



### Sony Puts a Halt to Wasteful Engine Idling

In Japan, Sony is participating in an Environment Agency program aimed at eliminating unnecessary engine idling in company vehicles. Initiated in November 1996, this campaign is now part of the daily operations of each Sony business location in Japan. At the head office, all company vehicles display "Stop Idling Movement" stickers inside and out. Flags bearing this slogan are prominently located at parking areas as well. Benefits are enormous. Eliminating just 30 minutes of idling per vehicle each day translates into a group-wide annual saving of ¥15 million. Campaigns to encourage safe, energy-efficient driving practices complement the no-idling campaign.

### Children's Pictures of Earth Day

Since 1991, Sony Electronics has sponsored an Earth Day art contest for children. Entrants are asked to express a particular environmental theme in an artistic format. Energy conservation has been the theme since 1994. Winning entries decorate calendars that are distributed to all Sony Electronics personnel.



### Working With Junior High School Students (Japan)

The Japanese government named Hino Junior High School, near the Tokyo head office, as an environmental school for fiscal 1995. Sony seized this chance to extend its support. Sony instructors are teaching classes on environmental topics in each grade level. The company's environmental technology is on display at the school's annual fair; one exhibit shows how limonene can be used to recycle styrene foam. Students are also invited to check out the Eco Plaza and other facilities at the head office.

### Environmental Fund

Sony's environmental fund supports the development of new environmental technologies. Since its inception in January 1993, the fund has supported 41 projects, out of a total of 51 proposals submitted. Any Group member can apply. Ideas must be innovative and make a meaningful contribution to the environment. The Sony Environmental Conservation Committee studies the proposals and recommends those projects it deems worthy of head office funding.

### Sony Environmental Award

Initiated in 1994, the Sony Environmental Award honors achievements in environmental protection.

All Group companies and their employees can submit applications. Recognition is given to accomplishments in the fields of technology, products and management that can be applied to worldwide operations. Outstanding achievements are awarded a grand prize. At the 1996 ceremony, 62 applications from Japan and 29 from overseas vied for awards. After careful deliberation, the selection committee gave out four grand prizes, one technical award, four product awards and ten management awards. In addition, eight applicants received special recognition for their contributions to the environment.



1996 Sony Environmental Award Winners

### Grand Prize

#### ■ Improved Bi-National Solid Waste Recycling

*Sony Video-Tec de Mexico S.A. de C.V. and Support Center*

Two Sony facilities in Mexico decided to find an alternative to transporting waste from their production activities to a U.S. landfill. Sony Video-Tec de Mexico and its support center accomplished this goal by setting up a recycling program with a local waste management company. Operational since 1993, the system has dramatically increased the amount of waste that is reused in some way.

#### ■ Environmental Management System and Conservation Activities

*Personal A&V Products Company, Environmental ISO Promotion Committee; Sony Kohda; Sony Minokamo; Sony Kisarazu*

Several Group members joined together to create a framework for the promotion of environmental protection activities. Their efforts led to substantial reductions in waste generated, energy consumption, paper and the emission of pollutants. Conforming with international standards, the environmental management system was also instrumental in the receipt of BS7750 and ISO-14001/DIS certification.

#### ■ TV and Cathode Ray Tube Recycling Technology

*Manufacturing System Business Center, FA Systems Dept.; Products Recycling Subcommittee, TV Scrap Working Group* (see page 17)

#### ■ Revolutionary Energy-Efficient LCD Rear-Projection TV

*Semiconductor Company, LCD Dept.; Display Company, Consumer Projection TV Dept.*

Using internally developed state-of-the-art 1.35-inch polysilicone TFT LCD panels, Sony was able



Replaceable high-brightness lamp

to create a large-screen, lightweight rear-projection TV. The red, green and blue colors each use a compact optical unit made up of three LCD panels. The 37-inch screen is only 39 cm thick, about the same as a 14-inch CRT TV, and weighs only 29 kg, comparable to a 24-inch CRT TV. As a result, it requires much less packaging and cushioning materials. A newly developed 100 watt high-brightness lamp reduces power consumption from 200 watts to 160 watts. The lamp can be easily replaced by the user.

### Technology Prize

#### ■ Recycling Dye From Video Printer Ink Ribbons

*Research Center, Center for Environmental Technologies; Recording Media & Energy Company, Technical Group, Research Center and Print Media Dept.* (see page 8)

### Product Prize

#### ■ Resource and Energy-Saving Deflection Yoke

*Display Company, Deflection & High-Voltage Devices Dept.*

A major upgrade in the design of several models of deflection yokes, a key component of television and computer display picture tubes, cut the number of parts needed and reduced energy consumption levels. One model now uses 34% fewer parts and uses 8% less energy compared with previous models.



New 28-inch wide CRT deflection yoke (left)

#### ■ Resource and Energy Saving Optical Pickup

*Computer Peripherals & Components Company, Electronic Devices Div., Optical Devices Dept.; Semiconductor Company, Semiconductor Laser Dept.*

The development of ultra-compact devices and other breakthroughs yielded dramatic improvements in optical pickups. The number of components decreased by 48%, weight by 35% and energy consumption by 31%. Moreover, the packaging for source components can be used to ship the finished pickups as well.

### ■Energy and Resource Saving Large-Screen TV

Display Company, Japan TV Dept.

Embracing the challenge of slashing the energy requirements for Sony large-screen TVs, technicians came up with a unit that consumes only 132 watts, much lower than before. In standby mode, power consumption is half that of previous levels. Helping make this possible is a reduction of roughly 40% in the number of components. To simplify recycling, the TV employs polystyrene material for a much broader range of components.

### ■"Stamina Handycam" Line Offering Long Recording Time

Personal A&V Products Company, Personal Video Div., PV1, PV3 and PV4 Depts. (see page 10)

### Management Prize

#### ■Waste Water Recycling and Reuse

Sony Display Tube Company

At the San Diego CRT plant, Sony designed and installed a water recycling and reuse system—the world's first such system in operation at a CRT factory. The system can make a vital contribution to other water-scarce regions like San Diego.

#### ■Total Environmental Management

American Video Glass Company

When Sony decided to build a CRT glass plant in the United States, a number of exacting environmental regulations had to be met before construction could begin. American Video Glass Company, owner and operator of the new plant, instituted a comprehensive environmental management program. This brought the planned factory in line with Clean Air Act and other government standards for nitrogen monoxide emissions and waste water treatment.

#### ■Improved Environmental Performance

Sony Manufacturing Company U.K., Pencoed Technology Center

The Pencoed Technology Center formulated a clearly defined environmental philosophy and has taken measures to translate this thinking into concrete actions. Outstanding improvements have been achieved in the reduction of waste, energy and water consumption, and the volume of paper used.

#### ■EMAS Environmental Management System

Sony-Wega Produktions G.m.b.H.

The environmental management system at Sony-Wega boasted excellent performance during the year, meeting the stringent standards of the European Union's Eco-Management and Audit Scheme (EMAS). The firm thus became the first Group member in Europe to earn EMAS certification, and only the second private-sector electronics plant in Germany to do so.

#### ■Computer Display Recycling System

Sony Deutschland International; Computer Peripherals Components Europe (see page 18)

#### ■Promotion of SEM Environmental Activities

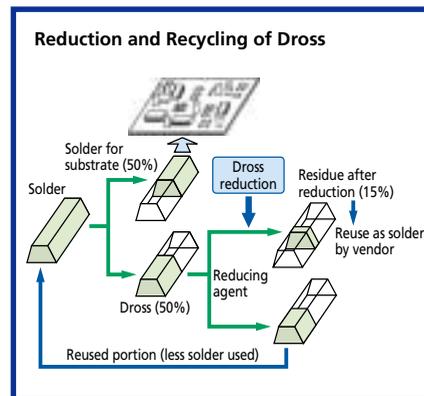
Sony Electronics (Malaysia) Sdn. Bhd.

In its drive toward ISO-14001 certification, Sony Electronics (Malaysia) was recognized for its excellence in the dissemination of information on environmental activities. Activities included seminars and exhibitions targeting government agencies, non-government organizations and the general public.

#### ■Dross Reduction Agent Yields Lower Solder Use

Personal A&V Products Company, General Engineering Dept.

In the soldering process, about half of the solder turns into dross, or oxidized solder. Properly treated through a reduction process, the dross can be used again as solder. Sony technicians developed a standardized process using a reduction agent to recover 70% of the dross—enabling a 35% reduction in solder use.



#### ■Reuse of Lithium-Ion Battery Materials

Sony Energytec Inc., General Affairs Dept.

Sony Energytec created a method for recycling and reusing a large share of the waste produced during the production of rechargeable lithium-ion batteries. This method materially cuts down the amount of materials that must be discarded (see page 18).



#### ■Color TV Designs for European Standards

Display Company, Europe TV Dept.

With the backing of all related Sony divisions and firms, Display Company designed a color TV that accurately reflects the exacting ecological demands of the European marketplace. One of the design's most notable aspects is beznet, made of a non-coated, halogen-free, flame-retardant materials, that is integrated with the speaker grille. This allowed fewer components and materials. The TV also replaces screws with joints for the speaker box and baffle boards that are made of the same material as the box—requiring no time to dismantle.

#### ■An Organized Approach to Environmental Activities

Broadcast Products Company, Four Environmental Activity Subcommittees

Broadcast Products established an effective organizational approach to environmental action. The project included setting out standardized design and assessment guidelines for lower power consumption, easier disassembly and increased recyclability. More effective management of hazardous pollutants was another focus.



KV-C29 series TV with integrated beznet and speaker grille

#### ■Sony Europe Environmental Award

This award was established in June 1995 as an additional means to encourage environmental activities by Group members in Europe. As with the Sony Environmental Awards, recognition is given to technical, product and management achievements. Furthermore, chairman of European Operations Jack Schmuckli initiated the Eco-Efficiency Award to link economic and ecological efficiency. Winners are chosen on their ability to make a lasting contribution to environmental protection. In 1996, 16 applications were received. After a careful screening process, one technical award and three management awards were presented at a September 1996 ceremony.

## Social Responsibility

Sony's community affairs involvement encompasses a broad range of activities in the disparate areas of social welfare, education, culture, the arts and international exchanges. The following are just a few illustrations of the company's participation in various activities related to the ecology and environmental protection.

### Regional Cleaning Movement (Japan)

Since 1991, volunteers from Sony Oita Corporation gather twice a year and spend an entire day cleaning debris and litter from the Kurotsuzaki coast. More than 100 people take part in this activity each time.



Employees work to beautify the Kurotsuzaki coastline on Earth Friendly Sony Oita Day.

### A Welcome Mat for Swans (Japan)

Each year, employees of Sony Shiraiishi Semiconductor help make migrating swans feel welcome. People remove litter from areas where the swans stop, and leave food for the hungry travelers.



### Walking Clean-Up Campaign (Japan)

Sony Ichinomiya Corporation volunteers spend a day walking along a much-used bicycling path in the area, picking up and carting home all sorts of litter. Much of the path runs along the banks of the Kiso River, which circumnavigates Nagoya to flow into the Ise Bay.



### Springing to Action in Oil Spill Clean-Up (Japan)

The Sony Group responded quickly to the devastating oil spill from a Russian tanker in the Sea of Japan in January 1997. Volunteers, including an entourage of 50 from Sony Inasawa Corporation, helped to remove oil from beaches and search for other soiled areas of the coast. Assistance also came in the form of equipment: Sony donated 23 barrels as well as 8-mm video cameras, TVs and other equipment for recording the damage.



### Bringing Life to a Special Kind of Camp (U.S.)

Volunteers from Sony Pictures Entertainment planted seedlings at a camp in northern California that is host to children battling cancer. A similar volunteer program in Los Angeles helps brighten up the atmosphere of homes for the elderly by painting walls and planting trees and flowers.



### Sony Kohda Receives Greenery Award

At the 1996 annual meeting of the Japan Greenery Center Foundation, Sony Kohda Corporation was presented with the Outstanding Plant Greenery Management Award. This marked the first time a Sony company has received this prestigious award, which is sponsored by the Ministry of the International Trade and Industry (MITI). Earlier in the year, the company received similar recognition from a local MITI office. Sony Kohda has long made environmental activities central to its operations. Employee activities, the management of vegetation and the maintenance of green areas that are open to the public were deciding factors in this most recent award.

### Keeping Neighborhood Parks Litter-Free (U.S.)

A Sony Electronics office in northern New Jersey boasts a squadron of volunteers that help keep a nearby public park clean. Sony people remove litter from Van Saun Park in the city of Paramus, and perform a number of other cleaning tasks.



### Project E.A.R.T.H. (Canada)

To the people of Sony Music Entertainment Canada, the word "earth" stands for "Environmentally Aware and Ready To Help." More than just a slogan, this philosophy is backed up by a broad range of activities to preserve and improve the global environment.



Calendars and pamphlets are printed on chlorine-free paper that is 100% recyclable.

### Harpy Eagle Rehabilitation Project (Panama)

Sony Corporation of Panama is working with the Panama government and outside specialists to establish an ambitious rehabilitation program for the endangered harpy eagle, the national bird and the world's largest raptor. The project includes a state-of-the-art aviary and learning center.



For more information or questions about Sony's community affairs activities, please contact the Corporate Community Affairs department in Japan at:  
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