sometimes referred to as the prior plan; and the Personal Pension Account (PPA), also known as the cash balance formula.

U.S. IBMers hired on or after January 1, 2005, are eligible for the 401(k) Pension Program, which is offered through the IBM Savings Plan. These participants, who are currently eligible to receive a dollar-for-dollar match on up to 6 percent of pay after they have completed one year of IBM service, are not directly affected by the changes to the U.S. pension plan.

Beginning January 1, 2008, though, these participants will see some changes. The 401(k) Pension Program will become part of the new 401(k) Plus Plan, and IBM will begin making automatic contributions of 1 percent of pay on behalf of eligible participants, regardless of their savings rates in the plan, after they have completed one year of IBM service. These participants will continue to be eligible for a dollar-for-dollar match on the remaining 5 percent of eligible pay they contribute to the plan, for a total of 6 percent in IBM contributions.

Over the past four years, since year-end 2002, IBM has contributed \$6.4 billion to keep its existing pension plan fully funded—while also undertaking a global strategy to migrate away from traditional “defined benefit” pension plans. This allows IBM to offer meaningful benefits at more predictable costs, and helps the company compete in the IT industry, where defined-benefit pensions are rarely offered.

In August 2006, the U.S. 7th Circuit Court of Appeals validated IBM's long-held position that its pension plan formula is both lawful and age-neutral. The decision confirms the legality of cash balance plans in general and the fact that IBM's plan does not discriminate on the basis of age. The Court said: “One need only look at IBM's formula to rule out a violation. It is age-neutral.” The Court's decision gives much-needed certainty to employers and employees alike in this important area of employee benefits.

Over the next year, IBM will introduce a financial education and planning program that will give employees a wide range of resources and tools to help them make the most of the new plan, which becomes effective in 2008.

How can we create a humanitarian supply chain?

by Reverend David M. Schilling

Director, Interfaith Center on Corporate Responsibility (ICCR)



Companies that are really paying attention to their supply chains, not just in terms of quality-price-delivery but also in working conditions and employment practices, will have a greater likelihood of better performance in terms of retention of workers and productivity.

IBM has taken corporate responsibility seriously, driving it at the highest levels of the company. IBM's supply chain work is a part of that commitment. With IBM purchasing

\$39 billion worth of product, IBM can utilize its influence to bring about positive changes for workers making its products and providing services.

The leadership that IBM is giving to the Electronic Industry Code of Conduct initiative (EICC) is really critical, as well. Often, a factory producing for IBM will also be producing for a number of other companies. If those companies are singing from the same sheet of music, the expectations for that factory will be clear. Thus, the combined influence of a number of companies can leverage changes in factory performance on labor rights issues and health and safety. IBM understands that, with suppliers in more than 80 countries, you can't roll out a program everywhere at the same time. You have to start with areas of high risk. You want to have a quality program and an approach that is not superficial.

What remains to be done? Along with EICC partners, IBM can expand its compliance program into additional countries and further develop a deeper and richer plan for

monitoring code while engaging managers and workers to make workplace improvements that stick. Socially responsible investors would like to see IBM continue to create a clear picture of its own goals, successes and plans for improving the supply chain—then reporting on its findings. We need to know, on an ongoing basis: What are the

Mexico's results have been especially instructive. First audited in 2004-2005,

Mexico's suppliers in 2006 showed a 95 percent improvement.

goals for improvement? What is IBM's vision for where it wants to be in two years, five years, 10 years? ICCR members will not only be following these developments, but actively engaging with IBM to implement these changes as we move forward.

Supply Chain

Audits show improvements and need for continued improvements worldwide



In 2006, IBM took a number of steps to continue to initiate steady, meaningful change in the labor practices of its suppliers around the world.

IBM's involvement with supply chain issues is extensive. Not only does the company's consulting unit advise clients on optimizing their businesses through innovative supply chain transformations, but the company also manages a \$39 billion supply chain of its own, involving 30,000 businesses in more than 130 countries. In addition to ensuring the ethical operation of its own chain, IBM hopes to be able to influence other suppliers' practices, and even to entice governments in developing nations to improve laws, where possible. The issue is crucial not merely because IBM does business directly with the suppliers, but because IBM is moving rapidly to sell products and services in these developing countries.

In 2006, IBM continued third-party audits in such countries as Taiwan and Brazil and reaudited suppliers in Mexico, for a total of more than 80 audits in these countries. To build momentum for the goals and objectives of supply chain social responsibility, IBM also developed a Web-based internal education class that covers all aspects of the firm's supply chain social responsibility efforts. The Web information project is available 24/7 to the nearly 6,000 IBM procurement professionals.

"Developing a set of supplier conduct principles was in itself not remarkable," says John Gabriel, manager of Supply Chain Social Responsibility at IBM. "Auditing our suppliers demonstrates a greater commitment. Educating our employees who interact with suppliers on a daily basis is essential to our goal of making supply chain responsibility part of the normal course of business."

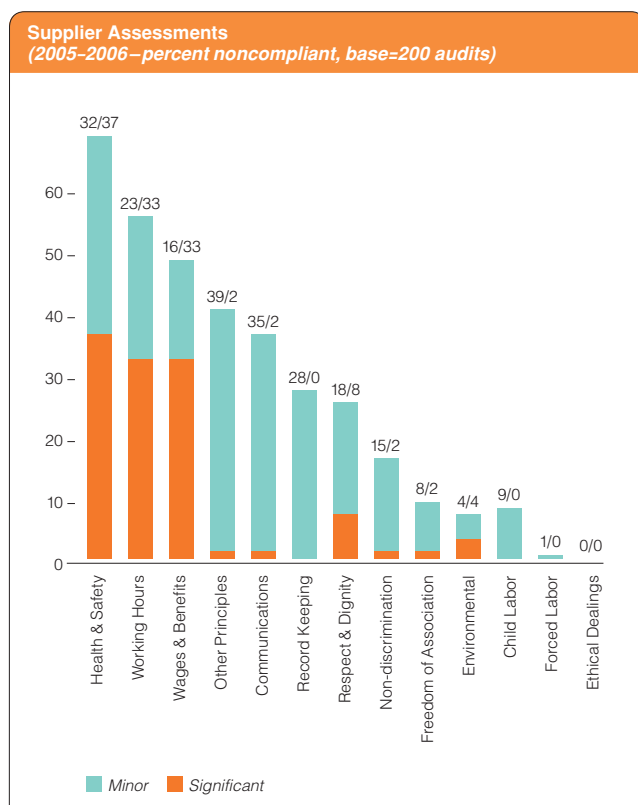
Audit results have shown strong supplier performance in many areas, with continued need for improvement in others.

The results from audits in Mexico have been especially instructive. First audited in 2004-2005, IBM's Mexican suppliers in 2006 showed a 95 percent improvement in compliance with Non-discrimination provisions of the Electronic Industry Code of Conduct, an 85 percent improvement in compliance with respect-and-dignity provisions of the code and full compliance with the Communications provisions.

To bring about these improvements, suppliers implemented revisions to their hiring and employment processes and communication activities, and they created written internal policies to supplant informal processes that had existed previously.

IBM Supply Chain Practices

	IBM has been focused on improving supply chain practices for many years, with particular focus on the issue since 2004.
2004	IBM, following the lead of the footwear, apparel and retail sectors, created its own supplier conduct principles.
2005	IBM launched supplier audits and helped develop the Electronics Industry Code of Conduct (EICC), a dramatic move that helped suppliers by ensuring they could follow one identical code of standards for their work in the electronics industry.
2006	IBM continued its supplier audit program and expanded its geographic scope to Brazil, Romania and Taiwan.



But all was not perfect on the reaudits of IBM's Mexican suppliers. The third-party audit teams that IBM has retained saw increases in noncompliance in the critical area of health and safety, the result of an expanded set of audit questions implemented after the first round of supplier audits in Mexico in 2004-2005. And there was an increase in noncompliance in wages and benefits (inadequate contribution of social benefits) and in working hours (lack of proper time records in place).

IBM has audited more than 315 supplier factories across Mexico, China, India, Thailand and the Philippines and has recently begun audits in a number of Eastern European countries such as Hungary, Romania and Poland. The company will soon begin audits in the Czech Republic, Slovakia, Belarus, Latvia and Russia. The improvements IBM seeks cover everything from curtailing discriminatory practices and excessive overtime to ensuring adherence to health code regulations and proper record keeping.

IBM and the non-governmental organizations with which it is working on the supply chain problem agree that much remains to be done: to inform IBM shareholders of the audit results in a predictable fashion; to systematize audit results; and to lay down a more concerted, detailed plan of expectations for supplier labor improvements in the years ahead.

"IBM is really trying to embed corporate social responsibility and supply chain compliance into its standard business processes," says Rev. David M. Schilling, director of the Interfaith Center on Corporate Responsibility in New York City.

IBM, in fact, has been focused on improving supply chain practices for many years, with particular focus on the issue since 2004. In that year, IBM, following the lead of the footwear, apparel and retail sectors, created its own supplier conduct principles. In 2005, IBM launched supplier audits and helped develop the Electronic Industry Code of Conduct (EICC), a dramatic move that helped suppliers by ensuring they could follow one identical code of standards for their work in the electronics industry.

"One immediate and sustainable result, we believe, is that our suppliers can better spend their time and money on instituting long-term improvements in their offices, factories and among their employees, rather than on costly and repeated audits each of which asks for different things to be fixed," Gabriel says.

Other companies in the EICC are Hewlett-Packard, Intel and Dell. In addition, suppliers from which IBM and other firms purchase product worked on the codes and remain as members of the EICC, including: Celestica, Flextronics, Jabil, Sanmina SCI and Soletron.

For more background on IBM's procurement policies, visit: www.ibm.com/procurement. For more information on the EICC, visit: www.eicc.info

Supplier Diversity

Enhancing participation by minority-owned businesses

In addition to its focus on performing more audits within its vast supply chain, IBM showed significant improvement in 2005 in its use of diverse suppliers: woman, lesbian, gay, veteran and minority-owned businesses in the United States and around the world.

In 2005, IBM spent \$2.01 billion from such diverse suppliers. By comparison, in 2002, IBM procured \$1.4 billion in services from 582 firms owned by diverse owners.

In the United States, in 2005, the company spent more than \$1 billion with some 329 companies, representing 9.9 percent of its total U.S. procurement "spend." This marked an improvement from the years 2002 through 2004, when the spinoff of various IBM businesses resulted in a softening of spending with diverse suppliers, according to Michael Robinson, program director for IBM's Global Supplier Diversity Program.

"This is not a charity program," Robinson said. "From an innovation standpoint, and understanding the knowledge that comes from different groups, we want to ensure as a global company that we represent constituencies in those countries in which we operate. It builds our expertise, and it helps those companies, as well, to grow and improve profitability."

IBM spent \$2.01 billion with diverse suppliers in 2005.

IBM also received a spate of awards in 2005 and 2006 for its work on supply chain diversity. The awards came from such organizations as the Small Business Administration, the National Minority Supplier Development Council and the Women's Business Enterprise Council.

3

Company Collaboration

For 330,000 IBMers around the world, it's important that the work they do matters—to IBM, and to the world. And it was through pioneering all-company collaboration that IBMers themselves framed this as one of our three core values, defining what it means to them to be “an IBMer.”



* 150,000 IBMers, business partners, clients and family members engaged in an online brainstorm on innovation.

Their 37,000 ideas, comments and strategies are generating exciting new solutions in healthcare, the environment, small-business enablement and virtual worlds...and a whole new approach to collaborative innovation.

* 183 diversity networking groups reinforce shared values and serve as a bridge between the workplace and the marketplace for thousands of IBMers in 26 countries.

* There are 3,600 active blogs where 25,000 IBMers share their expertise, experience and opinions with teams and individuals separated by thousands of miles.

For Greater Inclusion

Since its inception nearly a century ago, IBM has embodied the values and diversity of its employees, partners and the global communities in which it works.

Workforce Diversity

Realizing the value of variety

IBM has long believed in diversity as the bridge between the workplace and the marketplace. By implementing diversity programs within the workplace, we empower our employees to bring their entire identity to work and maximize their personal productivity—all of which feeds into the success of our company.

Diversity sits within IBM's innovative global strategic framework to address emerging issues taking shape in the 174 countries where we do business. IBM's approach to diversity is consistent with other areas of corporate responsibility—employee, supplier and client diversity are woven into the fabric of our global business strategy.

Our long-standing commitment to diversity reaches back to 1899, when one of the precursor companies to IBM hired its first Black and women employees—decades before the U.S. government established equal opportunity legislation.

Today's top corporate executives likely will lead companies with an increasingly globally diverse orientation. To succeed, they must champion understanding, sensitivity and appreciation for the different cultures within their global workforces. With more than 330,000 employees representing nearly all racial and ethnic groups, the company's workforce shares the same values as IBM clients. As a result, the company's products and services resonate with people all over the world.

Employment Data for U.S. Locations (2005)

AREA	TOTAL	MEN	WOMEN	ALL MINORITIES	BLACK	ASIAN	HISPANIC	NATIVE AMERICAN
Officials/Managers	17,494	12,406	4,979	2,885	994	1,210	572	109
Professionals	55,827	37,269	18,558	13,873	3,995	7,170	2,400	308
Technicians	11,549	10,177	1,372	2,448	990	658	719	81
Marketing	40,052	28,832	11,220	10,106	2,815	5,561	1,505	225
Office/Clerical	5,951	1,764	4,187	1,945	1,289	217	375	64
Craft Workers	1,232	774	458	192	88	60	40	4
Operatives	1,971	1,266	705	391	155	153	75	8
Totals	133,967	92,488	41,479	31,840	10,326	15,029	5,686	799

Table reflects all regular and complementary U.S. employees. The company's complementary workforce includes various workers hired under temporary, part-time and limited-term employment arrangements. Data for previous years is available online at www-306.ibm.com/employment/us/diverse/employment_data.shtml.

We also seek out opportunities to increase our sales to a diverse set of clients. But our marketing to diverse clients is not a one-way street—our program is effective because it includes making IBM accessible as a purchaser to diverse businesses that carry the services or products we need to run our business. Around the world, we see growing diversity among people doing business—especially in companies that are owned by women and minorities. What’s more, we see that decision-makers are increasingly women, openly gay persons, minorities and individuals with disabilities—which broadens the opportunities for a company that seeks to understand and support the people with whom it does business. Not only has IBM made significant strides in this area, but we are also able to customize a diversity strategy for each country in which we operate.

IBM’s global workforce diversity strategy is a concept that naturally evolved from the company’s values. Diversity, by definition, is about allowing people to be who they are, no matter where they are. For IBMers, diversity lets our global workforce embrace our values and exhibit them in personal interactions with clients and other IBMers. Our diversity strategy, in its simplest form, is creating an infrastructure of venues that allows employees to operate in the marketplace and the workplace where they can personally influence client success and innovation, as well as exhibit trust and personal responsibility in achieving IBM’s business goals. Whether it’s recruiting and retaining talent, developing a constituency Small Medium Business sector or developing technology-based relationships with nonprofit or non-government organizations, IBM’s diversity strategy offers employees another opportunity to demonstrate the company’s values on a personal level.

Carrying out IBM’s diversity strategy is the responsibility of the company’s line organizations. This alignment of business, diversity and other workforce strategies makes IBM stand out in the corporate field and helps our approach to diversity issues serve as a model for other companies. The overriding message is clear: diversity as a practice is a key reason why employees want to work and stay at IBM.

Commitment to Equal Opportunity

More than 50 years have passed since the company’s first written Equal Opportunity Policy called for equity in hiring “regardless of race, color, or creed.” This policy was written in 1953, one year before the U.S. Supreme Court’s *Brown* decision ending “separate but equal” in public education, and 11 years before the 1964 Civil Rights Act became law.

Today, in addition to adhering to equal opportunity law in the U.S., on a global basis it is inherent that we follow local laws. For instance, 69 countries where IBMers work have diversity legislation in place. That’s nearly double what it was just three years ago. But with variations in local priorities, IBM’s general emphasis on diversity receives specialized attention to reflect the communities where specific laws exist.

For example, in the IBM organization that spans Europe, the Middle East and Africa, we’re especially mindful of gender, people with disabilities and the growing number of ethnic minorities.

At the same time, in our Asia Pacific organization, we put special emphasis on issues of gender and disability as well as respecting and valuing the differences among countries and regions.

On the one hand, IBM adheres to local laws and respects local customs. On the other hand, we also adhere to our own behavioral expectations on a global basis.

Abiding by the law is inherent in our practices and principles, everywhere we do business. But we set a global standard which goes beyond simply meeting legal requirements. And by being a leader in this area, we’ve created opportunities not only for IBM employees but for employees of other companies as well.



Girls watch technology in action at IBM's EX.I.T.E. camp in Mexico

Advancement of Women

The number of women executives at IBM has increased significantly—by 477 percent since the end of 1995—so that today 19.4 percent of our executives are female. But leadership from women in our industry can continue only if middle school-aged girls and young women choose studies and careers in science and technology.

IBM EX.I.T.E. (Exploring Interests in Technology and Engineering) camps represent a major success story in IBM's efforts to turn the tide for women in the technical field. Since the program's inception in 1999, 85 percent of the more than 5,000 girls who participated said they would consider pursuing an engineering or technical-related degree upon entering college. This year, EX.I.T.E. camps expanded to 50 IBM locations in North America, Latin America and the Asia Pacific region, with more than 1,700 girls aged 13 to 17 attending. Leading the camps are approximately 2,000 IBM volunteers, both men and women, who introduce the girls to the Web, computer chip design, laser optics, animation, robotics and other IBM technologies.

Percentage of Women Among Global Executive Ranks (by year)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
14.0	15.4	16.7	17.8	18.0	18.0	18.5	17.1	18.7	19.4

Percentage of Women in the IBM Workforce

	AMERICAS	ASIA-PACIFIC	EUROPE, MIDDLE EAST & AFRICA	TOTAL
Total	31.0%	26.6%	25.6%	28.4%
Managers	28.6%	23.4%	19.5%	24.9%

Diversity of the Employee/Leadership Team

Opportunities for employees to attain leadership positions within IBM also demonstrate expanding horizons. The company, for example, is working to cultivate seasoned leaders from among its ranks of Asian leaders. IBM is investing in language training, especially in Chinese, to enrich opportunities for advancement and to bridge cultural barriers between the United States and Asian nations. And the company is working to understand specific cultural barriers that may impact opportunities for advancement of talented employees.

Meanwhile, advancement of Hispanic, Native American and African-American IT leaders within the United States has become an equally important diversity goal for IBM. The company is collaborating with organizations around the globe to motivate students from minority groups to pursue technical careers. And the company continues to host events to excite girls and minority students to pursue IT careers.

The 2006 Asian Leadership Conference, co-hosted by IBM Chairman and Chief Executive Officer Samuel J. Palmisano, was designed to advance new thinking on Asia's exploding role in the worldwide market. Developing the leadership skills of Asian employees to help drive business in future Asian markets remains an opportunity for IBM. IBM is taking steps to gain a better understanding of the cultural differences that may impact opportunities for Asian employees to advance, as well as identifying best practices for leadership development. Growing evidence has documented that diverse groups make better management decisions than homogenous groups—another reason why diversity brings substantial rewards to business.



Ying Chu of IBM talks with Xiaochun Luo of Avon (center) and IBM's Sehra Eusufzai at the 2006 Asian Leadership Conference in New York City

Corporate culture will have an equally significant impact on a company's ability to attract and retain diverse talent and compete in diverse markets. How well IBM and all companies meet these challenges will determine business success.

Integrating the Workplace/Marketplace

To engage with its diverse set of clients, partners and communities, IBM relies on IBMers—hundreds of thousands of original, unique people with a variety of experiences and ideas, from nearly all races and geographies. By working to keep access, participation and success in our business available to as many people as possible, IBM consciously seeks to address barriers and create opportunities for collaboration among people and interests.

For example, IBM has a global focus on employing people with disabilities—not just in hiring and training, but also in providing access to our laboratories, factories and offices, making sure those environments are comfortable both physically and socially.

We also design our products so they're easy to use by people with disabilities. And, where determined to be appropriate, we add special features to other products, such as technology that allows head movements to direct a cursor on a computer screen. This special design work is done at our nine Global Accessibility Centers located throughout the world.

Making opportunity as inclusive as possible extends into our recruiting and employment incentives for individuals, as well. For instance, 10 years ago, IBM was one of the first blue-chip companies to institute benefits for employees' domestic partners. Today, these benefits are available for employees in the nearly three dozen countries where approximately 80 percent of IBMers live and work.

We also have approximately 183 employee diversity network groups—with nearly 40 of them outside the U.S.—and 70 management-directed diversity councils. These groups allow employees with similar backgrounds (such as ethnic heritage, sexual orientation or gender) an opportunity to collaborate among themselves and with executives to build support for each other on issues in their lives and in the workplace.

Work/Life Balance

To help individuals balance work time with personal time and to help managers balance the needs of the business with their employees' needs and career satisfaction, IBM has developed a number of resources to assist employees who work remotely, as well as flexible work alternatives to give employees choices on how, when and where to work.

IBM also administers a \$50 million Global Work/Life Fund that supports children and dependent care initiatives. Approximately 60 percent of the fund is spent outside the U.S.

This fund is available to men and women alike. But because women typically carry the main burden of supporting children and aging family members, the Global Work/Life Fund is especially important for women who work at IBM.

Key Programs and Events

The seventh annual Black Family Technology Awareness Week opened at the IBM ThinkPlace exhibit in Walt Disney World, Florida, in early 2006. Here, visiting students participated in technology games and activities and met with IBM Master Inventors and Disney "Imagineers," to understand how these pioneers benefited from math, science and technology in their youth. The event also included an appearance by television star Raven Symone, who collaborated with students in Toronto, Canada, on the programming of a robot via a Web conference.

This event was designed to provide Black families with technology access and training and to promote its importance in the education and career preparation of Black youth. It was among scores of activities sponsored by IBM and Career Communications Group held in the United States and abroad, including "Afro Tech Week" at the Legislative Assembly in São Paulo, Brazil.

At the college and university level, IBM this year contributed \$2.1 million to the Executive Leadership Foundation Council's Technology Transfer Project to prepare students at seven historically Black colleges and universities for career success in IT environments. The project focuses on new course development, faculty training, curricula assessment and the delivery of new student teaching modules to enrich learning. The seven institutions collaborating with IBM on this project are: Florida A&M University, Hampton University, Howard University, Morehouse College, Morgan State University, North Carolina A&T State University and Tennessee State University.

In its sixth year of leading La Familia Technology Week, IBM—along with Career Communications Group—hosted a series of week-long activities in 12 cities throughout the United States, featuring an innovative translation technology, ¡TradúceloAhora!

(TranslateNow!), to help improve communications for Spanish-speaking parents and English-speaking teachers in schools throughout the U.S. and around the world.

An IBM grant program provides access to the ¡TradúceloAhora! software to 135 schools and nonprofit organizations in the U.S. and abroad. Through an enhanced version of IBM WebSphere Technology, the tool translates e-mails bi-directionally (English-to-Spanish and Spanish-to-English) and bi-directionally translates Web sites automatically. The easy-to-use technology is helping meet IBM's goal of increasing technological literacy among underserved populations.

With ¡TradúceloAhora!, Spanish-speaking parents can better understand and engage in their children's development and progress at school by e-mailing teachers in their own language, and teachers can do the same.

La Familia Technology Week focuses Hispanic families on the importance of science and technology education as the foundation for the future, and provides opportunities for Latino role models to share the success they've found in IT careers.

The most recent La Familia Technology Week opened in New York City's Hall of Science. Similar events took place across the country, including the Adler Planetarium in Chicago, where middle school students participated in a Web conference with the NASA laboratory in Houston to learn about the importance of science at school and the way it relates to their future.

Bi-directional translation software is helping to increase technological literacy among underserved populations.

Beyond major collaborations and annual initiatives to advance access and understanding of technology, IBM also supports ongoing programs to help narrow what has been called "the digital divide." Among the most recent are Partnering with IBM in Education, a year-long, K-12 initiative developed to assist the Hispanic community. Using an "adopt-a-school" approach, IBM employees encourage interest in math and science among Hispanic elementary school students, increase college preparedness among high school students and help reduce dropout rates among high school students.

Building upon the company's effort to foster world-class research and create leadership opportunities for Hispanic students in information technology and engineering, IBM is also teaming with Florida International University, University of Puerto Rico at Mayaguez, University of Miami, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), and Barcelona Supercomputing Center to invest in the Latin American Grid initiative.

The Latin America Grid, or LA Grid program, will link faculty, students and researchers from the world-renowned IBM Thomas J. Watson Research Center in New York with centers in Latin America and Spain to collaborate on innovative industry projects for applications in areas such as healthcare, life sciences and nanotechnology, as well as on regionally specific concerns like hurricane mitigation.

In 2005, IBM launched the Native American Family Technology Journey to provide technology access and training for Native Americans living in 15 locations across the United States, including on tribal lands. In addition to computer and Internet workshops, educational and career seminars and interactive demonstrations, the events also provided forums where Native Americans learned more about technology's potential to help pass tribal languages, stories and customs from one generation to the next.

In partnership with the Native American Chamber of Commerce and SeniorNet, a leading nonprofit technology educator of older adults, IBM unveiled the first of five "Hope and Harmony for Humanity" Achievement Centers, a grant-based initiative designed to bring computer technology access and education to low-income and remote Native American reservations across the nation.

The opening of the first Achievement Center occurred at the Blackfeet Nation in Browning, Montana, in September 2006; additional program growth will occur during the next three years, with the opening of five additional Achievement Centers on rural and low-income reservations.

The PC-based Achievement Centers offer computer and Internet access, as well as education and training at all levels for reservation residents of all ages. In addition to computer training that covers the fundamentals through more advanced courses, the Achievement Centers serve as an education center for the respective communities, offering classes on topics such as family history and genealogy, health, language training, work skills and tutoring, as well as a host of life skills and enrichment curriculums for the communities' residents.

How can the Web be made more inclusive?

by John D. Kemp

*Co-Founder and Board of Directors
Member, American Association of
People with Disabilities*

**In this age of information technology,
where job vacancies are posted only to Web sites,**

where commercial transactions can be fulfilled online at a cost of cents on the dollar compared with those in-store or by telephone and where instant messaging is essential to social dialogue and relationships among mostly younger people, there is greater risk today that people with a variety of disabilities and conditions will fall further behind their non-disabled counterparts in this all too human race.

Due to IT inaccessibility, some disabled people will not know of Web-posted-only jobs; many will be limited in their choices and access to the fullest range of commercial goods and services at the lowest prices; and they certainly will not be able to establish and maintain social—even romantic—relationships in this tele/Web-connected world. Unless there are legal and market-based solutions that require and assure IT accessibility as a fundamental right, the gaps will widen.

While IT accessibility will always be “a work in progress,” IBM and other progressive companies and governments understand there is a compelling business and citizen case for offering the best accessibility features that research and innovation can drive, enabling their enterprise and government customers to serve more readily and responsively the business, health, social and societal needs of their diverse consumer base equally.

A cross-sector strategic partnership that demonstrates this concept and captures the unique contributions of each partner is emerging. With federal funding to study and develop accessible instructional materials, the nonprofit CAST of Wakefield, Massachusetts, in partnership with IBM, is strengthening the effectiveness of how all children—including children with cognitive, sensory and other disabilities—can best learn via online materials and instructions. We will soon know even better how all children and adults can learn and excel.

Today, it is insufficient for people with disabilities simply “to belong”; we want as much access as possible to pursue and perform well-paying, challenging jobs; to be true consumers in the real-time digital marketplace; to receive the best educations throughout our entire lives; and to exercise our civic responsibilities and even pursue elected offices.

Belonging just isn’t enough; each of us wishes to live in a society where we can thrive to the fullest of our abilities. That’s full inclusion.



John Kemp



IBM's Center for Human Capability

Accessibility

Community involvement leads to inclusive solutions

Assistive technologies originally created for those with disabilities now have important benefits for a broader population. As Baby Boomers age—the first boomers turned 60 this year—millions belonging to this demographic are experiencing hearing and vision loss and the onset of other disabilities.



The World Health Organization estimates that up to a billion people suffer from a speech, vision, mobility, hearing or cognitive disability that keeps them from participating fully in an increasingly technology-dependent society.

Collaborative work with IBM partners has helped shape the power of IBM's new assistive technologies to remove barriers. IBM Research has developed software that enables individuals to view the Web and other computer data in a way that's most suited to their needs. For example, people with low vision can change the size of the type and can adjust colors and contrast of pages for easier viewing. Those with reading impairments can reduce the visual clutter of the page by changing several columns to one so they can follow text more easily. People without full mobility can set up their system so the mouse and keyboard are easier to touch and access. And people with other types of reading impairments can ask WebAdapt2Me to read the text on the screen aloud, using IBM ViaVoice technology. People can even opt to have computer information read aloud in a variety of foreign languages.

IBM has been involved in increasing access ever since it hired its first disabled employee in 1914. Over the years, the company has developed many dozens of products, such as screen magnifiers, narrators and stabilizers, that make computers more accessible to all, including disabled users. It operates several human ability and accessibility centers around the world, and has more than 100 researchers, computer scientists and experts who advance the state of the accessibility art.

Promising research by IBM scientists and engineers is tested through Corporate Community Relations grants at major organizations and schools, where users at the pilot sites help refine the technology. One such IBM collaboration with SeniorNet helped create many of the features now found in IBM WebAdapt2Me and IBM Easy Web Browsing. In turn, the products and services are now available through IBM Global Business Services to a worldwide market.

IBM donated accessibility code to the Mozilla Foundation's Firefox Web browser to make it easier for more users to access and navigate the Web. Similarly, IBM's sharing of key intellectual assets with other parts of the open computing community is helping companies and software developers adopt and share best practices for Ajax software development, a technology that can improve Web accessibility. And most recently, IBM announced plans to equip computer science majors with the technical skills to develop or adapt computer programs for use by people with disabilities.

These programs and many more demonstrate IBM's belief that the future of technology must include innovations that are accessible to everyone. The company actively supports uniform, or harmonized, accessibility technology standards around the world and our company is among the original sponsors of the Web Accessibility Initiative of the World Wide Web Consortium (W3C). In collaboration with industries and governments, W3C advocates for the adoption of global standards to improve Web accessibility.

One man whose life has been directly impacted by such work is Dr. Wayne Dick, chairman of the Computer Engineering and Computer Sciences Department at California State University at Long Beach. Because he has minimal vision, the professor's life required use of powerful magnifiers and talking-book equipment. But when the university selected WebAdapt2Me software from IBM to help its students and faculty gain easier access to the Web, Dr. Dick and many others crossed to the brighter side of the digital divide.

"We have 10,000 people with disabilities in the California State University system," Dr. Dick says. "We could have 10,000 different accommodations. Or we could provide them with WebAdapt2Me."

The result: access to education, healthcare information, world news, government programs, job listings, online banking, shopping opportunities, voter registration information and more.

IBM's innovation will soon play to an even larger audience as the work done to assist people with disabilities also eliminates barriers for an aging workforce in a changing society.

To Enhance Learning and Collaboration

Keeping up with the ever-changing work environment requires a commitment to continued learning and the sharing of ideas. By incorporating cutting-edge tools into our everyday practices, we ensure our position at the forefront of business.

Learning and Opportunity

Building skills in today's changing marketplace

Industry experts say most employee learning is achieved by working with others on the job. IBM is proving it. Shortly after its launch last year on the corporate Intranet, IBM's solution for the skills, competencies and career development of IBMers—known as Learning@IBM—saw more than 100,000 visits from employees in one month, and the momentum continues. The new application remains one of the top two destinations on IBM's Intranet, with focused learning available right at the employee desktop. Learning@IBM is also the latest development in an award-winning employee learning program that links directly to IBM's business strategy, drives higher performance and reflects the company's values.

"We're enabling our employees to learn the moment they need it," says Ted Hoff, vice president of IBM Learning, in explaining the edge that On Demand Workplace and Learning@IBM affords both employees and IBM's clients. "These applications bring integration and clarity to the individual and enable IBM to take the most innovative approach to 21st century learning."

The On Demand Workplace (ODW) is a collaborative, personalized Web application that delivers relevant content and tools to employees anywhere, anytime and helps them find and work with each other for immediate expertise, skill and "best practice" sharing. In addition to its emphasis on collaboration, the ODW enables each IBM employee to develop his or her own individualized learning plan.

Learning@IBM lets employees search IBM's global course catalog to create and maintain a learning plan for their current job or to view learning recommendations for other job profiles. The application ensures that employees have easy access to learning that is relevant to their specific jobs, and it enables the company to easily target learning opportunities based on business needs.

In 2006, IBM invested more than \$600 million in employee learning, with more than \$260 million of that amount in the United States. This translates to some 18 million hours, meaning the average IBM employee spent 55.5 hours in training guided by IBM's global learning and performance staff of almost 1,400 people. IBM will continue to focus more than \$400 million of its training investment to develop skills that are in demand in the marketplace, so that IBM employees are well-equipped to deliver the solutions, products and services sought by clients now and in the future.

While 52 percent of employee training is delivered online, learning opportunities are also created one employee at a time. Central to the program is the Individual Development Plan (IDP), which each employee completes in collaboration with his or her manager and in conjunction with a performance review. The IDP may include functional courses in areas ranging from technical training and sales tactics to certification. Leadership and management training may be appropriate, since IBM Learning initiatives seek to serve managers and executives as well.

IBM's successes in employee learning and development have been noticed by others. For the second year in a row, *Training* magazine named IBM No. 1 on its Training Top 100. In each of the five years the list has been compiled, IBM has appeared among the top five companies recognized. The annual survey ranks companies that "understand, embrace and use training to achieve real business results, support corporate values and enhance the work lives of employees."

In IBM's view, work should be a continuum, offering opportunities to learn, grow and advance. The task of IBM Learning is to assure that this goal occurs and, at the same time, to enable the company to remain fluid, responding to the ebb and flow of the marketplace to the advantage of IBM, its clients and its employees. By continually upgrading the capabilities of our workforce, from entry-level staff to executives, IBM can enable IBMers around the world to have the expertise they need to innovate and deliver value for our clients.

Blogging

Connecting through new media

Before there was the Internet, or television, or radio, or even the printing press, human communities interacted and communicated primarily through conversation. Today, blogs and blogging have begun to restore the conversational element to communication.

And while popular stereotypes of bloggers often include pajama-clad, would-be reporters or 14-year-olds keeping online diaries, the truth is that many of the top organizations in the world are using blogs to collaborate internally and exchange ideas with external constituencies and communities. Far more than a passing fad, blogging reflects a more accountable and responsive approach to business communication—and at IBM, we're embracing it.

Most globally integrated enterprises recognize and understand the increasingly interconnected nature of the constituencies they serve—and the increasing ability of these communities to influence one another. This trend of extended networks of increasingly connected communities provides a fundamental shift in communications: toward a world in which anyone with a connection to the Internet can publish their opinions, sharing their perspectives candidly and transparently with the entire world. More importantly, authors can interact with their readers and build extended communities around areas of common interest.

These developments, and the new and interconnected blog communities that are emerging as a result, are helping to make organizations more responsive—and accountable—to their constituencies. Blogging provides an opportunity for IBM; by encouraging individual IBMers to engage in dialogue with the audiences that care about what we do, we have the opportunity to inform and influence them.

The more than 330,000 individuals who have chosen to be IBMers are our company's greatest strength—and by opening the doors to the blogosphere and encouraging them to develop continuing conversations with outside audiences, we unleash IBM's best assets and strengthen the company's reputation and relationships with those audiences. Just as importantly, we have the opportunity to learn from them; blogging is less a vehicle for spreading "messaging" or product marketing as it is an opportunity to exchange ideas and even collaborate more effectively.

Inside a company, blogging promotes collaboration among colleagues across diverse geographies and skill sets; it extends individual knowledge via the development of social networks; it helps to break down hierarchies and democratize the exchange of ideas; and it can simply make a large enterprise feel a little bit smaller. Teams and individuals separated by 10,000 miles or more can now work together, sharing expertise and becoming friends—all via internal blogs.

Our blogging guidelines are accepted as some of the best and most thoughtful in business—and some companies have even adopted them, verbatim, for their own.

A summary of IBM's guidelines:

- Bloggers speak for themselves, not for the company, and should make that evident.
- Respect copyright, fair use and financial disclosure laws.
- Protect all confidential and proprietary information.
- Don't cite or reference clients, partners or suppliers without their approval.
- Write in the first person and identify yourself by name and role when you blog about IBM or IBM-related matters.
- Respect your audience. Lively discussions are always encouraged but never resort to insults, slurs or obscene language. Steer clear of unrelated topics that could be considered objectionable or inflammatory—such as politics and religion.

Inside the company, we have more than 25,000 registered users of our internal blogging engine, BlogCentral. Employees are reading more than 3,600 active blogs written by IBMers from across all our business areas and from senior executives to summer interns.

For Values and Governance

Some might ask: How can a company marshal the collective aspirations of hundreds of thousands of people—not to mention millions of partners, clients, suppliers, communities and members of a diverse global ecosystem—around common values? IBMers would respond: How else would you do it?

Managing by Values

A management system for a world in motion

Many companies define themselves in terms of technologies, products, pricing or even individual personalities. This can work well for a time, but when the world changes, they often find themselves adrift.

IBM has always been different. From its inception nearly a century ago, our company has been grounded in strongly held beliefs. They shaped our marketplace identity, our policies and practices. They committed IBM to a broad definition of leadership—to be a trusted partner for customers, a reliable long-term investment, a progressive employer and a responsible corporate citizen. They guided the company through decades of extraordinary change.

They were, in fact, the qualities that came to mind when people identified someone as “an IBMer.” For decades, people of all races, backgrounds, ages, genders, sexual orientations and physical abilities have joined IBM because they wanted to be part of a company that conducted itself in a progressive way and sought to make a difference in the world.

Of course, that world is very different today from what it was like when IBM was founded. Business and technology, and society’s expectations of both, are once again changing, and so are we. The current generation of IBMers is unlike any of its predecessors. For instance, half of our workforce has been with IBM for fewer than five years. And while IBM used to hire most of its people straight out of school and assimilate them over a period of years into the company culture, today we also hire thousands of experienced professionals, and thousands more come into IBM through outsourcing and acquisitions.

How do you channel this diverse array of talent and experience into a common purpose? How do you marshal the collective aspirations of 330,000 people and, despite our size and complexity, ensure that we work as a unified team, in a manner that delivers on the promise of IBM’s brand and business model? Moving beyond the borders of our own

company, how do you sustain trust when business activities—and enterprises themselves—are based on widely distributed models? How can we maintain and even strengthen our trust in one another—including trust of strangers we’ve never met, and never will meet?

Compounding this dilemma is the rapidly waning efficacy of command-and-control systems. It’s simply impossible to manage in today’s marketplace—given the need for speed and flexibility, and given the attitudes and values of today’s workforce—through hierarchy or organizational structure or by management dictate. As a result, businesses have to find other ways to operate, to innovate and to build trust.

At IBM, we believe that values are the most important way in which organizations will need to manage themselves in a world where hierarchical controls and “rule books” no longer work. Values are not a mantra, but a management system—but of a very new sort. For us, values are about freeing our people to act and to innovate—while ensuring that they’re making the right calls the right way. And by “right,” we do not simply mean ethics and legal compliance—which are, of course, essential for any business. It’s about who you are and why your company exists.

With that in mind, in 2003 we began a process to re-examine our core values for the first time in nearly a century. In a global online jam, our entire company explored, debated and dove deeply into what should animate our actions and guide our decisions. This process was entirely open, uncontrolled—indeed, messy. But that very openness and transparency produced levels of agreement and aspiration that we believe could not have been achieved in more traditional ways.

This worldwide discussion resulted in three values that define what it means to be “an IBMer”:

- Dedication to every client’s success
- Innovation that matters—for our company and for the world
- Trust and personal responsibility in all relationships

Of course, self-definition and aspiration are one thing, and actual behavior and performance another. There was general recognition that we have much to do to make our values real. So a year later, we gathered for another jam to create concrete action plans on how we can—as individuals and as a company—turn our values into living, breathing reality. More than 30 of the top ideas from that jam have already been implemented in substantive changes in policy, elimination of unnecessary process and new initiatives—all of them aimed at client success, innovation that matters and improving trust.

For IBM, our jams and the shaping of our core values were just a start. In an economy and society that will continue to evolve toward greater speed, diversity, opportunity and uncertainty—that is, a world in which work will increasingly flow to wherever it can be done best, regardless of physical location or societal status—the importance of managing not by processes and hierarchies, but by values, will only grow.

Business Controls

Transforming business controls with world-class IT

Throughout 2006, IBM has added more functionality to its dynamic On Demand environment for Business Controls, making our global program among the most robust, efficient and effective in the industry. Today, benchmarking indicates that IBM spends less time compiling data and more time analyzing data than other organizations in its peer group. This means our enterprise-wide structure of Business Controls is now driving the kind of information that extends well beyond compliance and focuses on maximizing performance.

“We’ve been on a journey to simplify and converge all of our business controls programs into one comprehensive controls process,” said Marjorie Kiesel, assistant controller, Business Controls. “Today, we are viewing our business on a more continuous basis, with better ongoing headlights and much less redundant reporting. The results are greater efficiency and effectiveness, making IBM a leader in best practices.”

IBM’s biggest advantage is the ability to monitor our key controls anytime, anywhere, via Web-based technology and tools that consolidate and report all control indicators and supporting information gathered by IBM’s Global Business Controls program. As members of IBM’s team test against the controls, key line management and finance executives can see the results instantaneously at their desktops—by business unit, by process and by location. These achievements have enabled our Business Controls program to transition from primarily gathering information to leveraging the information into valuable resources for decision-makers company-wide. They also represent significant next steps in our strategic plan to simplify and converge all of our Business Controls programs into a single, comprehensive review process.

“We’ve been on a journey to
simplify all of our business
controls programs into one
comprehensive process.”

—Marjorie Kiesel, assistant controller,
Business Controls

The transformation began in 2004 when IBM combined work efforts behind Sections 302 and 404 of the federal Sarbanes-Oxley Act into a single quarterly process supported by a single certification. By 2005, we had re-engineered our business control framework, metrics and tools into a centralized, automated process. In 2006, we redesigned the Management Self Assessment process into a Continuous Self Assessment program. The outcome is now a single controls program—supported by a common set of tools—which aligns with and supports our Quarterly Certification of Management.

Management Self-Assessment

IBM best practice gets better

Management Self-Assessment—a key differentiator in IBM's Business Controls program—is a formalized, documented and committed approach to regular, fundamental and open review by line management. Long recognized as a best practice, Management Self-Assessment includes a comprehensive review and evaluation of the effectiveness of our control system and concludes with a rating and corrective action plan.

Management Self-Assessment compels line management to identify and minimize risks and prioritize the actions needed to run their process as productively as possible. The practice also reinforces responsibility and accountability for business controls with the line owner. During the past year, we improved Management Self-Assessment with new centralized control reporting tools to capture many of the elements of the assessment process. These tools now provide controls metrics on demand and have resulted in an even better process now called Continuous Self-Assessment.

Today, Continuous Self-Assessment is centered on a controls program that coincides with the Quarterly Certification of Management. Our constant, end-to-end controls compliance monitoring framework helps to ensure that:

- Key control indicators have been defined, deployed and tested.
- The indicators are tracked in real time with automated tools and on demand controls metrics.
- Our management formally reviews the control metrics on a monthly basis.

Through the use of the tools, metrics and reviews, the control indicators translate into useful information that enables management to determine its self-assessment ratings. Thus, the Quarterly Certification of Management is supported by a continuing and comprehensive controls program that is verified through ongoing inspection, monitoring and testing by line management.

Technology Advancements in Business Controls

Over the last few years, IBM has deployed a new Business Controls Web Portal to unify resources into a single knowledge center for controls processes and procedures. The portal provides access to:

- A new data base tool to monitor issues for Management Self Assessment.
- A Global Controls Documentation Database that offers real time reporting and monitoring of test results.
- A new Global Controls Scorecard that consolidates tracking of such items as self assessment, risk acceptances, accounting firm recommendations, audit results, Sarbanes-Oxley reviews and the status of improvements.
- A new external auditor recommendations interactive tool for continuous reporting and monitoring of open external auditor management recommendations.
- An Expert Tracker tool that enables the global Business Controls team to locate an expert on an issue and obtain answers in real time via instant messaging.

The results: executive level scorecards of key indicators and results, enterprise-wide reporting, analytical tools and data mining tools for predictive modeling.

In addition, our technology has enabled IBM to move beyond compliance—which is now built into the processes—to monitor and forecast risk areas proactively. All together, the transformation of our Business Controls program has resulted in the kind of relevant information that integrates our global program with other IBM functions to optimize business performance.

Corporate Profile

The Globally Integrated Enterprise

An emerging innovation business model

IBM today is focused on innovation—not simply in our own products and services, but more critically in helping clients respond to opportunities and threats by innovating what they do or how they do it. We have a distinctive point of view on how innovation is changing, and a deep understanding of the new tools, techniques and capabilities that can enable clients to capture its benefits.

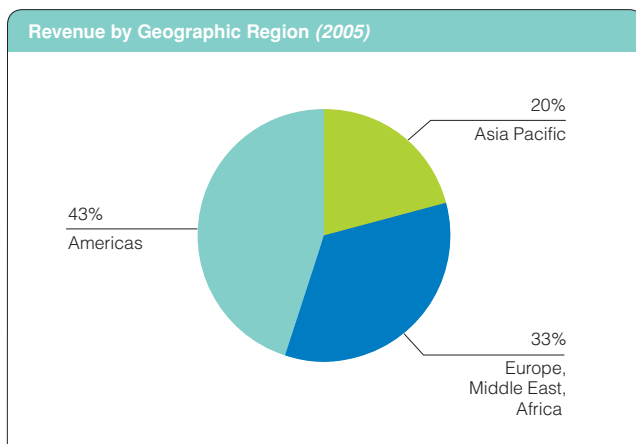
Technology is central to this view of innovation, of course, but so too is collaboration. Radically new forms of collaboration have become possible: employees share ideas with unprecedented ease, or work closely with people from another company. Any business can engage with the entire networked world to learn or capture feedback.

Collaborating around innovation is a powerful way to develop technologies, products, services or even new ways of thinking about business or society. The open source software movement, for example, shows how widely distributed communities can create and improve products by collaborating virtually. The IBM-sponsored Global Innovation Outlook demonstrates how diverse points of view and types of expertise can produce innovative ideas for solving global challenges.

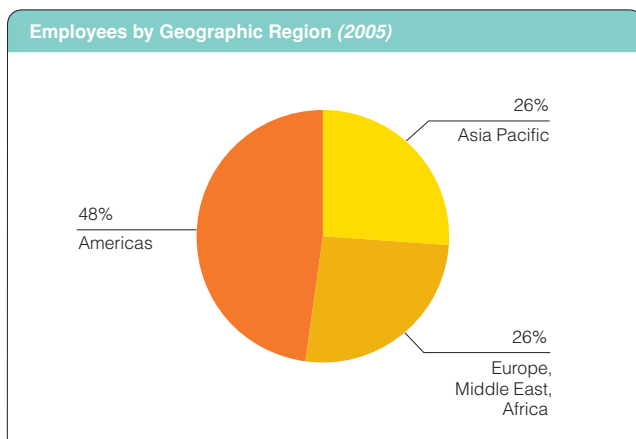
IBM is the world's largest information technology company, with annual revenue of \$91 billion and approximately 330,000 employees in 75 countries, serving clients in 174. We have the world's largest IT research organization, with more than 3,000 scientists and engineers working at eight labs in six countries.

IBM takes its breadth and depth of insight on issues, processes and operations across a variety of industries, and invents and applies technology to help our clients deliver business value by becoming more efficient and competitive through the use of business insight and information technology solutions. Although we remain committed, as ever, to lead the development of state-of-the-art technologies, and the products and service offerings built around them, we measure ourselves today by how well we help clients succeed in solving their biggest and most pressing problems. IBM's three primary business areas are:

- **Systems and Technology:** IBM is the world leader in server sales, and leads in supercomputers—with 237 of the top 500 systems, including four of the top five as well as the No. 1 (BlueGene/L).
- **Software:** IBM is the second-largest software business, and the market leader in information management software, all application integration and middleware categories; instant messaging software for corporations; portal software; and systems management and systems operations software.
- **Services:** IBM is the world leader in IT services and consulting, with approximately 198,000 services professionals globally. Offerings include data center outsourcing, business transformation services, consulting, systems integration, application management services, infrastructure and system maintenance and Web hosting.



Does not include 4% in OEM revenues.



IBM has steadily shifted its business mix away from commoditizing segments such as PCs, hard disk drives and memory chips (DRAMs), and toward more profitable, innovation-based segments. We have also shifted our focus toward providing integrated solutions of services and technology, rather than individual technologies and products.

IBM is rapidly becoming a model of global integration—leveraging economies of scale and expertise for the benefit of our clients and our own operation effectiveness. We are integrating our own business to increase flexibility, create a more complete view of operations and identify new sources of talent and skills. We have become a “flatter” organization by pushing decision-making closer to the client. We have also achieved greater organizational efficiency by reducing costs, decreasing inventory levels and increasing the speed of procurement.

Our Clients

IBM's clients include many different kinds of enterprises, from sole proprietorships to the world's largest organizations, governments and companies representing every major industry and endeavor. The majority of our enterprise business (excluding original equipment manufacturer (OEM) technology), occurs in industries that are broadly grouped into six sectors:

- Financial Services: Banking, Financial Markets, Insurance
- Public: Education, Government, Healthcare, Life Sciences
- Industrial: Aerospace, Automotive, Defense, Chemical and Petroleum, Electronics
- Distribution: Consumer Products, Retail, Travel, Transportation
- Communications: Telecommunications, Media and Entertainment, Energy and Utilities
- Small and Medium Business: Mainly companies with fewer than 1,000 employees

Our Strategy

IBM's strategy is to pursue an innovation agenda with its clients, partners and in other relationships, and to continue refining its portfolio to achieve higher value. Through its understanding of where technology, client requirements and global business are headed, the company continually makes strategic decisions to maintain its leadership of this rapidly changing business by focusing on high-value innovation-based solutions and services while consistently generating high returns on invested capital for its shareholders.

The company utilizes its entire portfolio—hardware, software, services, technology and research—to maintain its leadership. With those broad capabilities to enable enterprise innovation, the expertise and diversity of its global workforce and its large network of suppliers and business partners, IBM considers itself well-positioned to capitalize on the opportunities represented by the needs of its clients and current trends in economics and society.

IBM believes these trends will have major effects on business, government, education, healthcare, transportation and most other fields of endeavor. These developments include, in part: the globalization of capabilities, skills and markets; the increasingly interconnected nature of companies, industries and even economies; the growing influence of open standards and open source software; the rise in collaborative models of creation and development; the maturation and availability of semiconductor and wireless chip technology; the use of service-oriented architectures and Web services in software development; the growing number of service providers for a wider range of traditional and emerging business processes and functions; and the advances made by IBM and others in increasing computational speed, capacity and access.

To capitalize on the opportunities presented by these and other developments, and to avoid commoditization of its portfolio, IBM regularly reviews its businesses and invests in those that represent strategic growth opportunities, reallocating resources as needed; it acquires businesses that contribute strategically to its portfolio; it exits or divests itself of businesses that no longer support its strategy for innovation and higher value; and it seeks to improve productivity and drive efficiencies by integrating its global operations.

Comprehensive information about the company, its financial results, lines of business, and operations are available online in the IBM annual report (www.ibm.com/annualreport).

Our Key Performance Indicators

	2004	2005	Future Goals	
ENVIRONMENT	Energy conservation	Saved energy equal to 7.7% of IBM's actual annual energy use vs. 4% goal	Saved energy equal to 5.5% of IBM's actual annual energy use vs. 4% goal	Achieve annual energy savings from conservation alone equal to 3.5% of IBM's actual annual energy use*
	Pollution prevention	Reduced hazardous waste 33% indexed to output vs. YTY reduction goal	Reduced hazardous waste 19% indexed to output vs. YTY reduction goal	Achieve a year-to-year reduction in hazardous waste generation indexed to output
	Water conservation in semiconductor operations	10.3% annual savings; 7.4% average 5-year savings vs. 2% goal	3.7% annual savings; 7.2% average 5-year savings vs. 2% goal	Achieve 2% annual water savings from semiconductor operations, based on previous year's usage, measured as a rolling 5-year average
	Nonhazardous waste recycling	Recycled 76% vs. 67% goal	Recycled 77% vs. 67% goal	Recycle 67% of the nonhazardous waste
	CO ₂ emissions reduction	Achieved average annual reduction equal to 6.4% of the emissions associated with our annual energy use in 2000-2004 vs. 4% goal	Achieved average annual reduction equal to 6.2% of the emissions associated with our annual energy use in 2000-2005 vs. 4% goal	Reduce CO ₂ emissions associated with IBM's total energy (electricity and fuel use) by 12% by 2012 against a 2005 base year
	Use of landfills**	Sent 1.72% of the products/product waste processed to landfills vs. goal of not-to-exceed 3%	Sent 1.59% of the products/product waste processed to landfills vs. goal of not-to-exceed 3%	Minimize IBM's Product End-of-Life Management landfill rate to no more than 3%
EMPLOYEES	Employee satisfaction	67%	65%	IBM management continues to work with our employees to improve satisfaction***
	Workforce diversity	U.S.: 31% women; 24% all minorities	U.S.: 31% women; 24% all minorities	Maintain or grow percentage of U.S. women and minority employee base
	Learning and training	\$700M, 15M learning hours which equals 46.5 hours per employee	\$700M, 18M learning hours which equals 55.5 hours per employee	Increase employee participation in learning
COMPANY	Global contributions	\$143.7M, 1% YTY	\$148.5M, 3.3% YTY	Equal or higher
	U.S. vs. International	U.S. \$99.4M or 69%, International \$44.3M or 31%	U.S. \$103M or 69%, International \$45.5M or 31%	Increase percentage of international giving
	Distribution by type	Cash 20%, Equipment 49%, Services 31%	Cash 26%, Equipment 43%, Services 31%	Maintain or increase technology services
	Global employee volunteerism	33,606 employees, 930,904 hours logged	57,284 employees, 2,064,006 hours logged	+10% for employees and hours logged
	Global diverse supplier spend	\$1.9B	\$2.1B	Increase level of diverse supplier spend
	Supplier social responsibility audits	50	200	Complete 300 supplier social responsibility audits

* The renewable energy part of our current energy conservation goal will now be part of a new climate goal currently under development

** Additional Product Stewardship goals may be found in the Environment Section

*** Source: Global Pulse survey to which 40% of IBMers are invited to participate annually



This report is also available at www.ibm.com/ibm/responsibility

On the cover: Second-grade students at the John F. Kennedy Magnet School in Port Chester, New York, demonstrate Reading Companion for IBM Researcher Jennifer Lai who developed the interactive Web-based technology that helps beginning readers learn to read.

In addition to the Corporate Responsibility Web site, additional, important information is available about IBM's corporate philanthropy, corporate governance, diversity, environmental programs and other initiatives on ibm.com at the following addresses:

Community relations www.ibm.com/ibm/ibmgives
Corporate governance www.ibm.com/investor/corpgovernance
Environment www.ibm.com/ibm/environment
Government www.ibm.com/government
Privacy www.ibm.com/privacy
Security www.ibm.com/security
Supply chain www.ibm.com/procurement
Workforce diversity www.ibm.com/diversity

We have included information on the areas of corporate responsibility we believe are the most relevant and meaningful with regard to IBM's global activities. Among the references used in preparing this report are the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, the corporate social responsibility surveys of a number of external organizations, and questions we are often asked by our clients, employees, shareholders, nonprofits, government and non-governmental organizations, and other people and communities with whom we have ongoing relationships.



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