Lucent Technologies
Bell Labs Innovations

2002 Annual Report
Environment, Health and Safety

Letter from the Chairman



Patricia Russo
Chairman and Chief Executive Officer

"We do not inherit the land from our ancestors, we borrow it from our children." Native American saying

Lucent remains committed to environmentally sound practices. We have a proud heritage of environmental stewardship and social responsibility, but this work is never finished. We pledge to improve in all areas because it is the right thing to do — for our customers, our shareowners and for each other.

The long-term quality of life depends on our environment—the quality of the air we breathe, the water we drink, and the land upon which we live and grow our food.

A key concept that drives our actions is environmental sustainability. High consumption levels coupled with an ever-increasing global population mean that we are using the Earth's resources faster than they can regenerate. Sustainability means living within the natural limits of our planet.

Each of us needs to remain committed to demonstrating each day that sustainability is both an attitude and a way of life. This approach will help to protect a healthy and safe environment for our children and for generations thereafter.

This 2002 EH&S annual report outlines our recent progress in the commitment we have made to the environment, health and safety. I'm proud that it reflects continued improvement in safeguarding our two most cherished assets: our people and our natural resources.



Roy Femenella
Lucent Environment, Health and Safety Vice President

For 2002, Sharpening the Focus was the watchword for Lucent's Environment, Health and Safety (EH&S) community. Ever vigilant over employee safety and the impact of Lucent operations on the environment, EH&S is identifying other areas where its expertise can offer a competitive advantage. We have made changes in our scope, purpose and operations as Lucent has evolved its "go-to-market" business model. We're emphasizing the role we play in ensuring that the products and services our business delivers are in compliance with applicable EH&S regulations — in the United States and globally — and with our own company standards for EH&S performance. We have also engaged our supply chain partners, who share our commitment to EH&S excellence.

We've found in EH&S that the best way to add value is to play a key advisory role. We see ourselves as a community of professionals with valuable expertise to share. We've deployed this expertise throughout the world to support Lucent's businesses. Through the new product introduction process, we have been closely integrated into the business, so that EH&S issues are considered in product design, and in every stage of the product's life. Just like quality, it is less costly to build in EH&S performance at the beginning than to go back and try to change it downstream.

EH&S at Lucent helps all of us to protect our environment, our corporate reputation as a good citizen and neighbor, and our customer relationships. We work behind the scenes to make sure nothing will interfere with the delivery of Lucent products and the operations of the business.

Throughout this annual report, you'll see examples of where we are Sharpening the Focus and making a difference.

RESULTS FOR 2002

In 2002, we...

- Reduced overall workplace injuries and illnesses in 2002 through increased employee awareness and enhancing the availability of EH&S information utilizing various methodologies globally within Lucent.
- Improved safety performance, reducing the lost workday case rate by 3.1% to a Lucent rate of .61, down from .63 for the previous year.
- Reduced greenhouse gas emissions by approximately 16,266 metric tons through targeted energy projects and recycling activities. (Our initial target for the five-year period of 2001-2005 was a reduction by 50,000 metric tons. By the end of 2002, we surpassed this original five-year target by over 39,000 metric tons.)
- Minimized EH&S impacts of Lucent products over their full life cycle by:
  - Developing the Lucent Standard Life Cycle Assessment (LCA) Methodology.
  - Establishing methods/metrics to baseline product energy and material efficiency for product platforms and system architecture in line with the evolving technologies.
  - Using our eco-environmental life cycle assessment methodologies to measure energy and material efficiencies for some of our leading products.
  - Identifying product improvement opportunities that were communicated to the design teams and integrated into future product requirements.

We invite your comments, questions and suggestions for improving the information we provide here. You can contact us at drossback@lucent.com

Lucent Technologies

environmental, health and safety policy

Lucent Technologies is committed to protecting the environment and the health and safety of our people, our customers and the communities where we operate. Meeting this commitment is a primary management objective and the individual and collective responsibility of all Lucent employees and Lucent Business Partners worldwide. To that end, we shall:

comply with all applicable environmental, health and safety laws, regulations and Lucent's Global EH&S standards

continue improvement in our environment, health and safety performance by implementing management systems

ensure that our products are safe, and work with suppliers and customers to promote responsible use throughout their life cycles

reduce environmental impact of our operations and products by: conserving natural resources; striving to eliminate waste, emissions and use of hazardous materials; reusing and recycling materials; and responsibly managing energy use

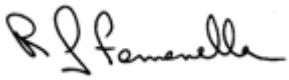
motivate and prepare all employees to take personal accountability for protecting the environment and creating a safe and healthy workplace

be a leader in deploying and promoting innovative, cost-effective environmental, health and safety technologies and procedures.

We will regularly review and improve this policy, communicate it to all employees, and make it available to all stakeholders.



Patricia Russo
Chairman and
Chief Executive Officer



Roy Femenella
Environment,
Health and Safety
Vice President

Goals for 2003

Lucent's EH&S 2000+ goals are specific, measurable, time-bound objectives designed to drive continual improvement in overall EH&S performance. Goal achievements for fiscal 2002 and proposed targets for fiscal 2003 reflect the EH&S Policy and are representative of all business groups and corporate centers worldwide.

For 2003, we will:

Improve Safety Performance:
While continually improving our health and safety management systems we strive for zero accidents/injuries. Our fiscal 2003 target for lost workday case rate is 0.57. This is a reduction of 7% from the fiscal 2002 results of 0.61.

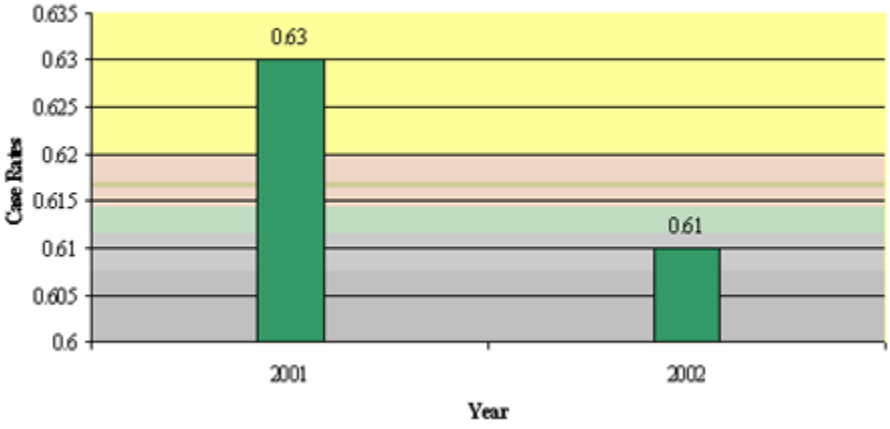
Use Energy Efficiently:
Lucent has met its five-year goal to avoid what would otherwise be the emission of 50,000 metric tons of greenhouse gases (GHGs) relative to the 1999 baseline. We will continue to track ongoing progress and our fiscal 2003 target is to reduce an additional 4,000 metric tons of GHGs.

Minimize EH&S impacts of Lucent products over their full life cycles by:

- Developing methodology for assessing product functional energy consumption and validate on at least one flagship product.
- Assessing and minimizing the use of targeted "materials of concern" in products.
- Analyzing the results from Supplier Environmentally Hazardous Substances Declaration forms and data to assess targeted materials usage by suppliers.

Sharpening the Focus on Injury-Illness Reduction Efforts
Despite ongoing adverse business conditions and major company restructuring efforts, Lucent globally reduced overall workplace injuries and illnesses in 2002. This indicates greater employee commitment toward working in and maintaining a safe workplace.

One reason for the reduced rate has been success by EH&S safety professionals worldwide in increasing awareness among employees. Information on various EH&S topics is available in various forms to meet the diverse needs of global Business Groups. The company's overall commitment toward maintaining a safe and healthy workplace remains strong, even during changing business conditions.



Lucent's Bell Laboratories unit in America continues to maintain a "Star Status" under the American Occupational Safety and Health's (OSHA) Voluntary Protection Program (VPP). As the name suggests, the program is voluntary and only companies that practice health and safety beyond mere compliance are eligible for enrollment/retention under the program. Lucent's "Star Status" is testimony to its commitment toward the health and safety of employees.

Sharpening our Focus on Product Design-for-Environment
Today our products need to demonstrate continued improvement over their predecessors in performance and value to our customers and our environment. We require a product to provide both increasing functionality and decreasing environmental impact. To achieve this difference over each new product generation, operational and environmental performance is largely improved in the product's design phase.

Over the last year, Lucent continued to diligently apply Design for Environment (DFE) principles and guidance to its products and business practices. The following examples illustrate this commitment to the environment.

Systemwide Approach to Product Environmental Management
In May 2002, after a 18-month implementation period and a complex, multilocation six-day audit, Mobility Solutions became one of the first in the industry to achieve third-party certification (by Det Norske Veritas) of its ISO 14001 Product-Based Environmental Management System (PBEMS). Traditionally, environmental management systems address the impacts of a location's activities on the environment. A product-based environmental management system addresses how Mobility's hardware products affect the environment.

Working closely with the design and development community, the Mobility Solutions "Green Team" integrated product-based EMS requirements seamlessly with other more traditional product development processes — from product development to end-of-life management. Three of these requirements are the product eco-roadmap, DFE guidelines and checklists, and life cycle assessments (LCA).

Through its ISO 14001 certification, Mobility Solutions strives to ensure its hardware products meet more stringent legal and customer requirements, is environmentally responsible and provides competitive advantage over products without "green" characteristics.

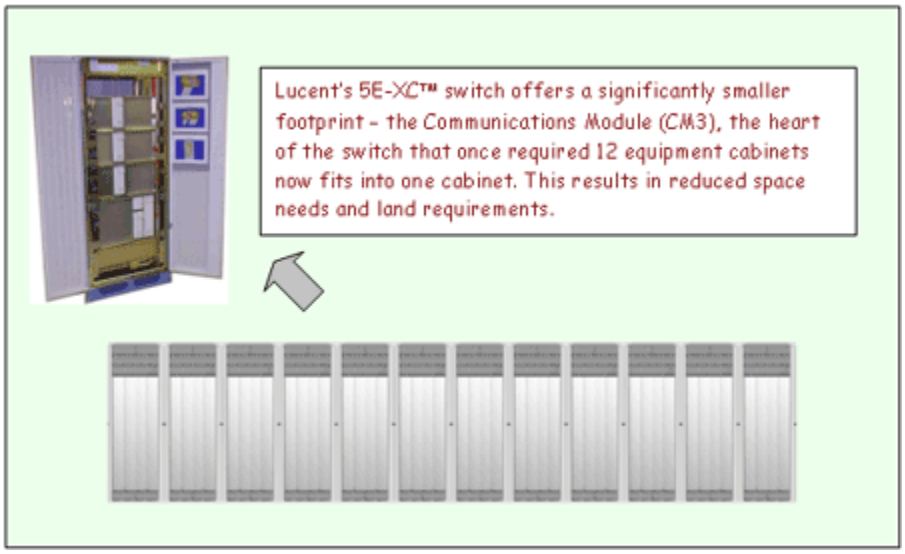


Green Team members who helped Mobility Solutions achieve ISO 14001 certification include (from left): R. Phillips, R. Olds, D. Reynolds, D. Wilson, T. Okrasinski, S. Holman, S. Traeger, T. Boehm, K. Donnelly, S. Dillman, P. Mankiewich and A. Schuh. Not pictured are D. Bretones, V. Patel, J. Spillane, P. Grant and R. Dela Fuente.

Sharpening the Focus: 5E-XC™ Switch
Lucent's Switching Research and Development and Product Management teams sharpened their focus to launch the 5E-XC high-capacity switch in December 2002. They produced the most significant enhancements to the 5ESS® switch in the past decade. These additions reduce energy consumption by more than half, thus reducing greenhouse gas emissions to the environment by an equal amount. The enhancements also lower the cost of ownership to customers by increasing the switch's capacity almost threefold. This increased switch capacity offers a significantly smaller footprint — the Communications Module (CM3), the heart of the switch, that once required 12 equipment cabinets now needs only one (see insert). This results in dramatically reduced floor space requirements for an equivalent-capacity switch.

The 5E-XC high-capacity switch will save a service provider about 1.4 million kilowatt-hours a year in energy consumption. This is equivalent to reducing 83 metric tons of greenhouse gas emission.

These 5E-XC switch achievements are another major step forward in the journey begun in 1993 to incorporate Design for Environment into the 5ESS switch design processes. As seen in the 5E-XC switch, effective incorporation of DFE considerations produces a switch that is fundamentally more environmentally responsible than previous versions, as evidenced by increased features in a smaller footprint and lower energy consumption profile.



Developing the Right Tools
Lucent employs tools to assess and maximize the environmental performance of our products. Researchers, system architects and designers use these tools to invent and develop our products with minimized environmental impacts throughout their life cycles. Lucent initially developed a tool called OneDFE that maintains a set of DFE rules, guidelines and checklists for use throughout the design and manufacturing community.

Lucent is actively participating with industry associations and consortia including the Electronic Industries Association, the European Information, Communications and Consumer Electronics Industry Technology Association, and the Japanese Green Procurement Supply Survey Initiative to develop a common material declaration format for the global electronic industry supply network. Lucent will use the material declaration to ensure that components, parts and assemblies do not contain banned or restricted substances in amounts that exceed regulatory limits or customer targets. The information obtained from the material declaration will improve our DFE efforts and assure proper end-of-life management of used electronics.

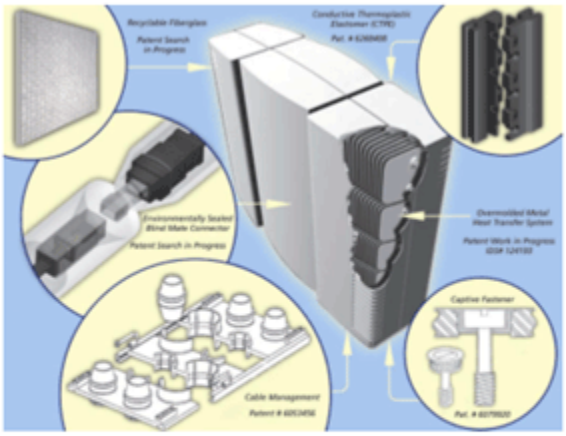
Going Beyond Product Conformance


Metal Enclosure


Plastic Enclosure

When it comes to product Design for Environment, the right material choice can make a difference. In this case, the choice between metals versus plastics for some of Lucent's product enclosures can yield environmental benefits in both the manufacturing stage and at the product's end of life stage. To prove this, Lucent's Design Engineering Center and Corporate Environmental, Health and Safety Center recently completed an environmental performance comparison of various metals versus plastics. Metals such as steel and aluminum (galvanized and chromated) are typically used for larger enclosures. Alternately, thermoplastics such as polycarbonate, high-density polyethylene and styrene copolymers can be used with new technologies for molding large pieces. The results indicate that environmental impacts (e.g., global warming gas emissions and smog) can be significantly decreased with the use of thermoplastics.

In addition, Lucent is also working with its suppliers and electronics manufacturing services to eliminate specific halogenated materials from plastics in its products. Beginning with the substances specified in the European Union's Restrictions on Hazardous Substances (RoHS) Directive (2002/95/EC), Lucent will be assuring its customers of the elimination of the brominated flame-retardants, polybrominated biphenyls and polybrominated diphenyl ethers, by the RoHS target date of July 1, 2006.



Lucent's Design-for-Environment Guidelines & Checklists include recommendations for selecting environmentally benign materials in product designs. A Lucent Supply Chain Network Cabinet Team will further evaluate and promote plastic enclosure development for reduced environmental impact. Shown above are some recent design developments for plastic cabinets.

Measuring Environmental Impact of Our Products
Lucent's customers require that our products minimize environmental impact, assure compliance with banned and regulated hazardous substances, and be energy efficient.

Recent Life Cycle Assessment LCA evaluations for both material and energy efficiency were completed for the Mobility Solutions CDMA Distributed Wireless Base Station and the UMTS Node B Wireless Base Station. These evaluations have identified opportunities for material substitution and energy reduction. The LCAs also support Mobility Solutions Product-based Environmental Management System's objective to continually improve product design.

Energy Usage — the Big Ticket Item in a Product's Life Cycle
Wireless base station equipment normally operates 24 hours a day, 365 days a year. Therefore, the amount of energy used over a product's operating life typically produces the predominant amount of environmental impact. A product consumes different amounts of energy based upon the operating conditions to which it is subjected. Realizing this, Lucent continues to strive to minimize a product's energy usage and resulting environmental impact based on the information that is available. Currently, there is no regulatory or industry standard that defines this parameter. Lucent is developing a product functionality metric that allows for the evaluation of power consumption of various wireless base stations relative to that product's capacity and coverage (functional) features. The objective is to create a common platform for measurements so that our products can be benchmarked.

Product End-of-Life Management
Throughout 2002, Lucent worked to implement a product take-back program in Europe built around existing and upcoming legislation. As a result, Lucent now has a product take-back capability in place, including full support for the Lucent sales teams with any take-back questions and requests they receive from customers.

A team of professionals from all major business functions (Supply Chain Networks, Sales, Finance, Law and EH&S) defined and implemented a product take-back capability based on the requirements of the recently enacted European Union directive on Waste Electrical and Electronic Equipment.

Under the leadership of the Supply Chain Networks organization, an execution process, including reverse logistics, reporting, financial management, and new contract clauses, has been defined and implemented by Lucent, covering both wireline and wireless products sold in the European market.

When fully operational (regulations will be promulgated by each country prior to the EU deadline in a staggered manner) this program will improve the information flow between Lucent and its recyclers, which will drive improvements in recycling processes and in product design. In turn, this will increase reuse and recycling efficiencies, reducing the amounts of waste sent to hazardous waste treatment facilities and landfills.

Asset Recovery
A dollar saved for Lucent is truly a dollar earned. Lucent has built an Asset Recovery (AR) feature into the business model. Certified recyclers are contracted to safely handle, destroy and recycle our discarded assets. The objectives of the program include:

- Establish guidelines/procedures for all scrap vendors.
- Roll out the program to approximately 150 Installation Service Center and seven Logistics Service Center locations. These are significant generators of surplus material.
- Control of the environmental and financial aspects of the recycling and AR businesses.

Three approved recyclers in North America processed in excess of 5 million pounds of Lucent's surplus electronic scrap in 2002. This activity resulted in a net return to Lucent of approximately $1 million. These figures include precious metal recovery and surplus resale revenues.

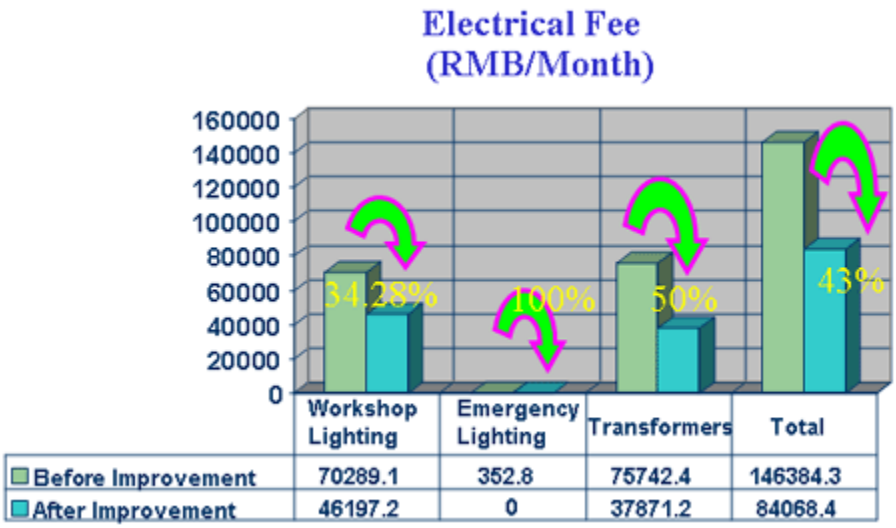
Project on Energy Saving Cycle (ESC)
The Project on Energy Saving Cycle was kicked off at Lucent JV's factory in Qingdao, China, and it brought in a total annual saving of $85,809 (U.S. dollars). Besides monetary benefits, it also brings intangible benefits such as reducing emission of approximately 460 tons of carbon dioxide each year as the project saves 464,844 kilowatt hours a year of electricity.

A 10-member team looked into three areas that were using the most electricity: workshop lighting, emergency Lighting and Transformers. The team produced a project plan that included the following:

- Increase control switches from 15 to 135. Previously, the 15 switches controlled 1,700 lighting tubes in the factory. This meant about 130 lighting tubes were controlled by one switch.
- Use of emergency lighting only during emergencies and not under normal conditions.
- Adjust the operation of the transformers.



Logo of ESC:
- 'E' means 'Energy'
- Shrinking 'E' means 'reduce expense'
- Raising arrowhead means 'continuous improvement of ESC'



Total Cost Saving: US$85,809/year
A) Emergency Lighting: US$506/year
B) Workshop Lighting: US$31,086/year
C) Transformers: US$54,217/year

To ensure the program is implemented continuously, the Workshop Lighting Management (WP-CSD-00-SLSP Issue 1.0) has been issued.

Sharpening the Focus with the 2002 Corporate Audit Program
The Environmental, Health and Safety organization conducts audits of Lucent's global facilities and activities to minimize risk to the corporation and to measure performance against requirements and goals. To accommodate the inherent differences among Lucent's multicountry holdings and the strategic objectives of its business groups, the audit program relies on sampling methodologies.

The global real estate portfolio is reviewed annually against a defined set of risk criteria with the assistance of EH&S officers or business unit representatives. Together, the teams assess the general level of EH&S risk. The results of this analysis are used to draw the sample pool of audit sites. This review cycle ensures that the audit program remains robust in a rapidly changing marketplace and new business developments or planned changes are properly captured.

Individual audit teams may review the activities of a single business unit or assess more than one business entity on a given assignment. In all cases, selected locations or activities are audited against the following criteria:

- Regulations (applicable to the specific country, state, province or city).
- Lucent Technologies worldwide standards.
- Site-specific management system requirements.
- Good manufacturing practices/recognized industrial standards or guidelines.

In fiscal 2002, LEH&S conducted the following audits around the world:

Business Unit	Number of Audits	
	International	North America
Lucent Real Estate	4	4
Lucent Worldwide Services	3	2
Integrated Network Solutions	1	3
Supply Chain Networks	1	2
Bell Labs	0	1

In addition to assessing potential global EH&S risk exposure, the audit program also highlights exemplary actions and good management practices. By looking beyond mere compliance with EH&S regulations, Lucent's outstanding record of EH&S performance is maintained.

Sharpening the Focus with the Compliance Assurance Letter Process
Lucent complies with all applicable environmental, health and safety (EH&S) legal and regulatory provisions, partly through

an effective annual Compliance Assurance Letter (CAL) process. The CAL process, which is initiated by Lucent's chief executive officer and senior vice president-general counsel, also assures compliance to company EH&S requirements as spelled out in Lucent's EH&S policy.

All facilities, operations and product segment leaders perform an annual assessment of the level of compliance. With the help of EH&S professionals, they prepare CAL responses that are compiled for an overall company report.

The CAL process, which gives all Lucent employees accountability for EH&S performance, helps Lucent show continuous improvement in EH&S performance and continuous reductions in the environmental impact of operations and products. As a result, the number of findings that need corrective action reported through the CAL process continues to decline.

Sharpening the Focus with Medical Emergency Response Teams
Lucent's diverse operations require innovative thinking in order to ensure a safe and healthy workplace. For example, Lucent introduced the concept of a medical emergency response team (MERT) in locations where a medical staff was not feasible.

To that end, Lucent Real Estate has staffed 25 Lucent locations across the company with fully trained and equipped Medical Emergency Response Teams. Volunteers have been trained in CPR, first aid, blood-borne pathogens and the use of automatic external defibrillators. Each member of the team has been provided with defibrillators and response equipment (first-aid bags and flashlights).

Lucent Real Estate (LRE) also has staffed each of these 25 locations with an Emergency Evacuation Team (EET) of designated fire searchers and wardens. LRE provided each team with equipment that helps them and their role be recognized by fellow employees during an evacuation. Lucent Environmental Health and Safety assisted many of the team captains with training for the EET, which included emergency procedures and a facility action plan. Members of these emergency response teams are dedicated to ensuring the health and safety of all employees at each Lucent facility.

Lucent continues to take the necessary steps to ensure employee safety. Employees appreciate having a resource for medical emergency response—knowing that people are on-site, trained and equipped to provide aid in times of emergency.

Sharpening the Focus with EH&S Contributions to Operations and Maintenance Activities in the Caribbean and Latin America (CALA) Region
In support of a promising new area of growth and opportunity for Lucent, Environment, Health & Safety (EH&S) professionals help to diversify and enrich Lucent's Services delivered to telecommunications companies. This is done by enhancing the EH&S considerations of the offerings. Lucent has signed a number of contracts for operations and maintenance of customers' telecommunications networks in Costa Rica, Venezuela and Brazil. Lucent's activities are performed directly or through the use of subcontractors. Lucent's EH&S professionals have supported the projects by ensuring that the subcontractors incorporate EH&S requirements in their work programs. Additionally, we have mentored Lucent's customers on how to improve their EH&S performance in their expressed areas of interest, such as tower climbing, safe driving and lock-out/tag-out.

Lucent has demonstrated its ability to operate and maintain its customers' networks with reliability and quality. In addition, Lucent is providing improved EH&S performance that in most cases outpaces our competitors offering the same service. This has been recognized by customers to the extent that Lucent is now invited to quote on projects in other countries in the CALA region, further enhancing Lucent's relationships with its customers.

Lucent Technologies EH&S staff currently is reviewing EH&S implications in this area of business and is preparing a set of corporate standards that will guide future applications throughout the world. This will be another facet of business that will differentiate Lucent from its competitors.

Environmental Leadership Award

In November 2002, the New Jersey Department of Environmental Protection presented Lucent an "Environmental Excellence Award" for making "significant contributions to environmental protection in New Jersey." Lucent received the Clean Air award based on documented environmental benefits, innovation and long-term impacts to the environment related to its greenhouse gas (GHG) emissions reduction program.

That program includes the evaluation of facility operations to determine appropriate energy efficiency projects, utilization of landfill gas to power facility boilers, replacement of halogenated organic cleaning material, and the implementation of recycling and source reduction activities at our locations. By implementing these activities, Lucent reduced its worldwide GHG emissions by more than 40,000 metric tons in 2001.

Lucent also has begun measuring the quantity of emissions generated by production, use and disposal of its products by using Life Cycle Assessment (LCA) tools. Lucent assesses the environmental aspects of its products, such as energy consumption of a product during its use stage and disposal processes, and applies LCA tools to measure resulting environmental impacts.

2002 EH&S Champions Award Program

The EH&S Champions Award Program is a process by which Lucent employees or teams who successfully address environmental, health or safety issues in their business practices, workplaces or communities may be nominated for an EH&S Champions Award. Nominations are submitted online, identifying team members and summarizing the details of each activity. Winners receive an award and a certificate and are asked to provide the name of a qualified, external nonprofit organization of their choice to receive a donation of $1,000. This program is administered by the Lucent Foundation Cares Program, in association with the Lucent Environment, Health and Safety organization.

Nominations are submitted according to the following four categories:

- Environmental, Health and/or Safety Program Effectiveness — awarded for programs that successfully make improvements in our operations and products in the areas of pollution prevention, waste reduction, energy efficiency, or impact on accident prevention and the reduction of on-duty injuries or illnesses.

- Environmental, Health and/or Safety Management Practices — awarded for achievements in advancing environmental and safety commitments on behalf of the company such as the development of effective environmental, health or safety management programs within Lucent, in partnerships with our strategic business partners, government agencies or outside organizations or the promotion of a positive safety climate.

- Environmental, Health and/or Safety Planning for the Future — awarded for innovation in environmentally sound design, technology or manufacturing methods and processes; workplace design innovations that prevent the occurrence of job related injuries/illness.

- Environmental, Health and/or Safety Social Responsibility — awarded for demonstrating outstanding individual or corporate citizenship in the communities where employees live and work. Areas include but are not limited to environmental education, land preservation and beautification, conservation and wildlife habitat protection, safety education and accident prevention, health promotion, and wellness.

For 2002, Champions awards were distributed in three of the four categories. Identification of the awarded teams and descriptions of the projects are as follows:

Program Effectiveness

5E-XC™ Switch
In December 2002, the Global 5ESS® switch team launched the 5E-XC switch, which included the most significant enhancements made to the 5ESS switch during the past decade. Hardware and software additions to the 20-year old flagship product have lowered the cost to customers by tripling capacity and reducing energy consumption by one-half while using one-tenth of the space. Service providers save an estimated $85,000 per year in energy costs alone by replacing a 5ESS switch with a 5E-XC switch.

The 5E-XC switch is also a major milestone in the Design for Environment (DFE) initiative. DFE strives to create products that are more environmentally responsible, incorporating more features in a smaller footprint and using less energy.

Team members: Global 5ESS switch product management teams led by Roger Heinz, 5ESS product development teams led by Mary Zajac, 5ESS product marketing teams led by Mary Baker

Energy Saving Cycle at Qingdao, China
To meet manufacturing process requirements and save costs, Lucent Qingdao Telecommunication Equipment Co., Ltd., established the Energy Saving Cycle team to reduce electrical usage and decrease greenhouse gas emissions.

The team's analysis and efforts resulted in improved workspace lighting systems, optimized operation energy transformers and upgraded emergency lighting systems. As a result, the facility saved $85,000 in energy costs last year and reduced its carbon dioxide emissions.

Team members: Xu Yuan Qiang, Feng XueMei, Gao Xingmei, Iv Xiaopeng, Chen Hui, Fu Guangxu, Yang WeiMing, Jiang Shouliang, Wang Chen, Zhang Andi

Mobility Solutions Product-Based EMS
The Mobility Solutions Green team worked for 18 months to develop, implement and secure third-party certification for an environmental management system (EMS) for its hardware products, based on ISO 14001 standards and Design for Environment principles.

The formalized structure this team developed is certified and audited, ensuring that eco-environmental factors are an integral part of product realization.

Mobility Solutions' EMS is one of the first in the world to be based on the development of hardware products, regardless of where the product is developed.

Team members: Kathy Donnelly, Roger Olds, Dave Wilson, Richard Dela Fuente, Sue Holman, Reggie Phillips, Albrecht Schuh, David Bretones, Debbie Reynolds, Tom Okrasinski, Terri Boehm, Vipin Patel, Sue Dillman, Jeanmarie Spillane, Siegfried Traeger

Effective Response of EH&S Staff, Brazil
In May 2002, Lucent Brazil won a network operations and maintenance contract for four major states in Brazil. As part of the contract, Lucent managed 12 subcontractors, and assumed responsibility for all environment, health and safety requirements associated with the contract.

The EH&S team set standards for the subcontractors and managed each one's performance.

Thanks to a well-designed rollout strategy, in addition to training and seminars, there have been few accidents since work on the contract began.

Team members: Adriano Granjo, Rubens Peterlevitz, Gilson Cesar Macedo da Silva, Victor Henriques, Carlos Eduardo Mendes, Priscilla Zuttin, Sergio Poianas, Vicente de Paulo Chiaradia, Priscilla Vedovatto Santos and William Soares dos Santos

EH&S Incidents Reporting
Manuel Alber, implementation practice manager, Lucent Worldwide Services (LWS), Madrid, Spain, has a family member who suffers from epilepsy, so he's familiar with the procedures to help someone suffering a seizure. During a routine business meeting last year, he sprang into action to help an attendee who suffered a severe attack, carrying out the standard safety precautions to make sure his colleague didn't injure himself while the team waited for medical personnel. Thanks to Alber's knowledge and ability to react in a crisis situation, the person made a full recovery.

Alber has shown outstanding commitment to health and safety issues in the workplace. He led the development of an integrated accident report procedure, which ensures that any incident reported by an installer in the field is addressed with a fast, standardized response that initiates a chain of notifications to all departments with a need to know, including fire and police departments, Lucent Security and EH&S.

The results of this new procedure have been outstanding. Response time to incidents has improved by 40 percent and the cost of resources needed to cover an incident has dropped 45 percent. The quality of information communicated to emergency personnel has improved. And, perhaps most important, the number of safety incidents has decreased 20 percent as a result of the LWS team's analyzing past incidents stored in a shared database.

Team Members: Manuel Alber and Rosa Balaguer Aledon

Eco-Target, Venezuela
When Maria Forte, manager, EH&S, Caracas, Venezuela, received a request from Lucent customer CANTV to share a tool developed by Bell Labs, she recognized it as an opportunity to add value and build a relationship with the customer.

Working closely with the customer's EH&S team, Forte helped adapt the tool — originally designed to measure environmental sustainability of a product or activity — as a practical way to measure occupational health and safety performance. Using the tool's methodology, Forte defined categories to measure and ultimately helped the customer establish benchmarks for effective, sustainable health and safety indicators.

Forte and the customer's health and safety team received joint recognition at conferences and in national media for the success of this project.

Team Members: Mariacarmen Forte and Alessandra Febres*

EH&S Management Practices

EH&S Requirements for Supplier Contracts
Lucent's suppliers share responsibility for making sure our products comply with legal and customer requirements for environment, health and safety concerns. This cross-organization team developed new clauses for supplier contracts that ensure suppliers implement environmental management systems and address issues regarding environmentally hazardous substances in compliance with environmental regulations. In addition, this team was instrumental in communicating these

new requirements to Lucent supplier managers and to suppliers.

Team Members: Linda Floyd, Sue Holman, Arjen Salemink, Anne Venetta Richard, Bryan Stolte, Barry Dambach, Alexandra Moore-Staub, John Lindberg, Henk Groeneboer, Cindi Smith-Durham, Mark Hudson, John Fredette, Ralph McMurry*

EMEA Take-Back
Enactment of Europe's "Take-Back" legislation — laws that require suppliers to collect/recycle equipment at the end of its life cycle or upon customer request — meant that Lucent needed to develop systematic processes to comply with the new requirements.

Forty employees from 11 organizations in seven countries, covering Lucent activities from design to sales and post-sales, worked together to develop collection/recycling processes for Lucent products. They are being included in the different go-to-market strategies and will avoid an estimated $8 million per year in take-back costs. In addition, the employees studied the ways to improve product design in order to eliminate hazardous substances from Lucent products and facilitate their recycling.

Team Members: Carlos Nieva, Joe Joyce, Lima Delaney, Henk Groeneboer, Susana Moreau, Eva Tejedor, Eduardo Villar, Chris Halbard, Jan Boerrigter, John Schipper, Linda Floyd, Sue Holman, Albrecht Schuh, Rod McCurdy, Dick Gray, Michael Kellogg, Rob Redeker, Bob Gregory, Aart Schuuring, Mark David, Declan Byrne, Diana Beverly, Bob Bomer, Henry Muller, Pat McKenna, Mary McDermott, Charles Mathias, Joost Wiebenga, Hans Englebrecht, Inigo Ibarra, Koldo Loidi, J.R. O'Farrell, Carmen Milora, Fran Eason, Enrique Redondo, Arjen Salemink, Tom Okrasinski, Alexandra Moore-Staub, Mark Jacobs, David Bretones, Bill Havel, Barry Dambach

EMS Implementation Team in Ireland
In compliance with ISO 14001 standards, the team led the Blanchardstown System Integration Center in implementing an environmental management system that reduces energy consumption and waste. Suppliers at the facility also have been included in the program, helping Lucent achieve better performance and reduce costs of third-party services such as catering and maintenance.

The new system received certification in December 2002, and early indications show a 20 percent reduction in waste sent to landfills. Food waste is now being sent to a composting facility to produce fertilizer for gardens, trees and plants.

Team Members: Julie Byrne, Eric Alexander, Tom Purcell, Pat Bolger, Michael Quail, John Dillon, Joan Mulvihill, Robert Nolan, Jarlath Creaven, Mark Thomas

Social Responsibility

Let The World See, India
For Nirlay Kundu, going on vacation means visiting hospitals. Kundu, a member of the technical staff for the PSAX group based in Westford, Mass., travels to his home in Calcutta, India, once a year to visit family and friends. He also stops by the four hospitals where he and other members of the Rotary International Club have helped fund free eye care to those who can't afford it.

Kundu, along with several other volunteers from Rotary International, have helped more than 45,000 patients receive free eye care. So far, more than $250,000 has been raised and spent in buying the latest ophthalmologic equipment. Four clinics have been constructed in West Bengal, and as funds permit, there are plans for expansion into other rural areas.

Rakum School for the Blind, India
After a Global Days of Caring project last year, software engineers Rajeev Prasad and Rajkumar Devulapalli continued to volunteer with the Rakum School for the Blind, a residential school in Bangalore, India. In addition to visiting with the 140 students and encouraging donations from Lucent colleagues, the team also funded, designed and launched a Web site for the school.

Team Members: Rajeev Prasad and Rajkumar Devulapalli

Epiphany House Tech Support
For the past six years, current and former Lucent employees have been providing computer and networking technical support to Epiphany House, a transitional housing and health care provider for homeless women and children recovering from addiction. The team helps maintain equipment in computer labs at the Asbury Park and Long Branch, N.J., locations.

Team Members: Morris Wrubel, Gary Gillon*, Dave Shaw, Scott Bresnick*, Alec Shaw*, Ray Staab*

* Non-Lucent participant