



Social & Environmental Report  
**2013**



## Yazaki Group Corporate Policy

# A Corporation in Step with the World A Corporation Needed by Society

Since its foundation, Yazaki's Corporate Policy has been the unchanging pillar that supports all business activities of the Yazaki Group despite the many changes that society has undergone.

Yazaki operates in accordance with a uniform philosophy and code of conduct. These are based on its Corporate Policy to fulfill its responsibilities and mission as a manufacturer that provides only the highest quality products to anywhere in the world in the suitable time at a competitive cost.

Yazaki also seeks to be a multicultural corporation that develops in step with the world, and has created a unique corporate management style and corporate culture based on autonomy, equality, and harmony.

The Policy, therefore, is a shared principle that unites the Yazaki Group's global mission and values.

## Fundamental Management Policy

In fulfilling our Corporate Policy, Yazaki Group activities are founded upon the following principles:

1. Increase company efficiency and provide the most value to our customers worldwide through continuous effort and the implementation of new concepts.
2. Uphold the law, respect regional cultures, and contribute to economic and social development.
3. Contribute to a prosperous future society through business focused on the environment and security.
4. Conduct business openly and fairly, and aim for coexistence and co-prosperity.
5. Care for people by creating a corporate culture that prioritizes individuality and team-work, while empowering people's dreams.



## Report Outline

### Editorial policy

The Yazaki Group has been publishing its Social & Environmental Report annually since fiscal 2002 for the purpose of sharing information on its corporate activities with stakeholders and encouraging employees to take part in social and environmental contribution programs. The report covers our activities during the past 12 months and their results, centered primarily on the five stakeholders, namely: customers, business partners, local communities, employees, and the global environment.

Additionally, environmental reports have also been published by each factory in Japan since fiscal 2005. These site reports are available on our website.

### Please visit our website

While this report provides an outline of key activities of the Yazaki Group, our website presents more detailed information and data. Please access the following URL:

<http://www.yazaki-group.com/global/ser/>

#### ● Reporting period

Fiscal year 2012 (June 21, 2012 to June 20, 2013)

#### ● Organizations covered

All Group companies in Japan and overseas as well as subsidiaries in Japan

#### ● Guidelines consulted

Environmental Reporting Guidelines 2012, Ministry of the Environment of Japan

Environmental Accounting Guidelines 2005, Ministry of the Environment of Japan

Sustainability Reporting Guidelines 2006, Global Reporting Initiative (GRI)

#### ● Reader response questionnaire

Please send us your comments on this report online through our website.

### Supplementary information on this report

#### ● Definition of "fiscal year"

The term "fiscal year" as used in this report means the period shown below:



#### ● Indication of organization responsible for each activity

Activities conducted by the Yazaki Group (consolidated companies in Japan and overseas) as a whole are referred to as the "Yazaki Group"

As for activities conducted by other organizations, the responsible organization is specified in each instance.

#### ● Terminology

Footnoted terms are explained at the bottom of the page on which they appear.

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### Special Feature

## Making More Integrated and Intelligent Use of Multiple Energy Sources

Starting point in the 72nd year  
—Yazaki Energy System Corporation came into operation

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### Cover photo



The cover photo was taken in the Yazaki Forest in Yusuhabara-cho, Kochi Prefecture. The Yazaki Group positions this forest as the symbol of its environmentally conscious management, and conducts

various activities including the implementation of volunteer forest conservation projects and the installation of a "forest therapy road." We also commercialized an air-conditioning system that uses wood biomass pellets produced mainly from thinned wood to power a boiler, marking a first time in the world. It is hoped that popularization of this system will make recycling of forest resources possible, leading to healthier forests.

## Outline of the Yazaki Group

# Contributing to Global Communities through a Variety of Businesses

The Yazaki Group comprises of 64 domestic Group companies, 95 overseas Group companies, and one public interest incorporated foundation.

Our main products in Japan include automotive parts, electric wires, gas equipment, and air-conditioning equipment, while major products overseas are wire harnesses and other automotive parts.

### Company Overview

Company name : Yazaki Corporation

Established : October 8, 1941

Representatives : Yasuhiko Yazaki, Chairperson  
Shinji Yazaki, President

Address : **Headquarters**  
17th floor, Mita Kokusai Building 4-28, Mita 1-chome, Minato-ku, Tokyo 108-8333 Japan  
**World Headquarters (Y-CITY)**  
Mishuku 1500, Susono City, Shizuoka Prefecture, 410-1194 Japan

Capital : 3.1915 billion yen (Yazaki Corporation is an unlisted company.)

Major Yazaki Group companies in Japan :  
Yazaki Meter Co., Ltd. (established in 1950)  
Yazaki Parts Co., Ltd. (established in 1959)  
Yazaki Energy System Corporation <sup>\*1</sup>

Number of Yazaki Group companies (as of June 20, 2013) :  
160 in total      Group companies in Japan <sup>\*2</sup> : 64  
Overseas Group companies : 95  
Public interest incorporated foundation : 1

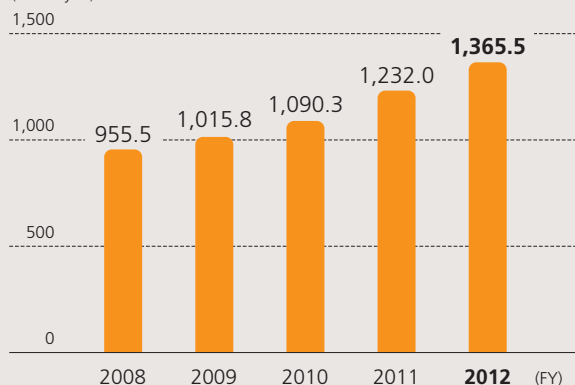
Number of employees (as of June 20, 2013) :  
250,600 in total      Employees in Japan <sup>\*2</sup> : 20,800  
Overseas employees : 229,800

<sup>\*1</sup> Established as Yazaki Electric Wire Co., Ltd. in 1963 and changed its name in 2012.

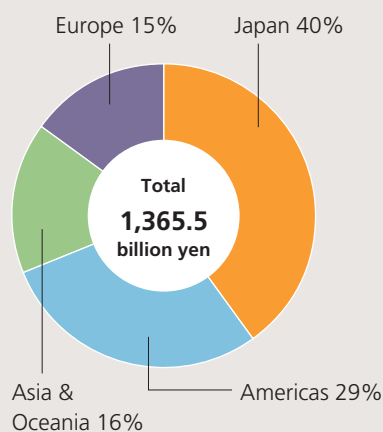
<sup>\*2</sup> Including subsidiaries and affiliates in Japan

### Net sales (consolidated)

(billion yen)

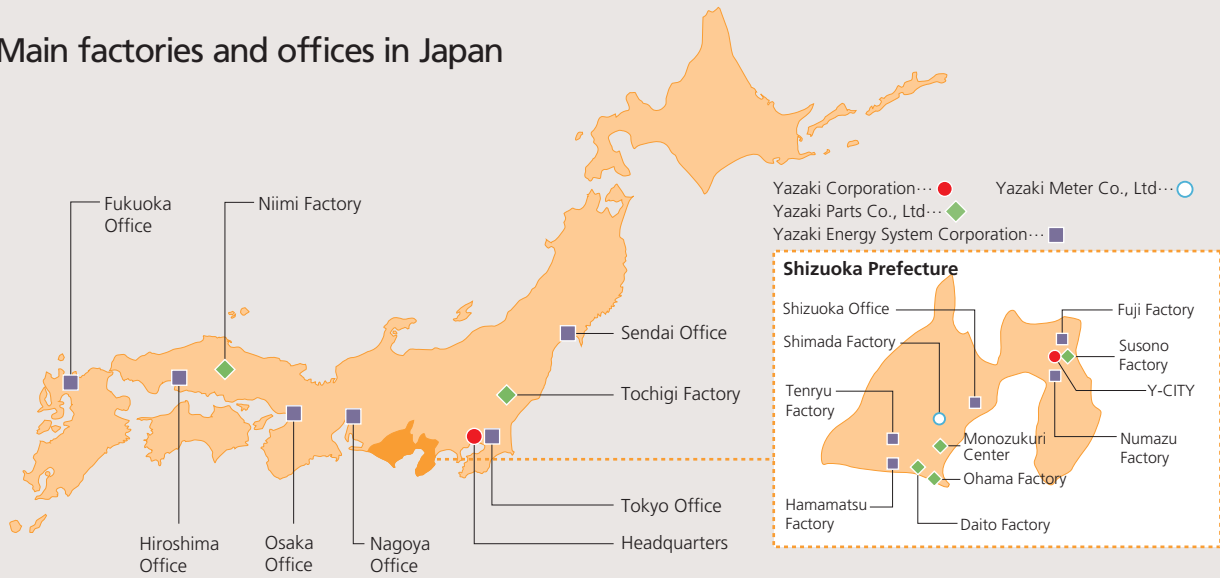


### Breakdown of net sales by region

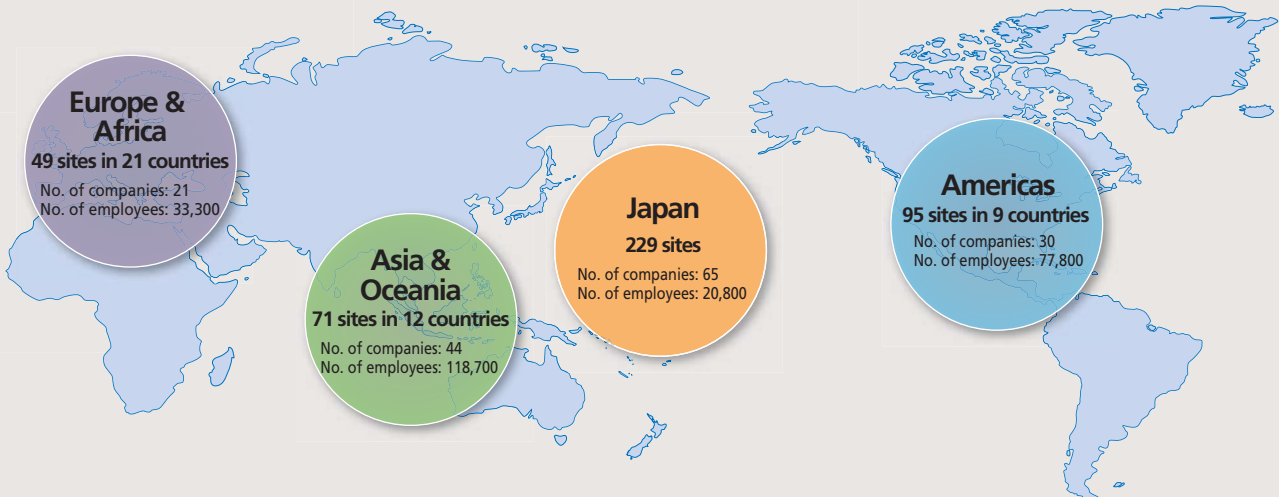




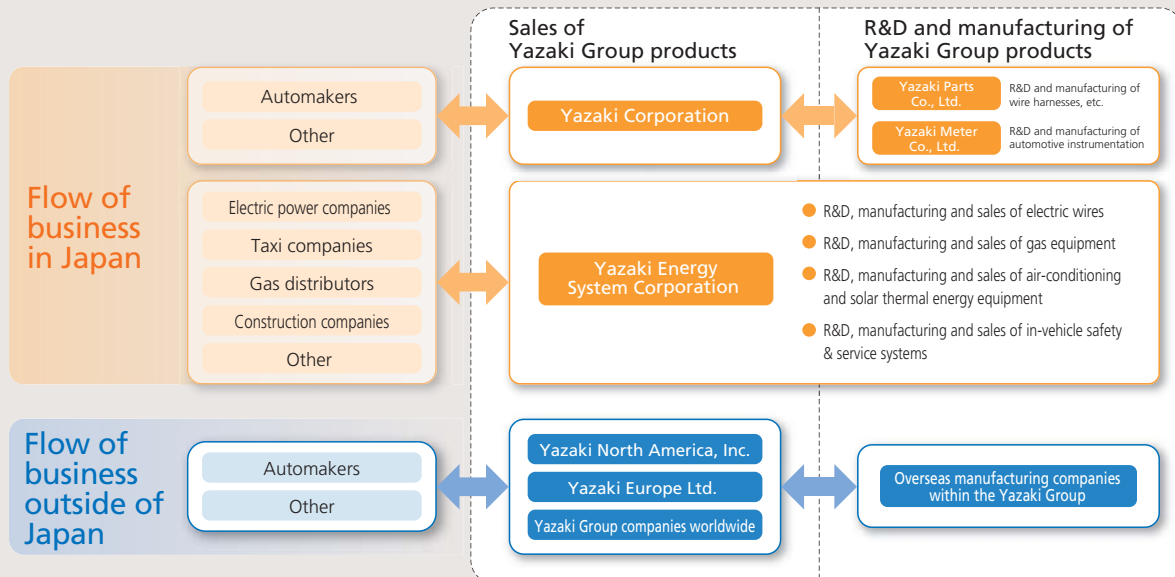
## Main factories and offices in Japan



## Scale of business of the Yazaki Group



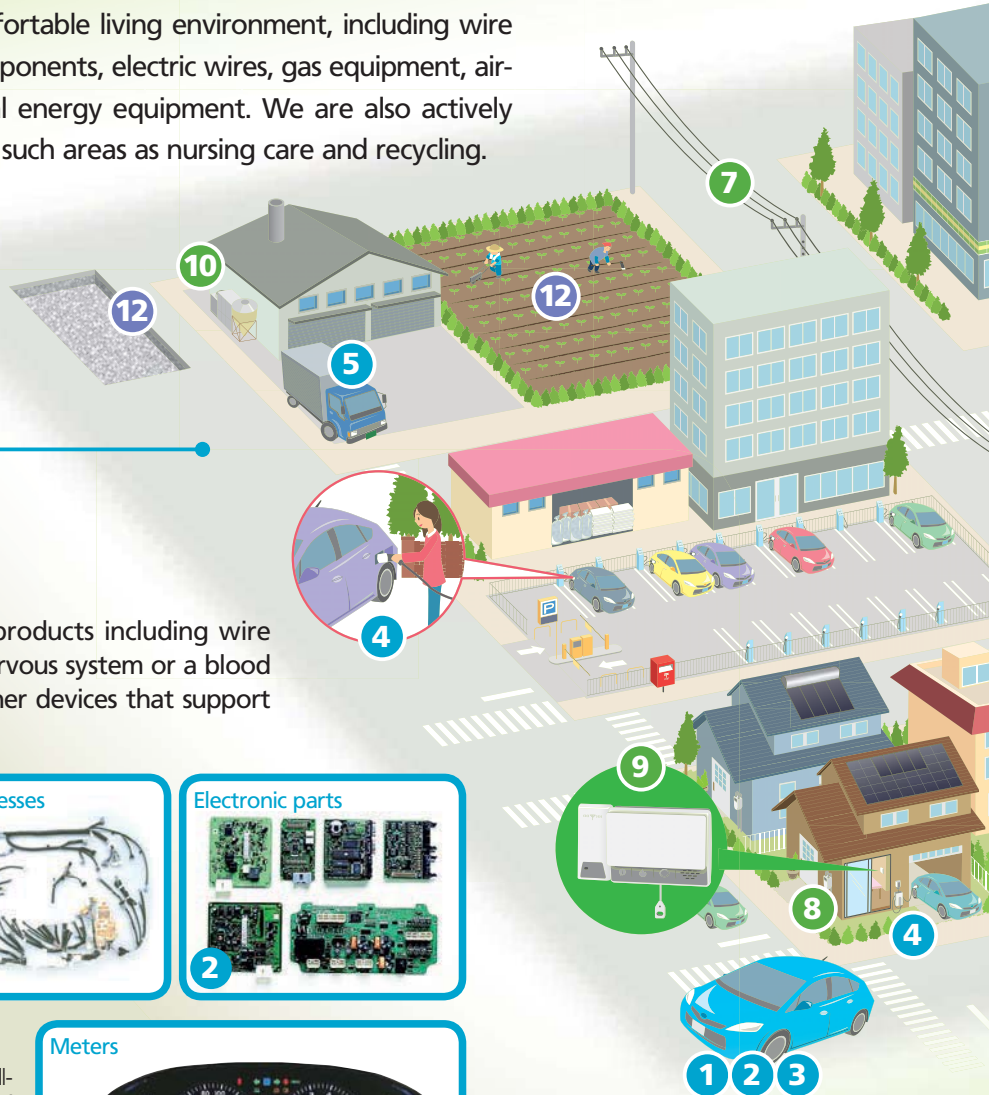
## Flow of business in the Yazaki Group





# Supporting People's Safe and Eco-friendly Life

Based on its Corporate Policy of "A Corporation in Step with the World" and "A Corporation Needed by Society," the Yazaki Group delivers products and services that are essential for a comfortable living environment, including wire harnesses and other automotive components, electric wires, gas equipment, air-conditioning units, and solar thermal energy equipment. We are also actively expanding our sphere of business to such areas as nursing care and recycling.



## For Cars

Yazaki provides a wide range of products including wire harnesses (which function as the nervous system or a blood vessel of a vehicle), meters, and other devices that support car electronics.

### Wire harnesses

A wire harness is an assembly of wires that transmits electrical power and signals.

Wire harnesses



Electronic parts



### Meters

Our meters, with excellent readability and well-thought-out design, bring safety and peace of mind to drivers and enhance driving pleasure.

Meters



### Charging connectors

Yazaki's charging connectors, a device indispensable for charging electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs), are renowned for their reliability.

DC charging connector for EVs/PHEVs



### In-vehicle safety & service systems

As a specialized manufacturer of automotive equipment that supports safe and eco-friendly driving, we are contributing to traffic accident prevention and environmental conservation.

DTG5 digital tachograph



LT26P taxi meter with printer





# For Everyday Lives

By providing equipment that supports our daily lives and the efficient use of electricity, gas, solar heat, and other energy sources, as well as environmentally considerate air-conditioning equipment, we are contributing to the enrichment of people's everyday lives.

## Electric wires

We are a pioneer in environmentally friendly electric wires, such as halogen- and lead-free wires. Our products were recently EcoLeaf-certified.



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## Gas equipment

We provide a variety of gas equipment including gas meters and residential fire alarms to ensure the security and safety of our customers.



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## Air-conditioning equipment

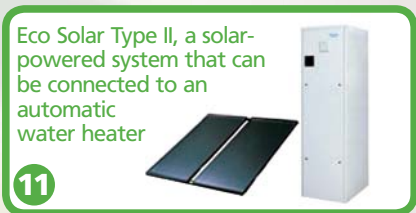
We offer environmentally friendly absorption chiller-heaters powered by solar heat, waste heat, and other energy sources.



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## Solar thermal equipment

We meet the needs of customers by leveraging our solar thermal technologies accumulated over more than 40 years.



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# For Communities

We endeavor to identify unmet social needs and launch new businesses that help reduce environmental impact and contribute to local communities.

## Environmental, recycling, and agriculture-related businesses

We actively promote various recycling initiatives, such as recycling glass to produce lightweight porous materials for civil engineering. We are also working on improving efficiency in farming by offering seeders and unique gel-encapsulated seeds.

Super Sol R, a porous material made of waste glass



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## Nursing care business

We deliver community-based nursing care services at nine locations in Japan.

Yazaki Care Center Kami Fusen located within Y-CITY



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## To Our Stakeholders: A Message from the President

Since the collapse of Lehman Brothers, the Yazaki Group has striven to improve our corporate structure, and have done our utmost to improve earnings and ensure profits. As a result, we have become a strong and profitable company. On the other hand, while this might be a reaction to that, I cannot escape the feeling that our overall management and mindset is too often short-range and localized.

Therefore, during the 2013 fiscal year I wish to actively promote throughout the Yazaki Group activities based on the notion of "Retain what we should retain and change what we should change." Specifically, I want to clarify the roles and functions of each division, and further strengthen cooperation among them, so that each individual in the organization has an understanding of the purpose and goals of his or her work. I will implement this globally in all divisions. I sincerely believe that this will make our company one in which those who make the greatest effort receive the greatest reward.

I wish to take this opportunity to review the past fiscal year, and discuss the direction for the next fiscal year.

### Looking back on the 2012 fiscal year

During the 2012 fiscal year, despite the impact of reduced orders in the automotive sector in Japan, the economic recession in Europe and reduced production in China, owing to such positive factors as increased Electric Wire Operations sales and reconstruction demand after the flood in Thailand, consolidated net sales reached 1,365,500,000,000 yen. While recording the payment of fines for competition law violations as an extraordinary loss, thanks to company-wide profit improvement activities, after applying foreign exchange gains, net profits were achieved, and financial reports for the fiscal year ended in the black. For this accomplishment I would like to wholeheartedly thank all the stakeholders for their support of the Yazaki Group.

On the other hand, not a day goes by that I do not consider the magnitude of the impact of the compliance violations on the Yazaki Group, and the importance of legal compliance. With steadfast determination to see to it that such a thing never happens again, I will personally take the lead in carrying out preventive measures, continuing to pursue the realization of an effective education system, and building a global compliance system that takes into account local conditions in each country.

### Risks in the business environment

Global car production is expected to reach 90 million units in 2013, and further increases are expected in the future. The shift in the automotive market from developed to emerging nations is already becoming a major factor in this. However, while the growth in emerging nations is leading the world to new heights, it must be understood that care must be taken to respond to country risk associated with such issues as religion, customs and political systems.

In addition, earthquakes are predicted in Japan in the three regions along the Nankai Trough and in the Tokyo Metropolitan Area. We must not forget the lessons of the Great East Japan Earthquake, and first and foremost ensure the safety of employees, and to fulfill our responsibilities as a manufacturing company, immediately review supply chain risks.

As described above, a variety of risks are present in the environment around us. I believe that it is extremely important for everyone to be aware of these risks, understand their content and impact, and share this with others.



Retain what we should retain and change what we should change. Understand and share the purpose and goals of the roles, functions and processes of each division, and act accordingly. Become a company in which the most effort receives the most reward!



**Shinji Yazaki**  
President, Yazaki Corporation

### **Aim to create a system that can respond quickly and accurately to customer requests**

Primarily intended to facilitate the workplace (“gemba”), in 2013 we will be introducing the Matrix Organization in the automotive sector, according to which “business” related affairs will be arranged along a vertical axis, and “functions” will be arranged along a horizontal axis. The Matrix Organization will clarify roles, functions and processes, promote smooth globalized business operations, and establish a structure that can quickly and accurately provide the products and services customers truly desire.

I feel the nature of manufacturing has been changed by activities from the product design stage integral to connecting procurement, production, sales and management. In light of this, while identifying what should remain in Japan, we will continue to restructure, including taking up such new challenges as nursing care and agriculture-related business in Japan. Looking overseas, with joint ownership of the roles and responsibilities of the mother and lead factory, we will conduct a fundamental review of the production system with a focus on the United States and Mexico, and mindful of the risks in China, continue to expand in the ASEAN region.

### **Yazaki Energy System Corporation challenges**

Against this backdrop, Yazaki Energy System Corporation was newly established last year to handle electric wire, gas equipment, environmental systems equipment and instrumentation equipment.

Starting with smart community business, the current business environment is ready to welcome proposals in every field of the environment and energy. Yazaki Energy System Corporation was established in anticipation of this trend, and to pursue the synergies and efficiencies brought about by integrating development, production and

sales. Furthermore, in line with “Retain what we should retain and change what we should change,” we will challenge the creation of new products and services while responding quickly to changes in the market.

### **Toward the realization of a sustainable society**

Indicative of growing world interest, the 18th session of the Conference of the Parties (COP18) to the United Nations Framework Convention on Climate Change was held in 2012 to discuss a new international framework for measures against global warming. In addition, environmental laws and regulations have been strengthened to ensure the requisite corporate correspondence.

The Yazaki Group is committed to environmental conservation activities, and given the current situation, we have formulated the “Yazaki Environmental Plan” on the basis of the “Yazaki Global Environment Charter.” For the 2013 fiscal year, while as a matter of course stipulating the roles and functions of each division and each department and strict compliance with environmental laws and regulations, we are proceeding further with the global management of waste and CO<sub>2</sub> emission reduction. By listening to the voice of the community and promoting products that are environmentally friendly at every stage of their existence from product development and design to production, use, all the way up to disposal, we remain committed to the realization of a sustainable society.

These are indeed times of harsh and intense change, but at the same time, we should seize upon this situation as an opportunity for Yazaki to take a great leap forward. Let us work as one to overcome all obstacles, and achieve “A Corporation in Step with the World” and “A Corporation Needed by Society.”

We wish to thank our stakeholders for their guidance and support, which we shall continue to rely upon in the future.



# Making More Integrated and Intelligent Use of Multiple Energy Sources

In 2012, which marked the 72nd anniversary of the Group's foundation in 1941, Yazaki Energy System Corporation came into operation.

In order to remain "A Corporation in Step with the World" and "A Corporation Needed by Society" in the current world, which is faced with various issues including the depletion of resources and global warming, we have embarked on a new challenge which could be described as "back to our starting point."

**1941**  
Yazaki Densen Kogyo K.K. established (beginning of Yazaki Corporation)

**1957**

**A Thomas furnace introduced**

Japan's first rotary melting furnace (the Thomas furnace) was introduced to the Numazu Factory. The company started collection and recycling of copper materials.



**1974**

**The world's first solar-powered house completed**

We succeeded in the operation of a solar thermal air-conditioning system for the first time in the world, and completed the Solar House equipped with this system.



**2006**

**Woody biomass community circulation model project started in Yusuhara Town, Kochi Prefecture**

A woody biomass community circulation model project was initiated in partnership with Yusuhara Town and a local forestry cooperative. As part of our efforts to promote forest



restoration and thereby help create a low-carbon society, we also established Yusuhara Pellet Corporation to produce wood pellets and developed pellet-fired Bio-Aroace.

**1960**

Production of tachographs for recording driving data of commercial vehicles started.

**1976**

Sales of solar-powered water heating system Yuwaita started.

**1996**

ISO 14001 certification acquired at the Tenryu Factory before the formal launch of the ISO system.

**2008**

Ecology Cable certified with an EcoLeaf environmental label.

**1971**

Iwao Industries Co., Ltd. established. Collection of used electric wires started.

**1981**

Recycling of end-of-life wooden electric wire spools started at Yawara Industries Co., Ltd.

**1999**

Sales of digital tachographs for recording driving data to support eco-friendly driving started.

**2009**

Ultrasonic LP gas meter U-Smart certified with an EcoLeaf environmental label.

**Our mission is to realize the "best mix of energies" by leveraging our strengths**



Since its establishment and still today, the Yazaki Group has placed top priority on environmental conservation in all its corporate activities by passing on the ideals behind the Corporate Policy through generations. Yazaki Energy System Corporation was founded in June 2012 by integrating the four businesses that have continued to expand throughout the history of the Group—electric wires, gas equipment, environmental system equipment, and instrumentation. This has made it possible for us to pursue new initiatives to help realize a sustainable society.

One of the initiatives is to propose the "best mix of energies." Yazaki Energy System Corporation offers products that utilize or support the supply of electricity, city gas, LP gas, solar heat, and other energies. Our aim is to actively promote the integrated utilization of these energies to improve overall energy-use efficiency. It is our responsibility to achieve this aim, and we will continue to make utmost efforts to fulfill the responsibility.

**Ko Yazaki**

President, Yazaki Energy System Corporation



Unit cable



"YAWARAKA" Wire and Cable Series



LP gas alarm



U-Smart, ultrasonic LP gas meter

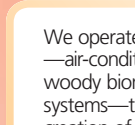


### Electric wire business

We undertake the whole process, from copper rolling and compound production through to manufacture of finished products. In addition to various types of general electric wires, we also develop and design a variety of products that meet the diverse needs of customers, such as the "YAWARAKA" Wire and Cable Series which are easy to bend and form.

### Gas equipment business

We develop, manufacture, and market gas meters, alarms, and various types of gas supply equipment which bring safety, peace of mind, and comfort to gas users.



We operate mainly in three areas—air-conditioning equipment, woody biomass, and solar thermal systems—to contribute to the creation of a sustainable global environment and a resource-saving and recycling-oriented society.

### Environmental system equipment business



We support the realization of a safe, low-carbon, and smart community by focusing on safety and security, environment and energy saving, and efficiency and convenience under the concept of "Connecting cars and infrastructure."



### Instrumentation business

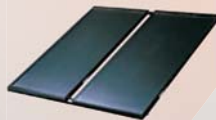
2012



Yazaki Energy System Corporation established



Wood pellet-fired Bio-Aroace



Eco Solar Type II solar-powered system



Digital tachograph



Taxi meter

## Contribution of Yazaki Energy System's products to the reduction of CO<sub>2</sub> emissions

Yazaki Energy System's offerings include digital tachographs, wood pellet-fired Bio-Aroace, and other products that contribute significantly to the reduction of CO<sub>2</sub> emissions.

#### Digital tachograph (per standard truck)



**Not equipped**  
CO<sub>2</sub> emissions: **28.3** tons

▼

**Equipped**  
CO<sub>2</sub> emissions: **26.2** tons

Reduction of CO<sub>2</sub> emissions: **2.1** tons/year

#### Wood pellet-fired Bio-Aroace



**Kerosene-fired**  
CO<sub>2</sub> emissions: **41.5** tons

▼

**Wood pellet-fired**  
CO<sub>2</sub> emissions: **11.9** tons

Reduction of CO<sub>2</sub> emissions: **29.6** tons/year

\* The reduction of CO<sub>2</sub> emissions for digital tachographs was calculated from annual mileage, fuel consumption, etc. Annual mileage is based on the Road Transport Statistics, and fuel consumption is based on the Motor Vehicle Fuel Consumption Statistics, both compiled by the Ministry of Land, Infrastructure, Transport and Tourism.  
\* The CO<sub>2</sub> emission factor used for the both products is the company's standard value.

# Social Initiatives

Placing its Corporate Policy—"A Corporation in Step with the World" and "A Corporation Needed by Society"—at the foundation of all its activities, the Yazaki Group has been striving to contribute to the development of a better society. We continue to fulfill our corporate responsibilities with a focus on further engagement in dialogue with our stakeholders.

## Responsibilities to Customers

### Providing a stable supply of high-quality and high-function products



Efforts were made to understand customer needs as quickly as possible and offer new products that meet these needs.



Yazaki Energy System Corporation, a company that undertakes R&D, production, and sales in various business areas single-handedly, was established.

## Responsibilities to Business Partners

### Building fair and open relationships



The first Yazaki Global Suppliers Convention with the new name was held.



A briefing session was held on the implementation of a conflict minerals survey.

## Yazaki Group

## Responsibilities to Employees

### Creation of a comfortable work environment



Mutual understanding between top management and employees was promoted.



Safety, health, and disaster prevention activities were promoted.

## Responsibilities to Local Communities

### Seeking harmonious relationships with local communities



A Reading Café was organized in collaboration with the Shizuoka Performing Arts Center (SPAC).



Yazaki was awarded the Eco & Design Booth Prize at the Eco-Products 2012 exhibition.





# Exercising Good Common Sense and Responsibility as a Member of Society

Under its Corporate Policy, Yazaki ensures thorough compliance of every executive and employee and takes preventive measures.

## Basic concept

Forming part of its Corporate Policy—"A Corporation in Step with the World" and "A Corporation Needed by Society," the Yazaki Group's Fundamental Management Policy sets forth our commitment to "Uphold the law, respect regional cultures, and contribute to economic and social development." This statement emphasizes our positioning of compliance as the basis of our corporate activities.

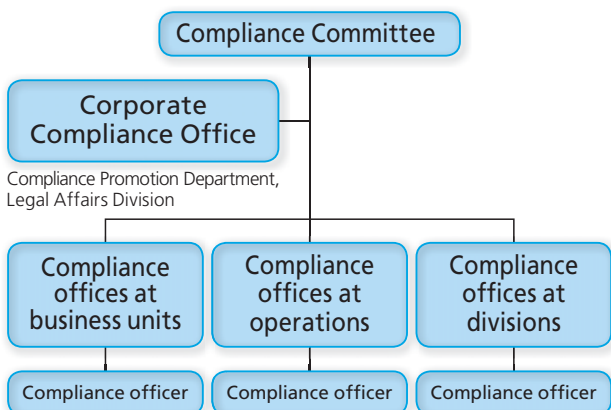
Based on this commitment, Yazaki not only ensures that each and every executive and employee strictly obeys all applicable laws and regulations but also expects them to develop a strong understanding of corporate ethics and to conduct business activities in a fair and responsible manner. We believe this is what gives us the flexibility to adapt and respond to changing social expectations.

## Organizational structure to ensure compliance

The Yazaki Group established a Compliance Committee in October 2010 to develop and reinforce its organizational structure to ensure compliance. With the Compliance Promotion Department, the Legal Affairs Division as the secretariat, the Compliance Committee holds meetings on a regular basis, and manages the company-wide compliance system by, among other activities, determining basic policies, establishing in-house regulations, and formulating training plans regarding compliance.

In addition, compliance offices under the control of the Compliance Committee were set up at all business units, operations, and divisions. These offices cooperate with the Corporate Compliance Office to monitor compliance training activities conducted at each business unit, operation, and division, and watch for any contact with competitive companies.

### Organizational chart



\*A compliance officer is designated at each business unit, operation, and divisions as necessary.

## System to protect whistle-blowers

Yazaki operates "Yazaki ai," a whistle-blower protection system, to facilitate the early detection and rectification of compliance issues. Accessible by all employees within the Yazaki Group in Japan, including those of subsidiaries, the system provides a means of reporting to and consulting with both internal operators and an external law firm. We also established a contact point for business partners at an external law firm in 2008 to enable them to report and receive consultation on any problems about the way we conduct business.

## Compliance training

Yazaki provides a wide variety of training opportunities to both executives and employees, including programs tailored to each level, group training, and e-learning, to further raise their awareness of compliance. There are also various training programs for different levels and jobs to ensure that each individual employee acts properly according to their assigned tasks or position.

### Compliance training in FY2012

	Type	Target employees
Training for different levels	Training for executives	Operating officers or above
	Management training	Newly assigned managers and leaders
	New employee training	New employees
Other	Antitrust Law training	Sales, purchasing, R&D and other divisions
	Subcontract Act training	In-house Subcontract Act auditors, purchasing, production and other divisions
	Training prior to overseas transfer	Employees assigned to work at overseas sites

### Report regarding payment of penalties in Canada and Europe

We were ordered by the Ontario Superior Court of Justice to pay CAD\$30 million on April 18, 2013 (Canadian local time) as a fine for violation of the Canadian Competition Act, as well as €125,341,000 as a penalty for violation of the EU Competition Law on July 10, 2013, in connection with our past cartel activities for automotive wire harnesses. These are final decisions made by the concerned countries and region after simultaneous investigations initiated by the Japanese, US, European, and other fair competition authorities in February 2010.

The Yazaki Group takes these decisions of the Canadian and European authorities seriously, and has already intensified its efforts to prevent any recurrence, including the review and reinforcement of internal rules, employee education, and periodical audits, to ensure the highest standards of compliance.



# Initiatives for Increasing Customer Satisfaction

At Yazaki, our customers come first. We serve our customers with a stable supply of high-quality products that consistently meet safety standards.

## Basic approach to fulfilling our responsibilities to customers

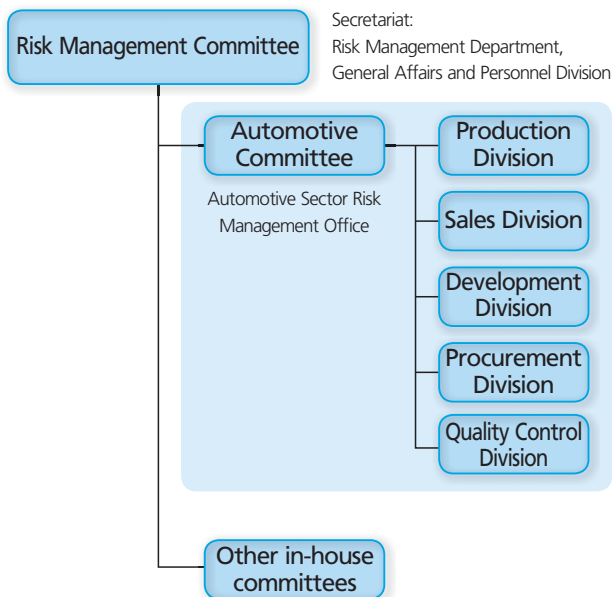
The Yazaki Group manufactures and sells products that enhance the quality of people's living environment, including automotive parts, electric wires, gas equipment, air-conditioning units, solar thermal systems, and instrumentation. To fulfill our responsibility as a manufacturer to deliver "the highest quality products to anywhere in the world in the suitable time at a competitive cost," we ensure that each and every one of our employees thinks and acts in a customer-oriented way to serve as an indispensable partner for our customers.

## Initiatives at each division

### Automotive Sector

In order to understand the needs of each customer as quickly as possible and provide new products that satisfy their needs as well as to promptly respond to various requests, we have organized customer-specific business units, each of which comprises staff from development, production, and sales divisions. This organization also enables us to implement cross-divisional management of our corporate responsibilities, including legal compliance. We are currently developing a business continuity plan (BCP) to ensure a stable supply of products even in emergency situations such as a natural disaster.

#### Risk management structure of the Automotive Sector



### Yazaki Energy System Corporation

Yazaki Energy System Corporation is a new company established in June 2012 to undertake development, production, and sales of electric wires, gas equipment, air-conditioning units, solar thermal systems, and instrumentation single-handedly to respond quickly to customer and market needs and further enhance our manufacturing excellence. We provide products and services that meet the needs of each customer through increased efficiency of cross-business common functions and by capitalizing on the strengths of the Group.

#### Electric Wire Division

We have organized seminars since 2002 for our partnering distributors\* to provide basic information on electric wires and cables, as well as to explain the manufacturing methods used and features of new products. These seminars are part of our efforts to provide distributors with opportunities to actually see and touch our products so that they can in turn introduce them to installation service providers. In fiscal 2012, the seminar was held twice in March with a total of 89 people participating.

We also conduct a customer satisfaction survey targeted at partnering distributors every two years to listen to their opinions and requests and share their feedback with the development and production divisions.



Seminar—an opportunity to see and touch our products



Presentation of the results of group discussions

\*Partnering distributor: a general term applied to agents with strong business ties to the Yazaki Group



### ● Gas Equipment Division

In order to provide high-quality service, we provide employees working for gas equipment service stores (GSS) with training under the GSS Specialist System. Under this system, we provide skills training for various products, and certified 63 employees in fiscal 2012. Meanwhile, the Yazaki Gas Equipment Training Center, which was approved by the Minister of Economy, Trade and Industry of Japan as a training facility for engineers seeking to gain a qualification for the installation of liquefied petroleum gas (LPG) equipment, provided four training sessions in fiscal 2012, and 52 trainees gained the qualification.



Technical training

### ● Environmental System Division

At this division, we sell greenhouse fan heaters fueled by wood pellets made mainly from thinned wood as part of the woody biomass community circulation model project. In Kumamoto Prefecture, which boasts Japan's largest total surface area of greenhouses, the prefectural government launched a project to promote woody biomass and other biomass energy resources, which is aimed at utilizing logging residues and supporting a stable greenhouse horticulture business to vitalize the local economy and create a recycling-oriented society. For this project, Yazaki Energy System supplied 42 wood pellet-based fan heaters, equivalent to the reduction of approximately 1,200 tons of CO<sub>2</sub> emissions in total, contributing to the creation of a new energy circulation method and environmental conservation.



Installation of a fan heater

### ● Instrumentation Division

In order to develop products with quality/cost/delivery/environment (QCDE) characteristics that meet the needs of each customer, we adopt a "market-in" approach with our Sales Committee and Technical Committee established in each region to gather information from the market in collaboration with our 154 distributors nationwide.

The Sales Committee listens to requests from each customer regarding functions they need and costs in each region, while the Technical Committee elicits opinions from users regarding required ease of removal/installation and operability of equipment, which vary from one vehicle model to another. The committees also hold a joint meeting once every year, and in fiscal 2012, the representatives from each committee throughout Japan, 20 total participants, attended the meeting. At this meeting, intensive discussions were carried out regarding the new digital tachograph DTG5 and the LT26P taxi meter equipped with a printer, leading to their commercialization.



A meeting of the Sales and Technical Committees



# Seeking Mutually Beneficial and Harmonious Relationships

We conduct open and fair transactions with our business partners, sharing our policies and goals with them.

## Communication with our business partners

### Yazaki Global Suppliers Convention

We hold a supplier general meeting annually and share and discuss challenges and the results of common mid- and long-term goals with suppliers for the purpose of developing mutually profitable partnerships.

The meeting in July 2012 was held under the new name “Yazaki Global Suppliers Convention” at the Monozukuri Center in Makinohara City, Shizuoka Prefecture, which was completed in April 2012 as a facility that integrates the functions of production, development, and procurement. In fiscal 2012, representatives of 92 suppliers from both Japan and abroad participated in the meeting.

During the meeting, deep gratitude was expressed to suppliers for their great support during the recovery from the flood disaster in Thailand, and Mr. Shinji Yazaki, the President of Yazaki Corporation, explained Yazaki’s efforts for compliance. The General Manager of the Purchasing Operations announced a global activity plan for fiscal 2013 based on the three pillars: Improve cost competitiveness; Reinforce supply chain management; and Implement integrated MONOZUKURI innovation with supplier. The General Manager also requested the participating suppliers to “establish an own process completion production process” so that quality can be built in at every stage of manufacture to realize “overwhelming quality.”

In conjunction with the meeting, a supplier technology exhibition was held as an opportunity for Yazaki to strengthen its global purchasing structure and provide a place for Yazaki to actively exchange opinions with the exhibitors. There was also a tour for suppliers to see the high-tech line of wire harness production as an example of the Yazaki Group’s devotion to high-quality production.



President Yazaki making an address



The General Manager of the Purchasing Operations

## Reinforcing our compliance framework with business partners

### Briefings on conflict minerals surveys

There is a concern that mineral resources exploited in the Democratic Republic of Congo and surrounding countries are alleged to be funding armed groups that are causing human rights infringements, environmental destruction, and other problems. The United States defines tantalum, tin, gold, and tungsten as “conflict minerals” under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), and requires listed companies in the United States to disclose annually whether any conflict minerals used for their products have originated in the conflict area and thereby serving as a source of financing armed groups.

Although the Yazaki Group is not a listed company in the United States, it is very important for us to trace our supply chain to meet requests from auto makers and other customers and ensure our procurement system fulfills our social responsibility. Based on this understanding, we held two briefings on conflict minerals surveys for our business partners. The first briefing, held in October 2012, focused on prior examination and a preliminary survey. Fifty-five suppliers attended the briefing and cooperated with us in the preliminary survey. The second briefing, held in June 2013, threw light on the core survey, which was to be conducted based on issues identified by the preliminary survey. This briefing was attended by 305 suppliers, to whom we explained the outline of the Dodd-Frank Act and how the main survey would be conducted. We requested their cooperation in completing the survey.



Conflict minerals survey briefing





# Staying Close to People in Local Communities

We are working together with local communities for their vitalization.

## Commitments made in fiscal 2012

### Working with the Shizuoka Performing Arts Center (SPAC) as a supporting member

The Yazaki Group supports activities of the Shizuoka Performing Arts Center (SPAC) as one of its supporting members. SPAC is an organization founded in 1995 to promote performing arts in Shizuoka Prefecture and help develop the prefecture's culture. The main audience consists of college students and other young people from Shizuoka Prefecture and the Kanto region, and there is even a program that invites junior and senior high students to about 60 performances each year.

In 2012, the Yazaki Group and SPAC collaborated to organize a Reading Café in the library of Yazaki's World Headquarters (WHQ) in May. Reading Cafés are one of SPAC's most popular projects; participants read play scripts while enjoying tea and conversation. For the Reading Café in the WHQ, Mr. Akihito Okuno, a professional actor of SPAC, was invited to read out *Le Carrosse du Saint-Sacrement*, an original play from which SPAC's new play *Le Carrosse d'Or* was adapted, together with 10 participants.



Mr. Akihito Okuno, a SPAC actor, at the event

### "Starting Point in the 72nd Year" corporate ad series

The "Starting Point in the 72nd Year" corporate ad series, which was created to publicize the launch of Yazaki Energy System Corporation, was run from September 2012 to the end of the year to mark the renewed beginning of the Yazaki Group.

#### Versions of the "Starting Point in the 72nd Year" corporate ad series

September	The "Egg" version: The infinite possibility of the Yazaki Group, which is to take off from the starting point, is expressed by an egg.
October	The "Starting line" version: An ad with a photo showing an athlete who is about to run
November	The "It must be changed" version: Something that should not be changed is suggested using a stone.
December	



The "Starting line" version

## TOPICS

### Exhibition | Yazaki awarded the Eco & Design Booth Prize at Eco Products 2012

We exhibited our eco-friendly products at the Eco Products 2012 exhibition in December 2012. The theme of our booth was "Yazaki Castle—Use all five senses to learn about Yazaki's eco-friendly products." The main feature was a hands-on display of the Yazaki Group's eco-friendly products which visitors could actually see and touch to experience their effects in a fun-filled way, while our LP gas generators, gas alarms, and ultrasonic gas meters were also exhibited.

About 3,000 visitors visited Yazaki Castle during the three days of the exhibition. Even adults, as well as children, were seen enjoying the various challenges in the castle, indicating that the project provided a broad range of people with an opportunity to experience and understand the effectiveness of

our eco-friendly products.

Yazaki Castle also won the prestigious excellence award of the Eco & Design Booth Prize from among 711 exhibitors. The prize winners are selected based on the overall evaluation of environmental consideration (reuse, recycling, etc.), booth design, and simplicity of message. Yazaki Castle was selected particularly for its various devices that allowed children to experience the Yazaki Group's eco-friendly products as well as the used wooden electric wire drums used as the walls and stands.

The awards ceremony was held during the exhibition, and this news was released on the official website of the exhibition the same day and reported in details by newspapers, attracting many visitors to Yazaki Castle.

#### Attractions at Yazaki Castle, the main feature of the booth

- (1) "Open sesame": "YAWARAKA" Wire and Cable
- (2) "Cleansing Bath": solar thermal energy and thermal barrier coating
- (3) "Stepping-stones": anti-slip floor coating
- (4) "Bottomless swamp": recycled paper cushioning
- (5) "Stealthy steps": security gravel
- (6) "All the wood pellets you can pack"



Yazaki's booth was popular with visitors



A display utilizing used wooden electric wire drums



# Creating a Sound Work Environment

We ensure that systems and arrangements for employees are improved continuously to allow every employee to fully demonstrate their abilities.

## Recruitment and development

### Promoting employment of workers with disabilities and expanding the scope of positions offered

We are striving to create a work environment that allows every employee, with or without disabilities, to live up to their potential, while working to further boost employment opportunities for all, mainly at Yazaki Business Support Co., Ltd., a special subsidiary company. We are improving our facilities to make them more accommodating to workers with disabilities, as well as making efforts to standardize operations and reinforce follow-up supervision at each workplace. In fiscal 2012, 59 workers with disabilities were employed to increase Yazaki's percentage of disabled workers to 2.4%.

### Utilizing the rich experience of elderly workers

The revised Act on Stabilization of Employment of Elderly Persons enforced in April 2013 requires companies to rehire workers who desire to work after the retirement age of 60 and allow them to work until they are 65 years old. The Yazaki Group had already introduced the Anchor-person System and Elderly-person System\*1 long before the revised act was enforced to meet the needs of both employees who are in good health and highly motivated to work after retirement and the workplace, which needs their rich experiences and skills built up over many years. We will continue to improve our systems to facilitate rehiring. In fiscal 2012, the number of reemployed workers under the Anchor-person System was 380 (including about 110 newly contracted workers) and 126 (including about 40 newly contracted workers) under the Elderly-person System.

### Developing a globally competitive workforce

#### ● Yazaki Leadership Development Seminar

In fiscal 2011, Yazaki launched the Yazaki Leadership Development Seminar for young managers or manager candidates who are expected to become competitive globally in the future and who are selected upon recommendation by their immediate superiors, with the goal of helping participants develop leadership skills and learn how to deal with diverse environments. During a five-day seminar, participants acquire basic knowledge on management, and learn to be a leader who is flexible and open to differences through a cross-cultural project. In the second seminar in fiscal



A scene from the seminar

2012, a total of 20 employees from around the world (two from Europe, eight from Asia & Oceania, and 10 from Japan) participated.

\*1 **Anchor-person System, Elderly-person System:** Systems designed to provide workers with employment opportunities after retirement age. The former is targeted at full-time employees, while the latter is targeted at non-regular employees.

#### ● Yazaki corporate culture training

Under this human resource development program, employees of overseas group companies are invited to Japan to acquire a better understanding of our corporate culture through learning Japanese culture and language. Over the one-year period of the course, trainees have the chance to communicate with numerous Japanese employees. A total of 199 employees have successfully completed the program to date, currently serving in their home countries as a liaison with Japan. Five employees participated in the program in fiscal 2012.



A trainee learning kendo

#### ● Dialogue with top management

We promote dialogue between employees and top management of the Group as a way to deepen mutual understanding. The two main opportunities are the "management dialogue" sessions, where department managers meet with the president to discuss their ideas on managing their teams and workplaces, and the "employee dialogue," in which all employees in their fifth year at the company discuss the Group's principles and goals with the chairperson. In fiscal 2012, four management dialogues (24 participants in total) and 10 employee dialogues (130 participants in total) were organized.

## TOPICS

### Development of the next generation | Summer Camp, an opportunity for children to gain experience in nature

The Yazaki Group has been offering a Summer Camp program for employees' children every year since 1977. In fiscal 2012, 222 children in the fifth and sixth grades and in their first year at junior high school in Japan took part in the domestic Summer Camp in the eastern part of Shizuoka Prefecture. Through a tour of our factory, hiking on Mt. Fuji and other activities, they learnt the importance of friendship and nature. As for the overseas Summer Camps in China and Thailand, a total of 233 children in their second and third years at junior high school in Japan participated, being exposed to an international way of thinking while enjoying meeting local junior high children, sight-seeing and other activities. With regard to the Summer Camp in Japan, a program designed for children of overseas local employees, 304 children aged 14 and 15 years participated, and experienced Japanese history and culture at a local festival and through other activities.

Since the entire Summer Camp program is planned and operated by employees, it also provides a good opportunity for young employees to learn management skills.



Overseas Summer Camp (China)



## Creating a safe and employee-friendly workplace

### Promotion of work-life balance

The Work-Life Balance Conference was organized to discuss work-life balance, which is beneficial to both employees and the company. Members who vary in gender, age, and background work together to investigate the current situation in our and other companies, discuss identified issues, and propose improvement measures. As for the proposal to raise the maximum age of applicable children for the short-time working system for childcare, the company agreed to modify the current system as the result of discussions with the labor union.

### Enhancing trust between workers and management

In line with the principles of open dialogue and autonomy based on mutual trust between workers and management, the Yazaki Employee Labor Union works to improve the work environment for its members. In fiscal 2012, in response to the raised pension age, the company and the labor union agreed to lift the reemployment restrictions to allow all employees who desire to continue working after the retirement age of 60 to be rehired in accordance with the revised Act on Stabilization of Employment of Elderly Persons. We will continue our efforts to realize a work environment that keeps employees motivated and engaged in their jobs.

In addition, the company and the labor union reached an agreement to raise the maximum age of applicable children for the short-time working system for childcare, an issue that had been discussed since fiscal 2011, in order to promote employees' work-life balance.

### Safety, health, and disaster prevention activities

To ensure workplace safety and health, the Yazaki Group's management and employees work together to conduct safety, health, and disaster prevention activities, with particular focus on preventing serious industrial accidents and developing a system to minimize the impacts of natural disasters.

In fiscal 2012, we reviewed and ensured as in the last year that the earthquake response manual procedures of each business site were workable from a broad perspective that reflects the government's projections of damage, and worked to develop a business continuity plan (BCP), based on the lessons learnt from the Great East Japan Earthquake. We also promoted various safety and health activities such as the evaluation of the level of safety and health of each business site and the implementation of mental health measures.

### Support for risk management of employees working abroad

At the Yazaki Group, there are about 540 employees on loan to overseas subsidiaries, about 340 accompanying family members, and about 100 local employees in various locations of the world as of 2013.

To ensure that these employees can work comfortably by minimizing the risks of terrorism, riot, disaster, accident, disease, infection, and others, the Risk Management Department of the General Affairs and Personnel Division collaborates with the risk manager of each overseas subsidiary to control risks and respond to any emergency situations to secure safety and peace of mind for the employees.

Data on leave taken and industrial accidents			(FY)				
			2008	2009	2010	2011	2012
Number of employees who took leave for childcare, elderly care, and nursing (Unit: persons)	Continuous childcare leave		59	67	98	100	76
	Short working hours for childcare		53	64	81	66	109
	Nursing leave		5	21	60	46	58
	Continuous elderly care leave		2	0	0	1	1
	Short working hours for elderly care		1	0	0	1	2
	Elderly care leave		—	—	1	1	2
Accident frequency rate/ accident severity rate (Unit: %)	Frequency rate*2	Average in the manufacturing industry	1.12	0.99	0.98	1.05	1.00
		Yazaki Corporation	0.09	0.26	0.37	0.42	0.13
	Severity rate*3	Average in the manufacturing industry	0.10	0.08	0.09	0.08	0.10
		Yazaki Corporation	0.0045	0.0070	0.0030	0.0020	0.0009

\*2 Accident frequency rate: The number of casualties per one million working hours. Frequency rate = Number of casualties / Total working hours × 1,000,000 hours

\*3 Accident severity rate: The number of work days lost due to accidents per 1,000 working hours. Severity rate = Number of work days lost / Total working hours × 1,000 hours

## To Our Stakeholders: A Message from the Chairperson

# Continuing to contribute to the community through human resource development

While the Yazaki Group has continued to change with the times since its establishment in 1941, our Corporate Policy has remained unchanged.

This is unquestionably the case thanks to the support of the people in our company.

In this message, Chairman Yasuhiko Yazaki shares his thoughts about people and human resource development.

### Human resource development starts with understanding others

From its establishment up to the present, the Yazaki Group has been doing business in many countries and regions throughout the world. To manufacture the wire harness, the company's core product, requires the work of many people. This means that it is impossible to obtain stable quality without the people who work understanding the purpose and meaning of their jobs. Thus, manufacturing is dependent upon human resource development.

Needless to say, human resource development is no simple task, and this is particularly apparent overseas. Even if, for example, you do not know the local language, you can explain procedures and manufacturing technology; however, when it comes to raising the abilities of local personnel, sometimes cultures collide. If you attempt to unilaterally impose "our way," it will ultimately lead to stress and frustration even if all had been going well up to that point. This is because human feelings are involved.

I think the key to human resource development is understanding and accepting different cultures, and crucial to this is being in step with the local people. I have found that this is indispensable to building mutual trust.

### Human resource development starts with education and nurturing

I think most people think human resource development means training, but I prefer to think of it in terms of education and nurturing.

As far as training is concerned, a wealth of programs and teaching materials are available and in active use; nonetheless, that doesn't necessarily mean that we are not doing the best possible job of "nurturing."

Nurturing requires the kind of relationship in which leaders and learners laugh, cry and get angry together. That said, as management becomes more one-sided, we are seeing less and less of this kind of relationship nowadays. People will never follow this kind of management. Those who would be leaders must regularly go and see what is going on in the workplace, listen to others and understand their problems and difficulties, and be like family; only then will they begin to think, "Let's do our best for this person."

When it comes to education, no matter what the content, workplace or country, you must first think about others. Human resource development, in the true sense of the term, leads to empathy and sharing each other's delights, anger, sorrows and joys. In light of this, nurturing is in fact far more difficult than education.





## Challenging human development for the next generation

In terms of human resource development for future generations, for more than 30 years we have been holding domestic and international summer camps for the children of Yazaki Group employees in Japan and overseas. As this activity is done from planning to implementation entirely by the employees, it serves as both a source of learning for the children, and a source of human resource development for the employees.

Furthermore, since 1993 we have been providing new employees with an opportunity to gain a broad range of experiences abroad for one year through what we call the "Adventure School." Where to go and what to do is up to the individual, who plans and carries out the program based on his or her personal intentions. We believe that achieving something in a different language, culture or environment leads to growth.

One challenge we fully intend take up the future is children creating a self-nurturing environment based on the concept of the "Kindergarten in the Woods." Having originated in Europe, "Kindergarten in the Woods" is an approach to child rearing, nurturing and early childhood education that concentrates on outdoor, nature experience-

based activities. It is thought that coming into contact with nature fosters richer sensibilities and helps children to think for themselves. We are considering introducing this in the "Yazaki Forest" in Yusuhara Township in Kochi Prefecture.

Supported by the human resource development described above, I hope that we can contribute to society while taking advantage of the know-how and networks that the Yazaki Group has cultivated thus far, and I look forward to the next generation of leaders coming up.

In step with all our stakeholders, the Yazaki Group will continue to move toward sustainable development while challenging human development from every perspective.

Finally, we regard this *Social & Environmental Report* as an important communication tool for acquiring your valuable feedback, and sincerely look forward to receiving your candid opinions and comments.

**Yasuhiko Yazaki**

Chairperson, Yazaki Corporation

# Global Environmental Initiatives

The Yazaki Global Environment Charter established by the Yazaki Group in 1997 clearly declares the Group's commitment to protect the environment and enrich society in the Environmental Policy and the Action Guidelines. We contribute to the realization of a sustainable society through our corporate activities as well as through the actions of individual employees.

Y-TOWN Gotemba

## Yazaki Group Corporate Policy

**A Corporation in Step with the World  
A Corporation Needed by Society**

## Fundamental Management Policy

Contribute to a prosperous future society through business focused on the environment and security.  
(The third principle of the policy)

## Yazaki Global Environment Charter

(Adopted in 1997; revised in 2002, 2006, and 2012)

### Environmental Policy

The Yazaki Group recognizes that the preservation of the global environment and its resources is a serious concern shared by all mankind. In line with our Fundamental Management Policy, we will strive to make the world a better place and work to enrich our society through environmentally sound business activities and employee volunteerism.

### Action Guidelines

#### 1. Enhance environmental management

Raise environmental awareness among all employees and empower them as individuals to take responsible actions for environmental preservation.

#### 2. Take action to prevent global warming

Reduce greenhouse gas emissions at the production process and by contribution of energy-saving products.

#### 3. Promote the efficient use of resources towards the formation of a recycling-based society

Utilize resources by promoting waste recycling and reduce discharges.

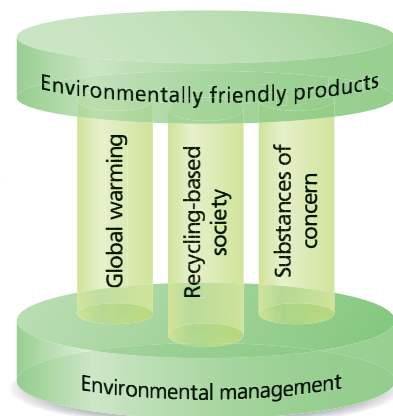
#### 4. Reduce substances of concern

Improve the management of environmentally hazardous substances in the products and the production process.

#### 5. Develop environmentally friendly products

Consider global warming, recycling, and substances of concern when developing products.

### Organization of the Action Guidelines







# For the Evolution of Environmental Activities

Yazaki sets specific goals for each important environmental action every year to make progressive improvement in environmental performance.

## Evaluation of the results of fiscal 2012 and targets for fiscal 2013

Evaluation standard: ● = 100% achieved, ▲ = more than 90% and less than 100% achieved, × = less than 90% achieved

Action item	Target state or value	Target achievement year	Results of fiscal 2012	Evaluation	Target for fiscal 2013
<b>Management of Chemicals</b>					
Response to European ELV Directive	Respond to the fifth revision of Annex II (identify target parts and study the alternative)	2014	Developed a mechanism to eliminate target parts in newly developed products in fiscal 2012 and onward in Japan	●	—
Response to Regulations in China	<ul style="list-style-type: none"> <li>● Response to China ELV<sup>*1</sup></li> <li>● Response to China's new chemical substance management law<sup>*2</sup></li> </ul>	2012	<ul style="list-style-type: none"> <li>● China ELV: Developed a mechanism to respond to China ELV and check its operation</li> <li>● China's new chemical substance management law: Developed and started implementation of rules at business sites in China</li> </ul>	●	<ul style="list-style-type: none"> <li>● China ELV: Verify the mechanism of responding to China ELV and check its operation</li> </ul>
Chemical substances control for indirect materials and packaging materials	Develop a mechanism for the global management of chemical substances in indirect materials and packaging materials	2014	<ul style="list-style-type: none"> <li>● Indirect materials: Gathered information on materials used, established a management mechanism, and reviewed and shared indirect material management database</li> </ul>	●	<ul style="list-style-type: none"> <li>● Indirect materials: Check the operation conditions of the mechanism and examine how the management processes can be standardized</li> <li>● Packaging materials: Standardize the management processes</li> </ul>
Reduction of VOC	Achieve voluntary target Per-unit reduction of 5% from fiscal 2010 by fiscal 2015	2015	<ol style="list-style-type: none"> <li>1) Total emissions: 185 tons (33% reduction from fiscal 2000)</li> <li>2) Emissions per unit: 4.3% reduction from fiscal 2010</li> </ol>	●	<ol style="list-style-type: none"> <li>1) Total emissions: Maintain at least 30% reduction from fiscal 2000</li> <li>2) Emissions per unit: Maintain the same level of reduction as in fiscal 2012</li> </ol>
<b>Prevention of Global Warming</b>					
Global CO <sub>2</sub> Reduction Activity	Reduce CO <sub>2</sub> emissions per unit by 20% from fiscal 2010 globally by fiscal 2020	2020	Determined the global CO <sub>2</sub> emission reduction target as specified on the left	●	Achieve the per-unit emission target
Response to the Act on the Rational Use of Energy	Reduce energy per unit by 1% on an average over five years at companies subject to the Act on the Rational Use of Energy	2013	Percentage of the planned emission reduction achieved: 100%	●	Achieve the energy consumption reduction target (at least 1%) at companies subject to the Act on the Rational Use of Energy
<b>Waste Management</b>					
Reduction of Landfill Waste	Maintain zero landfill waste at all sites in Japan	—	Maintained zero landfill waste at all sites in Japan	●	Continue efforts under the new action item "Reduction of Waste" <ul style="list-style-type: none"> <li>● Develop a mechanism for the global management of waste</li> <li>● Reduce waste by 3% from fiscal 2010 in Japan</li> </ul>
<b>Design for Environment</b>					
Design for Environment	<ul style="list-style-type: none"> <li>● Ensure that the company is capable of developing and designing products that are environmentally sound throughout their lifecycle</li> <li>● Develop a mechanism to respond to any request from customers</li> </ul>	2014	Revised the environmentally friendly product approval rules to allow requests from the production division regarding the reduction of environmental impact to be considered in the design stage	●	<ul style="list-style-type: none"> <li>● Develop a calculation tool for environmental impact assessment</li> <li>● Check the operation conditions of the environmentally friendly product approval rules and make necessary improvements</li> </ul>
<b>Environmental Management</b>					
Environmental Communication	Ensure that each factory holds stakeholder meetings and continuously reflects feedback from the meetings in their operations (Continuous improvement)	—	Published site reports and held stakeholder meetings at all production sites	●	<ul style="list-style-type: none"> <li>● Issue site reports and hold stakeholder meetings</li> <li>● Issue guidelines</li> </ul>
Environmental Education	Ensure that environmental training is conducted according to the plan (the understanding level of managers and staff specializing in environmental operations must be 100%)	—	Conducted training at each site/division according to the plan	●	Conduct technical training at each site/division
Environmental Compliance	Ensure that a system is in place to identify and assure compliance with laws and regulations applicable to each site and that periodical compliance audits are conducted	2013	<ul style="list-style-type: none"> <li>● Production sites: Conducted self-assessments and audits</li> <li>● Non-production sites: Conducted self-assessments based on the Environmental Legal Compliance Guidelines</li> <li>● Overseas sites: China/ASEAN: Standardized the compliance mechanism Europe/the Americas: Grasped the current status and improved the existing mechanism</li> </ul>	●	<ul style="list-style-type: none"> <li>● Japan: Continue conducting periodical audits</li> <li>● Overseas: China/ASEAN: Develop an audit mechanism Europe/the Americas: Conduct periodical audits</li> </ul>
	Ensure that a mechanism is in place to meet the legal requirements of each country and customer requests regarding chemical substances contained in products	2013	<ul style="list-style-type: none"> <li>● Japan: Reviewed and improved the environmental check sheet for use in the design stage</li> <li>● Overseas: Gathered information on the legislation of each country</li> </ul>	●	<ul style="list-style-type: none"> <li>● Review the mechanism for legal compliance</li> <li>● Check new parts/raw materials to assure their compliance with the legislation of each country and examine how they can be managed centrally</li> </ul>

\*1 China ELV: Regulations concerning the control of hazardous substances in vehicles and vehicle recoverability and recyclability

\*2 China's new chemical substance management law: Provisions on the Environmental Administration of New Chemical Substances



# Global Environmental Management

All regions work together for global common issues while initiating their own environmental activities to achieve their goals.

## Environmental management system (EMS)

### Promoting environmental management in five regions around the world

The Yazaki Group manufactures and sells a variety of automotive parts and other products in 43 countries including Japan. In line with our Corporate Policy—"A Corporation in Step with the World" and "A Corporation Needed by Society," we are working hard to fulfill our corporate responsibilities by ensuring we meet the expectations and requests of stakeholders all over the world.

We divide our global operations into the five geographic regions of the Americas, Europe, China, Asia & Oceania, and Japan, and promote and manage environmental conservation based on this regional division.

We are promoting the acquisition of ISO 14001 certifications in each of these regions, and working on the appropriate operation and continuous improvement of their environmental management systems in accordance with ISO 14001. We also set different targets for each region in consideration of local laws, cultures, and customs, while staying true to the common policy of the Yazaki Global Environment Charter (see page 21) and sharing the Yazaki Environmental Plan (see page 22).

Meanwhile, in addressing important global environmental issues that require concerted efforts of the entire Group, such as compliance with environmental laws and regulations, climate change mitigation, and management of chemical substances, we coordinate cooperation between the regions.

### Global Conference on the Environment

With the aim of strengthening cooperation and sharing information among the five regions, the Yazaki Group regularly holds a Global Conference on the Environment (GCE).

During fiscal 2012, the GCE was held three times (July and November 2012, and March 2013). A total of 10 participants (one regional environmental director and one regional environmental representative from each region) worked together to establish the future course of the Group's environmental actions and shared issues.

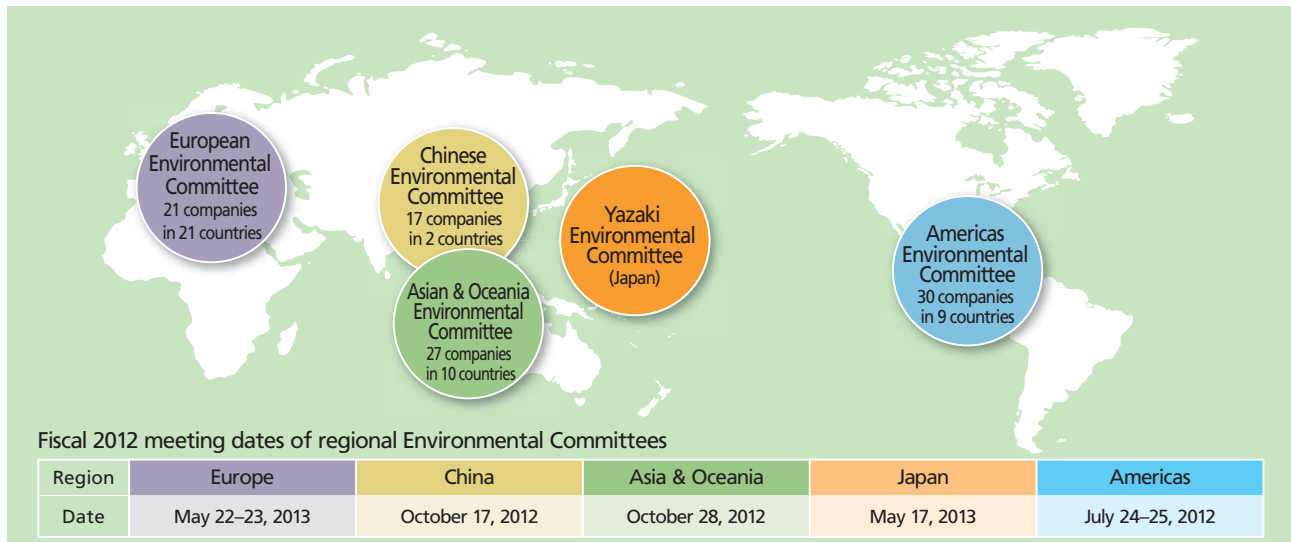
The cross-regional issues that the GCE focused on in fiscal 2012 were: reduction of CO<sub>2</sub> emissions; compliance with revised REACH regulations and response to customer requests; and compliance with Chinese legislation. Various activities were then performed in each region to achieve set targets.

### Regional Environmental Committee

In order to maintain and continuously improve regional EMS, Environmental Committee meetings are organized periodically in each region.

In fiscal 2012, one meeting was held in each region (please see the table below for the dates) to check the progress of globally common initiatives and regional activities and share issues among the committee members.

### Regional Environmental Committees







# Group-wide Environmental Management

The Yazaki Group has established an environmental management structure that encompasses the R&D, production, sales, and administrative divisions in order to continuously improve environmental performance on a group-wide basis.

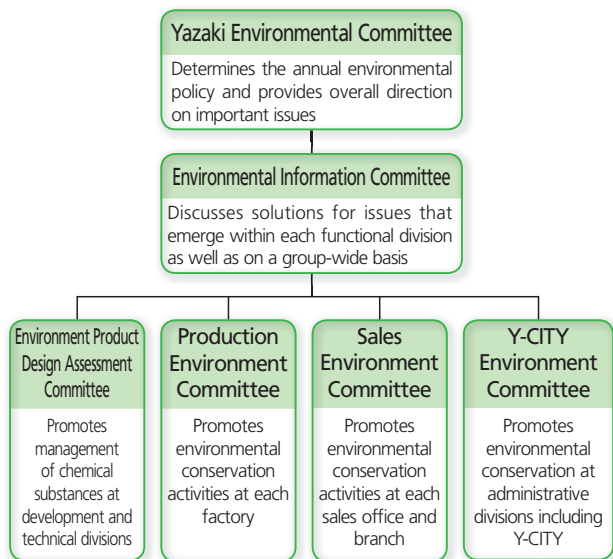
## Environmental management system in Japan

### Cross-organizational environmental management structure

The Yazaki Group in Japan makes continuous efforts to improve its environmental management with four committees established for products, factories, sales, and administration (Y-CITY) under the Yazaki Environmental Committee chaired by the President (see the chart below). The Environmental Information Committee functions as an information liaison to ensure necessary information is shared among all the committees.

An ISO 14001-compliant environmental management system has also been established in each location to promote environmental conservation.

### Environmental management structure in Japan



\*The Yazaki Environmental Committee meets annually while other committees meet quarterly.

### Ensuring environmental compliance

To ensure environmental compliance, the Yazaki Group is working to build systems to ensure that each of its locations and products is in compliance with relevant laws and regulations.

With regard to the system to ensure compliance of each location, a check sheet of environmental laws and regulations was developed for production sites in Japan in fiscal 2008, and audits based on the check sheet have been conducted regularly ever since. In fiscal 2012, this check sheet was revised to include a new check mechanism for change in management of production processes and operations, and was used for audits conducted at seven production sites and some manufacturing subsidiaries. As for administrative and sales divisions, we clarified once again who the compliance manager and staff are at each site and checked all the locations for their compliance status.

As regards the system to ensure compliance of each product, we developed and started using a check sheet that allows us to check that products are in compliance with applicable legislation and customer requests as early as in their development and design stages. We also reviewed the way we collect information so that we can respond quickly to any changes of legislation and customer requests. We will build a system that enables central management of information obtained to further strengthen our compliance performance.

## TOPICS

### Dialogue | Production sites' efforts to maintain communication with local communities

Since 2002 each of our production sites in Japan has prepared and issued an environmental report every year to fulfill their accountability to their stakeholders and utilizes the site report as a communication tool with local residents.

From 2007 each production site also started organizing stakeholder meetings as an opportunity for local residents and other stakeholders to actually see and deepen their understanding of our activities and to express their opinions and requests. Opinions obtained from the meetings are shared with other factories through the Production Environment Committee for continuous improvement.



An example of a site report (Niimi Factory)



Stakeholder meeting (Y-CITY/Susono Factory)



## Group-wide Environmental Management

### Environmental accounting

We calculate costs and quantitatively measure the benefit of environmental conservation activities conducted in the course of our business activities in accordance with the Environmental Accounting Guidelines issued by the Ministry of the Environment.

Environmental conservation costs in fiscal 2012 increased by 7.5% from the previous fiscal year to 5.19 billion yen due to an increase in R&D costs for environmentally friendly products. The economic benefit associated with environmental conservation activities amounted to 390 million yen, down 17% year on year, although profit on sales of waste increased as a result of the promotion of recycling.

Environmental conservation costs in fiscal 2012 (Unit: million yen)

Category	FY2012		FY2011	
	Investment	Cost	Investment	Cost
<b>Business area cost</b>	42.3	257.7	90.0	320.7
<b>Pollution prevention cost</b> Prevention of air pollution, water pollution, ground contamination, etc.	25.8	64.0	27.7	67.2
<b>Global environmental conservation cost</b> Energy-saving measures, etc.	13.2	26.1	58.9	24.3
<b>Resource circulation cost</b> Treatment, disposal, and recycling of waste	3.3	167.6	3.4	229.2
<b>Upstream/downstream costs</b> IMDS survey, collection of empty drums, etc.	3.7	253.6	3.6	293.6
<b>Administration cost</b> EMS operation, environmental education, etc.	0.6	496.6	1.0	508.3
<b>R&amp;D cost</b> R&D for environmentally friendly products	136.1	4,186.6	153.6	3,702.9
<b>Social activity cost</b> Environmental conservation efforts outside of business sites	0.0	1.7	0.0	1.9
<b>Environmental remediation cost</b> Restoration of contaminated soil	0.0	0.0	0.0	0.0
<b>Other cost</b> Costs that do not fall under the above	0.0	1.0	0.0	3.0
<b>Total</b>	<b>182.7</b>	<b>5,197.2</b>	<b>248.2</b>	<b>4,830.4</b>

Economic benefit of environmental conservation activities in fiscal 2012 (Unit: million yen)

Benefit	Actual benefit	Estimated benefit	Total
<b>Reduction of energy cost</b> Economic benefit of energy-saving efforts	6.7	0.3	7.0
<b>Sales of recyclable materials</b> Sales of waste	346.6	0.0	346.6
<b>Other</b> Reduction of work hours by outsourcing, installation of anti-vibration devices to press machines, etc.	0.0	39.5	39.5
<b>Total</b>	<b>353.3</b>	<b>39.8</b>	<b>393.1</b>

### Environmental education

#### Raising employees' environmental conservation awareness

Two types of training—company-wide education training and specialized environmental training—are provided according to our own internal education system. The company-wide education training is provided to newly appointed employees at various levels and employees assigned to work overseas to raise their awareness of environmental conservation and improve the ability of management in this area. A total of 624 employees received the training in fiscal 2012. Employees who cannot participate in in-class training due to childcare leave, meetings with customers, or other reasons are provided with opportunities for self-study, such as self-learning textbooks and tests to check their level of understanding.

The specialized environmental training is targeted at employees responsible for the management of chemical substances and environmental laws and regulations, as well as ISO 14001 internal auditors. A total of 2,145 employees received the training in fiscal 2012. The objectives, target employees, content of training, lecturers, and other information are made available on the intranet to allow employees to undergo the necessary training when required.

#### Number of employees who underwent environmental training

Category	Target	Times offered	Participants
Company-wide education training	New employees	1	93
	New fifth-grade employees	12	323
	New leaders	3	157
	Employees assigned overseas	8	51
Specialized environmental training	Chemical substance management staff	3	210
	Environmental legislation administrators and staff	13 sites	1,904
	ISO 14001 internal auditors	3	31
<b>Total</b>		<b>43</b>	<b>2,769</b>

#### TOPICS

##### Training Training for environmental legislation administrators and staff

Specialized training is provided for environmental legislation administrators and staff at each production site to enhance their understanding of internal rules, ensuring that they are all aware of and in compliance with the requirements of 16 environmental laws and regulations currently in force in Japan, including the Waste Management and Public Cleansing Act and the Water Pollution Control Act. Since the content and level of the training varied depending on the production site in fiscal 2011, we prepared a standardized textbook for fiscal 2012 and conducted the training using this textbook for a total of 1,904 employees.



A scene from the training session

## Promotion of the recycling business

The Yazaki Group is actively advancing the recycling business, which utilizes empty cans, shredded paper, food residue waste, and other used materials as resources.

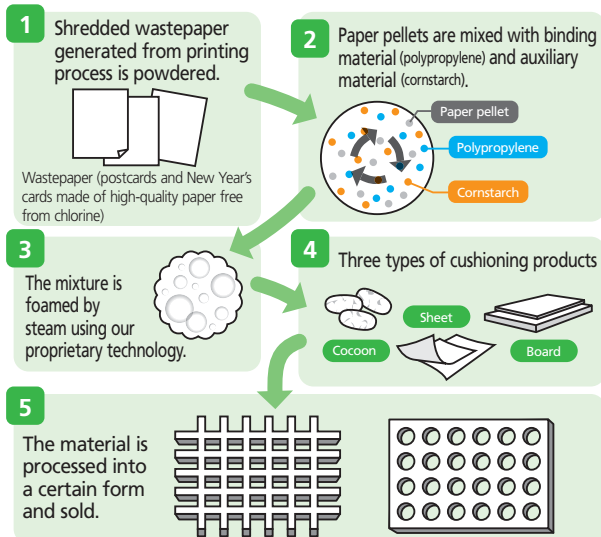
### Paper recycling business

Gifu Parts Co., Ltd. created ARO ECO, a paper cushioning material, in 2004 by mixing shredded and powdered wastepaper (postcards, New Year's cards) generated at printing factories with cornstarch and polypropylene binding material and foaming the mixture using steam using Yazaki's proprietary technology.

CO<sub>2</sub> emissions during production of ARO ECO are smaller than those of petroleum-based products, and no hazardous substances are generated even when ARO ECO is burnt for disposal.

ARO ECO is used as a cushioning or packaging material for a wide range of industrial and commercial products.

#### ARO ECO—created from paper recycling



ARO ECO is free from hazardous chemical substances and does not generate dioxin when burnt.

Polypropylene binding material does not generate hazardous substances even when burnt.



Cushioning material for the transportation of parts



Insulating container for Hida Beef

## Conservation of biodiversity

We engage in various activities to protect the environment and ecosystems in local communities in collaboration with stakeholders.

### Forest conservation activities

Since fiscal 2005, we have been working on a woody biomass community circulation model project in Yusuhara Town, Kochi Prefecture in partnership with the town and a local forestry cooperative to promote the use of wood pellets and help conserve forests through local production for local consumption. On April 29, 2013, 154 Yazaki Group employees joined the eighth Volunteer Forest Development event held in the Yazaki Forest to thin out the forest.

Employees of the Hamamatsu Factory in Hamamatsu City, Shizuoka Prefecture join forest conservation activities in Misakubo Town, located upstream of the Tenryu River, three times every year—April, June, and November—to maintain forests under the guidance of personnel from the Hamamatsu City Misakubo Branch Office and a local forestry cooperative. These activities give the employees an opportunity to come into contact with nature and meet local people.



Forest maintenance work

### Taking part in an aquatic life survey

Employees of the Susono Factory in Susono City, Shizuoka Prefecture took part in a family aquatic life observation activity organized by the Kano River System Water Quality Control Council. This event provides employees and their children with a good opportunity to increase their interest in river water conservation while having fun, and it is planned that employees will be encouraged to take part in the event in the future as well.



Participants observing aquatic life in the river





# Initiatives to Prevent Degradation of the Global Environment

We are endeavoring to achieve proper management of substances of concern (SOCs) to meet customer requests in full compliance with related laws and regulations.

## Management and reduction of chemical substances contained in products

### Staying abreast with up-to-date information on legislation on chemical substances

Regulations on chemical substances are becoming increasingly strict in every country. It is now essential for companies to keep up with up-to-date information on chemical substances regulations, such as the European Union's REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Regulation, as well as to gather information from across their supply chains. The Yazaki Group, which has a presence in many countries and regions, is currently working to establish a system to ensure its compliance with legislation in each country and meet customer requests.

In fiscal 2012, we worked on the development of a system that enables us to gather information on chemical substances contained in products of local suppliers based on their understanding and cooperation. As for specified phthalate plasticizers\*1 added to the list of substances requiring authorization under the REACH Regulation, which are plasticizers used for some materials to protect our wire harnesses, we already have selected an alternative and are advancing the replacement of these substances.

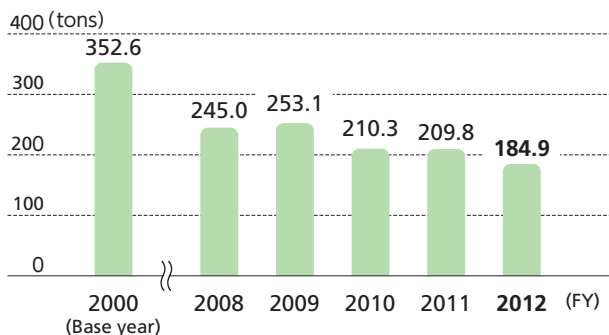
### Management of chemical substances at production sites

We are committed to reducing emissions of suspended particle matter, which can cause air pollution, and volatile organic compounds (VOCs), which can cause the generation of photochemical oxidants. Our target is to reduce their emissions per unit by 5% from the fiscal 2010 level by fiscal 2015.

In fiscal 2012, we achieved a reduction of 4.3% from the fiscal 2010 level, surpassing the annual target of a 2% reduction, as a result of the replacement of VOC-containing solvents.

We will continue to take various measures to reduce emissions of these substances.

VOC emissions in Japan



\*1 Specified phthalate plasticizers: Although these used in articles are not subject to the regulation, we are advancing this replacement on our own initiative.

\*2 Polychlorinated biphenyl (PCB): A type of organochlorine compounds, the production and import of which are prohibited due to their toxicity. Companies that store PCB waste are required by law to detoxify them by March 31, 2027.

## Proper treatment of polychlorinated biphenyl (PCB)\*2 waste

The Yazaki Group in Japan is proceeding with detoxification of PCB waste, while holding and managing them properly, in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes. A qualified specially controlled industrial waste manager is assigned to each location where PCB waste is stored, and it is ensured that the storage site is locked, inspected regularly, and equipped with anti-seismic devices to prevent any loss, damage, or leakage.



PCB waste storage facility

### TOPICS

#### Counter-measure Thorough management of wastewater from plating equipment to prevent water pollution

Since wastewater from plating equipment contains copper, nickel, and other hazardous substances, the Ohama Factory, which operates plating equipment, has built a wastewater treatment facility, and monitors water quality through daily in-house analysis as well as through monthly analysis by an external organization and government inspections.

The water quality measurements in fiscal 2012 were lower than legal and voluntary limits on every survey item, verifying the safety of wastewater emitted from the factory.

The factory has also taken various precautionary measures against emergencies, such as altering the piping layout to minimize the impact on areas outside the factory.



Analysis by company staff



# Initiatives for Creating a Low-carbon Society

We are striving to devise various measures to reduce CO<sub>2</sub> emissions during production, transportation, and other operations to achieve our reduction targets.

## Reduction of CO<sub>2</sub> emissions at business locations

The Yazaki Group in Japan has been conducting various activities to reduce CO<sub>2</sub> emissions with the target being to achieve a 15% reduction on average during the five years from fiscal 2008 and fiscal 2012 compared with the base year level. In fiscal 2012, we achieved this target by reducing CO<sub>2</sub> emissions to 126,000 tons, down 39% from the base year level. The emissions per unit against sales increased by 4.1% year on year to 23.0 tons CO<sub>2</sub>/100 million yen.

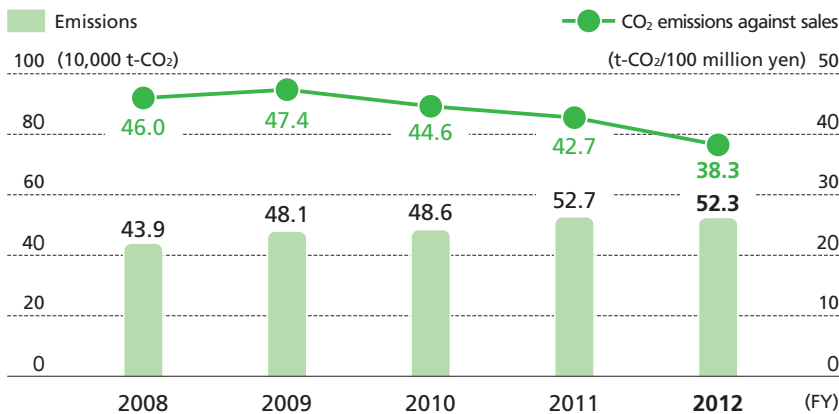
For fiscal 2013 and thereafter, we have set the target of reducing the CO<sub>2</sub> emissions per unit by 20% globally from the fiscal 2010 level by fiscal 2020. In addition to CO<sub>2</sub> emission reduction measures taken at each location, we will also increase our contribution to CO<sub>2</sub> emission reduction through our products, such as digital tachographs and the Bio-Aroace wood pellet-fired absorption chiller-heater. We are planning to calculate the amount of contribution to CO<sub>2</sub> emission reduction for our products.

## Promotion of green logistics

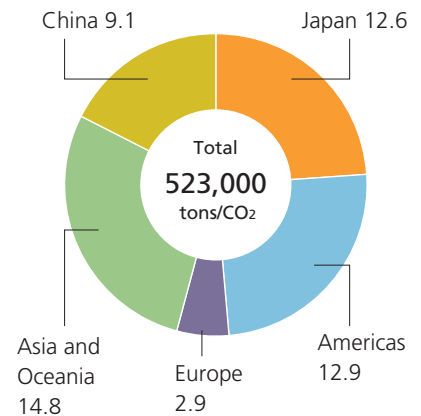
Due to shortened transportation distances and increased load factor per truck after the locations of logistics centers were reviewed, CO<sub>2</sub> emissions from logistics in fiscal 2012 decreased by 3.9% or 752 tons year on year to 19,000 tons. CO<sub>2</sub> emissions per ton-kilometer were 136.6 g-CO<sub>2</sub>/ton-kilometer.

Yazaki Parts Co., Ltd. and Yazaki Energy System Corporation (a company integrating former Yazaki Electric Wire Co., Ltd. and the living environment equipment sector of Yazaki Corporation), who are "Specified Consigners" under the Act on the Rational Use of Energy, are working on the improvement of logistics efficiency in order to meet the government's guideline of reducing the energy consumption per unit for transportation by 1% compared with the previous year. As a result of consistent efforts, in fiscal 2012 Yazaki Parts achieved this target by reducing its energy consumption per unit by 7.6% year on year. Yazaki Energy System also achieved a 3.2% reduction over the previous year in the electric wire division, but because other divisions also became subject to the government's guideline from this fiscal year, the energy consumption per unit increased by 8.5% overall.

CO<sub>2</sub> emissions (global)



Breakdown of CO<sub>2</sub> emissions by region (10,000 tons/CO<sub>2</sub>)



CO<sub>2</sub> emissions (in Japan)





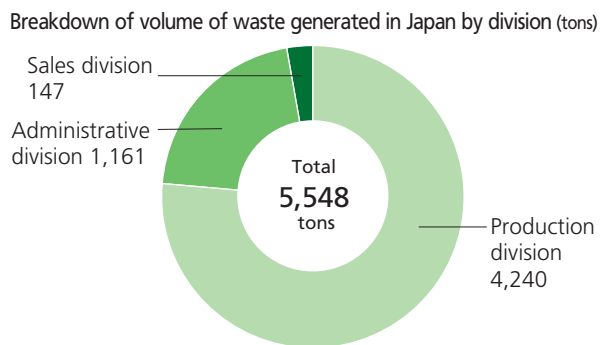
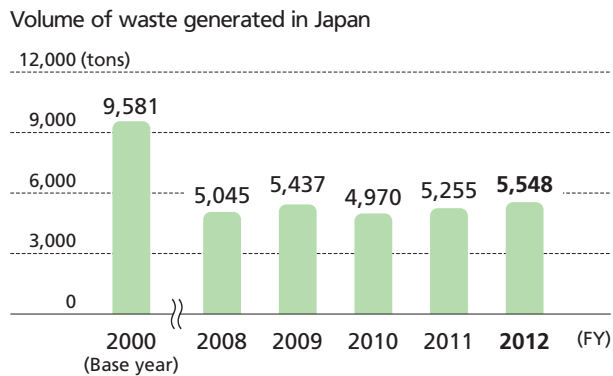
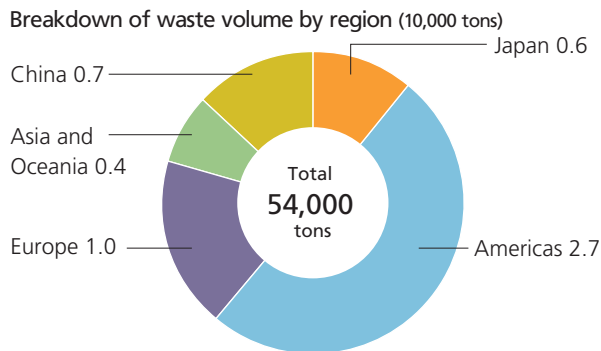
# Initiatives to Create a Recycling-based Society

Promoting zero landfill and recycling used products, we are aiming to help create a recycling-based society.

## Reduction of waste

The total volume of waste generated globally in fiscal 2012 was 54,000 tons. We will set specific targets that fit the circumstances of each region to further promote reduction activities.

The Yazaki Group in Japan achieved the target of zero landfill waste\* in fiscal 2012 as well. The volume of waste generated decreased by 42% from the base year (fiscal 2000) level to 5,548 tons.



## Recycling of used products

To improve the recycling rate of used products, we have established a process of collecting and recycling Aroace and other air-conditioning equipment and solar thermal hot water systems by utilizing the government's wide-area certification system. We also have our own system for collecting and recycling gas meters, which is operated mainly by Techno Yazaki Co., Ltd.

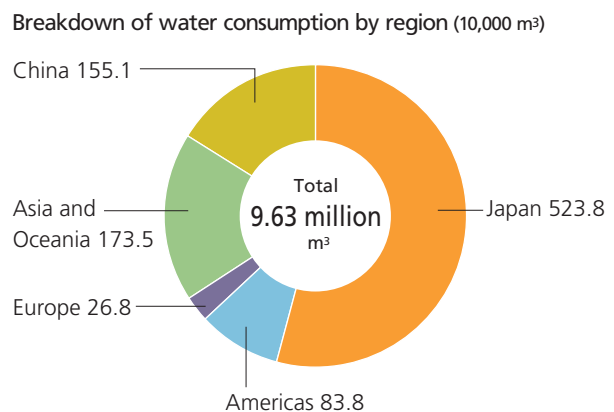


Yawara Co., Ltd.  
Repair of a used wooden electric wire spool

In the electric wire division, Iwao Industry Co., Ltd. undertakes the recycling of used cables and scrap cables generated during production processes. Yawara Co., Ltd. collects end-of-life wooden electric wire spools and repairs and repaints them for reuse as electric wire spools. Spools that cannot be reused are processed into woodchips by an outside company.

## Reduction of water consumption

Our global water consumption in fiscal 2012 decreased by 0.2% year on year to 9.63 million m<sup>3</sup>.



\*Zero landfill waste: The state in which the total amount of industrial waste (not including general waste) disposed to landfill is zero (as defined by Yazaki)



# Environmental Activities at Sites

This section introduces various activities conducted at different locations during fiscal 2012.

## Energy conservation

### ● Shift to high-efficiency lighting



At the Makinohara Factory's Washizu Branch Factory in Kosai City, Shizuoka Prefecture, 179 outdated lighting fixtures used for the assembly line were replaced with inverter type lighting equipment with high energy efficiency. This resulted in a reduction of electricity consumption of 53,000 kWh annually, which is equivalent to a reduction of approximately 20 tons of CO<sub>2</sub> emissions.

### ● Change in air-conditioning methods



Oita Parts Co., Ltd. had been using spot coolers at all times in the summer as a means of cooling the material storage room. These spot coolers were replaced with large fans that can be used only when workers are in the room. This led to reduced energy consumption of equipment and shortened operation hours of air-conditioning units, resulting in a 122,000 kWh reduction in electricity consumption annually, equivalent to a reduction of 46 tons of CO<sub>2</sub> emissions.

### ● Optimization of equipment operation



Yazaki Saltano de Ovar Produtos Electricos, LDA. (YSE) in Portugal reviewed the pressure of compressed air used for 57 injection molding machines and optimized it by eliminating excessive pressure. This resulted in decreased volume of compressed air used by 30% as well as a 23% reduction in electricity consumption.

### ● Car-free day



At the Monozukuri Center in Makinohara City, Shizuoka Prefecture, where about 90% of employees use a car to get to work, a campaign was conducted during Environment Month to encourage employees to switch to public transit, biking, or walking. This led to a reduction of CO<sub>2</sub> emissions of about 960 kg. The center has also started three large bus services from a nearby railway station, contributing to alleviating the commuting frustrations of long-distance commuters and mitigating traffic congestion around the center, as well as to reducing CO<sub>2</sub> emissions.

## Reduction of waste

### ● Promotion of effective utilization of resources through detailed sorting of prototyping materials in the R&D division

The Advanced Materials R&D Center in Susono City, Shizuoka Prefecture, is promoting the reduction and recycling of waste by, among other efforts, reviewing the inventory of prototyping materials and developing unique sorting standards. In fiscal 2012, prototypes of colored resin, which had been disposed of as industrial waste, were sorted in greater detail according to their quality and shape and made available for sale as a valuable resource. This resulted in a reduction of waste by 7 tons annually. In order to promote the effective utilization of resources even further, we are committed to reducing the overall generation of both waste and valuable resources.



Resin used for prototyping (colored resin (left) and white resin (right))

## Reduction of water consumption

### ● Reduction of water used for greening

Yazaki North America Inc. (YNA) in the United States had been planting lawn to promote greenery on the site, but increased water consumption had been a problem. The company therefore switched the lawn for plants that can survive in a dry environment, such as sedum and switch grass, and covered the soil surface with mulching materials. This eliminated the need for watering, resulting in a 12,000 m<sup>3</sup> reduction in water consumption annually.





# Reduction of Environmental Impact through Technologies

We are promoting environmentally friendly design across our R&D division according to our own eco-design criteria.

## Promotion of environmentally friendly design

### Formulation of our own eco-design criteria

The Yazaki Group has been working across the R&D division to reduce environmental impact and add more value to its products as early as the design stage by formulating its own criteria for environmentally friendly design.

In fiscal 2012, we discussed how CO<sub>2</sub>, waste, VOCs, and other emissions generated during production can be taken into account in the development and design stage and reduced. We also reviewed our eco-design criteria based on the results of these discussions. We will also pursue product development that allows environmental impact of production processes to be reduced.

This section introduces some of the environmentally friendly products developed or released in fiscal 2012.

## Major environmentally friendly products developed in fiscal 2012

### Automotive equipment

#### Next-generation DC Charging Connector



Our Next-generation DC Charging Connector, a device that is detachably connected to an electric vehicle to feed electricity, is lighter by about 20% than existing products due to a new material

used for the casing and the reduced number of parts. The connector is designed in such a way that it can be mated and unmated easily. The latch position detection function assures engagement with the vehicle inlet and thereby offers increased safety.

#### Voltage monitoring unit for lithium-ion battery cells



In order to ensure the stability and safety of lithium-ion batteries installed in electric vehicles and other devices, it is necessary to monitor the state of battery cells. Our

voltage monitoring unit for lithium-ion battery cells, developed using our proprietary technology, makes it possible to detect voltage of battery cells with high accuracy. The unit is also compact and lightweight due to the adoption of a voltage detection integrated circuit.

### Electric wires, instrumentation, gas equipment, and environmental systems

#### ARO FRIEND 26P taxi meter with printer



As the number of electric vehicle/hybrid electric vehicle taxis is increasing, space-saving taxi meters are in high demand due to the limited space to

install a meter. With this in mind, we developed the ARO FRIEND 26P, a thin taxi meter with a printer. It is lighter by about 35% and smaller by about 40% than existing products, and its flat-back design makes installation easy. Electricity consumption at the time of printing was also reduced by approximately 30%.

## Environmentally considerate wire harness

Wire harnesses run throughout a vehicle and transmit electric power and signals to electronic and electrical equipment that controls basic functions and maintains the safety and convenience of a vehicle. As the environment is becoming a great concern, automobiles with increased fuel efficiency and reduced CO<sub>2</sub> emissions are in high demand, making automotive parts with environmental advantages, such as being lightweight, essential.

To meet this demand, the Yazaki Group is pursuing lighter wire harnesses through such efforts as the adoption of parts with reduced weight and size, aluminum and smaller-diameter electric wires, and thin vinyl tapes.

### (1) Wire harness for sliding doors



A wire harness installed in a sliding door had traditionally been housed in a large molded protector, making the whole component cumbersome and extremely difficult to install in the vehicle. We therefore changed the molded protector to a drive arm, which resulted in a reduction of weight of the component of approximately 70% as well as an approximately 65% fall in CO<sub>2</sub> emissions during production, which was found by life-cycle assessment (LCA).

### (2) Corrosion protection of aluminum electric wires



In order to employ aluminum electric wires, which play an important role in reducing the weight of wire harnesses, there is a need to protect the copper alloy terminals and aluminum electric wires from corrosion. We therefore developed a corrosion protection technology that covers the connection

between the terminal and electric wire with resin, which led to the increase in the adoption rate of aluminum electric wires by approximately 60%.

## DTG5 network-based digital tachograph



Existing tachographs record the operation of a vehicle using a special memory card issued to each driver. The DTG5 does not need a memory card and obtains driving data via wireless

communication, enabling monitoring of how the vehicle is driven on a real-time basis. The weight of the equipment is reduced by approximately 30% due to the use of communication terminal. A damp-proofing agent applied to integrated circuit terminals is toluene-free.

## Development of a stronger low-voltage aluminum electric wire



One problem about aluminum electric wires is their tensile strength\*, which is lower than traditional electric wires with a copper conductor. To solve this problem, we adopted aluminum alloy conductors to increase tensile strength, making it possible for aluminum electric wires to be used in wire harnesses.

The change from copper conductors to aluminum alloy conductors also contributed to a reduction in the weight of electric wires of approximately 30%.

## Development of a lighter and smaller automotive junction block



A junction block is a part that joins multiple circuits—which are becoming increasingly complicated—neatly in each area of a vehicle to distribute and control electric current. Our new junction block with small-diameter electric wires, compact parts, and high-density part layout is lighter by about 40% and smaller by about 30% than traditional products. The production line was also simplified, leading to an approximately 60% reduction in production space required and decreased power consumption.

## Development of a thinner vinyl tape



We were previously using 0.09 mm thick vinyl tapes to protect electric wires in wire harnesses and fix wire harness exterior components. In order to make tapes even lighter, we developed a 0.07 mm thick tape, achieving an approximately 25% reduction in weight. We also ensured we compensated for the loss of strength brought about by thinning the tape by employing high-strength materials, securing the same level of qualities and workability as the predecessor tape.

\*Tensile strength: The maximum stress that a metal can withstand while being stretched or pulled





# Regional Environmental Activities

We conduct a variety of activities aimed at raising employees' environmental awareness and promote local environmental conservation in each region.

## Activities at overseas business sites

### Cleanup activity on World Environment Day

Yazaki Tunisia SARL (YTU) engaged in environmental conservation activities aimed at raising employees' environmental awareness on June 5, World Environment Day. Employees were reminded of World Environment Day, called on to effectively utilize resources, and encouraged to take part in a cleanup activity on the company premises.



Employees taking part in the cleanup activity on World Environment Day

### Greening activity around the business site to enhance employees' environmental awareness

Foshan Shunde Yazaki Auto Parts Co., Ltd. (FSY) in China is promoting tree-planting on site to encourage employees to come into contact with nature and raise their environmental awareness. As part of this effort, 167 mango trees have been planted and mangos are harvested every July. In fiscal 2012, about 400 employees took part in the harvest and reaped 1,686 kg of mangos in just two hours.



Mango harvesting



Employees who took part in the activity

### Tree-planting activity for the local community

Hangzhou Yazaki Parts Co., Ltd. (HZY) in China valued an invitation by Hangzhou City, where the company is located, to take part in the city's environmental campaign. Sixty employees participated in a tree-planting activity on June 7.



Tree-planting in the rain

Although it was raining heavily, the participants planted about 80 trees. The area in which the trees were planted was named "The Yazaki Friendship Woods" and a sign bearing this name was erected.

### Environmental class for local schools

Yazaki de Nicaragua S.A. (YN) organized an environmental class with employee representatives visiting seven elementary schools in Leon City, where the company is located, to stress the importance of energy-saving and recycling to about



Environmental class

3,400 children in total. The employees also explained the significance of fulfilling environmental responsibilities and how the environment can be protected.

### Cleanup activity to protect cultural heritage

PT. Semarang Autocomp Manufacturing Indonesia (SAMI) has voluntarily conducted a cleanup activity in the state-owned ruins located close to the company and their surrounding areas twice a year since 2009. Although this activity takes place on a holiday, about 80 employees participated in fiscal 2012 and spent about one hour picking up garbage and weeding. The activity was reported in a local newspaper and praised by local people.



Cleanup activity in the state-owned ruins

## Third-Party Comments



Prof.  
**Satoshi Chikami**

Dean of the Graduate School of International Social Development, Nihon Fukushi University

Standing Board member of the Executive Committee, the Nagoya Open University of the Environment  
Chairman of the Operation Council, Environmental Partnership Office Chubu, Ministry of the Environment

### Research focus

Regional environmental planning, environment study, education for sustainable development (ESD), etc. Prof. Chikami specializes in empirical studies regarding how to advance sustainable development through the integration of natural and social science approaches. In Japan, he supports regional development involving the participation of citizens as well as community planning based on collaboration between residents, corporations, and local and central governments. In foreign countries, particularly in developing countries in Asia, he conducts research and study on the development of sustainable communities by attaching importance to the fieldwork approach.

As with last year's report, the 2013 report also concisely and clearly reports environmental management efforts made steadfastly and globally throughout the Yazaki Group to create a sustainable society under the strong initiative of the top management, as well as the Group's challenges towards the future.

### ● The company's willingness to promote interaction between the organization and individuals is clear

In his message (pages 7–8), President Yazaki makes clear two intentions : to "retain what we should retain and change what we should change" and to "become a company in which the most effort receives the most reward." Maintaining the enthusiasm of the organization at all times and bringing out the best of each employee are very important even for environmental management, consideration to the global environment, CSR activities, and the fulfillment of the company's responsibility to its stakeholders. The importance of individuals is also expressed by Chairperson Yazaki, who asserts that "manufacturing is dependent upon human resource development" in his message (pages 19–20). Based on these stances, and by embracing the high level of the Yazaki Spirit of "Service" and "Vision," the Yazaki Group can further strengthen its foothold in the world and society.

### ● Environmental benefits from the customer's perspective

While there are many roles that a company is expected to play in the area of the environment, it is important for a company not to just reduce environmental impact during production, but also to show how its products can contribute to environmental conservation during use by customers. This report introduces environmentally friendly products (pages 31–32) and reports the level of contribution of Yazaki Energy System's products to the reduction of CO<sub>2</sub> emissions (page 10), showing the environmental benefits of the Group's products from the viewpoint of customers. My suggestion for future issues of this report is to summarize what environmental benefits are brought about by those products as a whole—rather than separately—which are expected to lead to the "best mix of energies." Winning the Eco & Design Booth Prize at the Eco-Products 2012 exhibition (page 16) was quite significant in that regard.

### ● Great achievement of environmental activities

Yazaki already achieved the target values/status for all the five priority actions (Action Guidelines) of the Yazaki Global Environment Charter (pages 21–22). This is a result of the Group-wide steadfast efforts to implement the PDCA (plan-do-check-act) cycle of environmental management and is worthy of praise. Setting a clear, quantitative target for the global CO<sub>2</sub> emission reduction—amid the current world trend where movements to reduce CO<sub>2</sub> emissions are

difficult to grasp comprehensively and their achievements are hard to predict—is particularly laudable. I am looking forward to seeing the Group continuing its efforts to reduce disposal of waste to landfills and others and promoting global environmental management.

### ● Consistent environmental management throughout the world

As mentioned in the Third-Party Comments of the 2012 report, the initiatives of each production site to issue environmental site reports and organize stakeholder meetings to receive feedback for continuous improvement (page 24) are noteworthy. An environmental management system in each of the five regions of the world is already in operation (page 23), and it is praiseworthy that the Group thus manages and coordinates its environmental activities globally.

### ● Biodiversity

The report mentions forest conservation activities and participation in the aquatic life survey (page 26) as examples of the Group's biodiversity initiatives. Compared with its efforts to reduce CO<sub>2</sub> emissions, it is not clear how the Group is working toward biodiversity conservation. As a company engaging in an innovative model project in Yusuvara Town, Kochi Prefecture, it is recommended that the Group's contribution to biodiversity conservation and all existing issues be overviewed.

### ● Overseas environmental activities

The report introduces environmental activities conducted by employees at overseas sites (page 33). These activities are important to win the goodwill of local communities as well as to raise employees' environmental awareness. I hope that these activities will continue into the future and the experiences will be shared globally.

### Conclusion

I am looking forward to seeing the Yazaki Group—a global corporate group with more than 430 locations around the world—continuing to show examples of what to do to maintain the sustainability of the Earth, and making steps forward based on its Corporate Policy of "A Corporation in Step with the World" and "A Corporation Needed by Society."



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