

2002  
Sustainability Report



Economic

Environmental

Social

## CEO Statement

We believe that sustainable development is the basis for Alcoa's future.

Within our company, we have the vision, the values, the strength, the technology, the people, the relationships, and the products to build that future. Aluminum — the core of our business — is one of the most useful, most easily recycled, most sustainable materials available in the world. Our customers provide our opportunity for growth as they challenge Alcoa to help them create solutions for improving the quality of life worldwide.

We aim to realize that opportunity by maintaining relentless commitment to achieving better results in our products, our processes, and our relationships today than we did yesterday — and then better results again tomorrow. This is how we secure the benefits and reduce the cost for our business, our customers, our communities, and our world.

This is why I'm pleased to present to you our company's 2002 Sustainability Report. It marks another milestone in Alcoa's long tradition of measuring our performance against the high standards we set for ourselves and reporting on our progress.

Truth can be judged by performance, so data and historical factual information dominate this report. We

have selected information that yields meaningful insight into our global operations, our successes, and, where we are not yet performing to the standards we expect of ourselves, our disappointments.

Much of the environmental, social, and economic data you will find here have been regularly reported in one form or another for decades; but this is the first time that we have drawn them together to provide an integrated view of our performance. This report serves as a complementary volume to our [2002 Annual Report](#), where you can find a more detailed discussion of how we devise solutions for our customers.

Guided every day by our [Values](#), we made significant progress in working toward sustainability in 2002. We are proud of that progress — proud but not content.

Our people programs continued to build the diversity and inclusiveness we need in our culture to enable people to stretch and be the best they can be. Through the [Alcoa Business System](#), we see increased focus on manufacturing based on customer demand and immediate problem solving. In this way, all 127,000 Alcoa employees are working effectively to drive waste, in its many forms, from the value chain that extends from the ultimate consumer back to the natural resources on which we all depend.

As a result, we once again improved on our previous year's safety performance. Our occupational health programs continued to mature.

Environmentally, Alcoa businesses and operating locations continued to deliver on the commitments they made to the reduction of waste and emissions outlined in our [2020 strategic framework](#) for sustainability.

Partnerships are critical for us; we know that sustainability can't be achieved by any organization in isolation. We continue to engage with and involve supporters and opponents within communities where we have a presence and jointly refine our ability to work together to achieve balance among economic, social, and environmental outcomes. In those communities, we also embarked on an ambitious community investment strategy committed to delivering "More than Money."

From this brief summary, you can sense that we have much to report and a strong sense of mission. I offer this report to you and welcome any comments you would like to make. I invite you to submit your comments through our dedicated e-mail address: [sustainability@alcoa.com](mailto:sustainability@alcoa.com).



Alain J. P. Belda  
*Chairman and Chief Executive Officer*

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*As yet, there are no Generally Accepted Accounting Principles for reporting social and environmental performance. We have relied on the reporting framework emerging from the voluntary [Global Reporting Initiative](#) to guide the structure of this report.*

### Forward-looking Statement

Certain statements in this report relate to future events and expectations and as such constitute forward-looking statements involving known and unknown risks and uncertainties that may cause actual results, performance or achievements of Alcoa to be different from those expressed or implied in the forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include the company's inability to achieve the level of cost savings or productivity improvements anticipated by management, including possible increases in the cost of doing business resulting from war or terrorist activities; and other risk factors summarized in [Alcoa's SEC reports](#).

## Vision and Strategy

### Sustainable Development

In Alcoa's view, economic, environmental, and social sustainability lies in commitment to the corporate vision of being the best company in the world — in the eyes of our customers, suppliers, shareholders, communities, and employees — and achieving this through relentless adherence to Alcoa's [Values](#). On this foundation, we have established a strategic framework supported by measurable objectives for achieving the following:

- Supporting the growth of customer businesses.
- Standing among the industrial companies in the first quintile of return on capital among Standard & Poor's Industrials Index.
- Elimination of all injuries and work-related illnesses and the elimination of waste.
- Integration of environment, health, and safety with manufacturing.

- Products designed for the environment.
- Environment, Health, and Safety as a core Value.
- An incident-free workplace (an incident is any unpredicted event with capacity to harm human health, the environment, or physical property).
- Increased transparency and closer collaboration in community-based environmental, health, and safety initiatives.

### Leadership

At Alcoa, sustainable development is a critical component of our 21st century business strategy. Alcoa has done business in three centuries by always thinking beyond what laws require today. We take a leadership focus and try to anticipate where society will be decades from now. We would rather do our best to eliminate waste on the front end, rather than clean up a mess after-

wards. Our investments are long-term, and the focus on the long-term defines our competitive edge.

Take a specific instance: climate change. Our values and premium on leadership demand that we attack the issue now rather than wait to see how governments respond. There is a problem, and we recognize that we contribute to it. So, rather than debate the science, we decided to do something, not because governments are demanding it — which they will — but because it is the right thing to do. We committed to reduce our greenhouse gas emissions by 25% from their level in 1990. Today, we are on track to reach that goal well ahead of schedule, and we are developing new technology that may reduce those emissions substantially more.

Over time, sustainable development will demand that every business take the far-sighted view, to leave behind an enterprise that is valued by society and positioned for future growth.

### Alcoa Again Named to Dow Jones Sustainability Index

For the second consecutive year, Alcoa was named a component of the [Dow Jones Sustainability Index](#) based on the company's ability to balance environmental excellence, social responsibility, and financial success.

Launched in 1999, the Dow Jones Sustainability Indexes (DJSI) are the world's first global indexes tracking the performance of the leading sustainability-driven companies worldwide. The DJSI World family is limited to the top 10% of the largest 2,500 companies in the Dow Jones Global Index in terms of economic, environmental, and social criteria.

Alcoa was first named a component of the DJSI in 2001. It joins approximately 300 companies from 23 countries that lead their industry in sustainability.

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## Vision and Values

At Alcoa, our vision is to be the best company in the world. We expect and demand the best we have to offer by always keeping Alcoa's Values top of mind.

### Integrity

Alcoa's foundation is our integrity. We are open, honest, and trustworthy in dealing with customers, suppliers, coworkers, shareholders, and the communities where we have an impact.

### Environment, Health, and Safety

We work safely in a manner that protects and promotes the health and well-being of the individual and the environment.

### Customer

We support our customers' success by creating exceptional value through innovative product and service solutions.

### Excellence

We relentlessly pursue excellence in everything we do, every day.

### People

We work in an inclusive environment that embraces change, new ideas, respect for the individual, and equal opportunity to succeed.

### Profitability

We earn sustainable financial results that enable profitable growth and superior shareholder value.

### Accountability

We are accountable — individually and in teams — for our behaviors, actions, and results.

We live our Values and measure our success by the success of our customers, shareholders, communities, and people.

## Principles

### Integrity

- We live our Values everywhere, all of the time.
- We demonstrate integrity in our behavior and actions.
- We keep our promises.
- We have the confidence and courage to ask for help.
- We expect integrity from every Alcoa and do not tolerate unethical behavior.
- We avoid conflicts of interest but will declare situations where they may occur.
- We expect integrity from our customers, suppliers, and others who do business with us.
- We communicate openly with individuals and communities on issues that affect them.

### Environment, Health, and Safety

- We value human life above all else and manage risks accordingly.
- We relentlessly pursue an EHS incident-free workplace.
- We do not compromise our EHS Value for profit or production.
- We comply with all laws and set higher standards for ourselves and our suppliers where unacceptable risks are identified.
- We support sustainable development, by incorporating social responsibility, economic success, and environmental excellence into our decision-making process.
- We measure and assess our performance and are open and transparent in our communications.
- We supply and use safe and reliable products and services.
- We use our EHS knowledge to enhance the safety and well-being of our communities.
- We are all accountable for conforming with and deploying our EHS Value and Principles.

### Customer

- We deeply understand our customers' needs and consistently meet or exceed them through ABS.
- We build strong long-term customer relationships at all levels.
- We cross organizational and geographic boundaries to seamlessly serve customers.

- We are the leader in our chosen market segments.
- We develop innovative product, service, and information solutions.
- We develop and nurture clear Alcoa and product brand identities.
- We develop and maintain a strong commercial organizational capability.

### Excellence

- We continuously set goals beyond the best.
- We demand, recognize, and reward excellence.
- We achieve system excellence through application of the rules of our system and by rapidly implementing best practices.
- We eliminate waste by rapidly solving problems at their source.
- We move practical and theoretical limits through innovation.
- We have rapid change as a mindset.
- We are committed to excellence by living our Values.
- We empower our people through a diverse learning organization to capture the best from everyone.

### People

- We treat each other with dignity and respect at all times.
- We seek to understand each other's ideas and suggestions.
- We value diversity and our individual differences.
- We create and seize opportunities for growth and development.
- We seek and accelerate change.
- We continuously re-design our work to eliminate waste and improve the value of our work.
- We provide appreciative and constructive feedback to each other to improve our individual and team performance.
- We create the appropriate balance in our work and family lives.
- We create value in the community in which we live and work, through our presence and leadership.

### Profitability

- We all understand how our job contributes to profitability.
- We eliminate waste every day, reducing our costs and capital requirements.
- We earn our right to grow by achieving returns that exceed our cost of capital.
- We aggressively pursue organic growth by creating exceptional value for customers.

- We make strategic acquisitions and integrate them excellently.
- We openly and effectively communicate our financial results internally and externally.
- We do not make money at the expense of our Values.

### Accountability

- We first recognize our role and responsibilities, then take ownership, and accept the consequences of our actions.
- We act with a sense of ownership in our workplace.
- We encourage an environment of risk taking within the context of accountability.
- We solve the problems in our area of responsibility and drive continuous improvement of our work.
- We do what we say we will do.
- We communicate openly as positive team members to increase the performance of our teams.
- We recognize the impact that our own actions have in all outcomes.
- We recognize individual and team accomplishments and successes.

# Profile

## ORGANIZATIONAL PROFILE

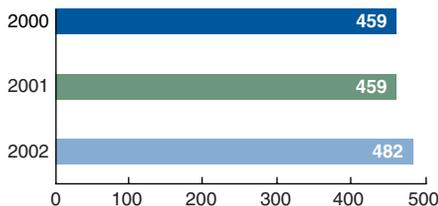
### Reporting Organization

Alcoa Inc.

### Products and Services

In addition to aluminum products and components, Alcoa also markets consumer brands including Reynolds Wrap® aluminum foil, Alcoa® wheels, and Baco® household wraps. Among our other businesses are vinyl siding, closures, precision castings, and electrical distribution systems for cars and trucks.

### Number of Operating Locations



### Designing for Environment, Health, and Safety

For some time, Alcoa has been present in [Iceland](#) as a supplier of fabricated aluminum and other products. That presence will expand with the construction of the 322,000-metric-ton Fjarðaal aluminum facility in East Iceland.

The facility is scheduled to begin production in 2007. Principles for sustainability are guiding the design of the approximately \$1.1 billion plant. Alcoa is also working to design out health and safety issues, which have been identified over time in the aluminum smelting industry.

### Countries with Alcoa Operations

As of March 2003, Alcoa operates in 40 countries. A complete list is available on [alcoa.com](http://alcoa.com).

### Nature of Ownership

Formed in 1888 under the laws of the Commonwealth of Pennsylvania, Alcoa Inc. is a publicly listed company on the [New York Stock Exchange](#) (ticker symbol: AA).

### Markets Served

Alcoa serves customers in the [aerospace](#), [automotive](#), [packaging](#), [building and construction](#), [commercial transportation](#), and [industrial markets](#).

### Key 2002 Statistics

As of December 31, 2002

Employees	127,000
Sales*	20,263
Debt*	8,487
Equity*	9,927
Assets*	29,810

\*Millions of US dollars

“Fjarðaal will be designed to fit into the natural environment in East Iceland,” said Alcoa Chairman and CEO Alain Belda. “We are aiming for zero process water discharge so that we can protect the fjord, and we will sharply limit emissions into the air using best-in-class technology.”

The Fjarðaal aluminum facility will operate using hydroelectric power, which will be supplied by a 500-megawatt hydroelectric facility built by Iceland’s national power company. The hydro project offers an extremely efficient generating system, requiring only a relatively small reservoir to generate a significant amount of electricity. This will significantly reduce the carbon dioxide emissions

## REPORT SCOPE

### Contact Person

Dr. Patrick Atkins

To provide feedback on this sustainability report, please send an e-mail to [sustainability@alcoa.com](mailto:sustainability@alcoa.com).

### Reporting Period

January 1 through December 31, 2002. This is Alcoa’s first sustainability report in this format, but we have been reporting publicly on our global [EHS performance](#) for 10 years and [community involvement](#) for three years. Generally, we have provided three years of data for each performance indicator.

### Boundaries of Report

Data contained in this report are for Alcoa’s global operations unless otherwise noted as regional.

associated with the project, helping Alcoa meet its stringent greenhouse gas emission targets.

The project will involve no relocation of people, no impact on endangered species, no danger to commercial fisheries, and no denial of access by tourists and naturalists to the affected area.

“This project will help provide jobs and strengthen and diversify an economy that traditionally relied heavily on fishing,” said Belda. “Along with the power plant and some infrastructure work, this project is the most extensive single investment ever undertaken in Iceland.”

## Alcoa Metrics System

Alcoa's metrics system is the source of much of the data in this report.

Almost 15 years ago, Alcoa initiated a process to collect and display current detailed information on safety in a way that would be available to all employees. We built a system that allows every location to enter data electronically through interactive computer displays, and we use the information as a tool for developing action plans, corrective actions, goal setting, and progress measurement.

We have expanded the original data system to include incident management, and we now use the system for all environmental, health, and safety data collection and analysis, incident management, and reporting. At any time, we can use the system to determine current safety statistics, including accidents or near misses that occur anywhere in the world on a particular day. We can also view detailed reports on incidents, evaluate the corrective action plans or sta-

tus of a corrective action, and evaluate our progress toward our goals in environment, health, and safety. The system is an excellent management tool that has helped us facilitate our rapid progress in these areas.

## Basis for Reporting on Joint Ventures, Partially Owned Subsidiaries, Etc.

Data in this report are drawn from those operations where Alcoa has majority interest and/or management control.

## REPORT PROFILE

This is a pilot report intended to help guide Alcoa in the evolution of an integrated report highlighting economic, social, and environmental aspects of our operations from 2004 onward. In all cases, we have selected data that we believe contribute to meaningful insight into Alcoa operations worldwide. We also selected data on the basis that systems for collecting and collating that data already exist or that we can make a reasonable estimate.

## Criteria/Definitions

Please refer to the [2002 Alcoa Annual Report](#) for details on our financial accounting policies.

## Internal Report Assurance

Alcoa management is responsible for the integrity of the data published in this report. The company maintains a system of internal controls, including accounting controls and a strong

program of internal and external auditing. The system of controls provides for appropriate procedures that are consistent with high standards of accounting and administration. This report has been prepared within the framework of those standards.

## Independent Report Assurance

This pilot sustainability report has not been verified by an independent external party. Alcoa recognizes the value of external verification of such reports, and we are actively working our way through the complexities of verification of all reported data. We will report on our progress toward verification with the publication of the 2004 report.

## Information Requests

Please visit [alcoa.com](http://alcoa.com) for additional information about Alcoa's economic, environmental, and social performance.

# Governance Structure and Management Systems

## STRUCTURE AND GOVERNANCE

### Board of Directors (As of February 20, 2003)

**Alain J.P. Belda**, 59, chairman of the board of Alcoa since January 2001, and chief executive officer since May 1999. Elected president and chief operating officer in January 1997, vice chairman in 1995, and executive vice president in 1994. President of Alcoa Aluminio S.A. from 1979 to 1994; president — Latin America in 1991. Director of Alcoa since 1998.

**Kathryn S. Fuller**, 56, president of the World Wildlife Fund U.S. (WWF), an independent organization dedicated to the conservation of nature, since 1989; various positions with the organization since 1982 including executive vice president, general counsel, and director of WWF's public policy and wildlife trade monitoring programs; prior to WWF, chief, Wildlife and Marine Resources Section, U.S. Department of Justice. Director of Alcoa since 2002.

**Carlos Ghosn**, 48, president and chief executive officer, Nissan Motor Company, Ltd., since 2001. Mr. Ghosn previously served as chief operating officer of Nissan Motor

Company, Ltd. from 1999. From 1996 to 1999 he was executive vice president of Renault S.A., and from 1979 to 1996 he served in various capacities with Compagnie Générale des Établissements Michelin, including chairman, president, and chief executive officer of Michelin North America, Inc. from 1990 to 1996. Director of Alcoa since 2002.

**Joseph T. Gorman**, 65, former chairman and chief executive officer of TRW Inc., a global company serving the automotive, space, and information systems markets, from 1988-2001; president and chief operating officer 1985-1988; president 1985-1991; executive vice president 1980-1985; vice president and general counsel 1976-1980. Director of Alcoa since 1991.

**Judith M. Gueron**, 61, president of Manpower Demonstration Research Corporation (MDRC), a nonprofit research organization, since 1986; executive vice president for research and evaluation 1978-1986; prior to MDRC, director of special projects and studies and a consultant for the New York City Human Resources Administration. Director of Alcoa since 1988.

**Sir Ronald Hampel**, 70, former chairman of United Business Media, a U.K.-based media company, from 1999-2002; chairman of Imperial Chemical Industries plc (ICI) 1995-1999, and a director 1985-1999; deputy chairman and chief executive

officer 1993-1995; chief operating officer 1991-1993. Director of Alcoa since 1995.

**John P. Mulroney**, 67, executive director of the Opera Company of Philadelphia since 1999; former president and chief operating officer of Rohm and Haas Company, a specialty chemicals manufacturer, from 1986-1998. Director of Alcoa since 1987.

**Henry B. Schacht**, 68, was chairman of Lucent Technologies Inc., a communications systems and services company, from October 2000 to February 2003 and its chief executive officer from October 2000 to January 2002. He has been on unpaid leave from Warburg Pincus, where he served in various roles, including managing director and partner since 2000, and senior advisor in 1999. Mr. Schacht previously served as chief executive officer of Lucent Technologies Inc. from February 1996 to October 1997, chairman from 1996 to 1998, and senior advisor from February 1998 to February 1999. Mr. Schacht was chairman of Cummins Inc. from 1977 to 1995 and its chief executive officer from 1973 to 1994. Director of Alcoa since 1994.

**Franklin A. Thomas**, 68, consultant, TFF Study Group, a nonprofit institution assisting development in South Africa, since 1996; chairman, September 11 Fund since 2001; president and chief executive officer of The Ford Foundation 1979-1996; president and chief executive officer of Bedford Stuyvesant Restoration Corporation 1967-1977. Director of Alcoa since 1977.

**Ernesto Zedillo**, 51, director, Yale Center for the Study of Globalization. Dr. Zedillo is the former president of Mexico; elected in 1994 and served until 2000; held various positions in the Mexican federal government since late 1987 including secretary of education, secretary of economic programming and budget, and undersecretary of planning and budget control. Prior to his work with the Mexican government, deputy director of the Bank of Mexico. Director of Alcoa since 2002.

## Committees

### Audit Committee

Reviews Alcoa's auditing, financial reporting, and internal control functions and retains the independent auditors. It also reviews the company's environmental, health, and safety audits and monitors compliance with Alcoa business conduct policies. The members of the Audit Committee are independent, as defined under the New York Stock Exchange listing standards. The independent auditors, the chief financial officer, the vice president —

audit, and the general counsel have access to the committee without any other members of management being present.

Joseph T. Gorman  
Judith M. Gueron  
Henry B. Schacht — Chair  
Ernesto Zedillo

### Compensation and Benefits Committee

Determines compensation for Alcoa officers, administers the stock option plan, oversees investment management of the principal pension and savings plans, approves any special post-retirement arrangements for retiring Alcoa officers, and performs other functions specified by the company's compensation and benefit plans. The committee retains independent compensation consultants to assist it. The members of the Compensation and Benefits Committee are independent, as defined under the New York Stock Exchange listing standards.

Carlos Ghosn  
Joseph T. Gorman — Chair  
Sir Ronald Hampel — Chair of Subcommittee, Investment Management  
John P. Mulrone  
Franklin A. Thomas

### Executive Committee

Acts on behalf of the board when specific action must be taken between board meetings. Meets regularly between the scheduled board meetings.

Alain J. P. Belda — Chair  
Joseph T. Gorman  
Henry B. Schacht  
Franklin A. Thomas

### Governance and Nominating Committee

Recommends nominees for election as directors and has oversight responsibility for corporate governance, director education, and orientation and the performance evaluation process for committees and the board.

Kathryn S. Fuller  
Sir Ronald Hampel  
John P. Mulrone — Chair  
Franklin A. Thomas

### Public Issues Committee

Provides advice and guidance on public issues, oversees corporate giving, makes recommendations to the board regarding significant shareholder issues, and reviews company reporting initiatives regarding social and environmental matters.

Kathryn S. Fuller  
Carlos Ghosn  
Judith M. Gueron — Chair  
Henry B. Schacht  
Ernesto Zedillo

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## Independence Standard for Board of Directors

Alcoa believes that a strong independent board is critical. A majority of directors must be “independent” under the listing standards of the New York Stock Exchange, as determined by the board of directors. Board independence depends not only on directors’ individual relationships, but also on the board’s overall attitude. Providing objective, independent judgment is at the core of the board’s oversight function, and the board’s composition should reflect this principle. Since 1991, Alcoa has had only one inside director on its board, the chief executive officer, except during a brief period during a CEO transition. Today, nine out of the 10 directors are independent, and the Audit Committee is composed entirely of independent directors.

## Executive Compensation

We believe our compensation procedures and practices are in line with the best corporate governance standards. Our executives have an opportunity to increase their compensation by performing well. Our performance-based cash incentive plans have been established to pay above the median, and the stock

option program rewards executives when the company stock is rising. Executive compensation declines when the company’s stock price is declining or when financial and non-financial performance objectives are not fully realized. We have never repriced stock options, and our plan, which was approved by the shareholders, prohibits repricing. We think these performance-based designs and practices have served the interests of the shareholders well.

## Audit Process

Our goal is the same through both our internal and external audit processes: to maintain world-class transparency and accountability in Alcoa operations.

## Independent Auditors

Alcoa’s corporate governance guidelines strictly limit the non-audit work performed by our independent accounting firm, [PricewaterhouseCoopers](#) (PwC). Aside from work on the audit, related work, and tax matters, we paid PwC no other fees in either 2002 or 2001.

In compliance with the Sarbanes-Oxley Act and NYSE Rules, Alcoa’s governance standards require the regular rotation of PwC’s lead audit and review partner.

## Internal Audit

Alcoa has long had an independent, global, Internal Audit Department (IAD). The IAD is responsible for providing financial, information technology, environmental, and health

and safety audits in all Alcoa locations across the world. The group’s focus is to assess risk across the company, apply audit resources to address those risks, and develop recommendations to close any gaps that are detected as a result of an audit. IAD is also charged with implementing the Alcoa Self-Assessment Tool, a type of self-audit that is required to be performed at least once every 18 months by every Alcoa location or administrative process worldwide.

## Ethics and Compliance Program

Deployment of Alcoa’s [Ethics and Compliance Program](#) in 2002 led us to a closer alignment with the Federal Sentencing Guidelines of 1992, recommendations of an independent Compliance Program Assessment completed in December 2000, and requirements of the Sarbanes-Oxley Act of July 2002.

Our Compliance Advisory Council and the Global Compliance Organization, both formed in 2001, continued to provide meaningful strategic direction and tactical support for the re-energized ethics pro-

gram. Their support facilitated the following accomplishments during 2002:

- Distribution of the Alcoa Guide to Business Conduct in 16 languages to 149,000 people (employees and long-term contractors).
- Availability of toll-free, language-appropriate access to our Ethics and Compliance Line for 95.5% of our 127,000 employees. Contractors may also use the Ethics and Compliance Line as appropriate. The phone is answered in the language of the country from which the call emanates.
- Development of a standardized but language-specific ethics awareness and training presentation that is presented to all employees at the

time they receive their personal copies of the Alcoa Guide to Business Conduct.

- Availability of the Global Compliance Portal, providing one-stop access to relevant ethics and compliance materials by any employee having access to the Alcoa intranet.
- Initiation of a pilot for online, job-specific ethics and business conduct training using interactive scripts and scenarios.

#### **Ethics and Compliance Line**

In 2001, approximately 20,000 Alcoa employees had access to our ethics and reporting hotline. We increased that number to 59,400 by March 2002 and to 157,000 global employees and contractors by March 2003.

In 2001, the hotline was available only in English. Today, we have the capabilities to respond to hotline calls in 16 languages.

#### **Shareholder Engagement**

Alcoa shareholders elect the board of directors.

### **STAKEHOLDER ENGAGEMENT**

#### **Stakeholder Identification**

Stakeholders are defined as any group or individual affected by Alcoa's operations or that has the capacity to influence our operations or future prospects.

#### **Stakeholder Consultation**

Alcoa has deployed a community framework through which each operation can engage the local community by various means. These include forums, workshops, advisory panels, published reports, projects, and open houses.

#### **Soliciting the External Viewpoint**

Worldwide, Alcoa consults and engages with non-government organizations, government agencies, community-based organizations, neighbors, and individuals that can be considered external stakeholders. Listening to what people outside of Alcoa think about the company and its initiatives is a key aspect of sustainable development.

For example, Alcoa's Warrick Operations in Indiana (United States) has invited environmentalists and community leaders into its plant for a review of the facility's environmental performance and future plans for the past seven years. In 2002, the format of this environmental forum changed to incorporate more interactions between plant personnel and external stakeholders. Warrick's dialogue with the community extended to the facility's 2002 community annual report, which included a forum section to allow members of the community to offer their feedback.

Said David Scott Coker, environmental activist and member of Save Our Land and Environment, "Although Alcoa does

provide many high-paying jobs to area residents, we are concerned about the health risks associated with air and water-borne emissions, land-applied wastes, and hazardous waste streams. The environmental forums give us an opportunity to know various individuals within the company on a first-name basis. They also instill some confidence that Alcoa is truly making a concerted effort to reduce toxic emissions across the board."

## Stakeholder Consultation Outcomes

Some examples of the type of information and initiatives that result from stakeholder engagements are contained throughout this report via case studies.

## OVERARCHING POLICIES AND MANAGEMENT SYSTEMS

### Alcoa Business System

Alcoa's overarching operating system is known as the [Alcoa Business System](#) (ABS). It is a system based on the following principles:

- Defining precisely our customers' requirements.

- Pre-specifying the work and the pathways necessary for meeting those customer requirements and refusing to vary from them.
- Safeguarding what we have pre-specified with built-in tests to identify and prevent problems that might threaten our predetermined outcomes.
- Tracing problems back to their root cause and eliminating them; not through the use of elite, discrete teams of problem solvers, but through the disciplined, immediate, relentless participation of the people occupying the affected pathway.

This system provides the most efficient way for eliminating waste by enabling us to supply customers, on demand, with defect-free products at the lowest cost and with the highest degree of safety.

## External Principles and Initiatives

Alcoa subscribes to or endorses the following externally developed principles or initiatives.

- [The Business Roundtable Principles of Corporate Governance](#)
- [NYSE Corporate Governance Standards](#)
- [International Aluminum Institute Sustainability Principles](#)
- [International Council on Mining and Metals Principles](#)

## Climate Leader

In March 2002, Alcoa became a charter partner in the U.S. Environmental Protection Agency's [Climate Leaders Program](#), a voluntary industry/government partnership that encourages companies to develop long-term, comprehensive climate change strategies.

Participation in the Climate Leaders Program complements voluntary agreements Alcoa already has in place with

the governments of Quebec and Australia and reinforces the commitment Alcoa has made to achieving significant, global reductions in greenhouse gas emissions.

"Voluntary partnerships with industry, government, and communities create useful open forums for building and sharing knowledge," said Alcoa Chairman and CEO Alain Belda. "Alcoa views participation in these partnerships as one of the key enablers for achieving the ambitious environmental goals we've set for Alcoa over the next 20 years, and for the overall achievement of globally sustainable reductions in greenhouse gas emissions."

## Memberships

Alcoa is a member of numerous organizations. These include major aluminum associations and metal councils throughout the world and organizations like the [Business Roundtable](#), the [Pew Center on Global Climate Change](#), the [World Business Council for Sustainable Development](#), and the [World Resources Institute Green Power Initiative](#). We choose memberships where we can see a significant role for business in advancing sustainability.

## Programs and Procedures

Some examples of Alcoa's programs and procedures pertaining to economic, environmental, and social performance are contained throughout this report via case studies.

## Alcoa Alloys Help Turn Auto Industry Green

Devoting world-class resources to address environment, health, and safety challenges confronting our customers has led to numerous breakthroughs in materials and manufacturing science.

For example, innovation in aluminum metallurgy for the automotive industry

## Certification Status

As of March 31, 2003, Alcoa had 127 locations certified to the [ISO 14001 Environmental Management Systems \(EMS\) Standard](#), with more than 100 locations actively working toward certification within two years. All of our locations are required to have written environ-

mental management systems based on the continuous improvement principle — which is the major thrust of the ISO Standard and is aligned with the principles of Alcoa Business System — but certification is not required.

We will pursue a corporate-wide certification to the ISO14001 EMS Standard in 2003. We have two locations (AFL do Brasil and São Luís) that are certified to the Occupational Health and Safety Management System standard (OHSAS 18001) and others that are working toward such certification.

involved replacing copper with aluminum alloys in heat exchanger condenser tubing to improve energy efficiency and reduce costs. Originally, because the aluminum's corrosion resistance was not sufficient for this application, manufacturers coated the tubes with chromate or zinc. While this solved the corrosion issue, the coating process generated a hazardous waste that required additional effort to ensure its environmentally safe disposal.

In conjunction with the automotive industry, Alcoa began developing aluminum alloys that were corrosion resistant and did not require coating. The scientific challenge was incorporating the corro-

sion resistance while maintaining or improving the alloy's properties, such as strength and flexibility. The team found a solution to this critical technical issue, creating proprietary long-life alloys that offer superior corrosion resistance without coating. General Motors, Ford, and Daimler/Chrysler currently use the alloys in their automotive heat exchangers.

# Economic Performance Indicators

At Alcoa, we have consistently focused on creating superior economic value for all our stakeholders while living our [Values](#). Whether it's working closely with a customer in developing a cutting-edge product or providing a return to our shareholders that exceeds comparable investments, we are resolute in fulfilling our economic value-creation goals. This, we believe, is a crucial component of our contribution toward sustainable development, and we are proud to report our achievements.

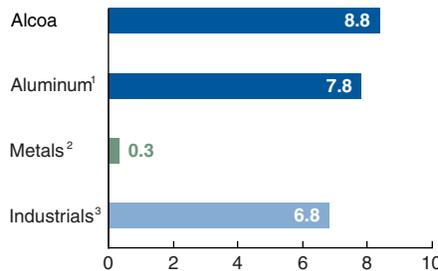
## LONG-TERM SHAREHOLDER VALUE

Alcoa has been listed on the [New York Stock Exchange](#)<sup>1</sup> (ticker symbol: AA) since 1951 and currently has an estimated 273,000 common shareholders that owned, on average, 845 million common shares in 2002.

We continue to deliver value to our shareholders that exceed our peers — other aluminum, metal, and broad-based industrial companies. Comparing our performance across various objective financial measures — top-line growth, return on capital, and total shareholder return — we outperformed our peers in almost all of these metrics.

<sup>1</sup>Alcoa currently has secondary listings on exchanges in Australia, Belgium, Germany, Switzerland, and the United Kingdom. Our preferred shares are listed on the American Stock Exchange.

**Top Line Growth** (5-year CAGR)  
(percent)

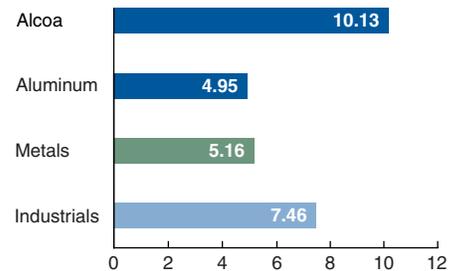


<sup>1</sup> Alcan & Pechiney

<sup>2</sup> S&P 500 Metals Index including Allegheny Tech, Freeport McMoran, Newmont, Nucor, P-D, USX, Worthington

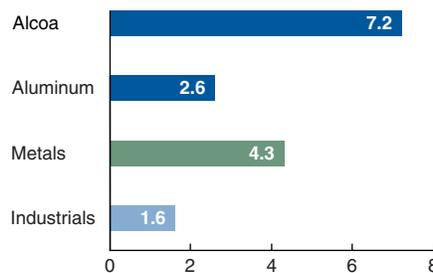
<sup>3</sup> Dow Chemicals, Dupont, Caterpillar, Emerson, GE, ITW, International Paper, United Technologies

**Return on Capital** (5-year average)  
(percent)



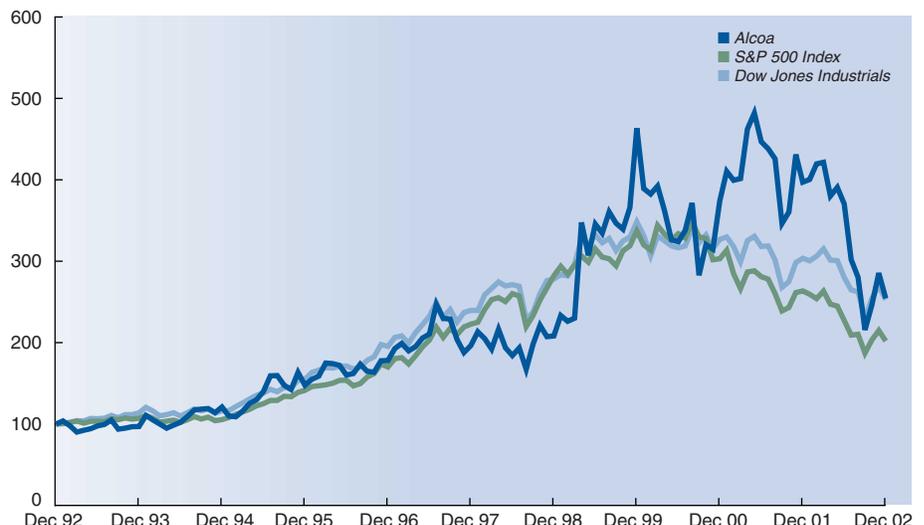
As defined by Bloomberg. Trailing 12 month (Net income + Minority interest + Interest expense \* [1 - (Effective tax rate/100)]) divided by average of the beginning and ending balances of (Short-term borrowings + Long-term debt due within one year + Long-term debt, less amount due within one year + Minority interest + Total shareholders equity).

**Total Shareholder Return** (5-year annual)  
(percent)



As defined by Bloomberg. Represents the annualized return a given investment in a stock would have delivered over a five-year period with the assumption that all dividends are reinvested in that stock.

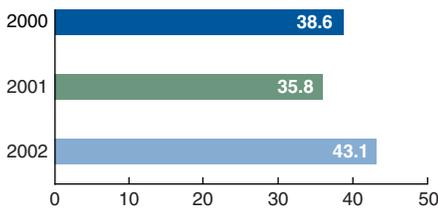
**Alcoa Share Price Performance**



Source: Bloomberg

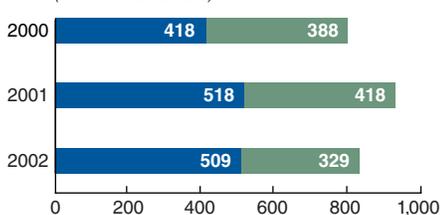
We have achieved these returns within a sound credit rating framework, retaining an investment grade rating with major agencies, such as Moody's and Standard & Poor's, for more than 25 years. This reflects our efforts in managing our financing obligations within sustainable levels, providing security for our providers of capital and other stakeholders.

#### Debt as a Percent of Invested Capital (percent)



*(Short-term borrowings + Long-term debt, due within one year + Long-term debt, less amount due within one year) / (Short-term borrowings + Long-term debt, due within one year + Long-term debt, less amount due within one year + Minority interests + Total shareholder's equity)*

#### Distributions to Providers of Capital (millions of US dollars)

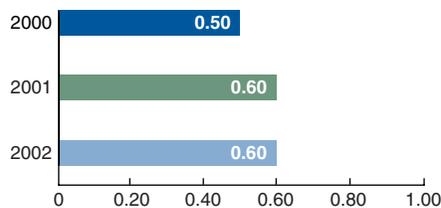


*\*Includes dividends to both common and preferred shareholders*

Alcoa is committed to continually distributing a proportion of our earnings to shareholders through dividends, which have been paid uninterrupted since 1939. Currently, we pay a dividend four times a year. The board of directors determines the amount of dividend paid, taking into account various factors that include operational performance and capital requirements. Our dividends

have grown at a compounded annual rate of 12% for the last 10 years.

#### Dividends Paid per Common Share (US dollars)



#### Cost Savings Initiative

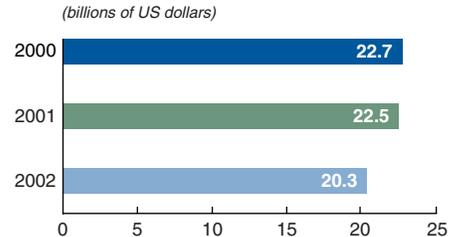
Alcoa has undertaken two cost savings initiatives since 1998. The first initiative, announced in 1998, targeted a reduction of US\$1.1 billion in annual costs by the end of 2000. This was achieved with a small offset resulting from higher energy costs.

In 2001, we announced a second initiative for a planned reduction of an additional US\$1.0 billion in total costs by the end of 2003 to create value for our shareholders in the face of eroding real-term aluminum prices. By the end of 2002, we had successfully achieved an annual savings run-rate of US\$600 million through a combination of procurement and productivity improvements. With continued focus on the application of the [Alcoa Business System](#), we are on track to deliver our 2003 cost savings goal.

## CUSTOMERS

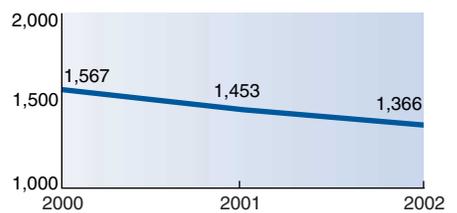
In 2002, Alcoa generated revenues of US\$20.3 billion in 39 countries. This represents a compounded annual sales growth of 7.9% over the last 10 years and 8.8% over the most recent five years, reflecting our success at growing the business.

#### Sales (billions of US dollars)



*Please refer to the Management's Discussion and Analysis of Financial Condition and Results of Operations section in Alcoa's 2002 Annual Report for a discussion on the changes in annual sales.*

#### LME\* Average Aluminum Price (US dollars per ton)

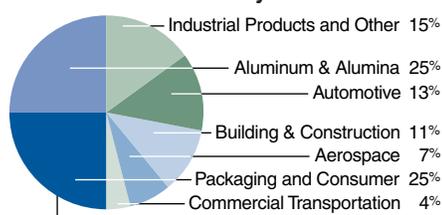


*\* London Metal Exchange three month prices*

Alcoa serves customers across an array of markets. Our products and components are used worldwide in aircraft, automobiles, beverage cans, buildings, chemicals, sports and recreation, and a wide variety of industrial and consumer applications. At every level in the organization, we seek to strengthen our relationship with our existing customers while developing new ones.

We work closely with many of our customers, leveraging our knowledge of our products to develop applications that generate value to them and their customers. Recently, for example, we collaborated with General Motors in the design and engineering of the new [Cadillac Sixteen](#) concept car. We were able to use our more than two decades of structural design and engineering expertise to help develop an aluminum auto structure that was unique in its capacity to meet significant performance, occupant comfort, and safety requirements.

#### 2002 Revenue Share by Market



To support our objective of meeting or exceeding customer expectations in quality, delivery, and service, we have formed Market Sector Lead Teams. These teams are led by senior executives with the mission of developing industry, market segment, and specific customer strategies by working across all of Alcoa's multiple businesses. This helps provide a single-face/multiple-solution proposition to each of our customers. To date, we have deployed four Market Sector

#### Revenues by Market (percent)

	Packaging & Consumer	Alumina & Alumina	Industrial Products & Other	Automotive	Building & Construction	Aerospace	Commercial Transportation
2000	20	26	21	11	11	6	5
2001	22	24	19	11	11	9	4
2002	25	25	15	13	11	7	4

#### Revenues by Segment (billions of US dollars)

	Alumina & Chemicals	Primary Metals	Flat-rolled Products	Engineered Products	Packaging & Consumer	Other	Total
2000	2.1	3.7	5.4	5.3	2.1	4.1	22.7
2001	2.0	3.4	5.0	5.7	2.7	3.7	22.5
2002	1.8	3.2	4.6	5.0	2.9	2.8	20.3

#### Revenues by Region (percent)

	North America	Europe	Other Americas	Pacific
2000	69	17	5	9
2001	68	20	5	7
2002	67	21	4	8

Lead Teams: Aerospace, Automotive, Commercial Transportation, and Industrial Markets. This new approach is already showing positive results.

#### Countries with Significant Alcoa Participation in the Local Economy

Alcoa has operations in 40 countries (as of March 2003) with varying significance within the context of the overall scale of economic activity in these economies. In two countries in particular — [Suriname](#)<sup>1</sup> and [Jamaica](#)<sup>2</sup> — we participate in joint ventures whose operations represent a sizeable component of the national GDP of these countries. We recognize our role and the responsibilities of good corporate citizenship in every one of the countries in which we operate.

<sup>1</sup>Alcoa has a refinery in Suriname that is owned 45% by BHP Billiton and 55% by Suriname Aluminum Company L.L.C. (part of the Alcoa World Alumina and Chemicals (AWAC) group of companies and therefore owned 60% by Alcoa and 40% by Alumina Ltd.).

<sup>2</sup>Alcoa has a refinery in Jamaica, which is owned 50% by Clarendon Alumina Production, Ltd. (a wholly owned subsidiary of the Government of Jamaica) and 50% by Alcoa Minerals of Jamaica L.L.C. (part of the AWAC group of companies).

#### SUPPLIER RELATIONSHIPS

We spent US\$18 billion in operating costs (cost of goods sold; selling, general administrative, and other expenses; and research and development expenses) in 2002. While a sizeable proportion of this total is in metal purchases, energy and employee salaries and benefits, we also spend significant amounts on other goods and services. While no one supplier represents more than 10% of the dollar value of total goods and services we purchased in 2002, we have procurement relationships

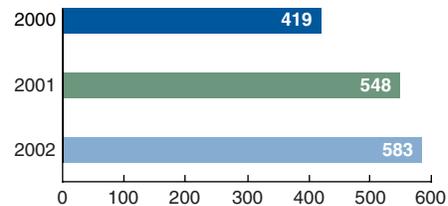
with a wide range of suppliers in many countries. Working closely with these suppliers helps us in developing the highest quality, cost-effective products for our customers. Our relationship and conduct with our suppliers is guided by the principles outlined in our [Guide to Business Conduct](#). It is our intention to pay all suppliers on time and within agreed terms. We take all reasonable measures to ensure timely and full compliance with agreed terms.

## PUBLIC COMMITMENT

In addition to our extensive community engagement (discussed below and later in the report), we make significant tax payments to government finances in all the countries in which we operate. In 2002, we paid income taxes of US\$583 million. This excludes the numerous other taxes, such as royalties, sales taxes, excise duties, levies, and local taxes, that we paid in those countries.

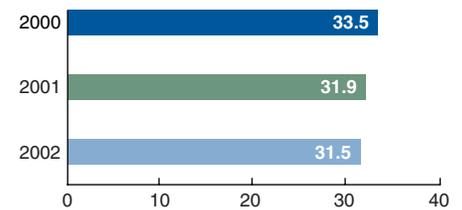
### Cash Paid for Income Taxes

(millions of US dollars)



### Effective Tax Rate

(percent)



## Alcoa Landcare Project

Since 1989, Alcoa has been actively working with farmers, research institutes, government, and non-government organizations in [Australia](#) to repair degraded agricultural land, conserve biodiversity, and protect regional waterways.

Rural communities in Australia were facing alarming land degradation problems that were caused by a number of com-

plex, intertwined problems: clearing of native vegetation, erosion, salinity, fertilizers, tillage, artificial boundaries, and loss of wildlife habitat.

Alcoa has committed resources, expertise, and more than 18 million Australian dollars to community, environmental, and landcare projects that have demonstrated the practical results of various landcare management techniques and the value of collaborative action by industry, government, and community. This work includes the Swan Catchment Urban Landcare Program, which Alcoa supported with 1.25 million Australia dollars over a five-year period. The program has become a model of community decision-making and

one of the most successful urban landcare programs in Australia.

The Alcoa Landcare Project also includes landcare educational packages for schoolchildren, improved recreational facilities, and Alcoa-sponsored education centers.

# Environmental Performance Indicators

## MATERIAL USE

### Total Materials Use

Alcoa uses bauxite, lime, caustic soda, aluminum fluoride, carbon, and several other materials to produce aluminum. The requirements for these materials depend on the initial quality of the bauxite and the process technologies used to convert the materials. In general, approximately two tons of bauxite is required to produce a ton of aluminum oxide, and approximately two tons of aluminum oxide will yield one ton of aluminum metal.

Although our total amount of waste generated has increased as a result of the growth of Alcoa, our processes are generally among the most efficient in the world, with several benchmark plants in terms of process efficiencies and low

emissions. One of our most efficient plants in terms of resource use, energy requirements, and low emissions is São Luís, Brazil, where both aluminum oxide and aluminum metal are produced using modern technologies and a motivated and well-trained workforce. São Luís was recognized for its performance by the [World Business Council for Sustainable Development](#). This example makes it clear that well-designed processes and well-trained people can be productive anywhere in the world, contributing to sustainable development and lifestyle improvements.

### Waste Materials Used

We use recycled materials within our operating locations to reduce wastes and costs. Scrap aluminum is re-melted, and scrap plastic materials are reused when quality and color requirements allow. We currently use approximately 20% purchased scrap for the metal supply to support our businesses, and we have a goal to increase this

scrap utilization rate to 50% of the products that we make, except for raw ingot that is sold to others, by 2020. The current scrap availability limits our opportunities to reach this target, but we anticipate that scrap availability will increase due to the rapid growth of aluminum applications in the construction, transport, and consumer products sectors over the last two decades.

We see the benefit in reusing aluminum to the highest degree possible and will strive to achieve this 50% goal as rapidly as possible. We also recycle the polyethylene, polypropylene, and polyvinyl chloride materials used in our construction, automotive, and packaging processes.

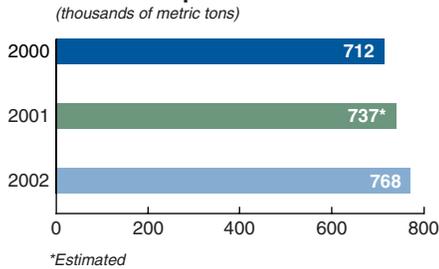
### Recycling a Highly Sustainable Product

Aluminum is universally recognized as a valuable metal, and this contributes to its high rate of recycling around the world. About two thirds of aluminum ever produced is still in use, equaling 440 metric tons (485 million tons) of a total 680 metric tons (750 million tons) manufactured since 1886.

Alcoa continues to look for ways to improve the volume of aluminum that is recycled, and the company announced a new corporate sustainability goal in October 2002. By the year 2020, 50% of Alcoa products — except for raw ingot that is sold to others directly — will be made from recycled aluminum. This rate stood at approximately 20% in 2002.

According to John Pizzey, Alcoa executive vice president, “The industry is global. The problems are global, and the economic solutions are global. So, too, must be the applications of sustainable development principles.”

### Aluminum Metal Recovered from Purchased Scrap



### PVC Use

We produce a variety of polyvinyl chloride (PVC) films, and an important part of our operation is the recycling of PVC. Whenever possible, we recycle PVC scrap material back into our products. We are careful to segregate films that are approved by the U.S. Food and Drug Administration (FDA) from those that are not. If there is PVC scrap we can't use, we sell that material to recyclers who can use it.

### Return of the Forest

Southwestern Australia is one of the top 25 biodiversity regions of the world, and the [jarrah forest](#) is one of the ecosystems of this region. The forest is valuable for its role in conservation, water catchment, timber production, and recreational activities. Within this spectrum of land use, Alcoa mines bauxite under an environmental strategy that has led to increasing

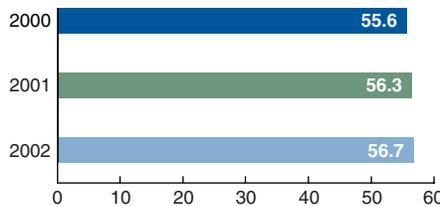
## ENERGY

### Total Energy Used (percent)

	Oil	Gas	Coal	Hydro	Grid*
2000	8.2	17.8	24.8	33.8	15.2
2001	8.3	17.0	24.9	32.3	17.4
2002	7.2	19.3	26.0	32.4	15.0

Includes all purchased and self-generated electricity plus all fuel used  
\*Purchased electricity where the source of the power is not fully known

### Purchased Electricity (billions of kilowatt hours)



### Renewable Energy

Alcoa is committed to increasing its use of clean and renewable hydroelectric power as a means of achieving sustainability for our manufacturing and service operations.

From an environmental perspective, hydropower enables Alcoa to rely less on fossil fuels, which are a major source of carbon dioxide emissions.

capacity for reestablishment of a jarrah forest ecosystem after mining.

In any typical year, Alcoa will mine and rehabilitate 550 hectares (1,359 acres) of this forest. Within the expected 100-year or so life of the viable bauxite reserves, Alcoa will have mined approximately 5% of the total forest area.

The rehabilitation objective has required intensive research and development work by Alcoa, Western Australia's Department of Conservation and Land Management, and other scientific organizations to suit the specific soil and climatic conditions in the area and to protect healthy jarrah forest against the

Globally, we are working to increase the replacement of fossil-fuel-based power with natural, renewable energy sources that will help us lower our CO<sub>2</sub> emissions, thus contributing to the fight against global warming.

Since 1917, we have owned, operated, and continually improved our North American hydroelectric assets, which generate an average of 5.4 billion kilowatt hours of electricity each year for our operating locations. We are actively engaged in the concomitant goals of increasing our supply of cost-effective renewable resources and supporting the [Green Power](#)

introduced tropical fungus *Phytophthora cinnamomi*.

Advanced soil handling and re-vegetation techniques now reestablish the same number of plant species in rehabilitated mines as occur in the surrounding forest. The rehabilitated areas are also rapidly re-colonized by native insects and, as the areas mature, animals and birds.

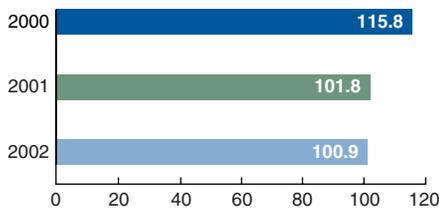
**Market Development Group.**

Between 2000 and 2002, we purchased more than 32 million kilowatt hours of electricity generated from landfill gas as part of our North American electricity supply portfolio.

In [Brazil](#), we are dedicated to helping develop some available options for cleaner power generation. We have been participating, as a minority partner, in the development of projects that extensive and comprehensive studies show to be environmentally sound, socially responsible, and economically feasible.

**WATER**

**Total Process Water Use**  
*(millions of cubic meters)*



**Prairie Grass Project Reaps Reclamation Award**

Only a few years after the last coal was taken from the Squaw Creek Mine near Chandler, Indiana (United States), more than 162 hectares (400 acres) of warm-season prairie grasses are providing refuge to myriad wildlife and serving as an example of an award-winning reclamation success.

The 3,237-hectare (8,000-acre) mine, a joint venture between Alcoa and Peabody Energy Company, provided coal

**Total Process Water Use by Region** *(millions of cubic meters)*

	Asia Pacific	Europe	North America	South America	Total
2000	16.2	21.6	71.5	6.5	115.8
2001	14.1	21.7	60.0	6.0	101.8
2002	13.2	15.8	66.0	5.9	100.9

**BIODIVERSITY**

**Alcoa's Position on Conservation of Biodiversity**

Consistent with Alcoa's environmental policy and our published position on sustainable development, we actively endorse the concept of conservation of biodiversity by operating worldwide in a manner which

minimizes impacts on natural habitats and biological resources.

Our operations can play a positive role in conserving biodiversity by adopting appropriate land management practices and rehabilitating land disturbed by the operations in an appropriate manner.

New or expanding operations should document the level of ecosystem and species diversity within their area of influence by applying techniques, procedures, and information generally accepted by the international sci-

to Alcoa's Warrick Operations until the mine closed in 1998. In April 2000, Alcoa began planting native warm-season prairie grasses on 162-plus hectares (400-plus acres) of the mine area, making it the largest warm-season prairie grass site in Indiana. Alcoa previously reclaimed more than 1,619 hectares (4,000 acres) of the mine with forestland, fish and wildlife areas, cropland, pastureland, water impoundments, and residential areas.

Said Tim Corn, senior reclamation planning specialist with the [Indiana Department of Natural Resources](#), "From the first day the prairie grass proposal was aired to today, Alcoa representatives

have always been open to suggestion and helpful in sharing what they've learned in the process. This reclamation project is also a partnership to restore lands to a higher and better use for wildlife than would otherwise exist and transcends regulatory/permittee relationships that are often exhibited in mine reclamation situations."

The prairie grass project received the 2002 Indiana Excellence in Mining and Reclamation Award from the Indiana Department of Natural Resources, Division of Reclamation.

entific community. Measures to minimize adverse impacts on ecologically significant ecosystems or species should be adopted. Particular attention should be paid to the conservation of rare biological communities and rare, endangered, or threatened species.

Where relatively extensive operations, such as bauxite mining, are carried out in natural habitats, rehabilitation of the disturbed land should in most circumstances favor the return of the pre-existing vegeta-

tion and fauna communities. Such rehabilitation should aim to reestablish the broadest practicable genetic base using local genetic material and provenances wherever possible.

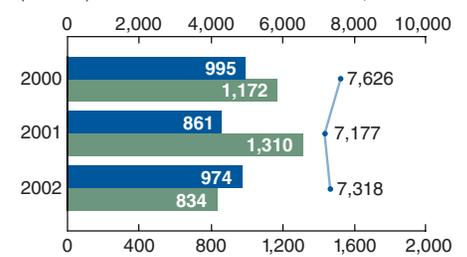
### Mining Reclamation Process

Alcoa has a strict set of mine reclamation standards that require mine planning to fully incorporate reclamation into the program. Mine activities must be designed to prevent erosion, segregate topsoil where feasible, make use of native seeds where possible, utilize native species for reclamation, and restore the area in a way that allows the previous land use to be continued.

Our mines have been recognized for outstanding reclamation in Brazil, the United States, and Australia. Our

Sandow Mine in the United States was named by the Office of Surface Mining as having the “Best of the Best” surface mine rehabilitation program in 1999.

### Mining Land Disturbed/Land Rehabilitated



Total area disturbed means land used for mining or for mining infrastructure (roads, shops, crushing equipment, conveyors). Total area rehabilitated means land returned to nature or to productive use (such as farming) after mining. Total area open means land that has not been rehabilitated (including active mines and land used for mining infrastructure).

### Integrating Industry with Nature

On 1,800 hectares (4,448 acres) in the midst of a 5,300-hectare (13,097-acre) industrial complex, industry is learning to connect with the complexities of nature.

The Alumar Environmental Park at Alcoa's Consórcio de Alumínio do Maranhão facility near São Luís, [Brazil](#), serves as the area's recreational and

environmental focus. Dozens of animal species, some endangered, find shelter among local vegetation. Organic compost produced in the park enriches local landscaping and rehabilitation projects. Researchers from the local university perform biological studies, while area schoolchildren and residents learn about waste recycling, local flora and fauna, and environmental conservation. More than 66,000 people have visited the park since 1996, and environmental education is now part of the curriculum in more than 800 São Luís schools.

An active collaboration between Alcoa and Brazilian universities had earlier led to the establishment of the 18-hectare

(44-acre) Don Williams Environmental Education and Research Center, located on a mining property. To date, more than 56,000 local schoolchildren have attended this center since it opened in 1993.

### Open Mine Area (hectares)

	Asia Pacific	Europe	North America	South America	Total
2000	2,870	1,084	1,179	2,493	7,626
2001	2,489	1,192	1,031	2,465	7,717
2002	2,404	1,359	1,077	2,478	7,318

### Area Disturbed for Mining (hectares)

	Asia Pacific	Europe/Africa	North America	South America	Total
2000	598	109	205	83	995
2001	548	108	152	53	861
2002	527	178	185	85	974

### Area Rehabilitated (hectares)

	Asia Pacific	Europe/Africa	North America	South America	Total
2000	704	0	410	58	1,172
2001	929	0	301	80	1,310
2002	612	11	138	73	834

## EMISSIONS, EFFLUENTS, AND WASTE

The [Alcoa Business System](#) recognizes that all wastes are costs. We are focused on waste reduction as a way to improve our processes,

reduce costs, and reduce our environmental impacts.

Over the last 20 years, Alcoa locations have made significant progress. Some smelters have reduced fluoride emissions by half, using improved operating practices and dual volume exhaust systems. Significant gains have been made in extending effec-

### Alcoa Responds to Community Concerns

Located 130 kilometers (81 miles) south of Perth in Western Australia, Alcoa's Wagerup Alumina Refinery has been scrutinized and criticized by the media, community, and government for odors, noise, and other emissions from the facility.

In response, Alcoa invested some 30 million Australian dollars in a comprehen-

sive odor, noise, and emissions reduction program. This included major capital works completed by July 2002 following a challenge set by the government of Western Australia. Odor impact from the refinery has reduced significantly, and the refinery's power station has achieved a 40% reduction in nitrogen oxide (NOx).

Concurrently, Alcoa worked with the surrounding community and government officials to address health concerns and other issues. An advisory committee of community, government, university, and Alcoa representatives has overseen environmental monitoring and a health survey; a community consultative

tive life of smelting pot lining, thereby reducing the amount of spent pot lining that must be managed. Greenhouse gas emissions associated with smelting pot operations also have been reduced by more than 75% at many locations, and water discharge has been reduced by 80% at several large facilities.

The technologies and best practices that made these achievements possible are shared widely within Alcoa, and we expect to see continuous improvements in all these areas as we move forward.

network has been established; and a rapid response team addresses and follows up on community complaints. In consultation with the community, a land management strategy has been put in place; and Alcoa has committed two million Australian dollars to a Community Development Fund. The company has also partnered with Edith Cowan University to work with the surrounding community to identify and resolve issues associated with Alcoa's operations.

**Alcoa Managed Greenhouse Gases** (millions of CO<sub>2</sub> metric tons)

	Direct CO <sub>2</sub>	Indirect CO <sub>2</sub>	PFCs	SF <sub>6</sub>	Total
1990	31.8	18.9	17.0	2.2	69.9
2000	33.8	19.4	7.4	1.1	61.7
2001	32.8	20.7	4.2	0.7	58.4
2002	32.3	20.7	4.6	0.0	57.6

**Alcoa Direct Greenhouse Gases** (millions of CO<sub>2</sub> metric tons)

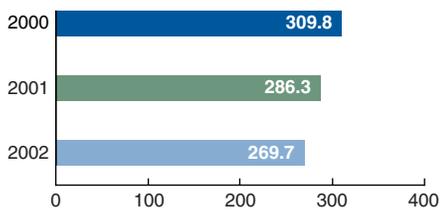
	Direct CO <sub>2</sub>	PFCs	SF <sub>6</sub>	Total
1990	31.8	17.0	2.2	51.0
2000	33.8	7.4	1.1	42.3
2001	32.8	4.2	0.7	37.7
2002	32.3	4.6	0.0	36.9

**Ozone-depleting Substances**

Alcoa has eliminated ozone-depleting substances from process operations. In newly acquired facilities, elimination of these substances becomes a high priority. We do continue to use halon gas as a fire suppressant in 71 sensitive locations throughout the world, and these systems will be phased out. There was one release from a halon system at an Alcoa location 2002, and none in 2000 or 2001.

**SO<sub>2</sub> Emissions**

(thousands of metric tons)

**SO<sub>2</sub> Emissions by Region** (thousands of metric tons)

	Asia Pacific	Europe	North America*	South America	Total
2000	50.1	20.0	226.3	13.4	309.8
2001	44.3	19.6	210.2	12.2	286.3
2002	33.1	21.0	202.7	12.9	269.7

\*Alcoa operates two large coal-fired power plants in the United States

**Continuing to Reduce Greenhouse Gas Emissions**

Alcoa recognizes that management of greenhouse gases is an issue of vital importance requiring action. With this in mind, we voluntarily took a leadership position and committed to reducing our greenhouse gas emissions by 25% by 2010 from a base year of 1990. Ninety percent of this reduction has been

achieved. The value of this reduction can be equated to the elimination of CO<sub>2</sub> generated by 3 million passenger cars every year.

In January 2002, the Aluminium Association of Canada and its member companies — including Alcoa — signed a framework agreement with the Québec government aiming to reduce, on a voluntary basis, greenhouse gas emissions from their Québec-based facilities. This was the first agreement of its kind in both Québec and Canada.

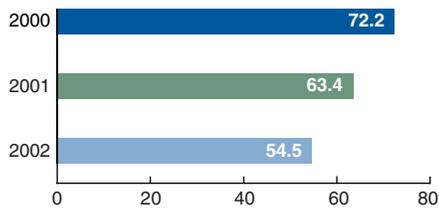
In June 2002, Alcoa in Québec was the first company in Canada to sign an agreement with the government to

reduce greenhouse gases. Alcoa has committed to reduce average emissions for 2002, 2003 and 2004 combined by about 200,000 metric tons (220,500 tons) compared to 2001. This represents a 7% reduction.

Similar voluntary agreements exist in other regions, such as Australia.

## NOx Emissions

(thousands of metric tons)

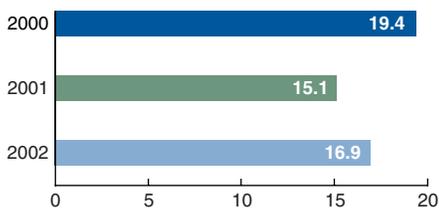


## NOx Emissions by Region (thousands of metric tons)

	Asia Pacific	Europe	North America	South America	Total
2000	10.2	2.6	57.2	2.2	72.2
2001	8.8	2.7	49.7	2.2	63.4
2002	6.8	2.4	43.1	2.2	54.5

## VOC Emissions

(thousands of metric tons)

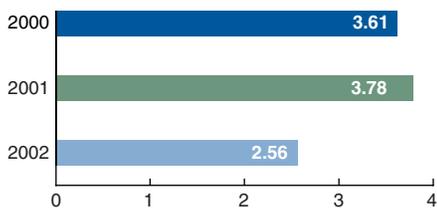


## VOC Emissions by Region (thousands of metric tons)

	Asia Pacific	Europe	North America	South America	Total
2000	1.3	2.4	14.7	1.0	19.4
2001	1.2	1.0	12.0	0.9	15.1
2002	1.5	1.7	12.8	0.9	16.9

## Mercury Emissions

(thousands of kilograms)



## Mercury Emissions by Region (thousands of kilograms)

	Asia Pacific	Europe	North America	South America	Total
2000	1.01	0.40	1.74	0.46	3.61
2001	1.06	0.44	1.82	0.46	3.78
2002	0.51	0.26	1.34	0.45	2.56

## Breaking Ground in Nitrogen Oxide Reductions

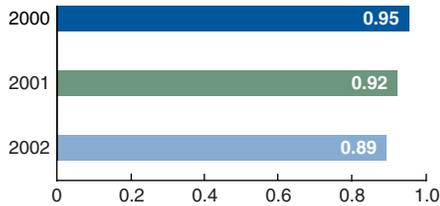
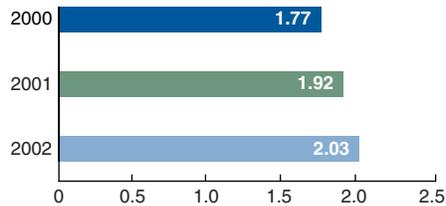
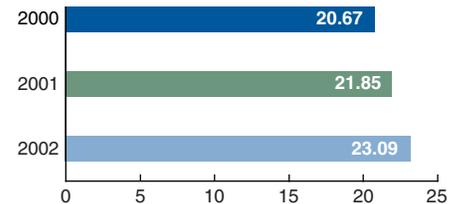
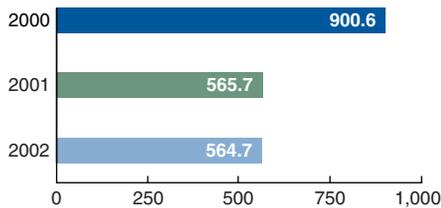
Alcoa broke new ground in its goal to reduce nitrogen oxide (NOx) emissions 30% worldwide by 2007 as construction started on a \$48 million selective catalytic reduction system at its Warrick Power Plant in Indiana (United States).

The new system will reduce NOx emissions by an average of 42% annually, or about 2,540 metric tons (2,800 tons), for

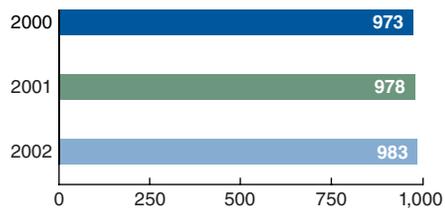
the plant's 300-watt generating Unit 4. The four-story selective catalytic reduction system being installed on Unit 4 uses non-hazardous aqueous ammonia injected into flue gases to stimulate a reaction that changes NOx into nitrogen and water. Alcoa is also starting an initiative to cut NOx emissions by more than 50% on the power plant's other three generating units through the use of low-NOx burners.

"I live on a hill near the plant, and I definitely get some of its releases," said Don Mottley, a local environmentalist. "This reduction project has been long overdue, and I'm glad Alcoa is stepping up to rid the environment of these toxins. I do

want to say that Alcoa has been very open with its emissions and other data and has always tried to be a good corporate neighbor. Once we see the emissions numbers drop, I'm sure I'll have more praise for the company's environmental work."

**Fluoride Emissions***(kilograms per metric ton of aluminum produced)***Total Wastes Generated***(millions of metric tons)***Spent Pot Lining per Ton of Aluminum Produced***(kilograms per metric ton)***Total Wastes Landfilled***(thousands of metric tons)***Total Wastes Landfilled by Region** *(thousands of metric tons)*

	Asia Pacific	Europe	North America	South America	Total
2000	155.0	92.9	628.0	24.7	900.6
2001	74.0	79.5	387.8	24.4	565.7
2002	63.4	81.6	395.7	24.0	564.7

*Does not include bauxite residue***Total Wastes Sold or Recycled***(thousands of metric tons)***Discharges to Water**

Alcoa's discharges to water are relatively small. The levels (concentrations) of specific pollutants in specific water discharges are important locally, and they are carefully managed and monitored.

**Recycling Rates for Products**

Aluminum is recycled extensively. Recycling rates for aluminum cans exceed 80% in many countries, including Brazil, Switzerland, Japan, and Sweden. In the United States, the aluminum can recycling rate has

**Progress in Recycling an Aluminum Industry Waste**

Spent pot lining (SPL), which is generated when the carbon and refractory lining of aluminum smelting furnaces — known as pots — reaches the end of its serviceable life, is one of the aluminum industry's most significant solid waste problems. Recent developments in recycling this hazardous material will help Alcoa

achieve its commitment to convert all SPL waste to usable products by 2010, eliminating the need to landfill any SPL wastes from aluminum production.

Each country in which Alcoa does business has its own set of regulations governing the methods for the treatment and/or reuse of SPL. Because of these varying regulations, Alcoa's worldwide standard on SPL disposal gives locations flexibility in choosing which Alcoa-approved recycling method they use.

A [new recycling process](#) developed at Alcoa's Portland aluminum smelter in Victoria, Australia, converts SPL into

reusable aluminum fluoride and synthetic sand. [In Brazil](#), Alcoa worked with the cement industry to develop an environmentally safe process where SPL is co-processed in cement clinker furnaces. Both recycling processes meet Alcoa's worldwide standard as well as the regulations of their respective governments.

been as high as 66%, but now stands near 50%. Of the 100 billion cans sold each year in the United States, more than 50 billion are collected and re-melted to make new cans.

It is estimated that the recycling rates for automotive components approaches 90%, and the rate for aluminum in construction applications is recycled at about 85%.

## PRODUCTS AND SERVICES

### Significant Environmental Impacts of Principal Products and Services

Aluminum stands out as one of the most valuable materials for creating and maintaining a sustainable world. For example, each kilogram of primary aluminum used in the construction of an automobile eliminates between 13 and 15 kilograms of greenhouse gas emissions over the life of the car. If the aluminum used is recycled, the net reduction of greenhouse gases can reach up to about 27 kilograms<sup>1</sup> over the life of the vehicle. Aluminum-intensive vehicles not only perform better and consume less fuel, they also offer improved safety over comparable steel vehicles because of the superior strength and energy-absorption capabilities of aluminum automotive alloys.

The formability and strength of the metal make it efficient for a wide

array of applications. These include food and beverage packages that are more effective, lighter to ship, and easier to recycle; architectural products that require less maintenance and are strong, durable, corrosion resistant; and aerospace components that result in safe, reliable, and affordable air and spacecraft. Compounds of aluminum also find uses in improving human health and hygiene.

Manufacturing primary aluminum from raw materials is energy intensive. On average around the world, it takes some 15.7 kilowatt hours of electricity to produce one kilogram (35 ounces) of aluminum from alumina<sup>2</sup>. This means energy conserva-

### Safe Disposal of Household Hazardous Waste

They are the items that begin to pile up in the garage or backyard — old batteries, used oil, paint cans, and solvents. Disposing of them isn't always easy, and inappropriate disposal is often unsafe and environmentally irresponsible.

At various Alcoa locations around the world, annual collections enable employees and, at times, members of the surrounding community to bring their household hazardous wastes to Alcoa for recycling or safe transport to an approved disposal facility.

At Alcoa-Köfém in Hungary, the 2002 employee collection yielded more than 0.59 metric tons (0.65 tons) of solid waste and 750 liters (198 gallons) of liquids. Almost 50% of the items were recycled. The Alcoa Technical Center in Pittsburgh (United States) collected 13.6 metric tons (15 tons) from Pittsburgh

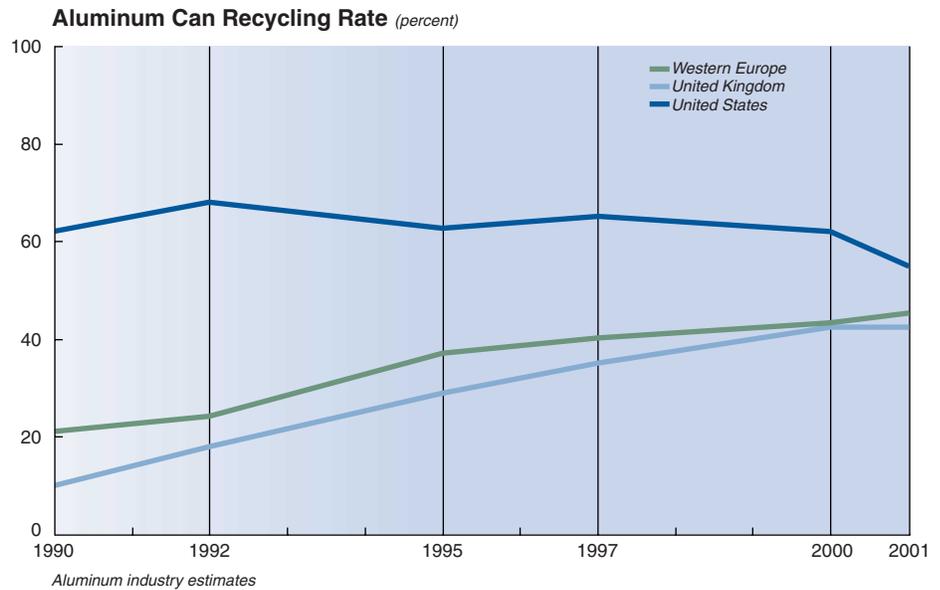
employees, with 21% being diverted from the landfill through recycling. Warrick Operations in Indiana (United States) amassed 38 metric tons (42 tons) from employees and community members during two 2002 collections. The recycling rate was close to 88%.

tion is a critical issue for aluminum producers such as Alcoa.

Recycling aluminum saves 95% of the energy it would take to make new metal from ore, and it lessens the need for solid waste disposal. The metal is almost endlessly recyclable with about two-thirds of the aluminum ever produced still in use. This equals about 440 metric tons (485 million tons) of a total 680 metric tons (750 million tons) manufactured since 1886.

<sup>1</sup><http://www.world-aluminium.org/environment/climate/lifecycle2.html>

<sup>2</sup><http://www.world-aluminium.org/production/smelt/index.html>



## COMPLIANCE

Compliance with all the laws and regulations in every location where we operate is a requirement for us, but we do not use compliance as our target. Our [Values](#) lead us to aspire to be beyond compliance and do what is right for society — today and tomorrow. In many instances, we are performing beyond compliance and leading the establishment of new, higher standards. In the event that performance falls short of our goals, we initiate rigorous review and corrective processes.

## OVERALL

### Capital Expenditures Process

Alcoa has established a review process to evaluate all capital expenditures for environment, health, and safety to ensure that the appropriate level of attention is being directed to these areas.

### Environmental Incident Rate

	Spills Over 20 Liters	Environmental Incident Rate per Location per Year
2000	1,001	8.8
2001	1,131	7.9
2002	1,090	7.4

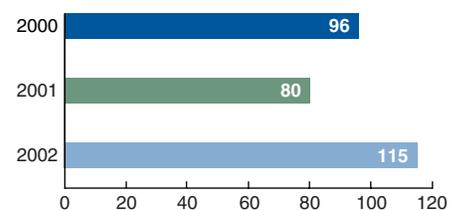
*Alcoa requires any spill of oils or other liquids in excess of 20 liters to be reported internally as an incident — whether or not they are contained within our facilities, and whether or not they are required to be reported to external agencies. The environmental incident rate includes all categories of incidents reported into the Alcoa Environmental Incident Management System. An incident is any unpredicted event with capacity to harm human health, the environment, or physical property. Some incidents can lead to an imposition of fines and penalties by various EHS regulatory bodies.*

A multidisciplinary team reviews plans at an early stage and assists the locations in risk evaluations and technology transfer. Learnings from Alcoa locations throughout the world are quickly applied to similar situations through this review process.

In the case of large expenditures, such as the new aluminum reduction plant

planned for [East Iceland](#), a sustainability team is established to address environmental, health, safety, social, and community issues associated with the new facility. In Iceland, the team and the sub-teams began meeting a full two years before the construction is planned to begin.

### Environmental Capital Expenditures (millions of US dollars)



# Social Performance Indicators

We measure our success as a company by the success of many stakeholders, including our employees and the people in our communities.

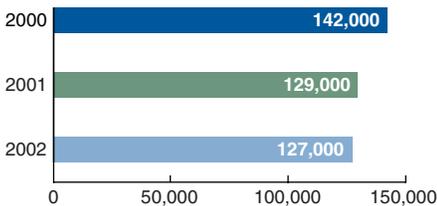
Alcoa operates with the conviction that our future is linked to the future of our communities and of society at large. We rely on communities for natural resources, infrastructure, a competitive workforce, and a safe and sustainable quality of life.

Communities can rely on us to keep our promises, live our [Values](#), steward wisely the resources with which we're entrusted, provide a safe, productive, and competitive workplace for our employees, comply with laws, and contribute to the creation of a brighter future. We want communities — and the world — to know Alcoa as a values-based and value-creating enterprise.

The data that follow offer multiple dimensions of Alcoa's social impact and performance. This information builds on Alcoa's [2002 Community Investment Highlights](#) and our [Environment, Health and Safety 2002 Review](#). The following information also represents movement toward more systematic reporting of these policies — and the metrics and data that reinforce them — for our fuller sustainability report in 2004.

## WORK ENVIRONMENT

### Number of Employees



### Employees by Region

	U.S.	Other Americas*	Europe**	Asia Pacific
2000	61,600	46,500	27,400	6,500
2001	56,500	38,700	27,700	6,100
2002	53,500	38,200	28,300	7,000

\*Includes Caribbean

\*\*Includes Middle East and Africa

### Training Programs Create High-performance Workforce in Brazil

*The following is an excerpt from the Developing Countries and Technology Cooperation report, reprinted with permission from the World Business Council for Sustainable Development and the United Nations Industrial Development Organisation.*

Alcoa Alumínio in Brazil operates the largest alumina refinery in South America and the second largest smelter on that continent. The Alumar plant, one of Alcoa's most modern smelters and refineries, is situated in São Luís, in Northern Brazil.

Alcoa's values, training and financial support were made available to Alumar in the

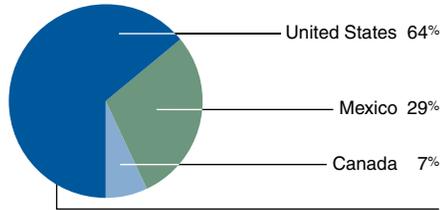
early stages of development, along with technical assistance and experienced workers. Due to the lack of industrial background in the region, there were very few specialized workers available initially; this was, in fact, the first heavy industry of its type in the area. During this stage, Alcoa's plant in Poços de Caldas supplied several staff to run the plant, and several technicians came from the USA to conduct and teach operational activities. Several technicians hired by Alumar in São Luís were also sent to other plants for training.

Over time, the company developed extensive training programs that have enabled local people to form a dedicated, high-performance workforce. Depending on their position, they received anything from an introductory course on safety and legal procedures, through to a complete college education. Career plans were developed to

determine the appropriate training for each individual. This was a win-win for the employees, the company and the region — more skilled employees meant enhanced and more competitive outputs and consequently an improvement in the local industrial capability.

Great improvements have been recognized in the quality of the operations over time. Training and development programs have led to a highly skilled and qualified workforce. In particular, employees have been noted for developing a strong commitment to policies, cost awareness, and a sense of ownership, as well as improved group work and responsibility for self-development. As a result of process efficiency and high management standards, Alumar was awarded both ISO 9002 and 14001 certifications by July 2000.

### Employees in North America in 2002



### Diversity

Diversity and inclusiveness within our organizational culture are central to our aspiration of being a values-based and value-creating enterprise. Our Alcoa Business System begins with a fundamental respect for the contributions of each of our employees, respects individual differences as strengths, and nurtures opportunities to achieve professional and personal success. We seek to ensure that no employee is ever marginalized and that the work climate promotes inclusiveness.

One of the challenges that we face is determining the appropriate models

of diversity within the cultural complexity of our global family and then collecting data to reflect our progress toward those models. We view our ongoing efforts as a core part of our Values and constantly strive to create an inclusive environment wherever we operate. We still have much work to do in this area, but we are making progress. Our leadership group and board of directors reflect the global nature of our enterprise with representation of both gender and regional diversity.

### Improving Gender Balance

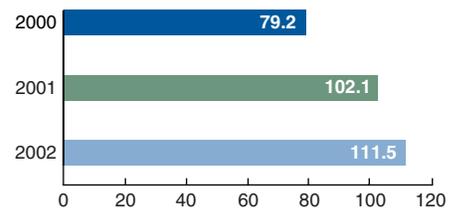
We have focused our efforts to improve the representation of women in our top 1% of corporate leadership positions. Since 1998, we have made substantial progress in the number of women in these positions, and we now have 9% of these positions filled by women. Through the initiative of some of our women leaders, we are developing a global women's network to provide a catalyst for the

development and advancement of women leaders in Alcoa.

### Health Summary

In 2002, we continued our progress toward eliminating workplace health hazards. At year's end, 99% of our reporting locations had identified and described these hazards. We also achieved — one year ahead of schedule — a 40% reduction in the number of chemical hazards that exceed Alcoa standards from the established 1999 baseline. At the end of 2002, 88% of our locations had occupational medical services programs in place. In addition, identification and management of ergonomic issues continue to be a priority.

### Health and Safety Capital Expenditures (millions of US dollars)



### Studying the Link Between Health and Work Environment

Since 1994, Alcoa has supported one of the largest and most comprehensive occupational health studies carried out in Australia. Called *Healthwise*, the long-term study is designed to assess the overall health status of people who have worked in the aluminum industry compared to people who have not.

*Healthwise* actually consists of three separate studies by health researchers at

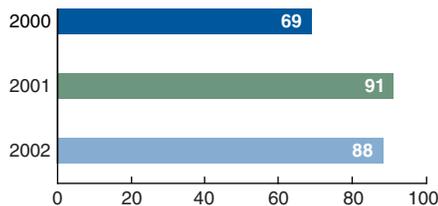
Monash University and the University of Western Australia that are overseen by a panel of international and local experts and representatives from Australia's key labor organizations. The first study is on the respiratory health of existing employees. The second studies the respiratory health of new hires. The third and final study compares the rates of cancer and causes of death among people who have worked in the aluminum industry against rates and causes in the general population.

[Early results](#) show that employee respiratory health was highly favorable when compared to a cross-section of the gen-

eral population. Alcoa employees also have lower rates of death than the general population, and the total number of cancers in the Alcoa workforce does not exceed the rate seen in the general community. Some variations in the ratios of types of cancers were noted and will be investigated further as the study progresses.

### Occupational Medicine Programs Established

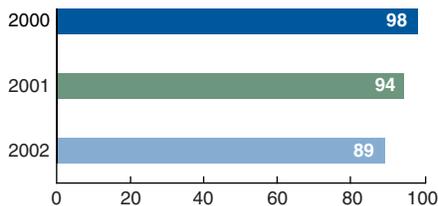
(percent of reporting locations complying)



The number of reporting locations reflected in the data increased between 2001 and 2002 due to acquisitions.

### Occupational Medical Evaluations

(percent of annual required evaluations completed by reporting locations)



The number of reporting locations reflected in the data increased between 2001 and 2002 due to acquisitions.

## Health and Safety Management Systems

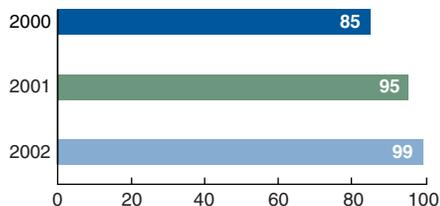
Over the years, a comprehensive framework for continuous improvement efforts has evolved into what is today known as the Alcoa Health and Safety Management System. This is a comprehensive system used to proactively manage health and safety at all Alcoa locations.

The Alcoa model for such a system consists of nine key components that will help each location reach the goal of an incident-free workplace. The following is a brief summary of these components:

- 1. Commitment** — Includes a location EHS policy, an accountability system, and EHS performance objectives and measures.
- 2. Organization** — Consists of trained and supported health and safety resources and strategic and tactical committees.

### Industrial Hygiene Assessments — Qualitative

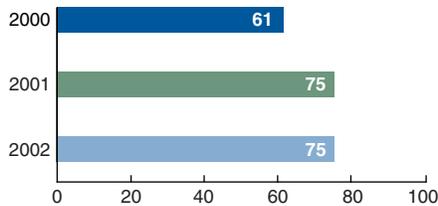
(percent of assessments completed by reporting location)



Qualitative refers to workplace health hazards identified and described

### Industrial Hygiene Assessments — Quantitative

(percent of assessments completed by reporting location)



Quantitative refers to workplace health hazards adequately measured

## Making Less Noise

A significant number of Alcoa employees work in high-noise areas, and the company set a goal of a 40% or more reduction in the number or magnitude of the top 10 noise sources at each reporting location by the end of 2003. As of year-end 2002, Alcoa locations worldwide reached a cumulative magnitude reduction of 21%.

By the end of 2001, Alcoa's Point Henry primary metals smelter in [Australia](#) lowered noise levels for its top 10 groups by 51% overall. The plant implemented engineering controls as opposed to procedural ones, ensuring there was a permanent reduction in noise levels.

In [Brazil](#), Alcoa's Poços de Caldas smelter measured noise levels throughout every area of the facility and developed a noise map to create noise-reduction action plans for each area. The facility also invested US\$1.6 million to purchase front-end loaders and backhoes with enclosed cabs that offer noise protection. In addition, the smelter enclosed

critical equipment, replaced noisy motors or installed silencers on them, and provided acoustic engineering training for plant engineers. Through these activities, Poços de Caldas had an initial noise level reduction of 29% for its top unacceptable exposure groups.

3. **Communications Systems** — Covers communication opportunities, including toolbox meetings, safety contacts, pre-job briefings, bulletin boards, and suggestion systems.
4. **Incident Management** — Includes incident investigations and incident reporting and record keeping.
5. **Hazard Control Processes & (Health and Safety)** — Focuses on
6. hazard assessments, hazard control strategies, and hazard control processes.
7. **Work Practice Controls** — Covers hazard assessments, rules, SAFE work instructions, and behavior-based safety programs.

8. **Education and Training** — Includes training needs assessment, location safety training plan, and health and safety skill development for line management, safety committees, and new employees.
9. **Measurement** — Consists of the health and safety management system and leading and lagging performance measures.

### Healthy Workforce Initiatives

Zero injuries and zero work-related illnesses are Alcoa's long-standing goals, but we also believe that it is possible to go further — for people to go home healthier than when they came to work.

Consequently, one of Alcoa's six strategic health and safety objectives is the deployment of healthy workforce initiatives. These initiatives, which are of growing importance as we look to enhance sustainability in our operations, offer the coordination and support people need to achieve

better overall health. From medical screenings and health-risk reduction programs to health education and employee assistance programs, healthy workforce initiatives often focus on factors that extend beyond the workplace. Achieving optimum health ensures that an individual's ability to work safely on the job and to contribute to and enjoy life off the job are all maximized.

In each case, healthy workforce initiatives rely on the most efficient combination of community and company resources. The specific type and nature of the initiatives at any given Alcoa location are dictated by local workforce and community expectations.

In 2002, we completed an inventory of our global healthy workforce initiatives. Starting in 2003, we will track plant location activity as it relates to community health initiatives.

### Limiting Employee Exposure to Chemicals

A global team of health professionals, known as the Alcoa Occupational Exposure Limit Team, is searching for better health management practices for the various chemicals that are used or generated in Alcoa's manufacturing processes worldwide.

Team members constantly review the latest literature and evaluate the results of new human and animal studies published by reputable scientific and medical organizations worldwide to determine if current occupational exposure limits for employees should be lowered due to potential adverse health concerns.

Alcoa often sets — and meets — occupational exposure limits that are lower than those required by law in the countries where the company operates. For example, Alcoa's current employee limits for beryllium and oil mist are 10 times below the U.S. Occupational Safety and Health Administration (OSHA) limits. The company's limit for coal tar pitch is four times below the OSHA requirement.

## Cumulative Noise Magnitude Reduction

**1999-2002** 21% reduction in the magnitude of the top 10 noise sources by reporting locations  
*1999 baseline*

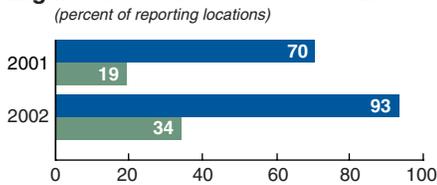
## Cumulative Chemical Magnitude Reduction

**1999-2002** 22% reduction in the magnitude of chemical hazards exceeding Alcoa standards by reporting locations  
*1999 baseline*

## Cumulative Chemical Number Reduction

**1999-2002** 40% reduction in the number of chemical hazards exceeding Alcoa standards by reporting locations  
*1999 baseline*

### Top 10 Ergonomic Risks



### Ergonomic Incidents

	Total Recordable (TRR) Incidents	Number of Ergo-related TRR Incidents	Percent of TRR Incidents Ergo-related	Total Lost Workday (LWD) Incidents	Number of Ergo-related LWD Incidents	Percent of LWD Incidents Ergo-related
<b>2000</b>	5,081	1,460	29%	367	125	34%
<b>2001</b>	4,904	1,560	32%	417	149	36%
<b>2002</b>	2,931	933	32%	212	77	36%

*Year 2000 and, to a lesser extent, 2001 information on ergo-relatedness is incomplete due to inconsistent capturing of information in Alcoa's Incident Management System*

## HIV/AIDS

Alcoa maintains corporate health standards on life-threatening and transmittable diseases, which include HIV and AIDS, and chronic illness

in the workplace. These standards articulate our position to permit employees suffering from these diseases to continue to pursue active careers with certain provisions. The standards also address issues of reasonable accommodation, coworker education and counseling, and confidentiality.

## Safety Summary

In 2002, Alcoa once again achieved unprecedented safety results. Our global lost workday rate stood at 15 lost workday injuries per 10,000 people in our workforce. Globally,

## Identifying and Correcting Ergonomic Risks

While ergonomics has been a longstanding component of Alcoa's health and safety programs, the company embarked on a corporate-wide initiative in 1998 to uncover and correct ergonomic risks. The initiative will further reduce strains, sprains, and long-term muscular and tendon problems — conditions that affect quality of life and contribute significantly to Alcoa's lost workday cases and recordable injuries.

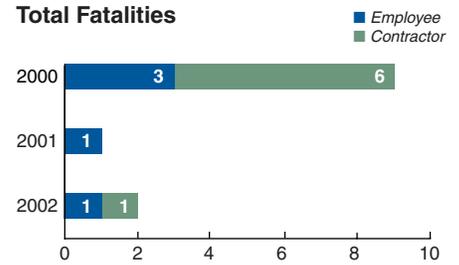
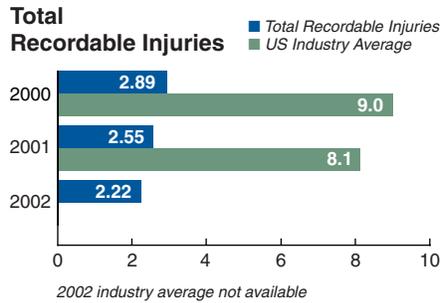
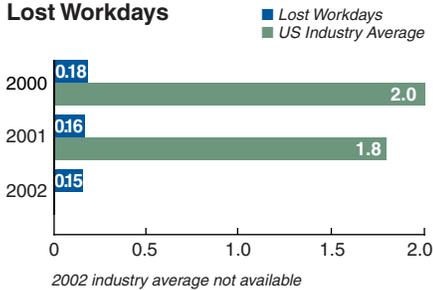
To develop and guide long-term strategies to reduce ergonomic injuries and risks, Alcoa established a global ergonomics team with representatives from Australia, Europe, North America, and South America. The team's work resulted in the implementation of a company-wide Alcoa ergonomic standard that defines the key elements each location must put in place to identify and manage ergonomic risks on an ongoing basis.

By year-end 2002, 93% of the top 10 ergonomic risks across Alcoa locations had been identified, and 34% have already been eliminated. The corporate goal is a 50% reduction in these risks by the end of 2003.

more than 98% of our employees went home injury free. Our mission is to make that 100%, every year.

Despite this success and our unprecedented effort to eliminate fatalities, two people — an Alcoa employee and a contractor — were fatally injured during the year. This ended 17 fatality-free months and served as a sharp reminder that the elimination of the causes of fatalities must be a continuing priority.

**Lost Workdays**



**Equal Opportunity Statement**

Alcoa is an Equal Opportunity Employer, supporting a diverse work environment that fosters communication and involvement, while providing reward and recognition for team and individual achievement. All qualified individuals seeking job opportunities with the company will receive consideration for employment without regard to race, color, religion, sex, physical impairment, or national origin.

**Construction Project Proves Zero is Possible**

An Alcoa construction project in Monterrey, Mexico, is proving that zero work-related injuries is possible when safety is the highest priority.

After reaching 1,245,000 person-hours worked through the end of 2002 and averaging 350 contractors on site, Alcoa logged zero recordable injuries, zero lost workday injuries, and only two first-aid

injuries for the almost three-year project to build a 27,870-square-meter (300,000-square-foot) truck wheel manufacturing facility.

Key to success was the selection of a general contractor committed to safety. Other safety-oriented initiatives included a safety performance pay program, a detailed contractor safety program that included safety plans for every task, safety review meetings, safety audits, and ongoing safety recognition programs. These safety initiatives helped Alcoa overcome a cultural gap about safety, as did the company never wavering in the expectation that the safety programs would be implemented and followed at all times.

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## HUMAN RIGHTS

### Human Rights Policy/Programs

Alcoa is a global enterprise that does business in many distinct local markets. In order to do so successfully, we rely on all Alcoans living Alcoa's [Values](#) and supporting [Principles](#).

Values provide the common framework for our decisions, actions, and behaviors. They are our universal language — transcending culture and geography. Living our Values requires us to meet the highest standards of corporate behavior in all aspects of business — in all regions of the world. The foundation of our Values is dignity and mutual respect,

which are fundamental to our enterprise. Alcoa's approach to issues involving human rights is guided by our Values and Principles.

To ensure we are living by our Values, we have several systems in place. Environment, health, and safety audits include direct assessment of performance against EHS values. Third party auditors regularly participate in this process to provide us with an outside perspective. Financial and business process auditing reviews our compliance with policies regarding business ethics, financial rules, procurement, payables to customers, and more. Issues are followed to completion, and business leaders certify in writing as to their progress and compliance with requirements.

Businesses also conduct regular self-assessments of their processes, and we have a global compliance telephone line to enable employees to anonymously

report, in their native language, any concerns they may have. We follow up on every reported issue.

Our executive council conducts quarterly reviews with each business leader on key topic areas, such as people, EHS, manufacturing, and customer service. Our human resources group is currently working on worldwide expectations that can further enhance our internal auditing group's ability to help ensure we are living our Values. We will report on progress in future reports.

### Partnerships for Diversity

The challenge for Alcoa and other heavy-industry companies committed to nurturing diversity within their workforces is to provide meaningful employment to people with disabilities while also ensuring the safety of every employee.

In Portland, Australia, Alcoa opens the door of its smelter operations to this underutilized segment of the labor force through the innovative [Seawinds Nursery](#). The nursery is a joint effort between Alcoa and [Kyeema Centre Inc.](#), a Portland community-based service for people with disabilities. Nursery employees grow local plant species for re-vegetation projects at Alcoa's three

Victorian operations and for other organizations.

"Seawinds provides an opportunity for people who have disabilities to participate in one of our society's most valued activities — work," said Peter Lewis, chief executive officer for Kyeema Center. "Being employed increases self-esteem, provides added purpose to their lives, and places them into many of the routines experienced by the majority of the community. They also gain financial independence, becoming consumers rather than recipients of welfare."

To help with its ongoing reclamation efforts at [Sandow and Three Oaks mines](#) in Texas (United States), Alcoa purchases more than 50,000 seedlings annually from [Down Home Ranch](#). This facility for

special-needs adults has an established greenhouse operation, and the Alcoa project provides employment opportunities for the ranch's growing resident population. In addition, the ranch is growing additional trees and shrubs for sale to landscapers.

"One of the things we're learning about partnerships with industry is that they can go beyond just talk and become working relationships that provide jobs and income," said Dr. Jerry Horton, founder and director of Down Home Ranch. "With Alcoa, we're providing high-quality products that will be used for the betterment of the community. It's a good collaboration."

## Supplier and Contractor Requirements

Alcoa has a comprehensive [Ethics and Compliance Program](#) that requires adherence to our policies and guidelines, which include environmental and social responsibilities. Available in 18 languages, the materials are provided to all employees and long-term contractors throughout the world.

The materials are also available to all current and potential suppliers via [alcoa.com](http://alcoa.com). Beginning in 2003, these materials — and training as appropriate — will be provided directly to our major suppliers to ensure that they are aware of our requirements for business conduct.

## Discrimination Prevention (Equality of Opportunity)

We recognize, respect, and embrace the cultural differences found in the worldwide marketplace. Our workplace is a meritocracy where our

goal is to attract, develop, promote, and retain the best people from all cultures and segments of the population, based on ability. We have zero tolerance for discrimination or harassment of any kind.

## Freedom of Association

We recognize and respect the freedom of individual Alcoans to join, or refrain from joining, legally authorized associations or organizations.

## Children and Young Workers

As a fundamental principle, we do not employ children or support the use of child labor. We do encourage the creation of educational, training, or apprenticeship programs tied to formal education for young people.

## Freedom of Engagement

We believe that people should work because they want or need to, not because they are forced to do so. We prohibit the use of prison labor, forcibly indentured labor, bonded labor, slavery, or servitude.

## Compensation

We ensure that compensation meets or exceeds the legal minimums and is competitive with industry standards. Our compensation philosophy is clearly communicated to employees and is in full compliance with all applicable laws.

## Relationships with Indigenous People

Within the framework of our [Values](#), we respect the cultures, customs, and values of the people in communities where we operate and take into account their needs, concerns, and aspirations.

## Nurturing Environmental Awareness in Hungary

To increase environmental awareness among employees and the surrounding community, Alcoa-Köfém in [Hungary](#) developed a comprehensive program that focuses on training, communication, and environmental programs and activities.

The internally focused portion of the program has a strong emphasis on commu-

nication and uses all available channels within the company. A recognition program rewards employee environmental performance with points that can be exchanged for items in local shops. Alcoa-Köfém encourages its employees to participate in environmental programs and emphasizes the establishment of parks and green areas both inside and outside the company premises.

Externally, Alcoa-Köfém organizes or participates in a wide range of community activities that focus on the environment. These include an environmental awareness program for the area's primary

schools, donations for environmental and nature conservation projects, participation in drafting Hungarian environmental legislation, citizens' forums, and environmental reports and conferences.

## SOCIETY

Alcoa understands that being the best company in the world means putting our [Values](#) into action inside and outside the workplace. It means investing for the long-term, even when business conditions make that more difficult. For 50 years, [Alcoa Foundation](#) has been the primary instrument of our community investments.

This asset-based corporate foundation has invested more than US\$356 million in over 29 countries since its inception in 1952, ensuring that Alcoa has been a steady partner with non-governmental organizations (NGOs), with communities, and with their aspirations despite challenging economic or market conditions.

In 2002, Alcoa Foundation celebrated one-half-century of engaged investing, offering a global resource to improve the quality of life in Alcoa communities around the world. The foundation's policies, practices, and priorities can be found in the Community section of [alcoa.com](#).

To gauge the multiple dimensions of Alcoa's community engagement, it's important to look beyond the grants and money awarded to see the many assets that Alcoa and its employees are sharing in the community.

Employee engagement offers a growing and global aspect of our commitment to communities through company-supported but Alcoa Foundation-managed programs like [ACTION and Bravo!](#) grants. The giving of products and property provide additional Alcoa assets for community enhancement. The sharing of knowledge and insight and the devel-

opment of community partnerships and methods to sustain NGOs offer still other dimensions of our work. These are reflected, in part, in our community advisory and community framework data and in the case studies presented throughout this report.

### Alcoa Community Giving

The following data reflect the addition of cash, product, and property-related gifts from Alcoa that began in 2001 to supplement Alcoa Foundation's grantmaking. These additional resources reflect our desire to maintain an appropriate and leading level of investment in our communities as we expand to new markets, countries, and communities.

### Bringing Sustainability to Nonprofit Organizations

Introduced in 2002, Alcoa Foundation's [Social Venture Initiative](#) (SVI) is designed to improve the effectiveness and sustainability of nonprofit organizations by applying business and entrepreneurial models in their organizations. Social ventures provide a way for nonprofits to continue to sustain their businesses, to edu-

cate and involve citizens, and to add value to the role they play in their communities around the world.

The initiative is designed to help nonprofits generate their own revenue streams using their existing resources and new entrepreneurial strategies. It consists of three initial phases:

- Launch in 2003 with a forum of international experts in nonprofit sustainability that will be videoconferenced and shared with nonprofits at Alcoa locations around the world.
- Request for nonprofits in Alcoa communities to submit proposals that detail their plans for sustainability.

- Reconvene SVI grant recipients to share lessons learned and mentor other nonprofits in sustainability.

**Alcoa Community Giving** (US dollars)

2000	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe	Global
Alcoa Foundation	20,103,977	15,385,392	456,528	204,500		25,000		148,284	1,250,290	1,508,683	1,125,300
Other Related Foundations	1,348,333	868,002		45,500					434,831		
Alcoa	3,286,315	1,493,338		83,825		197,390	694,808	56,489	498,014	262,451	
Excess FMV of Donated Property											
<b>Total Combined Giving</b>	<b>24,738,625</b>	<b>17,746,732</b>	<b>456,528</b>	<b>333,825</b>	<b>0</b>	<b>222,390</b>	<b>694,808</b>	<b>204,773</b>	<b>2,183,135</b>	<b>1,771,134</b>	<b>1,125,300</b>

2001	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe	Global
Alcoa Foundation	21,284,784	15,029,312	948,750	209,200	196,892	99,500	100,000	167,000	1,306,781	1,897,350	1,330,000
Other Related Foundations	658,951	189,250		8,000					461,701		
Alcoa	18,088,028	11,090,743		3,240,453		9,799	699,904	64,508	2,229,606	753,015	
Excess FMV of Donated Property	12,600,000	12,600,000									
<b>Total Combined Giving</b>	<b>52,631,763</b>	<b>38,909,305</b>	<b>948,750</b>	<b>3,457,653</b>	<b>196,892</b>	<b>109,299</b>	<b>799,904</b>	<b>231,508</b>	<b>3,998,088</b>	<b>2,650,365</b>	<b>1,330,000</b>

2002	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe	Global
Alcoa Foundation	17,211,415	11,464,815	840,800	229,285	196,394	20,000	135,000	167,085	1,088,834	1,879,201	1,190,001
Other Related Foundations	536,022	44,783		6,000					485,239		
Alcoa	11,355,071	6,273,962	723	178,829		44,239	1,156,334	102,057	2,679,971	918,957	
Excess FMV of Donated Property	5,650,000	5,650,000	0								
<b>Total Combined Giving</b>	<b>34,752,508</b>	<b>23,433,560</b>	<b>841,523</b>	<b>414,114</b>	<b>196,394</b>	<b>64,239</b>	<b>1,291,334</b>	<b>269,142</b>	<b>4,254,044</b>	<b>2,798,158</b>	<b>1,190,001</b>

Global grants can be awarded in any country for purposes that benefit multiple countries, including the United States.

## Fifty Years of Giving

In November 2002, Alcoa communities marked [Alcoa Foundation's](#) fiftieth anniversary with nearly 135 events. These ranged from tree plantings in Knoxville, Tennessee (United States) to volunteer recognitions at many plants (including Appleton, Wisconsin in the United States) and community-wide gatherings of elected officials, religious and community leaders, grant recipients, and employees on five continents.

November 19 started in Portovesme, [Italy](#), with an [ACTION](#) event in the village of Carbonia, close to Alcoa's smelter. Twenty-five Alcoans painted the exterior of a house that now provides shelter to the homeless, earning a \$3,000 grant for that nonprofit.

In the early afternoon, a marker was unveiled commemorating the anniversary. By early evening, more than 400 people gathered as local cultural groups and an Alcoa band performed. Alain Belda, Alcoa's chairman and CEO, joined the event by phone and addressed the group in Italian.

"You have shown that Alcoans not only give money but also give a part of ourselves through our expertise and hands-on commitment," he told the employees. "You have proven that Alcoa is not just a good business, but a good neighbor."

At Jamalco in Clarendon, [Jamaica](#), anniversary events spanned three days of community activity. At a recognition ceremony for 2002 grant recipients, [Bravo!](#) grant recipients, and employee volunteers involved in ACTION, local political, civic,

and NGO representatives convened to applaud Alcoa's community engagement.

The anniversary offered an opportunity to reflect on our values, to celebrate Alcoa's commitment to community, and to note Alcoa Foundation's significant community investments over five decades. It also recognized the work of many Alcoans who serve their communities in diverse countries and caused and encouraged others to get involved in improving community life. The anniversary highlighted many of the non-governmental organizations working around the world to enhance the quality of life, and it ushered in another decade of active investment and community engagement by Alcoa.

## ACTION Grants

Since 2001, [Alcoans Coming Together In Our Neighborhoods](#) (ACTION) has recognized Alcoans for designing community projects as a team. When 10 Alcoans organize a

project and contribute a day of service for a nonprofit organization, ACTION increases the benefit by awarding the nonprofit \$3,000.

ACTION began as a pilot in four locations in 2000 and grew to 110

projects representing 60 Alcoa locations around the world in 2001. These figures more than doubled in 2002, with 234 employee-directed community service projects completed in 119 Alcoa locations.

### ACTION Grants

2001	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe
Number of Grants	110	67	10	3			8	3	12	7
U.S. Dollar Value	\$330,000	\$201,000	\$30,000	\$9,000			\$24,000	\$9,000	\$36,000	\$21,000
Number of Hours	9,340	5,048	524	328			488	120	1,552	1,280
Number of Employee Volunteers	2,332	1,259	131	82			122	30	388	320
Average Number of Hours per Project	85	75	52	109			61	40	129	183

2002	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe
Number of Grants	234	105	17	18		3	36	3	24	28
U.S. Dollar Value	\$702,000	\$315,000	\$51,000	\$54,000		\$9,000	\$108,000	\$9,000	\$72,000	\$84,000
Number of Hours	19,669	7,218	816	1,423		173	5,615	120	2,422	1,882
Number of Employee Volunteers	4,106	1,496	200	245		51	1,392	30	331	361
Average Number of Hours per Project	84	69	48	79		58	156	40	101	67

## Bravo! Grants

Alcoa's [Bravo!](#) initiative began worldwide in 2002 after a pilot phase in 2001. When an Alcoa volunteer at

least 50 hours a year at a charitable organization, Alcoa awards the organization \$250. Applications for community service performed in 2002

were accepted until March 31, 2003, and the following data include the number of Bravo! grants awarded by December 31, 2002.

### Bravo! Grants

2002	Total	U.S.	Mexico	Canada	Africa	Asia	Australia	Caribbean	Central & S. America	Europe
Number of Grants	437	143		19			161	2	55	57
U.S. Dollar Value	\$109,250	\$35,750		\$4,750			\$40,250	\$500	\$13,750	\$14,250
Number of Hours	35,758	8,644		966			20,275	100	2,750	3,023
Average Number of Hours per Volunteer	82	60		51			126	50	50	53

### Alcoa Community Framework

As public institutions, Alcoa locations are part of the social fabric in the communities where we operate. We cannot expect to grow or prosper without the support of our plant communities. When those communities have a problem, it is, in fact, also our problem. To build the mutual understanding and trust that are necessary to solve problems and realize community potential, we have devised several ways to connect with communities.

We created the Alcoa Community Framework to help leaders at Alcoa locations better understand the issues and the people who make communities work. This framework suggests ways that we can build stronger relationships with our employees and their families, with community leaders, NGOs, and government officials. It provides infor-

mation and guidance to undertake the kind of community events and structures that will foster greater understanding of our shared goals and needs.

We introduced the Alcoa Community Framework to North American plant management in 2001, with a broader implementation undertaken in 2002. Based on an informal internal survey, about 42% of the nearly 200 responding locations had implemented a community assessment tool like the Alcoa Community Framework as of year-end 2002.

The framework allows for great local flexibility in the structure and events a plant adopts to connect with community stakeholders. These events or programs can range from an environmental open house and plant tour for the community to tree plantings and a health fair for neighbors.

### Community Advisory Boards

Effective community consultation can be both formal and informal. As part of their work within the Alcoa Community Framework, a number of Alcoa locations have chosen to develop various forms of community advisory groups to foster an exchange of insight and ideas and to resolve local issues.

About 47% of our locations have active advisory boards or other mechanisms to meet with community leaders and identify and address areas of shared concern.

### Community Health Events

The safety and health of the people who live in Alcoa communities remain of vital concern to us. We reinforce our [Values](#) and demonstrate our commitment to our neighbors when we focus on health in the community and share information that can lead to injury and disease prevention, healthier lifestyles, and better life prospects for community residents. While data do not exist on the number of Alcoa locations that held community health events in 2002, new tracking and reporting methods will capture this information in 2003.

	Number of Locations Holding Community Programs	Number of Programs	Number of Community Participants
2001	83	484	460,592
2002	133	967	366,878

## Political Contributions

Pursuant to Alcoa's business conduct policies, the use of company funds, property, services, and things of value for or in aid of (or in opposition to) any political parties or candidates for public office is prohibited. Similarly, the policies dictate that no such corporate asset may be used, without the prior written approval of Alcoa's Chairman of the Board and the general counsel, for or in aid of (or in opposition to) any committee whose principal purpose is to influence the outcome of a referendum or other vote of the electorate on a public issue.

Employees may volunteer their own time to assist a candidate or campaign committee. However, company facilities, employee work-time, support services, office supplies, electronic mail access, etc., may not, under any circumstances, be utilized in such an effort. Nor does the company allow the formation of political action committees (PACs). Similarly, corporate funds cannot be used to purchase tickets or otherwise pay for the admission fee (or other expenses) to fundraising activities of any candidate, potential candidate, political committee, or political party.

## PRODUCT RESPONSIBILITY

### Customer Environmental, Health, and Safety Activities

In response to increasing requests from customers and suppliers, Alcoa conducts daylong benchmarking sessions on its Environment, Health, and Safety standards and practices. Topics include integration of EHS into manufacturing processes, fatality prevention, occupational health initiatives, environmental programs, internal audit programs, and metrics systems.

### Product Information and Labeling

Product labels and material safety data sheets are made available to all customers, with some available in multiple languages. For a complete listing, visit [alcoa.com](http://alcoa.com).

### Online Privacy Statement

Alcoa is committed to safeguarding online privacy. From time to time, Alcoa may make changes to its privacy statement to reflect changes in its business or to serve users better. Alcoa will use reasonable efforts to publish any such changes in the privacy statement.

Alcoa's privacy statement is based on four basic principles:

1. Users will always be advised when Alcoa is collecting information about them or their online preferences and expectations, and it will be made clear how that information is to be used.

2. Users will be able to choose whether or not they want to provide that information.
3. Any information collected about users will be secure and not shared with any third parties unless users give prior permission for that information to be shared.
4. Users will have access to any personal information Alcoa collects and keeps about them, and they will be able to securely change or delete that information at any time.

Because Alcoa offers a wide range of online business opportunities for its customers, the amount of information the company needs to collect in order to serve them in a particular business transaction will sometimes vary from case to case. Regardless of the amount of information collected, the four principles listed above will apply. Wherever Alcoa collects personal information, users will find a link to this privacy statement. If users choose not to provide some information, for example to enable confirmation of credit status, it may not be possible for them to proceed with their chosen business activity with Alcoa.

## Awards and Recognition

Alcoa firmly believes in the value of recognizing outstanding performance at individual, team, and organizational levels. To nurture development and maintenance of best practices,

rapid and uninhibited transfer of knowledge among colleagues, and an overall culture of excellence, we maintain a number of major internal award programs. Ranging from technology to manufacturing, business, finance, audit, and [EHS](#), the awards are widely promoted and acknowl-

edged internally and have proven to be effective in elevating the sense of appreciation among recipients and progressing the achievement of business strategy.

### Alcoa's Good Fortune

In 2002, Alcoa was again ranked first in the metals category in Fortune magazine's annual "America's Most Admired Companies" survey — the twentieth time

we've received this top ranking in the last 21 years.

The survey uses rankings by 10,000 industry executives to score U.S. companies in categories that include innovativeness, talent, management quality, product quality, social responsibility, and others. In addition to the first-in-category ranking, our score placed us in the top 50 overall on Fortune's list.

### Alcoa Earns 2002 ASM International Engineering Materials Achievement Award

[ASM International](#) named Alcoa the recipient of its 2002 Engineering Materials Achievement Award, which recognizes outstanding developments in the application of materials in products that benefit industry, the consumer, and society as a whole.

ASM International is the global society for materials engineers and scientists. It is a world-renowned network dedicated to advancing the understanding and application of engineered materials and their research, design, reliable manufacture, use, and economic and social benefits.

Alcoa was recognized for development and application of new aluminum alloy products for commercial aircraft. These alloys offer airframers enhanced strength, corrosion resistance, and fracture resistance. These properties enhance aircraft safety while saving thousands of pounds of weight, contributing to better fuel economy.

## Alcoa Foundation Receives Conservation Award

In recognition for its efforts in preserving Tennessee's natural heritage through its many environmental grants, Alcoa Foundation received the Natural Heritage Conservation Award from the [Tennessee Department of Environment and](#)

[Conservation](#) (TDEC) in the United States. The award was part of the department's 2002 Environmental and Conservation Stewardship Awards.

Of special recognition was a US\$250,000 grant Alcoa Foundation gave to [Great Smoky Mountains Institute at Tremont](#) (GSMIT) in 2002. The grant was the largest single monetary corporate foundation gift in the history of the park and

the culmination of work by the Alcoa Community Advisory Board, a 14-member community board that identified the grant as its top priority last year. The advisory board has assisted Alcoa by recommending multiple granting opportunities in Blount and Knox counties, resulting in more than US\$700,000 in diverse community gifts.

## Life! at Alcoa

Alcoa's Life! program was developed to strengthen the most critical dimension of the Alcoa Business System — people.

Under the Life! program, Alcoa promotes and supports participation in a wide range of activities designed to enhance the quality of work life, well-being, and personal development of Alcoa employees and their families.

Life!-related activities range from language classes to home safety, health awareness and improvement programs, immunization programs, traffic safety, smoking-cessation support, and cultural activities.

## One Million Trees

Since April 1998, Alcoa employees around the world have been participating in a global initiative to plant a million trees by 2008 to show their personal commitment to enriching the environment in a way that provides tangible, local benefits.

Called One Million Trees, the program is integrated with Alcoa's commitment to sustainable development and environmental initiatives. Alcoa provides employees and their families with the trees, and participants are encouraged to plant them at home, in designated parks, at Alcoa plant sites, and at places of special importance to them. One Million Tree celebrations are also held at most locations when the trees are provided.

More than 140 locations in 30 countries have embraced the program, with Alcoa employees, contractors, and their families planting 973,425 trees through the

end of 2002. The millionth tree is expected to take root sometime in 2003 — five years ahead of schedule. Future emphasis of the program will be on planting more trees on Alcoa property to enhance the local environment and reinforce the concept of sustainability at our locations.



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*To provide feedback on Alcoa's  
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