## TOYODA GOSEI Report 2013

[Report on Activities of FY2012]

## ONE TEAM, ONE TG.



## **Management Philosophy Structure**



## Management Philosophy

#### **Boundless Creativity & Social Contribution**

#### [Customer satisfaction]

We aim to provide products and services with satisfying quality and price in a timely manner, through advanced R&D and production engineering.

#### [Respect for individual]

We aim to realize a vibrant corporate culture through innovative thinking of individuals and enhanced team work value based on shared responsibility and mutual trust between employees and management.

#### [Good corporate citizenship]

We aim to, as a global corporation, strive to be a trustworthy, respected corporate citizen by honoring both the letter and the spirit of law and rule of every nation, and through community based business activities and contributing to industry, economy and the society.

#### [Respect for the environment]

We aim to dedicate ourselves to create a prosperous society and make the Earth a better place to live through our business activities such as providing environment preservation, energy-saving and safe products.

#### [Steady growth]

We aim to ensure steady growth as a global leading manufacturer in high-polymer and LED technologies through a strengthened corporate structure and the management that can adapt to changes.

### TG 2020 VISION

In line with the aims of our Management Philosophy, the TG 2020 VISION clearly states what the Group ought to look like in 2020 and the direction that Group initiatives should take.

#### [What we aspire to become]

A supplier of choice that delivers happiness to customers

#### [Main pillars of activity]

- 1. Delivering the best for less 2. Acquiring new technologies first
- 3. Consolidating business foundations

#### [Human resources : The key to our activity]

Enhance individual capabilities & Encouraging inter-organizational cooperation

## **Charter for Business Ethics**

The ethical standards and values that should be shared throughout the Toyoda Gosei Group are shown here.

#### [Corporate Social Responsibility]

#### [Relationship Between Company and Employees]

Creating healthy workplaces where everyone can work comfortably
 Asset and confidentiality management

#### [The Company's Business Activities]

- Development and production / Sales / Procurement
- Overseas business / Environmental conservation

#### [Relationship Between the Company and Society]

- Public relations activities throughout the world Social contribution activities
- Elimination of antisocial forces Dealings with public agencies

#### [Personal Behavior]

- · Wholesome behavior on the job · Prohibition of insider trading
- Traffic safety

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#### About TOYODA GOSEI 2013 [Report on Activities of FY2012]

#### Editorial policy

We have planned and developed this as an integrated report combining our "Social / Environmental Report" and "Annual Report" in a single publication, so that all our stakeholders can fully understand the Toyoda Gosei Group's stance and activity and that we may win their greater trust.

In this report we give weight to the issues we consider important and focus on the issues we want to convey to our stakeholders, so as to make our Group's business activities easy to understand. We have also included opinions from our stakeholders and comments from our employees engaged in various activities.

This report is composed of the introduction, which includes special features, plus the main report covering the five categories of Business, Management, Society, Environment and Finance.

In the Introduction section we will cover our activities in environment conservation, energy conservation and safety-enhancing technologies, which are listed among the pillars of activity defined in "TG 2020 VISION", as Special Feature 1 along with Special Feature 2, which depicts our ongoing effort to support restoration after the Great East Japan Earthquake.

In the Report section we have also introduced our activities in FY2012 and their results.

#### Target period

April 1, 2012 - March 31, 2013

This report principally covers the above target period, but content related to other periods may be included as needed.

#### Scope

In principle, the companies covered are those consolidated in the Toyoda Gosei Group.

The scope is outlined individually for some of the items.

#### Caution regarding forecasts

This report includes predictions and forecasts pertaining to Toyoda Gosei's future plans, strategies, and business performance. These statements are based not only on past facts but on assumptions and opinions, premised on judgments made through information available at the time of writing. It also contains information on risks and uncertainties related to economic trends, intensification of competition in the automotive industry, market demand, taxes, laws, systemic changes, natural disasters and other factors. Please note that actual results may vary significantly from our predictions.

#### **Reference Guidelines**

- The Global Reporting Initiative (GRI)
- "Sustainability Reporting Guidelines Version 3.0 (G3.1)" \*1 • Ministry of the Environment
- "Environmental Reporting Guidelines, 2012 Edition" \*1 "Environmental Accounting Guidelines, 2005 Edition" \*A comparative table of these guidelines can be found on our website. http://www.toyoda-gosei.co.jp/csr/kankyou/houkoku.html

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This report can also be viewed on the Toyoda Gosei website. http://www.toyoda-gosei.com/



As a manufacturer specializing in the fields of polymers such as rubber, plastics and optical semiconductors, we commit ourselves to take up challenges, with the group's 30,000 employees working in concert, to become a competent supplier recognized worldwide.

TG 2020 VISION

The Toyoda Gosei Group strives to become "a true global supplier of choice that delivers happiness to customers all over the world."

Tadashi Arashima President, Toyoda Gosei Co., Ltd.

## 

#### Introduction

The Toyoda Gosei Group to date has grown primarily in the fields of polymers and optical semiconductors such as rubber, plastics and LEDs, and has become a global system supplier of auto parts and LED products, operating with a network of 60 affiliated companies established in 17 countries and regions worldwide.

In response to the rapid rise of fuel-efficient vehicles and electric vehicles against a backdrop of the Go-Green attitude spreading in society, we engage actively in the development of lighter and smaller automotive components as well as various safety-enhancing systems for cars, including airbags, with a view to making a contribution to the development of a safer auto society. We are also working hard to develop technologies achieving higher luminance and energy efficiency in the field of LEDs, which has drawn attention as a nextgeneration light source, thus proactively promoting our initiatives toward the realization of a low-carbon society.

#### Looking back at 2012

Our performance in 2012 was good for the domestic automobile parts business, where recovery from the distressing impact of the natural disasters that successively hit the country in the previous year and the government's eco-car subsidy worked favorably to boost demand. For overseas operations, performance was also generally favorable, thanks to the active promotion of sales to overseas makers in addition to the effect of new models launched by our major customers in North America and increased automobile production in emerging markets, including those in Southeast Asia, with the exception of the Chinese market, which experienced a temporary slump.

Similarly, favorable performance also continued for the optoelectronics business, due to increased demand for LED products for the back-light applications of tablet terminals and lighting applications, which pushed the company's financial performance up by about 19% in total sales over the previous year.

Having formed "TG 2020 Vision," we successfully conducted business in 2012 with our medium- to long-term vision, shared among the group companies as a whole. In initiatives promoted under three pillars of activity, **Delivering the best for less, Acquiring new technologies first,** and **Consolidating business foundations**, some positive outcomes suggestive of future fruitfulness have gradually emerged.

For the first pillar, **Delivering the best for less**, we have completed the preparatory stages of cost reduction for major plastic materials by conducting formulation design and raw material simulations to develop "the world's most inexpensive materials." We also promoted the development of "Supercompact dies," reduced by about 46% in weight to develop an optimal process considering both quality and cost. For the second pillar, **Acquiring new technologies first**, we pushed our weight-reduction technology for fuel-efficient cars to automakers and succeeded in acquiring new customers for "Plastic turbo ducts," a plastic alternative to conventional metal parts, and developed "Expanded TPV glass runs," a lightweight product achieved with low specific gravity materials. Besides these, we also developed a "Pop-up hood actuator," which raises the rear part of a bonnet upon collision with a pedestrian to mitigate impact to the victim, as a new product in the safety-enhancing area, and large radiator grilles realized with the combination of a precision plastic molding process and plating-based surface treatment technology to offer innovative looks that meet our customers' design needs.

For the third pillar, **Consolidating business foundations**, we established TG Higashi-Nihon, Ltd. in Miyagi to perfect our three-pole production system, deployed to Tokai, Kyushu and Tohoku, and TS Opto Co., Ltd. in Chiba to enlarge the highend LED business in domestic operations. In overseas operations, we established our first production / sales base in the South America region, GDBR Industria e Comercio de Componentes Quimicos e de Borracha Ltda., as well as satellite plants of TG Minto Corp. of Canada and TG Fluid Systems USA Corp. in the U.S., in order to cope with an increase of automobile production volume in the whole of North America. To prepare for new orders from major automakers in Europe, we also set about capacity expansion at our UK and Czech bases, thus enhancing our product supply capabilities to satisfy both Japanese and overseas customers.

We have committed ourselves to continuing our global efforts to develop competitive products in an expeditious manner by taking advantage of our own technological strengths. We are also resolved to complete various measures and stick unwaveringly to this vision.

#### Operational emphases in 2013

For the future automobile industry, we cannot expect a significant growth from export sales because of increasing local content, while the shrinking trend of the domestic market will continue. In overseas markets, price competition involving local parts manufacturers will intensify further in spite of the recovery of the North American market and the continuing growth expected primarily in emerging economies. In the optoelectronics business, although further market expansion is anticipated, competition among suppliers in the race of high luminance, low-cost LED development is intensifying, involving Korean and Taiwanese makers, because the price reduction of tablet terminals is advancing along with their increased versatility.

In order to overcome such serious competition with a united group effort that surpasses its divisions or units, and to aim with a high spirit to become **"a true global supplier of choice that delivers happiness to customers all over the world"** as stated in "TG 2020 VISION," we have adopted a new slogan for the year: "One Team, One TG." We have also determined "TG SPIRIT" as a common value to be shared by all TG's 30,000 employees of varying nationalities and cultural backgrounds, in order to achieve "TG 2020 VISION." In this "TG SPIRIT," one of our shared values is defined as follows: "Each individual demonstrating high ability, and the organization strengthening teamwork."

As a system for advancing toward our goals, we have integrated the development and design functions into the Development Headquarters, so that our technology development capabilities can be fully utilized in product development. Further, we have abolished the former division system and introduced Product Production Centers, roughly segmented into rubber and plastic, with a view to enhancing our crossdisciplinary manufacturing ability beyond the current business domains.

We commit ourselves to strengthening the footholds of our business by determining the following management emphases to be promoted with the above system for this year's operations:

- (1) To expand business and secure profits through the enhancement of competitive power:
  - Creation of products / processes achieving variable costs, ensuring an overwhelming competitive edge in the industry.
  - Profit generation structure reform from a medium- to long-term perspective.
- New product development through combination of technologies that go beyond individual business domains.
- (2) For business development to achieve sustainable growth both at home and abroad:
  - Sales expansion with enhanced customer strategies.
- Aggressive business expansion in rapidly growing emerging economies.

## Environmental protection and social contribution activities for a sustainable society

The Toyoda Gosei Group is steadily promoting various initiatives for the realization of a sustainable society, including an Earth environment preservation initiative and volunteer activities closely rooted in local communities.

In our efforts to preserve the Earth's environment, we are working to reduce  $CO_2$  emissions and develop recycling technologies under our fifth environmental action plan, a 5-year plan developed in 2011, and we have switched all the lighting fixtures of our domestic operation bases and Toyoda Gosei Europe N.V. from fluorescent lamps to LED lights by advancing the originally contemplated schedule by 3 years.

In the fourth year of our "Plant grove development activity," new projects were launched at the Haruhi Plant as well as at the Foshan base in China and Fong Yue, Ltd. of Taiwan, expanding the scale of the activity to date to 180,000 trees at 13 bases around the world. We will continue to promote this initiative, setting an objective of 600,000 at 60 bases around the world.

In our social contribution activities we donated LED products, including LED street lamps, to Ofunato City and Rikuzen-Takata City located in Iwate, to help develop a bright, safe, comfortable town environment as part of our support of East Japan's restoration from the 2011 disaster. Further, as a health promotion initiative, we organized sports classes targeting local junior high school students by sending out members of Toyoda Gosei's basketball team and handball team. To deepen our ties with various regions of the world and enlarge the circle of our social contribution activities globally, we launched a new initiative, "Global Concurrent Social Contribution Activity," in which about 5,000 employees from the entire TG group participated.

#### In Closing

The Toyoda Gosei Group aims to be a good corporate citizen that earns the trust of society, by developing products that bring happiness to customers worldwide and through all our business activities, including environmental protection and social contribution efforts. We adopt an attitude of gratitude and humility toward all of our stakeholders, and hope to continue meeting their expectations. We ask for your continued guidance and support in the future.

## Special Feature 1

## Delivering happiness to the world with environment conservation, energy conservation and safety-enhancing technologies

What Toyoda Gosei aspires to be is "a true global supplier of choice that delivers happiness to customers all over the world," as stated in "TG 2020 VISION." The happiness we can provide through the automobile parts and LED products we are dealing in is summed up in "environment conservation," "energy conservation" and "safety." In this special feature article, we will introduce examples of the technology we are developing to realize this happiness.

## Contributing to the realization of a low-carbon, safe society through technology

Environment conservation (weight reduction)

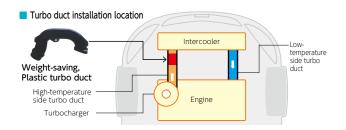
#### Weight-saving, plastic turbo duct that clears stringent conditions

#### We switched the material from aluminum to plastics. Weight reduction of about 50% is achieved.

One effective means of environment conservation is reducing the weight of a vehicle. Reducing the weight of each part that constitutes a car will reduce the overall vehicle weight, which leads to better fuel economy and the resultant reduction of greenhouse effect gas emissions.

A weight reduction of about 50% has been achieved by changing the metal – conventionally aluminum – high-temperature side turbo duct to plastic, lightweight material, thus contributing to vehicle weight reduction.

Turbochargers have previously been adopted mainly in sports-style cars, placing emphasis on driving performance, but



they are used increasingly for the purpose of fuel economy improvement, with the rise of environmental awareness. European automakers, in particular, in response to the region's strict environmental regulations, increasingly employ turbochargers in combination with fuel-efficient engines, while Japanese automakers focusing on the production of fuel-efficient gasoline vehicles sell many models equipped with turbochargers.

## Difficult problems such as heat resistance and process were solved. Commercialized quickly in a short period.

Although the use of plastics was increasingly adopted for the lowtemperature side duct of turbochargers, due to heat resistance requirements aluminum was mainly used for the high-temperature side duct, which is exposed to high temperatures reaching almost 200°C. Because of this, we began our own R&D in order to be able to use plastics as a duct material. We received a customer's order and commercialized it by finding solutions to various problems in a short – roughly 9-month – development period.

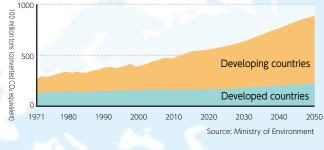
The problems we had to tackle in developing this product included choosing the process, the selection of a material offering

While motorization is spreading all over the world, environment conservation and safety assurance have become grave concerns commonly recognized worldwide.

Regarding environment conservation, it can be seen from future greenhouse effect gas emission projections (see graph 1) that developed countries, which have emitted greenhouse effect gases in large quantities in the course of achieving today's prosperity, as well as developing countries, which are expected to grow in the future, need to reduce or control emissions.

Hybrid cars and electric cars, which are expected to reduce greenhouse gas emissions significantly, are still expensive and their immediate spread in emerging economies is not likely to occur. For this reason, technologies to reduce the weight of



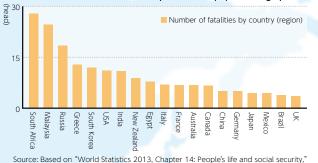


auto parts are considered essential in achieving improved fuel economy with conventional gasoline or diesel vehicles.

Traffic accidents are another issue requiring solutions along with the environmental issues. Particularly in emerging economies, where the number of cars owned by people is expected to increase in the future, the number of victims may also increase (see graph 2). In view of such projections, environment conservation and the reduction of car accident victims are the two major concerns automakers and suppliers should address.

Toyoda Gosei is committed to contributing to the development of a safer "auto society" through development of unrivaled technologies in the fields of environment conservation, energy conservation and safety.

#### Number of motor vehicle fatalities per 100,000 population (graph 2)



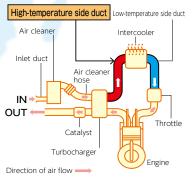
Source: Based on "World Statistics 2013, Chapter 14: People's life and social security," published by the Statistics Bureau, Ministry of Internal Affairs and Communications.

## development to ensure "environment conservation," "energy conservation" and "safety."

good heat resistance and fusibility, an optimal shape ensuring both moldability and durability, and the method of fusing parts.

Among other things, the choice of a process and the optimization of a shape were the most difficult problems to find solutions to. For conventional duct products a blow molding process was used,

#### Turbo-charged engine air intake tract



but we chose an injection molding process promising more consistent quality, because a blow molding process was known to cause variance in plate thickness. However, the shape of the duct hampered its being molded in one go, so we had to split it into two parts for molding and join them later by fusion joining. In order to ensure the reliability of fusion joining, we worked out the best way to split the duct through repeated simulations, taking various fusion joining methods and conditions into consideration. In the end, we adopted vibration fusing, which uses vibrations to cause fusion from friction heat. We screened the fusion joining conditions, such as the amplitude of vibrations and fusion joining force, by utilizing test evaluation data fully, and succeeded in ensuring sufficient strength while controlling the formation of unwanted burrs. We aim to push it for adoption in fuel-efficient cars equipped with turbochargers continually in the future.

#### Voice

Akira Suzuki, Team Leader, Engine & Chassis Parts Engineering Dept.

In the course of development of a weight-saving, plastic turbo duct, we took various approaches such as experiments conducted under a wide range of temperature settings and conditions, as well as fatigue strength tests on fabricated prototypes. What made it possible to develop in a short, roughly 9-month period, was the data we had gathered in our voluntary research efforts promoted previously. We hope to further our work to meet higher performance requirements, utilizing similar technologies as used in this product.



Delivering happiness to the world with environmental conservation, energy conservation and safety enhancing technologies

## Energy conservation

#### Development of Multichip COB for high-ceiling lighting

## Power consumption for lighting use has been lowered by about 64% in our factories.

Energy-saving LED lighting does not only contribute to a lowcarbon society, but also provides a practical option instrumental in solving the tight power supply and demand balance we are facing now along with the shutdown of nuclear power plants in Japan. As an LED manufacturer, Toyoda Gosei is actively promoting the conversion of its plant and office lighting to LED lights. In 2012 we replaced approximately 70,000 fluorescent tubes, all the fluorescent tubes found in all the domestic operation bases, with LED lighting fixtures using our LEDs. The next targets to replace are the high-ceiling lights installed in warehouses and plants. We have succeeded in developing a multichip COB (chip on board) package (large luminous flux LED package) to be used for high ceiling lights, down lights, searchlights and street lights. In a demonstration test currently underway, the conversion of plant lighting to LEDs has achieved a reduction in power consumption of about 64%.



LED produces high power luminance, it also generates tremendous heat, which can sometimes destroy light-emitting cells themselves. Therefore, the difficulty we faced was achieving a large luminous flux, while

ensuring sufficient heat release. The recently developed product has attained the required luminous flux by arranging 10 to 100 LED chips on a single board. We have realized a large luminous flux by employing efficient fluorescent elements and a highly reflective aluminum

board. We also implemented a highly efficient heat release design by strategically arranging LED chips and met the requirements for heat release by taking advantage of the aluminum board's properties excelling in thermal conductivity.



Examples of actual application

## Developing the future of lighting and cars

#### Safety

#### Development of downsized, weight-saving "pop-up hood actuator"

#### Mitigates impact by popping up the hood. Achieves top-class compactness and light weight in the industry.

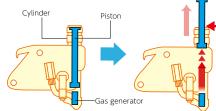
Thanks to the spread of airbags and other safety features, fatalities in car accidents are decreasing for drivers and passengers, but pedestrian fatality numbers remain almost unchanged. We started the development of a pop-up hood in 2005 to offer better protection to pedestrians, and realized a compact, lightweight pop-up hood actuator boasting industry-leading first-class performance.

This product's working mechanism is as follows: (1) A collision with a pedestrian is detected with a sensor installed in the

bumper. (2) A gas generator generates gas. (3) Within about 0.02 seconds of the collision, gas pressure causes a piston to extend and raise the hood by about 7cm. (4) A lock mechanism holds the hood in place. Because a gap is created between the victim and the engine room, impact from the collision is mitigated. In addition, a material that yields and bends when

subjected to a certain level of load is applied to the hood on top of the piston. A ground-breaking structure to mitigate the impact on a pedestrian is thus realized, because the piston will bend when the pedestrian hits the piston part. As a result, our

#### Mechanism of pop-up hood actuator



The gas generator generates gas and expands the piston with gas pressure.

The actuator operates and raises the rear part of the hood instantaneously.



The pop-up hood is deployed to increase the space under the hood in order to mitigate impact.

#### Many happy advantages such as low maintenance needs and a quick start-up time.

The greatest advantage of switching high-ceiling lights and down lights to LED lights is energy saving, but LED lights bring various other happy advantages. In the case of lighting fixtures installed at elevated points, such as those in a plant, it is necessary to hire a specialized service provider to replace them. Long-life LED lights, however, will reduce the number of necessary replacements, thus saving time, effort and costs involved in replacement work. In addition, most lighting fixtures including

#### Energy conservation effects of conversion to LED

67			
Fixture	Mercury lamp high-ceiling light	Moreury free	High-ceiling LED lighting fixture
Light source	Mercury lamp400W	Mercury-free	LED (Multichip package made by Toyoda Gosei)
Horizontal surface illumination level (Installation height: 8m)	Average illumination level3101x	Equivalent	Average illumination level 319lx
Power consumption	8820W (420W×21)	▲Approx. minus 64%	3150W(150W×21)
Specific energy consumption efficiency	42lm/W	Approx. 2 times or mor	e 103lm/W
Years of duration	1.6years	Approx. 5 time	s 8.3 years
Yearly power cost	¥740.880	▲Approx. minus 64%	¥264.600
Yearly CO <sub>2</sub> emission	15.2t	▲Approx. minus 64%	5.4t

The upper limit values are taken from our lighting design comparison cases. \* Power cost\21/kWh

Operating hours 7,200 h/y \* CO2 emission 0.43kg- CO2/kWh mercury lamps require a certain start-up time before they reach the required luminance level when they are switched on. LED lights, on the other hand, reach the required luminance level as soon as they are switched on and offer easy luminance control as an added advantage. We are committed to advancing R&D in order to increase the spread of LED lights.

#### Voice

Shota Shimonishi, Team Leader, Engineering Dept. A2, Optoelectronics Engineering Division 3

The remaining points for improving the multichip COB (Chip on board) package are further performance improvements and lowering initial costs. When power costs and maintenance costs after installation are taken into consideration, the total cost of lighting

will pay for itself a few years after its introduction, but high initial costs hamper its spread. Since conversion to LED lighting will contribute significantly to the realization of a low carbon society, we intend to promote R&D for two product lines, a high-performance product line and an economical product line, to assist the conversion to LED lighting advance in more countries and regions.

From the left, Shota Shimonishi and Shigeo Takeda.



product is proven through simulation data to decrease the impact on a pedestrian in a collision more effectively than competitors' products.

#### A mechanism to lock the hood in position comprising a fewer number of parts.

Since the pop-up hood actuator found many competing products in Japan and overseas, we tried to achieve lighter weight, more compact size and a fewer number of parts than those of competitors' products. The greatest challenge was the mechanism to hold the popped-up hood in position. After repeated trial and error, we developed a unique lock mechanism comprising a fewer number of parts capable of holding up the bonnet.

Like airbags, this product does not deploy unless an accident happens. Compared with airbags installed inside the car interior, it is installed in a harsher environment subject to rain, thawing agents, ambient temperature fluctuations, etc. To ensure it will work unerringly whenever an accident may occur, we put a great deal of effort into various degradation tests. Since it is light in weight and compact in size, comprising only 12 parts, it is currently used in low-centered stylish cars, highgrade cars and hybrid cars. As its application is expected to expand to small cars in the future due to the growing need to protect pedestrians, we are continuing development work to further improve its strengths, such as compactness, light weight and low cost.

#### Voice

Hajime Kitte, Team Leader, SS Component Development Engineering Dept., SS Engineering Division 1

Conventional pop-up hood actuators are large, and reducing their size was the point we had to deal with. Although we had developed many airbag models in the past, a pop-up hood actuator was a product in quite a different genre, to which only a gas generation mechanism could be diverted. We started from zero in almost every process, from design to evaluation and quality control. We organized a trans-departmental project and had repeated discussions to promote it, which was the key to its successful commercialization. We are committed to R&D for continually delivering safe / secure products to customers all over the world in the future.



## Special Feature





Sailing instruction meeting (Iwate Pref.)

On March 11, 2011 the Great East Japan Earthquake occurred and caused catastrophic damage in the Tohoku and Kanto areas. Although, two years since the disaster, reconstruction has progressed in some places, support is still needed in many areas. This special feature presents the details of support for the disasterstricken areas that Toyoda Gosei has been providing for since right after the occurence of the Great East Japan Earthquake until today, and how our support should continue in the future.

# Never let the Great East Japan Earthquake

Provide the best reconstruction support by grasping the needs

## Work toward reconstruction

#### Started support activities immediately after the earthquake. Independent activities have also been carried out since 2012, one year after the disaster.

Toyoda Gosei has been providing support for disaster areas since right after the occurrence of the Great East Japan Earthquake on March 11, 2011. In the following month, from April 25 to May 27, we delegated 16 employees to Otsuchi Town, Iwate Pref. They helped relocate furniture and home appliances and remove sludge



"Sludge Removal Action" by employees

port activities during four periods: 1st: May to July, 2011; 2nd: August to November, 2011; 3rd: May to July, 2012; and 4th: September to November, 2012. As we entered 2012, the needs on-site changed from those of an urgent nature to those with an eye toward the future and daily life. Under such circumstances, we decided to provide support in our own way.

from tsunami-stricken houses. In addition, we donated water, foods, blankets, LED flashlights etc., while also contributing 70 million yen as a company group.

After that, we took part in the "Heart Moving Project," in which the Toyota Group

for disaster areas in a united body. As a member of the group, we Carried out support activities both at the disaster-hit areas and our company base. Support with consideration for local employment.

As this earthquake has left a wide area of devastation, our support would be spread "wide but thin" if we tried to support every single area. Thus, we first made a selection of areas to support. Taking advice from an NPO, "Aichi Net," while also considering various circumstances, we selected Rikuzentakata City and Ofunato City, which suffered devastating damage in Iwate Prefecture where our base is, as areas to be supported by our company group.

We then carried out on-site reviews and public hearings in order to find out what kind of support is desired in the field. As a result, we decided to provide our support by dividing the activities into: 1) support activities within Iwate Prefecture, and 2) support activities at our company bases outside lwate

Prefecture.

provides support carried out sup-



Basketball instruction meeting (Iwate Pref.)

Handball instruction meeting (Miyagi Pref.)



One of the support activi-

#### Details of reconstruction support activities

Activities in EY2011

Monetary donations	70 million yen	
Commodities, goods	Provided water, foods, blankets, LED flashlights etc. LED security lights: 140, LED bulbs: 9,000, LED flashlights: 3,000	
Human support	an support Provided support activities in the field four times from March 12 to November, such as debris removal and mud removal from devastated houses.	
Activities in FY201	2	
Donations, contributions	<ul> <li>Donated 210,000 yen from the gross sales of the East Japan Reconstruction Support booth at the TG Festival Charity Bazaar (Ofunato City, Iwate Pref.)</li> <li>Donation of LED security lights         <ul> <li>LED bulbs: 3,000, LED flashlights: 1,000 (Iwate prefectural office)</li> <li>LED security lights: 40, LED bulbs: 3,000, LED flashlights: 1,000 (Rikuzentakata City, Iwate Pref.)</li> <li>LED security lights: 100, LED bulbs: 3,000, LED flashlights: 1,000 (Ofunato City, Iwate Pref.)</li> <li>Donation of LED-related products</li> <li>LED bulbs: 3,000, LED flashlights: 1,000 (Ishinomaki City, Onagawa-cho, Osaki City, Miyagi Pref.)</li> <li>LED bulbs: 3,000, LED flashlights: 1,000 (Miyagi prefectural office)</li> </ul> </li> </ul>	

Provided support activities in the field four times from May to November, such as debris removal and mud removal from devastated houses. Human support

From August into the following year we provided sports assistance (basketball, yachting, and handball clubs) at junior and senior high schools in Iwate and Miyagi prefectures.

Donation of LED securiv lights (Iwate Pref.)



Donation of LED-related products (Miyagi Pref.)

## fade into oblivion

of disaster areas with "on-site, on-the-spot commodities" together with disaster-hit areas

In addition, we sold

products from the

Tohoku area 18 times

at 13 company cafete-

rias of our domestic

business establish-

In Miyagi, we donated

our LED-related prod-

ucts while also carrying

out activities such as

our handball team holding training sessions for local high school

A new company,

ments.

students.

rity lights etc. In disaster-hit areas, street lights were swept away by tsunami, resulting in a dark and dangerous situation during the night. Thus, we decided to provide our LED products and asked a favor of local companies in disaster-hit areas to assemble and install security lights. Also, as sports assistance activities, we offered training sessions in basketball and sailing etc. For support activities carried out at our base, we reproduced

the "Saury Festival" of Ofunato City during the TG festival held in Inazawa City, and donated a sales amount of 210,000 yen to the Summer Festival Executive Committee of



Sale of products from the Tohoku area at our company cafeteria

"TG East Japan Co., Ltd.," was established in Miyagi Prefecture.

It takes a long time for real reconstruction, so continuous support activities are indispensable. Our company plans to continue our group-wide contribution to disaster-hit areas.

Voice

Chikako Yamada, Volunteer

Center, General Administration& Public Affairs Dept., General Administration Division

Attracting industries, which will create local employment, was desired as a support soon after the earthquake; however, it was difficult to realize in a short time. Therefore, we thought of asking local companies to undertake the job. Donation of LED security lights resulted in not only the installation of lights, but we also felt that it had an effect on securing employment by outsourcing the work to local companies in disaster-hit areas, and we plan to continue this activity.

As two years have already passed since the great earthquake disaster, the fact tends to fade away for those not in the disaster-hit areas; however, they still need to be supported. The top management of our company visited these areas and recognized that support must be provided from a long-term point of

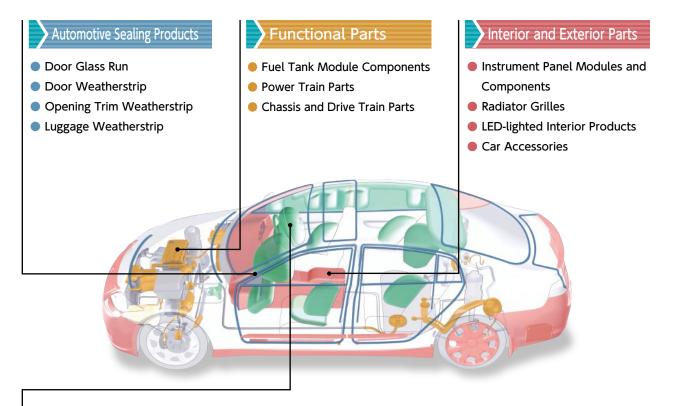
> view. We plan to proactively promote support activities that suit the needs of disaster-hit areas.



## **Business Overview**

We are expanding our business on a global scale, as the best business partner in the fields of polymer technologies and optical semiconductors.

#### Business Portfolio



#### Safety System Products

- Airbags
- Steering Wheels
- Pop-up Hood Actuators

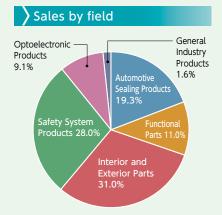
#### Optoelectronic Products

LED Lamps, Chips, Modules

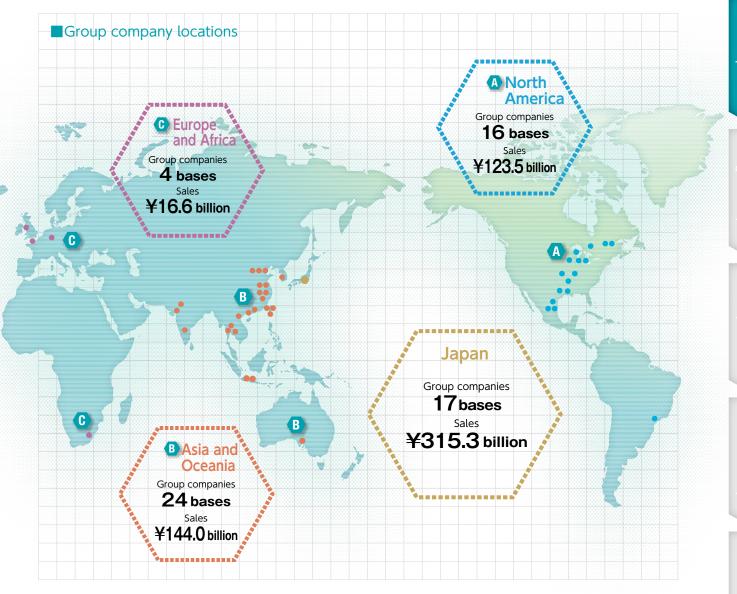
#### General Industry Products

- Communication Equipment Components
- Air Conditioning Products
- Home Construction Components
- Construction and Industrial Machinery Components

#### DATA



(amounts less than 100 million yen are rounded down)					
	FY 2	FY 2012		FY 2011	
		Percentage of net sales (%)	Amount in billions (yen)	Percentage of net sales (%)	rate (%)
Automotive Sealing Products	115.7	19.3	94.9	18.8	+21.8
Functional Parts	66.0	11.0	60.5	12.0	+9.1
Interior and Exterior Parts	185.9	31.0	163.4	32.4	+13.7
Safety System Products	167.5	28.0	141.2	28.0	+18.6
Subtotal of Automotive Parts Business	535.2	89.3	460.2	91.2	16.3
Optoelectronic Products	54.8	9.1	31.5	6.3	+73.7
General Industry Products	9.4	1.6	12.6	2.5	-25.0
Total	599.6	100.0	504.5	100.0	+18.8



Sales by region

(amounts less than 100 million yen are rounded down)					
	FY 2	2012	FY 2011		
	Amount in billion (yen)	Percentage of net sales (%)	Amount in billion (yen)	Percentage of net sales (%)	
🥚 Japan	315.3	52.6	289.9	57.5	
North America	123.5	20.6	92.0	18.2	
Asia and Oceania	144.0	24.0	107.2	21.3	
Europe and Africa	16.6	2.8	15.3	3.0	
Total	599.6	100.0	504.5	100.0	

## **Report by Business Units**

#### **Automotive Sealing Products**

Highlights of FY2012

Weight reduction of foaming TPV glass run

Disuse of surface treatment with TPV glass run

To promote environmentally conscious manufacturing, we developed compact production processes and equipment intended to reduce the energy consumed during manufacture of products and the volume of  $CO_2$  emitted. As a result, we achieved a 30% reduction in energy consumption and  $CO_2$  emissions.

As for the TPV glass run, which consumes less energy during its production process, we established a foaming technology using

a unique material compound and started mass-production as "foaming TPV glass run." This product contributes to vehicle weight reduction and fuel efficiency improvement.

FY2012 Net sa (consolidated) Percen

Net sales : 115.7 billion yen Percentage of net sales : 19.3%



①Door Glass Run②Opening Trim Weatherstrip③Door Weatherstrip



We always propose the most suitable door seal structures to fulfill various door functions and design needs.



Lightweight opening trim for compact cars Unprecedented weight reduction achieved through ingenious use of rubber materials and metal inserts

#### Functional Parts

Highlights of FY2012

#### Global production expansion of plastic filler pipe

With skyrocketing fuel costs and increasing environmental awareness in recent years, there is growing need for lightweight products which have less impact on the environment. In FY2012 we mass-produced plastic covers, which achieved zero occurrence of VOC through the application of material colorants. In FY2013 we will globally expand the production of plastic fuel

in FY2013 we will globally expand the production of plastic fuel pipes, of which we achieved mass-production in Japan. We will continue to pursue a policy of developing materials and products which capitalize on the features of plastic and ered vehicles including hybrid systems, electric vehicles, and fuel cell-powered vehicles.

As harsh economic conditions continue, we will thoroughly review wasteful practices at our domestic and overseas production bases, and work toward the establishment of a speedier and more efficient production and supply system.



## Report

#### Interior and Exterior Parts

Highlights of FY2012

Development and mass-production of large-size radiator grilles

Development and mass-production of consoles with improved convenience (new mechanisms)

Development and mass-production of map lamp units

In order to survive in domestic and international automobile markets with ever-increasing competition, we need to return to our basic focus on producing things by performing thorough in-process verifications, while also eliminating waste and losses. We will strive for development of production technologies that can shorten lead times from material procurement to product rollout so as to improve our company quality.

We will further hone our global competitiveness by expanding this corporate culture to our overseas production bases. In FY2012, we started to produce newly-designed large-size radiator grills. Using our knowledge of plastic products for vehicles, we are also putting effort into development and production of in-car LED lighting. Furthermore, we started to produce LED map lamp modules in China.

FY2012 (consolidated) Net sales : 185.9 billion yen Percentage of net sales : 31.0%



#### Safety System Products

Highlights of FY2012

#### Development and mass-production of pop-up hood actuators

We began global mass-production of newly developed lightweight, compact passenger-side airbags, side airbags, curtain airbags and knee airbags, in addition to the driver-side airbags we had already been producing. From 2012, we also started mass-producing pop-up hood actuators, which mitigate shocks between the pedestrian's head and the engine under the hood by instantaneously lifting the rear side of the hood, as a protection device not only for passengers but also for pedestrians. For the future, we will put effort into development of high-performance airbags with improved passenger protection that can respond to various types of collisions, while also proactively developing preventative safety features that integrate technological developments in addition to the collision safety features developed so far. In other development efforts, we are expanding our focus from safety for passengers within the vehicle to include safety for pedestrians outside the vehicle, and we are currently developing devices for pedestrian protection. Having achieved lower costs through technical innovations in design and production, we are also focusing our efforts on markets in emerging countries such as China, India, Asean countries and Brazil, where the wider use of airbags is being promoted.

FY2012 (consolidated) Net sales : 167.5 billion yen Percentage of net sales : 28.0%

Driver-side airbag Passenger-side airbag Curtain airbag Rear-end impact airbag



Side airbag Side airbag Seat cushion airbag RR seat console airbag



Pedestrian protection airbags (under development) Airbags that inflate in the event of a front-end impact to protect pedestrians



Pop-up hood actuators Head protection device for pedestrians

#### **Optoelectronic Products**

Highlights of FY2012

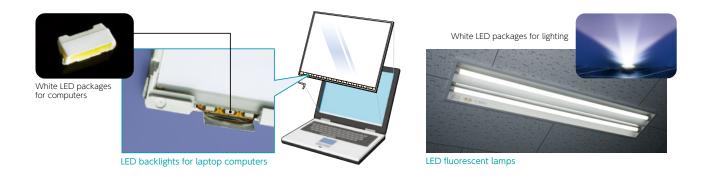
With LEDs for tablet computers as the core of our business, we will expand our business with LEDs for lighting as the second pillar.

We will add white LEDs with world-class luminance and low power consumption to our lineup.

With the high-end laptop and tablet computer markets as our core business, we will expand our business with the lighting market as the second pillar. Among others, the sales of FY2012 almost doubled compared to the previous year in the high-end laptop and tablet computer fields. We believe that this resulted from the market's evaluation of our high-luminosity, high-efficiency technologies.

For the future, we aim to expand our business by developing and supplying LED chips and packages with higher costefficiency based on these technologies.





#### **General Industry Products**

Highlights of FY2012

Start-up production of dehumidifying / humidifying air-cleaner with a new method (refrigerant system by means of compressor)

The sales volume of mobile phone cases produced by our Chinese subsidiary was maintained in FY2012, while continuously producing two global smartphone models. For FY2013, we are putting our efforts into enhancement of production facilities, strengthening our competitiveness, and cost-cutting, and we will keep expanding in the global market by manufacturing in China.

In Japan, the sales in FY2012 did not increase, but we continuously accepted orders for air cleaners, which are our main products. For FY2013, we will work on starting up production as we have received orders for dehumidifying / humidifying air

Mobile phone cases

cleaners manufactured with a new method.

We will also take on the challenge of developing products in new fields, building on the technologies we have amassed thus far to develop globally compatible construction machinery, home-use components and flashlights employing our LEDs.



Air purifiers



#### North America



Toru Koyama President

#### Toyoda Gosei North America Corporation

Responding to economic recovery, we will expand optimum production systems throughout North America. We will proactively expand our business activities by encouraging cooperation among our business locations.

#### Regional outlook

After the financial crisis in September 2008, North America was in a prolonged economic situation in which it showed no sign of solid economic recovery, in addition to a series of disasters such as the Great East Japan Earthquake and the occurrence of the flood in Thailand. Entering 2012, however, the movement of economic recovery gradually started to accelerate; for example, the housing market showing continuous improvement and the employment situation improving moderately. This recovery trend is expected to continue in 2013 as well.

In the automobile industry, also, the volume of auto sales, which dropped to nine million (annualized rate) immediately after the financial crisis, increased to 15 million in 2012. In accordance with this trend, production volumes by individual automakers are showing steady growth. In addition, Japanese automakers are expanding local production by means of production transfer, while individual suppliers are required to promptly respond to improvement of productivity and securing of workforce personnel.

#### Results of activities in FY2012 and future initiatives

In FY2012, our North America Group also took various measures with our major clients increasing production. Considering the overall optimum production in the North America region, we devised and implemented investment plans to secure our production capability. In the current fiscal year we established a new plant to produce interior and exterior parts for automobiles in Stratford, Ontario. This is a branch plant of TG Minto Corporation in Canada. Also, with individual suppliers transferring production to low-labor-cost areas such as Mexico and southern parts of the US, we established a distribution base along the Mexican border in Texas to improve the efficiency of physical distribution between the US and Mexico, as local production is rapidly increasing at the Mexican base of our group.

Regarding our business plan, we did a lot of work on sales expansion and profitability improvement by devising a 2017 North America Sales Strategy in order to realize our medium-term objectives. In October 2012, we held a global meeting in which persons connected with our group gathered from Japan, North America, Europe, and China, so as to enhance the support system of our foreign-affiliated clients. We discussed the enhancement of global cooperation, in which our activities are still continuing.

We are implementing various measures for our personnel system, as the number of employees has grown to exceed 9,000 in North America along with our business expansion, and it has become very important to adapt the personnel system to individual regions. In addition, each base in North America is carrying out community-based regional contribution activities by including a social action program as one of their business activities.

We will promote our business activities in FY2013 by focusing particularly on five areas: "Safety," "Quality," "Business Expansion

& Profit Securing," "People," and "Corporate Social Responsibility (CSR) & Compliance." Regarding "Safety," we will establish a North America Safety Committee to promote human resource development and workplace improvement along with educational activities, aiming to completely prevent serious disasters in the entire North America Group. As for "Quality," we will put in place a North America self-completed quality assurance system, which can avoid critical quality problems, while striving to win the trust of our clients. As for "Business Expansion & Profit Securing," we will put our effort into strengthening our local development system, preparing optimum production layout, and improving profit structure, aiming to propose attractive products of higher value in collaboration with the main office in Japan. As for "People," we will aim to improve working environments and communications, enhance human resource development, and improve morale and motivation among our employees. As for "CSR & Compliance," we will ensure complete compliance through promoting social contribution activities in the community and providing education and training to heighten the sense of ethics among employees.

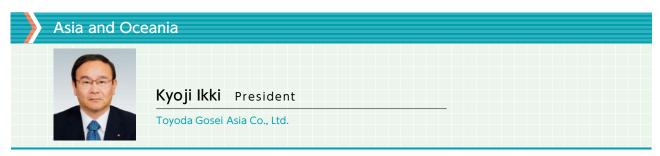
As a steady transition is expected in the automobile market in North America, we believe that the importance of North America will grow even more in the global business activities of our company group. We would like to continue to stimulate our business activities by having all the bases in North America work in a united body.

#### TOPICS

## Established a new plant in Canada to produce interior and exterior parts for automobiles

In July 2013, a branch plant starts operation in the neighborhood of TG Minto Corporation and our major clients in order to respond to the expansion of automobile production in North America. Since 1986, when we acquired capital in Walterville TG of Quebec, we have over 25 years of good track record in Canada. The new plant is our fifth production base in Canada. We plan to manufacture mainly interior and exterior parts, such as peripheral components for instrument panels.





## Strengthen our competitive edge by boosting production capacity and promoting local procurement.

#### Regional outlook

In FY2012, although we suffered from the influence of the sluggish demand in European markets, we maintained a growth rate of over 5% in the entire ASEAN markets, thanks partly to the recovery from the floods in Thailand. Auto sales increased substantially in Thailand and Indonesia, with other Asian countries showing steady transition. In response to this, automakers are striving to strengthen price competitiveness by reinforcing production bases, promoting and optimizing local procurement. Particularly in India, one of our major clients, Maruti Suzuki India Limited, achieved 1.28 million units of production, and announced their plan to construct a new plant in Gujarat, western India, with an eye toward future reinforcements in production capacity. Toyota Motor Corporation is also considering a new construction of their third plant.

#### Results of activities in FY2012 and future initiatives

In FY2012, our Thailand base proactively carried out sales promotion activities targeting clients other than Toyota Motor Corporation. As a result, we generated new business, such as receiving orders for exterior parts from Mitsubishi Motors Corporation, and orders for interior parts from Honda Motor Company. In Malaysia, we began to deal with local automakers. In Indonesia, we embarked on plant expansion, as substantial sales increase is expected due to the mandatory installation of airbags associated with legislative changes in automobile safety assessment in ASEAN regions. In addition, we newly stationed deployed sales representatives to reinforce the system for responding to the ever-expanding markets. In India, although the economic growth rate slowed down from the double digits of the previous year, the rate showed a steady transition of about 6% in FY2012. Among others, the sales at our India base almost doubled as compared to the first half.

In FY2013 we plan to begin smooth parts supply in Thailand by

starting up a No. 3 plant at our Thailand base, so as to keep pace with production increase plans by various automakers. In Indonesia, further business expansion is expected as we plan to newly introduce assembly lines for functional parts, plastic filler pipes. In India we will strengthen sales promotion activities, mainly focusing on Japanese automakers, which boast a market share of about 50%, while we have decided to increase the production of automotive sealing products, safety system products, and functional parts.

As for the entire Asia and Oceania regions, we plan to strengthen and facilitate sales promotion activities for automakers other than Toyota Motor Corporation, while continuing comprehensive rationalization efforts and responding to ever-expanding markets and automakers' trends for local procurement.

TOPICS

#### Embarked on facility extension and plant expansion in response to mandatory installation of airbags



In January 2013 we embarked on facility extension and plant expansion at P.T. Toyoda Gosei Safety System Indonesia, as the installation of airbags was mandated due to legislative changes in the automobile safety assess-

ment in ASEAN regions. This is to respond to the airbag market, in which a substantial increase is expected in the future. To ensure our competitiveness in these regions, we also plan to put our efforts into introducing production processes optimized for emerging countries, self-manufacturing of core parts, and local procurement of major components.



## Observe the trends of "The World's Largest Market." Expand sales promotion to Chinese and European manufacturers as well.

#### Regional outlook

In China, where the regime shifted from Hu Jintao to Xi Jinping, gaps between the rich and the poor still remain, and small-tomedium manufacturers go bankrupt one after another, due to two years of inflation and depressed exports caused by credit uncertainty in Europe. Furthermore, Guangzhou also introduced restriction of automobile purchases, following Beijing and Shanghai. More and more cities are expected to introduce such restrictions. New-car sales in FY2012 exceeded 19 million, a 4.3% increase from the previous year, and recorded the world's highest figure for the fourth consecutive year. However, due to the influence of worsening Japan-China relations, Japanese automakers' market share in passenger cars dropped to 16.4% from 19.4% in the previous year, and ranked second in foreign-affiliated makers, losing the lead to German manufacturers with a share of 18.5%.

#### Results of activities in FY2012 and future initiatives

In FY2012 we implemented overall cost improvement activities to ensure our price competitiveness, developed operating bases for new sales promotions such as strengthening the technology development system, and worked on human resource development to make staff members at individual bases more independent, resulting in a reinforced sales promotion system having technology, development, and sales departments work as one. We are also proactively expanding sales promotions to Chinese and European automakers to establish a solid foundation as a global supplier.

In FY2013 we will continue these initiatives while expanding our business into inland areas of China, building supply chains on the basis of risk management, increasing local procurement of materials, and implementing field evaluations, in order to achieve optimum production, functional integration, and people-to-people exchange with an eye on all regions of China.

## Relocate the Tianjin base and expand the floor space by 1.5 times



Tianjin Star Light Rubber and Plastic Co., Ltd., which is a production base for automotive sealing products (opening trim, door weatherstrip) in the Tianjin business establishment

TOPICS

region, China, relocated to a new business establishment in the Zhongbeigong industrial park in the same area as before, along with the redevelopment of the area.

Taking advantage of this relocation, we built production lines with higher efficiency and expanded the floor space by 1.5 times to reinforce the production capacity. Currently, business with Chinese automakers (including foreign-affiliated automakers) has also increased, and we will aim for further sales promotion in the future.



Continuously receiving new orders amid the sluggish European economy, we are putting effort into local procurement and the reinforcement of foundations for product development.

#### Regional outlook

In Europe, with increasing concerns over the recurrence of debt crisis, the tax burden on family budgets increased due to national budget constraint policies, delaying the recovery of personal consumption. Although severe price competition occurred with French and US automakers losing market shares, the auto sales from January to December 2012 were 12.53 million, dropping to the lowest level since 1995.

Meanwhile, the ever-expanding middle-income group served as an engine of market growth in Africa. In South Africa, this group is actively purchasing houses and automobiles, supported by low-interest loans. South Africa assists in the advancement of the automobile industry nationally, facilitating locally manufactured Japanese automakers' exports.

#### Results of activities in FY2012 and future initiatives

In FY2012 we won new business with German automakers in the field of automotive sealing and safety systems, in which we have built confidence through dealing with Japanese automakers. For interior and exterior parts, we received new orders for millimeter-wave covers from automakers in the UK as a result of their understanding of our company and products. In addition, Toyoda Gosei South Africa received three awards from major clients in the fields of "Quality," "Safety," and "Stable Delivery," owing to the high appraisal of their TPS activities.

In FY2013, we will put our efforts into the expansion of local procurement of functional parts and improvement of variable

costs, such as the cost of materials in the automotive sealing products. Following the previous fiscal year, we will strive for productivity improvement through strong support from Japan, communication and people-to-people exchange with other regions that have skills and experience.

#### TOPICS

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## Reinforcing production capacity in the UK and Czech Republic to respond to new orders



We expanded production facilities for opening trims and inner/outer belts at Toyoda Gosei UK Ltd. and Toyoda Gosei Czech, s.r.o. This is in response to new orders for auto-

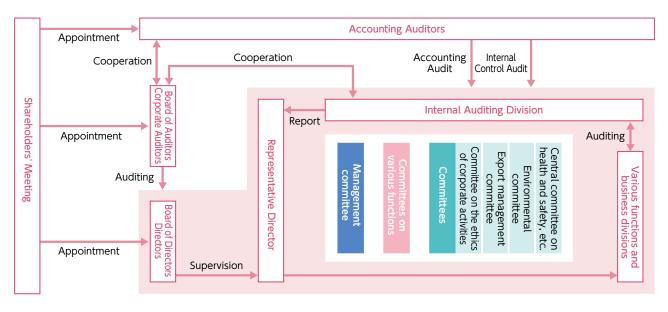
motive sealing products from European automakers. We also achieved productivity improvement and higher versatility of facilities. We will keep striving to ensure our competitiveness in this region.

### **Corporate Governance**

We have established a corporate structure that can swiftly react to environmental changes by promoting sound management and efficient organization.

#### For realization of quick, efficient and sound business management

We are enriching and strengthening corporate governance, aiming for efficient and sound business management, and view the stable improvement of shareholder value as our most important management task. In order to meet the expectations of all stakeholders, including shareholders and customers, we are building and maintaining an organizational system capable of responding swiftly and appropriately to environmental changes, and a fair, sound and transparent management system. We have put the legally mandated features in place, including shareholders' meetings, a board of directors, a board of auditors, and accounting auditors. In addition, we have developed and established an internal control system to deliberate on important issues, check business operations and reinforce internal auditing, in an effort to achieve (1) appropriate business judgments, (2) efficient business operations, and (3) effective supervision and auditing processes. We have also shortened the terms of the directors to one year, in order to develop a flexible management system that can respond swiftly to changes in the business environment, and to further clarify the management responsibilities of directors.



#### Diagram of the Corporate Governance System

#### Strengthening internal auditing

We conduct internal management and supervision based on corporate laws, etc., to check whether our corporate activities are being conducted in accordance with the law and corporate ethics. Internal auditing is conducted not only in the Audit Division, but also in the General Administration, Human Resources Development and Finance & Accounting Divisions. We also strengthened our checking system so that our auditors can observe smaller details, such as methods of managing classified information. There is a mechanism in place to collect the content of internal audits performed within each functional division in the Audit Division, and at the end of the fiscal year the Audit Division determines auditing topics and methods for the following fiscal year, after exchanging opinions and advice about the results of internal audits conducted by each functional division. As part of the monitoring, the Audit Division also observes the actual auditing by the functional divisions and gives instructions to improve auditing methods, etc. in some cases. As a result, the level of auditing technique by each functional division has been improving every year, strengthening the internal control system and building a reliable and comprehensive risk management system.

From FY2012, we put our efforts into improving the quality and efficiency of audits, as the introduction of CAAT\* has enabled us to analyze a large amount of day-to-day control data (big data). We are also preparing and operating internal controls related to financial reporting, based on the Financial Instruments and Exchange Law (J-SOX), to continue strengthening our governance.

\*CAAT : Computer Assisted Audit Techniques

Aiming to be good corporate citizens, we are advancing our efforts to establish compliance.

#### Ensuring compliance as the Toyoda Gosei Group

Toyoda Gosei maintains an unwavering commitment to compliance in order to ensure that each of our employees not only obeys all laws and regulations, but also maintains a keen sense of corporate ethics. In 1997, Toyoda Gosei established a "Committee on the Ethics of Corporate Activities," with the President serving as Chairman and all company executives as members. In 2009, to replace the legal liaison officer who was in charge of disseminating information within the divisions, a Compliance Advocate was assigned to each division to lead its compliance activities and ensure thorough, unified compliance by both management and employees on-site. We have also established compliance consultation services inside and outside the company to provide quick solutions when employees are faced with compliance problems in their daily business activities. In addition, we have established the "Toyoda Gosei Group Charter for Business Ethics" as a compliance action agenda which sets out the shared values and behavioral standards of the Toyoda Gosei Group. Every group company in Japan and overseas, including Toyoda Gosei, formulates specific action agenda based on this Group Charter. We have also established the "Toyoda Gosei Guidelines for Business Ethics," which we distribute to all employees.



#### Educational activities to strengthen and vigorously enforce compliance

Toyoda Gosei implements various educational activities to strengthen and vigorously enforce compliance by all employees. We are not only continuing to implement compliance workshops for all employees by rank and risk, but are also focusing on the enhancement of our employees' awareness of compliance using various educational tools. Specifically, these include the "Compliance Juku (cram school)," which presents case examples in cartoons run in a series in the company newsletter, and posts on the company message board of "Compliance Tsuushin (communications)," which explores and explains examples of court cases.

In FY2012, we focused on measures for potential risks based on the company policy, "Implementation of measures for potential compliance-related risks in at individual companies and divisions." Specifically, we performed "issue-resolving activities," in which participants identify compliance-related potential risks in individual divisions through discussions within the division, then devise and implement risk-prevention measures. This enabled the participants to share awareness of risks in their own divisions, resulting in energizing compliance activities. We also established new company rules to prevent insider trading. In addition, we held insider trading prevention workshops, in which about 100 people participated, for board members, division chiefs, and top management of affiliate companies. Meanwhile, we conducted a questionnaire about "compliance awareness levels" and "compliance-related problems," and worked toward improvement for divisions facing problems by devising and implementing improvement plans.



Workshops on insider trade prevention

#### Number of attendees at major workshops

Workshop name	No. of times held	No. of attendees
Workshop for new employees	Once each for employees who graduated from high school/university	110
Workshop for newly-appointed management	Once	60
Workshop on legal affairs for appointees (for mid-career employees)	3 times	215
Insider trading prevention workshop	Once	100
Workshops for individual divisions	4 times	216

#### Strengthening the systems of overseas and domestic affiliates

We proactively support affiliate companies so that they can conduct compliance activities independently based on Toyoda Gosei company policy.

In FY2012, we held a compliance liaison conference for domestic affiliate companies to provide a variety of support and information

sharing. For overseas affiliate companies, top executives themselves sent out messages to employees and directly assessed compliance awareness levels in order to show their attitude toward compliance.

### **Risk Management**

Our risk management extends beyond employee training and quality assurance activities, encompassing information security and disaster preparedness measures as well.

#### Strengthening and enriching measures against large-scale earthquakes

We perform risk management so as to deal with corporate risks that threaten our operation and business. In the wake of the Great East Japan Earthquake that occurred in 2011, we are strengthening and improving measures against large-scale earthquakes, centering on the "Crisis Management Organization Project" launched in January 2012.

#### Review of initial response by Crisis Management Organization Project

In FY2012, we reviewed our initial response based on considerations of the time when the Great East Japan Earthquake occurred. Starting with reviewing emergency measures organization and creating standards for establishment, we worked hard on holding onto supply chains, designating contact persons for individual clients, clarifying items for initial response, and training persons in charge of premises safety judgment. Meanwhile, we introduced facilities to maintain communications between bases, such as satellite mobile phones, and renewed or installed emergency power systems. In addition, along with rebuilding the east gate security room at the main office, we permanently established our Initial Response Task Force, with the second floor designated as the Initial Response Center. In addition, we reviewed rules and regulations related to initial response, distributed "Guidelines for Crisis Management Response" for all board members and division chiefs, reviewed and distributed "Guidelines for Earthquake Measures (pocket edition)" for employees, and created the BCP (Business Continuity Plan). Furthermore, we implemented nuclear power response measures at the Morimachi Plant and flood countermeasures in Thailand.

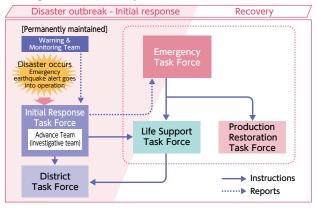
These actions completed our preparations for initial response, and we will continue to promote the review and enriching of responses to recovery.

#### Initial response in times of disaster and preemptive moves toward recovery

Based on the concepts of "Life Comes First" and "Quick Recovery," we are implementing anti-seismic measures for buildings and equipment. We continue to conduct periodic practical training based on various types of disaster response manuals. We have also introduced an "Earthquake Reporting System" and a "Safety Information System," which verifies the safety status of employees and their families, in order to improve the level of operation training. Also, we built a database showing the location of alternative facilities and employee skills/characteristics necessary for early recovery, and perform periodic maintenance. Furthermore, we have installed a server for emergency response at the above-mentioned Initial Response Task Force to make various types of information readily available.

During the Great East Japan Earthquake of March 2011, the company suffered no human casualties and there was no major impact on production or quality, but we are nonetheless taking all available measures to improve our systems for maximum preparedness.

#### Image of Disaster Response



#### Strengthening information security measures and heightening awareness

Toyoda Gosei maintains thorough information control so as to strengthen confidentiality management.

In FY2012 we continued to conduct annual verification of compliance levels in all divisions, while also performing on-site audits in relevant divisions, based on our "Guidelines for Management of Confidential Information." Our domestic affiliate companies conduct voluntary inspections and on-site audits, and overseas management/affiliate companies conduct voluntary inspections. In addition to distributing "Information System Security Operation Standards," we issue "Guidelines for Management of Confidential Information," with the aid of which we conduct security control education for all employees, through training for new employees and persons in charge of security protection in various divisions. The contents of these guidelines are revised as required. From April, we started security control education for mid-career employees as well, while also issuing Security News as needed, aiming for a higher level of security and raising awareness among employees.

#### Examples of Measure Enhancement

	Classification	Measures implemented
Prevention of negligent leaks	Hard	Preventing documents from being inappropriately removed or discarded through ID authentication of employees at multi-function digital copy-print machines and specialist printing equipment for diagrams
	Soft	<ul> <li>Data encryption of all PCs</li> <li>E-mail security reinforcement (making supervisor CC mandatory)</li> </ul>
Prevention	Hard	<ul> <li>Inspection of removed materials (inspected twice monthly)</li> <li>Increase in the number of surveillance cameras</li> <li>Wire setting for fixed PCs</li> <li>Laptop PCs</li> <li>Desktop PCs</li> <li>external HDDs</li> </ul>
of malicious unauthorized leaks	Soft	<ul> <li>Reinforcement in access privileges to file servers</li> <li>Restrictions on items taken out/enhancement of check function</li> <li>Acquisition and monitoring of system usage records and access records</li> <li>Prevention of unauthorized access (main building/IS Center)</li> </ul>
Moral measures		<ul> <li>Review of Security Management Rules</li> <li>In-house security management education</li> <li>On-site inspections of each division</li> </ul>

We offer attractive products and services based on the concepts of "Customer First" and "Quality First."

#### Integrated quality assurance system from development to production

Toyoda Gosei aims to 'become' a true global supplier of choice that brings a sense of joy and delight to its customers around the world."

We conduct our business activities under an integrated quality assurance system covering every stage from development to production, based on our Basic Policy for Quality.

All our plants have obtained ISO9001\*1 and ISO/TS16949\*2 certification, which are the international standards for quality management systems.

Each plant also sets its own quality control goals based on the basic principles of TQM\*<sup>3</sup> and makes every effort to produce attractive products.

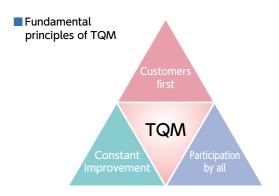
In addition, we issue "Quality System Global Standards" containing rules and expertise for quality improvement. Since FY2010 we have distributed it to all bases as guidelines for local staff to follow to ensure consistent product quality at all domestic and overseas bases.

\*1 ISO9001 certification obtained by : JQA-QM7318, QMA11826/12256/12238/13130/12841 \*2 ISO/TS16949 certification obtained by : JQA-AU0094/0091/0160/0124 \*3 TQM stands for "Total Quality Management," which means activities to enhance the

\*3 LQM stands for Total Quality Management, which means activities to enhance the "quality of goods and work" through "constant improvement" and "participation by all," based on the principle of "customer first" in order to improve the quality of management as well as of goods and services.

#### **Basic Policy for Quality**

Everyone shall bear in mind the concepts of "Quality First" and "The Next Process is the Customer," and engage in mutual cooperation so as to provide outstanding products and services that win the trust and satisfaction of our customers.



#### Activities aiming at own-process completion by all employees

All employees at Toyoda Gosei act based on the principle of "Customer First" and aim for own-process completion in all of our operations.

Own-process completion, meaning that "quality is built in during the production process," is the idea on which all our work is based. In manufacturing, we adhere to the concept that "No defects shall be tolerated in any production process, to ensure that there will be no defects in post-production (i.e., in the product given to customers)."

We aim for robust design\* that stands up to environmental changes and variations in manufacturing, and promote quality engineering on a company-wide basis, with the goal of achieving zero defects not only during mass-production processes, but from the first day a new product is launched. In addition, we are applying the concepts and know-how of own-process completion, solidly entrenched in our production lines (manufacturing divisions), to office staff (administrative and technical divisions) as well, so as to improve operations company-wide based on the ethos of own-process completion, in which each individual can make on-the-spot judgments about work quality.

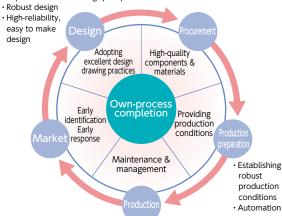
\* Robust design: Strong product designs that are even in quality and are not susceptible to change from usage environment.



Presentation of improvement results by staff members

Own-process completion to achieve a zero-defect production process

Improvement of drawing quality





Plant inspection by top management

#### Sales activities responsive to customer needs

Standing at the front lines of our company, the Sales Division plays a role in actively listening to needs and obtaining development information from key members in technology and procurement, and applying these to sales promotion, so as to respond to the needs of a global and diverse customer base. While cultivating good relationships with customers, the Divsion

collects and analyzes diverse information on matters essential to customers and the problems they face. Based on this content, it also builds a relationship of mutual trust with customers by presenting unique proposals that meet diverse customer needs in cooperation with relevant internal departments.

#### Monitoring the manufacturing process and market quality and promoting measures to adopt

We are promoting own-process completion for all manufacturing processes of safety parts that are related to the basic functions of automobiles, while conducting activities from two aspects: 1) introduction of automation to "create processes" that never allow the production of defective parts or pass them to downstream processes, and 2) heightening of sensitivity to "develop human resources" that do not make mistakes, so as to make absolutely sure that there are no major quality defects arising from our company. In addition, we conduct audit and improvement activities by full-time auditors in all processes at our domestic and overseas bases.

We have established a system through which information on any quality problems occurring in the market is conveyed through the automakers, then swiftly passed on to the relevant internal divisions, after which products are recalled and analyzed, the causes are immediately investigated, and measures are taken to prevent a recurrence of the problem.

When it is difficult to find the cause of a problem and its solution

at our company, we team up with the quality divisions of automakers and conduct tests using test vehicles, etc. We then cooperate to promote swifter and more precise prevention of recurrences, and take preventive measures for future products.



Activities for improving market reliability

#### Praised by customers as a superior supplier

Our products are delivered to automakers around the world and underpin their vehicles' basic performance. Each automaker commends excellent suppliers every year, and Toyoda Gosei has received a great number of such commendations.

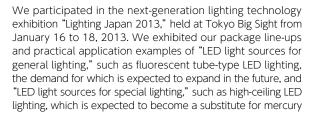
#### Awards for quality in FY2012

Award names	Company receiving award	Origin of commendation
Quality Effort Award	Tianjin TG	Tianjin FAW Toyota Motor Co., Ltd. Sichuan Faw Toyota Motor Co., Ltd. SFTM Changchun Fengyue Co., Ltd. Tianjin FAW Toyota Motor Engine Co., Ltd. FAW Toyota (Changchun) Engine Co., Ltd.
Good Quality Award	Foshan TGR	Tianjin FAW Toyota Motor Co., Ltd.
Quality Achievement Award	Foshan TGR	Tianjin FAW Toyota Motor Co., Ltd.
Quality Achievement Award	Zhangjiagang TGP	Sichuan Faw Toyota Motor Co.,Ltd.
Good Quality Award	Foshan TGR	SFTM Changchun Fengyue Co.,Ltd.
Quality Achievement Award	Tianjin TG	Tianjin FAW Toyota Motor Engine Co.,Ltd.
Quality Achievement Award	Tianjin TG	FAW Toyota (Changchun) Engine Co., Ltd.
Best Quality Award	Tianjin Star Light	Great Wall Motor Company Limited
Good Quality Award	Foshan TGR	GAC Toyota Motor Co., Ltd.
Award for Quality Cooperation	Tianjin TG	GAC Toyota Motor Co., Ltd.
Award for Quality Cooperation	Zhangjiagang TGSS	GAC Toyota Motor Co., Ltd.
Award for Quality Cooperation	Foshan TGR	Guangqi Toyota Engine Co., Ltd.
Quality Improvement Award	Foshan TGP	GAC Toyota Motor Co., Ltd.
Supplier of the year award 2011 North America	TGFSUS	Kautex Textron GmbH & Co. KG
Quality & Delivery Award	TGMO	Subaru of Indiana Automotive, Inc.

#### ΤΟΡΙΟΣ

#### Lighting Japan 2013

Presents cutting-edge LED technologies that contribute to the future of lighting



lamps. We will continue to develop world-leading "high luminosity," "high efficiency" LEDs that contribute to the



future of lighting, while also widely introducing our technical strength and products through such exhibitions.

With "Respect for humanity" and "Safety comes first" as our fundamental principles, we aim to create a healthy workplace where employees can work with peace of mind.

#### Developing globally-minded human resources who can think and act independently

At Toyoda Gosei, all employees share a common belief that "corporate power means human resources, which must be nurtured and developed."

We lay stress on language education for younger employees to systematically cultivate human resources that can succeed on the global stage, while also providing opportunities for overseas internship (on-loan system for training) such as working with national staff for one year at overseas bases.

#### Human Resource Systems



#### Activating human resources development with enhanced education programs

Toyoda Gosei is striving to enhance our education programs so as to develop human resources capable of responding effectively to internationalization and formulating and resolving problems.

From FY2012, we proactively put our efforts into developing human resources that can do their work with quality control in mind. We advanced the timing for the basic problem-solving education of younger employees from five to six years after joining our company to their third year, so as to enable them to apply problem-solving approaches at an early stage. In particular, we created a mechanism in which they interact with their superiors in practical situations of problem solving in their own tasks, in order to ensure that superiors at workplaces provide proper OJT to their subordinates.

Meanwhile, we also lay stress on language education for new and younger employees. From their informal appointment to joining our company, new employees practice e-learning for their personal development, and enhance their motivation to learn English through intensive training provided by native instructors after joining our company. In addition, we are working on the development of global human resources from a younger age.

We enriched the contents of the "Language Skills Cultivation Program for Younger Employees" for employees in their 20s and 30s, which started in FY2011, and an accumulated total of 310 employees learned English skills that directly connect to their tasks.

#### Global human resource cultivation

In order to pursue optimum production in various countries throughout the world, it is necessary to implement autonomous, regionally-based management, and to localize our overseas affiliates.

Thus, our company promotes development of global human resources so as to facilitate personnel localization and local staff cultivation. In FY2012 we conducted a "Global Executives Semi-

nar" for 15 executive trainees from North America, Europe, Asia and Oceania, and "Middle Management Training" for 17 division leader candidates from China. We also started the ICT (Intra-Company Transferee) program, in which employees are transferred from overseas Global Executives Seminar



To continuously invigorate human resources development, since FY2009 we have been implementing a shift from outside lecturers to in-house lecturers, except for specialized fields of education. By conveying the knowledge and skills they have accumulated on the job, these highly experienced employees help other employees to acquire practical knowledge and skills applicable to actual work duties. Moving forward, we will continue honing our education programs to promote the cultivation of competent human resources.

#### Training Structure

	5				
Position title	Training according to employees' positions		echnical ning	Overseas trair	
GM/Division Leaders	Management training for GM/ Division Leaders	Training	Training	Trair	Lang
GL/ Managers	Management training for GL/Managers Newly Appointed GL Policy Development Training	ning system		Training for transferred/local employees	_anguage training
TL	Management training for TL	ĥ	) m	ansf	ning
Assistant Managers	Management training for Assistant Managers	for eng	system for skills	erred/	Uq
Section Leaders	Training for Section Leaders	engineers	21	loca	
General employees	Level 4 problem resolution follow-up training Level 3 training, Mid-career leader training program	ers		il empl	
New employees	Training for new employees English training for new employees			oyees	

bases to our company to receive internship training. Currently, two employees from India, one from China, and one from Thailand have been transferred, and we plan to further expand this program. In addition, we promote other programs such as accepting 11 local employees from China, Thailand, Vietnam, and Mexico via the Association for Overseas Technical Scholarship (AOTS) to provide practical on-the-job training for a period of one to nine months.

Training for global human resource development
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Workshop name	Number of countries participating	Number of attendees
Global Executives Seminar	7 countries	15 people
Middle Management Training	1 country (China)	17 people
AOTS	5 countries	11 people
ICT	3 countries	4 people

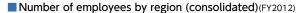
#### Employment of human resources

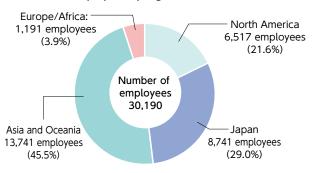
Toyoda Gosei promotes fair and impartial adoption and development of human resources with respect for diversity, by ensuring stable employment and improving the working environment and systems that make work easier for our employees.

#### Workforce composition (non-consolidated)

	-						
		FY2011			FY2012		
	Male	Female	Total	Male	Female	Total	
No. of employees	6,242	728	*6,970	6,068	695	*6,763	
Average age	40.8	35.9	40.2	41.4	36.4	40.9	
Average length of employment	16.7 years	11.1 years	16.1 years	17.4 years	11.9 years	16.8 years	

\*Total no. of employees does not include 407 employees dispatched overseas





#### Internal support to provide a stable work-life balance

We have created and worked to enhance a system that prioritizes a work-life balance and emphasizes independence while enabling each one of our employees to choose their own way of working. We also provide support for our employees so they can work with greater peace of mind and motivation. In FY2012 as well, in response to the needs of employees, we implemented "Child-Rearing Day," "Networking Event for Working Mothers," "TG Family Day" and a "Holiday In-house Nursery." Among other things, we strengthened our support for balanc-

ing nursing care and work, such as holding "workshops for nursing care support" and distributing a "guidebook for nursing



TG Family Day (company tour for employees' families)



Holiday nursery

care support." We have also conducted educational activities to create working environments that make the support system easy to use. We would like to continue more fulfilling measures, while providing continuous support to employees. In April 2011 we were accredited by the Ministry of Health, Labour and Welfare for the second time as a company that actively works on supporting the development of the next generation with action plans based on the idea of work-life balance. We are making further efforts, centering on workplace understanding activities based on current action plans.



"Kurumi" Next-Generation Nurturing Support certification mark



Guidebook for nursing care support

#### **Promoting diversity\***

Toyoda Gosei is working to foster a corporate culture that enables our employees to demonstrate their individual capabilities fully through diverse individuality. We have also established a system to enable employees of retirement age or with disabilities to continue working in stable jobs. \*Diversity refers to the utilization of human resources irrespective of race, nationality, gender or age

#### Promoting development of diverse human resources

From FY2010 we set up a specialized organization to facilitate the use of diversified human resources, while putting particular effort into facilitating the utilization of our female workforce. Centering on management-level employees, we hold workshops to raise awareness of and change behavior toward female employees and to thoroughly develop consciousness about company policies and the significance of diversity. We also provide female employees with places for considering and cultivating their way of working and future orientation.

We conducted a survey on the utilization of women to enable female employees and their supervisors to grasp issues such as how female employees perceive their jobs, how their supervisors cultivate and promote female subordinates, their ideas for a merit-based evaluation system, the pace of pay rises and promotions, etc. Based on the current issues identified through the survey, we formulated a three-year development plan for the utilization of female employees, and are moving forward with specific efforts such as development of workplace environments.





Workshop for management to promote Seminar for female employees the utilization of female employees

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#### Creating a workplace where people with disabilities can establish themselves and feel that their job is rewarding

We are proactively putting effort into employing persons with disabilities. In FY2012, we set a 2% target employment rate for disabled people, which exceeds the 1.8% employment rate required by law, and employed 113 people with disabilities (as of April 1st, 2013), achieving a 2.1% employment rate that exceeded the initial target.

The "Committee for Promotion of Employment of People with Disabilities" plays a core role in various relevant activities, ranging from hiring to assignment/education, firm establishment in stable positions, and raising people's awareness. In particular, we focus on the establishment of people with disabilities in stable positions, and aim to grasp the current situation and improve working environments through periodic interviews with people with disabilities. We have put a system in place that can implement each stage from hiring to assignment in a planned manner, by routinely exploring jobs to which people with disabilities can adjust themselves. The special subsidiary TG Welfare and the entire Toyoda Gosei Group also strive to promote employment of people with disabilities (see page 27 for a related article). In FY2012, we delegated employees with mental disabilities to our Haruhi Plant to perform the first "in-factory contracted work by people with disabilities."

#### Change in the employment rate of disabled people

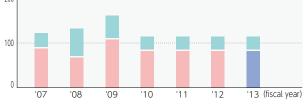


#### Creation of a system that enables work with peace of mind after retirement

In April 2006 we established the "Retiree Re-employment System," and are working to construct a system that facilitates work with peace of mind after retirement.

#### Change in Number of Reemployed Retirees

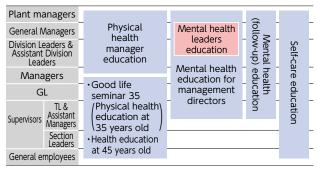
(persons) Reemployed persons Persons scheduled to be reemployed Retirees



#### Maintaining mental and physical health support

We are taking several measures to promote and strengthen employee health, focusing on the key areas of mental and physical health maintenance.

#### Health Education Structure



#### Continuing mental health education for management directors

In order to promote efficient workplace operation and smooth communication, we regularly held mental health education sessions in FY2011 for each employee position, with a focus on newly appointed management directors, division leaders, and assistant division leaders, all of whom can be susceptible to stress. A qualified clinical nurse at each site provides optimum counseling services. With the number of consultants declining, the results are steadily beginning to show.

#### Raising awareness of healthcare

Since FY2007 we have held the "Good Life Seminar 35" for employees aged 35, to provide education about keeping healthy day-to-day and prevent lifestyle-related diseases. In FY2010 we launched the "No Smoking Program" and moved forward with activities to help employees attempting to quit smoking.

From FY2011, we continued a program of practical education for employees aged 45, covering eating habits, types of exer-

cise, and consumption of alcohol, removed cigarette vending machines within our company, and suspended on-site sales of cigarettes. In addition, we are advising caution and promoting thorough hand-washing and gargling in order to prevent infectious diseases such as seasonal and new types of influenza. We intend to continue these activities while also promoting environmental improvement in smoking rooms on company premises.

### Proactively promoting employment of severely disabled people

#### To help each disabled person become independent in society

Our domestic affiliate TG Welfare is working on the employment of disabled people, and, in particular, is proactively providing "independence support for severely disabled people." The company aims to support disabled people so that each one of them can live an active life in society. As of March 2013, 18 employees with mental disabilities (of which 12 are with severe disabilities), one physically disabled employee, and one mentally handicapped employee are working with us.

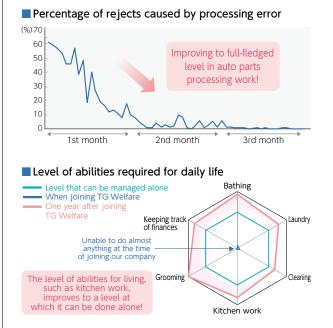
#### **Reorganized existing subsidiaries and obtained certification as a special subsidiary**

TG Welfare was established as a company to provide welfare services for employees of Toyoda Gosei; however, the roles it is to fulfill have become ambiguous due to the expansion of the business lineup, such as moving into temporary personnel services.

In the wake of the Lehman fall in 2008, Toyoda Gosei needed to reconsider group companies, including TG Welfare. Through a survey conducted at that time, we found that the

#### Fostering abilities with which to live in society

Currently, disabled employees engage in operations such as finish processing of rubber products for which Toyoda Gosei places orders. Most of the employees have mental disabilities of various kinds, which used to be considered handicaps that make management difficult. We have achieved high productivity by assigning work-site "job coaches" with clinical qualifications including registered nurses and childcare nurses to repeatedly instruct until all the disabled employees understand the contents of the work, installing partitions to prevent employees seeing things that might distract them, devising proper working methods, improving working environments, and developing work tools that are suited to each individual employee. In addition to training for work opera-



"employment of disabled people" was one of the regional challenges, and we decided that our mission is to find a solution. The number of employees was cut down to one-fourth by implementing changes such as transferring business operations to other companies. The ratio of disabled employees (of which 60% are severely disabled) exceeded 20% of all employees, resulting in us obtaining certification as a special subsidiary for the employment of disabled people.

tions, we offer rehabilitation training for them to go about their daily lives. We also try to help them become independent, not only as employees but also as members of society. Most of the disabled employees commute from their homes, while some live together in a dormitory near the company. Disabled employees, who could not do anything on their own at the time of employment, are now able to do household chores such as cleaning and cooking. In September 2012 we introduced "in-factory contract work by people with disabilities," for all the disabled employees working in Toyoda Gosei Haruhi Plant. This activity has drawn attention as a first step toward inclusiveness, in which non-handicapped and disabled people act together in the same environment.

These results have been made possible through collaboration among our company, the families of all disabled employees, and the schools or facilities they came from.

problems one by

one.

schools or facilities they came from. We have achieved productivity improvement and an environment in which disabled people can work actively by working out various problems through close contact between the three parties and eliminating the

Family

#### Aiming to be a model case for the employment of disabled people

TG Welfare is predicated on the long-term employment of disabled people, and recommends disabled employees to start asset-building savings for housing acquisition. This is so employees with disabilities who have difficulties finding rental housing will not be at a loss for places to live in the future. We are proactively tackling the employment of disabled people; however, there is a limit on the number of people that one company can employ. Therefore, we would like to contribute to the realization of a society in which people with disabilities can live independently by making this initiative a model case and spreading it in society.

#### Promoting activities to achieve our goal of zero accidents

Under the direct leadership of our president, who is the General Health and Safety Manager of the whole company, we promote activities to achieve our goal of zero accidents with the

"Development of a Safe Workplace" and the "Development of Safety- Aware Personnel" as our two prime movers.

## Acquisition of occupational safety and health management systems by 25 domestic and overseas sites

In our "Development of a Safe Workplace" program, we are working on the creation of safe facilities and forklift-free activities, aiming to keep our workplaces free of hazardous sites or causes of danger that are linked with accidents. The Toyoda Gosei Group has obtained the OSHMS certification\*1, a common standard for occupational safety and health management systems, for domestic bases, and has been advancing our activities to obtain the OHSAS certification\*2 for our overseas bases. As of the end of FY2011, the sites shown on the right have obtained these certifications.

\*1 OSHMS : Occupational Safety and Health Management Systems

\*2 OHSAS : Occupational Health and Safety Assessment Series

The status of occupational safety and health management systems acquisition

Toyoda Gosei	<ul> <li>Heiwacho Plant</li> <li>Haruhi Plant</li> <li>Inazawa Plant</li> <li>Bisai Plant</li> <li>Nishimizoguchi Plant</li> <li>Morimachi Plant</li> </ul>
Domestic Affiliates	<ul> <li>Ichiei Kogyo Co., Ltd.</li> <li>Hinode Gomu Kogyo Co., Ltd.</li> <li>Chusei Gomu Co., Ltd.</li> <li>Hoshin Gosei Co., Ltd.</li> <li>TG Maintenance Co., Ltd.</li> <li>TG Opseed Co., Ltd.</li> </ul>
Overseas Affiliates	<ul> <li>Fong Yue Co., Ltd.</li> <li>Tianjin Toyoda Gosei Co., Ltd.</li> <li>Toyoda Gosei Czech, s.r.o.</li> <li>TG Kirloskar Automotive Pvt. Ltd.</li> <li>Toyoda Gosei Texas, LLC</li> <li>Toyoda Gosei Australia (Pty) Ltd.</li> <li>Tianjin Star Light Rubber and Plastic Co., Ltd.</li> <li>Toyoda Gosei (Thailand) Co., Ltd.</li> <li>Toyoda Gosei (Tianjin) Precise Plastic Co., Ltd.</li> <li>Toyoda Gosei (Foshan) Rubber Parts Co., Ltd.</li> <li>TG Minto Corporation</li> <li>P.T. Toyoda Gosei Safety Systems Indonesia</li> </ul>

#### Implementing "safety-focused activities" for the independent resolution of health and safety issues

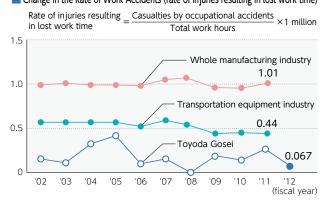
Cultivating "safety-aware personnel" is an awareness-building activity that aims to foster individuals capable of identifying possible threats by checking all employees and providing guidance to those who need it. Since FY2009, we have been working on "safety-focused activities" to investigate and resolve problems or issues relating to health and safety in the workplace for each

#### Main Activities in FY2012

Implemented activities						
Development of Safety- Aware Personnel	1	<ul> <li>Raising safety awareness among all employees by conducting "safety-focused activities" in every workplace</li> </ul>				
	2	<ul> <li>Conducting safety education for workers other than operators, such as production/ manufacturing engineers, maintenance personnel, and technicians</li> </ul>				
	3	<ul> <li>Boosting the management level of safety activities through thoroughgoing OSHMS operation</li> </ul>				
Development of a Safe Workplace	4	<ul> <li>Manufacturing division heads and plant managers personally make the rounds to make inspections and corrections</li> </ul>				
	5	<ul> <li>Workplace inspection of the entire plant without omission, and visualization of defects</li> </ul>				
	6	<ul> <li>Hardware measures to exterminate STOP7 accident causes         <ol> <li>(1)Ensuring safety in working spaces other than mass-production processes</li> <li>(2)Inspection and correction of maintenance conditions of hardware measures taken in the past</li> <li>(3)Remaining STOP7 measures that could not be implemented in FY2011</li> </ol> </li> </ul>				

on-site subsection and team. Twice a year, each manufacturing division is evaluated for its approach to safety, knowledge, ability to get things done, and ability to instruct workers. Those who excel in these fields are selected to be "safety excellence managers" and are given public recognition. By the end of FY2012, 36 managers and 96 supervisors had been recognized for this honor.

#### Change in the Rate of Work Accidents (rate of injuries resulting in lost work time)



#### Creating a workplace that is easy to work in with the cooperation of labor unions

Based upon our fundamental philosophy of labor-management relations, "establishing mutual trust and sharing responsibilities between employees and management," we hold discussions with the labor union on wages, working environment, hours and other working conditions.

We regularly hold meetings such as the "Central Labor-Management Council" and the "Divisional Labor-Management Council." At the "Divisional Labor-Management Council," in particular, division chiefs themselves and union members directly discuss matters of key importance to the workplace, aiming to create an environment where all employees can work comfortably.



Central Labor-Management Council

## **Relationship with our Shareholders**

We strive to maximize understanding of Toyoda Gosei's achievements by boosting corporate value and proactively disclosing information.

#### Business results and rates of return

Regarding sales in the current term, the automotive parts business recorded increases in revenue due to our proactive sales promotion activities targeted at foreign-affiliated automakers, in addition to the bounty system for eco cars in Japan, launching new models for major customers in North America, and the increase in auto sales mainly in emerging countries.

In the optoelectronics business, also, revenue increased thanks to the demand increase in LED products for tablet terminal backlights and lighting etc., resulting in an overall increase of 18.8% from 504.5 billion in the previous term to 599.6 billion yen.

As for profit, as a result of our steady efforts in rationalization across the Group, in addition to the effect of sales increases both

in the optoelectronics and automotive parts businesses, our ordinary profit increased by 81.3% from 20.2 billion in the previous term to 36.7 billion yen, and our net income increased by 138.9% from 8.9 billion in the previous term to 21.4 billion yen in the current term. Because of this, we decided to distribute an annual dividend from surplus of 44 yen per share.



Report of our business results

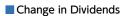
#### Proper disclosure of information

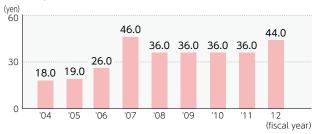
We endeavor to disclose information properly and regularly by disseminating it through our homepage and IR tools (earnings summary, data for financial briefings, etc.), holding financial briefings, and participating in IR events.

In FY2012 we made efforts to enrich the contents of IR information on our website. Twice yearly, we hold briefings for institutional investors and securities analysts to present our financial statements.

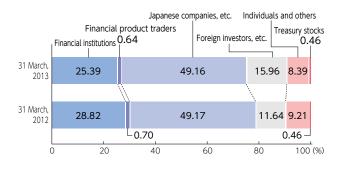
We post the materials from these meetings, together with the relevant financial information, on our website to ensure proper disclosure.

In addition, we strove to gain recognition as an open and transparent corporation by arranging plant tours individually for institutional investors and security analysts to make our technical strength known to the world, and participating in IR events, including overseas institutional investors.





Distribution Status according to Shareholder



#### Main IR Activities

Targeted persons	IR activities		
Domestic institutional investors Securities Analysts	Individual discussions, financial briefings	"Tavada Casai Dana#"	
Overseas institutional investors	Individual discussions, participation in IR events	"Toyoda Gosei Report" issued Dissemination of financial and IR information on the website	
Individual shareholders	Plant tours held after the shareholders' general meeting		
and investors	"Report on Business Results" issued		



Earnings announcement

## **Relationship with our Suppliers**

We develop and grow together along with our suppliers, based on strong cooperative ties.

#### **Basic Procurement Policy**

Our basic procurement policy is to "establish a procurement framework beneficial to us and achieve optimum global procurement, by swiftly and accurately gauging changing procurement conditions as well as the attitudes of customers and competitors, ensuring compliance and conducting business in a fair and open manner, so as to produce competitive products." Based on the idea that "suppliers support our company," we will mobilize our company and work to strengthen the business foundations of our suppliers through the principles of "Genchi," "Genbutsu," and "Genjitsu" (translated as "actual locations", "actual materials" and "actual situations," respectively).

#### Procurement policy briefing sessions held

We hold a procurement policy briefing session every April to present suppliers with details of the current business environment and the directions we intend to follow, and to ensure solid understanding of our procurement policy for the year. Our explanatory briefing for procurement policy was participated in by 170 suppliers of products, processing, materials, facilities, and molds, for discussions on "our challenges and actions to be taken," as well as safety, quality, quantity, cost, technology, global expansion, and CSR as the "procurement policy" for the current fiscal year.

We also give awards each year to suppliers who have made note-worthy contributions in various fields, to show our appreciation and to encourage all participating suppliers to continue making progress.

In FY2012 we presented certificates of appreciation to suppliers who gave us a great deal of support in continuing our production during times of manufacturing problems such as plant accident.



Explanatory briefing for procurement policy

#### Strengthening our collaboration with suppliers

Four times a year, about 100 suppliers participate in a procurement liaison meeting. The meeting focuses on ongoing themes such as developments in production information, quality control, compliance activities, safety activities, anti-earthquake measures, security management, and harmful substances management. In addition to enriching content related to these ongoing themes, we deepen our relationships with our suppliers by holding various educational sessions and lectures for the cultivation of human resources.

#### Our initiatives for quality improvement, safety/fire protection, compliance, etc.

We are taking action in order to grow and develop along with our suppliers through codification of standard operating procedures and activities for prevention of defective outflow, intended to prevent significant quality problems. In addition to efforts to reduce total costs and improve competitiveness, we also urge supplier participation in the design of metal molds and products. In FY2012, we focused particularly on improving levels of safety, fire protection and quality, through workshops and reciprocal visits with suppliers. Considering the drop in revenue due to the Great East Japan Earthquake and current economic conditions, we are actively engaging in discussions with our suppliers regarding management issues, and activities to secure profits, such as cost reduction.

#### Promoting green procurement

Based on our company's "Green Procurement Guidelines (3rd Edition)," we continue to expand environmental activities. The guidelines are composed of three components: "building environmental management systems," "regulatory compliance and environmental performance improvement," and "harmful substances management."

We have produced good results in "building environmental management systems" and "regulatory compliance and environmental performance improvement," by requesting that suppliers make organizational and systemic enhancements and production improvements so as to alleviate environmental burden, acquiring ISO14001 certification, and promoting energy saving and waste reduction.

In terms of "harmful substances management," we comply with the globally increasing number of harmful substance regulations, and request that our suppliers monitor the chemical substances in products or materials they supply us with. We also work closely with suppliers to comply with the European ELV<sup>\*1</sup> and REACH<sup>\*2</sup> regulations and VOC<sup>\*3</sup> management regulations. \*1 ELV: End of Life Vehicle

<sup>\*2</sup> Registration, Evaluation, Authorization and Restriction of Chemicals

<sup>\*3</sup> Volatile Organic Compounds

### **Involvement in Local Communities**

As a good corporate citizen in the community, we are working to create better local communities through interactions with local residents.

#### Further bolstering social contribution activities

As an automotive parts manufacturer, Toyoda Gosei strives to create better local communities though interactions with local residents. Aside from essential educational activities in traffic safety, our other activities are based on the four cornerstone themes of "support for the vulnerable," "youth development," "environmental protection" and "crime prevention and community safety."

In order to encourage our employees and give them an incentive to widen the circle of their volunteer activities, we have enhanced our employees' awareness of social contribution activities and developed the support system by introducing a volunteer award system and social contribution education. These efforts have enabled our employees to interact with local residents through various activities.

In our overseas bases, also, we strive to create close relationships with local communities, mainly through volunteer activities. From FY2012, we have designated October as a "month for volunteering." As our first trial, we widened the circle of volunteers and strengthened the bond with local communities by conducting simultaneous social contribution activities on a global scale.

To support reconstruction after the Great East Japan Earthquake, we contributed to community renovation activities to create bright towns by donating security lights, which make the most of our characteristic technologies.



General Administration Division Volunteer Center

Keichi Ito



At the Volunteer Center, we conduct a wide range of volunteer-based activities that contribute to society, such as simultaneous social contribution activities on a global scale, reconstruction support activities for disasters caused by the Great East Japan Earthquake, neighborhood-watch anti-crime patrols, the cutting-edge "green factory," Wheelchair Doctors, and the Ichinomiya Boys and Girls Invention Club. An essential element of volunteer activities is employees' understanding. We strive to boost the number of supporters so that they can participate in activities voluntarily, continuously, and happily.

#### Support for the Vulnerable



**Charity Meals** 

Cafeterias at eight of our business establishments introduced "charity meals," with 10 yen raised for charity per meal. With the collected funds, we purchased special mats for rehabilitation, which were donated to three welfare facilities in the community.



Wheelchair Doctors

This volunteer group formed by employees visits welfare facilities for the elderly and hospitals in the community every month to repair, adjust or clean more than 300 wheel-chairs a year. This program has been going on since 1996.



Selling goods produced by vocational training facilities

To support the independence of people who attend vocational facilities for the disabled, we provide places to sell hand-made bread and cookies at seven of our facilities every month. Any revenue earned is used to help finance the operation of vocational facilities.

#### **Environmental Protection**



Plant Afforestation Project

To enhance our employees' environmental awareness and promote communication within the company, we have conducted tree-planting activities at our plants since 2009. In FY2012 we planted 38,500 trees at four bases in Japan and overseas.



**Cutting-edge "green factory"** From 2011 we have been conducting activities with local people, such as an "ecosystem

ties with local people, such as an "ecosystem survey," "cleanup action," and "ecosystem experience learning" with the aim of environmental conservation, using our Heiwacho Plant as a model plant.



Company-wide Community Cleanups In addition to routine cleaning activities at each facility, we implement "company-wide community cleanups" twice a year. More than 2,500 people, including our employees' families and students from the community, participate in the cleaning activities.

#### Youth Development



Ichinomiya Boys and Girls Invention Club To provide a setting that enables children to enjoy making things, and help them grow into creative human beings, we have fully supported this club since its establishment, taking part in its planning and operation. In FY2012, 96 children participated in the club.



Sponsorship and Support Activities for Sports We are involved in activities to encourage local elementary and junior high school children to enjoy sports, contributing to their sound growth and development. Athletes from our volleyball, handball and basketball clubs serve as instructors. We also routinely provide opportunities for interactions with people with disabilities.

#### Crime prevention and community safety



Neighborhood Watch anti-crime patrols We have launched a program of neighborhood watch anti-crime patrols, in which employees volunteer to patrol key crime-prevention areas such as the vicinities of elementary and junior high schools and train stations. Patrols are being conducted in Kiyosu city, Inazawa city and Ichinomiya city and Morimachi.

#### Crime prevention and community safety



**Blue light crime prevention patrol** From July 2012, we introduced "blue light patrol cars" equipped with blue lights. We expanded the area of these activities by three times, and started crime-prevention activities with increased mobility. In FY2012 we conducted this activity in Kiyosu, Inazawa, and Ichinomiya cities.



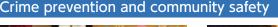
Donation of LED security lights Since 2009 we have been donating our LED Security Lighting to communities to help them create brighter and safer cities without crime. By FY2012 we had donated to Kiyosu, Inazawa, and Ichinomiya cities.



#### **Traffic Safety Patrols**

We are involved in educational traffic safety promotion activities aimed at reducing traffic accidents and protecting vulnerable road users. On the 10th, 20th and 30th days of each month, our employees voluntarily stand around the area of each facility to call for traffic safety among people in the community.

#### Other Activities





Traffic Safety Presentation (on Valentine's Day) About 50 employees visit 14 nurseries and kindergartens around our facilities to teach children the importance of traffic safety using picture-card shows and videos. In FY2012 we marked the 27th anniversary of

In FY2012 we marked the 27th anniversary of this activity.



Patrol to eradicate drink-driving From 2008 our Morimachi Plant has been conducting activities to call for drink-driving prevention by patrolling community areas in cooperation with traffic safety-related organizations. The patrol was also conducted in FY2012 with the aim of eradicating drink-driving.



Education on social contribution for new employees We hold events for exchange between new employees and people with disabilities, to help our employees properly understand disabilities through interaction, learn ways to support people with disabilities, nurture a considerate spirit, improve their social and cooperative skills and expand their perspectives.

#### **Other Activities**



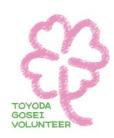
Volunteer Award System

We give awards to employees who have conducted outstanding volunteer activities. This increases our employees' motivation to volunteer, and provides an incentive to widen the circle of volunteers.



#### Make a CHANGE Day

We participated in "Make a CHANGE Day," in which participants simultaneously conduct volunteer activities in various parts of Japan, and we received commendation for the fourth year in a row in recognition of our simultaneous social contribution activities on a global scale.





#### TOPICS

## Simultaneous social contribution activities on a global scale $\sim$ circle of volunteers linked together throughout the world $\sim$

Aiming to strengthen our bonds with local communities and to be a better corporate citizen, we have designated October as "volunteer month" since FY2012. As part of this initiative, we conducted "simultaneous social contribution activities on a global scale," in which domestic and overseas affiliate companies simultaneously participated, mainly on October 20. The participants were 22 domestic business establishments. 10 domestic affiliate companies, and 31 overseas affiliate companies, making a total of 63 with about 5,000 employees.

In addition to volunteering activities such as cleaning, tree planting, and collection of spoiled/unused postcards, we conducted various activities according to the situation in each country or region, such as plant tours to which local people were invited and vocational training for people with disabilities. We will continue this activity in FY2013 and onward.



The Toyoda Gosei Group, which includes domestic/overseas affiliate companies and suppliers, promotes environmental protection activities to cope with globally-spreading environmental problems.

The Goyoda Gosei Group conducts a variety of activities covering the entire life-cycle of automobiles, based on basic environment policy.

We are making an effort in environmental protection activities, and quickly respond to changes in needs caused by laws and regulations as well as the changing times, while striving to be environmentally friendly all the way from business activities (development, manufacturing, through to sales) to disposal. We also promote the vitalization of activities by raising environmental awareness among individual employees.

Moving forward, we will continue our activities based on the "Fifth Environmental Action Plan," the Toyoda Gosei Group's action plan for environmental initiatives from FY2011 to FY2015.

#### **Environmental Policy**

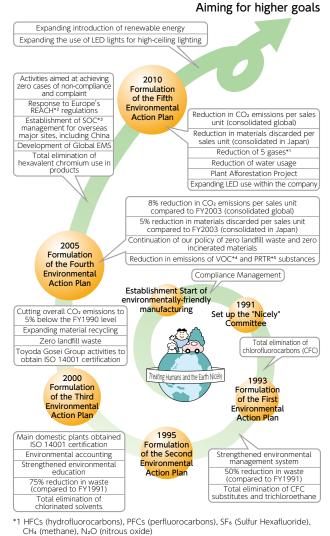
#### Promotion of environmentally-friendly corporate activities

Maintain the awareness that our business is deeply linked to the environment at every stage, from development and production to sales and disposal. Promote environmentally-friendly corporate activities in cooperation with customers and the public sector as the entire Toyoda Gosei Group, including domestic and overseas affiliated companies and suppliers as well as all business units of Toyoda Gosei.

#### 2 Initiatives as a good corporate citizen

Take a progressive approach to local and social environmental activities as a good corporate citizen while participating in and offering support for, and cooperation with, environmental activities with various organizations. Educate our employees so that they will participate in environmental activities as members of the region or community, while offering them support for their social contribution and volunteer activities.

**3** Disseminate information about these initiatives widely, and listen to a variety of opinions for greater improvement of activities.



2 Registration, Evaluation, Authorization and Restriction of Chemicals 3 Substances of Concern (Environmentally harmful substances)

- \*4 Volatile Organic Compounds
- \*5 Pollutant Release and Transfer Register

#### Organization for Promoting Environmental Action

The "Environmental Committee," with our President as its Chairman, discusses and decides upon environmental policies and other important issues for the Toyoda Gosei Group as a whole. Our Environmental Committee is composed of 3 subcommittees in the fields of products, production and quality. These subcommittees strive to forge links with other subsidiary organizations such as liaison committees, and work with groups to promote environmental protection and management activities from their own professional viewpoints.

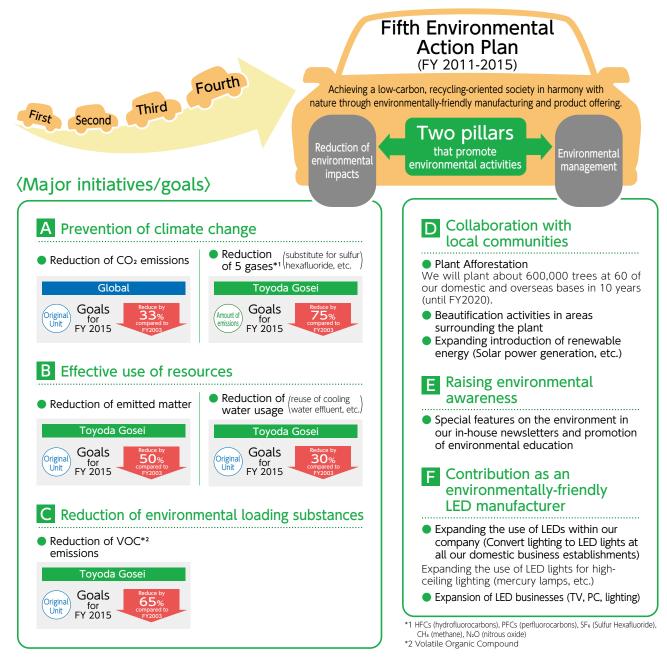
#### Diagram of the Organization for Promoting Environmental Action

	0	Products and			
	Technologies area		Products and Technologies Environmental Subcommittee		
			[Promotes and manages development of environmentally- friendly products and technologies]		
		Manufacturing area	Production Environmental Subcommittee		
Chaii			[Promotes and manages measures and technologies for achieving zero emissions during manufacturing processes]		
Chairperson: Company President Environmental Committee			Liaison Committee for Environmental Communication with Domestic Affiliated Companies		
Compar ntal Co			[Manages, guides, and supports consolidated efforts for environmental protection among affiliated companies and major suppliers in Japan]		
MP					
mitte			Liaison Committee for Environmental Communication with Overseas Affiliated Companies		
eent ee			[Manages, guides, and supports consolidated environmental protection efforts among overseas affiliated companies]		
		Quality Assurance area	Subcommittee on Systems for SOC Regulations and Quality Assurance		
			[Develops systems to address SOC regulations and quality control]		

[Develops systems to address SOC regulations and quality control] The Environmental Committee and subcommittees send information to plants and other work-sites through specialized committees established according to their own ISO14001 systems.

#### Aiming to be an environmentally-friendly Toyoda Gosei

The Toyoda Gosei Group draws up "Environmental Action Plans" on a regular basis to promote initiatives in environmental protection, having the entire group work as one. We are currently conducting activities based on the "Fifth Environmental Action Plan" (FY2011 to 2015), which is supported by two pillars, "reduction of environmental impacts" and "environmental management." In FY2012 we conducted environmental protection activities according to this plan. Based on the results to date, we have set yet higher targets for the reduction of environmental impacts, and added hard-hitting measures for ecomanagement. Specifically, we plan to expand our efforts to North America, such as the use of LED lights for high-ceiling lighting, and "Plant Afforestation." Moreover, we will globally promote efforts in environmental protection by setting targets not only for Toyoda Gosei itself but also for domestic/overseas affiliate companies.



Please visit the Toyoda Gosei website for details of the "Fifth Environmental Action Plan." http://www.toyoda-gosei.co.jp/csr/kankyou/eplan.html

# Activities for the "Fifth Environmental Action Plan" and the status of achievements in the goals for FY2012

Aiming for contribution to the construction of a low-carbon, recycling-oriented society in harmony with nature, the Toyoda Gosei Group has drawn up the "Fifth Environmental Action Plan" and is conducting a variety of activities. In FY2012 we achieved our goals in all the items regarding the reduction of environmental impacts.

neme		Implementation		Results of ac	ctivities in FY2012		Referenc page
	<ul> <li>① Reduction of CO<sub>2</sub> emissions         [Production]         • Replaced inefficient facilities and equipment and improved existing equipment         • Company-wide promotion for converting fluorescent lighting to LED lighting     </li> </ul>			<ul> <li>Examples of our efforts for production</li> <li>Application of heat-insulation paint to production facilities</li> <li>Development of innovative energy-saving techniques for CVJ boots manufacturing</li> </ul>			P38
		Item	Goals for FY 2012	Results fo	or FY2012	Evaluation <sup>[2]</sup>	
	Global	CO2 emissions per sales unit	Reduce by 31% compared to FY2003	63[1]	Reduce by 37% compared to FY2003	0	
		CO2 emissions per sales unit	Reduce by 26% compared to FY2003	64[1]	Reduce by 36% compared to FY2003	0	
	Toyoda Gosei	CO₂ emissions	Reduce by 14% compared to FY1990	99,000 tons of CO <sub>2</sub>	Reduce by 15% compared to FY1990	0	
Prevention of climate change		to: Delivery, mid-process, and p portation efficiency	procurement logistics	<ul> <li>Efforts for logistics</li> <li>Improved loading eff</li> <li>Shorter logistics flow lines to peployment of appropriate num</li> </ul>	ficiency through production locate		
clim		ltem	Goals for FY 2012	Results fo	or FY2012	Evaluation <sup>[2]</sup>	
ate		CO2 emissions per sales unit	Reduce by 25% compared to FY2003	65[1]	Reduce by 35% compared to FY2003	0	
chang	Toyoda Gosei	CO <sub>2</sub> emissions	Reduce by 20% compared to FY2003	10,700 tons of CO <sub>2</sub>	Reduce by 20% compared to FY2003	0	
	<ul> <li>[Products]</li> <li>Product design and materials development for weight reduction</li> <li>Development of products and technologies in new fields in line with new energy trends</li> </ul>		► Examples of our initiat — Foaming TPV glass r — Use of plastic for fue	run		P39	
of opvirop		ases* e of substitute gases (in place sium casting and LED manufa		Switch 5 gases to subs	stitute gases		P39
hen		Item	Goals for FY 2012	Results fo		Evaluation <sup>[2]</sup>	
nental imr	Toyoda Gosei	Item Emissions of 5 gases	Goals for FY 2012 Reduce by 30% compared to FY2003	Results for 13,000 tons of CO <sub>2</sub>	Reduce by 35% compared to FY2003	Evaluation <sup>[2]</sup>	
Paduction of anvironmental impacts	Reduction of emi: [Production] • Promotion of emission • Promotion of in-	Emissions of 5 gases	Reduce by 30% compared to FY2003		Reduce by 35% compared to FY2003		P40
mental impacts	Reduction of emi: [Production] • Promotion of emission • Promotion of in-	Emissions of 5 gases ssions on source countermeasures through -house recycling of rubber, p	Reduce by 30% compared to FY2003	13,000 tons of CO <sub>2</sub>	Reduce by 35% compared to FY2003		P40
mentalimmatc	Reduction of emi: [Production] • Promotion of emission • Promotion of in-	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40%	13,000 tons of CO <sub>2</sub> Initiatives for production Results for	Reduce by 35% compared to FY2003	0	P40
	Reduction of emi: [Production] • Promotion of emission • Promotion of in- • Maintenance of Japan	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste Item	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012	13,000 tons of CO <sub>2</sub>	Reduce by 35% compared to FY2003	C Evaluation <sup>121</sup>	P40
	Reduction of emi: [Production] • Promotion of emissis • Promotion of in- • Maintenance of	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste Item Volume of waste per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41%	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>[1]</sup>	Reduce by 35% compared to FY2003	Evaluation <sup>[2]</sup>	P40
Effective use	Reduction of emis [Production] • Promotion of emissis • Promotion of in- • Maintenance of Japan Toyoda Gosei [Logistics] Applied • Volume reductio	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste <u>Item</u> Volume of waste per sales unit Volume of waste per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41% compared to FY2003 Reduce by 35% compared to FY2003 procurement logistics	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>[1]</sup> 51 <sup>[1]</sup>	Reduce by 35% compared to FY2003	Evaluation <sup>[2]</sup>	
Effective use	Reduction of emis [Production] • Promotion of emissis • Promotion of in- • Maintenance of Japan Toyoda Gosei [Logistics] Applied • Volume reductio	Emissions of 5 gases ssions on source countermeasures througe house recycling of rubber, p zero landfill waste  Item Volume of waste per sales unit Volume of waste per sales unit Volume of waste to: Delivery, mid-process, and p on of disposable packaging f returnable containers  Item	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 35% compared to FY2003 Reduce by 35% compared to FY2003 rocurement logistics materials Goals for FY 2012	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>[1]</sup> 51 <sup>[1]</sup> 12,136t Initiatives for logistics — Thorough cleaning of	Reduce by 35% compared to FY2003	Evaluation <sup>[2]</sup>	P40
	Reduction of emis [Production] • Promotion of emissis • Promotion of in- • Maintenance of Japan Toyoda Gosei [Logistics] Applied • Volume reductio	Emissions of 5 gases ssions on source countermeasures througe house recycling of rubber, p zero landfill waste  Item Volume of waste per sales unit Volume of waste per sales unit Volume of waste to: Delivery, mid-process, and p on of disposable packaging f returnable containers  Item Volume of packaging materials used per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41% compared to FY2003 Reduce by 35% compared to FY2003 procurement logistics materials Goals for FY 2012 Reduce by 63% compared to FY2003	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>(1)</sup> 51 <sup>(1)</sup> 12,136t Initiatives for logistics — Thorough cleaning of Results for 29 <sup>(1)</sup>	Reduce by 35% compared to FY2003 on Reduce by 48% compared to FY2003 Reduce by 49% compared to FY2003 Reduce by 37% compared to FY2003 of returnable contain or FY2012 Reduce by 71% compared to FY2003	Evaluation <sup>121</sup>	
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Effective use	Reduction of emisi [Production] Promotion of emissi Promotion of in- Maintenance of Japan Toyoda Gosei [Logistics] Applied Volume reductie Increased use o Toyoda Gosei [Products]	Emissions of 5 gases ssions on source countermeasures througe house recycling of rubber, p zero landfill waste  Item Volume of waste per sales unit Volume of waste per sales unit Volume of waste to: Delivery, mid-process, and p on of disposable packaging f returnable containers  Item Volume of packaging materials used per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41% compared to FY2003 Reduce by 35% compared to FY2003 procurement logistics materials Goals for FY 2012 Reduce by 63% compared to FY2003 Reduce by 60% compared to FY2003	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>(1)</sup> 51 <sup>(1)</sup> 12,136t Initiatives for logistics — Thorough cleaning of Results for 29 <sup>(1)</sup>	Reduce by 35% compared to FY2003 or FY2012 Reduce by 48% compared to FY2003 Reduce by 49% compared to FY2003 Reduce by 37% compared to FY2003 of returnable contain or FY2012 Reduce by 71% compared to FY2003 Reduce by 64% compared to FY2003	Evaluation <sup>121</sup>	
Effective use	Reduction of emisi [Production] Promotion of emissi Promotion of in- Maintenance of Japan Toyoda Gosei [Logistics] Applied Volume reductie Increased use o Toyoda Gosei [Products]	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste  Item Volume of waste per sales unit Volume of waste per sales unit Volume of waste to: Delivery, mid-process, and p on of disposable packaging f returnable containers  Item Volume of packaging materials used per sales unit Volume of packaging materials used per sales unit Volume of packaging materials used per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41% compared to FY2003 Reduce by 35% compared to FY2003 procurement logistics materials Goals for FY 2012 Reduce by 63% compared to FY2003 Reduce by 60% compared to FY2003	13,000 tons of CO <sub>2</sub> Initiatives for production Results for 52 <sup>[1]</sup> 51 <sup>[1]</sup> 12,136t Initiatives for logistics — Thorough cleaning of Results for 29 <sup>[1]</sup> 84t	Reduce by 35% compared to FY2003 or FY2012 Reduce by 48% compared to FY2003 Reduce by 49% compared to FY2003 Reduce by 37% compared to FY2003 of returnable contain or FY2012 Reduce by 71% compared to FY2003 Reduce by 71% compared to FY2003	Evaluation <sup>121</sup> hers  Evaluation <sup>121</sup>	P40 P41
Effective use	Reduction of emisi [Production] Promotion of emissi Promotion of in- Maintenance of Japan Toyoda Gosei [Logistics] Applied Volume reductio Increased use of Toyoda Gosei [Products] Product design a	Emissions of 5 gases ssions on source countermeasures through house recycling of rubber, p zero landfill waste  Item Volume of waste per sales unit Volume of waste per sales unit Volume of waste to: Delivery, mid-process, and p on of disposable packaging f returnable containers  Item Volume of packaging materials used per sales unit Volume of packaging materials used per sales unit Volume of packaging materials used per sales unit	Reduce by 30% compared to FY2003 improvement of yields plastic and metals Goals for FY 2012 Reduce by 40% compared to FY2003 Reduce by 41% compared to FY2003 Reduce by 35% compared to FY2003 procurement logistics materials Goals for FY 2012 Reduce by 63% compared to FY2003 Reduce by 60% compared to FY2003	13,000 tons of CO2 Initiatives for production Results for 52 <sup>(1)</sup> 51 <sup>(1)</sup> 12,136t Initiatives for logistics — Thorough cleaning of Results for 29 <sup>(1)</sup> 84t Initiatives for products Results for 29 <sup>(1)</sup>	Reduce by 35% compared to FY2003 or FY2012 Reduce by 48% compared to FY2003 Reduce by 49% compared to FY2003 Reduce by 37% compared to FY2003 of returnable contain or FY2012 Reduce by 71% compared to FY2003 Reduce by 64% compared to FY2003 Reduce by 64% compared to FY2003	Evaluation <sup>121</sup> hers  Evaluation <sup>121</sup>	P40

\*5 gases: Fluorocarbons, etc. [HFCs (hydrofluorocarbons), PFCs (perfluorocarbons), SF<sub>6</sub> (sulfur hexafluoride)], methane (CH<sub>4</sub>), nitrogen gases (N<sub>2</sub>O: nitrous oxide) [1] This value takes the figure in the base year as 100.

[2] O: Goal in the Fifth Environmental Action Plan for the fiscal year was achieved, ×: Goal in the Fifth Environmental Action Plan for the fiscal year was not achieved

The	eme			Implementation		Results of a	ctivities in FY2012	Reference page
Reduction of environmental impacts	Control and reduction of environmentally loading substances	<ul> <li>(5) Reduction of VOC* emission</li> <li>Promotion of VOC usage reduction through transition to water-based paints, use of fewer solvents, use of substitute washing thinners and optimization of thinner usage amounts</li> </ul>			<ul> <li>Examples of our efforts for VOC emissions reduction</li> <li>Use of UV coating for hubcap paint</li> <li>Use of water-based mold releasing agents for urethane steering wheel molding dies</li> </ul>		P42	
envir	of envir			Item	Goals for FY 2012	Results for F	Y2012 Evaluation <sup>[2]</sup>	
onm	onment			VOC emissions per sales unit	Reduce by 54% compared to FY2003	34[1]	Reduce by 66% Organization Compared to FY2003	
enta	ally loac		Toyoda Gosei	VOC emissions	Reduce by 50% compared to FY2003	427t	Reduce by 58% compared to FY2003	
limpacts	ing substances		-	ement of chemical substand management framework for chemica	ces in products		's REACH regulations and other s in China, South Korea, etc.	P42
	Cooperation with communities		overseas bases in	n Project I about 600,000 trees at 60 o n 10 years (since FY2009). ial contribution activities	f our domestic and	<ul> <li>Trees planted at fou (accumulated total:</li> <li>Examples of our initiat</li> </ul>	or the Plant Afforestation Project Ir domestic and overseas bases 13 bases, about 179,000 trees) ives for communities nity cleaning activities	P46 P31
	th comm					— Conducted simultan	eous social contribution I scale	P33
	unities	9	Contributing to er	nvironmental policy			mental policies of the Japan Auto Parts Industries nufacturers Association and other organizations	_
		(10)	(1) Enhancing environmental awareness				environmental awareness environmental education programs in Environment Month, etc	P43 P44
Environn	Enhancement of environmental awareness	(1)	Enhancement of c	consolidated environmental	l management	<ul> <li>Domestic and overs and current assessn</li> <li>Environmental audits (II external environmental</li> <li>Consolidated global</li> <li>Initiatives of domestic affi</li> </ul>	dated environmental management eas sites acquired ISO14001 nent status	P43 P43 P44 P45 P45 P45
Environmental management	mental awareness and	(12)	Environmental ac	tivities in conjunction with	business partners	External environmental audit	Overseas on-site environmental audit	P30
	d management					— Held briefings on ou — Global development environmentally har	of management system for	
	ement	(3) Disclosure of environmental information				<ul> <li>Disclosure of environmental information</li> <li>— Participated in "Lighting Japan 2013"</li> <li>— Issued Toyoda Gosei Report 2012</li> </ul>		P23
		(14)	Promotion of LCA*2 (	(Life Cycle Assessment) during p	roduct development	Enhanced visualization reduction and product	of initiatives CO2 emissions recyclability	_
	Contribution	(15)	Expanded use of	LEDs on company premises	5	Expanded use of LEDs on company premises		P47
	as an environmen	(16)	Expansion of LED	business		Expansion of LED busin — Expanded LED lighti	n <b>ess</b> ng business	P47
	Contribution as an environmentally-friendly LED maker					MESSE NAGOYA 2012		

\*1 VOC: Volatile Organic Compounds \*2 LCA: Life Cycle Assessment (assessment of the environmental impact [CO2 emissions, etc.] over the entire life cycle of a product from production, use, through to disposal) [1] This value takes the figure in the base year as 100. [2]  $\bigcirc$ : Goal in the Fifth Environmental Action Plan for FY2012 was achieved, x:Goal in the Fifth Environmental Action Plan for FY2012 was not achieved

## **Prevention of Climate Change**

We are promoting reduction of CO<sub>2</sub> emissions through weight reduction of vehicle bodies and adaptations for fuel diversification, as well as improvements in productivity and the efficiency of logistics.

Scope1: Volume of greenhouse gases directly emitted by corporations themselves (fossil fuel, natural gas, etc.)

Scope2: Volume of greenhouse gases indirectly emitted (electric power, etc.) \*Scope3: Volume of greenhouse gases indirectly emitted by corporations in their supply chains (production, transportation, business trip, commuting, etc.)

for example by recommending case examples of initiatives

taken by Toyoda Gosei to domestic and overseas affiliate

companies, while also reviewing/instructing the contents of

initiatives for further improvements. In addition, we started to

calculate emission volume, taking Scope 3\* into consideration.

Changes in CO<sub>2</sub> emissions per sales unit (Index) (Global)

'10

Changes in CO<sub>2</sub> emissions per sales unit (Index) (Nonconsolidated)

'10

'11

'11

CO₂ emissions per sales unit (index) shown takes the figure from FY2003 as 100.

\*CO₂ emissions per sales unit (index) shown takes the figure from FY2003 as 100.

'12

64

'12

## Elimination of wasteful energy use and reduction of CO<sub>2</sub> emissions

CO2 emissions per sales unit (Index)

CO2 emissions per sales unit (Index)

100

80

60

0

100

80

60 0 '03

(base year)

'03

(base vear)

'09

09

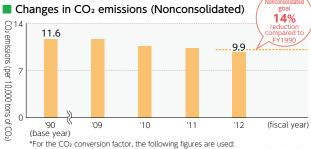
The Toyoda Gosei Group promotes prevention of climate change by improving productivity and simultaneously reducing energy consumption.

In FY2012 we continued with thorough energy saving and proper energy use during holidays by having a "waste-eliminating" plant squad" for peak power cuts and power consumption reductions following the Great East Japan Earthquake. We

also installed power usage monitors on some facilities in factories to eliminate waste by "visualizing" power consumption. Furthermore, we expanded activities for climate change prevention as a group,



Power consumption visualization monitor

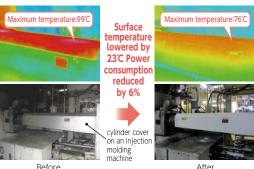


For the CO<sub>2</sub> conversion factor, the following figures are used: Electricity: 0.3817kg-CO<sub>2</sub>/kWh Heavy Oil A: 2.7kg-CO<sub>2</sub>/L LPG:3.0094kg-CO<sub>2</sub>/kg City gas: 2.3576kg-CO<sub>2</sub>/Nm<sup>3</sup> Kerosene:2.5308kg-CO<sub>2</sub>/L

#### Application of heat-insulating Examples of our efforts Production | paints to production facilities

We applied heat-insulating paint to production facilities to reduce wasteful heat radiation by lowering surface temperatures, which resulted in reduced power consumption. For example, the surface temperature of a cylinder cover on an injection molding machine was lowered by 23 degrees, leading to about 6% reduction in power consumption. This effort also brought other effects such as reduction of energy for air conditioning and improvement of the working environment. The application of paint was done in-house by employees and completed in about 50% of target facilities. We plan to continue expanding the range of applicable facilities.

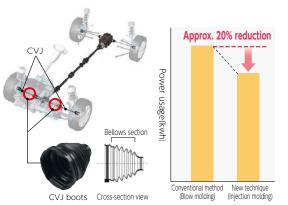
Maximum temperature:76°C Maximum temperature:99°C Surface temperature lowered by 23°C Power consumptior reduced by 6% cylinder cover on an injectio molding machine Before After



## Development of innovative energy-saving Production | techniques for CVJ\* boots manufacturing

About 20% reduction of power consumption was achieved by shortening the molding time by about 30%.

Conventionally, the inner section of CVJ boot bellows is manufactured by blow molding as the section is hard to release from a molding die. We have achieved injection mold manufacturing of the boots with the use of a molding die, which does not leave spaces in between when separated, produced by developing a structure to separate the internal section of the molding die as a new technique to make the bellows section easy to release, along with precision machining in micron order. We have started commercial production and plan to expand it successively. \*CVJ:Constant Velocity Joint



onsolida

31%

(fiscal year)

26%

(fiscal vear)

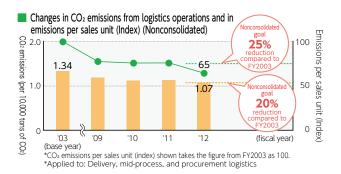
## Thorough-going efforts to reduce transportation loss

To reduce CO<sub>2</sub> emissions during transportation, we promote improved loading efficiency, shorter logistics flow lines, and appropriate dispatch of delivery vehicles corresponding to production volumes based on the "3 Gen-isms" ("Genchi," "Genbutsu," and "Genjitsu" which are translated as "actual locations," "actual materials" and "actual situations," respectively). In FY2012 we expanded our Ichinomiya Distribution Center, following the establishment of the Miyoshi Distribution Center in 2010. This enabled us to revise our logistic system in which vehicles travel around our production bases before delivering goods to customers. Instead, we have established a centralized transportation system in which Miyoshi Distribution Center acts as a starting point for customers in eastern areas, and Ichinomiva Distribution Center for customers in western areas, leading to further

Three Pillars for Activities Designed to Reduce CO2 Emissions from Logistics Operation

- Work to increase transportation and loading efficiency and reduce the 1 number of vehicles dispatched
- 2
- Shorten flow line through route alterations and localization of production sites
- 3 Pursue transportation producing less CO<sub>2</sub> emissions

improvement of transportation and loading efficiency. We also expanded railway transportation to the remote Tohoku area, while reducing the number of containers on return trips by adopting "folding type" returnable containers to reduce the loading capacity when collecting empty containers. We will continue to promote activities for transportation loss reduction with innovative ideas, in addition to conventional activities.



## Handling vehicle weight reduction and clean energy

We are promoting weight reduction and clean energy. From FY2011, we have been putting our efforts into "visualization" of how individual people in charge are trying to achieve weight saving, as part of the environment management system in development design. In FY2012, we will establish this effort

and expand it to all products. Examples are weight saving of glass run and fuel filler lids, and reduction of vehicle weight by the use of technologies such as the thinning of plastic products. We also promote support for clean energy vehicles and fuel diversity vehicles.

Coating

oamed

material

TPV/

#### Example our efforts Products

## Foaming TPV glass run

Weight saving of about 30% has been achieved by fine-foaming TPV (Plastic material), which is used for glass runs that allow smooth up-and-down movement of window glasses and prevent intrusion of rain, dust, and noise. Weight saving was achieved without compromising any functions by the proper use of

Conventional product Developed product solid materials and micro-foamed materials from the functional aspect within the same component. Deterioration of appearance is prevented by design ideas such as covering components with coating. We will continue to promote development, aiming to strike a balance between weight saving and acoustic insulation.

Examples of <u>our eff</u>orts Products

gases used by us.

## Use of plastic for fuel filler lids

A weight reduction of about 20% was achieved by converting a conventional material, metal, to the use of plastic for fuel filler lids, which are installed at the fuel filler opening. The use of plastic enabled us to adopt a mechanism to



About 30%

weight

reduction

open/close the lid by directly pressing on it (push-push method), and to eliminate an open switch and wiring, plastic in vehicle weight reduction and operability improvement as well. We also established a more effective assembly function over metal parts by creating designs for the use of plastic, while taking advantage of structural analysis, etc.

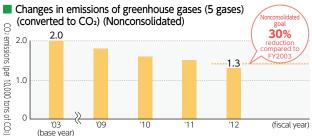
We will expand the range of applicable vehicle models while also promoting the development of the use of plastic for fuel filler lids.

#### Among the five greenhouse gases, for which reduction of emis-(converted to CO<sub>2</sub>) (Nonconsolidated) sions is called, we are promoting initiatives on three of the 2.0 20

We are moving forward with new initiatives to reduce emissions of these gases. In FY2010 we replaced the cleaning gas used in LED chip manufacture with a substitute, and in FY2011 did the same with the shielding gas used in steering wheel armatures.

Reduction of greenhouse gases (5 gases)

In FY2012 we further expanded the range of facilities planned for conversion to substitute gases, resulting in 35% reduction compared to FY2003.





## **Effective Use of Resources**

Through reduction of waste products and designs which facilitate recycling, we are promoting effective use of resources and contributing to a recycling-oriented society.

## Production Reduction of waste (discarded) materials

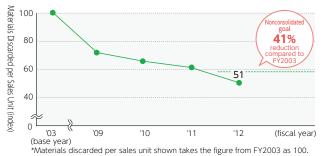
The Toyoda Gosei Group is working to reduce the amount of waste generated, through measures to counter waste material sources, as well as the promotion of recycling.

In FY2012 we promoted grassroots activities by spreading excellent case examples from within and outside our company, while also continuing reductions of rubber and plastic wastes by taking measures against defects and yield ratio, resulting in achiev-

#### Changes in Amount of Materials Discarded per Sales Unit (Index) (Japan)

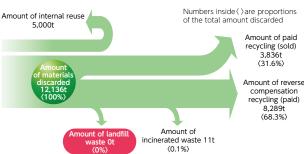


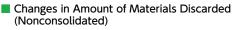
Changes in Amount of Materials Discarded per Sales Unit (Index) (Nonconsolidated)

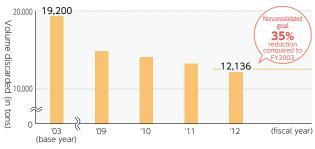


ing our goal for FY2012. In addition, our domestic affiliate companies achieved the consolidated domestic goal by performing inspections and instructions for thorough elimination of waste in actual locations and with actual materials. In future, we will strengthen and expand our efforts throughout the group, including overseas bases, aiming to achieve our goals for FY2015.

## Amount of Waste Generated / Waste Disposal Situation (Results for FY2012)





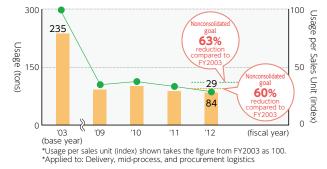


## ogistics Reduction of packaging materials for logistic products

We promote improvement activities aiming for our final goal of "zero disposable packaging materials" by setting annual targets to reduce the usage of packaging materials used in returnable cartons for product transportation.

In FY2012 we reduced the usage of packaging materials from various aspects of improvement such as placing lids on returnable cartons and placing reusable partitions (protective layers) inside returnable cartons, in order to reduce unnecessary packaging materials as much as possible. In addition, we expanded the range of packaging materials applicable for simplification by increasing the number of washable returnable cartons through improvement of the way cartons of different sizes are conveyed and the speeding up of washing/drying machines. As a result, the usage of packaging materials per sales was reduced by 71% compared to FY2003. We will continue to promote reduction activities toward our final goal.

Changes in Use of Product Packing Materials and Usage per Sales Unit (Index) (Nonconsolidated)



## Products Recycling technology

Toyoda Gosei develops and designs its products with recycling in mind, taking the entire vehicle life-cycle into account, and is working to develop more advanced material recycling technologies.

In FY2012, following the previous fiscal year, we made efforts to recycle several types of rubber, which require high technologies, and composite products of rubbers and other materials, aiming to expand the reuse of high-polymer materials such as rubber products. We have achieved further improvement in maximizing the rate of reclaimed rubbers compared to the previous fiscal year, while maintaining or improving the quality. In future, we will expand on these efforts.

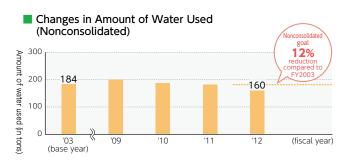
#### Technological Development for ELV\* Parts Recycling

Key items	Measures implemented
itey items	Meddues implemented
New recycling	<ul> <li>New recycling techniques (high-quality material recycling)</li> <li>Techniques to separate composite materials</li> </ul>
Installing parts made of recycled materials in vehicles	Development of applications for recycled materials     ELV parts recycling technology
Designing products that are easy to recycle	Material and compositional changes that enable easy recycling     Easy-to-dismantle designs for products

\*ELV:End of Life Vehicle

## Reducing water usage

Our company worked on reducing water consumption for the optimum usage of water as a resource. In FY2012 we continued the conservation of make-up water for cooling towers and made effort in activities such as leakage control following the previous fiscal year, resulting in a 13% reduction compared to FY2003. In future, along with these activities, we will consider reusing waste water by means of a water quality improvement system, aiming for further conservation of make-up water for cooling towers.

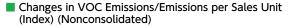


## **Control and Reduction of Environmentally Harmful Substances**

Regulations for environmentally harmful substances are being tightened worldwide, and our company strives to comply with the various regulations and revise materials and manufacturing processes accordingly.

## Reduction of environmentally harmful substances in the production process

In our production processes we reduced harmful substances that fall under PRTR<sup>\*1</sup> or VOC<sup>\*2</sup> by the use of low solvents for hubcap painting and by expanding the use of components applicable to paintless products for glass runs. We also exchange information and introduce good examples among business units, principally at the VOC Reduction Working Group,



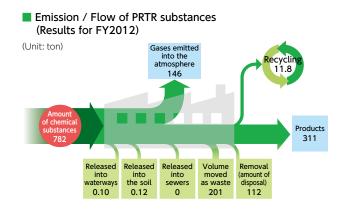


\*VOC emissions per sales unit shown takes the figure from FY2003 as 100

a sub-organization of the Production Environmental Subcommittee. In future, we will continue reducing the usage of washing thinners.

\*1 PRTR: Pollutant Release and Transfer Register

\*2 VOC : Volatile Organic Compounds



My Eco Declaration When installing automation facilities, incorporate additional circuits that turn the power off within a certain idle running period (Bronze Award, 1st Section, Production Technology Dept.)

## Examples of Use of UV coating for hubcap paint

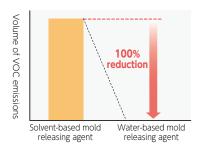
As a result of using UV paint with less organic solvents for hubcap painting, paint usage was reduced and VOC reduction of 62% was achieved. We were also able to shorten the drying process as compared to the previous one.

As UV coating materials are expensive, we developed paint designs to restrain the total usage and to maintain the same cost as with conventional products. In addition, as UV coating materials have a problem of failing to cure without light permeation, we developed paint designs so as to prevent curing failure even when mixed with pigments or metals, while also establishing a light irradiation method that can adapt to uneven surfaces. Currently, about 30% of hubcaps produced are UV-coated, and we plan to increase the percentage in the future. We will continue research and development, aiming to expand the range of applicable items beyond hubcaps.



## Use of water-based mold releasing agents for urethane steering wheel molding dies

We have achieved a 100% reduction of VOC emissions by entirely switching from solvent-based to water-based mold releasing agents, which are applied to molding dies during the production of urethane steering wheels. This initiative eliminated the use of organic solvents and also reduced the impact on human bodies. Unlike solvent-based agents, water-based agents are less volatile, resulting in the stabilizing of the mold-releasing agent quality. Although water-based agents have a drying problem, we achieved optimum quantity and method of application through trial and error. Currently, only 5% to 10% of our entire products use water-based mold releasing agents. We will expand their use in the future and consider their introduction to overseas bases.



## Enhancement of management of chemical substances in products

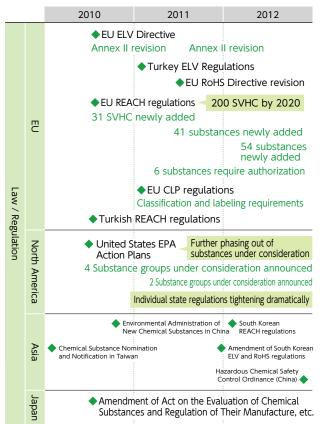
As a global corporation, our company strives to obtain information on the regulations of each country and region, and respond to various regulations in cooperation with overseas affiliates. The regulations for environmentally harmful substances are increasing every year and the number of countries that set new regulations is also increasing.

In FY2012 we promptly responded to the addition of substances of high concern to the EU (European Union) regulations, while also responding to changes in laws and regulations in China, South Korea and other countries. We are also actively gathering information in preparation for an instant response to the tightening of regulations in future, immediately after announcement of regulation contents.

In response to the voluntary controls introduced by the Japan Automobile Manufacturers Association, we are working to reduce VOC in automobile interiors by adopting non-VOC adhesives and water-based paints, as we continue with our review of materials use throughout our manufacturing processes.

Responses to rigorous regulations in other countries and regions are indispensable to automakers, and our company, which delivers products to automakers, is required to make the same responses. Thus, we will enrich and strengthen chemical substance controls in future.

Regulations governing chemical substances in products



## **Environmental Management**

The entire Toyoda Gosei Group cooperates together to promote thorough environmental management and to reduce our environmental impact.

## Enhancing environmental education at Toyoda Gosei Group

The entire Toyoda Gosei Group is making a concerted effort to proactively promote environmental management and activities to reduce environmental impact.

We have been collecting environmental data from each group company, starting with domestic affiliate companies in FY2001 and data on overseas affiliated companies in FY2003. This environmental data (CO<sub>2</sub> emissions, volume of waste) outlined the Group's goals through FY2010 in the Fourth Environmental Action Plan as we put our plans into practice step by step. In FY2012 we strengthened collaborations with our group companies and promoted various activities in order to achieve the goals set forth in the Fifth Environmental Action Plan started in the previous fiscal year.

### Subjects of Consolidated Initiatives for Environmental Protection (production locations)



• Acquired ISO14001 certification New companies and main plants are encouraged to acquire ISO14001 certification within three years of starting operations.

## Implementation of Environmental Audits

Toyoda Gosei implements internal environmental audits by forming audit teams composed of members of plants that are not subject to those audits. The Toyoda Gosei Group also commissions the Japan Quality Assurance Organization (JQA), an external assessment and registration organization, to review whether our environmental management systems are being properly implemented in accordance with the ISO14001 (revised FY2004 version).

In FY2012, also, no issues were pointed out to our company or affiliate companies by external environmental audits, indicating that proper management is being conducted.



Internal environmental audit



External environmental audit

## Promoting Environmental education in the Toyoda Gosei Group

We provide environmental education for Toyoda Gosei Group employees concerning environmental problems such as the destruction of our natural environment, environmental contamination, impact of production on the environment, and observance of environmental laws. The contents of educational materials are revised every year so as to deepen the trainees' understanding, by including case examples focused on understanding and practice, while taking the trends in laws and regulations into consideration.

Targeted		Affiliate Companies			
persons	Toyoda Gosei	Japan	Overseas		
	Education for new managers				
	Education for workers stationed abroad				
Company-	Education for environmental key persons				
wide	Environment-related qualificatio	ns acquisition	1		
	Education for new employees	:	:		
	Educational activities for environn	: nentally focus	ed months		

Targeted	Toyoda Gosoi	Affiliate C	Companies		
persons	Toyoda Gosei	Japan	Overseas		
	Education for environmental staff				
	Education to upgrade internal auditors				
ISO14001-	Education to register internal au	ditors			
related	Education for supervising managers				
	Education for workers in environmentally si	gnificant work	*		
	Education for general workers				



## Developing environmental educational activities

We carry out activities focusing on participation-based approaches to ensure that each one of our employees has good environmental awareness and reflects this awareness in their actions.

## Further promoting our environmental efforts through environmentally focused months and energy-saving months

In FY2012 we made further efforts to educate our employees by displaying posters, and featuring articles that enhance environmental awareness of or provide information on the environment in our newsletters, to coincide with the environmentally focused month of June.

In Japan, in particular, in response to the suspension of nuclear power plants, we made efforts to reduce power consumption from June to September, and in cutting peak power usage during the summer.

Also, we implemented the "Eco Declaration" campaign. All employees made their own Eco Declaration and were evaluated on whether they could adhere to it.

Among these declarations, eight employees were awarded "Excellent Energy-saving Declaration Awards" for their Eco Declarations

## Efforts made at various plants

## Nishimizoguchi Plant

As part of its environmental activities, the Nishimizoguchi plant held an environmental education event with instructors who passed the Eco Test in June, our month of the environment. In FY2012, this event was held with the theme of "atmosphere" in individual workplaces, having persons who passed the test as instructors, and all the employees in attendance. After the education event, all attendees made "atmosphere-friendly live declarations," leading to a raising of their environmental awareness. Six employees took the Eco Test that is conducted every year (July and December).

## Bisai Plant

The Bisai Plant designated the second Sunday of November as the "Bisai Plant Greenery Day," and in FY2012, also, conducted tree planting activities and seeding for young plants, which are to

and highly efficient activities. Focusing on further fruitful activities, we conducted "energy-saving inspections" and "environment management inspections" at Toyoda Gosei and domestic affiliate companies in the aspects of actual places and actual materials.



## Declaration from the Eco Declaration gold prize winner

Set the conditions of electric plating production using the minimum current required for satisfactory quality, in order to reduce power consumption in the electric plating process. (Plating Production Engineering Dept.)

\*Eco Declarations by the silver and bronze prize winners are listed at the bottom of pages 38 to 44.

be used for the maintenance of tide embankments along coastal areas in the Tohoku area, having local people and employees' families get involved in the activities. Also, 28 employees took the Eco Test that is conducted every year (July and December).

### Heiwacho Plant

The Heiwacho Plant conducted the seeding of about 3,600 trees, aiming for the in-house seeding of young trees to be used in the "Plant Afforestation Project," in order to raise environmental awareness. In FY2013 the plant has a plan to validate energy-saving effects by planting green curtains of Goya, or bitter gourd, toward the summer, and has made a schedule to plant the seedlings after April, and grow and harvest the plants afterwards. In FY2012, the plant sowed Goya seeds in preparation to implement this plan.



Goya seed sowing/Heiwacho Plant

## Consolidation of environment management systems and implementation of environmental audits at overseas affiliate companies

In order to facilitate the unification of environmental management levels at home and abroad as the Toyoda Gosei Group, we are securely implementing improvements in the level of management systems, information sharing, and law-abiding management at our domestic and overseas affiliate companies. In China, in particular, we are making efforts to strengthen the environmental management system as enforcement and crackdown of environmental laws and regulations is strengthened. From FY2009 we began implementing field surveys on actual situations, clarification of issues, and opinion exchange with leaders at production bases in China, while also exercising overall environmental control in Chinese regions. In addition, we visit overseas affiliate companies one by one to implement on-site environmental audits. In FY2012 we implemented on-site

environmental audits at TGT and TGRT in Thailand, in order to confirm the operating situation of the environmental management

system and to promote mutual understanding. Also, in FY2013 we will continue to implement on-site environmental audits to ensure the thorough establishment of environmental management systems and to strengthen collaboration.



Overseas on-site environmental audit



## Efforts of Affiliated Companies

## TGAP Co., Ltd.

## Achieve reductions of water/power usage and waste plastics, and make an effort in cleanup activities in the community as well.

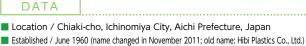
TGAP Co., Ltd., which manufactures and processes automobile exterior plastic components – mainly aero parts and interior plastic components, instrument panels and consoles – is making an effort in environmental protection activities, while also conducting cleanup activities in areas near the company.

In November 2011 the company changed its name from Hibi Plastics Co., Ltd. to TGAP, which is an acronym of Toyoda Gosei Accessories Prototype.

In water usage reduction activities, the company reduced usage by about 94% in FY2012 by installing cooling towers to circulate the water as cooling water for use in molding die cooling during injection molding. In CO<sub>2</sub> emission reduction activities, the company reduced power consumption by about 3.5% in FY2012, by adopting high-efficiency compressors and introducing LED lighting. In addition, the company made efforts to create opportunities for thinking about more efficient operations and business development (elimination of overburden, worthlessness, unevenness) by establishing "No Overtime Day." In emission matter reduction activities, the company re-pelletizes waste plastics generated by dummy stamping and color change during facility startup. They are also working on "visualization" so that superiors always have a grasp of the presence or absence of abnormalities and the situation of actions taken, so as to immediately take necessary action by posting progress charts and check sheets that indicate production status in processes.

In activities for neighboring areas, about 20 employees conduct cleanup activities every month in areas near the company and at Gojogawa promenade, in the aspects of environmental protection and social contribution activities.





- Capital / 36 million yen
- Business / Injection molding, processing, assembly, prototyping of plastic products for automobiles
- SO9001 certification acquired / June 2007 ISO14001 certification acquired / March 2012

## Toyoda Gosei (Thailand) Co., Ltd. (TGT)

## Promoting reduction of power consumption and recycling. Making efforts in plant afforestation and improvement of the elementary school library.

Toyoda Gosei (Thailand) Co., Ltd., which is on Amata Nakorn Industrial Estate, Chonburi, located about 80km toward eastsoutheast from the capital city Bangkok, lays stress on energysaving activities due to the domestic situation of relying on other countries for electric power, while also making efforts in a wide range of social contribution activities.

In energy-saving activities, the company achieved about 17% reduction in power consumption by installing inverters on four compressors placed in their No.1 and No.2 plants, while also controlling the amount of equipment according to load status. The company also makes other efforts such as stopping building exhaust fans by temperature control, upgrading to high-efficiency air conditioners, application of heat insulation to cylinder heaters on injection molding machines, and replacing fluorescent lighting with LED lighting, etc. In emission reduction activities, they put their efforts into taking measures against generation sources and the recycling of plastics, while taking good case examples within the group into consideration.

Since the first "Plant Afforestation Project" at overseas bases in 2010, a natural form of forest is being created, with 22,000 trees growing healthily (height: 10-11m) thanks to regular watering and plant growing activities.

In FY2013 they have a new plan to plant 13,000 additional trees, and the preparation is underway with local employees taking the lead.

In social contribution activities, they are make efforts in developing school libraries, donation of books, installing water supply tanks, and renovating and cleaning toilets, mainly in employees' hometowns, along with tree-planting activities for mangrove forest protection and donations to disaster areas damaged by floods, etc. In addition, the Thai Government (Ministry of Labor) awarded the company the "Labor, Health, and Welfare Award" (for the second consecutive year) and the prefectural government awarded the "Workplace Safety and Health Award" (for the fourth consecutive year). These awards were granted consecutively as the result of their longstanding activities for the improvement of working environments, enrichment of welfare services, and securing of employees' safety and health.





Toyoda Gosei (Thailand) Co.,Ltd.

Plant Afforestation





Thailand Labor, Health, and Welfare Award Improvement of elementary school library (hosted by the Ministry of Labor)

## DATA

- Location / Amata Nakorn Industrial Estate, Bangna-Trad Highway km. 57, Tambon Bankao, Amphur Pantong, Chonburi 20160, Thailand
- Established / February 1994
- Capital / 4 million baht
- Production of safety system products, interior/exterior components, and functional parts
- ISO14001 certification acquired / March 2002
- ISO/TS16949 certification acquired / June 2006
- OHSAS18001 certification acquired / May 2008

## Activities aimed at achieving zero cases of non-compliance and complaints

The Toyoda Gosei Group is making an effort in activities to promote "Zero Cases of Non-compliance and Complaints," so as to ensure thorough compliance. Also, in FY2012, we analyzed case examples of problems from other companies, conducted inspections of similar facilities, and took measures that led to proactive prevention of non-compliance and complaints.

## Proper disposal and storage of equipment containing PCBs

We exercise the utmost care in storing used high-voltage transformers and fluorescent stabilizers that contain harmful and recalcitrant PCB (polychlorinated biphenyl), and have properly disposed of 65 power capacitors so far.

Equipment containing high concentrations of PCBs	Number of pieces of equipment stored	Status of countermeasures			
Power capacitors	—	Properly disposed at the Toyota Office of the Japan Environmental Safety Corporation in FY2006 (65 units)			
Fluorescent stabilizers	Approx. 1200	Appropriately stored (properly disposed of sequentially when the PCB disposing facility is fully-equipped)			

\*We exercise the utmost caution in storing used high-voltage transformers and power capacitors confirmed to be contaminated with low-level PCB, as in the case of PCB wastes, which we have been storing to date.

## Conserving soil and ground water

We are taking actions to monitor and purity soil/ground water contamination by toxic substances such as trichloroethylene, which was used as a cleaner in the past, as well as toxic substances that enter the premises from outside.

We also installed observation wells at all plants to routinely check that there is no soil or groundwater contamination from oil or other substances targeted by the Soil Contamination Countermeasures Act. At our Inazawa Plant, as the contaminant concentration has decreased below the reference value over the past two years, we have completed reports to administrative bodies by submitting the measurement result report for FY2012.

Plant	Object	Status of countermeasures	
Haruhi Plant	Ground water	Purification in progress (proactively purifying, although the possibility of off-site pollution sources exists)	
Inazawa Plant	Ground water	Since the material detected is not in our past use records, only measurement results are reported regularly to the government. *Below the reference value from 2012 onward (administrative report completed)	

## Expanding the Plant Afforestation Project activities to domestic and overseas bases

With the 60th anniversary of its foundation in 2009 as a starting point, Toyoda Gosei launched the Plant Afforestation Project. Our activities extend beyond the basic stance of protection of biodiversity and prevention of climate change, aiming to work with communities to create an environment where humans and nature can coexist through the planting of approximately 600,000 trees in about 60 domestic and overseas bases. These activities are based on the three pillars of ① promoting the afforestation of factories, ② enhancing our employees' environmental awareness ("eco mind") and the fostering of a sense of solidarity through full participation, and ③ integrating with host communities by working together with local people. We are advancing "true afforestation," which allows us to cultivate trees that match the natural environment in the community from seeds, and thus restore the natural forest.

We incorporate various attractions in our tree planting events so that local people, employees, and their families can easily participate and enjoy tree planting together. In addition, we continue to record the growth situation of trees at tree-planted bases through fixed-point observation, and perform maintenance at each base, such as having employees get involved in weeding. In FY2012 we organized tree planting events at Haruhi Plant in Japan, Foshan TGR/TGP in China as the largest scale planting

ever, and Fong Yue in Taiwan. The accumulated total of planted trees reached about 179,000, planted areas expanding to about 35,720 square meters, and the sum total of participants reaching about 27,000.



Tree planting at Foshan TGR/TGP (China)



Tree planting at Haruhi Plant (Japan)



Tree planting at Fong Yue (Taiwan)

## (Growth situation of trees



Heiwacho Plant (Japan) <planted in November 2009>



〈planted in August 2012〉



(Inaliand)
(planted in February 2010)



〈March 2013〉

## Promote the spread of LEDs with higher environmental efficiency

Integrated manufacturing of environmentally-friendly LED products. Contributing to global warming prevention by promoting activities to spread LEDs.

## Expanding the use of LEDs within our company

Our company promotes the conversion of in-house lighting to LEDs via dissemination and educational activities on LEDs. We moved up our plan for the conversion, which was initially scheduled to start from FY2011 for a duration of five years, as a response to summertime power shortages caused by the earth-quake disaster and in order to reduce CO<sub>2</sub> emissions by cutting power consumption. In FY2012 we converted all 70,000 fluorescent lamps at all our domestic business establishments to LED lighting, which uses LEDs manufactured by our company. All the lighting in the fully-renovated "Exhibition Room" on the first floor of the Toyoda Gosei Main Office was also converted to LED lighting.

In the next three years, we will promote the conversion to LED lighting by replacing high-ceiling lighting (high-intensity discharge lamps such as mercury lamps) at all our domestic business estab-

lishments with high-ceiling lighting using LEDs manufactured by our company. We will continue our efforts in expanding the use of LEDs and in educational activities so as to make contributions as an LED manufacturer.



Exhibition room

## Expansion of LED businesses

Our company develops and manufactures highly eco-efficient LED products, which are characterized by "energy efficiency" and "long service life," with our integrated production system from elements to light source modules. Our products have been used widely as light sources in backlights for the liquid crystal

Proactive use in various events and exhibitions

In FY2012 we cooperated with or cosponsored exhibition booths in various events and exhibitions hosted by our company or other companies. Our LED lighting was adopted in the exhibition booths of Toyota Motor Corporation and Toyota Auto Body Co., Ltd. at the "Eco Products 2012 Exhibition." At the Toyota Motor Corporation's booth, in which we participated in lighting planning, we were able to promote new forms of LED lighting by using low-profile high-ceiling LED lamps (equivalent to four 400W mercury lamps). We also cosponsored Akari Night 2012, and lent out LED illumination objects to Lagunasia, operated by Gamagori Marine Development Co., Ltd. As part of our efforts, we participated in Messe Nagoya 2012 and Lighting Japan 2013, etc. Overseas, we participated in India's biggest LED exhibition for the first time in December to present lighting LEDs in India, which is considered to have high potential demand due to its unstable electric power supply.

displays of laptop computers, tablet terminals, and automotive meters. We have currently expanded our lineup of LED light sources, and plan to grow the lighting field as our second core business following backlights.



Booth of Toyota Motor Corp. at Eco-Products 2012



Messe Nagoya 2012



Akari Night 2012



The biggest LED exhibition in India

## Promote introduction to factories and facilities

As an LED manufacturer, we promote the introduction of LEDs to offices, factories, and facilities of other corporations in order to facilitate the use of LEDs. In FY2012, we installed high-ceiling LED lighting using LEDs manufactured by our company, and a demonstration experiment is underway.



High-ceiling LED lighting at Kitakyushu Plant



Booth for business talks at Heiwacho Plant

## Conducting research on plant cultivation and color temperatures

Our company is also working on the evaluation, validation, and consideration of LED products, while promoting the development of vegetable garden LED lighting that enables everyone to enjoy a kitchen garden indoors, as well as research on utilization in plant factories, etc. The young tree center of the "Plant Afforestation Project" at Heiwacho Plant grows about 3,600 young trees, among which LED lighting is installed for 300 trees. The possibility of whether the early cultivation of young trees can be achieved by irradiating light of a specific wavelength, which has an accelerating effect on plant growth, is under study.



Young tree center of the "Plant Afforestation Project" at Heiwacho Plant



## Conduct proper environmental protection activities by correctly grasping the environmental costs of environmental protection in our business activities.

The environmental cost in FY2012 focused on research and development, efforts within business areas (conversion of fluorescent lighting to LEDs, recycling, reduction of greenhouse gases), and social contribution activities (plant afforestation). As for economic effects, the cost of effluent treatment was reduced by measures regarding generation sources and recycling of waste materials, in addition to the reduction in electric power expenses by efficiency improvement of facilities for utilities.

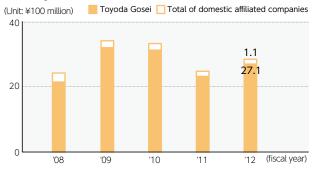
Environmental Cost (Unit: ¥100 million					
Type of cost	Toyoda Gosei	Total of domestic affiliated companies			
Cost for research and development*1	4.1	_			
Cost incurred within the operational area* <sup>2</sup>	20.6	0.7			
Cost for management activities* <sup>3</sup>	1.0	0.3			
Cost for social contributions*4	1.1	0.1			
Cost for dealing with environmental damage*5	0.3	0			
Total	27.1	1.1			

1 Cost for research and development of products to reduce environmental impact.

2 Cost to research and development of produce to reduce environmental impact.
 2 Cost to reduce environmental impact generated in production, such as pollution control, energy saving, and waste disposal.
 3 Cost for management, including education, maintenance of the environmental management system, and measurement.
 4 Cost for such measures as afforestation and beautification.
 4 Cost for such measures as afforestation and beautification.

\*5 Cost for dealing with environmental damage caused by business operations.

#### Changes in Environmental Cost

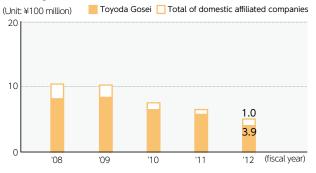


Effects	(Unit: ¥100 million)		
	Economic effects*6		
Item	Toyoda Gosei	Total of domestic affiliated companies	
Energy cost	1.1	0.2	
Cost for waste processing	2.8	0.8	
Total	3.9	1.0	
Type of effect	Physical effects*7		
Prevention of climate change (amount of CO <sub>2</sub> reduced)	4,000 tons of CO <sub>2</sub>		
Reduction of waste disposal (amount of waste reduced)	1,256t		
Legal Compliance Activity	Described on page 46 (domestic plant data posted on Toyoda Gosei website)		

\*6 The economic effect calculated here covers that which can be grasped

based on solid ground. \*7 Physical effects are calculated for Toyoda Gosei alone.

#### Changes in Economic Effect



Please visit the Toyoda Gosei website for environmental data. http://www.toyoda-gosei.co.jp/csr/kankyou/houkoku.html

## Independent Opinion



Mitsuru Sano Professor, Graduate School of Environmental Studies, Nagoya University

We will give an independent opinion from the viewpoint of an environmental report, as this report aims to display the activities conducted by Toyoda Gosei as a global supplier of products and services centering on high-polymer and optical semiconductor materials.

TG 2020 Vision and the Fifth Environmental Action Plan set aggressive numerical goals, with two pillars, reduction of environmental impacts and environmental management all the way from development, manufacturing, and sales through to disposal, in the "creation of automobile society" toward environmental protection, energy conservation, and safety. The goals for FY2012 have been achieved in all items, indicating steady progress. This achievement shows the results of laborious and steady activities, such as the "waste-eliminating plant squad," "visualization" by installing monitors, and introduction of environmental action examples to domestic and overseas affiliate companies.

In terms of production, we are impressed by the 6% reduction in power consumption through the application of heat-insulating paint to facilities. We expect this achievement to be widely publicized, not only to domestic and overseas affiliate companies but also to society, as this effort has spreading effects such as reduction of air conditioning costs and improvement of working environments.

In terms of product development, we admire the efforts toward vehicle weight reduction such as the 30% weight reduction caused by micro-foaming TPV glass runs, along with functional maintenance by coating, 20% weight reduction by the use of plastic for fuel filler lids, and the adoption of a push-push system. We have also renewed our awareness that there is no end to contributions through offering products centering on high-polymer technologies.

We would like to ask for the continuation of fruitful activities in order to achieve the goals in the Fifth Environmental Action Plan. We expect the achievement of price competitiveness and differentiation which would make our customers say "We only accept products and services provided by Toyoda Gosei," and reinforcement of the management base that enables the continuation of unlimited creation.

## Analysis of Business Performance

In terms of the world economy in the current period, overall economic conditions are on the road to recovery, mainly in the US with a continued easy-money policy, and in Asia, including Japan, although Europe is still in a sluggish economic situation. In the automobile industry, the volume of automobile production in major markets such as Japan and North America has increased as compared to the previous year, supported by government subsidies for eco cars in Japan and recovery in personal spending in the US.

In the LED industry, also, the market showed further expansion due to increased awareness of energy saving and penetration of tablet terminals.

Under such circumstances, our company group has adopted a slogan, "human development and workplace creation never to cause significant accidents or critical quality problems," as a company policy of the first order, and has been striving to place emphasis on quality and to ensure safety so as to further strengthen our relationship of trust with our customers.

Toward "strengthening our operating base" for surviving in the global market, we have made efforts in the "development of new technologies, techniques and sales promotion" in expanding markets and expandable fields, as well as in "strengthening our production system."

Our auto-parts business has contributed to the improvement of fuel efficiency and safety by developing plastic fuel filler pipes, which achieve weight reduction by replacing metal components with plastic components, and pop-up hood actuators, which mitigate shocks between a pedestrian's head and the engine under the hood by instantaneously lifting the rear side of hood, as the "development of new technologies, techniques and sales promotion." Furthermore, we have achieved massproduction of newly-designed large-size radiator grills that can respond to the design innovation needs of customers, by integrating precision plastic molding techniques and plating surface treatment technologies.

In our optoelectronics business, we newly launched LEDs for

high-ceiling lighting and successfully developed next-generation LEDs, which boast luminosity three times brighter than conventional LEDs.

As a result of our efforts in proactive sales promotion in the world's major markets centering on these new high-quality products, we have achieved steady expansion in businesses with not only Japanese automakers but also with foreignaffiliated automakers in Europe, the US, and China, etc.

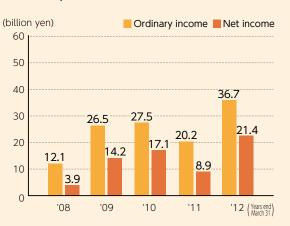
As for "strengthening our production system," we established TG East Japan Co., Ltd. in Miyagi prefecture in the Tohoku area, and TS Opto Co., Ltd. in Chiba prefecture, with the aim of expanding the high-end LED business, in order to develop trilateral production systems in Japan.

Overseas, we established GDBR Comercio Co., Ltd. in Brazil as our first production/sales base in South America. In North America, we also established branch factories of TG Minto Corporation and TG Fluid Systems USA in order to expand our product supply capability for Japanese and foreign-affiliated customers.

This in turn led to an increase in the sales of our auto parts business for this term, thanks to government subsidies for eco cars in Japan, the release of new models by major clients in North America, as well as our aggressive sales promotion to foreign-affiliated automakers. Our optoelectronics business also recorded an increase in revenue of 599.6 billion yen (18.8% increase compared to previous term) due to demand increase for LED products for tablet terminal backlights and lighting. We have achieved a large increase in revenue due to sales expansion in both auto parts and optoelectronics businesses, as well as our group-wide efforts in rationalization. Our business profit was 36.7 billion yen (79.8% increase compared to previous term), operating profit was 36.7 billion yen (81.3% increase), and current net earnings was 21.4 billion yen (138.9% increase).



#### Ordinary income / Net income



## Analysis of financial condition

## Status of assets, liabilities and total net assets

The total assets in the current term increased by 34.8 billion yen in the previous term to 489.6 billion yen, due to an increase in major tangible fixed assets and inventories. Our liabilities were 217.5 billion yen, which was about the same level

as in the previous term.

Our net assets recorded an increase of 34.7 billion yen compared to the end of the previous term to 272.1 billion yen, due mainly to an increase in accumulated earnings.

## Status of cash flows

Cash and cash equivalents (hereinafter referred to as "funds") at the end of the period under review came to 78.9 billion yen, an increase of 9 billion yen over the figure of 69.9 billion yen at the end of the previous period. The status of each cash flow in the current period and related factors are described below.

## Cash flows from operating activities

Although we appropriated 36.5 billion yen of net income before income taxes and 38.6 billion yen of expense for depreciation, the funds earned through business activities increased by 1.3 billion yen from 51.1 billion in the previous term to 52.4 billion, as the result of a 13.3 billion yen decrease in trade payables, a 6.4 billion yen increase in inventories, and of appropriating 11.5 billion yen for total income taxes.

#### Cash flows from investmenting activities

Our funds expended through investment activities increased by 3.9 billion yen from 37 billion in the previous term to 40.9 billion yen, due to the reinforcement of production capacity in mainly our overseas automobile business and research and development investment in Japan.

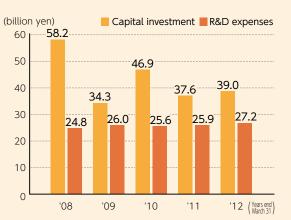
## Cash flows from financing activities

The funds earned through financial activities decreased by 6.1 billion yen, due partly to the redemption of debenture, resulting in an 8.3 billion yen decrease as opposed to the 2.2 billion yen increase in the previous year.

## Total net assets



## Capital investment / R&D expenses



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Toyoda Gosei Co., Ltd. and its Consolidated Subsidiaries Years ended March 31

	(Millions of y (Rounded down to the nearest million y				(Millions of yer nearest million yer
	2013	2012	2011	2010	2009
For The Year					
Net sales	599,615	504,518	516,982	495,002	546,380
Operating income	36,706	20,415	29,952	26,202	15,833
Ordinary income	36,777	20,287	27,549	26,574	12,155
Net income	21,429	8,971	17,116	14,255	3,951
Overseas sales	303,063	233,650	242,158	233,425	242,893
Depreciation and amortization	38,633	41,964	44,481	43,007	41,258
Capital expenditures	39,097	37,623	47,832	35,190	59,429
R&D expenses	27,279	25,936	25,617	26,066	24,837
Per share of common stock (yen)					
Net income per share-basic	165.63	69.33	132.27	110.19	30.55
Net income per share-diluted	-	—	132.27	110.17	30.55
Total net assets per share	1,955.47	1,708.41	1,680.96	1,650.90	1,523.16
Cash dividends per share	44	36	36	36	36
At Year-End					
Total assets	489,644	454,794	416,562	434,344	391,757
Total net assets	272,144	237,367	234,074	229,915	211,702
Capital stock	28,027	28,027	28,027	28,027	28,027
Number of shares outstanding (excluding treasury stock) (thousands of shares)	129,406	129,407	129,407	129,399	129,334
Cash Flows					
Net cash provided by operating income	52,451	51,112	62,586	68,199	47,843
Net cash used in investing activities	(40,989)	(37,027)	(52,579)	(36,574)	(55,945)
Net cash provided by (used in) financing activities	(6,128)	2,224	(18,785)	(7,426)	5,604
Cash and cash equivalents at end of year	78,924	69,914	54,326	67,490	42,701
Indices					
Return on equity (ROE) (%)	9.0	4.1	7.9	6.9	1.8
Return on assets (ROA) (%)	7.8	4.7	6.5	6.4	2.8
Return on sales (ROS) (%)	6.1	4.0	5.8	5.3	2.9
Debt/Equity ratio (%)	23.4	24.3	21.2	27.7	31.4
Interest coverage (times)	44.7	21.3	35.7	24.2	13.0
EBITDA (millions of yen)	75,220	61,237	71,878	67,652	50,668
Number of employees at year-end	30,190	29,108	26,964	26,084	25,792

(Millions of yen)

Note 1. Net income per share, ROE and ROA are computed based on the average number of shares, total net assets and total assets, respectively, for each consolidated fiscal year. Note 2. Debt/Equity ratio = Interest-bearing debt / Total net assets Note 3. Interest coverage = (Operating income + Interest and dividend income / Interest expenses

Note 4. EBITDA = Income before income taxes + Interest expenses - Interest and dividends income + Depreciation and amortization

## **Consolidated Balance Sheets**

Toyoda Gosei Co., Ltd. and its Consolidated Subsidiaries March 31, 2013 and 2012

	(Millions of yen) (Rounded down to the nearest million yen)		
ASSETS	2013	2012	
Current assets			
Cash and cash equivalents	78,711	70,555	
Trade notes and accounts receivable	102,281	99,358	
Short-term investments	361	160	
Goods and products	18,487	16,054	
Works-in-process	9,320	8,893	
Raw materials and stored goods	20,977	14,125	
Deferred tax assets	4,374	4,950	
Other current assets	10,356	15,249	
Less allowance for doubtful accounts	(73)	(109)	
Total current assets	244,798	229,238	
Fixed assets			
Property, plant and equipment			
Buildings and structures	148,168	139,224	
Less accumulated depreciation	(80,990)	(74,382)	
Buildings and structures, net	67,177	64,841	
Machinery, equipment and vehicles	315,832	287,509	
Less accumulated depreciation	(245,272)	(221,558)	
Machinery, equipment and vehicles, net	70,560	65,950	
Tools, furniture and fixtures	137,462	133,603	
Less accumulated depreciation	(116,940)	(111,639)	
Tools, furniture and fixtures, net	20,522	21,963	
Land	23,578	23,098	
Construction in progress	14,324	8,009	
Total property, plant and equipment	196,163	183,864	
Intangible assets			
Goodwill	169	45	
Patent rights	_	6	
Software	1,575	1,739	
Other intangible assets	779	823	
Total intangible assets	2,524	2,615	
Investments and other assets			
Investments in securities	32,965	25,119	
Deferred tax assets	9,967	10,267	
Other investment and other assets	3,309	3,768	
Less allowance for doubtful accounts	(84)	(80)	
Total investments and other assets	46,158	39,075	
Total fixed assets	244,846	225,555	
Total assets	489,644	454,794	

	(Rounded down to th	(Millions of yen) e nearest million yen)
	2013	2012
Current liabilities		
Trade notes and accounts payable	72,287	80,256
Short-term bank loans payable	20,473	13,237
Current portion of long- term loans payable	15,504	63
Current portion of bonds payable	-	10,000
Accrued expenses	24,658	23,710
Accrued income taxes	6,113	4,386
Provision for directors' bonuses	181	183
Provision for product warranties	975	1,472
Deposits received from employees	4,492	4,493
Other current liabilities	13,060	12,165
Total current liabilities	157,748	149,698
Long-term liabilities		
Long-term bank loans payable	23,329	34,397
Deferred tax liabilities	3,466	2,530
Provision for retirement benefits	29,436	27,369
Reserve for retirement benefits for directors and corporate auditors	866	1,503
Other long-term liabilities	2,652	1,655
Total long-term liabilities	59,751	67,457
Total liabilities	217,500	217,426

## NET ASSETS

Shareholders' equity		
Capital stock	28,027	28,027
Capital surplus	29,844	29,844
Retained earnings	198,657	181,855
Treasury stock at cost	(1,327)	(1,327)
Total Shareholders' equity	255,201	238,400
Accumulated other comprehensive income		
Net unrealized gains or losses on other securities	6,958	4,421
Foreign currency translation adjustments	(9,151)	(21,740)
Total accumulated other comprehensive income	(2,192)	(17,319)
Subscription rights to shares	447	640
Minority interests in consolidated subsidiaries	18,688	15,646
Total net assets	272,144	237,367
Total liabilities and net assets	489,644	454,794

(Millions of yen)

## Consolidated Statements of Income / Consolidated Statements of Changes in Net Assets

Toyoda Gosei Co., Ltd. and its Consolidated Subsidiaries For the years ended March 31, 2013 and 2012

## Consolidated Statements of Income

	2013	2012
Net Sales	599,615	504,518
Cost of sales	521,051	446,559
Gross profit	78,563	57,959
Selling, general and administrative expenses	41,857	37,544
Operating income	36,706	20,415
Non-operating income	5,083	3,641
Interest and dividend income	823	797
Equity in net earnings of affiliates	885	189
Other non-operating income	3,374	2,654
Non-operating expenses	5,012	3,769
Interest expenses	838	994
Loss on retirement and sale of fixed assets	841	412
Foreign exchange losses	_	613
Other non-operating expenses	3,332	1,748
Ordinary income	36,777	20,287

	(Rounded down to th	e nearest million yen)
	2013	2012
Extraordinary income	224	281
Gain on reversal of subscription rights to shares	224	253
Other	-	28
Extraordinary losses	430	1,492
Loss on revaluation of investments in securities	2	32
Impairment loss on long-lived assets	427	66
Provision for product warranties	-	906
Loss on litigation	-	388
Other extraordinary losses	0	98
Income before income taxes and minority interests	36,571	19,076
Income taxes – current	12,998	7,949
Income taxes – deferred	457	643
Income before minority interests	23,115	10,484
Minority interests in consolidated subsidiaries	1,685	1,512
Net income	21,429	8,971

(Millions of yen)

(Millions of ven)

## Consolidated Statements of Changes in Net Assets

								(Rounded	down to th		nillion yen)
Toyoda Gosei Co., Ltd. and its		C	Capital stoc	al stock Accumulated other comprehensive income			Subscrip- Minor	Minority	Total		
Consolidated Subsidiaries For the year ended March 31, 2013 and 2012	Capital	Capital surplus	Retained earnings	Treasury stock at cost	Total sharehold- ers' equity	Net unrealized gains or losses on other securities	Foreign currency translation adjustments	Total of accumu- lated other comprehen- sive income	tion rights to shares	interests in consolidated subsidiaries	net assets
Balance at April 1, 2012	28,027	29,844	181,855	(1,327)	238,400	4,421	(21,740)	(17,319)	640	15,646	237,367
Changes of items during consolidated fiscal year											
Dividends paid			(4,658)		(4,658)						(4,658)
Changes in surplus (net) due to the changes to accounting year of consolidated subsidiaries			30		30						30
Net income for the period			21,429		21,429						21,429
Repurchase of treasury stock				(0)	(0)						(0)
Changes of items (net) during the consolidated fiscal year for items other than shareholders' equity						2,537	12,588	15,126	(193)	3,041	17,975
Total changes of items during consolidated fiscal year	-	-	16,801	(0)	16,801	2,537	12,588	15,126	(193)	3,041	34,776
Balance at March 31, 2013	28,027	29,844	198,657	(1,327)	255,201	6,958	(9,151)	(2,192)	447	18,688	272,144

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## **Consolidated Statements of Cash Flows**

Toyoda Gosei Co., Ltd. and its Consolidated Subsidiaries For the years ended March 31, 2013 and 2012

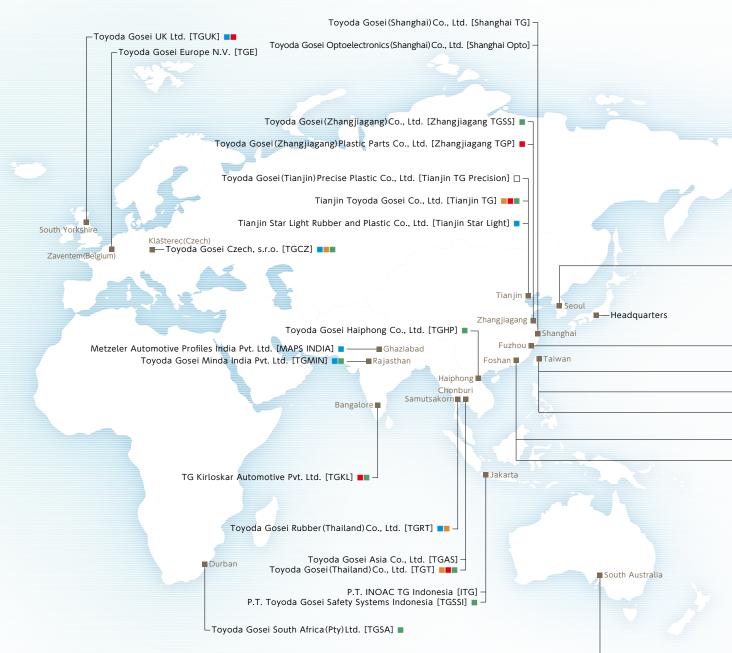
		(Millions of y Rounded down to the nearest million y
	2013	2012
Cash flows from operating activities		
Income before income taxes and minority interests	36,571	19,076
Depreciation and amortization	38,633	41,964
Impairment loss	427	66
Amortization of goodwill	125	18
Increase /Decrease in allowance for doubtful accounts	(39)	(101)
Increase /Decrease in provision for product warranties	(548)	867
Increase /Decrease in provision for retirement benefits	1,832	2,083
Increase /Decrease in prepaid pension expenses	(637)	(98)
Interest and dividends income	(823)	(797)
Interest expenses	838	994
Foreign exchange gain and loss	(29)	636
Equity in net earnings of affiliates	(885)	(189)
Gain/Loss on sale and revaluation of investments in securities	2	32
Gain/Loss on retirement or sale of property, plant and equipment, net	760	295
Increase /Decrease in receivables	3,511	(23,122)
Increase /Decrease in inventories	(6,433)	(6,326)
Increase /Decrease in other current assets	4,793	(2,040)
Increase /Decrease in payables	(13,350)	22,697
Increase /Decrease in other current liabilities	(756)	275
Others, net	(167)	(22)
Subtotal	63,824	56,307
Interest and dividends income received	1,042	969
Interest expenses paid	(837)	(1,036)
Income taxes paid	(11,577)	(5,127)
Cash flows from operating activities	52,451	51,112
Cash flows from investing activities	· · · · · · · · · · · · · · · · · · ·	· · · · ·
Payments for purchases of investment securities	(3,195)	(0)
Proceeds from sales and redemption of investments in securities	500	0
Acquisition of subsidiary company stocks	(676)	_
Payments for purchase of property, plant and equipment and intangible assets	(38,436)	(39,931)
Proceeds from sales of property, plant and equipment	262	1,634
Net increase /decrease in time deposits	663	1,350
Others, net	(107)	(80)
Cash flows from investing activities	(40,989)	(37,027)
Cash flows from financing activities	(10,000)	(37,027)
Increase /Decrease in short-term loans payable	4,820	8,227
Proceeds from long-term loans	4,980	16,320
Repayments of long-term loans	(796)	(16,428)
Redemption of bonds	(10,000)	(10,420)
Proceeds from payment by minority shareholders	151	364
Payments for repurchase of treasury stock	(0)	(0)
Cash dividends paid	(4,658)	(4,656)
Cash dividends paid to minority shareholders	(1,636)	
Others, net		(1,624)
	1,011	22
Cash flows from financing activities	6,128	2,224
Translation adjustments of cash and cash equivalents	3,537	(808)
Net increase /decrease in cash and cash equivalents	8,871	15,500
Cash and cash equivalents at beginning of year	69,914	54,326
Increase /Decrease in cash and cash equivalents due to changes to scope of consolidation	138	87
Cash and cash equivalents at end of year	78,924	69,914

## **Corporate Data**

## Global Network As of June, 2013

With 60 group companies in 17 nations and regions around the world

Consolidated subsidiaries: 53 (13 in Japan, 40 overseas) Equity method affiliated companies: 7 (3 in Japan, 4 overseas) \_



Toyoda Gosei Australia (Pty) Ltd. [TGAU]



Headquarters



Toyoda Gosei North America Toyoda Gosei Asia Co., Ltd. Corporation





Toyoda Gosei Europe N.V.



TG Missouri Corporation

#### Production Items

- Automotive Sealing Products
- Functional PartsInterior & Exterior Parts
- Safety System Products
- Optoelectronic Products
- General Industry Products

Company names in the square brackets [] are abbreviations.







Tianjin Toyoda Gosei Co., Ltd.

Toyoda Gosei Minda India Pvt. Ltd.

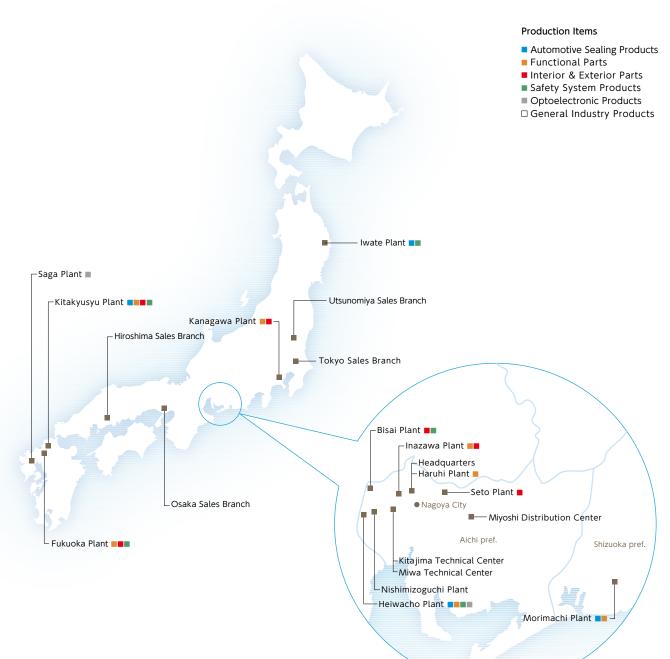


TG Kirloskar Automotive Pvt. Ltd.



Toyoda Gosei Czech, s.r.o.

## Domestic Network As of June, 2013





Kitajima Technical Center



Miwa Technical Center



Miyoshi Distribution Center





Inazawa Plant



Bisai Plant



Heiwacho Plant



Seto Plant

## Company Profile As of March 31, 2013

Company emblem/Corporate name



Location of Headquarters 1 Haruhinagahata, Kiyosu, Aichi

Date of Establishment	June 15, 1949	
Capital	28,027 millions of	yen
Number of employees	Consolidated Non-consolidated	30,190 6,763
Fiscal year end	March 31	

## Directors • Audit & Supervisory Board Members / Corporate Officers As of June 19, 2013

Chairman		Audit & Supervisory Board Members				
Hajime Wakayama		Yasushi Matsui	Toru Oguri			
President Tadashi Arashima		Shinichi Sasaki Hiroyuki loku	Tsuchio Hosoi			
Tauasiii Arasiiiina		Managing Offcers				
Executive Vice President		Kyoji Ikki	Yasushi Miyamoto			
Nobuyuki Shimizu		Atsushi Sumida	Mitsuo Mori			
Director, Senior Managing Offi	cers	Corporate Officers				
Nobuo Fujiwara Kazumi Otake	Masayoshi Ichikawa	Tomonobu Yamada Masakazu Hashimoto	Shinichi Goto Motoo Tanaka Tashibisa Yakai			
Director, Managing Officer		Kazuaki Maeda	Toshihiro Yokoi			
Daisuke Kobayashi		Hiroshi Yasuda Katsumi Tanabe Makoto Horie	Toru Koyama Takashi Ishikawa			

## Stock Information As of March 31, 2013

Common stock	Authorized	200,000,000 shares	Major shareholders (ten largest)			
	Issued	130,010,011 shares	Shareholder name	Number of shares held (unit: 1,000 shares)	Investment ratio (%)	
Stock exchange listings	Tokyo Stock Nagoya Stoc	Exchange and	Toyota Motor Corporation	55,459	42.65	
	Nugoyu Stor	ek Exchange	The Master Trust Bank of Japan, Ltd. (Trust Account)	7,118	5.47	
Number of shareholders	14,702		Sumitomo Mitsui Banking Corporation	5,049	3.88	
Transfer agent	Mitsubishi UFJ Trust and		Japan Trustee Services Bank, Ltd.(Trust Account)	4,978	3.82	
	0	king Corporation	Japan Trustee Services Bank, Ltd. (Trust Account 9)	1,948	1.49	
		er Agency Department, -J Trust and Banking	Nippon Life Insurance Company	1,714	1.31	
	Corporation	5 Hust and Banking	The Dai-ichi Life Insurance Company, Limited	1,493	1.14	
	7-10-11 Higashi-suna, Koto-ku,	Mitsui Sumitomo Insurance Co., Ltd.	1,162	0.89		
	Tokyo 137-8081, Japan Tel. 0120-232-711		Toyoda Gosei employee shareholding association	1,078	0.82	
		mber in Japan)	DAIEI SANGYO KAISHA, LTD.	1,031	0.79	



With regard to "creating an environment that is kind to both people and the Earth," and from the perspective of environmental conservation and the valid use of resources, we have three points, or three "don'ts," on which we need to base our actions: "Don't make ("Don't use") [Tsukuranai]," "Don't throw away [Sute-nai]," and "Don't leave things to others [Makasenai]". Together, these phrases make up the slogan "Nicely" (the three "nai's," or "nai's-three," sound like "Nicely" when pronounced with a Japanese accent). "Treating humans and the Earth nicely" is the trademark of Toyoda Gosei's environmental activities.

## TOYODA GOSEI CO., LTD.

General Administration Division, General Administration & Public Affairs Dept.

1 Haruhinagahata Kiyosu Aichi, 452-8564, Japan Phone: + 81-52-400-1055 Fax: +81-52-409-7491 http://www.toyoda-gosei.com/









- This report is printed on paper with FSC certification, indicating that it was produced from properly managed forests.
- •We use vegetable oil-based ink that does not contain VOCs (volatile organic compounds).
- We use a waterless printing method that does not produce harmful waste liquid in the printing process.
   This environmentally-friendly product was printed at a Green Printing-certified plant using printing materials that conform to green criteria.
- •We use a Universal Design font with outstanding visibility and readability.
- •We gave extra consideration to the display so that as many people as possible can easily see and read it, regardless of individual differences in color vision.

## **Environmental Data**

Ρ	е	r	i	0	d	1	٠	April,	2012	to	March,	2013

- [ A i r ] April, 2012 to March, 2013
  [ A i r ] Units are as follows: NOx = ppm, PM (particulate matter) = mg/Nm ND: below the minimum determination limit (not detected) Values shown in the results column are averages of the results of the measurements.
  [ W a t e r ] Units are all in mg/L except for pH pH: hydrogen ion concentration BOD: Biochemical Oxygen Demand SS: concentration of suspended solids in water ND: below the minimum determination limit (not detected) Values shown in the results column are averages of the results of the measurements.
  [ Groundwater] Units are all in mg/L ND: below the minimum determination limit (not detected).

[PRTR\*Data] • Units are in kg \*Values less than 1kg are rounded up if ≥0.5 and down if 0.5. There are some cases in which values for total volume and volume handled are not in agreement. Data for use of resources volume emitted volume emi

Pollutant Release and Transfer Register (the registration system monitoring emissions of substances that pollute the environment and moves/transfers of them)

## Data on Main Domestic Plants

Haruhi Plant
1 Haruhinagahata Kiyosu, Aichi, Japan 452-8564
Main Products
Functional Parts

Air (Air Pollution Control Law, prefectural regulations, etc.) ND 0.1 Dust Boilers(gas) Co-generation(gas) 0.05 ND 150 43 NOx Boilers(gas) Co-generation(gas) 600 115

## Groundwater Trichloroethylene

em measure

Cis-1,2-Dichloroethylen

	Environmental Standand	Result
	0.03	ND
e	0.04	ND~0.031
	*Refer to To	oyoda Gosei Report P.

## Water (Water Pollution Control Law, prefectural regulations, etc.)

item measureu	Regulation value	Result
рН	5.8~8.6	7.5
BOD (Biochemical Oxygen Demand)	25	4.8
SS	30	1.5
Oil content	5	ND
Total nitrogen	120	1.2
Total phosphorus	16	0.78
Thiram	0.06	ND
Fluorine	8	0.3

#### ■No violations of laws, etc. ■No complaints

#### PRTR Data

Substance name	Substance Amount		Volume emitted			Volume moved		Volume	Total	Total
Substance name	(item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
2-imidazolidin thionate	42	2,604	0	0	0	0	387	1	0	2,215
Tetramethylthiuram disulfide	268	3,774	0	0	0	0	204	0	0	3,571
Toluene	300	1,486	1,225	0	0	0	260	2	0	0
Di-n-butyl phthalate	354	1,396	0	0	0	0	209	0	0	1,186
Bis (2-ethylhexyl) phthalate	355	4,233	0	0	0	0	613	8	0	3,612

46

### ■Data for use of resources/volume emitted

	Category	Result
Waste	Volume generated	2,185
	Volume emitted	1,316
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	7,100
Water	Volume used	39

## Morimachi Plant

1310-128 Mutsumi, Mori, Shuchi, Shizuoka, Japan 437-0213

Main Products
Automotive Sealing
roducts

Functional Parts	

Air (Air Pollution Control Law, prefectural regulations, etc.)							
Iter	n measured	Regulation value	Result				
Dust	Boilers(heavy oil)	0.3	0.01				
NOx	Boilers(heavy oil)	260	94				

■No violations of laws, etc. ■No complaints

■ Water (Water Pollution Control Law, prefectural regulations, etc.)									
Item measured Regulation value Result									
рН	5.8~8.5	7.5							
BOD (Biochemical Oxygen Demand)	25	5.5							
SS	50	5.2							
Oil content	5	ND							
Thiram	0.06	ND							
Zinc	0.5	0.19							

#### PRTR Data

Substance name	Substance	Amount		olume emitte		Volume moved		Volume	Total	Total consumed (products)
Substance name	(item number)	handled	Into the air	Into bodies of water	nto bodies of water Into the ground Volume mo		Volume moved as waste	recycled	(processed)	
Antimony and its compounds	31	5,890	0	0	0	0	294	59	0	5,536
2-imidazolidin thionate	42	5,856	0	0	0	0	234	234	0	5,388
Ethylbenzene	53	16,754	12,039	0	0	0	3,118	793	0	804
Xylene	80	19,106	13,749	0	0	0	3,575	898	0	884
Disulfiram	259	1,327	0	0	0	0	72	0	0	1,255
Tetraethylthiuram disulfide	268	12,704	0	0	0	0	686	0	0	12,018
Toluene	300	63,715	37,698	0	0	0	18,684	5,623	0	1,710
Zinc bis (N,N- dimethyldithiocarbamate)	328	6,138	0	0	0	0	246	246	0	5,647
Di-n-butyl phthalate	354	17,622	0	0	0	0	881	176	0	16,565
Bis(2-ethylhexyl)phthalate	355	3,450	0	0	0	0	120	25	0	3,306
Phthalic anhydride	413	1,083	0	0	0	0	50	10	0	1,023
Methylenebis (4,1-phenylene) = diisocyanate	448	4,766	0	0	0	0	477	0	0	4,290
2-Mercaptobenzothiazole	452	39,461	0	0	0	0	2,131	0	0	37,330

## Data for use of resources/volume emitted

C	Category				
Waste	Volume generated	4,960			
	Volume emitted	3,926			
	Final volume disposed	0			
Greenhouse gas	CO <sub>2</sub> emissions	21,000			
Water	Volume used	22			

## Heiwacho Plant

710 Origuchi, Shimomiyake, Heiwa, Inazawa, Aichi, Japan 490-1312

## Main Products Automotive Sealing Products Functional Parts Safety System Products Optoelectronic Products

## Air (Air Pollution Control Law, prefectural regulations, etc.)

Iten	n measured	Regulation value	Result
Dust	Boilers(heavy oil)	0.15	ND
	Boilers(gas)	0.05	ND
	Co-generation(gas)	0.05	ND
NOx	Boilers(heavy oil)	140	75
	Boilers(gas)	120	35
	Co-generation(gas)	200	77
	Dust	Boilers(gas)           Co-generation(gas)           NOx         Boilers(heavy oil)           Boilers(gas)	Dust         Boilers(heavy oil)         0.15           Boilers(gas)         0.05           Co-generation(gas)         0.05           NOx         Boilers(heavy oil)         140           Boilers(gas)         120

■No violations of laws, etc. ■No complaints

#### ----

ing	PRTR Data

Substance name	Substance Amount		Volume emitted			Volume moved		Volume	Total	Total
Substance name	(item number) handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)	
2-aminoethanol	20	59,775	6.0	0	0	120	59,649	0	0	0

### ■Data for use of resources / volume emitted

Ca	Result					
Waste	Volume generated	1,431				
	Volume emitted	1,203				
	Final volume disposed	0				
Greenhouse gas	CO <sub>2</sub> emissions	19,900				
	PFC emissions	2,600				
	HFC emissions	900				
Water	Volume used	30				

## Water (Water Pollution Control Law, prefectural regulations, etc.)

nazawa	
Plant	

1 Komeyasakai, Kitajima, Inazawa, Aichi, Japan 492-8542

Main Products

Interior and Exterior Parts
 Functional Parts

NOx	Boilers(gas)	150	56
	Co-generation(gas)	600	120
Groun	dwater		
	<b>dwater</b> m measured	Environmental Standand	Result

Cis-1.2-Dichloroethylene*1	0.04	ND~0.012
*1 Substances that have no record	d of being used. * Refer to	Toyoda Gosei Report P.46

■No violations of laws, etc. ■No complaints

## PRTR Data

Substance name	Substance Amount		Volume emitted			Volume moved		Volume	Total	Total
Substance name	(item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Ethylbenzene	53	3,836	2,899	0	0	0	582	91	0	265
Xylene	80	8,729	6,307	0	0	0	1,506	237	0	679
Chromium and trivalent chromium compounds	87	4,205	0	34	0	0	3,330	0	0	841
Hexavalent chromium compounds	88	4,205	0	0	0	0	0	0	4,205	0
Copper water-soluble salts (excluding complex salts)	272	3,567	0	36	0	0	2,675	0	0	856
Toluene	300	27,866	19,480	0	0	0	5,718	914	0	1,754
Nickel	308	80,838	0	0	0	0	0	0	80,838	0
Nickel compounds	309	88,683	0	18	0	0	11,511	0	0	77,154
Bis (2-ethylhexyl) phthalate	355	4,435	0	0	0	0	310	0	0	4,125
Water-soluble salts of peroxodisulfuric acid	395	4,850	0	0	0	0	0	0	4,850	0
Boron compounds	405	1,552	0	16	0	0	1,164	0	0	373

#### Data for use of resources/volume emitted

Category		Result
Waste	Volume generated	2,931
	Volume emitted	1,614
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	9,700
Water	Volume used	45

2

## ■Water (Sewerage Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
рН	5~9	7.4
BOD (Biochemical Oxygen Demand)	600	17.3
SS	600	6.8
Oil content	30	0.62
Total nitrogen	240	2.9
Total phosphorus	32	0.3
Fluorine	8	0.11

Air (Ai	r Pollution Contro	l Law, prefectural regula	ations, etc.)	Water (Water Pollution Cont	rol Law
lte	m measured	Regulation value	Result	Item measured	Regula
NOx	Boilers(gas)	150	56	рН	5.8

item measured	Regulation value	Result
рН	5.8~8.6	7.1
BOD (Biochemical Oxygen Demand)	25	11.7
SS	30	2.1
Oil content	5	ND
Total nitrogen	120	11.6
Total phosphorus	16	0.43
Hexavalent chromium	0.5	ND
Total chromium	2	0.14
Copper	1	0.12
Fluorine	8	0.14
Boron	10	4.4

## Bisai Plant

40 Higashishimoshiro, Meichi, Ichinomiya, Aichi, Japan 494-8502

Main Products

#### ■No violations of laws, etc. ■No complaints

Air (Air Pollution Control Law, prefectural regulations, etc.)

0.3

0.05

0.05

180

150

600

Item measured Regulation value

Boilers(heavy oil)

Co-generation(gas)

Boilers(heavy oil)

Co-generation(gas)

Boilers(gas)

Boilers(gas)

Interior and Exterior Parts
Safety System Products PRTR Data

Dust

NOx

Substance name	Substance	Amount	V	olume emitte	ed	Volume	moved	Volume	Total	Total
Substance name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Ethylbenzene	53	9,530	6,990	0	0	0	1,579	247	0	714
Xylene	80	13,693	10,024	0	0	0	2,281	357	0	1,030
Toluene	300	30,591	22,670	0	0	0	4,956	761	0	2,204
Methylenebis (4,1-phenylene) = diisocyanate	448	50,199	0	0	0	0	5,020	0	0	45,179

Resul ND

ND

ND

69

57

105

Result

ND

70

## Data for use of resources/volume emitted

C	Result	
Waste	Volume generated	2,817
	Volume emitted	983
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	10,600
	SF <sub>6</sub> emissions	9,600
Water	Volume used	15

Air (Air Pollution Control Law, prefectural regulations, etc.)

0.2

150

## Seto Plant

141 Sosaku, Seto, Aichi, Japan 489-0843
Main Products

Interior and Exterior Parts

## ■No violations of laws, etc. ■No complaints

Boilers (kerosene)

Boilers (kerosene)

Water (Water Pollution Control Law, prefectural regulations, etc.)											
Item measured	Regulation value	Result									
рН	5.8~8.6	7.2									
BOD (Biochemical Oxygen Demand)	20	1.3									
SS	20	0.5									
Total nitrogen	10	1.4									
Total phosphorus	4	0.03									

### PRTR Data

Dust

NOx

Substanco namo	Substance name Substance		V	olume emitte	ed	Volume	moved	Volume	Total	Total
Substance name	Substance name number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Methylenebis (4,1-phenylene) = diisocyanate	448	56,697	0	0	0	0	5,670	0	0	51,027

. . 1. 

Data for use of resources/volume emitted									
Catego	Result								
Waste	Volume generated	576							
	Volume emitted	576							
	Final volume disposed	0							
Greenhouse gas	CO <sub>2</sub> emissions	3,000							
Water	Volume used	1.0							

Kanagawa Plant

# 19-5 Suzukawa, Isehara, Kanagawa, Japan 259-1146

- Main Products Interior and Exterior Parts
  Functional Parts

#### ■No violations of laws, etc. ■No complaints

## PRTR Data

Substance	Substance name Substance		Amount	V	olume emitt	ed	Volume	moved	Volume	Total	Total
Substance	name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Toluene		300	1,621	1,235	0	0	0	208	85	0	93
Data for use	of resour	ces/volum	e emitted								
	Category		Result								
Waste	Volume ge	enerated	94								
	Volume en	nitted	94								
	Final volun	ne disposed	0								
Greenhouse gas	Greenhouse gas CO <sub>2</sub> emissions		700								
Water	Volume us	ed	0.2								

#### ■ Water (Sewerage Law, prefectural regulations, etc.)

Item measured	Regulation value	Result
рН	5.7~8.7	7.1
BOD (Biochemical Oxygen Demand)	300	52.3
SS	300	21
Oil content	30	1.3

## Kitakyushu Plant

## 1-2 Kitahoraoka Maeda, Yahata-higashi, Kitakyushu, Fukuoka, Japan 805-0058

## Main Products

- Interior and Exterior Parts
   Automotive Sealing Products
   Functional Parts

- Safety System Products

## ■No violations of laws, etc. ■No complaints

## PRTR Data

Substance name	Substance	Amount		olume emitte		Volume		Volume	Total	Total
	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
Chromium and trivalent chromium compounds	87	3,032	0	0	0	0	2,425	0	0	606
Hexavalent chromium compounds	88	3,032	0	0	0	0	0	0	3,032	0
Toluene	300	11,593	8,053	0	0	0	1,881	940	0	719
Nickel	308	18,982	0	0	0	0	0	0	18,982	0
Nickel compounds	309	18,982	0	0	0	0	2,468	0	0	16,515

## ■Data for use of resources/volume emitted

Ci	Result	
Waste	Volume generated	979
	Volume emitted	943
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	5,800
Water	Volume used	2.5

## Fukuoka Plant



TVICIII		ouuci	2
Interior	and	Exterior	D+

- Functional Parts
- Safety System Products

#### ■No violations of laws, etc. ■No complaints

#### Water (Water Pollution Control Law, prefectural regulations, etc.) Item measured Regulation value Result рΗ 5.8~8.6 7.4 BOD (Biochemical Oxygen Demand) 10 1 25 0.18 SS 2 ND Oil content

## PRTR Data

		consumed
	(processed)	(products)
Toluene         300         4,878         3,628         0         0         0         778         121	0	351

## ■Data for use of resources/volume emitted

C	Result								
Waste	Volume generated	947							
	Volume emitted	530							
	Final volume disposed	0							
Greenhouse gas	CO <sub>2</sub> emissions	2,500							
Water	Volume used	1.7							

Air (Air Pollution Control Law, prefectural regulations, etc.)

0.1

150

## Saga Plant

9966-9 Kawako, Wakaki, Takeo, Saga, Japan 843-0151

Main Products Optoelectronic Products

## PRTR Data

Dust

NOx

Boilers(gas)

Boilers(gas)

Substance name	Substance	Amount	Vo	olume emitte	ed	Volume	moved	Volume	Total	Total
Substance name	number (item number)	handled	Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste	recycled	(processed)	(products)
2-aminoethanol	20	55,250	5.5	0	0	0	55,244	0	0	0

ND

46

## Data for use of resources/volume emitted

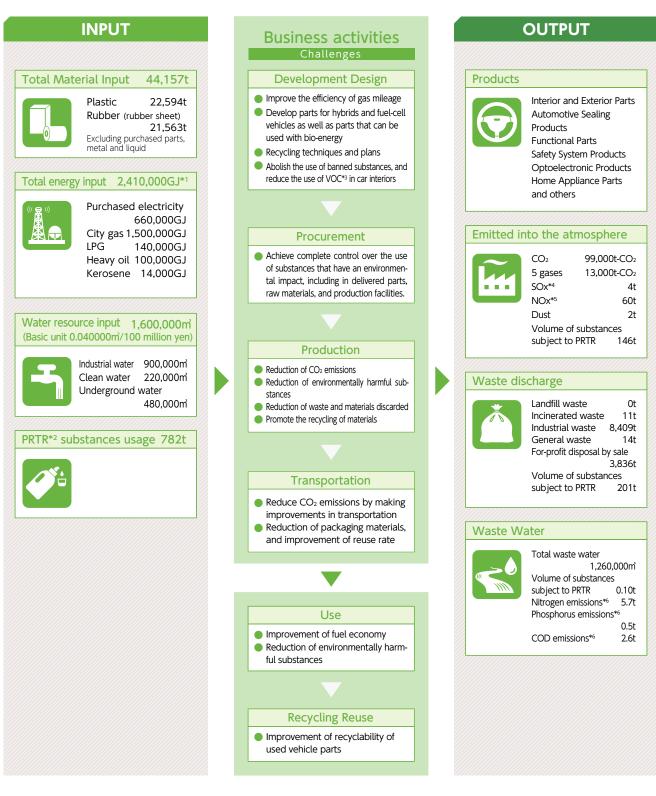
■No violations of laws, etc. ■No complaints

	Category	Result
Waste	Volume generated	453
	Volume emitted	453
	Final volume disposed	0
Greenhouse gas	CO <sub>2</sub> emissions	5,600
	PFC emissions	0
Water	Volume used	11

рН	5.8~8.6	7.4
BOD (Biochemical Oxygen Demand)	20	12
SS	50	4
Oil content	5	0.55

Water (Water Pollution Control Law, prefectural regulations, etc.)

## Resource Input and Output to the Environment in Business Activities in fiscal 2012



\*1 Gigajoule (1,000,000,000 joules)

- \*2 Pollutant Release and Transfer Register
- \*3 Volatile Organic Compounds

\*4 Sulfur Oxide

\*5 Nitrogen Oxide

\*6 Range of target: 4 plants of Haruhi, Inazawa, Heiwacho and Seto, Kitajima Technical Center, Miwa Technical Center and Sun-Court Inoguchi

## GRI Guidelines and the corresponding cross referenced pages

Gui	deline items	Main corresponding pages
1. St	rategy and Analysis	
1.1	Statement from the most senior decisionmaker of the organization (e.g., CEO, chair, or equiva- lent senior position) about the relevance of sus- tainability to the organization and its strategy.	P3-4
1.2	Description of key impacts, risks, and opportunities.	P3-4, 21
-	ganizational Profile	
2.1 2.2	Name of the organization.	P58 P11-12
2.2	Primary brands, products, and/or services. Operational structure of the organization, includ-	F11-12
2.5	ing main divisions, operating companies, subsid- iaries, and joint ventures.	P55-57
2.4	Location of organization's headquarters.	P58
2.5	Number of countries where the organization op- erates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	P55-57
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	P11-18
2.8	Scale of the reporting organization, including: • Number of employees; • Net sales (for private sector organizations) or net revenues (for public sector organizations); • Total capitalization broken down in terms of debt and equity (for private sector organiza- tions); and • Quantity of products or services provided.	P25,49-50
2.10	Awards received in the reporting period.	P23
3. Re	port Parameters	
Re	port Profile	
3.1	Reporting period(e.g., fiscal/calendar year) for information provided.	P2
3.2	Date of most recent previous report (if any).	P2
3.3	Reporting cycle (annual, biennial, etc.)	P2
3.4	Contact point for questions regarding the	P2
Por	report or its contents. Cort Scope and Boundary	
3.5	Process for defining report content, including:     Determining materiality:     Prioritizing topics within the report; and     Identifying stakeholders the organization     expects to use the report.	P2
3.6	Boundary of the report (e.g., countries, divisions, sub- sidiaries, leased facilities, joint ventures, suppliers).	P2
3.7	State any specific limitations on the scope or boundary of the report.	P2
3.9	Data measurement techniques and the bases of cal- culations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	P2
3.11	Significant changes from previous reporting pe- riods in the scope, boundary, or measurement methods applied in the report.	P2
	I Content Index	
3.12	Table identifying the location of the Standard Dis- closures in the report. Identify the page numbers or web links where the following can be found.	P2
4.Governance, Commitments, and Engagement		
Go	vernance	
4.1	Governance structure of the organization, including committees under the highest gover- nance body responsible for specific tasks, such as setting strategy or organizational oversight.	P19
4.2	Indicate whether the Chair of the highest gover- nance body is also an executive officer (and, if so, their function within the organization's man- agement and the reasons for this arrangement).	P19
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	P19
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social perfor- mance and the status of their implementation.	P1
4.9	Procedures of the highest governance body for over- seeing the organization's identification and manage- ment of economic, environmental, and social perfor- mance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	P19

	deline items	Main corresponding pages
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	P36-37
Co	mmitments to External Initiatives	
4.11	Explanation of whether and how the precau- tionary approach or principle is addressed by the organization.	P21
	keholder Engagement	
4.14	List of stakeholder groups engaged by the organization.	P2
4.16	Approaches to stakeholder engagement, includ- ing frequency of engagement by type and by stakeholder group.	P22-33
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	P22-33
	nagement Approach and Performance Ind	licators
	pnomic Performance	
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	P49-54
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	P48
Ma EC6	rket Presence Policy, practices, and proportion of spending	
	on locally-based suppliers at significant loca- tions of operation.	P30
	irect Economic Impacts	
EC8	Development and impact of infrastructure in- vestments and services provided primarily for public benefit through commercial, inkind, or pro bono engagement.	P31-33
Env	ironmental Performance Indicators	
	terials	
EN1 EN2	Materials used by weight or volume. Percentage of materials used that are recycled	Homepage
	input materials.	P40, homepage
	rgy	11
EN3 EN4	Direct energy consumption by primary energy source. Indirect energy consumption by primary source.	Homepage Homepage
EN5	Energy saved due to conservation and effi-	P38-39
EN6	ciency improvements. Initiatives to provide energy-efficient or renew- able energy based products and services, and reductions in energy requirements as a result of these initiatives.	P38-39, 47
EN7	Initiatives to reduce indirect energy consump- tion and reductions achieved.	P38
Wa		
EN8	Total water withdrawal by source.	P41, homepage
EN9	Water sources significantly affected by with- drawal of water.	Homepage
EN10	Percentage and total volume of water recycled and reused.	P41, homepage
	diversity	
EN12	Description of significant impacts of activities, products, and services on biodiversity in pro- tected areas and areas of high biodiversity value outside protected areas.	P46
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	P46
	issions, Effluents, and Waste	
EN16	Total direct and indirect greenhouse gas emis- sions by weight.	P36, 38, 40, homepage
EN17	Other relevant indirect greenhouse gas emissions by weight.	P36, 39, 40
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	P36, 38-40
EN19	Emissions of ozone-depleting substances by weight.	Homepage
EN20	NO, SO, and other significant air emissions by type and weight.	Homepage
EN21	Total water discharge by quality and destination.	Homepage
EN22 EN23	Total weight of waste by type and disposal method. Total number and volume of significant spills.	P40, homepage
	rotat number and votarre or significant spills.	Homepage

Guideline items		Main corresponding pages
Products and Services		
EN26	Initiatives to mitigate environmental impacts of prod- ucts and services, and extent of impact mitigation.	P47
EN27	Percentage of products sold and their packag- ing materials that are reclaimed by category.	P40
Cor	npliance	
EN28	Monetary value of significant fines and total num- ber of non-monetary sanctions for noncompli- ance with environmental laws and regulations.	Homepage
Tra	nsport	
EN29	Significant environmental impacts of transport- ing products and other goods and materials used for the organization's operations, and transporting members of the workforce.	P39
Ove	erall	
EN30	Total environmental protection expenditures and investments by type.	P48
Labor Practices and Decent Work Performance Indicators		
Oce	cupational Health and Safety	
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist work-force members, their families, or community members regarding serious diseases.	P21, 26, 28
LA9	Health and safety topics covered in formal agreements with trade unions.	P28
Training and Education		
LA11	Programs for skills management and lifelong learning that support the continued employability of employ- ees and assist them in managing career endings.	P24-25

Guideline items		Main corresponding pages
Div	ersity and Equal Opportunity	
LA13	Composition of governance bodies and break- down of employees per category according to gender, age group, minority group member- ship, and other indicators of diversity.	P25
Hu	man Rights Performance Indicators	
Inv	estment and Procurement Practices	
HR2	Percentage of significant suppliers, contractors and other business partners that have under- gone screening on human rights and actions taken	P30
Soc	ciety Performance Indicators	
Co	rruption	
SO3	Percentage of employees trained in organiza- tion's anti-corruption policies and procedures.	P20
SO4	Actions taken in response to incidents of corruption.	P21
Pub	olic Policy	
SO5	Public policy positions and participation in pub- lic policy development and lobbying.	Back cover
Pro	duct Responsibility Performance Indicators	
Customer Health and Safety		
PR1	Life cycle stages in which health and safety im- pacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	P22-23
Product and Service Labeling		
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	P23

# Environmental Reporting Guidelines (Fiscal 2012 Version) and the corresponding cross referenced pages

Guideline items	Main corresponding pages	
Basic items of the environmental report		
1.Basic items of the environmental report		
Target range of organizations for reporting and target periods	P2	
Supplementary rates in the target range and differences in target periods	P2	
Reporting policy	P2	
Policy etc. for public media	P2	
2.Message from the President	P3-4	
3. General overview of the environmental report		
General overview of environment-friendly management	P34-35	
List of KPI time sequences	P36-37	
General responses to individual environmental issues	P36-37	
4.Material balance	Homepage	
Current situation of environmental administration i.e. environmental management		
1.Policies for environmental consideration, visions, and business strategies, etc.		
Policy for environmental consideration	P34	
Important issues, visions, and business strategies	P3-4	
2. Organizational framework and governance situation		
Organizational framework etc. for environment-friendly management	P34	
Environmental risk management system	P46	
Adherence situation regarding environment-related rules and regulations	P46	
3.Situation of responses to stakeholders		
Response to stakeholders	P31-33、46	
Social contribution activities related to the environment	P31-33、46	
4. Initiative policies and strategies etc. for environmental considerations in the value chain		
Initiative policies and services etc. for environmental considerations in the value chain	P30	
Green purchase/procurement	P30	

Guideline items	Main corresponding pages	
	Main corresponding pages	
Products and services etc. that contribute to reducing environmental load	P41-42	
Environment-related new technologies, research and development	P47	
Environment-friendly transportation	P39	
Environment-friendly resource/real-estate development/investment etc.	P41	
Environment-friendly waste disposal/recycling	P40-41	
Environmental load associated with business a situations related to initiatives in environmenta		
1.Resource and energy input situation		
Total energy input and measures for its reduction	P38-39,Homepage	
Total material input and measures for its reduction	P40-42,Homepage	
Water resource input and measures for its reduction	P41,Homepage	
2. Situation of cyclic utilization of resources etc. (within business areas)	P40-41,Homepage	
3. Situation of products production and environmental load emission		
Gross production amount or gross product sales	Homepage	
Emission of greenhouse gases and measures for their reduction	P39,Homepage	
Total drainage water quantity and measures for its reduction	Homepage	
Air pollution and life environment loads and measures for their reduction	Homepage	
Emission and transference of chemical substances and measures for their reduction	P41-42,Homepage	
Total waste discharge and total final waste disposal, and measures for their reduction	P41-42,Homepage	
Leakage of hazardous material etc. and measures for its prevention	P46	
4. Situations of biodiversity conservation and sustainable utilization of biological resources	P46	
Situations related to economic and social aspects in environment-friendly management		
1. Situation related to the economic aspect in environment-friendly management		
Situation of the economic aspect in business operators	P48	
Situation of the economic aspect in society	P48	
2.Situation related to the social aspect in environment-friendly management	P3-4	