



The **Global**
Appliance
Company

Contents

This is Electrolux.....	1
Creating more from less.....	2
Long term holistic approach pays off.....	3
Environment as business driver.....	4
Environmental vision, policy and strategy.....	7
Environment and market demand.....	8
Economy and ecology.....	10
AEG – development of an environmental brand.....	11
Environmental organization and methods.....	12
External communication and cooperation.....	15
Household Appliances	
Ozone-friendly fridges in Brazil.....	16
At home everywhere.....	17
Professional Appliances	
Professional refrigeration cabinet wins energy award.....	20
The professionals choice.....	21
Outdoor Products	
Multiple benefits with new chainsaw.....	23
Global leaders outdoors.....	24
Powder coating pushes costs down.....	25
Direct material balance.....	26
Rest flow and indirect materials.....	27
Site Measurements and ISO 14001.....	28
Notes to production related measurements.....	29
Glossary.....	30
Contact us.....	33

1997 at a glance

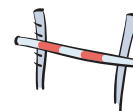
Demand increases for products with leading environmental performance..... 8



Eco Know How available to the public on the Internet and at selected retailers..... 8



Corporate minimum environmental requirements set..... 12



The process of implementing environmental management systems continues..... 12

Environmental issues a part of management training..... 13

Electrolux Eco Kitchen Prize awarded to professional kitchens in Sweden..... 15, 22



CFC-free technologies introduced in Brazil and China..... 16, 18



IEA-award for energy efficient heat-pump dryer..... 18

Electrolux wins international award for energy efficient professional refrigeration cabinet..... 20



Electrolux Euroclean, first sales organization in Sweden to receive an ISO 14001 certificate..... 22



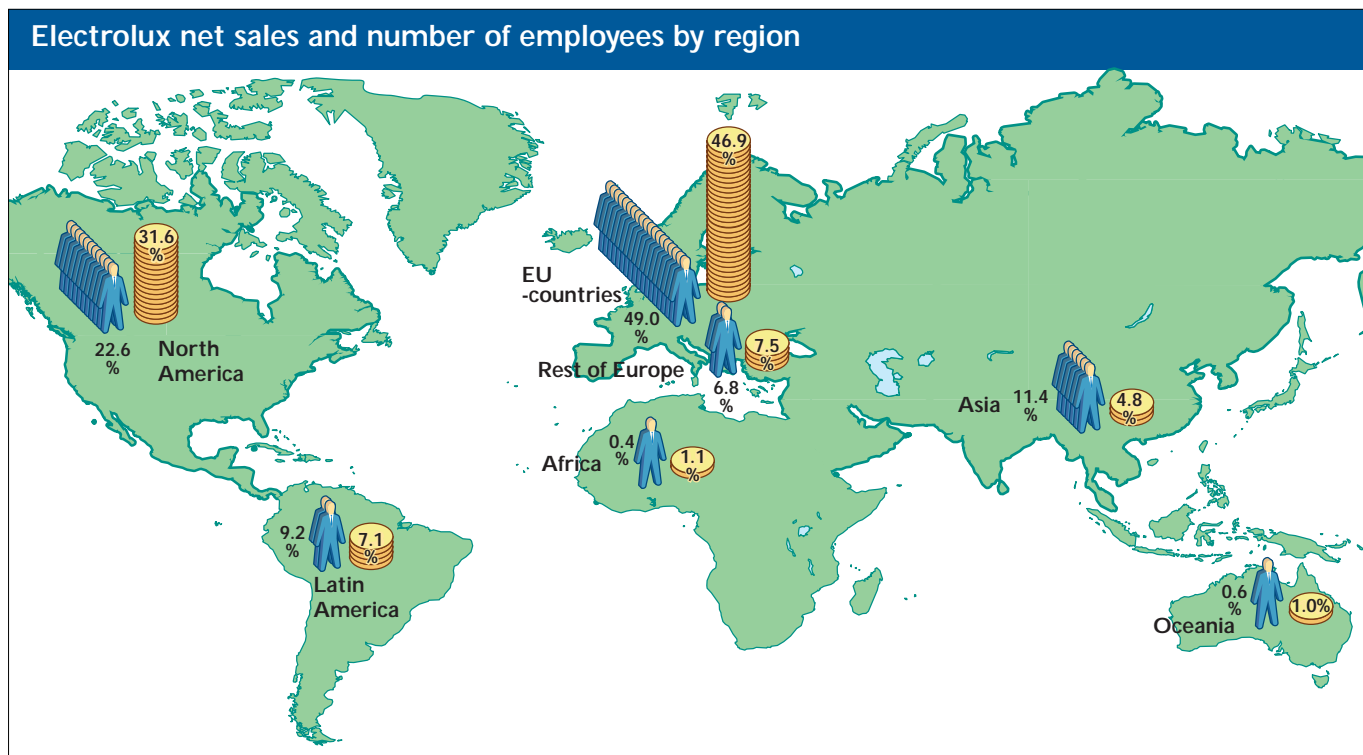
A number of production process changes combine cost savings with reduced environmental impact..... 25



Electrolux is the leading company in Italy regarding number of production facilities with ISO 14001 certification..... 28

A number of products with reduced environmental impact!

This is Electrolux



Electrolux is one of the world's leading manufacturers of indoor and outdoor household appliances, and of corresponding products for professional users. These products make daily tasks easier and more convenient in millions of homes throughout the world.

Every year, consumers in more than 100 countries buy more than 55 million Group products. Electrolux is the European market leader in white goods, and is the third largest white-goods company in the US. Electrolux is also the world's largest producer of floor-care products, absorption refrigerators for caravans and hotel rooms, and compressors for refrigerators and freezers.

Electrolux is also the largest or second largest company in the global market for food-service equipment, industrial laundry equipment, and forestry and garden equipment.

In addition to the Electrolux brand, we market our products under several other brand names, depending on product type, country and distribution

channel. A few of the more familiar brands are AEG, ElektroHelios, Eureka, Frigidaire, Husqvarna, Kelvinator, Partner, Volta and Zanussi.

The Group comprises three business areas: Household Appliances, Professional Appliances and Outdoor Products. Operations are organized into six business sectors divided into product lines.

Household Appliances

This business area comprises mainly white goods, i.e. refrigerators, freezers, cookers, washing machines and dishwashers. In 1997, white goods accounted for 74 percent of sales in Household Appliances, and for half of total Group sales. Other products lines include floor-care products, components, absorption refrigerators for caravans and hotel rooms, and kitchen and bathroom cabinets.

Professional Appliances

The main operations comprise food-service equipment for restaurants and institutions, including food and beverage vendors, and laundry equipment for such applications as

apartment house laundry rooms and commercial laundries. Together, these operations accounted for almost 70 percent of sales in this business area. Other product lines include refrigeration and freezing equipment for retail outlets and wet/dry cleaners for professional users.

Outdoor Products

This business area includes garden equipment, chainsaws and other equipment for forestry work. Garden equipment includes lawn mowers and garden tractors, as well as portable equipment such as lawn trimmers and leaf blowers.

Other operations

As a result of divestments in order to focus on core business, the only remaining operation outside these business areas is AB Gotthard Nilsson. Gotthards operates in the recycling industry with about 500 employees and an annual turn over of 2 billion SEK.

Creating more from less

When I started my work as CEO I was impressed by how far Electrolux had already come in its environmental work. I believe in responsible and environmentally conscious conduct, and I subscribe to the view that a proactive environmental strategy is essential to strengthen us in a competitive market. The environment knows no borders, and Electrolux is a global, borderless company.

Our prime concern is our customers. The customer wants the best product at the best price, but is also beginning to focus on the total costs of usage. There is also a growing environmental awareness around the world. Integrating the Electrolux Environmental strategy into product development and marketing is a way of meeting customer demands. As a leading company, however, we also have the opportunity to inform the public and influence market trends. This means, for example, leading the way with new products with reduced environmental impact and encouraging buying decisions based on an assessment of a products life cycle cost.

“Our strategy is to become a leader in environmentally sound products and processes.”

The Electrolux Group is in the middle of a tough restructuring process. We need to create larger financial margins, and to do this we need to reduce costs. We need to create more from less. In order to do this, we are working to make production more efficient, reduce the use of energy and water and recycle used material. This means that our environmental work is an integral part of the restructuring.

The Electrolux Environmental strategy – to become a leader in environmentally sound products and processes – stands on solid ground. We are determined to continue and further develop this pioneering work. However,



Michael Treschow during a contact day between students and the industry at the University of Uppsala, Sweden, where he gave a speech on “Balancing business and environmental considerations”. To the right, Karin Laurell, one of the organizers.

in a global company like Electrolux, the leverage from the strategy will have to be different from product line to product line and from country to country. Final decisions have to be based on the business potential. Nevertheless, we need a common ground.

With Environmental Affairs as an inspiring and supportive function, we are implementing common minimum standards, such as environmental management systems and a common competence level. It is everyone’s responsibility to use the tools provided by the Group to learn more and implement the strategy locally. Further integrating our environmental work into

the business sectors, as we are doing now, is an important step towards reaching our goals.

It is evidence that the groundwork is accomplished, and it is a clear signal of our determination to proceed as environmental leaders.

A handwritten signature in blue ink that reads "Michael Treschow".

MICHAEL TRESCHOW
*President and CEO
The Electrolux Group*

Long term holistic approach pays off

Since we adopted the Electrolux environmental policy in 1992 and started the full implementation of our environmental strategy, it has become more and more evident that our long term, holistic approach was the right way to go. We are aiming towards both sustainability and to create shareholder value. Instead of passively reacting to changing legislation, we see business opportunities in an environmentally proactive strategy.

The financial key ratios we introduced in 1996, show also this year that our strategy is successful. In one key product area, for example, the products with the best environmental performance accounted for 10 percent of sales, and as much as 15 percent of profit. Put differently, these products have a 3.5 percentage points higher margin than the average margin.

“ We focus on products with low impact on the environment and on the long term household budget. ”

Our aim is to fully integrate our external environmental reporting with the financial reporting within a few years. Work remains to be done to further develop and match the key ratios, something that is rather a challenge in such a global and decentralized group as Electrolux. Let me state that, even though I wish that this process was proceeding at a faster pace, I feel that we are on the right track.

In our business sector Professional Appliances, the cost for energy, water, detergents etc. during the use of an appliance has been of outmost importance for a long time. Our large customers, like hotels and supermarkets, find it natural and necessary to calculate and assess the entire cost for a wall cabinet or a mini-bar, thus taking environmental issues into account as part of being professional. It is encouraging to



Per Grunewald, head of Electrolux Environmental Affairs, says low environmental impact is good for the customer.

see that now the individual white goods buyer is also beginning to consider the life cycle cost of a product. We can see from our key financial ratios that, especially in Europe, there is an ever increasing demand for products with low impact on the environment and the long term household budget. The best thing we can do for the environment is to get new, cost-efficient appliances into as many households as possible.

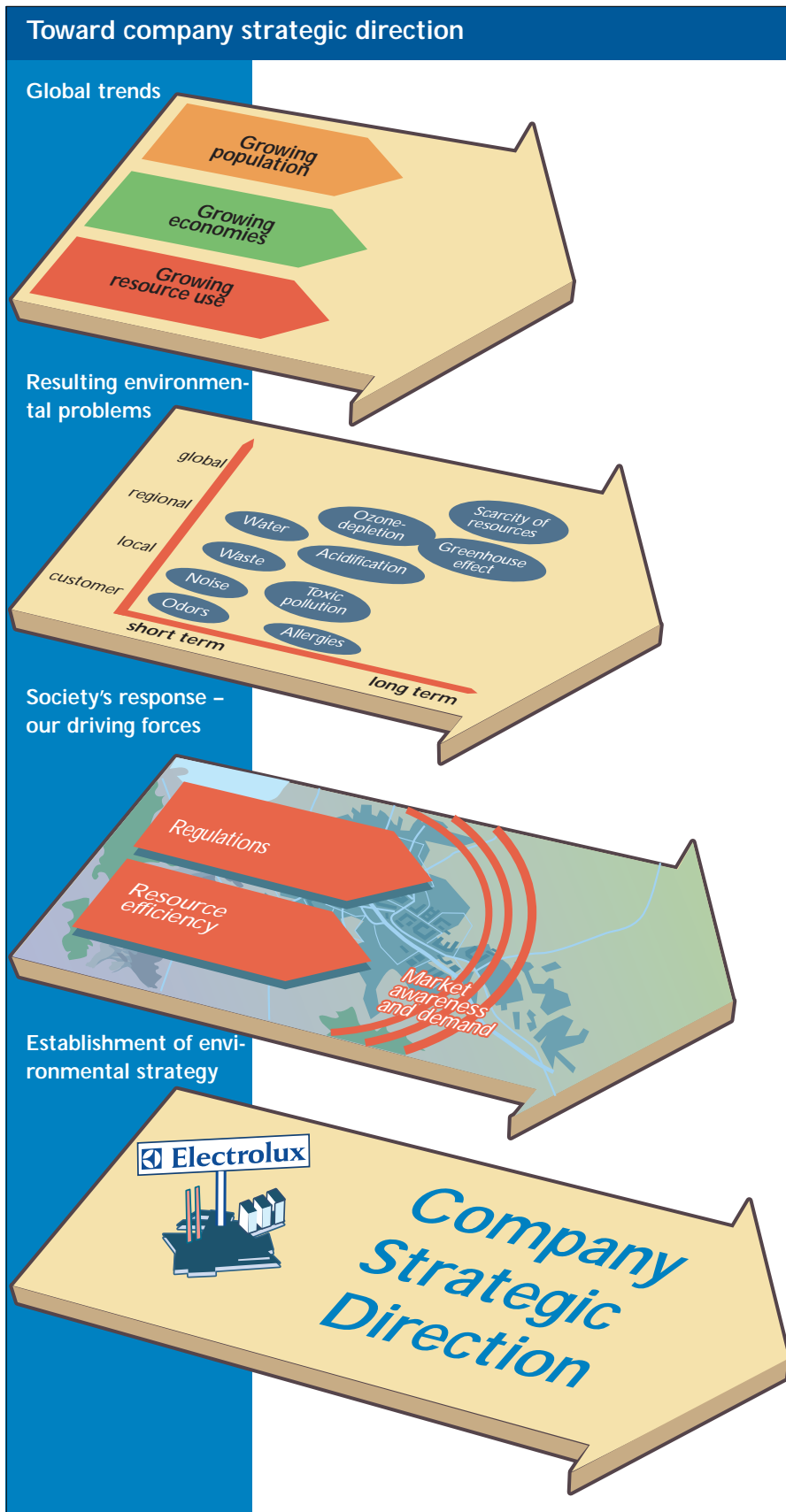
This is a matter of both dedicating efforts to the development of resource efficient appliances, and through marketing and information, educating the customers to apply a life cycle perspective. We have developed and introduced a number of new and, in some cases, unique tools that have the potential of truly changing the way people look at appliances and the environment. Environmental declarations is one example. The interactive Eco Know How database used to increase the knowledge and awareness of our staffs and sales organizations is another. Now it is also available on the Internet and – as a pilot project – at some retailers.

As refrigerators are a cornerstone in Electrolux, it is with special pride that I notice this year, ten years beyond the Montreal Protocol, that we are far ahead of schedule in phasing out ozone-depleting substances. In April 1997, we became the first company to market ozone-friendly refrigerators and freezers in Brazil.

The necessity of cost cuts and the increasing demand for resource efficient products confirm what we have been saying all along: there is no conflict between a proactive environmental strategy and creating added value for shareholders. Low environmental impact means a lower total cost for the customer. In other words, our environmental work is simply a better way of making money by easing the burden on customers and environment.

PER GRUNEWALD
Senior Vice President
Group Environmental Affairs

Environment as business driver



Electrolux bases its environmental strategy on society's response to environmental problems.

Continuously growing economies, population growth and increased use of natural resources are the most fundamental reasons for a number of environmental problems and threats. Some, such as the greenhouse effect, are long term global threats, others, such as noise, affect individuals immediately.

Society's response to these threats and problems is a general need to limit resource consumption – felt by producers and consumers through the price mechanism – regulations and minimum standards, and increased market demand for products with reduced environmental impact.

Electrolux bases its environmental work on a proactive, long-range consideration of all these driving forces:

- resource efficiency (costs)
- regulations
- gradually changing market demands

These driving forces are a part of our business environment. In this section the demand for increased resource efficiency (energy, water, material) and the development of stricter regulations are described. The influence of the market demand is highlighted in a later section.

Energy and the greenhouse effect

Carbon dioxide, CO₂, from the combustion of fossil fuels is the primary source of global warming, also referred to as the greenhouse effect.

At the 1997 international climate conference in Kyoto, Japan, 38 developed countries agreed to further limit the emission of greenhouse gases. The protocol establishes that between 2008 and 2012 the sum of total emissions of greenhouse gases in these countries must be reduced by 5.2 percent compared to the 1990 level. The EU and most of the central and eastern European countries agreed to an 8 percent reduction. The US agreed to 7 percent.

Regional and national authorities are working to reduce carbon dioxide

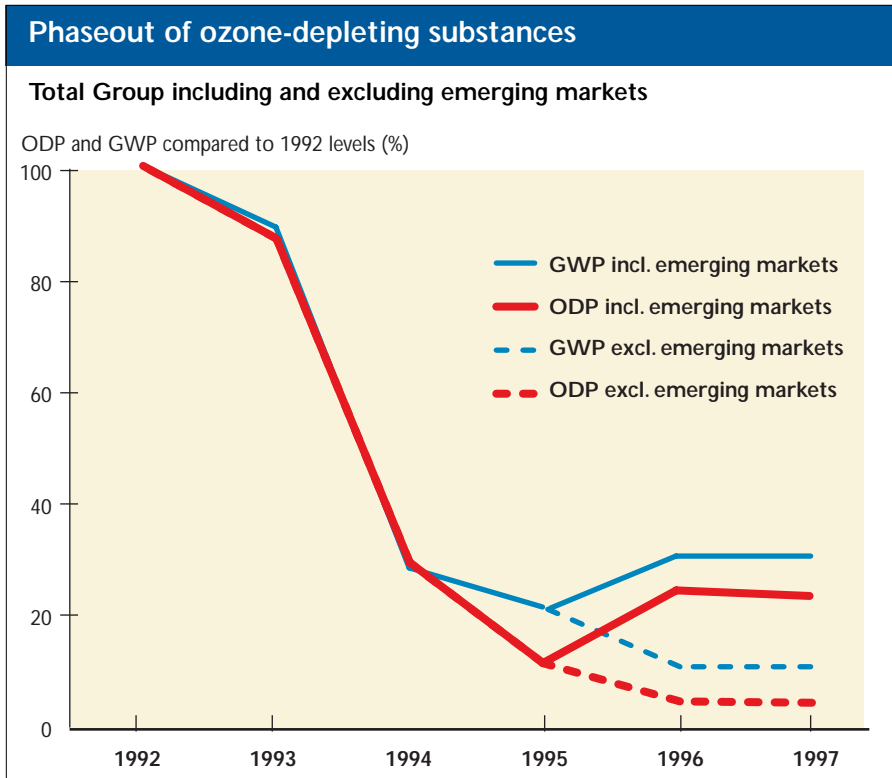
emissions through emission fees, energy taxes, energy conservation campaigns and other measures. There is also discussion about creating a market valuation of emissions, through tradable emission credits.

All these measures, based on the climate change debate, will affect Electrolux, as well as the industry as a whole. The energy consumed by our products during their lifetime creates a larger environmental impact than their production, i.e. actually outside our company's gates. Product energy efficiency measures are not new. The US first imposed energy standards on refrigerators, freezers and room air conditioners in 1990 and again in 1993, and on washing machines and dishwashers in 1988 and 1994. Even more stringent refrigeration and freezer standards will take effect in 2001. Electrolux offers products that often exceed these requirements.

The European union has set limits for energy consumption of refrigerators and freezers that will come into effect in the fall of 1999. Approximately 40 percent of all refrigerators and freezers on this market today will not be allowed to be sold. In 1997, the industry in Europe agreed voluntarily to reduce the energy consumption of washing machines. As a result, production and import of machines with the highest energy consumption was terminated on December 31, 1997. Production and import of machines with medium energy consumption will stop by December 31, 1999. Some exceptions exist for smaller machines.

Refrigerants, insulation gases and ozone depletion

The phasing out of substances with an ozone depleting potential (ODP), most notably "hard" freons (chlorofluorocarbons, CFC) and "soft" freons (hydrochlorofluorocarbons, HCFC), is regulated by international agreements, primarily the 1987 Montreal Protocol. The ban on CFC's came into force in industrialized countries in 1995 and 1996. In 2002, a corresponding ban on HCFC's will come into force in most industrialized countries.



This graph shows the relative change in the combined ozone-depleting and global warming potential of all refrigerants and insulating gases used in Electrolux' products between 1992 and 1997. The comparison is based on the amounts used in products, and the specific ozone-depleting potential (ODP) and global warming potential (GWP) of each substance, as estimated by UNEP. The increase in 1996 was due to the acquisition of older manufacturing facilities in some of our emerging markets in Brazil, China and India. In 1997, the phaseout was commenced in Brazil and China.

CFC's and HCFC's are primarily used in refrigerators and freezers, but also in room air conditioners and dehumidifiers. Electrolux' activities to phase out these substances are described in the Household Appliances section, page 17.

More efficient use of materials

There are two major reasons to limit the use of resources. In addition to the limited amounts, the extraction and processing of raw materials cause environmental impact. This creates an impetus for industry to create more value using less material, not only in production, but all along the life cycle of a product.

Some researchers estimate that we need to limit resource consumption by a factor of 4 or even 10. These estimates are based on what now is considered to be ecologically sustainable, with expected population growth and a more equitable worldwide standard of living.

Closing the material loop

Another aspect of resource efficiency is the prevention of waste and the creation of cyclic material loops. Recycling and reuse of materials, products and components reduce the need to exploit scarce resources, limit emissions from material production and reduce waste.

Policy makers in Europe, on both national and EU level, are considering adopting the Polluter Pays Principle by introducing producers' responsibility for product take-back and recycling. Several countries already have "eco-cycle" framework legislation favoring cyclic material loops, and are now introducing producer responsibility for different product groups. In the next few years, this is expected for electric products in, e.g., Switzerland, Sweden, the Netherlands and Germany. A working paper has also been presented by the EU adopting the same principles. The general idea is to transfer

responsibility for discarded products from the public sector to the market, i.e., the producers and consumers.

The industrial challenge is to minimize the cost and bureaucracy for such take-back and recycling systems and at the same time exploit the business potential this development offers.

Required industrial activities include design for recycling, the setting up of logistics and recycling capacity, in close cooperation with the recycling industry. In some European markets, Electrolux has already introduced take-back of products, e.g., household appliances in Switzerland and Germany and professional appliances in Scandinavia and Italy.

Proactive business development in this field might include what is referred to as "functional sales". This means that the producer retains the ownership of the product and provides the function to the customer for regular payments. This service may also include utility costs, consumables and upgrade, as well as service of the product.

Resource efficiency and water shortage

More and more sources of water are becoming polluted, and many places on earth suffer from regional water shortage. It is necessary to limit water consumption, find ways to recycle used water and develop techniques to recycle and purify water as close to its place of use as possible.

This places demands on both industry and consumers. In some areas, the government tackles the problem with rations, regulations and taxes. This forces industry to adapt and influences the incentives structure for the consumer. In other areas, the water situation is reflected by the price mechanism, which creates a demand for water efficient products and water purifiers for domestic use. Overall the water challenge, aggravated by growing populations, demands an ever-increasing water efficiency among producers and end-users.

In the EU and the rest of Europe, the general view has become that

consumers ought to carry the entire burden of cost for their water consumption. This view will probably lead to increased levies and higher prices in the future.

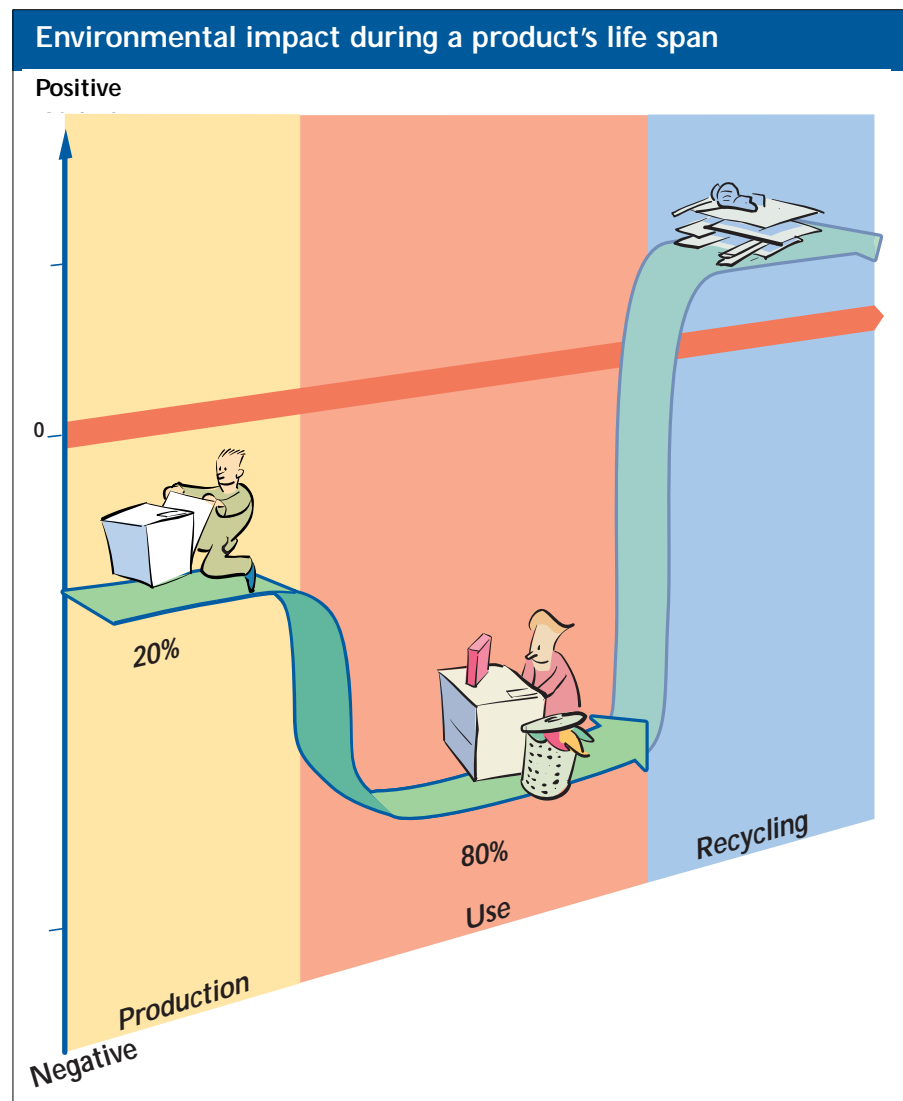
The total approach

The major environmental impact caused by our operations occurs during the use of our appliances. For example, the amount of water consumed by an ordinary washing machine during its

lifetime is 40 to 70 times higher than the amount needed to produce it.

The life cycle cost for energy, water and detergents during the use of an Electrolux appliance often exceeds the initial purchase price. As awareness of this increases, demand for resource efficient products grows. The best thing we can do for the environment is to continue to develop efficient products and market them successfully. This is also our strategy.

The environmental impact of a larger, shared washing machine in an apartment house calculated by the EPS (Environment Priority Strategies) method. The main environmental impact occurs during use. Recycling offers the possibility of recovering some of the materials and, thus, avoid the impact related to production of virgin materials.



Environmental vision, policy and strategy

Vision

Protection of the environment is a key to long term survival for the individual, for corporations and for society, in general. All our activities must be adapted with regard to the limits that nature can accept in the form of resource consumption and pollution. Care for the environment will be a continuous component of our operations, as well as the hallmark of our daily work.

Growth in consumption of non-renewable raw materials and natural resources cannot continue indefinitely. Our operations and our products must be integrated into a cycle, so that we can satisfy the needs of our customers without jeopardizing the prospects of future generations. The keywords for our operations are, therefore, resource efficiency and recycling. We are going to meet our customers' expectations for safe, environmentally sound products, and we will actively distribute information aimed at stimulating demand for these products.

Good profitability generates resources for the development of technology that makes a dynamic contribution to a harmonious relationship between society and nature. Resource efficient production and far-sighted product development will contribute to maintaining our competitive position in the future as well.

Policy

Responsibility

Our role as a company is to fulfill the needs of society that generate demand for our products. This involves a responsibility for contributing to sustainable development by continuously improving our products and our production processes from an environmental perspective.

Precaution

Precaution must be our guide for all development and production within the Group, in order to avoid irrevocable environmental impact. This requires a cautious approach to activities that might have a serious environmental impact.

Total approach

We must adopt a total approach in our operations, based on knowledge of every phase of the life cycles of our products, from raw materials and production, to use and recycling. We must choose the options that minimize negative environmental impact, as well as consumption of raw materials and energy.

Preparedness

Our business development must include an active commitment to development and marketing of products with the least possible environmental impact. As we continuously acquire more knowledge and promote our environmental efforts, we will also be prepared to meet future environmental needs.

Priorities

Our development will involve continuous, gradual reduction of the environmental impact of our operations. Our work must be goal-oriented and cost-effective. We will assign priority to our environmental investments on the basis of what is most appropriate in terms of ecology.

Market leader

Active, far-sighted research and development will enable us to continuously offer products that meet high environmental expectations. An active commitment to the environment, which integrates care for the environment in all our operations and involves a contribution from all our employees, will keep us competitive and will strengthen our position as market leader.

Profitability

Effective use of resources will be a decisive criterion for profitability. Good profitability is a prerequisite for our environmental activities, as it generates resources for investment and development.

Every product line manager is responsible for preparing an action program to ensure that the above policy is carried out.

Electrolux Environmental Affairs is responsible for development and interpretation of this policy and for monitoring its implementation.

Strategy

Electrolux will:

- lead the development of environmentally sound products and processes
- work to create demand for environmentally sound products

The Solar Mower, powered by sunlight only, is an example of conceptual changes in product development.



Environment and market demand

We strive to be the leader in the development of products with reduced environmental impact. Market demand for such products is generated by a combination of price sensitivity and environmental awareness. In turn, these are affected by environmental challenges, legislation, the market for resources and the price mechanism. Our challenge, and opportunity, is to provide relevant information that encourages the selection of products with the best environmental performance.

We strive to offer the consumers accurate information that assists them in making a buying decision based on the cost and environmental performance of a product during its entire life cycle.

Increased demand for efficient products

Market trends show that products with lower environmental impact are gaining larger market shares.

Our Environmental Performance Indicators, described in the Economy and Ecology section, confirm this trend. In our largest business sector, White Goods Europe, products with the best environmental performance accounted for 10 percent of the total sold units and 15 percent of gross margins during 1997.

Our AEG brand has one of the largest market shares in Europe for water efficient dishwashers. This indicates that we are in the forefront among producers of efficient products.



Market demand ahead of legislation

In many markets, environmental concern and awareness among the public act as a business driver. One example is the discovery of the ozone-depleting potential of freons, substances used as refrigerants, and the resulting regulations. Since the negative effects of freons have become known, the interactions between industry, market and regulations

have made it almost impossible in many markets to sell products containing substances with an ozone-depleting potential. This occurs even in markets where they are not prohibited.

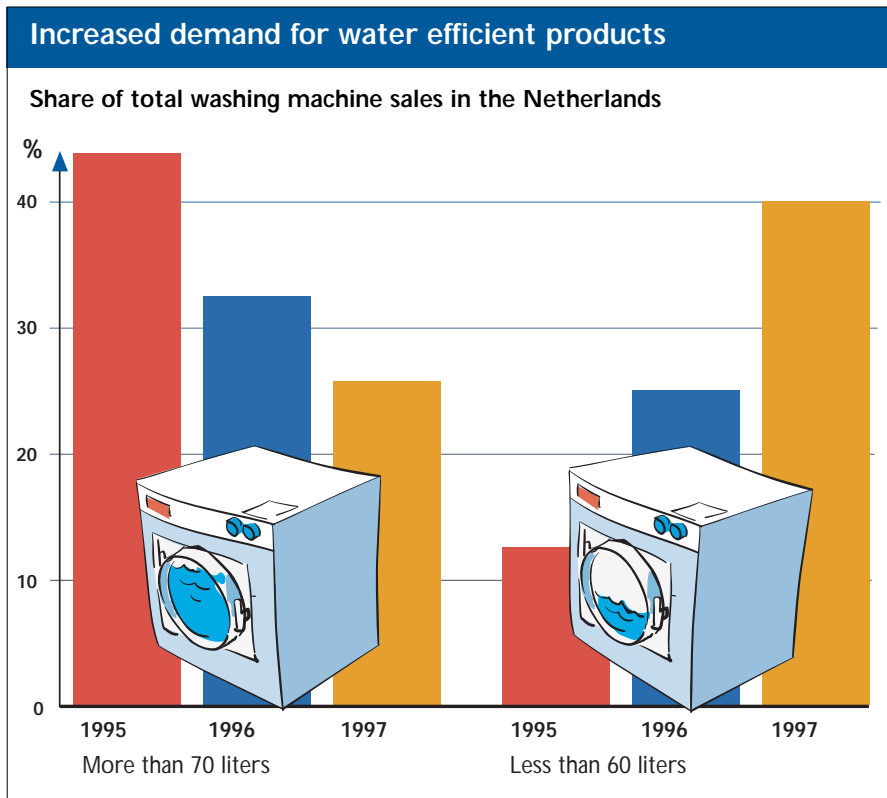
In our outdoor products area, market demand plays an important role in driving the development of cleaner technologies, mainly regarding combustion engines. For example, lower emissions of exhaust gases are directly beneficial to the user of professional chainsaws and trimmers and to the environment.

Also in this business area, the Environmental Performance Indicators show that consumers actively choose products with the best environmental performance, as described on page 24.

We want demanding customers

In 1997, we made a major part of our interactive Eco Know How database and training program available to consumers all around the world, on our homepage on the Internet at www.electrolux.se. Eco Know How was developed to increase the environmental competence of our employees. Now it can help consumers all over the world to make informed buying decisions. The program is also available to customers at selected retailers.

Information on life cycle costs is currently used by some brands in marketing, especially in our Professional Appliances business sector. We want to develop this kind of information much further, taking advantage of new technologies such as IT. The use of environmental labels is yet another way



The columns show the percentage share of total washing machine sales in the Netherlands divided into different classes. In 1995, washing machines consuming more than 70 liters per wash accounted for 44 percent of sales and machines consuming less than 60 liters accounted for 13 percent. Two years later, the sales had begun to reverse.



Eco Know How, Electrolux' interactive environmental database, is available to customers at selected retailers. They can learn about basic environmental issues as well as get advice on the best way to use our products to save the environment.

to inform customers about a product's environmental performance. One example is the rider lawn mower from Husqvarna, which has been licensed to use the Nordic Council's environmental label, the Swan. In 1996, the Volta Minette Power Plus was the world's first portable vacuum cleaner with cadmium free batteries. These batteries also have earned the Swan, as have our professional detergents from Euroclean.

Besides environmental labels, energy labeling of products is mandatory in some product areas and the use is increasing.

Energy labeling

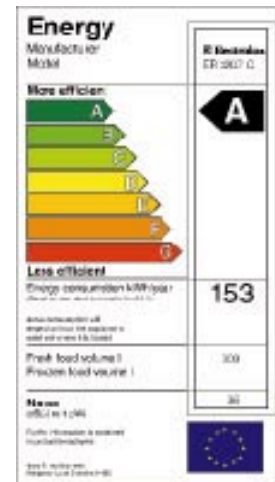
In 1995, the European Union launched a system for energy labeling of refrigerators and freezers, ranking energy consumption in seven grades from A, the most economical, to G. One year later, washing machines and tumble dryers were included in the scheme. In the case

of washing machines, performance is graded from A to G for both washing and spin-drying.

Energy labels not only indicate the consumption of energy, but also contain information about the use performance of the product. For example, washing machine labels include information on washing performance and water consumption per cycle. Noise levels of the products is not mandatory, but is often found on the labels.

They are affixed to the products and serve as a source of information for customers at the point of purchase. It is not new to inform the customers about energy consumption, but the additional information on today's labels serve as means of comparing products.

Energy statistics for the eight largest countries within the EU show that the number of refrigerators labeled with energy class A have almost



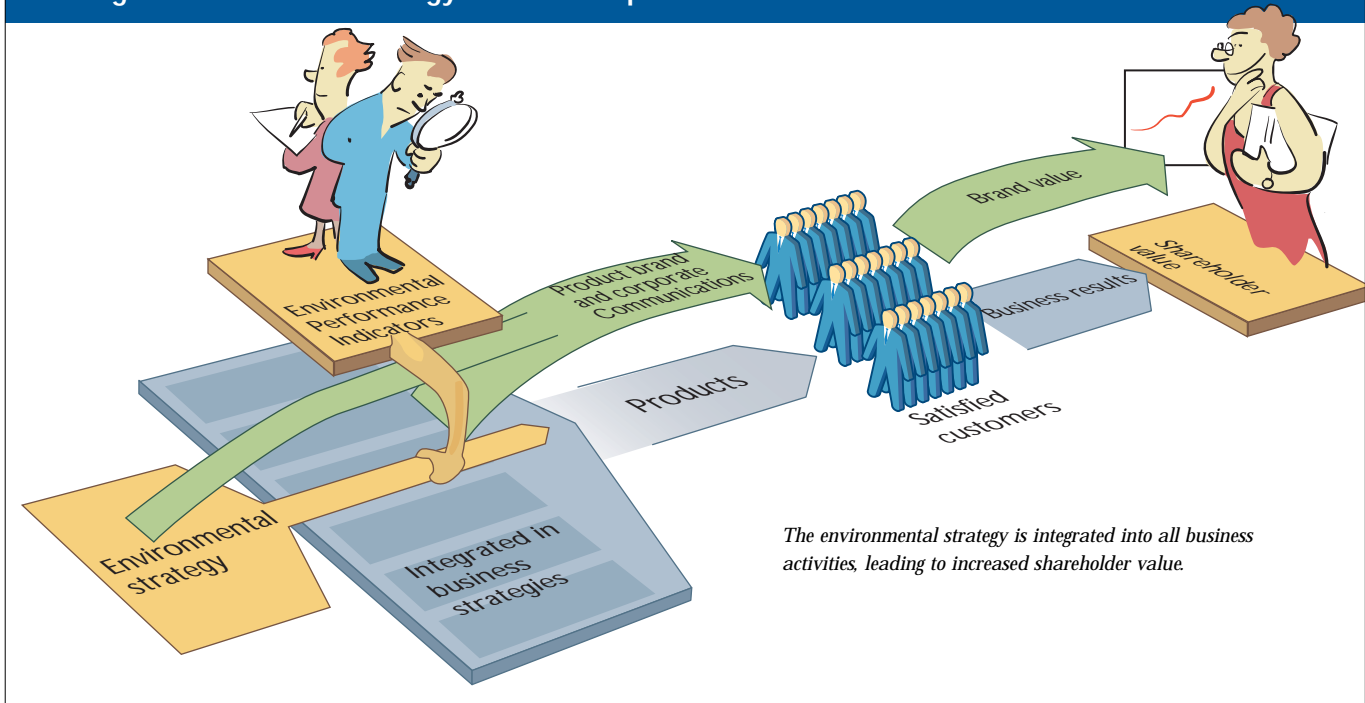
The number of refrigerators labeled with energy class A has almost tripled since 1995.

trippled since 1995. In class B it has almost doubled. This means that in 1997 the most energy efficient products, class A and B, accounted for almost 25 percent of the entire market. However, in 1995, 60 percent of the refrigerators were not labeled, and the corresponding figure for 1997 was 30 percent. The increase in class A and B refrigerators is then possibly attributable to the increased use of energy labels rather than to actual product performance improvements.

Environmental declarations

The system for Environmental declarations is still, after one year, unique to Electrolux. It was developed as an answer to the needs of professional users, who were looking for a system they could use to compare the environmental impacts of our products. To date, White Goods Europe, our professional laundry products from Wascator and the outdoor products from Husqvarna are included in the system. The Environmental declarations contain all information relevant to a product's environmental impact during its life cycle. The product specific fact sheets which cover environmental aspects of manufacturing, transport, packaging, recycling and material content, can be accessed via a computer anywhere in Europe.

Linking environmental strategy to business performance



Economy and Ecology

For us as a company, environmental work is basically a matter of realistically assessing the environmental factors we must consider to continue to have a strong position in a competitive market.

We are working to show the link between environmental activities and financial results, in order to demonstrate the benefit of our proactive environmental approach. For this purpose, we have developed a set of Environmental Performance Indicators, EPIs. They link our environmental vision and policy with our aim to create shareholder value.

Environmental Performance Indicators

Four sets of indicators are used to cover the full product life cycle. "Site Measurements" (further described in Notes to production related measurement) are used to monitor the environmental performance of the production units. ISO 14001 is the framework for these activities. The measurement "Green Range" is used to identify environmentally leading products in each product

group and calculate their profitability. Another product related set of measurements is "Fleet Average". It includes all the products we produce and calculates an average value for some important environmental factors such as energy and water consumption and emissions. The aim is to monitor the overall rate of improvement. "Recycling index" is used to relate the recycling value of the products at their end-of-life to the latent material value in the products. Recycling value takes into consideration the cost of labor, waste processing etc. It is an important tool in product development to evaluate and optimize the product design.

Environmental performance indicators are gradually being introduced throughout the company. Aggregated results from "Site Measurements" for all business sectors and "Green Range" for White Goods Europe are at hand.

Business sectors use these indicators to set quantitative goals related to their business strategies. The aim is to be able to report on the progress on a Group level.

Balanced scorecards

To monitor the long term profitability of the Group, non-financial aspects such

as markets shares, employee and customer satisfaction and service call rate are being measured within the business sectors and compiled into balanced scorecards. The term "balanced" indicates that the combination of financial and non-financial values is important to the long term profitability. In 1997, "Green Range" was used as one parameter in our business sector White Goods Europe.

Environmental investments

Environmental investments are an integrated part of the Group's total investments in product development and improvements in production. They are accounted for in the Annual Report. Investments that were made exclusively for environmental reasons are estimated to be less than one percent of total investments during 1997, the same as in 1996.

Environmental liabilities

All liabilities and reservations are accounted for in the Annual Report. However, for 1997 no purely environmentally related liabilities of significance exist.

AEG – development of an environmental brand



AEG Hausgeraete GmbH has produced electric appliances since 1887.

The Electrolux brand AEG is one of the leading environmental brands in the appliance industry. Electrolux' German brand, AEG, the legendary producer of electric appliances since 1887, has been a true pioneer in combining ecology and economy. As early as 1976, the first washing machine with an energy savings program was developed and manufactured. But it was the year 1982 that became the true turning point.

AEG, was teetering on the verge of bankruptcy. General public environmental awareness was still low. At that time, AEG decided to take the environmental initiative. Product improvements in the past supported the new strategy, but no competitors had yet taken that course. Now, high performing appliances were given the prefix "Öko". Both product development and marketing resources were concentrated to make AEG the environmental leader in the industry and to educate the customers to make environmentally conscious choices. A decade later in 1993, the then President Carlhanns Damm was named Environmental Manager of the Year by World Wide Fund for Nature and the magazine "Capital". Today almost all AEG appliances are called "Öko" and low environmental impact is the most

important and well-known feature of the AEG brand name. And business is good.

The environmental commitment is present all throughout the organization through local "advisors" carrying out the company policy. Since 1996, all sites are EMAS registered, and since 1997, ISO 14001 certified. The annual Green Book contains detailed environmental reports from all factories, which are externally audited every third year. A take-back system for packaging was introduced in 1993 and for used appliances in 1994.

AEG has initiated a series of external projects and dialogues with stakeholders. AEG managers keep a continuous dialogue going with representatives of all political parties on state and federal level, and are often invited as guest speakers at national and international conferences on environmental issues. Since 1988, AEG has been honoring promising young artists with the Ecological Art Award, and since 1992, an essay competition on the subject of the environment is sponsored by AEG in German schools.

More comprehensive information on the environmental work of AEG is available in the Green Book, which can be ordered from AEG at www.aeg.hausgeraete.de or fax: +49-911-323-1178.

Highlights:

1976

First washing machine with energy-saving program

1980

First energy-saving chest freezer

1981

First dishwasher with vario-spray system

1982

AEG creates the "Öko idea"

1984

Commissioners appointed for the control of emissions and water, energy and material consumption

1988

Environmental commissioners appointed at each site

1988

The Eco Award for young artists introduced

1990

New company policy with the environment in focus

1991

New environmental organization

1993

Staff of 65 environmental advisors appointed part-time

1993

First CFC-free refrigerators and freezer

1993

Carlhanns Damm named Eco Manager of the year

1994

Eco Marshall Plan initiated by AEG

1996

All sites EMAS registered

1997

All sites ISO 14001 certified

Environmental organization and methods

The environmental vision and policy is decided by Electrolux Group Management and carried out locally. In 1997 an important step was taken to integrate the environmental work with business. Responsibility now lies entirely with the business sectors to implement the common strategy, drive the environmental work and integrate it into business planning and action.

Network of coordinators

A network of environmental coordinators form the basis for the environmental work. Their mission is to coordinate the implementation of the activities designated by each sector management. They act as a direct resource for the sector environmental responsible, who reports directly to the head of the business sector. As a general rule, the environmental responsible is a

member of the sector management. In our largest business sector, White Goods Europe, Per Grunewald, who also heads the Environmental Affairs unit on Group level, holds this position. (See chart.)

Corporate Minimum Environmental Requirements

In December, 1997, a set of minimum environmental requirements common to all business sectors was established by Group Management. These constitute the absolute minimum basis for the work that is initiated and driven by each sector management. They cover all activities within the group, thereby setting a global standard.

Responsibilities according to these environmental minimum requirements include: implementation of the Environmental management system ISO 14001, increasing environmental competence via the training program Eco Know How, internal experience sharing via the internal ENVA Network

database, monitoring of progress in environmental performance using the Environmental Performance Indicators and external communications.

Group Environmental Affairs

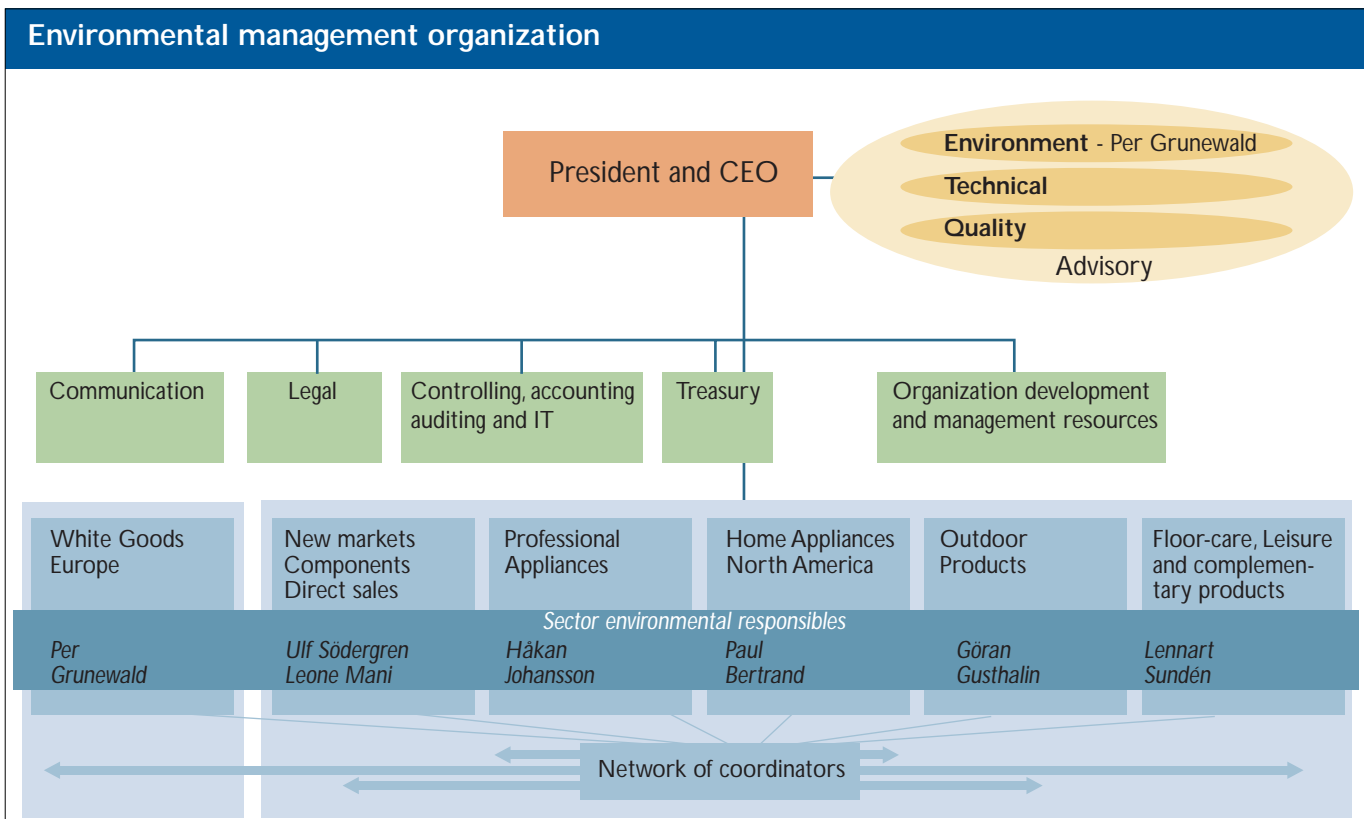
Environmental Affairs formulates and updates policies and corporate environmental strategies, provides the tools to implement the set of common minimum environmental requirements and is responsible for corporate environmental communications, such as the Environmental Report.

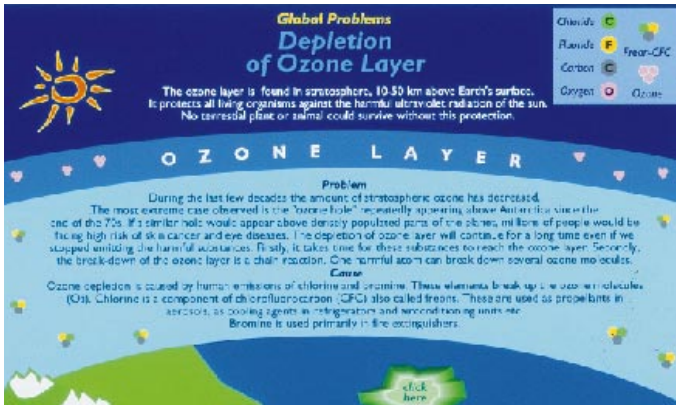
A number of tools have been developed by Environmental Affairs, which also acts as internal consultants, disseminating environmentally related knowledge and competence to the organization.

Environmental management system

An environmental management system offers a structure for environmental work. It contains the organizational

Responsibility now lies entirely with the business sectors to implement the common strategy, drive the environmental work and integrate it into business planning and action.





The first part of the interactive Eco Know How database describes, among other issues, environmental problems, such as the depletion of the ozone layer.



Environmental achievements within the business areas are described in the second part of the Eco Know How database.

structure, responsibilities, working methods, as well as processes and resources required to develop, implement, assess and maintain a company's environmental policy. It also includes setting environmental targets. For example, at our Spennymoor production facility, the targets for 1998 include a reduction of waste that goes to landfill by two percent and reduction in energy consumption by three percent. The intended reduction of 35 percent of solvents used during the enamel screening process will result in a 10 percent decrease in the total solvent use in our UK operations.

Strict protocols for processes with a significant environmental impact minimize the risk of environmental accidents. Electrolux has about 150 production facilities worldwide. In 1995, it was determined that all production facilities should implement an environmental management system, and be ISO 14001 certified before the year 2000. In 1996, 9 units were certified, and in 1997, the total number of certified units was 26. The implementation of environmental management systems is described further in later sections.

Environmental competence program

To facilitate the integration of environmental issues into business activities, it is crucial to increase the environmental competence among our team members. Eco Know How, our internal

environmental competence program, was developed in 1996. Pilot training sessions were held in 1997, and the roll-out into the organization is planned for 1998. Main target groups are those whose decisions have a major influence on the environmental performance of our operations. They are estimated to be about 6000 people. Ultimately, all employees will receive training. Eco Know How consists of an interactive database, available to all Electrolux team members via the intranet, and tools used during training sessions.

In 1997, we also offered the key parts of the training program to consumers worldwide on the Internet, (www.electrolux.se) and at selected retailers.

During the year, the management training programs offered by Electrolux University were extended to cover environmental issues.

Databases for experience sharing

Internal experience sharing was facilitated during 1997 with the introduction of ENVA Network. It is a database available via the intranet and provides an infrastructure for information and communication of environmentally related issues. The database, launched to a group of test users in December 1997, is continuously developed and updated. Through this network everyone can share and find environmentally related facts and analysis of research, legislation

and market trends that are important for Electrolux, e.g., the international climate conference in Kyoto. It also describes the constituents of the corporate minimum environmental requirements and the progress in these areas within the business sectors.

In the United States, a database on environmentally related regulatory matters has been maintained for a longer time.

Product development

Life cycle assessment of our products clearly shows that the main environmental impact is caused during their use. Thus, the consumption data of our appliances is crucial to Electrolux' total impact on the environment. That is why our environmental strategy must be visible in each product development project. Our Integrated Product Development Process (IPDP) puts emphasis on both strategic planning and careful specification and pre-engineering of each project. Environmental analysis is an integral part of the process. Eco-design handbooks have been developed for most of our product lines. They are used by our product development teams during the IPDP to assure that the right considerations are made during each step of the process.

Environmental audits

When it is so required, as for example at all units certified according to ISO 14001, external audit is carried out.

Often, these audits are also a part of the certification process. In Germany, AEG publishes their own environmental report, the Green Book, that includes the external audit of their factories made every third year.

At all mergers or acquisitions, for example in emerging markets, an environmental audit is carried out to assess potential environmental liabilities and investment needs.

Integration

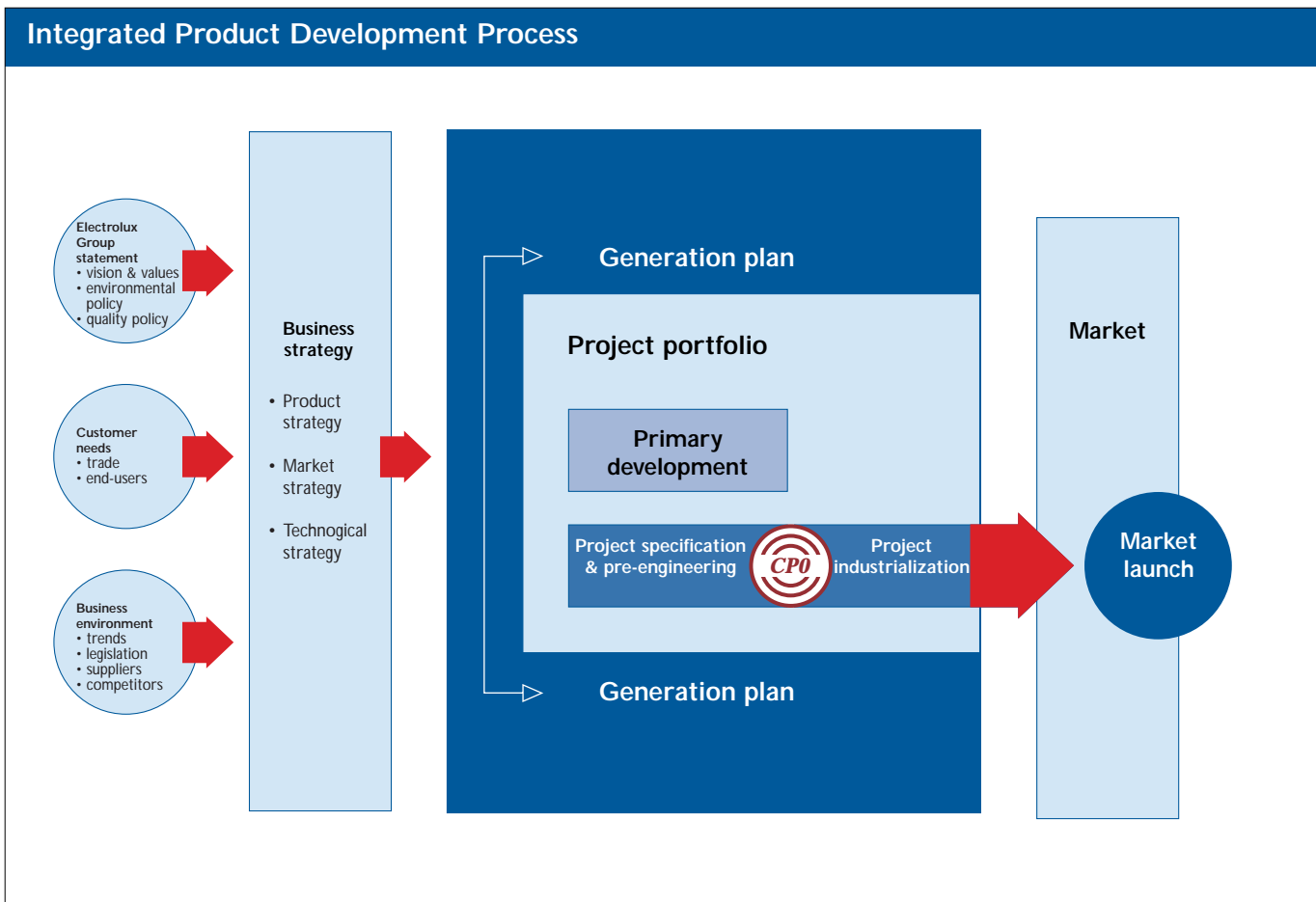
Integration of the environmental strategy into all processes and routines in such an international and diverse group as Electrolux is a gradual, time-consuming and demanding process.

In logistics for example, a lot of work still remains to be done. Even as many of our brands have a strong environmental position, some are still lagging behind.

In purchasing, environment is not yet fully integrated as a criteria in the validation process of suppliers. This is an ongoing process common for the industry at large.

In some areas, we have come very far. In our product line Food Service Equipment, within the business sector Professional Appliances, "functional sales" are offered on several markets. This is an example of a new way of doing business, offering functions rather than products.

Environmental Affairs has introduced an Environmental Change Program (ECP) as a tool to integrate environmental issues into strategic business development. The ECP is based on scenario-planning that helps to identify threats and opportunities.



The environmental strategy is integrated into all product development via the IPDP. The checkpoint 0, CP0 indicates the transition from primary development to product development.

External communication and cooperation



The British Prime Minister, Tony Blair, to the left, helped promote the "Going for Green" campaign at Electrolux Spennymoor. To the right David Burton, environmental coordinator at Electrolux Spennymoor production facility.

Externally, we maintain contact with different stakeholders, engage in dialogue and look for new and effective ways of communication. Many of these contacts are made locally, in the communities where we have our production facilities; or are performed by brand organizations in their marketing activities.

Collaboration with the The Natural Step Foundation (Det Naturliga Steget) inspired the holistic approach to environmental management that we have adopted. We support research at the Center for Environmental Assessment of Product and Material Systems (CPM) at Chalmers Technical University, in Gothenburg, Sweden, where objective methods for assessing environmental impact of a product during its entire life cycle have been developed. Also, we collaborate with the International Institute for Management Development in Lausanne, Switzerland. In the US, Frigidaire Home Products is an active participant in the Major Appliance Resource Management Alliance (MARMA).

In several countries, cooperation with environmental organizations, such as the World Wide Fund for Nature (WWF), helps maintain our external contacts.

In 1997, our American vacuum cleaner manufacturer, The Eureka Company, expanded its World Vac Charities program by providing 30,000 educational kits about national parks and the environment to schools throughout the United States. World Vac Charities was begun by Eureka five years ago in an effort to assist the environment and health. Total contributions, based on a portion of the price of each World Vac sold in North America, amount to more than 2 million US dollars. Through this program, Eureka also sponsors the National Park Ranger Award which is presented every year by the President of the United States. In Canada, Eureka has a similar program with the Canadian Parks Partnership.

In the United Kingdom, Electrolux participates actively in the national "Going For Green" campaign. It is a government backed campaign to encourage everyone to make changes in

their lifestyle that will help protect the environment. As the Sedgefield district is one of the pilot areas for this campaign, a representative of the Electrolux Spennymoor facility, a major business in that area, has been invited to sit on the steering committee.

An annual Eco Kitchen Prize was instituted in Sweden this year by our professional product line, Food Service Equipment. The award, developed with Environmental Affairs, is presented to the two professional kitchens that represent the best ecological entrepreneurship. The first winner in the public sector was Karlbergsskolan, a public school in Stockholm, and in the private sector, the conference center, Sänga Säby.



Environmental reporting

The Corporate Environmental Report is one means of communicating with our stakeholders. The target group is very diverse and we foresee that corporate environmental reporting will be different in a couple of years. Financial implications of the environmental activities will more likely be exclusively addressed in the Annual Report, and the use of the Internet as means of communicating the progress in environmental activities will increase.

Ozone-friendly fridges in Brazil



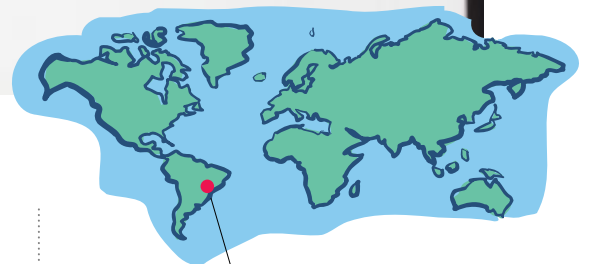
Walter Mushino, product manager at Electrolux do Brazil, with the first range of CFC- and HCFC-free refrigerators in Brazil.

In March 1997, Electrolux do Brazil launched the first line of refrigerators on the Brazilian market with no ozone-depletion potential. This occurred only about a year after the acquisition of the Brazilian manufacturer of household appliances, Refripar. The accumulated knowledge of CFC-free technology within the Group facilitated the process. The launch was an important achievement in establishing the Electrolux brand in Brazil, as well as in increasing awareness about important environmental challenges.

“It was a twofold challenge” says Walter Mushino, product manager for refrigerators and freezers. “The ozone layer here is weaker than over the northern hemisphere. We really speeded up the process to develop this first generation of fridges without CFC and HCFC. And of course, it’s nice to be first. This gave us a chance to boost the Electrolux name.”

Starting in September 1997, R134a, used as refrigerant in the refrigerators, was introduced in chest freezers. The substance carries no ozone-depletion potential, but some global warming potential. However, this is an important step towards an entirely ODP- and GWP-free range of products. During 1997 the CFC-free products accounted for about half of the total production volume. The goal is to reduce the number of CFC-appliances by 50 percent each year, offering nothing but ozone-friendly products within two years.

Says Mushino: “Awareness of environmental problems is still low in Brazil, but as the second largest manufacturer of household appliances in the country, we have the chance to get the message through. By leading the way with the CFC-free appliances and communicating our message of pro-activity, we’re establishing Electrolux as the environmental leader.”



Curitiba, Brazil

At home everywhere

Household Appliances is Electrolux' largest business area, representing almost three fourths of total sales. The business area is divided into product lines:

Hot: cookers, ovens, hobs, cooker hoods and microwave ovens

Wet: dishwashers, washing machines, dryers

Cold: refrigerators, freezers

Floor-care and light appliances: vacuum cleaners

Leisure appliances: hotel-minibars, refrigerators for trailers and mobile homes

Air conditioners

The greatest environmental impact of a household appliance is generated during its use. It is mainly due to water and energy consumption. A mere 10 percent of the environmental impact of our products occurs during production and distribution. This is accounted for in the later sections.

Both in Europe and the US, minimum standards for energy efficiency of white goods have, or will, come into effect. Electrolux offers appliances that meet the existing demands and, for many products, also the future standards.

Considering the number of appliances being used globally, and that many of them are Electrolux appliances, it is clear that the impact of our environmental improvements is substantial. Technical development and choices made by well-informed customers can make an important difference. For example, 15 percent of the total electricity use in Europe is attributable to household appliances.

Environmental impact from these appliances often goes hand-in-hand with the household economy. In many cases the cost of water, energy, detergents etc. over the life of the appliance exceeds its purchase price.

Refrigerators and freezers

Sales of our refrigerators and freezers with the highest environmental performance increased by 18 percent from the first to the second half of 1997. The profitability for this product range was about the same as for the entire product line.

As refrigerators and freezers account for more than 20 percent of the electricity use in an average European home (heating not included), energy efficiency is a key issue. With an energy consumption of 0.24 kWh per day, the equivalent of a TV in stand-by mode, our AEG Santo Super is the most energy efficient refrigerator in the world.

Another key issue for this range of products is recyclability. Up to 80 percent of the material in our refrigerators and freezers can be recycled.

A particular environmental issue concerning refrigerators and freezers (and to some extent home air conditioners) is the use of substances with an ozone depletion potential: chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HCFC) as refrigerants and insulating gases.

Ten years after the Montreal Protocol of 1987, Electrolux has, to a large extent, phased out the use of these



In France, Electrolux cooperates with Electricité de France (EDF) and Agence de l'Environnement et de la Maîtrise de l'énergie (ADEME) to create awareness of the necessity to decrease energy consumption, and to promote the use of energy labels when choosing appliances. The new top loading Arthur Martin washing machine (Perfection) boasts an A and B classification on the energy labels. A Direct Spray system brings the water consumption down to 45 liters.



With the Enviro Vac, the Eureka company in the USA has become a forerunner on the North American market in vacuum cleaners with reduced environmental impact. Four Enviro Vac models were introduced in 1997, featuring a true HEPA (High Efficiency Particulate Air) sealed vacuum filtration system. Each Enviro Vac filtration system is individually sealed to maintain a 99.97 percent HEPA level of filtration. This means that the system retains 99.97 percent of household dust, pollens, bacteria and other allergens as small as 3 microns.

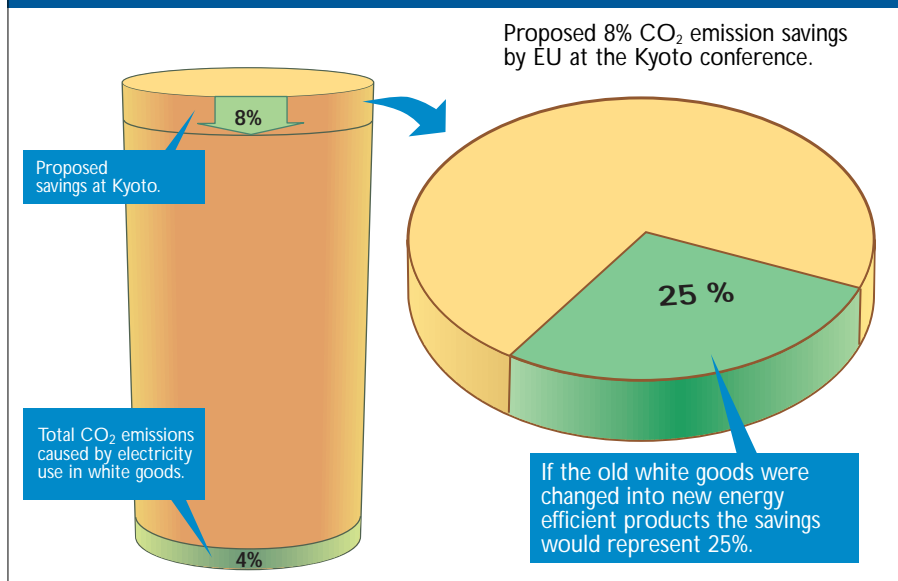
substances. In 1993, we were the first manufacturer to offer a complete range of models with no ODP-substances in Europe. Today, our entire range of European household appliances is totally CFC- and HCFC-free; something that will be mandatory in many countries by the year 2002 (regarding HCFC). The regulations within the EU prohibits the use of CFC as a refrigerant or insulating gas and HCFC as a refrigerant, but not as part of the insulating material. In North America, so called "soft" freons, HCFC, are still used in refrigerators and freezers.

Through acquisitions in the emerging markets of Brazil, India and China during 1995 and 1996, we once again got CFC's into our production. Both manufacturing and marketing in these countries are now undergoing rapid transformation to hydrocarbons and R134a. During 1997, we introduced the first range of CFC/HCFC-free appliances in Brazil. In China, production of CFC/HCFC-free refrigerators and freezers began this year.

Dishwashers, washing machines and dryers

Demand for washing machines and dishwashers with low environmental impact is high in Europe, particularly in

Electricity and related CO₂ savings potential of white goods



During the Kyoto climate conference, the EU decided to reduce emissions of greenhouse gases by 8 percent of the 1990 levels between 2008 and 2012. Assuming that all of the approximately 150 million households in the EU changed their old appliances for new ones, the electricity and related CO₂-savings would equal about 25 percent of the total proposed savings. (New appliances are on average 50 percent more energy efficient. In the calculation, the average age of old appliances is set to 9 years.)

Germany and the Netherlands. In other markets the demand has begun to accelerate in recent years. Electrolux appliances lead the field in low water and energy consumption, and low noise levels. We market the quietest range of

dishwashers built in the US, under our Frigidaire brand name. Frigidaire also offers the most energy-efficient washer in the US.

Sales of our washing machines and dishwashers with the highest environ-

The energy efficient (30-60 percent reduction compared to competitors) and recyclable (80 percent) Creation oven continues to triumph in Europe. During the year, consumer magazines in Germany, France and Switzerland has given the Creation oven top performance ratings. In France, the oven was named "Best Buy" in its segment, by the magazine "One million customers".



During 1997, the new RSD (Rated Speed Drive) compressor developed by Electrolux Compressor Companies in Italy, started to be used in refrigerators offered on the Japanese market. It reduces energy consumption by 25 percent compared to the previously best available compressors on the market. This is achieved with the use of an electronically controlled, high efficient motor, along with sophisticated mechanical and fluid-dynamic technology.



mental performance increased by 27 percent from the first to the second half of 1997. At the same time, this range of products showed profitability well above average.

Cookers, ovens, hobs, cooker hoods and microwave ovens

The most important environmental issue for this product area is energy consumption. Over the years, Electrolux has managed to develop different models that combine energy efficiency with good performance and tempting design.

Other features that are becoming increasingly important are the recyclability of the appliances and the noise level of cooker hoods. The recyclability of our most recent oven reaches 80 percent.

During 1997, sales of our range of ovens with the highest environmental performance increased by 6 percent from the first to the second half of the year. Profitability for this range was well above average.

Floor-care products

As Electrolux is the world's largest manufacturer of vacuum cleaners, energy efficiency in these products can play a significant role in reducing

environmental impact. Another important environmental concern is effective removal of allergy-causing organisms. The exhaust from many of our models is actually cleaner than the ambient air.

Recyclability and material use are other priorities. Some of our vacuum cleaners are made from 80 percent recycled material. We are also the first manufacturer in the world to sell portable vacuum cleaners using cadmium free, rechargeable batteries. As these models are exempt from environmental fees, they are not more expensive than other models.

Leisure appliances

Electrolux is the world leader in absorption refrigerators used as minibars in hotels as well as refrigerators for trailers and mobile homes. As these professional customers make substantial investments in many appliances, energy efficiency is paramount. Advanced electronic controls and vacuum panel insulation have reduced the energy consumption in our bar refrigerators by nearly 40 percent

compared to earlier models. This represents annual savings of about SEK 30,000 per year for a hotel with 100 rooms. Continuous improvements with respect to energy consumption and performance are in progress also in our refrigerators for trailers and mobile homes.



In response to market demand, Electrolux in Sweden has produced a refrigerator that does not contain PVC. PVC is usually found in the cable.



The AEG Öko Lavatherm tumble dryer, combining a condensation dryer with a heat pump, won the Drier Promotion Competition organized by the International Energy Agency (IEA). The heat pump recovers the heat, resulting in a 50 percent reduction in energy consumption, less noise, improved room air quality and a gentler treatment of the laundry.

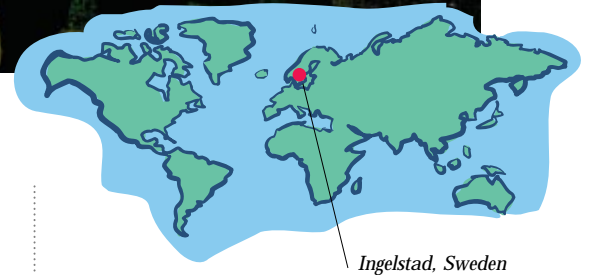
The water-saving, front-loading washing machine from Frigidarie, Gallery Tumble Action Washer, has become a success on the North American market. This is an important accomplishment from a business perspective and for the environment. In North America, top-loading machines are traditionally more popular, but also less water efficient.



Professional refrigeration cabinet wins energy award



From left Egil Öfverholm, NUTEK, congratulates Heikki Takanen, President of Electrolux Commercial Refrigeration and Rolf Segerström, director of Product Research and Development.



Ingelstad, Sweden

The average refrigeration cabinet at the supermarket consumes roughly 5,000 kWh annually per meter of refrigeration cabinet. For a medium sized store this equals about SEK 30,000 with Swedish electricity prices. In other words, energy efficiency can make a big difference.

In a prestigious international competition run by NUTEK, the Swedish National Board for Industrial and Technical Development, the new range of five-shelf refrigeration cabinets from Electrolux Commercial Refrigeration emerged as clear-cut winners in 1997. The winning characteristic: a 65 percent higher energy efficiency than average models.

Says Rolf Segerström, Director of Research and Development: "Over one year, the amount of energy saved by just one of our new units would be enough to heat between 10 and 20 apartments. Just

about everyone's a winner: the shopper, the supermarket, the environment."

Participants in the NUTEK competition had to show that their appliances had an energy consumption of no more than 2,600 kWh per meter of cabinet per year. The Electrolux cabinet consumed a mere 1,750 kWh, while the nearest rival consumed 50 percent more.

"The total cost for energy for a supermarket is often of the same magnitude as the overall profit. Supermarkets utilizing the new refrigeration technology will have the possibility to increase their profits by up to 50 percent" says Rolf Segerström.

Further stipulations included storage flexibility and recyclability. According to the rules, at least 75 percent of the cabinet weight should be recyclable, a demand Electrolux went far beyond with 91 percent.

The winning cabinets are manufactured at the Ingelstad factory in Sweden, where about 90 percent of production is exported. Besides the record-breaking range of cabinets, Segerström and his colleagues are now working on an energy efficient range of freezers for professional use.

As an independent agency, NUTEK organizes competitions for all kinds of energy-saving equipment, from electric cars to low wattage lamps, to stimulate awareness in the business community about the commercial advantages of environmentally sound products.

"A seal of approval from a respected authority such as NUTEK is an invaluable trophy", says Segerström.

The professionals choice

The business area Professional Appliances represents one tenth of total Electrolux sales. It comprises:

Professional Laundry Equipment

Food Service Equipment

Professional Refrigeration Equipment

Professional Cleaning Equipment

Professional Vending Machines

Professional Baking Machines

The two major truths about Electrolux in relation to the environment are particularly true for Professional Appliances:

- the majority of environmental impact occurs during usage, and
- reduced environmental impact represents cost savings for the customer.

As professional appliances often are used more than eight hours a day, for sometimes more than 20 years, even marginal savings in water, energy and detergent consumption creates substantial benefits over the products life time. Improvements in these aspects are also gratifying as professional customers tend to consider the life cycle cost of an appliance, and appreciate improvements.

Consequently, environmental challenges follow the same pattern as for household appliances, only sometimes even more so.

Professional Laundry

Our Professional Laundry Equipment has greatly reduced laundry costs by cutting water and energy consumption. For example, in apartment buildings with 20 households, the annual laundry

cost has been reduced by over 50 percent during the last decade. We are also focusing on choice of material and material flows. In our appliances, all plastic and rubber parts are designed to facilitate dismantling and recycling.

We are gradually introducing free product recycling in Europe. Since January 1997, customers in the Swedish and Finnish markets have been offered free recycling of their wornout products when installing new equipment from Electrolux Laundry Systems.

Our unique Aqua Clean is a complement to professional dry-cleaning, using only biodegradable detergents. During the year, yet another innovative way to perform dry cleaning was exploited, the Dry Wash, shown below.

Food Service

Working environment and resource efficient products are key environmental issues for Electrolux Food Service Equipment. During the last years, recycling of used appliances have become an important environmental issue.

Since 1995, Food Service Equipment offers free recycling of wornout products in Sweden in cooperation with the recycling company Gotthards, an Electrolux Group Company. Appliances



Electrolux Food Service Equipment has introduced a new technology for the ventilation of professional kitchens, the Air Cleaner SGK. Where traditional technologies use charcoal filters and an electrostatic unit to clean out grease and pollutants, the new cleaner uses water centrifugation for separation and a deodorized water solution to oxidize the odor particles. This eliminates the risk associated with a high voltage electrostatic filter and the need to use consumables such as charcoal filters. The system requires less maintenance and offers safer functions that last longer. McDonalds recently installed the Air Cleaner in one of its restaurants in Italy.



Electrolux Wascator is licensed to develop the unique Dry Wash technology, using liquid carbon dioxide, CO₂, instead of traditional dry-cleaning agents. Washing times and energy consumption are reduced due to the CO₂, at the end of the washing cycle, being transferred back into a gas leaving the washing load immediately dry. Electrolux Wascator drew considerable attention for a prototype at a fair in Las Vegas during the year.

used in professional kitchens consist mainly of stainless steel, and the recyclability often reaches 75 to 85 percent. Ecological concern is increasingly becoming a competitive factor in the hotel and restaurant business and the option of recycling appliances has been very well received.

Another incentive to encourage ecological entrepreneurship among users of professional food service equipment is the Electrolux Eco Kitchen Prize introduced in Sweden in 1997 and described on page 15.

Professional Refrigeration

In our Professional Refrigeration Equipment, key environmental issues are refrigerants, insulating gases and energy consumption. Elimination of CFC was completed in 1995, and in 1996 we also eliminated HCFC in our European appliances. During 1997, the product line offered the most energy efficient professional refrigerator cabinet in an international competition, as described in the introductory interview.

Professional Cleaning

Key environmental issues within Professional Cleaning Equipment are use of chemicals, ergonomics and noise levels. Our modern professional vacuum

cleaners are among the most silent on the market and equipped with HEPA filters for effective filtration.

In 1996, we developed a range of cleaning agents for hand dishwashing, floor-care and degreasing that meet Swedish standards for environmental labeling.

Products that meet Swedish and Nordic standards for environmental labeling show a 16 percent increase in

Electrolux makes the worlds largest washing machines, the tunnel washers. They use only seven liters of water per kilo of laundry. Another option for institutional laundry operations is large capacity washer/extractors and dryers such as the automated Washex and Challenge brand system chosen by the DCH Regional Medical Center in Tuscaloosa, Alabama, USA. Water consumption is reduced by 50 percent from typical systems thanks to a recycling system. It also reclaims heat leading to a reduction in water heating expense. Johnny Cook, Director of Environmental Services for DCH, says the installation is more cost effective and allows the hospital to retain control of its laundry supply, which leads to better patient care.

sales since 1996, based on the total sales of Euroclean's range of household cleaning agents. In 1997, products labeled with the Swan and "Bra Miljöval" accounted for 55 percent of the total sales, compared to approximately 40 percent in 1996.

In 1997, the Electrolux Euroclean sales organization was the first sales organization to be ISO 14001 certified in Sweden.



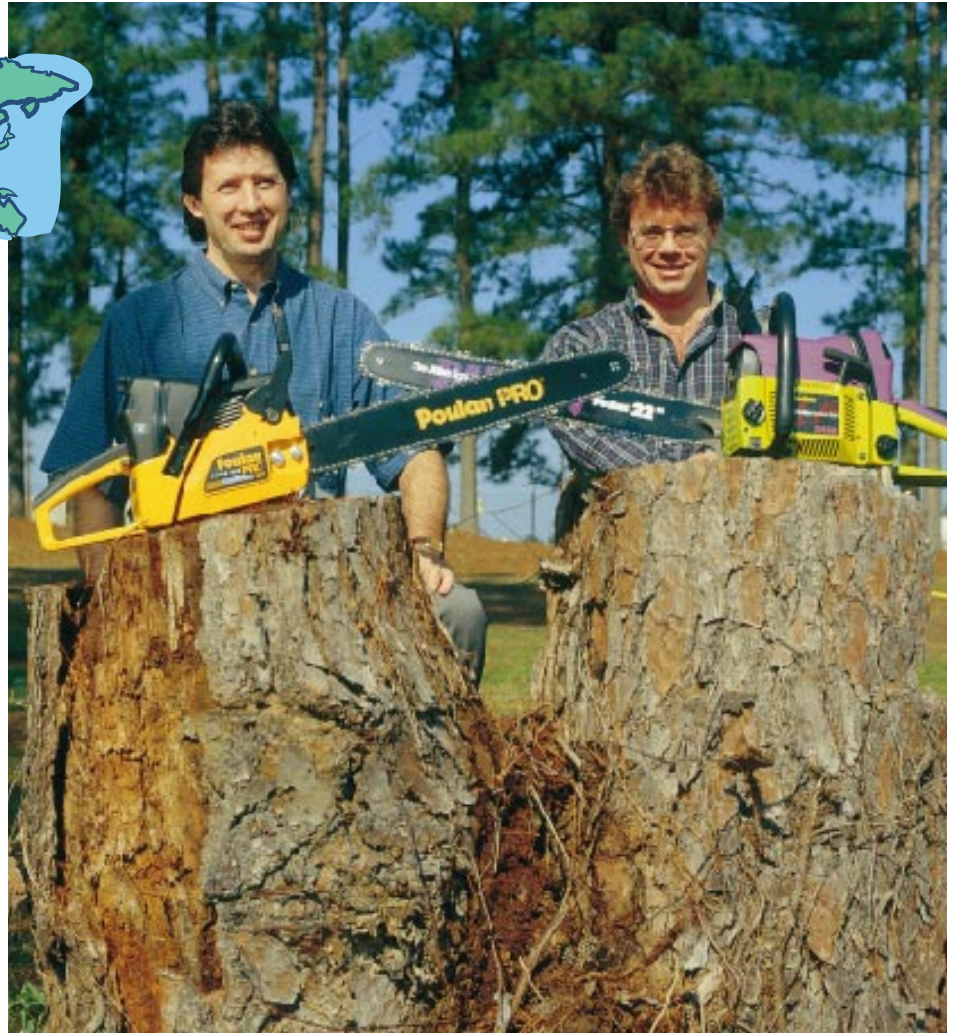
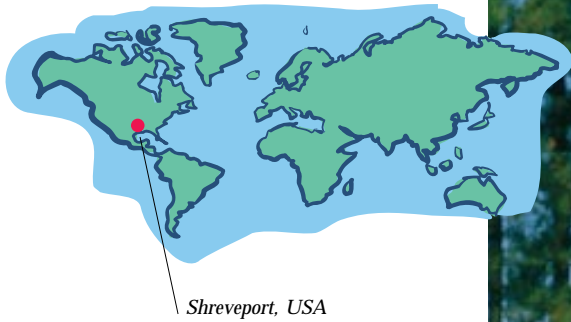
Large irons are used in professional laundries, hotels etc. Most conventional irons are of "chest type" with a maximum contact surface of 180°, which results in spill heat and energy losses. Electrolux Wascator has introduced a cylinder iron that uses heated steel cylinders with a contact surface of 300°. Used energy goes to drying, ironing and finishing, resulting in a reduction in energy consumption of up to 29 percent.



Environmentally labeled cleaning agents showed a 16 percent increase in sales during 1997.



Multiple benefits with new chainsaw



Kim Leichy, Director for Product Development and Randy Brown, Engine Project Engineer, with new low emissions Poulan chainsaws.

Conventional wisdom holds that reducing engine emissions automatically results in reduced power and performance. Not so for the Frigidaire Home Products Specialty Power Products unit in the USA. Its design team has dramatically reduced emissions of their 54cc to 60cc gas chainsaw engines, and, at the same time increased power and performance.

Frigidaire's Poulan and Weed Eater brand outdoor products have traditionally been industry leaders in environmental performance. Once again, they met the challenge of stringent new emissions standards of the US Environmental Protection Agency (EPA) by achieving a 50 percent reduction in emissions: well beyond the minimum

requirements. This was accomplished by a total redesign of the engine for this class of chainsaws, which included an advanced new cylinder design and cooling system.

Says Kim Leichy, Director of Product Development: "We looked at the challenge of reducing the emissions of our large chainsaws as an opportunity to make the product better. Rather than allowing the reduced emissions to also reduce product performance, we found ways to achieve the goals and make the product more powerful, reliable and easier to use."

In addition to reduced emissions, engine power was increased by up to 59 percent. Starting performance was also enhanced with the help of a new ignition system. And durability was

improved thanks to the new cylinder and cooling system. Furthermore, as common parts now are used in both the 60cc and the 54cc engines, the number of parts needed for service and production is reduced.

Many of the improvements directly result from many years of development work within the Group. For over ten years Poulan/Weed Eater and Husqvarna have worked together globally to develop new technologies. That learning has been applied to these new low emission, high-performance chainsaws.

Says Leichy: "The global joint development program within the Group has paid off. We were ready with the technology and designs to meet these challenges."

Global leaders outdoors

Outdoor Products represent 16 percent of Electrolux total sales.

Our largest brand names are Husqvarna, Jonsered, Partner, Flymo, Poulan and Weed Eater.

Examples of products in this business area are: trimmers, chainsaws, leaf blowers, hedge cutters and lawnmowers.

They are equipped with internal combustion engines, powered electrically or manually driven.

During the year the Group divested itself of Överum Agricultural machinery and Jonsereds Miljösystem, previously belonging to this business area.

Demand is increasing for equipment that offers better ergonomics, as well as reduced environmental impact, in the form of energy efficiency and lower levels of exhaust emissions. Particularly true for the professional user, it is beginning to appear among "weekend gardeners", especially in more densely populated areas.

We were the first in the world to introduce the robotic Solar Mower, which mows the lawn all by itself using no external power but sunlight.

This year, the E-tech developed at Husqvarna is increasingly used. The E-tech combines more efficient engine technology with a new type of catalytic converter. It has won the internal Electrolux engineering excellence award.

Combustion engines cause emissions of harmful substances such as hydrocarbons, carbon monoxide and nitrous oxides. Related legislation interacts with market demand for cleaner products and primarily affects Electrolux' outdoor products.

Two US regulations provide international guidelines for limitations on emissions from small, two-stroke engines. The California Air Resources Board standard went into effect in

1995 and the Environmental Protection Agency (EPA) standards took effect in 1998. Both of these agencies plan to introduce additional requirements, further lowering the limits, within a few years. In the European Union, emission limits are expected at the beginning of the next century. Outdoor products equipped with E-tech exceeds existing standards by a good margin.

Several national and international standards set noise limits for outdoor products, such as chainsaws and lawn mowers. The European Union has the strictest regulations, and plan to further tighten them in the future.

There is also an increasing demand for quieter outdoor products to be used in more densely populated areas. A trimmer line with new geometry, which results in lower noise level, has been developed.

For some outdoor products environmental labeling helps the consumer make environmentally conscious choices. The Husqvarna Rider 1200 for professional users was the first rider mower to earn the Nordic Swan.



During 1996, 9 percent of our handheld outdoor garden products were equipped with E-tech, or catalytic exhaust cleaning, and they accounted for one percent of the total sales in this product area. In 1997, corresponding figures for these products with the best environmental performance increased to 50 and 60 percent respectively.



Husqvarna has introduced a transport guard made from 100 percent recycled plastic. Tests have shown very good results in terms of strength. The new transport guard is designed for grass knives, grass blades and saw blades up to 255 mm.

Powder coating pushes costs down



Luis Bona Romero – Product Engineering Manager, sees nothing but benefits from the switch to powder coating.

Luis Bona Romero is Product Engineering Manager at the production facility for dishwashers, in Alcalá, Spain, outside Madrid. The Alcalá plant manufactures 450,000 front loading washing machines annually. Over the past year, the factory has switched from traditional, solvent based methods of cabinet painting, to powder coating, an entirely solvent-free method with less environmental impact. According to Bona, this process has created nothing but benefits.

Says Bona: “This process has been very gratifying as so many improvements are immediately experienced by everyone involved. By eliminating the solvents used in wet paint, we got rid of all noxious emissions. The smell has

improved, it's easy to use, cleaner and requires less maintenance.”

Powder coating is a procedure for painting appliance cabinets, using solvent free, polymer-based, powder paint. The powder paint is “gunned”, or electrostatically applied to the cabinet, in a paint booth. It's then quickly heated in an oven and cooled in a cooling chamber. Bona calculates that the investments necessary for this technology are soon returned through higher efficiency and cost reductions. And as an added benefit, it is less harmful to people and the environment.

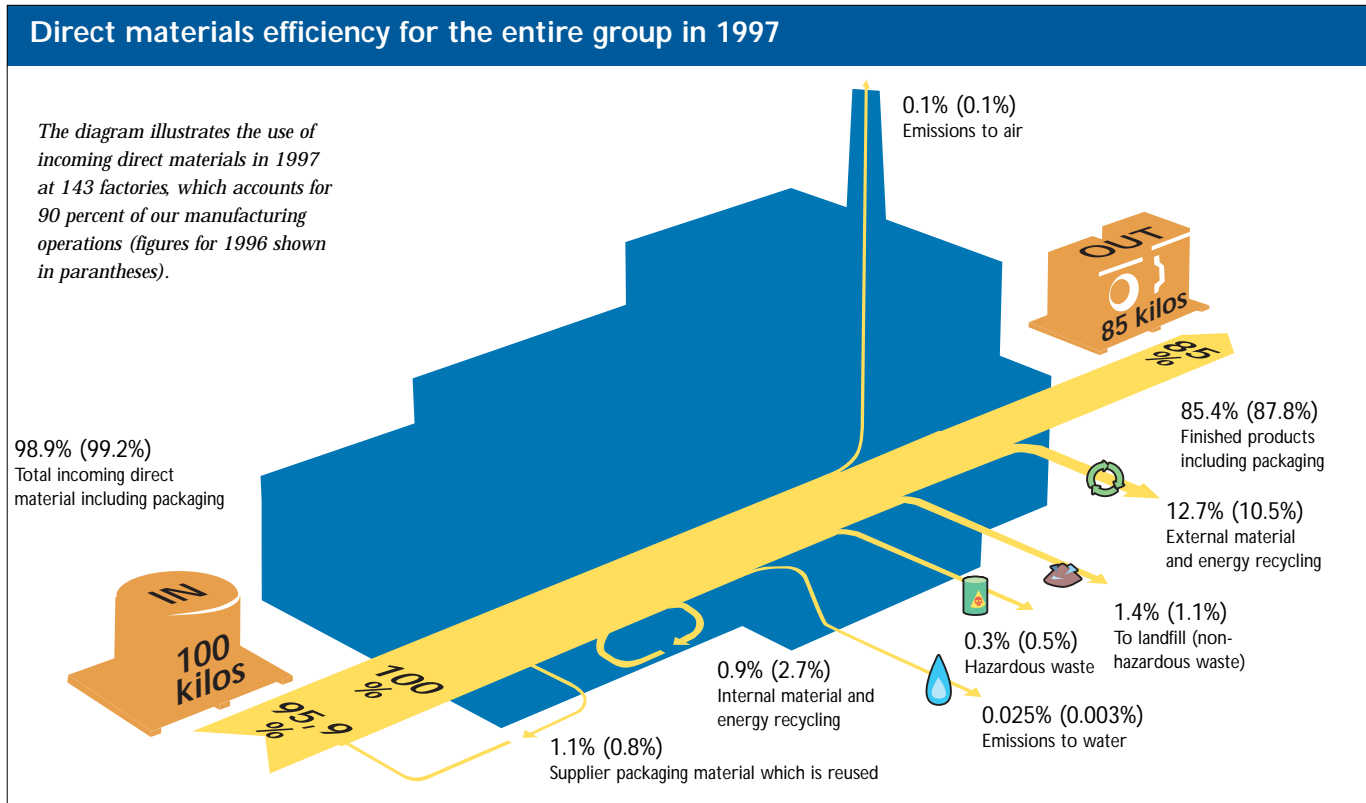
“With our old technique, we produced about 18,000 kilos of residues annually, mainly a mud of paint and water. This new installation reduces this figure to about 2,000 kilos of powder

paint that does not stick to the cabinet during the gunning process. But this is not all. We now have a recycling agreement with the paint supplier. The same containers that are used for delivering the paint to us now carry back the residue, which is used in production of second degree paint. Nothing gets wasted.”

The switch has resulted in annual savings of about SEK 100,000 in costs for paint, but the new technology has also permitted equal savings due to increased energy efficiency. The paint polymerization oven has been relocated to minimize temperature losses, and the process requires lower temperature in the oven than before.

“And it's clean, smells good, and easy to use,” adds Bona proudly.

Direct material balance



Direct material efficiency

Direct material efficiency on a group level has during the last 3 years been around 88 percent. This means that we need 100 kg of direct material to make 85 kg of product. Of the rest, about 86 percent are recycled. Most of it is steel that goes back to the smelters. One percent of the direct material goes to landfill and 1.4 percent is hazardous waste that is properly disposed.

Direct material balance 1997

Country/Region	No. of factories	Input	Output								
		Direct material	Finished products	Rest flow Internal		Rest flow External		Hazardous waste	Emissions		
				Recycled	Incinerated	Recycled	Incinerated		Landfill	Air	Water
Austria	4	34 930	25 061	0	0	9 427	80	49	312	1	0
Denmark	6	10 748	8 768	51	0	1 839	97	20	74	1	0
Finland	4	6 351	5 896	0	0	230	81	105	25	14	0
France	5	48 414	43 876	15	0	3 581	502	332	135	3	0
Germany	10	207 961	178 179	840	0	27 661	644	1 014	1 247	56	0
Great Britain	5	55 570	50 405	395	0	3 156	0	2 082	290	30	2
Hungary	6	71 886	70 335	5 500	0	4 740	0	1 914	286	111	0
Italy	22	488 815	423 385	0	0	56 930	410	3 599	4 347	141	3
Luxembourg	1	3 431	3 311	6	0	113	0	12	1	0	0
Norway	5	7 984	6 614	0	0	1 095	4	266	3	1	1
Slovenia	1	154	146	0	0	4	0	4	0	0	0
Spain	5	115 279	96 642	0	0	17 460	0	1 118	10	49	0
Sweden	24	161 704	131 987	3 062	1 305	13 018	15 236	1 799	1 336	85	0
Switzerland	6	7 433	5 999	36	0	1 221	114	0	135	0	0
Europe	104	1 229 309	1 050 604	9 905	1 305	140 475	17 168	12 314	8 201	492	6
North America	30	1 114 072	937 613	13 690	0	151 262	344	23 228	214	956	456
South America	4	200 919	185 734	93	0	13 397	89	520	388	619	172
Asia	3	9 966	7 420	39	0	2 541	1	1	0	3	0
Other	2	2 255	2 166	7	0	62	0	24	1	1	0
Total 1997	143	2 556 520	2 183 538	23 733	1 305	307 830	17 602	36 088	8 804	2 071	634
Total 1996	144	2 361 560	2 072 538	64 941	1 282	231 232	15 651	25 981	11 443	3 270	63
Total 1995	135	2 368 260	2 095 261	32 905	2 703	230 309	3 338	24 203	8 778	3 591	77

Emissions to air does not include CO₂ emissions. The direct material flow balance covers 143 of the Group's sites or about 90 percent of the total site area. In cases where exact data is missing, information in the balance is based on the sites estimates. Data for the Netherlands are excluded. The discrepancy in the material balance for 138 factories, including the largest ones, is less than 10 percent. The figures for 1995 and 1996 have, in certain cases, been corrected.

Rest flow and indirect materials

Income and cost for rest flow, 1997

	Amount	Income/cost	
	tkg	tSEK	SEK/kg
External recycling	307,784	216,193	0.70
Incineration	17,602	-2,207	-0.13
Landfill	36,088	-13,291	-0.37
Hazardous waste	8,803	-13,283	-1.54
Group total 1997	370,277	187,412	0.66
Group total 1996	306,901	179,970	0.59

Example of rest flow

kg	Household, washing machine	Professional, dishwasher	Outdoor, chainsaw
Direct material	79.0	523.4	7.4
Weight of product	68.0	450.0	6.0
Difference	11.0	73.4	1.4
Where of: Landfill	1.0	15.5	0.2
Hazardous	0.3	1.6	0.0
Emissions	0.1	0.5	0.0

Note: the material efficiency varies among the business areas

Use of solvents and oils and number of critical processes

Country/Region	No. of factories	No. of factories with			Use of solvents and oils tkg		
		Pre-treatment	Solvent painting	Enameling	Chlorine-based organic solvents	Volatile organic compounds	Oils
Austria	4	2	0	0	0	101	
Denmark	6	3	1	1	0	21	
Finland	4	1	2	0	1	5	
France	5	5	4	1	155	38	
Germany	10	8	4	2	11	196	
Great Britain	5	2	1	1	2	560	
Hungary	6	5	2	0	14	25	
Italy	22	10	2	1	1	712	
Luxembourg	1	0	0	0	0	0	
Netherlands	2	0	1	0	0	0	
Norway	5	2	1	1	0	10	
Slovenia	1	0	0	0	0	0	
Spain	5	3	3	3	0	321	
Sweden	24	16	7	1	8	170	
Switzerland	6	2	1	1	3	5	
Europe	106	59	29	12	195	2,164	
North America	30	16	9	2	1	2,309	
South America	4	3	2	0	3	50	
Asia	3	2	1	0	1	158	
Other	2	0	0	0	0	6	
Total 1997	145	80	41	14	200	4,687	
Total 1996	144	79	48	16	190	4,959	
Total 1995	135	70	45	14	426	3,919	
Per Business Area							
Household	89	54	29	14	71	2,593	
Professional	37	17	9	0	129	54	
Outdoor	17	9	3	0	0	2,040	

Gotthards – Recycling industry

As the recycling industry is getting increasingly high-tech oriented and demands are rising, Electrolux subsidiary AB Gotthard Nilsson gives the Group a bridgehead in an important market. Gotthards employs 500 persons and has an annual turnover of more than two billion SEK. Based in Sweden, the company runs recycling plants, collection sites and offices in 50 different locations in Scandinavia, Germany, Russia and the Baltic republics.

Critical processes

Our analyses usually identify two particular manufacturing processes as having a heavy environmental impact: pre-treatment and coating. These processes consume energy, use environmentally undesirable chemicals and release emissions into both air and water. We cannot simply eliminate these processes. Instead, we are gradually introducing processes with less environmental impact. This involves, for example, shifting from solvent-based paint to powder paint and installing more effective water and air cleaning systems.

Energy

Energy consumption levels were drastically reduced up until 1994 as shown in the graph on page 28. There was a slight increase in 1995 and a larger increase in 1996. During 1997, the energy consumption dropped to 1995 levels in relation to total added value but not in relation to heated surface area. The change is largely attributable to alterations

Rest flow

We cooperate with different recycling companies all over the world, and when selling scrap for recycling, receive an average of SEK 0.70 per kilo. However, we often have to pay for the disposal of other types of waste. Sending waste to landfills costs SEK 0.37 per kilo and disposal of hazardous waste SEK 1.54 per kilo. In 1997, income exceeded expenditure by about SEK 187 million. But this is still not profitable. We originally paid several times more for

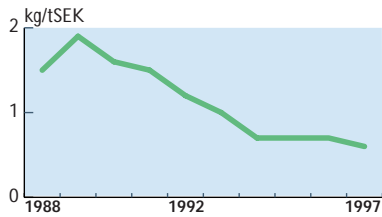
the material than what we receive when it is sold as scrap.

Example of rest flow

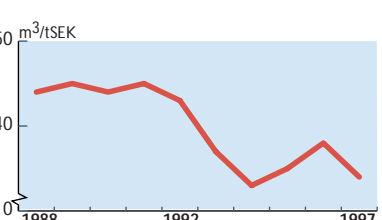
The diagram shows some typical products from our business areas. These are not actual products but an average over all factories. To make an average household washing machine, about 0.7 kg of waste is generated and about 0.2 kg of hazardous waste.

Site Measurements and ISO 14001

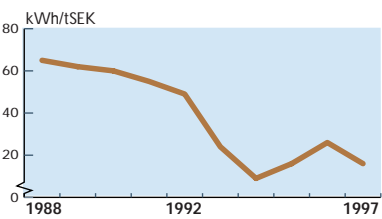
Water consumption for the entire group per added value



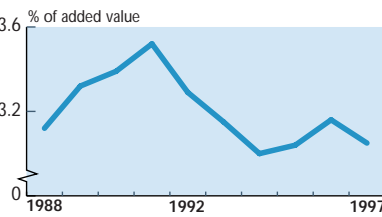
Carbon dioxide emissions for the entire group per added value



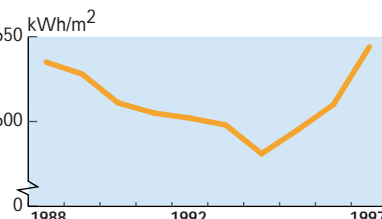
Energy consumption per added value



Energy cost for the entire group per added value



Energy consumption per heated area



Key environmental figures

Business area	Energy consumption		Energy cost as % of added value	CO ₂ /added value kg/tSEK	Water/added value m³/tSEK
	per added value kWh/tSEK	per heated area kWh/m²			
Household	122	707	3.21	36	0.6
Professional	75	300	2.18	23	0.2
Outdoor	100	554	2.52	32	0.5
Other	-	162	-	-	-

Note: the key environmental figures are based on 161 units

ISO 14001 Implementation status 1997

Business area	Production facilities	End 97	Planned 98	%97	%98	%area 97	%area 98
Household	89	19	33	21	37	30	51
Professional	37	7	18	19	49	28	68
Outdoor	17	0	5	0	29	0	36
Total	143	26	56	18	39	30	51

End 97: number of certified units at the end of 1997. Planned 98: certified units plus those which plan to be certified. %97 and %98: percentage of units certified. %area 97 and %area 98: percentage of workshop area certified.

in the Group's structure; acquisitions and divestments. Another key figure is the energy cost per added value. Energy costs are now on average 3.2 percent of added value for the Group.

Energy consumption for the different business areas varied enormously. This is explained by the varying production structures of our factories. For example, plants which produce household appliances are highly automated and energy-consuming processes such as painting are common.

The production of professional appliances requires a somewhat lower level of automation and, therefore, energy consumption is less. Energy consumption for the manufacture of outdoor products falls somewhere in between that of household and professional appliances.

Water

Water consumption within the group's manufacturing operations has fallen by more than 50 percent since the late 1980s. This trend was confirmed in 1997.

Carbon dioxide

The change in carbon dioxide, emissions reflects reduced energy consumption and change of energy sources.

Logistics and transportation

We have been pursuing a rail-shipment strategy in Europe for many years. The intra-European transportation of white goods is handled by Nordwaggon AB, partly owned by Electrolux. Nordwaggon owns and operates rail cars specially designed for this purpose. During 1997, more than 65 percent of all shipments were made by rail.

ISO 14001

17 sites were ISO 14001 certified in 1997 bringing the total to 26 units by year's end. A large number of factories are working on becoming certified before the end of 1998. During 1997, 8 factories were certified in Italy, among them two of the Group's largest factories. Italy is thus the leading country in the group, followed by Sweden and Germany.

Also, on a national level, Electrolux is the leading ISO 14001 certified company in Italy with around 80 percent of the total for all manufacturing sites. The company's North American factories have not yet commenced the certification process. On a European level, approximately 27 percent of all units have been certified. In fact, this accounts for more than 50 percent of the total European factory floor space.

Notes to production related measurements

Measuring environmental impact

Measurement of environmental impact from production is based on standardized reports from plants and warehouses with more than 1,000 m² of heated area. The reports have been produced annually for more than ten years, with continuously improved accuracy.

The 1997 report for energy consumption, water consumption and carbon dioxide emissions includes 97 percent of our total building area. In 1995, reporting was extended to cover other forms of environmental impact. This additional reporting now includes about 90 percent of our total building area.

At Group level, the reported data is aggregated into a number of key figures showing the total environmental impact of production. However, certain operations-specific data and data reflecting particular local conditions, are difficult to aggregate and do not permit a fair comparison. This is why they are not followed up on Group level.

When analyzing the data on a Group level, it is necessary to keep in mind that the Group is undergoing a global restructuring. As a result of acquisitions and divestments, both the number and types of factories vary from year to year. This makes comparisons difficult.

Between 135 and 145 different units have been reporting figures regarding the direct material balance during the last three years. However, only 100 units have been reporting all three years. The majority of the changes in direct materials balance are possibly related to the difference in the degree of reporting.

In order to solve this problem, we calculate some of our measurements in relation to added value. This is defined as the difference between total manufacturing costs and direct material costs.

Measurements based on added value compensate, to some extent, for changes in the production structure or volume, and are thus possible to compare from year to year. They are, however, sensitive to inflation and currency fluctuations. Our data do not compensate for this.

Energy data for heating compensate for temperature differences, therefore, a cold or mild winter doesn't show up in the figures.

These problems in measurement are smaller on a local level, where the structure does not change as quickly. This permits the use of per unit measurement, avoiding the problems of inflation and currency fluctuations. Measurement can also be done more frequently on a local level.

Key figures for environmental management

The six key ratios that we follow-up on the group level are:

1. Energy cost per added value: The share of energy cost described as a percentage.
2. Energy consumption per added value: The amount of energy required to add SEK 1,000 value to a product; described in kilowatt hours per SEK 1,000.
3. Carbon dioxide emissions per added value: The amount of carbon dioxide emitted by generating the energy we consume. We take into account the different types of energy, and different country's carbon dioxide equivalents for electricity; described as kilograms per SEK 1,000.
4. Water consumption per added value: The use of treated water in cubic meters per SEK 1,000.

Two figures are not related to added value:
5. Energy consumption per square meter of heated surface area: Described as kilowatt hours per square meter.
6. Direct material efficiency: The amount of direct material included in the end product; described as a percentage and illustrated with the help of the direct materials flow balance.

Comments regarding measurements

Direct material balance: Measures the direct material flow balance, that is, indirect materials and machines used in production. Other chemicals used in the processes are not included. In order to make it possible to monitor the efficiency in the transformation process of material to products, all measurements are made in weight (thousands of kilos). For this reason no particular consideration is given to differences in the environmental impact of different materials.

Air emissions:

Emissions of CO₂ are not included. With the exception of one foundry, the Group does not emit any CO₂ from direct material use.

Solvents, oils and processes:

The table with solvents, oils and processes shows our use of indirect material and processes that may have an environmental impact. One factory normally has several critical processes.

Glossary

Absorption cooling system: A heat-driven cooling system with no movable parts. Used mainly for refrigerators and freezers in places lacking electricity or demanding very low noise levels. See compressor cooling system.

Added value: The term added value such as it is used in this report is defined as the difference between total manufacturing costs and direct material costs. However, in the Annual Report, added value represents the contribution made by a company's production, i.e. the increase in value arising from manufacture, handling, etc. within the company. It is defined as sales revenues less the costs of purchased goods and services.

Californian Air Resources Board: A body within the state of California whose purpose is to improve air quality. CARB has the world's most stringent regulations on exhaust from internal combustion engines.

Carbon dioxide (CO₂): A colorless and, at room temperature, gaseous substance found in the atmosphere and comprising part of nature's life cycle. Human activities, especially the combustion of fossil fuels, increase levels of carbon dioxide in the atmosphere. This is thought to impact on climatic conditions. Carbon dioxide is believed to be the greatest contributor to the greenhouse effect.

Catalytic converter: A device for the aftertreatment and purification of exhaust from internal combustion engines by catalytic oxidation of organic molecules and carbon monoxide, and through the reduction of nitrogen oxide.

CFC (Chlorofluorocarbon): So called "hard" freons. See freons.

CFC11 equivalent: The ozone-depleting capacity of one kilo of CFC11. See freons.

Chlorinated solvents: Organic solvents containing chlorine and often fluorine. Some can have negative health effects and contribute to ozone depletion. See solvents.

CO₂ equivalent: The greenhouse effect caused by one kilo of CO₂. See carbon dioxide.

Compressor cooling system: A mechanical cooling system with a compressor, condenser, vaporizer and circulating refrigerant. The cold generation occurs in the vaporizer, where the refrigerant is brought to boiling

point. Most domestic and refrigerators and freezers for professional users, have compressor cooling systems. See absorption cooling system.

Cyclic material loops: Resource management, characterized by the assumption that recycling, reuse of products and materials, and waste minimization, reduce and ultimately eliminate the need to further exploit non-renewable resources. The consumption of renewable resources should be equivalent to what is sustainable in nature.

Decibel, db: Measurement of noise level.

Direct material: Material bought to be used as a part of a product.

Efficiency: The ratio of effective work to the energy expended in producing it, expressed as a percentage. In a broader sense, the concept of efficiency can be applied to resources other than energy: the portion of the input that results in useful output.

EMAS (Eco-Management and Audit Scheme): An EU regulation promoting continuous improvement in the environmental performance of industrial activities. Once an organization has implemented an EMAS-approved environmental management system, an independent, accredited person or organization audits the environmental work. After that, the organization can seek certification from a "competent body" designated by the governments of the member states.

EMS: See environmental management system.

Energy recycling: Reusing energy that otherwise would have gone to waste, for example, heating premises with heated cooling water from manufacturing processes or using heat generated by burning waste.

Environmental audit and certification: Regular review of an organization's environmental activities by an independent expert. When the expert verifies that the organization's environmental management system meets standard requirements (for example, ISO 14001), the organization can obtain environmental certification. This acts as evidence that environmental practices are carried out systematically according to a recognized standard.

Environmental conventions: Agreements between two or more countries on environmental cooperation and international environmental law. The Geneva convention (1979) on air pollution limitation, the Vienna convention (1985) on the elimination of ozone-depleting emissions, the Montreal protocol (1987) on the limited use of freons and halons and the Rio conference (1992) on limiting the concentration of atmospheric greenhouse gases to a level where the global ecosystem can naturally cope with them, are widely regarded as among the most important environmental conventions. During the recent Global Climate Conference in Kyoto, Japan (1997), 38 developed countries reached an agreement on further limiting the emissions of greenhouse gases.

Environmental fee: Economic means of limiting environmental damage. Several countries assess environmental fees on, for example, nitrogen and carbon dioxide emissions from combustive processes and on the use of certain substances, such as cadmium.

Environmental impact: Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organizations activities, products or services.

Environmental management system: That part of an organization's general management system which includes organizational structure, responsibilities, planning activities, method development, work practices, processes and resources for developing, implementing, evaluating and maintaining the organization's environmental policies. An environmental management system makes it possible to formulate clear goals for environmental work, systematic follow-up of results and documentation of practices and activities.

Environmental performance: According to ISO 14000, the actual measured results that an organization attains through environmental management.

EPA (Environmental Protection Agency): US federal authority that, among other things, monitors air and water pollution, solid waste, noise pollution and radiation protection.

Freons: Name of a group of halogenated hydrocarbons where one or several of the molecule's hydrogen atoms have been

replaced by fluorine atoms, chlorine atoms or both. The name comes from the Freon trademark registered by DuPont in the 1930s. Freons or CFCs (Chlorofluorocarbons) were previously used largely as refrigerants and as blowing agents in insulating foam. As they contribute to both the depletion of the ozone layer and to the temperature raising greenhouse effect, it is now forbidden to use them in many countries. CFC11 and CFC12, sometimes called R11 and R12, are two common CFC gases that were previously used in refrigerators.

Global Warming Potential (GWP):

Measure of the greenhouse effect of gases if they were released into the atmosphere. Indicated by the CO₂ equivalent by comparing the actual gas with the greenhouse effect of carbon dioxide, which is GWP 1. For example, the GWP of freon CFC11 is, GWP 3,500.

Greenhouse effect: The warming effect the atmosphere exercises on the earth's surface by letting through the sun's radiation but absorbing infrared radiation from the earth's surface. The so-called greenhouse gases, especially CO₂, water vapor, freon and methane, keep the temperature of the earth's surface at a global average of about 15°C. Without them, the average would be below 0°C. Through human activities, especially the release of CO₂, the amount of greenhouse gases in the atmosphere is increasing, and it is feared that the increase causes the temperature of the earth's surface to rise, which can lead to an unstable climate, increased precipitation and higher sea levels.

Halogenated hydrocarbons: Hydrocarbons in which one or several hydrogen atoms have been replaced by halogen atoms, i.e., fluorine, chlorine, bromine or iodine. Solvents, cooling agents, insect repellents, fire retardants and transformer oil often contain halogenated hydrocarbons. Halogenated hydrocarbons are often hard to break down chemically or biologically, and their large scale use has led to environmental damage and health risks. Bans in many countries have drastically reduced their use. See freons.

Hazardous waste: Waste that is judged to be especially dangerous to the environment and therefore must be handled carefully and according to special regulations. Different countries have different regulations defining hazardous waste and how it should be treated.

HCFC (Hydrochlorofluorocarbon):

"Soft" freons. An alternative to CFCs, with approximately one tenth of their ozone-depleting properties and greenhouse effect. See freons.

HEPA (High Efficiency Particulate Air):

A very effective air filter that removes at least 99.97% of all particulates with a diameter of 0,3 micron (three ten thousandths of a millimetre) or larger. Common particles of dust are generally between 1 and 100 microns and bacteria are between 0.35 and 10 microns. Certain Electrolux vacuum cleaners, both for professional and household use, have a HEPA filter.

Hydrocarbons: Chemical compounds consisting of carbon and hydrogen. There are many types of hydrocarbons, which are extracted mainly from petroleum. Hydrocarbons are increasingly replacing freons (CFCs and HCFCs) as cooling agents and insulating gases. Examples are isbutane and cyclopentane in refrigerator and freezers. They do not contribute to ozone depletion and contribute only negligibly to the greenhouse effect. Most hydrocarbons are very flammable and many are also hazardous to health.

Insulating gas: A gas, also serving as a blowing agent, which is blown into plastic (usually polyurethane) to form the heat-insulating foam that is used in refrigerators and freezers, etc. The insulating gas itself has good heat-insulating properties.

Internal recycling: Recovery of direct material wastes for reuse in production.

ISO 14000: A series of international standards for environmental work. ISO 14001 for environmental management systems and ISO 14010-12 for environmental auditing were published in 1996. Between 1998 and 1999, standard concerning environmental labelling, environmental performance evaluation and environmental terms and definitions are expected to be published.

Life cycle assessment: Method for determining the environmental impact of a product or system during its entire life cycle - from extraction, through manufacturing, logistics and use to recycling.

Life cycle cost: In the consumers' perspective, life cycle cost is the total

cost of purchasing, use, and discarding of products.

Material efficiency: The percentage of incoming direct materials, measured by weight, that leave the manufacturing process as finished products, including packaging.

ODP: See ozone-depletion potential.

Ozone: A form of oxygen, O₃. The atmosphere's high altitude ozone layer absorbs the sun's ultraviolet radiation, which otherwise would endanger life on earth. But ground-level ozone is a pollutant that can damage plants and cause breathing difficulties for humans and animals.

Ozone depletion: Damage to the ozone layer that protects the earth from the sun's ultra-violet radiation caused by man's use of ozone-depleting substances. International agreements, especially the Montreal protocol and the ensuing tightening of legislation, regulate the phaseout of such substances.

Ozone-depletion potential: Indicates a substance's potential to destroy the ozone layer, measured in comparison with CFC11, which has a ozone-depletion potential of 1.

Ozone-depleting substances: The primary ozone damaging substances are freons and halons, dinitrogen oxide, nitrogen monoxide, as well as chlorinated solvents and carbon tetrachloride, 1,1,1 - trichlorethane (methylchloroform), methylene chloride and methyl bromide. Chlorine and bromine act as catalysts in a process that breaks down the ozone molecules. In 1995 and 1996, a ban on hard freons (CFCs) came into force in industrialized countries. A similar ban on "soft" freons (HCFCs) will come into effect in 2002 in most industrialized countries. Developing countries have a longer time in which to phaseout these substances.

Polyvinylchloride (PVC): A plastic with a very wide field of application. It is used, for example, in pipes, casing, frames, bottles and cable insulation. Its environmental impact has been the subject of intense debate, especially the discharge of heavy metals from stabilizers and from phthalates used as softeners, and dioxine formation during combustion.

Producer responsibility: When the responsibility for environmental consequences, relevant information, material

content and product take-back and recycling is put on those who bring goods to the market (producers, importers).

Product line: An organizational unit within the Electrolux Group. Usually, all activities relating to a certain product category are organized into a product line – for example, commercial refrigeration products or leisure products.

R134a: A refrigerant (HCF) that has replaced CFC12 (R12) in cooling systems. It has no harmful effect on the ozone layer, but contributes to the greenhouse effect.

Recycling: Reintroduction of used material or liquid residual products into the manufacturing processes. A natural part of resource economy. Today, most Electrolux products are designed and manufactured with recycling in mind.

Refrigerant: A substance in a cooling system that transports or removes heat by transforming it into gas or liquid during pressure changes. Since the 1930s, freons have mainly been used as cooling agents, but recently their use has been greatly limited due to their ozone-depleting properties. Natural cooling agents such as ammonia, propane and butane are used instead.

Resource: A supply that is known and accessible and constitutes a means by which to achieve a determined goal. In a wider sense, everything that an organization can use to create value for customers is a resource, including team members, knowledge, capital, material and energy. In a narrower sense, a resource is that which is used in manufacturing, mainly material and energy.

Resource efficiency: A product or process that consumes few resources in relation to the useful result achieved, creating the most value for the customer using the least material resources.

Rest flows: The material, in the form of excess direct material, that leaves manufacturing without being included in products or packaging. See material efficiency.

Rest product: Something that is left over from manufacturing or consumption, for example waste heat, scrap metal, rubber and plastic parts and leftover paper. Depending on the utility value, residual

products are classified as return products, recyclable products or waste.

Solvent: A medium, usually a liquid, in which other substances can be dissolved without being chemically altered. Solvents are used in industrial processes and are included in paints, lacquers and plastics. Many solvents can affect human health and damage the environment. Chlorinated solvents such as trichlorethylene and carbon tetrachloride can, like freons, damage the ozone layer. See volatile organic compounds.

Sustainable development: A term coined by the UN's World Commission on Environment and Development 1987. Combining economic growth and greater prosperity for people across the world with high environmental quality. Meeting the needs of the present without compromising the ability of future generations to meet their needs.

Take-back: Activities within manufacturing and trade whose purpose is managing discarded products to prevent them from damaging the environment, and instead using them as a resource in manufacturing processes. Several countries are planning to introduce laws concerning recovery of some product categories that Electrolux manufactures.

UNEP: United Nations Environment Programme.

Volatile organic compounds (VOC): Compounds that evaporate easily and spread into close surroundings and the atmosphere. They are often directly or indirectly hazardous to the environment and to health. The greatest releases of volatile organic compounds stem from the combustion of fossil fuels. Other sources are solvents and paints.

Waste: Different types of residue that are considered as lacking any utility value. The opposite of waste is resources, that is, something that is considered useful. What is waste and what is a resource depends on its location and on who is making the judgement.

White goods: A comprehensive term for major home appliances. White goods are divided into cold products (refrigerators, freezers), hot products (cookers, ovens) and wet products (washing machines, dishwashers).

Units

mWh	Megawatt hour = 1,000 kWh
kWh	Kilowatt hour
SEK	Swedish kronor
m ³	Cubic meter
metric ton	1,000 kilograms (2,205 lbs)
cc	Cubic centimeters

Contact us!

The Electrolux Group Environmental Affairs welcomes questions and comments on this report. We want to encourage discussion with environmentally concerned groups and individuals.

To contact us, fill out this form and fax it to
+46 8 738 76 66.

You can also reach us at telephone **+46 8 738 65 98** or
e-mail: **environmental.affairs@electrolux.se**

The Electrolux Environmental Report and other information
about the company is available on the Internet. Please visit
our web site at: **http://www.electrolux.se**

Mailing address:
AB Electrolux
Group Environmental Affairs
S-105 45 Stockholm
Sweden



Group Environmental Affairs: Peter Fälth (Environmental management systems), Jan Agri (Business development), Henrik Troberg (Product ecology), Ann Bertling (Assistant), Per Grunewald (Senior Vice President), Madeleine Marteng (Communications), Ingemar Hahn (Environmental marketing).z

- Please send me copies of the Environmental Report 1997
- Please send me copies of the Environmental Report 1996
- Please send me copies of the Annual Report 1997
- I would like to receive information about Electrolux environmental activities on an ongoing basis.
Please add my name to your **mailing list**.
- Please contact me. I would like to discuss the following issue: _____

Name: _____

Company/Organization: _____

Address: _____

City: _____

State: _____

Postal/Zip code: _____

Country: _____

E-mail: _____

Telephone: _____

Telefax: _____



*Printed on Gallery Art Silk paper, made from pulp bleached
without chemicals containing chlorine and environmentally
recognized by the Nordic Swan.
Lic.no. 444008*

*Production: Electrolux Group Environmental
Affairs and Einar Du Rietz
Design/Technical production: Lexivision/ins
Printing: arkpressen AB, Västerås, Sweden 1998*

