

TOYODA GOSEI REPORT 2016



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About TOYODA GOSEI REPORT 2016

■ Editorial policy

This report was compiled with the aim of giving all stakeholders in the Toyoda Gosei Group a better understanding of its CSR activities and earning their greater trust. We tried to make the activities easily comprehensible by prioritizing those things that we most want to communicate to stakeholders.

■ Period covered by report

April 1, 2015 to March 31, 2016
This report principally covers the period above, but content related to other periods may be included as needed.

■ Scope

Toyoda Gosei Group
The scope is outlined individually for some items.

■ Reference Guidelines

"Environmental Reporting Guidelines, 2012 Edition"*

"Environmental Accounting Guidelines, 2005 Edition"

*A comparative table of these guidelines can be found on our website.

<http://www.toyoda-gosei.com/csr/dl/>

■ Date of Issue

June 2016
(Next publication scheduled for June 2017. Previous publication July 2015)



The Toyoda Gosei Group wants to help bring about a better and brighter future with our rubber and plastics technology and LEDs.

Company Creed

Boundless Creativity and Social Contribution

Our Approach to CSR



CSR Priority Areas



Letter
from the
President

Contributing to sustainability
with society through our

and growing together
corporate activities

N. Miyazaki
President



Toyoda Gosei is a top manufacturer of rubber and plastic automotive parts and LEDs, with global operations by 67 group companies in 18 countries and regions.

Over a history of more than half a century, we have always valued the contributions we make to a better society through our business activities. Meeting the expectations of our stakeholders—customers, shareholders, employees, our communities, and others—and helping to improve their lives has always been our aim. To achieve this, we emphasize environmental preservation, creation of pleasant workplaces, and building livable communities based on compliance in our various activities.

Environmental preservation is an area where we have been putting special effort. Automobile ownership is increasing, mainly in developing countries, and there is concern about future increases in global CO₂ emissions, growing consumption of resources, and loss of biodiversity. To leave a sustainable and livable global environment, automakers are accelerating measures such as developing the environmentally-friendly technologies of fuel cell vehicles (FCV) and electric vehicles (EV). Suppliers such as Toyoda Gosei must also face these environmental issues, and we believe that all our stakeholders expect us to contribute fully to their resolution.

In February 2016 we established the TG 2050 Environmental Challenge, setting six ambitious goals to move steadily toward zero CO₂ emissions and net water usage in our business activities by 2050. The entire Toyoda Gosei Group will work as one under the banner of leaving a greener world for our children, and we will continue to push our efforts forward with the spirit and resolve to lead the industry in the environmental field.

As a first step toward achieving this, we are implementing various measures based on our Sixth Environmental Action Plan for the five years from 2016 to 2020. For years we have made significant efforts to develop lightweight parts that contribute to better automobile fuel efficiency, environmentally-friendly LED products, and recycling technologies for raw materials. These efforts have been recognized with as strong ranking of 18th among manufacturers in the Nikkei Environmental Management Survey. The Sixth Environmental Action Plan calls for us to continue developing products using our expertise in the field of high polymers while also creating a new company-wide environmental organization for production technology and introducing energy-saving, innovative processes by downsizing lines and equipment and other means.

We are also striving to create pleasant workplaces that stimulate employees and allow them to work in health and safety. We want to create a corporate atmosphere and culture that respects diversity so that each of our employees can work making full use of his or her individual talents and abilities. In contributing to livable communities, Toyoda Gosei employees around the world actively contribute to their local communities. Our aim is for Toyoda Gosei Group companies to have firm roots in our communities and to grow together with the societies in which we operate.

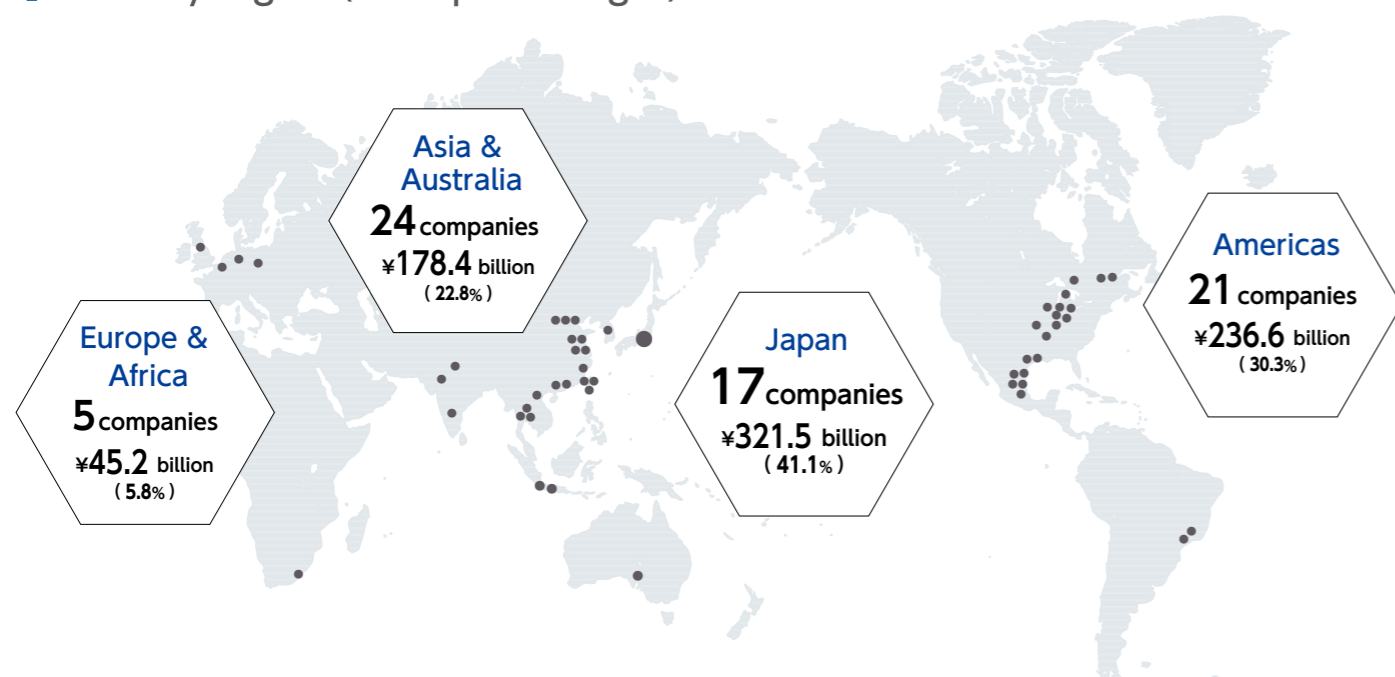
The foundation for all of these activities is compliance. To maintain the trust of society as a company of integrity, we believe not only legal compliance but high ethical standards by each and every one of our employees are crucial, and we will continue to educate employees throughout the Toyoda Gosei Group.

We will do our utmost to contribute to sustainable societies globally through our business activities, and grow together with the societies where we make our home. We look forward to continuing to serve our customers and communities.

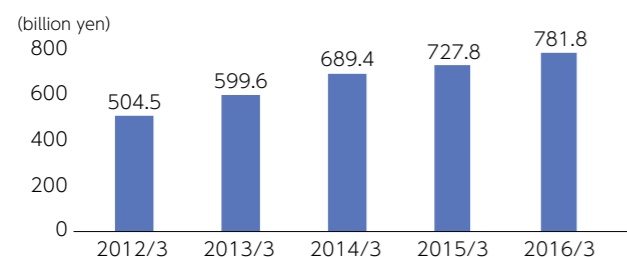
Toyota Gosei Data

Established June 15, 1949 Number of employees 35,903 (as of March 31, 2016, consolidated)
 Capital ¥28 billion Sales ¥781.8 billion (FY2015, consolidated)

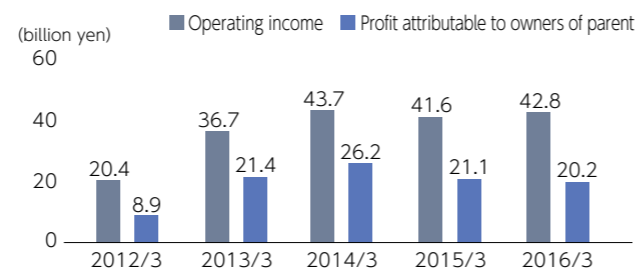
Sales by region (sales percentages) (FY2015)



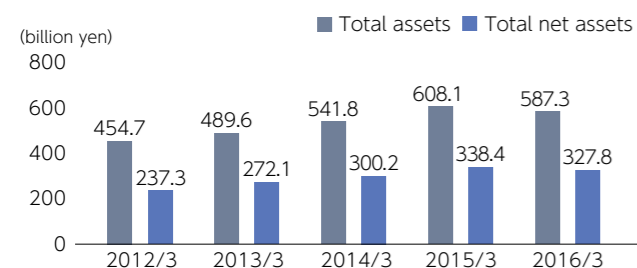
Sales (consolidated)



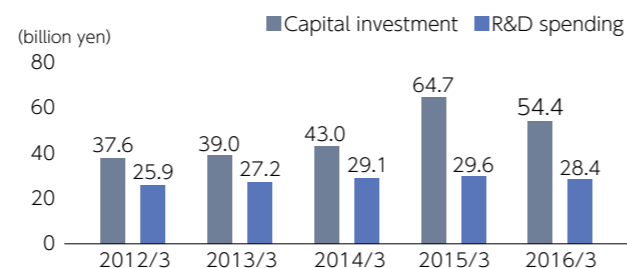
Operating income / Profit attributable to owners of parent (consolidated)



Total assets / Total net assets (consolidated)



Capital investment / R&D spending (consolidated)



Summary of Financial Results

Consolidated Balance Sheet

(Unit: million yen rounded down)

Item	As of March 31, 2016	As of March 31, 2015	Item	As of March 31, 2016	As of March 31, 2015
Assets			Liabilities	259,530	269,697
Current assets	281,212	291,246	Current liabilities	162,592	180,795
Fixed assets	306,160	316,926	Long-term liabilities	96,937	88,902
Property, plant and equipment	241,408	250,557	Net assets	327,843	338,474
Intangible assets	2,401	2,819	Shareholders' equity	301,756	289,321
Investments and other assets	62,350	63,549	Accumulated other comprehensive income	2,192	24,498
Total assets	587,373	608,172	Minority interests in consolidated subsidiaries	23,641	24,654
			Total liabilities and net assets	587,373	608,172

Consolidated Statements of Income

(Unit: million yen rounded down)

Item	FY2015	FY2014
Net sales	781,886	727,846
Cost of sales	680,583	633,124
Gross profit	101,303	94,722
Selling, general and administrative expenses	58,479	53,118
Operating income	42,824	41,603
Non-operating revenue	4,916	6,325
Non-operating expenses	6,250	4,136
Ordinary income	41,490	43,792
Extraordinary income	—	988
Extraordinary losses	4,780	4,929
Income before income taxes and minority interests	36,710	39,851
Total income taxes	13,667	15,906
Income attributable to non-controlling interests	2,787	2,789
Profit attributable to owners of parent	20,255	21,155

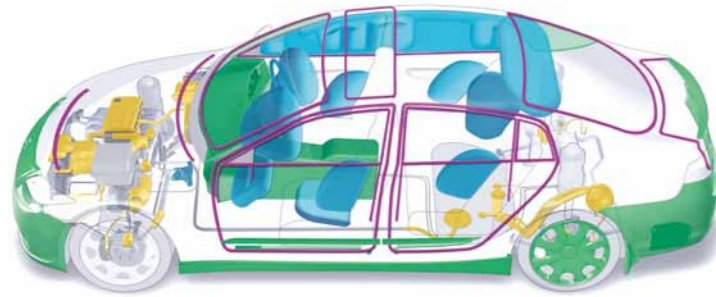
Consolidated Statement of Cash Flow

(Unit: million yen rounded down)

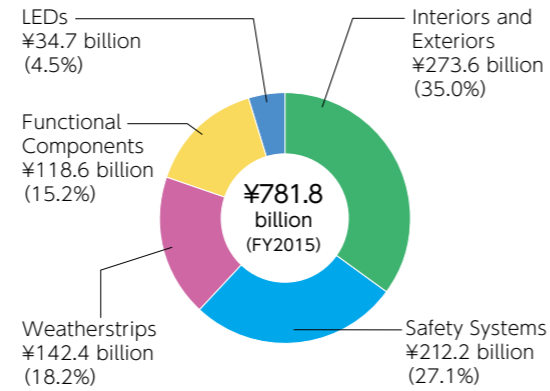
Item	FY2015	FY2014
Net cash provided by operating income	77,715	51,283
Net cash used in investing activities	△56,261	△62,432
Net cash provided by (used in) financing activities	△24,736	△238
Effect of exchange rate changes on cash and cash equivalents	△3,591	4,433
Increase or decrease in cash and cash equivalents	△6,822	△6,953
Cash and cash equivalents at beginning of fiscal year	85,078	92,020
Increase or decrease in beginning cash and cash equivalents with changes in consolidated subsidiaries' accounting terms	△52	10
Cash and cash equivalents at end of period	78,203	85,078

Business Portfolio

Development and production of rubber and plastic automotive parts and LEDs.



Sales by business segment (sales percentages)



Automotive Field

Weatherstrips

These parts are fitted to door and window frames to block gaps and shut out wind, rain and noise. They are essential to comfortable vehicle interiors.



Functional Components

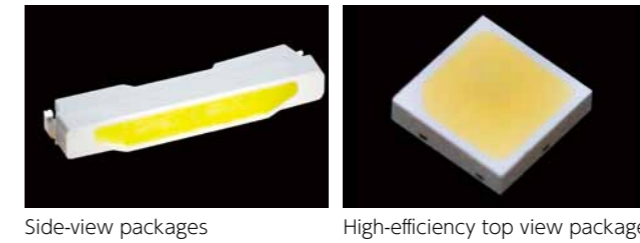
These parts support the basic vehicle functions of running, turning and stopping. We provide high quality for these important safety parts.



Non-automotive Field

In addition to LEDs with world-class energy efficiency and compactness, we are developing and producing products for air purifiers and other new fields using the technology we have cultivated for automotive parts.

LEDs



General Industry Products



Interiors and Exteriors

These parts contribute to comfortable and attractive interior spaces and outer appearance.



Safety Systems

Toyota Gosei airbags provide full 360° coverage to protect passengers from impacts from every side. Driver-side airbags are housed in our stylish steering wheels.



New challenges for a sustainable society as we look to the global environment in 2050

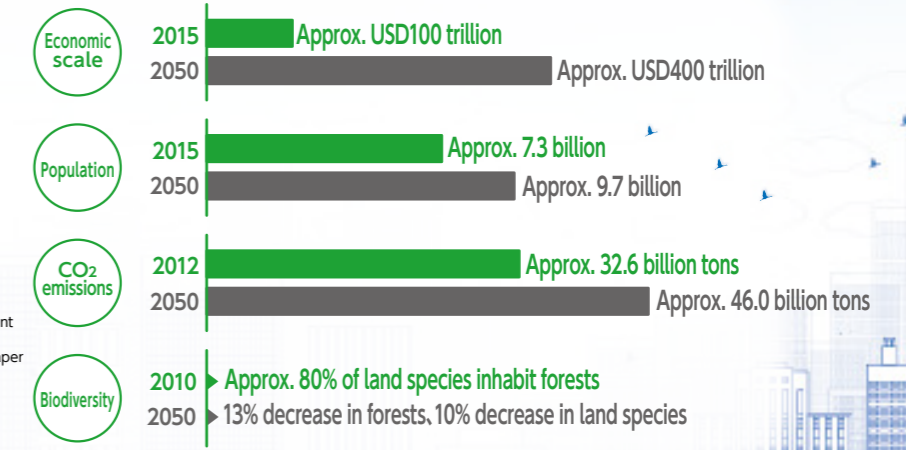
The TG 2050 Environmental Challenge and Sixth Environmental Action Plan

The global environment today faces many difficulties—a growing human population, mass consumption of resources, abnormal weather, and loss of biodiversity.

While fulfilling our responsibility as a company that provides products which meet the needs of customers worldwide, the Toyota Gosei Group has formulated the TG 2050 Environmental Challenge to achieve a sustainable society and our Sixth Environmental Action Plan, which sets targets for 2020 as the first step. These efforts are carried out by all Group employees.

If no environmental measures are taken, in 2050...

Sources: Japanese Ministry of the Environment Illustrated White Paper on the Environment, Recycling White Paper, Biodiversity White Paper, OECD Environmental Outlook to 2050 EDMC/ Handbook of Energy and Economic Statistics, United Nations Department of Economic and Social Affairs



Intensification of environmental efforts

The Toyota Gosei Group aims to grow sustainably with society while maintaining harmony with the environment. For this we intend to directly face the deepening environmental problems of global warming, depletion of resources, loss of biodiversity and others. We are redoubling our efforts to develop products that contribute to environmental protection and to reduce energy use in our production processes.

In product development, we are focusing our efforts on the development of lightweight automotive products for better fuel efficiency and LED products that contribute to energy savings. We will also substantially increase our efforts to develop products for environmentally-friendly vehicles, including electric and fuel cell vehicles that emit no CO₂ during operation. As a socially responsible corporation, we will comply with increasingly stringent environmental regulations globally and strengthen our management system for the chemical substances in our products.

In our production processes, we have set the target of reducing carbon emissions from our plants in a steady move toward zero by 2050, and are accelerating development of production facilities and technologies for downsized, energy-saving processes. We are also utilizing solar and other renewable energy and hydrogen energy, and have organized a framework for coordination between our production engineering and environmental departments to promote all these efforts.

We are also establishing dedicated teams to advance our efforts to lower carbon emissions and greatly reduce water usage and waste volumes in all our business activities. While continuing educational and other efforts to raise employees' awareness of environmental protection, we also plan to conduct activities for environmentally-friendly operations and ecosystem protection in coordination with local governments, NGOs, and other organizations.

The entire Toyota Gosei Group will continue strong efforts to preserve the environment.



Yasushi Miyamoto
Managing Officer, Environment Division

TG 2050 Environmental Challenge — A Greener, Richer World for Our Children

The Toyota Gosei Group specializes in the field of high polymers—rubber and plastics. Our symbol is the benzene ring, a hexagonal hydrocarbon structure that is the starting point for polymers. Borrowing from the six sides of the benzene ring, the TG 2050 Environmental Challenge sets six challenges to strengthen our environmental efforts with a long-term view to the year 2050.



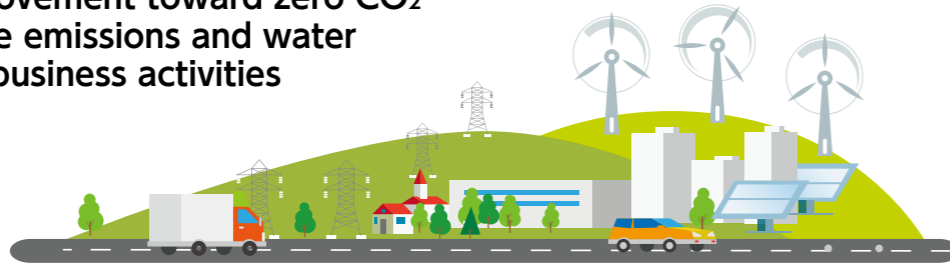
Sustainable Society

“Leaving a greener world for our children”

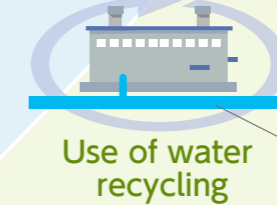
The Sixth Environmental Action Plan is the first execution plan for the TG 2050 Environmental Challenge. It sets higher environmental targets to strengthen and expand our efforts for a sustainable society.

Environmental Challenge
TOYOTA
(2021~2050)

- Products that contribute to a low-carbon, recycling society
- Steady movement toward zero CO₂ and waste emissions and water usage in business activities



Use of energy that does not emit CO₂
(Solar energy, hydrogen energy)



Use of water recycling



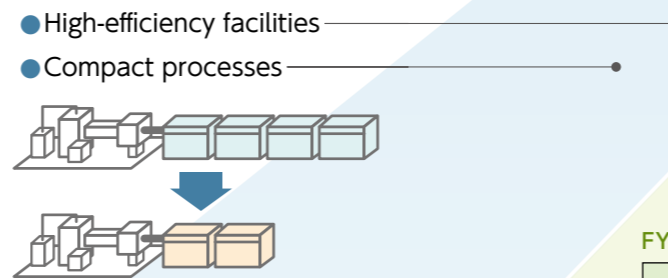
Use of waste material recycling
Clean water

Development of personnel who can contribute to environmental preservation



Energy/material substitutes are essential

- Enhanced development of products that contribute to environmental preservation (lightweight automotive parts, LED products)
- Enhanced development of production technology for reduced CO₂/waste emissions and water usage



FY2020 target (vs. FY2012)

CO ₂ during production		Reduction target
Global, consolidated	Basic unit	12%
Japan, consolidated	Basic unit	15%
Toyoda Gosei Co., Ltd.	Basic unit	17%
Toyoda Gosei Co., Ltd.	Emissions	17%
CO ₂ during distribution		Reduction target
Toyoda Gosei Co., Ltd.	Basic unit	8%
Greenhouse gases (6 gases*1)		Reduction target
Toyoda Gosei Co., Ltd.	Emissions	62%

● Creating processes that do not use steam/air

- Expansion of activities for coexistence with nature (habitat expansion for damselflies and other organisms, increase in rare species populations)

Products and technology

- Lightweight automotive parts
- Expansion of LED products
- Product design for easy recycling
- Reuse of water
- Slim packaging materials
- Strengthened management of chemical substances included in products
- Contributions to local societies (Expansion of leading edge eco-plants)
- Establishment of environmental promotion organizations throughout the entire Toyoda Gosei Group
- Greater sharing of information outside the company (CSR reports, press releases, etc.)
- Activities in conjunction with Toyota Group companies (Installation of biotopes, etc.)

FY2020 target (vs. FY2012)

Waste materials		Reduction target
Japan, consolidated	Basic unit	10%
Toyoda Gosei Co., Ltd.	Basic unit	12%
Overseas affiliates	Basic unit	6%*2
Packing material		Reduction target
Toyoda Gosei Co., Ltd.	Basic unit	8%
Water		Reduction target
Japan, consolidated	Basic unit	8%
Toyoda Gosei Co., Ltd.	Basic unit	8%
Overseas affiliates	Basic unit	8%

FY2020 target (vs. FY2012)

VOC*3		Reduction target
Japan, consolidated	Basic unit	6%
Toyoda Gosei Co., Ltd.	Basic unit	6%



- Stronger environmental management systems in the entire Toyoda Gosei Group
- Enhanced employee education

Target values at least two times higher than before

- Regular improvement at the core
 - Daily improvements in production processes (reduce air leakage, etc.)
 - Use of LEDs in plant lighting
 - Waste material separation
 - Creation of processes that make defects unlikely
 - Reduced water leakage
 - Tree-planting activities in the entire Toyoda Gosei Group (Plant afforestation)
 - Prototype biotopes
 - Community cleaning activities
 - Environmental management in the entire Toyoda Gosei Group
 - Employee education

Low carbon society

(Reduction of CO₂ and other greenhouse gases during production and distribution)

Recycling society

(Reduction of waste materials and water usage)

Environmental preservation/ environmentally-friendly societies

Environmental management

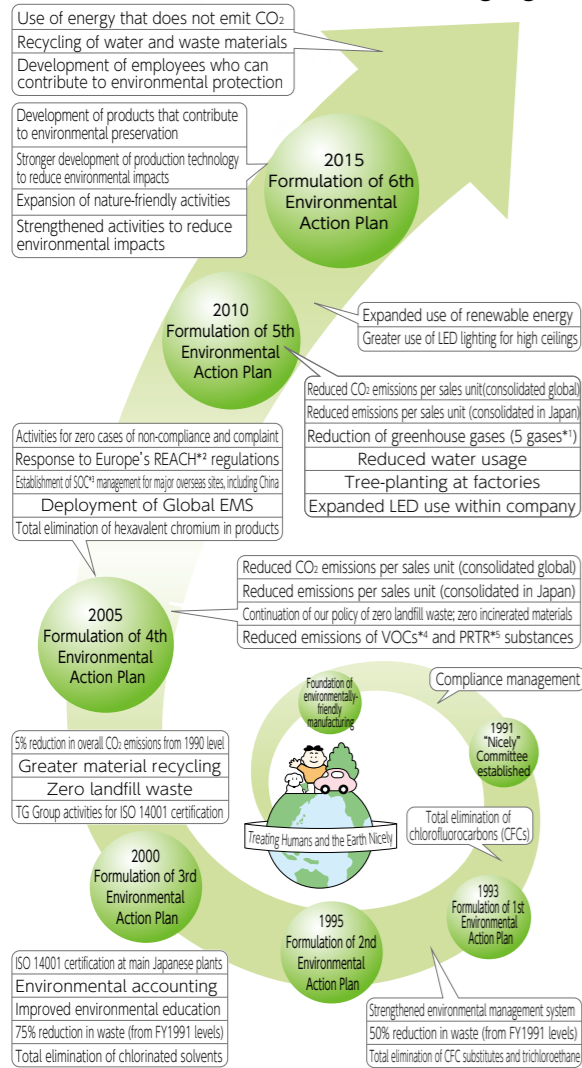
*1 : Basic unit compared with FY2012 (values calculated based on sales for fiscal year that is the reference for comparison. They are not targets for decrease based on absolute emissions values)

*2 : Basic unit compared with FY2013

*3 : Volatile Organic Compounds

Contributing to environmental preservation through all our business activities

Aiming higher



Environmental Policy

1 Environmentally-friendly corporate activities

We are aware that all stages of our business, from development, production, and sales activities to end-of-life disposal, are deeply related to the environment. The Toyota Gosei Group, including all internal departments, domestic and international affiliates, and suppliers, conducts all business activities with concern for the environment in cooperation and coordination with customers, government authorities, and others.

2 Good corporate citizenship

As a good corporate citizen, we participate in, support, and cooperate with environmental activities by many groups while also working on environmental activities in the community and broader society. We also provide education for all employees to support them in becoming involved in environmental activities as members of the community and society, and support social contributions and volunteerism.

3 We listen to the opinions of people at all levels of society while spreading information on these activities and working to improve them.

- *1 HFCs (hydrofluorocarbons), PFCs (perfluorocarbons), SF₆ (sulfur hexafluoride), CH₄ (methane), N₂O (nitrous oxide)
- *2 Registration, Evaluation, Authorization and Restriction of Chemicals
- *3 Substances of Concern
- *4 Volatile Organic Compounds
- *5 Pollutant Release and Transfer Register

Environmental enhancement organization

Environmental policy and key action items are discussed and decided by an Environmental Committee headed by the President of Toyota Gosei. The Environmental Committee consists of three subcommittees for products, production, and quality. Liaison committees and working groups from these subcommittees act in coordination to promote environmental protection and management from an expert perspective. In FY2016 we established a Production Technology Environment Subcommittee to strengthen efforts in the pre-production stage.



Deployment from the Environmental Committee and subcommittees to plants and other operations is done with the establishment of expert committees in accordance with the ISO 14001 system at each plant.

Fifth Environmental Action Plan Activities and Results (2011-2015)

Activities were focused in two main areas: "Reducing substances that impact the environment" and "Environmental management."

Theme	Measures Implemented	Results of Activities in FY2015	Page																																							
Climate change prevention	1 Reduction of CO₂ emissions Production <ul style="list-style-type: none"> Replace inefficient equipment; improve existing equipment Use of LEDs for high ceiling lighting Greater use of renewable energy (solar power generation) Greater use of insulating paint 	<ul style="list-style-type: none"> Reduction of CO₂ emissions by cutting energy waste during production Optimal control of air supply and optimization of air piping Compact painting processes Upgrading of low efficiency air conditioning 	P17																																							
	<table border="1"> <thead> <tr> <th></th> <th>Item</th> <th>2015 target</th> <th>2015 Achievements</th> <th>Rating^[2]</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Global, consolidated</td> <td>CO₂ emissions per sales unit</td> <td>33% reduction from 2003 level</td> <td>70^[1]</td> <td>Reduced 30% from 2003 level</td> <td>×*1</td> </tr> <tr> <td>CO₂ emissions</td> <td>13% reduction from 2003 level</td> <td>11.4 tons of CO₂</td> <td>Reduced 5% from 2003 level</td> <td>×*1</td> </tr> <tr> <td rowspan="2">Japan, consolidated</td> <td>CO₂ emissions per sales unit</td> <td>28% reduction from 2003 level</td> <td>75^[1]</td> <td>Reduced 25% from 2003 level</td> <td>×*1</td> </tr> <tr> <td>CO₂ emissions per sales unit</td> <td>26% reduction from 2003 level</td> <td>76^[1]</td> <td>Reduced 24% from 2003 level</td> <td>×*1</td> </tr> <tr> <td>Toyoda Gosei</td> <td>CO₂ emissions per sales unit</td> <td>26% reduction from 2003 level</td> <td>76^[1]</td> <td>Reduced 24% from 2003 level</td> <td>×*1</td> </tr> <tr> <td rowspan="2">Toyoda Gosei</td> <td>CO₂ emissions</td> <td>13% reduction from 2003 level</td> <td>11.4 tons of CO₂</td> <td>Reduced 5% from 2003 level</td> <td>×*1</td> </tr> </tbody> </table>		Item	2015 target	2015 Achievements	Rating ^[2]	Global, consolidated	CO ₂ emissions per sales unit	33% reduction from 2003 level	70 ^[1]	Reduced 30% from 2003 level	×*1	CO ₂ emissions	13% reduction from 2003 level	11.4 tons of CO ₂	Reduced 5% from 2003 level	×*1	Japan, consolidated	CO ₂ emissions per sales unit	28% reduction from 2003 level	75 ^[1]	Reduced 25% from 2003 level	×*1	CO ₂ emissions per sales unit	26% reduction from 2003 level	76 ^[1]	Reduced 24% from 2003 level	×*1	Toyoda Gosei	CO ₂ emissions per sales unit	26% reduction from 2003 level	76 ^[1]	Reduced 24% from 2003 level	×*1	Toyoda Gosei	CO ₂ emissions	13% reduction from 2003 level	11.4 tons of CO ₂	Reduced 5% from 2003 level	×*1		
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		Distribution (Scope: Delivery distribution, in-process distribution, procurement distribution) <ul style="list-style-type: none"> Improved transportation efficiency Improved loading efficiency Shorter distribution routes by production close to customers Vehicle deployment matched to production volumes 	<ul style="list-style-type: none"> Reduction of CO₂ emissions by reducing transportation loss 	P18																																						
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Products <ul style="list-style-type: none"> Product design, materials development for weight reduction Development of products and materials in new areas corresponding to new energy trends 	<ul style="list-style-type: none"> Reduction of CO₂ emissions by decreasing weight of products Development of capless fuel filler Decrease in number of parts for knee airbag cases Lower density of steering wheel urethane material 	P19																																								
2 Reductions in 5 gases* <ul style="list-style-type: none"> Substitutes for gases (HFC, PFC, SF₆) used in magnesium casting and LED manufacture 	<ul style="list-style-type: none"> Reduction of greenhouse gases (5 gases) 	P20																																								
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Toyoda Gosei	Emissions of 5 gases	75% reduction from 2003 levels	0.4 tons of CO ₂	Reduced 80% from 2003 level	○																																					
Effective use of resources	3 Reduced emissions Production <ul style="list-style-type: none"> Reduced waste at source through better yields In-house recycling of rubber, plastics, and metals Continue to have zero landfill waste 	<ul style="list-style-type: none"> Reduction of waste material during production 	P21																																							
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	Toyoda Gosei	Waste volume per sales unit	50% reduction from 2003 level	50 ^[1]	Reduced 50% from 2003 level	○																																				
	Overseas affiliates	Waste volume per sales unit	38% reduction from 2003 level	59 ^[1]	Reduced 41% from 2003 level	○																																				
	Distribution (Scope: Delivery distribution, in-process distribution, procurement distribution) <ul style="list-style-type: none"> Slimmer packing specifications Greater use of returnable containers 	<ul style="list-style-type: none"> Reduction of packaging materials during shipping 	P22																																							
	<table border="1"> <thead> <tr> <th></th> <th>Item</th> <th>2015 target</th> <th>2015 Achievements</th> <th>Rating^[2]</th> </tr> </thead> <tbody> <tr> <td>Toyoda Gosei</td> <td>Packing material used per sales unit</td> <td>70% reduction from 2003 level</td> <td>30^[1]</td> <td>Reduced 70% from 2003 level</td> <td>○</td> </tr> </tbody> </table>		Item	2015 target	2015 Achievements	Rating ^[2]	Toyoda Gosei	Packing material used per sales unit	70% reduction from 2003 level	30 ^[1]	Reduced 70% from 2003 level	○																														
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Toyoda Gosei	Packing material used per sales unit	70% reduction from 2003 level	30 ^[1]	Reduced 70% from 2003 level	○																																					
Products <ul style="list-style-type: none"> Product design and materials development for easy recycling 	<ul style="list-style-type: none"> Development of product recycling technology 	P22																																								
4 Reduction in water use <ul style="list-style-type: none"> Recycling of plating wastewater 	<ul style="list-style-type: none"> Reduction of water usage Recycling of plating wastewater 	P22																																								
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Toyoda Gosei	Water used per sales unit	30% reduction from 2003 level	66 ^[1]	Reduced 34% from 2003 level	○																																					

*1 The FY2015 targets were not reached as CO₂ reductions were not made following fluctuations in sales and other reasons. In FY 2016 we are making efforts to further reduce CO₂ emissions while tracking sales fluctuations, etc.
 [1] This value takes the figure in the base year as 100. [2] ○ : Goal for fiscal year achieved, × : Goal for fiscal year not achieved

Theme	Measures Implemented	Results of Activities in FY2015	Page							
Reduction of environmental impacts Control/reduction of substances of concern	<p>5 Reduction in VOC*1 emissions</p> <ul style="list-style-type: none"> Reduce VOC use through switch to water-based paints, use of fewer solvents and substitute washing thinners, and use in optimized amounts 	<p>▶ Reduction of substances of concern in production processes</p> <ul style="list-style-type: none"> Reduction in VOC with development of lacquer black plating Switch from organic solvents by reformulating water-based mold release agent Moving away from toluene xylene for double-sided tape primer Elimination of weatherstrip non-drying sealer 	P23							
	<table border="1"> <thead> <tr> <th>Item</th> <th>2015 target</th> <th>2015 Achievements</th> <th>Rating^[2]</th> </tr> </thead> <tbody> <tr> <td>Toyoda Gosei VOC emissions per sales unit</td> <td>65% reduction from 2003 level</td> <td>32^[1] 68% reduction from 2003 level</td> <td>○</td> </tr> </tbody> </table>	Item	2015 target	2015 Achievements	Rating ^[2]	Toyoda Gosei VOC emissions per sales unit	65% reduction from 2003 level	32 ^[1] 68% reduction from 2003 level	○	
Item	2015 target	2015 Achievements	Rating ^[2]							
Toyoda Gosei VOC emissions per sales unit	65% reduction from 2003 level	32 ^[1] 68% reduction from 2003 level	○							
Community cooperation	<p>6 Stricter management of chemicals in products</p> <ul style="list-style-type: none"> Global management of chemical substances in products 	<p>▶ Strengthened management of chemicals contained in products</p> <ul style="list-style-type: none"> Control of atmospheric release of gasoline vapor by modifying plastic inlets (complying with ORVR regulations) 	P25							
	<p>7 Planting native tree species on factory grounds</p> <p>8 Social contribution activities</p> <p>9 Contributions to environmental policy</p>	<p>▶ Plant afforestation activities at sites worldwide</p> <p>▶ Reproduction of local ecosystems with biotopes</p> <p>▶ Contributing to the creation of livable communities</p> <p>▶ Participation in environmental policies of the Japan Auto Parts Industries Assoc., Japan Rubber Manufacturers Assoc., and others</p>	P32 P32 P44							
Environmental management Greater environmental awareness, management	<p>10 Greater environmental awareness</p>	<p>▶ Environmental training</p> <p>▶ Environmental education</p>	P26 P27							
	<p>11 Stricter consolidated environmental management</p>	<p>▶ Environmental audits</p> <p>▶ Establishment of environmental management systems at overseas affiliates, and environmental audits</p> <p>▶ Strengthened control with compliance/environmental "no defects/complaints" activities</p> <p>▶ Proper disposal and storage of devices containing PCBs</p> <p>▶ Soil/groundwater preservation</p>	P26 P28 P28 P28							
	<p>12 Environmental activities in conjunction with our business partners</p>	<p>▶ Environmental costs</p> <p>▶ Efforts at an overseas affiliate (TG Missouri Corp.)</p>	P29 P30							
	<p>13 Disclosure of environmental information</p>	<p>▶ Efforts at a domestic affiliate (Kaiyo Gomu Co., Ltd.)</p>	P31							
	<p>14 Environmental impact assessments (LCA*2) in product development</p>	<p>▶ Green procurement</p> <p>▶ Issuance of Toyoda Gosei Report 2015</p> <p>▶ Visualization of level of efforts for CO₂, product recycling</p>	P46 — —							
	Contributions as an environmentally-friendly LED maker	<p>15 Greater use of LEDs in company</p>	<p>▶ Expanded use of LEDs in company</p>	P33						
		<p>16 Expansion of LED business</p>	<p>▶ Promotion of greater use of LED products</p>	P33						



*1 VOC : Volatile organic compounds
 *2 ORVR : Onboard Refueling Vapor Recovery
 *3 LCA : Life Cycle Assessment (assessment of the environmental impact [CO₂ emissions, etc.] over the entire life cycle of a product from production and use to disposal)
 [1] This value takes the figure in the base year as 100. [2] ○ : Goal for fiscal year achieved, × : Goal for fiscal year not achieved

Prevention of Climate Change

To reduce CO₂ emissions, we are working to raise productivity, increase distribution efficiency, and make lighter weight products

▶ Reduction of CO₂ emissions by cutting energy waste during production

We are reducing carbon emissions by improving productivity and reducing energy use. Toyoda Gosei Co., Ltd. has firmly established energy-saving measures aimed at limiting peak power and decreasing energy use, and we continue to uncover and reduce waste in ways such as "visualizing" and analyzing energy use in production processes. We also explore ways to save energy with *genchi-genbutsu* (go and see) site visits at Toyoda Gosei plants worldwide, and make improvements based on the findings.

In FY2015, we switched the fuel for paint line air-conditioning boilers from A-type heavy fuel to low-CO₂ emitting city gas. We have also upgraded air-conditioning equipment installed before 2000 across the company, resulting in a 30% reduction in power consumption. We are expanding our use of renewable energy, and have set a target of using renewable energy equivalent to 1% of actual total purchase of peak power by 2017.

We are also taking appropriate measures for Scope 1*1 and Scope 2,*2 which require environmental management such as set forth in the Energy Saving Law in Japan, and disclosing relevant data for Scope 3.*3

*1 Scope 1 : Volume of greenhouse gases directly emitted by corporations themselves (fossil fuel, natural gas, etc.)
 *2 Scope 2 : Volume of greenhouse gases indirectly emitted (electric power, etc.)
 *3 Scope 3 : Volume of greenhouse gases indirectly emitted by corporations in their supply chains (production, transportation, business trips, commuting, etc.)

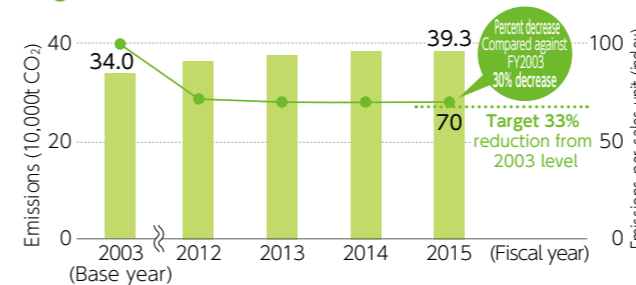
Percent decrease in CO₂ emissions per sales unit**6

FY2015 (Compared against FY2003)
Global, consolidated
30% decrease
Japan, consolidated
25% decrease
Toyoda Gosei Co., Ltd.
24% decrease

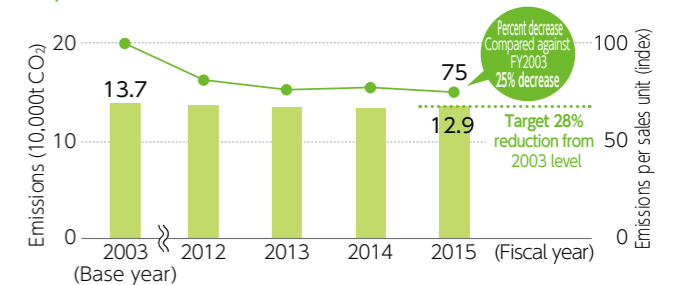
Percent decrease in CO₂ emissions**6

FY2015 (Compared against FY2003)
Toyoda Gosei Co., Ltd.
5% decrease

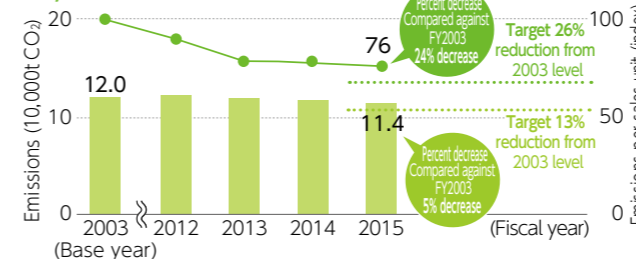
CO₂ emissions, CO₂ emissions per sales unit (index)*4



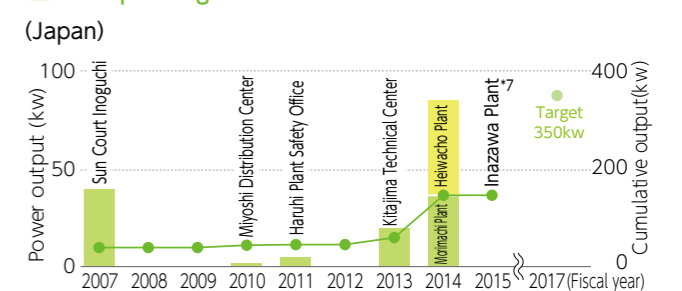
Japan, consolidated



Toyoda Gosei Co., Ltd.



Solar power generation



*4 CO₂ emissions per sales unit (index) is a figure obtained with the 2003 level as 100

[CO₂ conversion factor]
 The CO₂ conversion factor used in Japan*5 is the 1990 Japan Federation of Economic Organizations (Keidanren) factor. In the conversions in this report, the CO₂ reduction effect of co-generation calculated with the thermal power mean is reflected in CO₂ emissions. The CO₂ conversion factor used for countries other than Japan is that in the GHF protocol (2001).

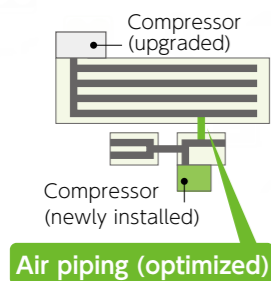
*5 Electricity : 0.3707t CO₂/MWh; heavy oil A : 2.69577t CO₂/kL; LPG : 3.00397t CO₂/t; city gas : 2.1570t CO₂/1,000 Nm³; kerosene : 2.53155t CO₂/kL; LNG : 2.68682t CO₂/t; gasoline : 2.36063t CO₂/kL (excluding external factor of gas company's change in calorific value of city gas)

*6 The FY2015 targets were not reached as CO₂ reductions were not made following fluctuations in sales. In FY2016 we are making efforts to further reduce CO₂ emissions while tracking sales fluctuations.

*7 In FY2015 solar power generation of 0.05kW was introduced at the Inazawa Plant. Wind power generation of 0.01kW is also introduced as non-solar renewable energy.

Examples of energy savings

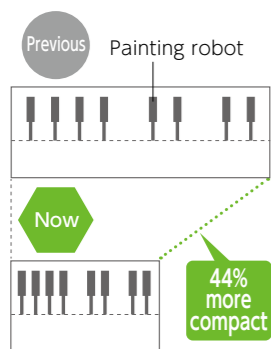
Overhead view of plant air piping



Optimal control of air supply and optimization of air piping

We reduced CO₂ emissions by 50% in our Nishimizoguchi Plant with improvements for optimization of air supply control and piping routes. Previously, air was supplied to buildings of all sizes with a single compressor running full time. These long air supply distances resulted in energy waste from pressure loss. We therefore upgraded to the newest type of compressor and installed another compressor on the opposite side of the buildings for optimal control with two compressors. We also checked for air leaks in the piping and replaced some with piping of optimal thickness to improve the efficiency of the air supply to the entire plant.

Consecutive painting processes



Compact painting processes

When installing new consecutive painting lines for back door panels at our Inazawa Plant, we increased the energy efficiency of air conditioners and other equipment by making the lines more compact (about half the size). This reduced CO₂ emissions 43%. Advance simulations were conducted to determine the ideal spacing for multiple painting robots. We also made a laminar flow to regularize the flow of air discharged from air conditioning equipment and conducted a simulation of electrostatic painting to raise painting efficiency. By controlling paint splatter we were able to make the line 44% smaller.

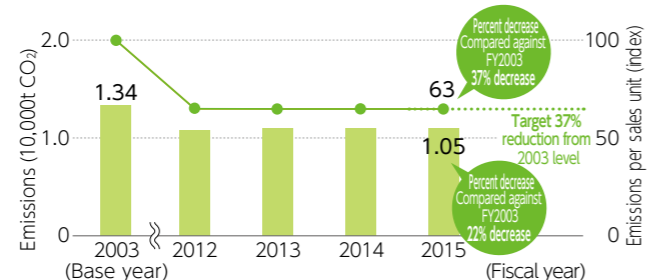
Percent decrease in distribution CO₂ emissions per sale unit FY2015 (Compared against 2003)
Toyoda Gosei Co., Ltd.
37% decrease

- Three key activities in reducing CO₂ emissions in distribution
- ① Increase load efficiency and reduce the number of vehicle trips
- ② Change routes and shorten routes with production near customers
- ③ Explore means of transport with low CO₂ emissions

Lower CO₂ emissions from reduced transportation loss

To reduce CO₂ emissions during transportation, we focused on improving load efficiency, shortening distribution routes, and improving allocation of vehicles based on actual circumstances. In FY2015, continuing from the year before, we surveyed our transportation activities to improve efficiency and have been using a direct delivery system for high volume customers to deliver products without going through our distribution centers. When delivery volumes increase with the start of new products, we work with the customer so that we are able to make direct deliveries from the beginning. This decreases transportation loss. Operations were also begun at the Miyagi Plant of TG East Japan Co., Ltd. to produce products closer to customers, decreasing distribution CO₂ emissions in the Tohoku Region of Japan by 4%.

CO₂ emissions and CO₂ emissions per sales unit (index)* in distribution
 Toyoda Gosei (Scope: Delivery distribution, in-process distribution, procurement distribution)

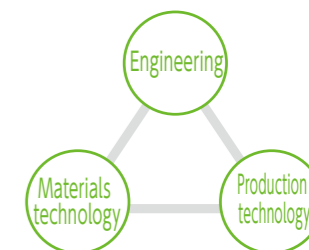


*Emissions per sales unit (index) is a figure obtained with the 2003 level as 100
 *Excluding effects of changes from pick-up distribution to deliveries by our company to some customers

Lower CO₂ emissions as a result of lighter weight products

Working group activities to reduce product weight started in FY2014. To expand these activities and make them more efficient, a new "Product Weight Reduction Project" was established in the Research and Development Headquarters in FY2015. Previous working groups conducted activities separately in each department, but the Product Weight Reduction Project strengthens interdepartmental connections between materials technology, engineering and production technology for development with an overall view. We have set an ambitious target of decreasing weight 20-30% by 2020 with a focus on major products, and are working together to accelerate these activities.

Product Weight Reduction Project



Cases

Development of capless fuel filler

We have developed a very small and lightweight capless fuel filler (a product that permits the refueling nozzle to be inserted without removing or replacing a cap). By integrating functions we have reduced the number of parts in this product compared with those of competitors, and made it of plastic rather than metal. These things together with structural modifications achieve both a high level of safety and lighter weight.

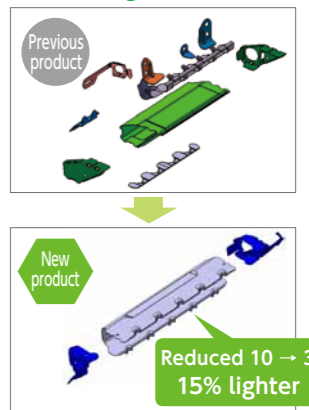


Capless fuel filler

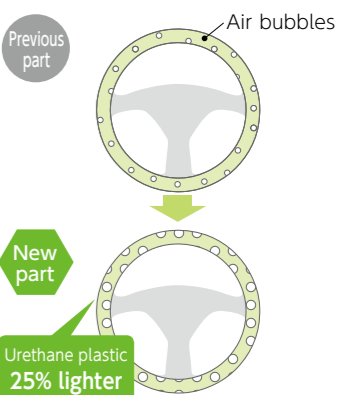
Fewer parts in air knee bags

We have reduced the weight of our knee airbags 15% by decreasing the number of parts through functional integration. Knee airbag cases consist of the case body that stores the airbag and parts that attach to the vehicle. We improved the airbag and decreased the overall number of parts for the case from ten to three by optimizing the shape of the case body and the parts that attach to the vehicle.

Knee airbag cases



Steering wheel plastic portion



Lower density in steering wheel urethane materials

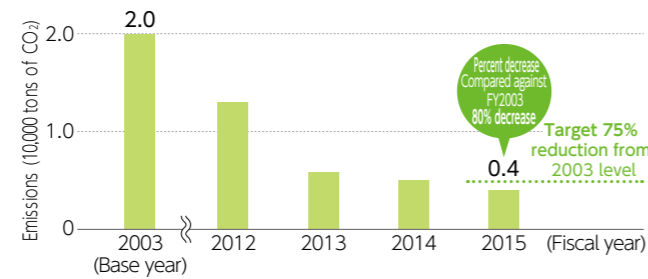
Decreasing the density of the urethane materials in steering wheels has reduced the weight of the urethane resin portion by 25%. Finding the best mix while regulating the blowing agent and urethane reaction, and increasing the formed parts, we are able to produce steering wheels that are lighter in weight while maintaining a strength and feel equivalent to previous steering wheels.

Percent decrease in greenhouse gas emissions (5 gases)
 FY2015 (Compared against FY2003)
Toyoda Gosei Co., Ltd.
80% decrease

Reduction of greenhouse gases (5 gases*)

We are cutting down on the use the three greenhouse gases used at Toyoda Gosei Co., Ltd. In FY2013 we completed a switch to an alternative gas for the cleaning gas used in LED chip production. A FY2015 plan to switch to an alternative shielding gas in the production of steering wheel metal cores has also been fully executed. The result is an 80% reduction in greenhouse gases since 2003.

Trend in greenhouse gas (5 gases) emissions (CO₂ equivalents) at Toyoda Gosei



*1 HFCs (hydrofluorocarbons), PFCs (perfluorocarbons), SF₆ (sulfur hexafluoride), CH₄ (methane), N₂O (nitrous oxide)

Effective Use of Resources

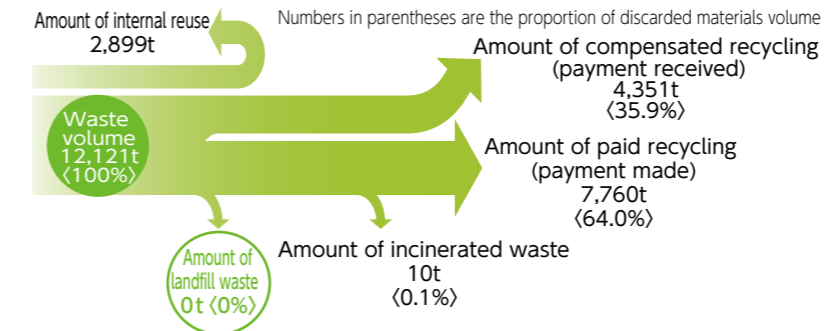
Toyoda Gosei contributes to resource recycling in society through effective use of resources based on reduction of discarded materials and recycling plans.

Reduction of discarded materials during production

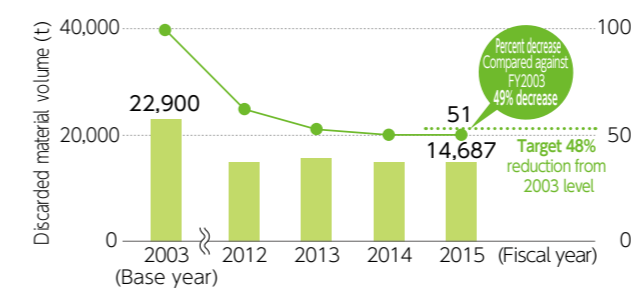
In moving to reduce discarded materials in the production process, we are implementing measures to cut discarded materials at its source and increasing recycling. In FY2015 these efforts were intensified by sharing examples of reduction of discarded materials activities at each of our plants through site inspections by people from other plants. To promote discarded materials reduction at group companies in other countries, workshops are held on topics such as methods of identifying target items for reduction. Toyoda Gosei Co., Ltd., affiliates in Japan, and group companies overseas all met their respective FY2015 targets.

Percent decrease in discarded materials volume per sales unit
 FY2015 (Compared against FY2003)
Japan, consolidated
49% decrease
Toyoda Gosei Co., Ltd.
50% decrease
Overseas affiliates
41% decrease

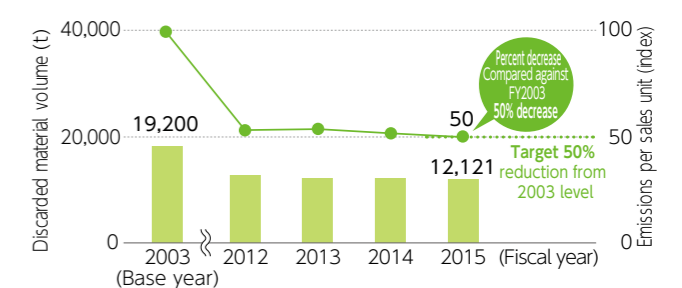
Amounts of waste generated and disposed of (results for FY2015: Toyoda Gosei)



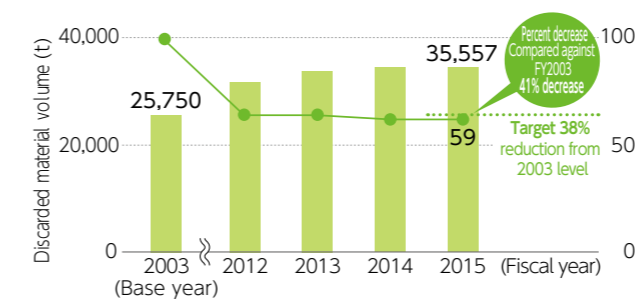
Trends in discarded materials volume and discarded materials volume per sales unit (index)* (Japan, consolidated)



Toyoda Gosei



International affiliates



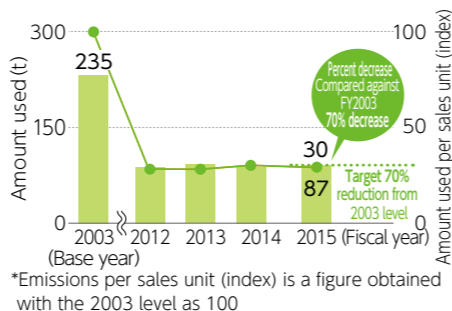
*Emissions per sales unit (index) is a figure obtained with the 2003 level as 100

Percent decrease in packaging material volume per sales unit
 FY2015 (Compared against 2003)
 Toyota Gosei Co., Ltd.
70% decrease

Reduction in product packaging material during distribution

Annual targets are set for the reduction of packaging materials used during product shipment, and we are making continuous improvements. In FY2015 we installed reusable covers and dividers (protective material) in reusable containers in the start of new products, and reduced the volume of these materials used by introducing washing and cleaning machines. We limited the use of new packaging materials by working together with customers from the production preparation stage.

Percent decrease in packaging material volume per sales unit
 (Activities covered: Delivery distribution, in-process distribution, procurement distribution)



Development of product recycling technology

We are working to develop and design easily recyclable products and recycling technologies for waste materials with consideration of the entire vehicle lifecycle. So far we have established recycling technologies for products that use several types of rubber or rubber and different materials. In FY2015 we continued to push recycling activities for the effective use of resources.

Development of technology for end-of-life vehicle parts recycling

Key items	Measures implemented
New recycling	<ul style="list-style-type: none"> Composite material separation technology New recycling technology (high quality material recycling)
Use of recycled materials in vehicles	<ul style="list-style-type: none"> End-of-life vehicle recycling technology Development of applications for recycled materials
Product design for easy recycling	<ul style="list-style-type: none"> Product design for easy dismantling Materials and composition changes for easy recycling

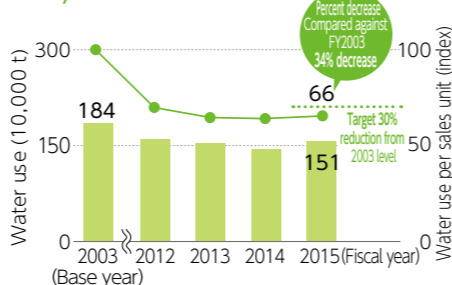
End of Life Vehicle

Percent decrease in water usage volume per sales unit
 FY2015 (Compared against 2003)
 Toyota Gosei Co., Ltd.
34% decrease

Reduced water use

We are making efforts to decrease our use of water, a valuable resource, through discovery of waste and improvements. In FY2015 we tracked clean and industrial water piping routes and end users at three plants, and surveyed the amount and purpose of water use in each area to uncover waste. In addition to conserving water and using it effectively, we are working to visualize water use, discover waste, and make improvements.

Water use and water use per sales unit (index)*
 Toyota Gosei



Examples of waste reduction

Recycling plating wastewater

During the creation of a new plating process at the Inazawa Plant, we installed wastewater treatment equipment with a higher treatment capacity and reduced water usage. By purifying plating wastewater with an ion exchange system and reusing it as washing water for production, we have been able to recycle 10t of wastewater per hour that we disposed of in the previous process (this is about 25% of the water used in plating).



Wastewater treatment equipment / Inazawa Plant

Control and Reduction of Substances that Impact the Environment

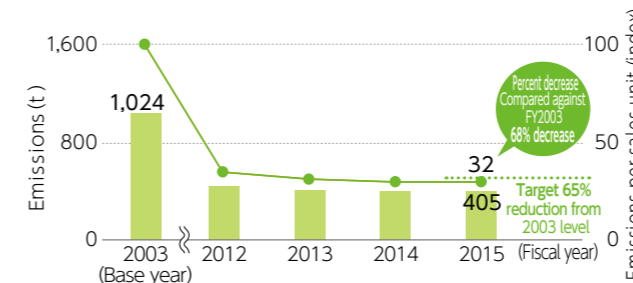
We are reviewing the materials we use and our manufacturing processes to comply with increasingly stringent regulations worldwide on substances that impact the environment.

Reduced use in production processes of substances that impact the environment

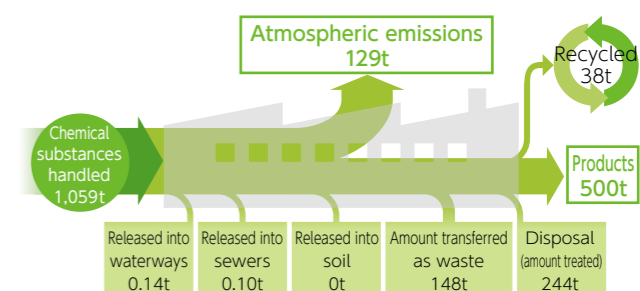
We are reducing Pollutant Release and Transfer Register (PRTR) substances and volatile organic compounds (VOCs) in our production processes by using water-based paint and mold release agents, making more compact painting processes, and improving painting efficiency in our production processes. We are also sharing good examples of VOC reduction in the company through site visits by people from other plants and conducting other activities to reduce the use of these substances.

Percent decrease in VOC emissions per sales unit
 FY2015 (Compared against 2003)
 Toyota Gosei Co., Ltd.
68% decrease

VOC emissions/emissions per sales unit (index)*
 Toyota Gosei



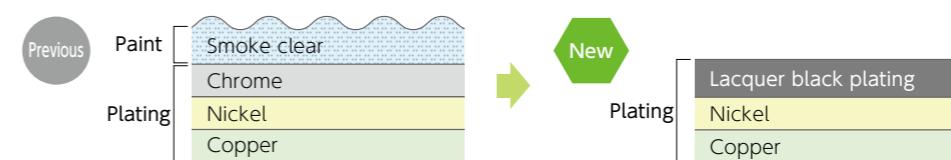
Volumes and flow of emitted PRTR substances



Examples of reductions in substances that impact the environment

Reduction of VOCs with the development of lacquer black plating

The development of lacquer black plating has allowed us to reduce VOCs by using this plating instead of black surface decoration with smoke clear paint. Previously, we had to use smoke clear paint after a three-layer plating process (bronze/nickel/chrome) to achieve a black color for outer grille frames. We recently developed plating chemicals that easily achieve a black color sensation. We can now produce black color in the surface chrome plating process itself, eliminating the need for smoke clear painting and reducing VOCs. This process also gets rid of the problems of clouding from pigment coloration, reduced shine from deterioration with time, and chipping from flying gravel.

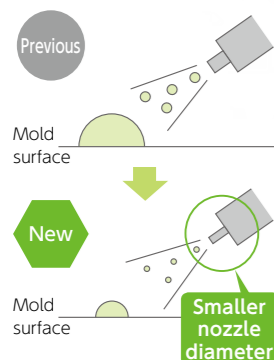


Plating variations



Examples of reductions in substances that impact the environment

Reformulation of water-based mold release agent



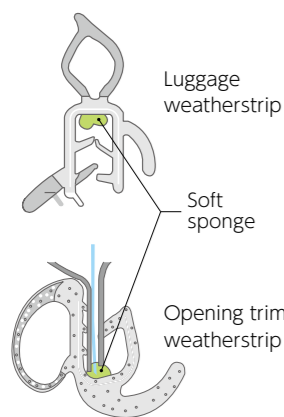
Switch from organic solvents by reformulating water-based mold release agent

Volatile organic compounds (VOCs) have been cut 75% by switching from an organic solvent-based to water-based mold release agent in the steering wheel forming process. In this process, mold release agents are used to prevent the urethane material from sticking to the molds and for easy removal of the formed steering wheels. Previous water-based release agents did not spread on the mold as easily as solvent-based agents and were more difficult to dry because they formed beads when applied. We reformulated a water-based release agent to spread more easily on the mold and gave the spray gun nozzle a smaller diameter for better drying after application. We can now use this more environmentally-friendly water-based release agent.

Moving away from toluene xylene for double-sided tape primer

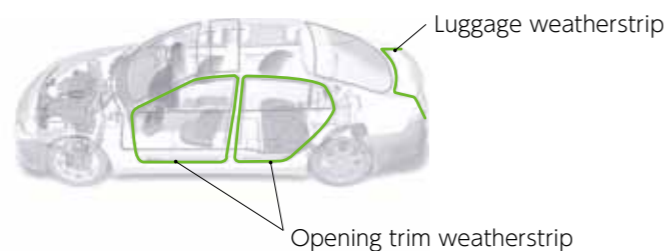
We have eliminated toluene xylene for the double-sided tape primer used in weatherstrips. Double-sided tape is used to attach weatherstrips to doors, but the weatherstrip material does not adhere well to the double-sided tape. A tackifier is therefore applied in advance as a primer. The primer we had been using contained toluene and xylene. To eliminate this, we checked the solvent composition, conducted environmental degradation tests, and evaluated drying speed and workability. We have now switched to a primer that does not contain toluene and xylene while maintaining the same performance as the previous primer.

Product cross-section



Elimination of weatherstrip non-drying sealer

By changing from the non-drying sealer used in weatherstrips to soft sponge, we have reduced the amount of organic solvent used. To improve the sealing of weatherstrips when they are attached to the vehicle body, a gel-type non-drying sealer is used for certain products. This was an organic solvent-based sealer in some cases. To eliminate this, we developed new materials and developed and switched to a soft sponge that improves sealing capacity with no loss to ease of application.



Strengthened management of chemicals contained in products

Regulations on chemical substances that impact the environment are becoming stricter each year. One example is the European REACH¹ regulations on the safe use, handling, and application of chemical substances. At the same time, an increasing number of countries are establishing new regulations, and automakers are stiffening self-imposed regulations.

About 5,500 substances are subject to chemical substance management under regulations set by national and local governments, automakers' voluntary regulations, and our own in-house regulations. These regulations are expected to become increasingly strict, and we need to gather information in coordination with our international affiliates for quick responses when regulations are revised. To meet the demands of automakers in each country, we have organized a special chemical substance management team and are constructing mechanisms and developing systems for globally integrated management of chemical substances that are being used in Japan, China, Thailand, and Vietnam. From 2016 we will also begin introducing these systems in India, Indonesia, and Brazil.

*1 Registration, Evaluation, Authorization and Restriction of Chemicals

Chemical substance regulations in each region

Region	Year	2011	2012	2013	2014	2015	2016
Europe	2011	EU End-of-Life Vehicle (ELV) Directive*2 Annex II revision*3 Directive revision ◆EU Restriction of Hazardous Substances (RoHS) *4 Directive revision EU REACH regulations 20 additional SVHC*5					
	2012		200 SVHC by 2020 54 additional SVHC 13 additional SVHC 8 substances requiring authorization/designation	7 additional SVHC	7 additional SVHC	5 additional SVHC	
North America	2011	USA EPA Action Plans Announcement of 2 substance groups being considered					
	2012		Investigations for additional chemicals covered by action plans				
Asia	2011						
	2012		◆Hazardous Chemical Safety Control Ordinance (China) ◆Amendment of South Korean ELV and RoHS regulations ◆South Korean REACH regulations				
	2016						◆Chinese ELV regulations

*2 Restrictions on the use of substances of concern contained in automobile parts and materials

*3 ELV appendix

*4 Restrictions on the use of specific hazardous substances contained in electrical and electronic equipment

*5 Substances of high concern

Examples of response to chemical regulations

Control of atmospheric release of gasoline vapor by modifying plastic inlets (complying with ORVR regulations)

We have made the filler opening of plastic inlets using plastic instead of metal to respond rapidly to expanded application of Onboard Refueling Vapor Recovery (ORVR)*6 regulations and other strengthened regulations. This has helped to control the release of gasoline vapor into the atmosphere. The structure of previous metal filler openings was such that air was taken in with fuel during refueling, and gasoline vapor was constantly emitted within the fuel tank. Using plastic for the inlet filler opening, we achieved a structure that does not take in air during refueling and recycles emitted gasoline vapor back into the fuel tank. This makes it possible to eliminate air intake during refueling and effectively recirculate gasoline vapor, limiting release to the atmosphere.



Plastic inlet

*6 Regulations that mandate the installation of devices that prevent release of gasoline vapor into the atmosphere during refueling. Currently they are applied in North America.

Environmental Management

We have ongoing employee training and education programs for environmental preservation.

Environmental activities

The entire Toyoda Gosei Group actively pursues measures for environmental management and reduction of environmental impacts. Goals and action items are established based on environmental data (CO₂ emissions, waste volumes) we have been collecting from Japanese affiliates since 2001 and from international affiliates since 2003. In FY2015 we strengthened collaborations among group companies in carrying out these activities.

Production sites targeted for environmental activities

Toyoda Gosei	Affiliates in Japan	Overseas Affiliates
<ul style="list-style-type: none"> ● Haruhi Plant ● Nishimizoguchi Plant ● Seto Plant ● Inazawa Plant ● Bisai Plant ● Kitakyushu Plant 	<ul style="list-style-type: none"> ● Ichiei Kogyo Co., Ltd. ● Hinode Gomu Kogyo Co., Ltd. ● Toyoda Gosei Interior Manufacturing Co., Ltd. ● Kaiyo Gomu Co., Ltd. ● TG Opseed Co., Ltd. ● Hoshin Gosei Co., Ltd. ● TGAP Co., Ltd. ● TG East Japan Co., Ltd. ● TS Opto Co., Ltd. 	<ul style="list-style-type: none"> ● North America <ul style="list-style-type: none"> ● TG Missouri Corporation ● TG Kentucky, LLC ● TG Automotive Sealing Kentucky, LLC ● TG Fluid Systems USA Corporation ● Toyoda Gosei Texas, LLC ● TAPEX Mexicana S.A. de C.V. ● Waterville TG Inc. ● TG Minto Corporation ● Toyoda Gosei Automotive Sealing Mexico S.A. de C.V. ● Asia and Oceania <ul style="list-style-type: none"> ● Toyoda Gosei (Thailand) Co., Ltd. ● Toyoda Gosei Rubber (Thailand) Co., Ltd. ● Toyoda Gosei Haiphong Co., Ltd. ● Toyoda Gosei South India Pvt. Ltd. ● Europe and Africa <ul style="list-style-type: none"> ● Toyoda Gosei UK Ltd. ● Toyoda Gosei Czech, s.r.o. ● Toyoda Gosei South Africa (Pty) Ltd.

● Acquired ISO 14001 certification. New companies and main plants aim to acquire ISO 14001 within three years of starting operation



External environmental audit, Morimachi Plant



Internal environmental audit, Kaiyo Gomu Co., Ltd.

Environmental audits

Internal environmental audits are carried out by audit teams composed of members from business areas outside those being audited in order to raise the independence and objectivity of the audits. Toyoda Gosei Co., Ltd. commissions external reviews by the Japan Quality Assurance Organization (JQA) to assess whether our environmental management systems are run properly in accordance with ISO14001. In 2015 these external environmental audits again found no issues at Toyoda Gosei Co., Ltd. or affiliate companies in Japan. Our Seto Plant obtained ISO 14001 (2015 version) certification, and we are working to acquire certification at other plants as well.

Environmental education

We educate employees about environmental issues, such as the destruction of nature and environmental pollution, the impact of production activities on the environment, and observance of environmental laws. The educational materials are revised each year to be more understandable by including case examples that emphasize understanding of problems and implementation of practices based on trends in laws and regulations.

Environmental Education System

Recipients	Toyoda Gosei		Affiliate Companies	
	Japan	Overseas	Japan	Overseas
Companywide	Education for new managers			
	Education for those posted overseas			
	Education for environmental key persons			
	Acquisition of environmental education qualifications			
	Education for new employees			
	Environment Month educational activities			
ISO 14001-related	Education for environmental staff			
	Education to improve internal auditors' skills			
	Education to register internal auditors			
	Education for supervising managers			
	Education for key environmental facility workers			
				Education for general workers

Environmental education activities

Toyoda Gosei conducts mainly participation-based environmental activities to help employees maintain an environmental awareness that can be translated into action.

Educational programs for Environment Month

During Environment Month in June of 2015, we conducted educational activities using posters and in-house bulletins. At the same time, we sought imaginative and original proposals from employees to improve environmental friendliness and gave awards for outstanding improvements. In July we held an "Energy-Saving Exhibition" as a place to uncover new energy-saving ideas, especially those that could be used for production equipment. Toyoda Gosei Co., Ltd. and affiliates in Japan also conducted on-site "environmental management inspections."



Display of examples of energy-saving activities



Internal bulletin

Environmental Report Meeting

In formulating our Sixth Environmental Action Plan, we held an environmental report meeting in February 2016 with participation by 181 related parties from inside and outside the company. In addition to an explanation of the Sixth Environmental Action Plan, we announced the new TG 2050 Environmental Challenge. A presentation entitled "Environmental trends and the role of the Japanese automobile industry" was given by Visiting Assistant Professor Mayumi Matsumoto of Tokyo University to raise awareness of environmental preservation.



Environmental report meeting

Environmental Contribution Award System

Our "Environmental Contribution Award" system promotes environmental awareness and activities, awarding prizes for the most significant results to companies and departments in three divisions: Toyoda Gosei Co., Ltd. plants/offices, production preparation departments, and domestic affiliates. In 2015, the award in the plant/office division was given to the Inazawa Plant, which greatly reduced CO₂, water usage, and volatile organic compounds (VOCs) and achieved targets for summer peak power and power consumption reductions. The award in the production preparation category was given to the IE Production Preparation Division, which greatly reduced power use with more compact wheel cap painting equipment. The domestic affiliate award was given to Chusei Gomu Co., Ltd. for achieving reductions of 9% in CO₂ emissions and 3% in waste volume compared with the previous year.



Environmental contribution awards

Green walls

Goya (bitter melon) and cucumber plants are grown each summer to create "green walls" that cover the south sides of buildings for the purposes of raising employees' environmental awareness and reducing summer energy use. In FY2015, a contest was held among all plants, affiliated companies, and individual employees for the best green curtains, and awards were given. In August the goya and cucumbers from these curtains were prepared in dishes for employees to eat and enjoy.



Green walls at TG Logistics Co., Ltd.



“Visualization” of electric energy

To cut down on power consumption and peak power at the Nishimizoguchi Plant, power usage is displayed graphically on computers. The predicted power demand is shown in real time on a page of the plant’s intranet site and can be checked numerically at any time. This makes it easier to adopt usage-limiting behaviors promptly. The temperature highs in weather forecasts are also shown so that early energy-saving measures can be taken. Visualizing power consumption in this way raises employees’ environmental awareness and has a synergistic effect with efforts to reduce CO₂ emissions (see examples on page 18). Power consumption has been cut 10% compared with FY2012.

Environment management systems and environmental audits at overseas affiliates

Toyoda Gosei is bolstering environmental management at affiliates worldwide. In China, where environmental regulations are becoming stricter, special efforts for improvements have been made since 2010 with a central role played by regional environmental headquarters. Environmental oversight bodies for stricter environmental management were established in the Asian region in 2014 and in North America in 2015.

We also began environmental audits in 2014 with the aim of checking environmental management status and enhancing environmental efforts. By September 2015, environmental audits had been conducted at all international locations. Systematic improvements are made in identified areas. A global summit was held in Japan in November 2015, where the need for environmental efforts and upcoming programs were explained, and information was shared with top managers from global affiliates.



Environmental audit

Activities to eliminate compliance and environmental violations and complaints

Environmental inspections are made at all of our offices each year for maintenance and management. We also analyze problems that occur at other companies, inspect similar facilities, and take preventive measures to make sure that we do not experience similar problems. In FY 2015 we formulated key management standards for equipment and facilities, especially those that effect wastewater, and held briefings with relevant personnel to prevent problems.

Proper disposal and storage of equipment containing PCBs

By law, toxic and persistent polychlorinated biphenyls (PCBs) must be treated by March 2027. We began outsourcing this treatment in FY2006, and by FY2015 PCB waste from 109 transformers and capacitors had been treated. During FY2016 we plan to complete treatment of high-concentration PCB waste (725 stabilizers and other equipment). We will also continue efforts to systematically treat as-yet untreated low-concentration PCB waste.

Category	Type	No. of units treated	Treated weight
High concentration PCB waste material (PCB levels: >5,000 mg/kg)	Power capacitors	70 units	5.2 tons
Low concentration PCB waste material (PCB levels: 0.5–5,000 mg/kg)	Transformers, Power capacitors, etc.	39 units	60.1 tons

Soil and ground water conservation

We carefully monitor and treat soil and groundwater contamination from toxic substances such as trichloroethylene, which was formerly used as a cleaning agent. We have established observation wells at each plant, and regularly confirm that there is no soil or groundwater pollution from toxic substances and oils.



Groundwater inspection, Haruhi Plant

Location	Target	Status of corrective measures
Haruhi Plant	Groundwater	Purification in progress (proactive treatment, as contamination from off-site sources is possible)
Inazawa Plant	Groundwater	Because of detection of substances we have no history of using, regular reports to the government contain results of measurements only. *Results below reference values since 2010 (government reports concluded in FY2012)

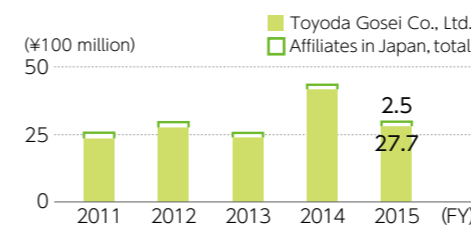
Environmental Protection Costs

In FY2015, we focused on research and development, business operation sites (converting high-ceiling lighting to LEDs, recycling, reducing greenhouse gas emissions), and social activities (plant afforestation). The economic effects from these activities included lower waste disposal expenses as a result of measures to combat waste where it is generated and recycling, and reduced electricity expenses from more efficient utility facilities.

Environmental protection costs (Unit: ¥100 million)

Type of cost	Toyoda Gosei	Affiliates in Japan, total
Research and development costs ¹	4.8	-
Costs within business areas ²	19.0	2.2
Management activity costs ³	0.9	0.2
Social activity costs ⁴	2.9	0.1
Costs for environmental measures ⁵	0.1	0
Total	27.7	2.5

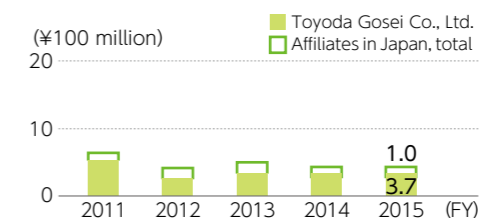
- *1 Costs for research and development of products that reduce environmental impact.
- *2 Costs to reduce environmental impacts from production, including pollution control, reduced energy consumption, and waste disposal.
- *3 Costs for management, including education, maintenance of the environmental management system, and measurements.
- *4 Costs for such measures as tree-planting and beautification.
- *5 Costs for dealing with environmental impacts from business operations.



Economic effect⁶ (Unit: ¥100 million)

Item	Toyoda Gosei	Affiliates in Japan, total
Energy expenses	2.4	0.3
Waste-processing expenses	1.3	0.7
Total	3.7	1

*6 The economic effects calculated here are those that can be ascertained based on solid evidence.



Quantitative effect⁷

Item	Amount
Global warming prevention (CO ₂ reduction)	8,600t
Waste reductions (amount reduced)	596t
Legal compliance	Described on page 28 (Japan plant data posted on Toyoda Gosei website)

*7 Amounts are calculated for Toyoda Gosei alone.

Please visit our website for environmental data. An independent review was commissioned for CO₂ emissions.
<http://www.toyoda-gosei.co.jp/csr/>

Environmental Efforts at Affiliated Companies

International affiliates / TG Missouri Corporation

Close community ties and a leading role among TG's international affiliates.

TG Missouri Corporation (TGMO) manufactures automobile interior and exterior products and safety system products. TGMO was Toyoda Gosei's first operating base in North America, and boasts the top production capacity in the region. It serves as the manufacturing mother plant to satellite facilities including TGNAI (Indiana) and TGMS (Mississippi) among others. TGMO has received many accolades through the years, including multiple Supplier Launch Awards, Supplier Quality Awards, as well as state-wide recognition such as the Governor's Pollution Prevention Award and the Missouri Large Industry of the Year. While continuing to serve as a leader in TG's overseas operations, TGMO will continue to contribute to the community through local employment, social contribution activities, scholarships and donations, while remaining active in environmental protection as a good corporate citizen with strong local ties.

Toyoda Gosei's 5th Environmental Action Plan to improve energy efficiency covers activities from fiscal 2011 to 2015. At TGMO, efforts have resulted in an overall waste reduction of 30%, including:

- Switching approximately 20,000 fluorescent tube lighting to low-energy LEDs.
- Reductions of 31 tons of CO₂ per month by making the forming equipment compressor air supply routes and points of usage visible for necessary maintenance.
- Saved 31 tons of CO₂ per month by switching to compressors with control systems that automatically shut off the air supply when not being used.
- Conserved 48 tons of CO₂ per month with the introduction of an inverter system for injection molding machines and water towers.
- 75% reduction in wastewater treatment achieved through a switch in the chrome plating wastewater treatment equipment, allowing it to operate with a higher treatment capacity.
- Eliminated 70 tons of waste per month by recycling the metal that settles in filtration equipment during wastewater treatment.
- Acetone contained in paint processes are collected and used in boiler fuel, reusing 7 tons of waste each month.

The focus of TG's 6th Environmental Action Plan will focus on activities to improve energy efficiency. At TGMO, this will include switching 100% of fluorescent lights to LEDs at the TGMO headquarters, Indiana and Mississippi plants, and taking measures to improve the heat efficiency of 67 injection molding machines.

One of TGMO's efforts to contribute to the community was an afforestation project on the plant grounds in May 2015. About 2,000 participants, including community residents, employees and their families worked together to plant about 22,000 trees and bushes over a large area of approximately 6,000 m². This tree-planting event included a performance by country music star and Perryville Missouri native Chris Jansen, as well as a plant tour, and the installation of a tree-planting commemorative plaque to deepen ties with the community.

TGMO will continue its many efforts to contribute to the community while further improving its technology and processes, remaining dedicated to customer service as a top global automotive supplier.



Plant afforestation

DATA

- ▶ Location: Perryville, Missouri
- ▶ Established: April 1986 (Name changed from TGUSA to TG Missouri in 1999)
- ▶ Capital: USD30 million
- ▶ Business activities: Interior and exterior products, safety system products
- ▶ Satellite plants: TGNAI (New Albany, Indiana, USA), TGMS (Batesville, Mississippi, USA)
- ▶ ISO14001 certification: April 2001
- ▶ ISO/TS16949: September 1996

Kaiyo Gomu Co., Ltd.

Environmental preservation, community service, and regional development activities with strong local ties

Kaiyo Gomu Co., Ltd. manufactures rubber automobile parts and other general industrial rubber products. It is located in a rich natural environment near the historic Kumano Kodo pilgrimage route in Mie Prefecture. With a desire to contribute to the community, the company performs various environmental preservation and community service activities. In the Fifth Environmental Action Plan, its efforts were focused on reducing power consumption and waste materials.

To cut power consumption, about 80 mercury lamps in the plant were switched to LEDs and the number of compressors that supply air to production equipment and tools was reduced from five to four, one of which was equipped with an inverter. Other efforts included the use of traditional non-electric mechanical mechanisms in some work robots and the use of abundant natural groundwater in cooling forming machines. Altogether, these activities have led to power consumption reductions of about 70%.

Among efforts to reduce waste, the shape of auxiliary tools used in trimming products was modified to eliminate the need to cut both ends as had been done previously. This reduced waste by 30%. Heat insulation measures for boiler steam pipe joints increased thermal efficiency and reduced LNG consumption about 5%. In the Sixth Environmental Action Plan, the company intends to further cut power consumption and reduce waste. They aim to reduce CO₂ 25 t annually by replacing about 300 fluorescent lights with LED lighting on inspection tables and elsewhere, and by about 140 t annually with the use of inverters on extrusion machine motors. They have also set a target of reducing waste 20% by bringing in equipment that does not produce trimming scraps when they upgrade the extrusion machines that manufacture turbo hoses.

One of the company's community contribution activities was a plant afforestation project in May 2014. Around 300 people, including community residents, employees and their families planted 1,550 trees. As part of a global social contribution activity, they cleaned up the area around the factory together with community members, and distributed cookies made at a vocational aid center for people with disabilities to participants. In cooperation with the Mie Hometown and Supporting Company Project, 20 employees participated in various activities for the community, such as cleanup around the Choshigawa River and preservation and cleanup of the Hajikami Pass on the historic Kumano Kodo pilgrimage route. In recognition of these activities, they were selected for Toyoda Gosei Co., Ltd.'s Environmental Excellence Award for the third time. The also received the 2014 Award of Excellence for Healthy and Safe Workplaces from the Kumano Owase Labor Standards Association.



Plant afforestation



Neighborhood cleanup



Historic Kumano Kodo pilgrimage route

DATA

- Location: Kihokucho, Kitamurogun, Mie
- Established: November 1931
- Capital: ¥36 million
- Business: Manufacture and sales of industrial and home use elastomer products, plastic products
- ISO 14001 certification: December 2001
- ISO 9001 certification: December 2003

Protection of Biodiversity

Toyoda Gosei helps to protect biodiversity through nature conservation activities together with the community

No. of trees
(cumulative)

Approx.
280,000

(2009-2015)

“Plant Afforestation” projects at locations worldwide

Toyoda Gosei’s Plant Afforestation program has continued since 2009. Together with local communities, we create environments that coexist with nature. In this program, trees of various species suited to the local environment are planted at high density. They grow through competition, becoming “true woodlands” that are resistant to natural disasters. Employees, their families, and community members participate in the tree-planting, and various events conducted on the planting day are organized to foster solidarity among participants. After the tree-planting, employees continue to manage the planted areas, weeding and recording observations of tree growth. Seedlings grown from seeds in the company are used in planting events. In FY2015, tree-planting projects were carried out at the Miwa Technical Center, Chusei Gomu Co., Ltd., TG Missouri Corporation, and Tai-yue Rubber Industrial Co., Ltd. Over seven years, a total of 280,000 trees have been planted in 23 locations.

Growth status

Heiwacho Plant



Planted November 2009



May 2015

Toyoda Gosei Thailand



Planted February 2010



May 2015

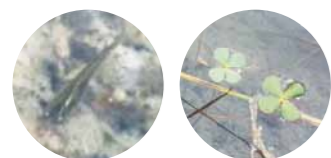
Creating an onsite biotope of a local ecosystem

Based on the idea of raising environmental awareness through activities to protect nearby nature and creatures in the local environment, the Miwa Technical Center established a biotope pond in one corner of the plant grounds in FY2014. The project started with a survey of the Oe River that runs to the west of the Center. Based on the results, three main activities were adopted: preserving endangered medaka, or Japanese rice fish; restoring Japanese fireflies that are thought to have inhabited the region; and expanding the habitat of the damselfly. About 20 species of shrubs, trees and aquatic plants were planted around the pond so that flowers could be seen throughout the year.

In April 2015, local children released firefly larvae and medaka. In FY2015, water clover was transplanted into the biotope, and a survey confirmed that damselfly larvae inhabited the pond and there was a new generation of medaka. We are continuing our activities to slow the loss of biodiversity that is thought to be progressing on a global scale, as indicated in the goals of the Aichi Biodiversity Targets.



Biotope



Japanese medaka Water clover



Damselfly

Environmentally-Friendly LEDs

Contributing to reduced CO₂ emissions through the spread of LED products

Wide use of LEDs within the company

We have been increasing the use of LED lighting within the company since 2011. By FY2012 we had finished switching about 70,000 lights from fluorescent type to LED. By FY2017 we plan to replace high ceiling lighting at all business locations in Japan with LED lighting. In FY2014 we changed approximately 2,000 lights to LED in our Morimachi Plant and Inoguchi Gymnasium.*

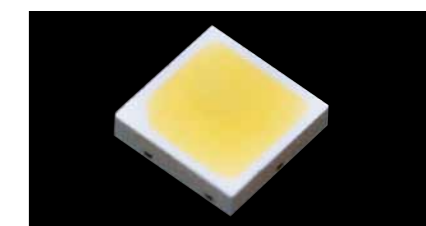
*Excluding certain special lights and processes



High ceiling LED lighting, Morimachi Plant

Spread of LED products

We carry out every step in the development and production of environmentally efficient LED products, from elements to LED packages. In FY2015 we developed an LED package for lighting that has world-class efficiency, 30% higher than our previous product. Making the LED die and package smaller contributes to greater freedom in the design of lighting equipment.



High-efficiency LED package (for lighting)

Actively promoting the advantages of LEDs at events and exhibitions

In FY2015 we participated in various shows and events to increase the level of recognition of our attractive LED technologies and products. At Messe Nagoya, we exhibited LEDs for space lighting and liquid crystal displays, as well as automobile LED products that combine our automotive part and LED technologies. At LED Next Stage, one of the largest exhibitions in Japan, we showed example applications of our world-class high-efficiency LEDs for lighting, and our LED products for automobiles, including LED radiator grille illumination and LED dome lamps. We were a co-sponsor of Nagoya Akarinight again in FY2015, presenting a 7 m design object called “Rainbow Crystal Tree” that used about 15,000 LEDs.



Messe Nagoya 2015 exhibition booth



Akarinight 2015
“Rainbow
Crystal Tree”

“Special Award” received at Aichi Environmental Awards

We received the Special Award in the 2015 Aichi Environmental Awards sponsored by Aichi Prefecture, given for advanced and effective technologies or projects that reduce environmental impacts. Afterward we were visited by about 45 companies from the Chubu Region of Japan who are putting increasing effort into environmental activities. We described our environmental efforts to these visitors, told them about our history in the development of blue LEDs, and took them to see our high-ceiling LED lights.



LED lighting at international affiliates

To promote the use of LEDs, we are installing LED lighting in Toyoda Gosei Group companies worldwide. In North America, they were put in at TG Missouri Corp. and Toyoda Gosei North America Corp. Use is also growing in China, where the installation of LED high-ceiling lights at Tianjin Star Light Rubber and Plastic Co., Ltd. and elsewhere cut power consumption about 50%. When Toyoda Gosei (Shanghai) Co., Ltd. moved to a new location, all lighting was switched to LEDs. We are also proposing their use at worldwide facilities with a focus on the Toyota Group, and in FY2015 we worked for the introduction of LED lighting at Toyota Motor Manufacturing UK and other companies.



LED plant lighting, TG Missouri



Bedside light for hospital rooms

Commercialization of LED lighting for medical facilities; proposals and adoption in plant cultivation research

In FY2015 we completed LED modules for lighting equipment for medical facilities based on light and color modulating base lights developed together with Sanken Electric Co. and Yamada Shomei Lighting Co. This was one more step toward the commercialization of bedside lights for hospitals.

RGB (red, green, blue) and white LEDs have been adopted by Chubu University for research on growing cacti with LED light sources. Fluorescent lights and RGB LEDs have been used in experiments because red and blue wavelength light was considered to be suitable for plant growth. However, since blue and red wavelengths are also included in white LEDs, we proposed combining them with RGB. A proof of concept experiment with RGB and the four colors of white LEDs was started in July 2015.



Chubu University: Growing cacti with LED light sources

White LED system

Red/blue LED system

Cases

Better design of LED illumination lamps

LED illumination lamps for radiator grille decoration have a high level of designability, and make for a more striking brand image. In the illumination lamps mounted in radiator grilles, the light is adjusted with a combination of inner and outer lenses. Light is dispersed by treating these surfaces, and a sparkling sensation is achieved. By producing a sense of unity with the headlights, the brand image of a vehicle can be elevated.



LED illumination lamp

LEDs in rear dome lamps

Use of LEDs in the dome lamps for vehicle rear seats reduced energy consumption 95% compared with previous products. Older rear dome lamps used traditional bulbs, and by switching to LEDs the energy use is significantly decreased. LED lamps have greater directionality than traditional light bulbs, which send light out over a wide range. This directionality makes it possible to send the light only where it is wanted. In addition to contributing to better designs, LEDs also give greater freedom of use as other parts can be installed near LED lamps since they emit little heat.



LED rear dome lamp

Independent opinion

Steady progress toward the TG 2050 Environmental Challenge

The comments in this independent opinion are focused on the environmental report section, and are based on an advance explanation of the main purport of the report from the people in charge.

Major topics in this report are the formulation of the TG 2050 Environmental Challenge and the start of the Sixth Environmental Action Plan, which are taken up in the feature section.

The 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change, accepting the Fifth Assessment Report of the International Panel on Climate Change (UNFCCC), adopted the Paris Agreement. This is a new framework with the participation of all 196 countries and regions belonging to the UNFCCC. The Paris Agreement sets a globally shared, long-term goal of not only keeping the rise in global temperature to less than 2°C above the temperature before the industrial revolution, but also seeks to limit the rise to less than 1.5°C. What these targets mean is that the emissions of greenhouse gases in the second half of this century need to be essentially zero.

Toyota Motor Corporation was one of the first to respond to this change in the global framework, announcing the Toyota Environmental Challenge 2050 last year. Toyoda Gosei responded in kind with the announcement of its own TG 2050 Environmental Challenge in February of this year.

In the TG 2050 Environmental Challenge, Toyoda Gosei has set the targets of limiting plant CO₂ and waste emissions and water use to zero, while providing products that contribute to low carbon and recycling societies through the company's polymer and LED technologies.

To achieve these challenges, they will probably need to establish a specific road map and key performance indicators for each of the six challenges in the TG 2050 Environmental Challenge, matched to the six sides of the benzene ring in its logo, and work toward their goals with action plans in units of five years each.

This TG Report describes the results of activities implemented over the five years of the Fifth Environmental Action Plan that ended last year. The activity areas may be broadly divided into reduction of environmental impacts and environmental management. For reduction of environmental impacts, efforts are described in the areas of preventing atmospheric warming, effective use of resources, and controlling and reducing substances that impact the environment. In the area of environmental management, the report covers collaborations with local communities, raising environmental awareness and management, and the contributions of environmentally-friendly LEDs. The usual concept of "environmental management" includes the reduction of environmental impacts as a crucial goal as well as all of the activities reported here. I would like to see Toyoda Gosei as well organize the concepts in their definition of environmental management and their areas of activity.

Reading the results of the Fifth Environmental Action Plan, one sees that the company not only makes the obvious efforts of reducing the environmental impacts of the production process for each of their products, but also makes impressive efforts to reduce vehicle weight in ways unknown to users. Achieving zero CO₂ emissions, waste, and water usage—the aims of the TG 2050 Environmental Challenge—will obviously not be easy. However, given Toyoda Gosei's strengths in materials technology and the high level of its production technology, it will not be unrealistic for them to achieve these goals while also helping to bring about lightweight vehicles and zero CO₂ cars with their innovative plastics. I look forward to the company's steady progress in its TG 2050 Environmental Challenge.



President and CEO,
Nord Institute
for Society and
Environment

Representative, Junkan
Workers Club (NPO)

Hiromitsu Kumetani

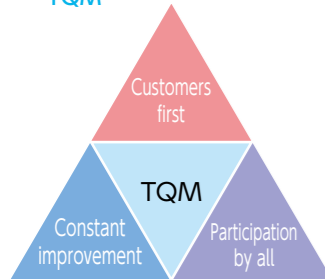
Customer Relations

With priorities on customers and quality, we are working to constantly improve our products and services and our value as a company.

Sales activities aligned with customer needs

Toyota Gosei sales and other departments meet the demands of customers around the world, growing sales while building good customer relationships. We collect and analyze data on customers' needs and the issues they are facing, and then work with engineering and other relevant departments in the company to present development plans aligned with those needs to provide products that will satisfy them.

Fundamental principles of TQM



Integrated quality assurance, from development to production

Toyota Gosei ensures quality in all business activities, from development to production, based on our basic quality policy. Every one of our plants has obtained certification in the ISO 9001 (JQA-QM7318/QMA11826/QMA12841) and ISO/TS16949 (JQA-AU124) international standards for quality management systems. Each plant also sets its own quality control goals for production. These goals are based on the principles of Total Quality Management, or TQM—activities designed to enhance the quality of products, work, and management, and increase the dynamism of individuals and organizations, through constant improvement and the participation of all based on the “Customer First” principle. In addition, all Group companies use our Quality System Global Standards, which incorporate quality improvement with rules and know-how to ensure quality.

Monitoring and responding to manufacturing processes and market quality

Defect-free process completion is carried out in production and other processes for parts involved in the basic automotive functions of running, turning, and stopping, as these parts are directly linked to safety. We want the Toyota Gosei name to equal quality in the minds of customers worldwide. For this purpose, we advance quality assurance declaration activities at all production locations. This means that all employees make efforts to improve safety and the people in charge of all manufacturing processes improve quality through the development of people and processes. When a mechanism that can ensure the target quality has been completed and is in place, the manager makes a “safety declaration” to the president or site manager. That president or site manager then conducts a site inspection. Through “*jidoka*,” we improve quality by creating processes that do not produce or pass on any defects and developing workers with a high sensitivity to safety and to avoiding mistakes. We also have full-time auditors who audit and improve processes at all production sites globally.

A system is in place so that whenever a quality problem occurs in the market, we can quickly investigate the causes based on information from automakers and implement prevention measures. When it is difficult to pinpoint the cause of a problem and develop solutions internally, we work with the quality departments of automakers to take precise measures to prevent recurrence based on inspections with test vehicles and other means. In this way we prevent such quality defects from occurring in the next products.



Activities for improving trust in the market

TQM for a stronger, better company

With “Customer First” firmly in mind, we carry out TQM programs globally to raise the quality of products and work to increase individual and organizational dynamism. All employees make continuous improvements from their respective positions. In this way we build stronger, better corporate structures throughout the Toyota Gosei Group. Each year we hold a small group activity (quality control (QC) circle) conference in Japan based on the TQM Global Mid-Range Plan, at which exceptional groups from our international locations give presentations on their activities.

TQM activities at Toyota Gosei

Level	Activities
Managerial	Improving workplace management
Staff	Small group activities Improving statistical quality control (SQC) and quality engineering (QE) capabilities
Line	Small group activities (QC Circles)

Recognition from customers

Our quality improvement efforts have been recognized by global customers.

Quality awards received (FY2015)

Company receiving award	Commending organization	Award
Toyota Gosei Co., Ltd.	Toyota Home Co. Ltd.	Quality control excellence award
Waterville TG Inc.	General Motors	Supplier Quality Excellence Award
GDBR Industria e Comercio de Componentes Quimicos e de Borracha Ltda.	Honda Automoveis Do Brasil Ltda.	Quality and delivery award
Toyota Gosei Minda India Pvt. Ltd.	Toyota Kirloskar Motor Pvt. Ltd.	Quality Zero PPM
Toyota Gosei South India Pvt. Ltd.	Toyota Kirloskar Auto Parts Pvt. Ltd.	
Tianjin Toyota Gosei Co., Ltd.	GAC Toyota Motor Co., Ltd.	Quality cooperation award
Toyota Gosei (Foshan) Auto Parts Co., Ltd.		
Toyota Gosei (Zhangjiagang) Co., Ltd.	Sichuan FAW Toyota Motor Co., Ltd.	Quality achievement award
Toyota Gosei (Zhangjiagang) Plastic Parts Co., Ltd.		
Toyota Gosei (Foshan) Rubber Parts Co., Ltd.	GAC Toyota Engine Co., Ltd.	Quality cooperation award
	Yachiyo Industry Co., Ltd.	Quality excellence award

Small group activity implementation rate (FY2015)

69%
(25 of 36 production companies)



International participants in our Small Group (QC Circle) Conference

Awards for quality (FY2015)

15

Employee Relations

We strive to create secure and inspiring workplaces for employees based on respect for their humanity, with the highest priority on safety.

Young employee training transfer (FY2015)

13

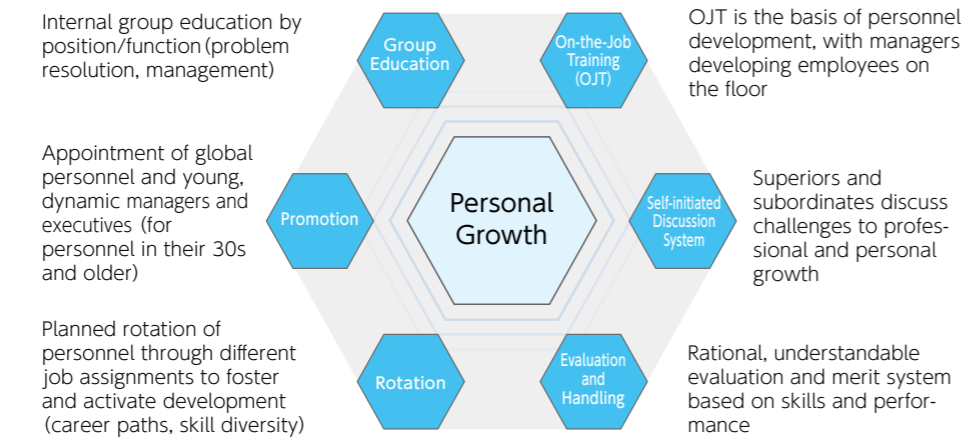
A global workforce of employees who think and act independently

Developing our workforce globally and displaying our strengths as a unified whole is an integral part of the management strategy at Toyoda Gosei. Our employees show mutual respect, raising each other's skills with the aim of enhancing the workplace and motivation. For young employees, we provide language training as well as the opportunity for one-year overseas internships to work with local staff in another country in systematic training of personnel who can act globally.

Key HR Concepts

- Train highly specialized professionals with a broad perspective
- Recruit a diverse global workforce to respond better to local issues
- Have employees show mutual support and teamwork across regional, work boundaries

Human Resources Systems



Global human resources development

To contribute to the economy and society of each country and region as a company with roots in the community, we aim to localize management of Group companies outside Japan. We try to develop personnel, including local staff in each country, who can act in a globalized business environment. A specific example of this is our expanding intra-company transfer (ICT) program in which employees from other countries come to Japan for on-the-job training. We are also continuing to accept employees from developing countries for practical on-the-job training in Japan using a system of the Overseas Human Resources and Industry Development Association (HIDA). We conduct Global Executive Seminars for executives from North America, Europe, and Asia, and Middle Management Training for division leader candidates from North America, China, and Asia.

Training for global human resource development (FY2015)

Workshop name	Number of countries participating	Number of attendees
Global Executives Seminar	5	11
Middle Management Training	6	54
ICT	4	10
HIDA	3	18



Global Executives Seminar



Middle Management Training

Human resource development with solid education programs

Toyoda Gosei Co., Ltd. has a substantial program to develop employees with a strong ability to discover and resolve problems independently, who can deal with a globalizing business environment. To cultivate personnel with the ability to solve problems from an early stage in their careers, we start basic problem-solving education from employees' second year in the company. In their third year they learn more practical problem solving techniques. Workplace superiors also become involved in practical problem-solving situations for their young subordinates to improve their leadership skills.

We also stress language education for young employees. In the period between informal acceptance and official employment, young people study English through e-learning. After joining the company, they gain further motivation to learn English through intensive training with native English-speaking instructors. We are also working to enhance the personnel development tools that can be used by all employees.

To stimulate human resources development, senior trainers recruited in-house (from the Human Resources Development Division) serve as training instructors. Conveying the knowledge and skills they have accumulated on the job, they help others to develop practical skills and promote on-the-job training in cooperation with people in charge of personnel development in each department.



Language trainee giving presentation to superiors in English

Training structure

Position	Div. leaders & assist. div. leaders	Group leaders	Team leaders	General employees	New employees	
Type of training	Division leader & assistant division leader training	Management training for group leaders Newly appointed GL policy development training	Management training for team leaders	Level 4 problem resolution followup training Mid-career leader training program	Training for 3rd year employees Training for 2nd year employees	Training for new employees English training for new employees
	Basic technical training	Training system for engineers Training system for skills				
Overseas-related training	Training for transferred/local employees Language training					

Employment

Together with efforts for stable employment, we practice fair and impartial hiring and training with respect for diversity and have strong systems and pleasant working environments for employees.

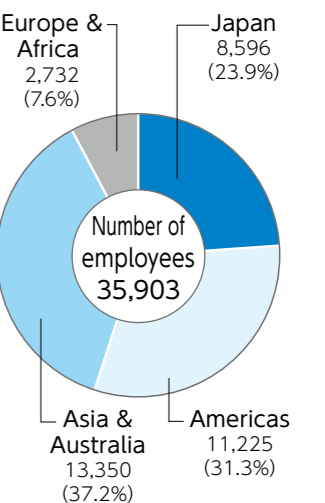
Workforce composition (FY2015 Toyoda Gosei Co., Ltd.)

	Male	Female	Total
No. of employees	5,845	665	6,510
Average age	42.0yo	38.5yo	41.7yo
Average length of employment	18.3yr	14.6yr	17.9yr

Workplace Management Survey

Through an annual Workplace Management Survey, we try to understand workplace problems and use the survey findings to improve the work climate and strengthen human resources development. These questionnaires are given every year to survey employees' motivation and their attitudes towards management and the workplace. Based on the results, we try to systematically improve each division's weaknesses. Good practices found both inside and outside the company are used to promote improvements and provide support for departments experiencing problems.

No. of employees by region (FY2015)



Childcare leave
38
Reduced working hours
43
(Childcare 42 people, nursing care 1 person)
No. of users as of January 1, 2016.



Holiday day-care



Family-Career Seminar (support for childcare-work balance)



1st Conference to Promote the Roles of Women

Employment rate of people with disabilities
(FY2015, Toyoda Gosei Co., Ltd.)

2.12%



Simple sign language during afternoon assembly

Support for work-life balance

Toyoda Gosei Co., Ltd. has systems in place to allow choices in working style with consideration of a work-life balance, and provides support so that employees can work with greater motivation and peace of mind. In addition to things such as Child-Rearing Day and Holiday In-House Childcare, we hold Family-Career Seminars to support the careers of employees who want to work while they are raising children. People who are on or plan to take childcare leave meet to consider their careers after returning to work through presentations by employees who are balancing childcare and work and group discussions. We also provide information on nursing care support on our company intranet.

Toyoda Gosei has been recognized by the Ministry of Health, Labor and Welfare for our various efforts to support the development of the next generation. We will continue our educational efforts to create a workplace environment in which employees feel free to take advantage of our childcare and nursing care support systems.



"Kurumi" Next-Generation Nurturing Support certification mark

Diversity

Toyoda Gosei is committed to fostering a corporate culture that utilizes the diversity of our employees and enables them to make full use of their individual capabilities, without regard to race, nationality, gender, or age. We have also established a system to enable workers of retirement age or with disabilities to maintain stable employment.

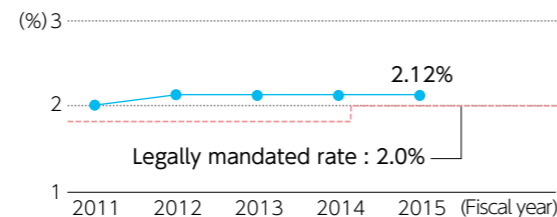
Support for the activity of women

Toyoda Gosei has a special organization to promote diversity, and is creating workplaces where women can work actively in a fair and equitable environment. Through surveys on attitudes within the company, we identify issues that cause changes in women's motivation and hinder them in taking active roles. Based on these findings, we conduct training for managers and Career Design Forums for women. In 2015 we also held our first Conference to Promote the Roles of Women for executives, managers and women at leadership levels. Through a message from the President and talks by outside experts, we aimed to raise awareness within the company of the need for administrative and other efforts to promote the participation of women.

Workplaces that welcome people with disabilities

Toyoda Gosei Co., Ltd. actively employs persons with disabilities. The Committee for Employment of People with Disabilities plays a central role in hiring, job assignments, education, establishment of stable positions, and awareness. We place particular emphasis on helping persons with disabilities establish stable positions and improving the work environment based on periodic interviews to understand current situations. Work that people with disabilities can perform is identified, and they are systematically hired and placed. In FY2015 we hired 109 people with disabilities (as of February 2016), exceeding our target hiring rate (legally mandated rate of 2.0% or more) with a rate of 2.12%.

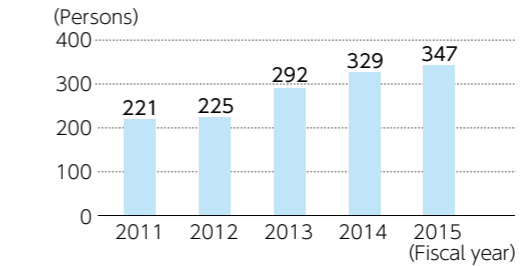
Changes in employment rate for people with disabilities (Toyoda Gosei Co., Ltd.)



Creation of an environment for stable work after retirement

With our Retiree Re-Employment System, we have established an environment that enables employees who want to continue working after retirement to do so. We also promote a work-life balance for rehired employees with reduced days or hours per week for greater diversity in working styles.

Trend in cumulative number of re-employed retirees



Number of people re-hired after retirement
(FY2015)

347

Maintaining and improving mental and physical health

Toyoda Gosei implements measures to maintain and promote employees' mental and physical health.

Health education system

Plant managers	General managers	Div. leaders & assist. div. leaders	Group leaders	Supervisors		General employees
				Team leaders	Section leaders	
Physical health manager education						
Good life seminar 35 (physical health education at 35 years) / Health education at 45 years						
Mental health education for management directors						
Mental health leader education						
Mental health (follow-up) education						
Self-care education						

Mental health education for management directors

Toyoda Gosei Co., Ltd. conducts regular mental health education for managing supervisors and general and deputy managers, promoting efficient workplace operations and smooth communication. We also distribute mental health education news to all employees once a month to raise their understanding of these issues. At each business location, company nurses and external counselors provide counseling to promote mental health. That fewer individuals are coming in for consultations is taken as evidence of the program's effectiveness.

In FY2015 we carried out preparations for the introduction of stress checks in FY2016 in response to legal reforms.

Raising awareness of health management

Toyoda Gosei Co., Ltd. provides regular health checkups for all employees, as well as health management education for healthy living and to prevent lifestyle diseases. Other programs include a smoking cessation program, Good Life Seminar 35 for employees aged 35, and practical education on diet, exercise and health management for employees aged 45. To prevent the spread of seasonal and new strains of influenza and other infectious diseases, employees are also urged to wash their hands and gargle.

In FY2015, we introduced a "trim down strategy" for people with body mass index (BMI) of 25-25.5 to reduce the number of overweight people with BMI of more than 25. At each location we also provide education to prevent locomotive syndrome by promoting measures to maintain muscle, bone and motor function for people in their 50s so that they can work in good health, including when they are re-employed after retirement.



Mental health education news



Health education poster

Aiming for "Zero Accidents"

Toyoda Gosei Co., Ltd. aims for zero accidents through Safe Personnel and Safe Workplace programs, with the president overseeing all efforts as the company's general health and safety manager.

In 2015, we conducted "safety focus activities" at each workplace as part of our Safe Personnel program. Together with efforts to raise the safety awareness of each individual, managing supervisors improved safety instruction through safety education and assessments and undertook other efforts to prevent accidents. In Safe Workplace activities we aimed to eliminate major accidents and checked for strict observation of safety measures when handling dies and cranes, providing guidance as needed. In product shipping areas, solid barriers are used to separate workers from forklifts for safety. These types of activities are implemented at Toyoda Gosei Group companies worldwide.

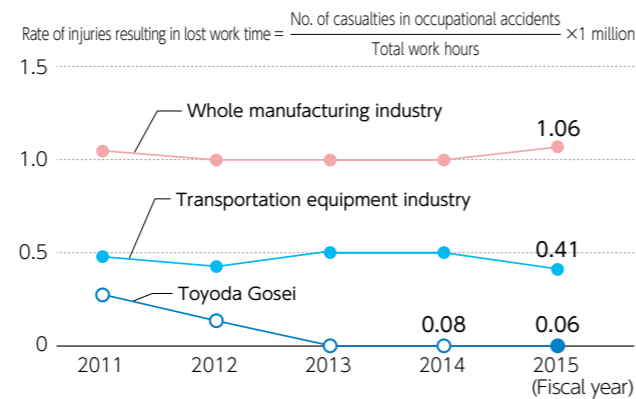


Safety KY Dojo



Safety focus activity presentation

Trends in rate of work accidents (rate of injuries resulting in lost work time)



Main activities in 2015

	Activities
Safety-Conscious Personnel	<ul style="list-style-type: none"> Building awareness in each individual, improving managers' leadership ability <ol style="list-style-type: none"> Awareness through safety activities and presentations in each workplace Safety education and competency assessment for managers Work environment training for workplaces that handle organic solvents, other harmful substances
	<ul style="list-style-type: none"> Remembrance/learning from past accidents to prevent recurrence
	<ul style="list-style-type: none"> Application of OSHMS to improve safety activity management
Workplace Safety	<ul style="list-style-type: none"> Ensuring safety in handling of dies and cranes, when serious accidents occur
	<ul style="list-style-type: none"> Measures to prevent contact between workers and forklifts in shipping areas
	<ul style="list-style-type: none"> Safety management in outsourced construction Workplace safety declaration activities proposed by individuals

Safety declaration activities

In 2015, Toyoda Gosei Co., Ltd. established a day for all workplaces across the company to think about safety. In each workplace, people talked with their superiors about their safety concerns to prevent accidents in the workplace, and individuals proposed activities for improved safety.

Partnering with labor unions to create better workplaces

Based upon our fundamental philosophy of mutual trust and shared responsibility in labor-management relations, we hold discussions with labor unions on wages, work environment and hours, and other matters related to workers.

Central Labor-Management Council and Divisional Labor-Management Council meetings are held regularly. In Divisional Labor-Management Councils in particular, department managers and others discuss workplace-related matters directly with union members with the aim of creating more pleasant workplaces.

Shareholder Relations

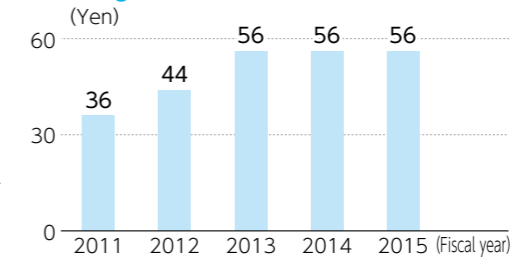
We make every effort to raise corporate value and openly disclose information.

Business results and profits

Our automotive parts business for the current term enjoyed increased revenues thanks to increased vehicle production in North America as well as the effect of the weak yen. Overall sales reached a record high for the second consecutive year, coming in at 781.8 billion yen, a 7.4% increase over the previous year. Operating profits were up 2.9% over the previous year to 42.8 billion yen thanks to increased sales in the automotive parts business and rationalization efforts, and despite increased fixed costs including production preparation and development costs for new products and increased startup costs in Europe. Ordinary income was down 5.3% to 41.4 billion yen, due in part to currency exchange losses against exchange gains the previous year. Net income attributable to parent company shareholders was down 4.3% from the previous year to 20.2 billion yen.

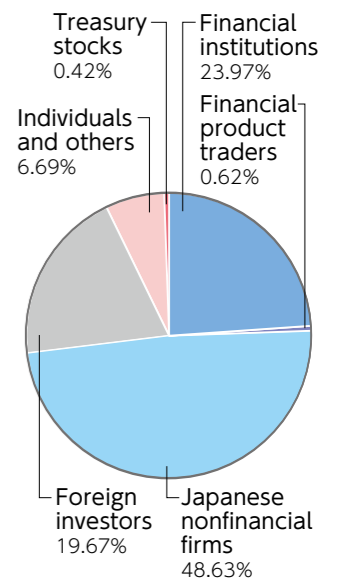
We distributed an annual dividend from surplus of 56 yen per share.

Change in dividends



Distribution to various shareholders

(as of March 31, 2016)



Disclosure

Toyoda Gosei conducts proper information disclosure, issuing regular reports via our website and IR tools (earnings summary, data for financial briefings, etc.), holding financial briefings, and participating in IR events. Specific measures include biannual earnings presentations and telephone conferences for institutional investors and securities analysts four times a year. Materials from these meetings and other relevant financial information are published on our website. We also provide information in individual investor meetings and to our many investors in Japan and other countries. As an open and transparent corporation, we strive to ensure correct evaluation of our corporate value by arranging individual plant tours for institutional investors and security analysts, publicizing our technical strengths, and participating in investor relations events.

Main IR activities

Targeted persons	IR activities
Domestic institutional investors, securities analysts	Individual discussions, financial briefings, plant tours, telephone conferences
Overseas institutional investors	Individual discussions, participation in IR events
Individual shareholders and investors	Plant tours after annual shareholders' meeting
	Issuance of "Report on Business Results"



Presentation of financial results, Tokyo



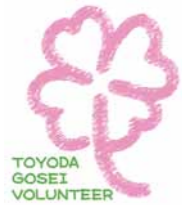
Individual meeting with security analysts, Tokyo

Involvement with Local Communities

Toyoda Gosei Group companies put down local roots and undertake a wide range of activities to contribute to the communities we call home.

No. of participants in volunteer activities (FY2015, total)

20,000



Volunteer logo

Contributing to the creation of better communities

Toyoda Gosei contributes to local communities through volunteer activities in five main areas: support for the vulnerable, environmental protection, youth development, community crime prevention and support for the recovery of East Japan. As an automotive parts manufacturer, we are also involved in traffic safety education. To raise employee awareness and motivation, our support systems include an internal awards system and new employee education. We are growing our circle of volunteer activities with active community involvement of individual TG members. Each year, TG Group companies worldwide conduct activities to contribute to their communities, striving to create close relationships through volunteer and other community-oriented activities.

In FY2015, about 20,000 people around the world participated in volunteer activities suited to the characteristics of the community, strengthening local ties. We also donated LED security lights for well-lit towns to support recovery in East Japan.

Social Welfare



Charity meals

Cafeterias at eight business locations introduced "charity meals" that raise 10 yen per meal for charity. Using the collected funds, wheelchairs and rehabilitation aids were purchased and donated to three local welfare facilities.



Wheelchair doctors

This volunteer group of employees visits welfare facilities for the elderly and hospitals in the community every month to repair, adjust or clean more than 500 wheelchairs a year. This program has continued since 1996.



Sales of goods produced by vocational training facilities

To support the independence of people who use vocational facilities for the disabled, we provide sales booths at 10 of our facilities. Every month we provide places to sell hand-made bread and cookies in 9 offices. Revenue earned is used to help finance the operation of vocational facilities.



Donations to breast cancer facility

TG Kentucky in the USA collected winter clothes, canned goods, T-shirts, polo shirts and other items, and donated 7,713 dollars from the sale of these items to a breast cancer facility.



Donation to senior citizens home

Foshan TGR in China donated electrical appliances and daily use items worth about 10,000 yuan to a senior citizens home near the company.



Social contribution training for new employees

We hold exchanges between new employees and people with disabilities to help our employees understand disabilities through interaction, learn ways to support people with disabilities, cultivate a considerate spirit, improve their social and cooperative skills and expand their perspectives.

Environmental Preservation



Advanced "green factory"

With the Heiwacho Plant as an advanced eco plant, we conduct river ecosystem surveys, cleanup activities, eco-learning and other activities together with local community members.



Community cleanups

In addition to routine cleaning at each facility, we conduct community cleanups twice a year with participation of more than 2,500 people including employees, their families, and local students.

Youth Development



Ichinomiya Boys and Girls Invention Club

With the aim of providing a place for children to enjoy making things and to grow creatively, we have fully supported this club since its establishment. In 2015, 1,350 children participated in 30 classes.

Community Safety



Sports support activities

Athletes from our volleyball, handball and basketball clubs provide instruction to local elementary and junior high school children for their healthy growth and development. Many of these activities include people with disabilities.



Neighborhood safety patrols

We have launched a program of neighborhood safety patrols in which employees volunteer to patrol key crime-prevention areas, such as around elementary and junior high schools and train stations.



Traffic safety patrols

We are involved in educational traffic safety activities aimed at reducing traffic accidents and protecting vulnerable road users. On the 10th, 20th and 30th days of each month, employee volunteers stand along roads at TG facilities to call for traffic safety in the community.

East Japan Reconstruction Support



Traffic safety education

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 2014 we marked the 29th anniversary of this activity.



Donations of LED streetlights

We donated Toyoda Gosei LED security lighting and LED lamps to earthquake-affected areas, based on their needs, for use in creating well-lit and safe streets.



Sales of Tohoku products

To support reconstruction even without going to the affected areas, we hold Tohoku product exhibitions of confectionaries and foods popular in the Tohoku region at 14 company cafeterias in Japan.

Supplier Relations

We aim to grow and develop while deepening our partnership with suppliers.

Collaboration with suppliers

Our partnerships with suppliers are very important to us for smooth business operations. Every April, Toyoda Gosei Co., Ltd. holds a procurement policy briefing with about 200 suppliers of products, machining processes, materials, facilities, and molds. We inform suppliers of upcoming issues and efforts, including our business environment and direction, and share our procurement policy for the year with regard to safety, quality, delivery, price, technology, global expansion and CSR. We also give awards to show our appreciation to suppliers for achievements in their fields, while encouraging all suppliers to continue making progress. Four times a year, we hold a procurement liaison meeting with about 100 suppliers, where we share production information and information on quality improvements, compliance, safety, earthquake measures, confidentiality, chemical substance control and human resources development.



Procurement policy briefing, Japan



Procurement liaison meeting, China

Support for suppliers

We support strong supplier structures with “*genchi, genbutsu*” (go-and-see activities), and work for their growth. In addition to standardized work and defect prevention to avoid serious quality problems, and lowering of cost prices for higher competitiveness, we involve suppliers in mold and product design. Through sectional committee activities we share information necessary for quality improvements with suppliers. We also conduct checks and risk assessment for compliance with Japan’s Industrial Safety and Health Act to help support the creation of safe workplaces and prevent fires and disasters.

Green procurement

We do our utmost for environmentally-friendly procurement based on our Green Procurement Guidelines (3rd Edition), which consist of three components: establishing environmental management systems; improving regulatory compliance and environmental performance; and managing harmful substances. To reduce environmental impacts, we strive to enhance suppliers’ internal organizations and systems and raise the level of their production activities. Positive results have been achieved, such as acquisition of ISO 14001 certification and reduction of energy consumption and waste. We comply with increasingly strict chemical substance regulations around the world and monitor the chemicals contained in items procured from suppliers. We also coordinate with suppliers in complying with European ELV (end-of-life vehicle) and REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations, and in the management of volatile organic compounds.

Compliance

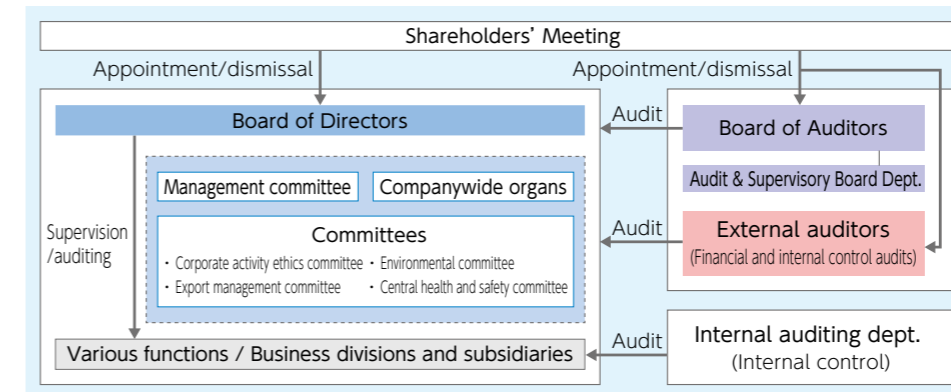
We strive to be a socially responsible, trusted company based on a high level of corporate ethics.

Corporate Governance

Toyoda Gosei aims to grow steadily as a global company, contributing to social development with the values of creativity and service to society in our corporate philosophy. To achieve this, we are strengthening our corporate governance from the perspective of shareholder value. To meet the expectations of stakeholders, we maintain organizational systems that can respond rapidly and appropriately to environmental changes and a sound management system that is both fair and transparent.

Specifically, we have limited directors’ terms to one year and appointed corporate officers to separate business execution from management supervision in order to respond flexibly to changes in the business environment and to clarify management responsibilities. To raise the transparency and health of our operations, we appointed an external director in June 2015 and then increased the number to several external directors in June 2016 to strengthen oversight and supervisory functions of our directors. We have also established deliberative bodies and committees that will be involved in discussing and deciding important matters and checking business execution.

Corporate governance system



Toyoda Gosei appoints five auditors, including three from outside the company, to serve on its auditing system board. This Board of Auditors oversees and audits management status including the execution of directors’ duties. Our internal Audit Division discusses auditing plans with the auditors and meets regularly to maintain close coordination and share information. It also coordinates with accounting auditors to strengthen auditing functions. An Audit & Supervisory Board Department under the direct control of the Board of Auditors has also been established to raise the efficacy and independence of audits and ensure that auditing work is executed smoothly.

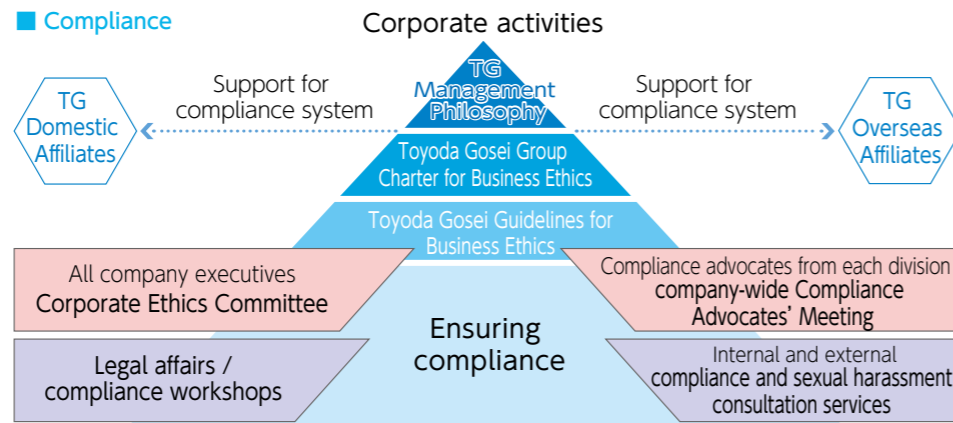
As part of our efforts to maintain a healthy internal control environment in Group companies, we share our Corporate Principles and Charter for Business Ethics with all Group companies. While respecting the management autonomy of our subsidiaries, we receive regular business reports and confirm the appropriateness and legality of our subsidiaries’ business activities through advance reports and an approval system. We also send nonexecutive directors and auditors to key subsidiaries to observe and monitor their business execution.



Charter for Business Ethics

Compliance

Toyoda Gosei conducts thorough compliance activities to ensure that employees obey all laws and regulations, and to instill in all employees a keen sense of corporate ethics. The Toyoda Gosei Group Charter for Business Ethics sets forth shared values and behavioral standards for the Group, and all Group companies worldwide incorporate this charter into their own behavioral guidelines. We have also formulated the Toyoda Gosei Guidelines for Business Ethics and distribute them to all employees. In 1997 we established a Corporate Ethics Committee with the President serving as chairman and all company executives as members. Together with Compliance Advocates in each division, the committee works for thorough compliance with a unified approach by management and worksites. We have also set up internal and external compliance consultation offices for early resolution of them.



Ongoing educational activities

We conduct ongoing educational activities to raise the compliance awareness of all employees. In addition to regular compliance training that targets employees by level in the company and type of risk, we present specific, easily understandable compliance lessons in cartoon format in company newsletters and post descriptions of legal compliance cases on company message boards. Systematic, autonomous compliance education is provided to help people in each department recognize the risks inherent to their work and prevent infractions. We also conduct annual surveys of employees' understanding of compliance, and make improvements where needed.

Major workshops

Workshop name	Times held	Participants
New employee workshop	2 times	95
New manager workshop	2 times	56
Designated legal affairs workshop (for mid-career employees)	6 times	376
Antitrust and anti-bribery training (for overseas base)	7 times	601

Strengthening compliance systems of affiliates worldwide

Toyoda Gosei Co., Ltd. provides support so that each Group company worldwide can independently promote compliance. In Japan we share information in an annual compliance liaison conference and conduct ongoing issue resolution activities in which each company identifies latent risks and takes preventive measures. In 2015 we opened a new external compliance consultation office for use by all Group companies in Japan. In other countries, we promote systematic compliance activities suited to each country and company. We conducted antitrust and anti-bribery training centered on areas of high risk.



Antitrust and anti-bribery training, Thailand

Risk Management

Toyoda Gosei implements information security measures to protect corporate information assets and measures to prepare for the event of a large-scale disaster.

Crisis Management Project in anticipation of large-scale earthquake disasters

Japan is a land of earthquakes, and we have put into place a crisis management system for the event of a massive earthquake based on the principles of human life first, community support, and early recovery. Specifically, we are carrying out a Crisis Management Project to strengthen our ability to deal with disasters, focusing on the two areas of developing and enhancing first responses and clarifying response procedures for quick restoration of production. Since 2013 we have conducted resilience training more than 40 times for directors and members of anti-disaster departments, based on the idea that in addition to infrastructure and system measures, improving the skills of response personnel is essential. We have also established specific procedures for the recovery of affected buildings, facilities, and processes and for alternative production in a production recovery system. Recovery training for design drawings and other data is also carried out so that product development can be continued even after disasters.

In 2015 we provided support for affiliates and suppliers in enhancing their crisis management. Weaknesses were identified through evaluations using an "anti-earthquake measure implementation status check sheet" and graphing the results. We then worked together to draw up business continuity plans.

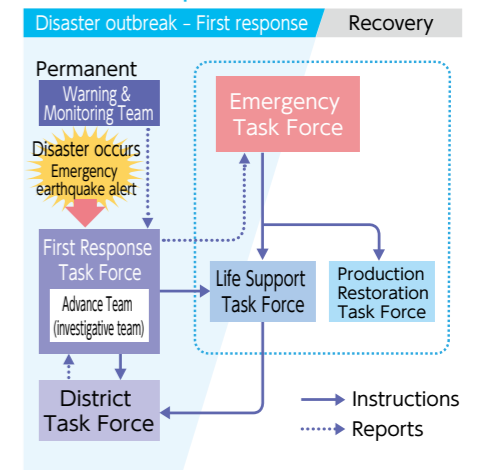
No. of resilience training sessions (FY2015)

22

Efforts to date

Classification	Measures
Facility and equipment measures	<ul style="list-style-type: none"> Earthquake resistance measures for buildings and facilities Establishment of a disaster prevention center to serve as an operations base for anti-disaster department operations Equipping all locations with a multi-channel access radio system (which is used in Japan for various purposes, from daily work to emergency and disaster situations) and satellite phones Installation of a crisis management server (earthquake-resistant structure) and emergency power generators Operation of disaster recovery and restoration of damaged systems and data center systems (special facilities equipped with and operating computers, data communications, and other devices)
Prevention of malicious unauthorized leaks	<ul style="list-style-type: none"> Introduction of site and building safety decisions Maintenance of supply chain information Teleconference system for multiple locations using tablet computers Earthquake bulletin and employee safety information system training Employee safety follow-up system incorporating arrival and departure times at company and business trip data Preparation of a business continuation plan

Disaster response



Strengthening information security measure and raising awareness

Toyoda Gosei maintains thorough information security measures to strengthen the management of confidential information. Together with annual checks of the compliance status of each division based on company confidentiality management regulations, we conduct on-site audits. Self-inspections are also done at Group companies in Japan, major affiliates in other countries, and all locations in China. Confidentiality officers are assigned in all departments, and confidentiality management training is provided to all employees using information system security operating standards and a confidential information management manual.

Enhanced measures

Classification	Measures
Prevention of leaks from negligence	Hard <ul style="list-style-type: none"> Prevention of uncontrolled printing or removal through employee ID authentication of employees at digital copiers/printers and technical drawing printers
	Soft <ul style="list-style-type: none"> Data encryption of all PCs E-mail security reinforcement (mandatory supervisor CC)
Prevention of malicious unauthorized leaks	Hard <ul style="list-style-type: none"> Inspection of removed materials (twice monthly) Increased surveillance cameras Wired PCs Notebook PCs Desktop PCs External HDDs
	Soft <ul style="list-style-type: none"> Stricter access privileges to file servers Restrictions on items taken out / stronger check function Acquisition and monitoring of system usage records and access records Prevention of unauthorized access (main building/IS Center, Technical Center) Strengthened hacking prevention measures (Internet)
Ethics	<ul style="list-style-type: none"> Review of security management rules In-house security management education On-site inspections of each division



TOYODA GOSEI CO., LTD.

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452-8564, Japan

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Division (Headquarters)

Phone: +81-52-400-1452 Fax: +81-52-409-7491

Environment Administration Dept., Environment
Division (Kitajima Technical Center)

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Environmental Data

TOYODA GOSEI REPORT 2016
[Report on Activities of Fiscal 2015]

- [P e r i o d] • April, 2015 to March, 2016
 [A i r] • Units are as follows: NOx = ppm, PM (particulate matter) = mg/Nm³ • 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] • Units are: t/year for waste, t-CO₂/year for greenhouse gas and 10,000m³/year for water.

*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.)

Item measured		Regulation value	Result
Dust	Boilers(City gas)	0.1	ND
	Co-generation(City gas)	0.05	ND
NOx	Boilers(City gas)	150	43
	Co-generation(City gas)	600	160

■Groundwater

Item measured		Environmental Standard	Result
Trichloroethylene		0.03	ND~0.008
Cis-1,2-Dichloroethylene		0.04	ND~0.014

*Refer to Toyoda Gosei Report P.29

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
2-imidazolidin thionate	42	2,467	0	0	0	0	370	0	0	2,097
Thiuram	268	1,828	0	0	0	0	99	0	0	1,729
Toluene	300	1,169	890	0	0	0	190	89	0	0

■Data for use of resources/volume emitted

Category		Result
Waste	Volume generated	1,507
	Volume emitted	1,507
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	7,500
Water	Volume used	28.8

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

Item measured		Regulation value	Result
pH		5.8~8.6	7.2
BOD (Biochemical Oxygen Demand)		25	4.8
SS		30	2.4
Oil content		5	ND
Total nitrogen		120	1.7
Total phosphorus		16	0.4
Thiram		0.06	ND

Morimachi Plant

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

Main Products

• Weatherstrips
• Functional Parts

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

Item measured		Regulation value	Result
Dust	Boilers(heavy oil)	0.3	0.01
	Boilers(heavy oil)	260	89

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Water-soluble compounds of zinc	1	1,484	0	0	0	0	59	59	0	1,365
Antimony and its compounds	31	4,183	0	0	0	0	209	42	0	3,932
2-imidazolidin thionate	42	3,267	0	0	0	0	131	131	0	3,006
Ethylbenzene	53	11,004	7,395	0	0	0	1,365	1,717	0	528
Xylene	80	12,716	8,563	0	0	0	1,594	1,975	0	584
Disulfiram	259	1,782	0	0	0	0	96	0	0	1,686
Thiuram	268	10,683	0	0	0	0	577	0	0	10,106
Toluene	300	44,526	22,817	0	0	0	7,799	12,674	0	1,237
Bis (N,N-dimethyl dithiocarbamate) zinc	328	5,326	0	0	0	0	213	213	0	4,900
Phthalic anhydride	413	1,063	0	0	0	0	49	10	0	1,004
Methylnaphthalene	438	17,306	87	0	0	0	0	0	17,220	0
Methylenebis (4,1-phenylene) = diisocyanate	448	3,262	0	0	0	0	326	0	0	2,936
2-Mercaptobenzothiazole	452	37,501	0	0	0	0	2,025	0	0	35,476

■Data for use of resources/volume emitted

Category		Result
Waste	Volume generated	4,230
	Volume emitted	3,461
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	24,300
Water	Volume used	17.6

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

Item measured		Regulation value	Result
pH		5.8~8.6	7.3
BOD (Biochemical Oxygen Demand)		25	4.7
SS		50	5.3
Oil content		5	ND
Thiram		0.06	ND
Zinc		0.5	0.2

Heiwacho Plant

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

Main Products

- Weatherstrips
- Functional Parts
- Safety System Products
- Optoelectronic Products

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

Item measured	Regulation value	Result	
Dust	Boilers(heavy oil)	0.15	ND
	Boilers(City gas)	0.05	ND
	Co-generation(City gas)	0.05	ND
NOx	Boilers(heavy oil)	140	73
	Boilers(City gas)	120	34
	Co-generation(City gas)	200	185

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
2-aminoethanol	20	49,845	5	0	0	100	49,740	0	0	0
Methylnaphthalene	438	2,191	11	0	0	0	0	0	2,180	0

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	1,043
	Volume emitted	978
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	17,400
	PFC emissions	900
	HFC emissions	200
Water	Volume used	25.7

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

Item measured	Regulation value	Result
pH	5~9	7.5
BOD (Biochemical Oxygen Demand)	600	122
SS	600	39
Oil content	30	2.3
Total nitrogen	240	23
Total phosphorus	32	1.7
Fluorine	8	0.4

Inazawa Plant

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

Main Products

- Interior and Exterior Parts
- Functional Parts

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

Item measured	Regulation value	Result	
NOx	Boilers(City gas)	150	50
	Co-generation(City gas)	600	190

■Groundwater

Item measured	Environmental Standard	Result
Trichloroethylene*1	0.03	ND
Cis-1,2-Dichloroethylene*1	0.04	ND~0.008

*1 Substances that have no record of being used. * Refer to Toyoda Gosei Report P.29

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	2,205	1,323	0	0	0	287	154	0	441
Xylene	80	6,956	4,174	0	0	0	904	487	0	1,391
Chromium and trivalent chromium compounds	87	2,529	0	20	0	0	2,003	0	0	506
Hexavalent chromium compounds	88	2,550	0	0	0	0	0	0	2,550	0
Copper water-soluble salts (excluding complex salts)	272	4,757	0	48	0	0	0	0	4,709	0
Toluene	300	34,318	19,936	0	0	0	6,360	2,402	0	5,620
Nickel	308	138,622	0	0	0	0	0	0	138,622	0
Nickel compounds	309	152,693	0	31	0	0	19,820	0	0	132,843
Bis (2-ethylhexyl) phthalate	355	2,973	0	0	0	0	208	0	0	2,765
Water-soluble salts of peroxodisulfuric acid	395	7,550	0	0	0	0	0	0	7,550	0
Boron compound	405	2,026	0	20	0	0	0	0	2,007	0

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	3,702
	Volume emitted	2,077
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	13,100
Water	Volume used	57.1

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

Item measured	Regulation value	Result
pH	5.8~8.6	6.8
BOD (Biochemical Oxygen Demand)	25	5.5
SS	30	4.4
Oil content	5	ND
Total nitrogen	120	13.6
Total phosphorus	16	1.3
Hexavalent chromium	0.5	0.01
Total chromium	2	0.1
Copper	1	0.1
Fluorine	8	0.1
Boron	10	4.0

Bisai Plant

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

Main Products

- Interior and Exterior Parts
- Safety System Products

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

Item measured	Regulation value	Result	
Dust	Boilers(City gas)	0.05	ND
	Co-generation(City gas)	0.05	ND
NOx	Boilers(City gas)	150	61
	Co-generation(City gas)	600	175

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	9,725	5,835	0	0	0	1,264	681	0	1,945
Xylene	80	11,538	6,923	0	0	0	1,500	808	0	2,308
1,3,5-trimethylbenzene	297	1,167	700	0	0	0	152	82	0	233
Toluene	300	23,078	13,996	0	0	0	3,026	1,570	0	4,486
Methylenebis (4,1-phenylene) = diisocyanate	448	183,636	0	0	0	0	0	0	183,636	165,272

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	1,321
	Volume emitted	952
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	11,200
	SF ₆ emissions	2,900
Water	Volume used	11.2

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

Item measured	Regulation value	Result
pH	5.7~8.7	7.1
BOD (Biochemical Oxygen Demand)	300	62.8
SS	300	35.1
Oil content	30	3.1

Seto Plant

141 Sosaku, Seto, Aichi, Japan
489-0843

Main Products

- Interior and Exterior Parts

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

Item measured	Regulation value	Result	
Dust	Boilers (kerosene)	0.2	ND
NOx	Boilers (kerosene)	150	58

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Xylene	80	9,594	668	0	0	0	135	73	8,509	208
1,2,4- trimethylbenzene	296	9,868	49	0	0	0	0	0	9,819	0
Methylenebis (4,1-phenylene) = diisocyanate	448	63,889	0	0	0	0	6,389	0	0	57,500

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	754
	Volume emitted	754
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	5,900
Water	Volume used	2.7

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

Item measured	Regulation value	Result
pH	5.8~8.6	7.3
BOD (Biochemical Oxygen Demand)	20	0.9
SS	20	0.1
Total nitrogen	10	0.6
Total phosphorus	4	0.0

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 name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Toluene	300	1,549	950	0	0	0	187	347	0	65

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	111
	Volume emitted	111
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	800
Water	Volume used	0.3

Kitakyushu Plant

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

Main Products

- Interior and Exterior Parts
- Weatherstrips
- Functional Parts
- Safety System Products

■No violations of laws, etc. ■No complaints

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	3,763	2,258	0	0	0	489	263	0	753
Xylene	80	4,871	2,339	0	0	0	589	1,261	0	682
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	24,425	11,674	0	0	0	2,948	6,463	0	3,339
Nickel	308	48,312	0	0	0	0	0	0	48,312	0
Nickel compounds	309	48,312	0	0	0	0	6,281	0	0	42,031

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	1,126
	Volume emitted	994
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	8,900
Water	Volume used	2.9

Fukuoka Plant

2223-1 Kurahisa,
Miyawaka,
Fukuoka,
Japan
823-0017

Main Products

- Interior and Exterior Parts
- 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
pH	5.8~8.6	7.4
BOD (Biochemical Oxygen Demand)	10	1.1
SS	25	0.9
Oil content	2	ND

■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
Ethylbenzene	53	4,036	2,422	0	0	0	525	283	0	807
Xylene	80	4,718	2,831	0	0	0	613	330	0	944
Toluene	300	21,117	12,670	0	0	0	2,745	1,478	0	4,223

■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	951
	Volume emitted	629
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	3,700
Water	Volume used	1.8

Saga Plant

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

Main Products

- Optoelectronic Products

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

Item measured	Regulation value	Result
Dust Boilers(City gas)	0.1	ND
NOx Boilers(City gas)	150	35

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

Item measured	Regulation value	Result
pH	5.8~8.6	7.6
BOD (Biochemical Oxygen Demand)	20	1.0
SS	50	0.6
Oil content	5	ND

■No violations of laws, etc. ■No complaints

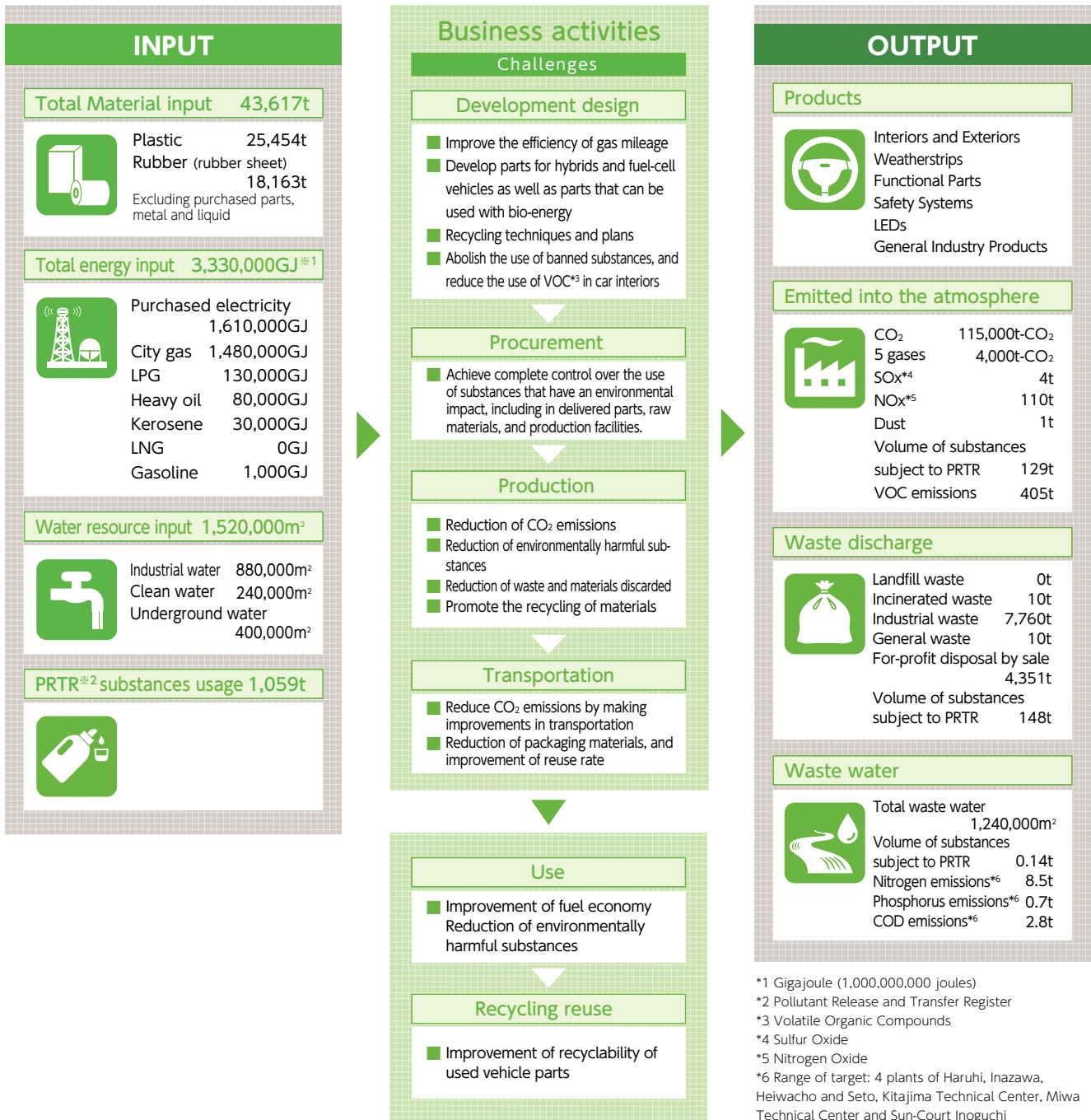
■PRTR Data

Substance name	Substance number (item number)	Amount handled	Volume emitted			Volume moved		Volume recycled	Total removed (processed)	Total consumed (products)
			Into the air	Into bodies of water	Into the ground	Volume moved via sewers	Volume moved as waste			
2-aminoethanol	20	6,224	1	0	0	0	6,223	0	0	0

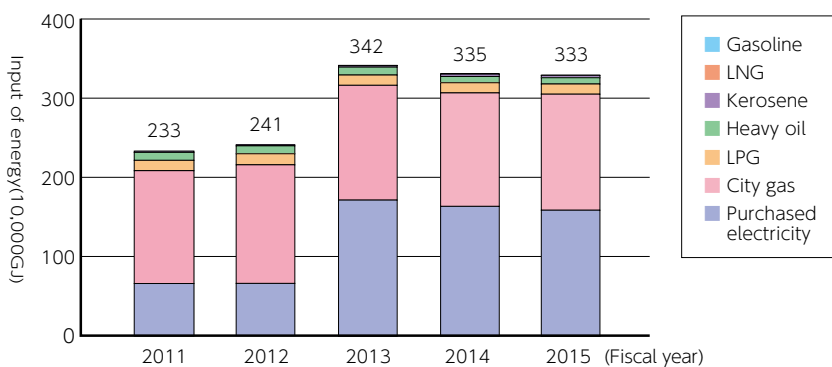
■Data for use of resources / volume emitted

Category	Result	
Waste	Volume generated	145
	Volume emitted	145
	Final volume disposed	0
Greenhouse gas	CO ₂ emissions	5,800
	PFC emissions	0
Water	Volume used	7.6

Resource Input and Output to the Environment in Business Activities in fiscal 2015



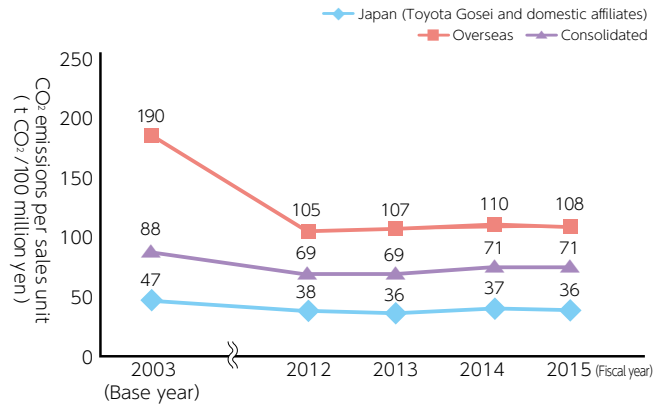
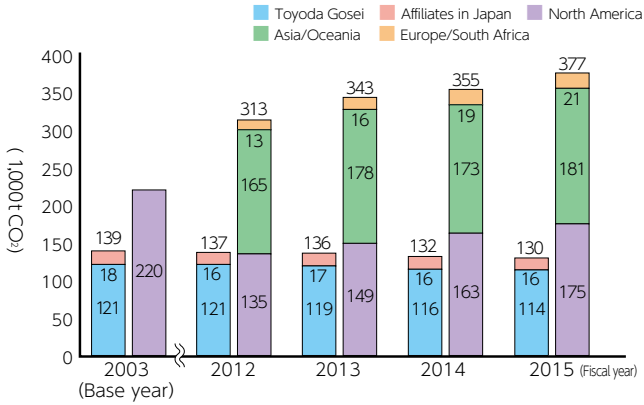
Input of energy



Data on Greenhouse Gases, Emissions Volumes and Water Resource Usage

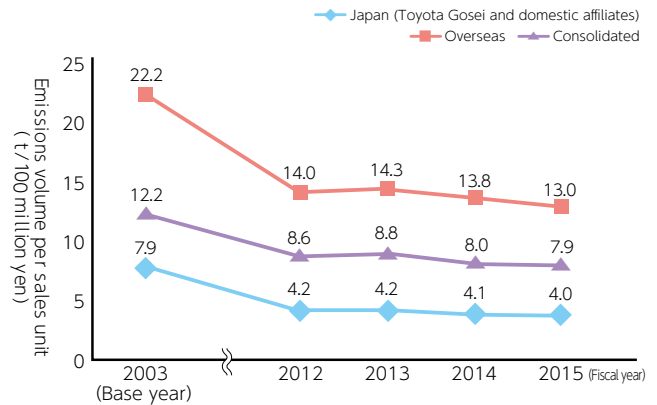
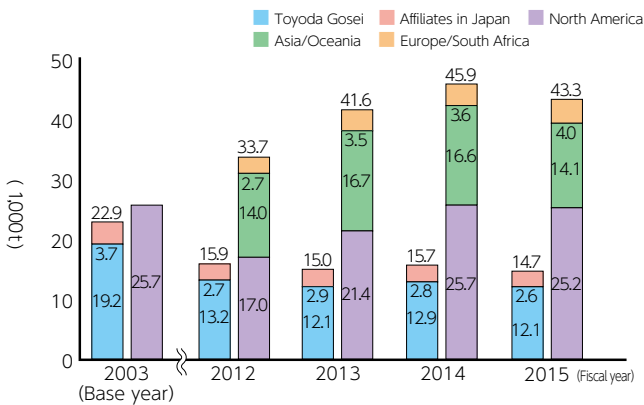
These data may differ in parts from the data in the Toyota Gosei Report, as they include data from a larger number of companies

Greenhouse gas (CO₂) emission volume/basic unit trends (attributable to energy)

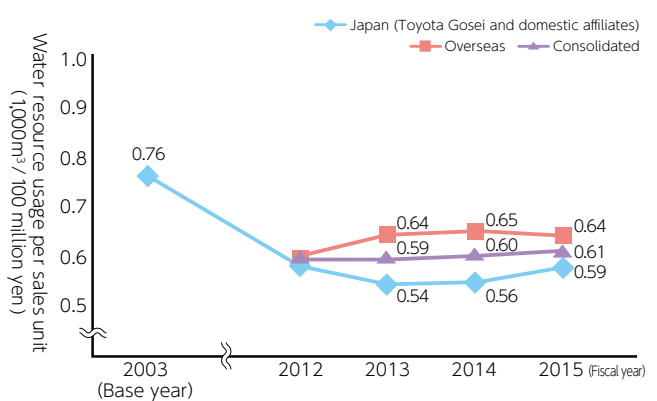
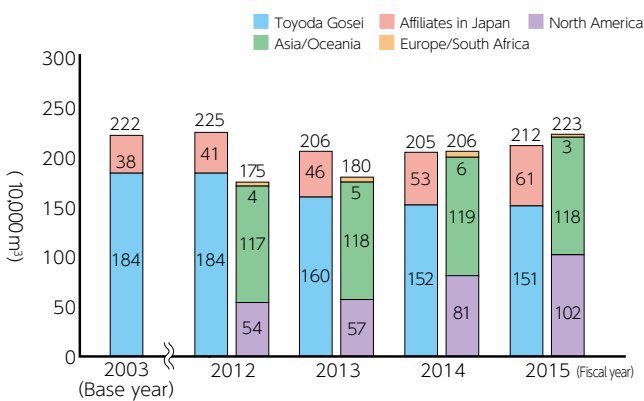


- CO₂ conversion calculation: International locations GHG Protocol (2001)
Locations in Japan 1990 Keidanren factor fixed value
- 2020 basic unit target: 8% decrease from FY2012

Emissions volume/basic unit trends



Water resource usage/basic unit trends



- Affiliates in Japan: FY2003 data estimates
- Efforts to reduce water resource usage began in FY2011 (5th Environmental Action Plan)

Chemical Substance Handling and Emissions Volumes (Japanese and overseas affiliates)

The Toyota Gosei Goup manages chemical substance handling volumes, emissions volumes, movement volumes, and VOC emissions volumes based on the laws of each country at our affiliates worldwide.

Affiliates in Japan

Japan, 2 companies

Applicable regulations: Laws related to improved monitoring and management of the amounts of specified chemical substances released into the environment
(Unit : t/year)

Name of chemical substance	Substance number (item number)	Amount handled	Volume emitted			Volume moved	
			Into air	Into water	Into ground	Volume moved via sewers	Volume moved as waste
Thiram	268	1.6	0	0	0	0	0.05
1,2,4-trimethylbenzene	296	1.2	1.2	0	0	0	0

International affiliates

USA, 1 company

Applicable regulation: Toxic Release Inventory

(Unit : lbs/year)

	(8.1a) Own company landfill	(8.1b) Other own company emissions (air, water, etc.)	(8.1c) Another company landfill	(8.1d) Other emissions in another company (air, water, etc.)	(8.2) Own company heat recovery	(8.3) Another company heat recovery	(8.4) Own company recycle	(8.5) Another company recycle	(8.6) Own company disposal	(8.7) Another company disposal
Chrome	0	0.06	0	70,161	0	0	0	156,741	0	0
Copper	0	0.12	0	59,739	0	0	0	131,650	0	0
Ethylene glycol	0	0	0	0	0	0	0	0	0	0
Manganese	0	0	0	4,576	0	0	0	155,304	0	0
Nickel	0	0.22	0	156,087	0	0	0	406,436	0	0
Nitric acid	0	578.2	0	0	0	0	0	0	0	766,686
Styrene	0	0	0	0	0	0	0	0	0	0

8.1a : Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills.

8.1b : Total other on-site disposal or other releases.

8.1c : Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills.

8.1d : Total other off-site disposal or other releases.

8.2 : Quantity Used for Energy Recovery Onsite.

8.3 : Quantity Used for Energy Recovery Offsite.

8.4 : Quantity Recycled Onsite.

8.5 : Quantity Recycled Offsite.

8.6 : Quantity Treated Onsite.

8.7 : Quantity Treated Offsite.

Canada, 1 company

Applicable regulations:
National Pollutants Release Inventory
(Unit : t/year)

VOC emissions	25
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Taiwan, 1 company

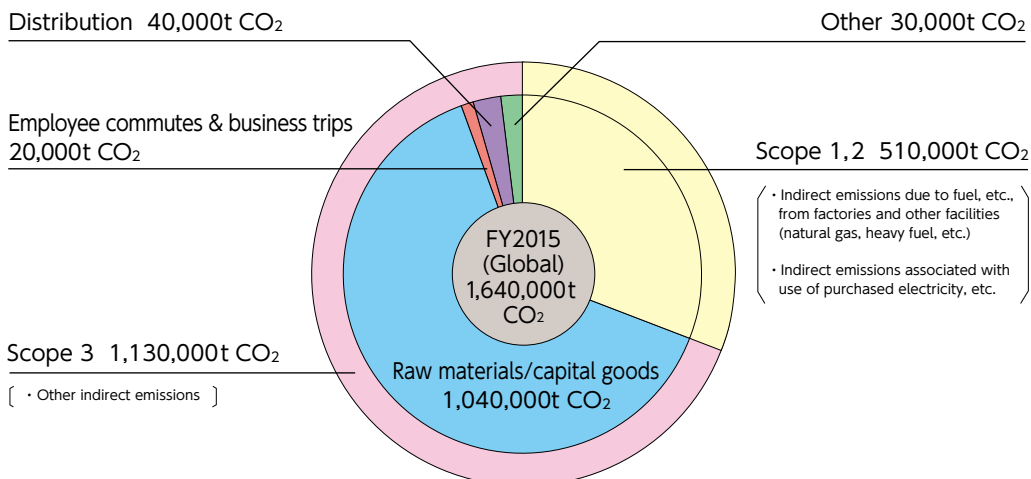
Applicable regulations:
Air Pollution Control Act
(Unit : t/year)

VOC emissions	48
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Chemical substance reduction targets

We are working toward a target of totally eliminating phthalic acid by 2019 based on overseas law.

CO₂ Emissions by Scope Level



Verification Statement



November 4, 2016

Toyoda Gosei Co., Ltd.

Objective

SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by Toyoda Gosei Co., Ltd. (hereinafter referred to as "the Organization") to conduct independent verification based on ISO14064-3:2006 and the SGS verification protocol regarding the data prepared by the Organization on performance data of GHG emissions (hereinafter referred to as "the assertion"). The objective of this verification is to confirm that the assertion in the Organization's applicable scope have been correctly calculated and reported in the assertion in conformance with the criteria, and to express our views as a third party.

Scope

The scope of verification is limited to Scope 1 and 2 (CO₂ emissions from energy consumption) and hypothetical CO₂ reductions from electricity consumption by operating cogeneration systems in domestic plants, Head office, technical centers and distribution center, and Scope 3 including category 7.

The period subject to report is from April 1, 2015 to Mar 31, 2016.

Procedure of Verification

The assertion was verified in accordance with ISO14064-3: 2006 and the SGS verification protocol, and the following processes were implemented at a limited level of assurance:

- Verification of the calculation system: interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the assertion: On-site verification, review of vouchers at Head office, Haruhi Plant of Toyoda Gosei Co., Ltd., and analytical procedures and interviews carried out at all works included in the scope of verification at Kitajima Technical Center.

The criteria for this review is based on the protocol specified by the Organization.

Conclusion

Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's assertion (Scope1: 85,243t-CO₂, Scope2: 61,953t-CO₂, Scope3: 3,050t-CO₂, hypothetical CO₂ reductions by operating cogeneration systems: 32,193t-CO₂) was not calculated and reported in conformance with the criteria.

For and on behalf of SGS Japan Inc
Senior Executive & Business Manager
Certification and Business Enhancement

Yuji Takeuchi

Signed:

