



TOYOTA

# Sustainability Data Book 2017

TOYOTA MOTOR CORPORATION



# Sustainability Data Book 2017

## Editorial Policy

Sustainability Data Book (Former Sustainability Report) focuses on reporting the yearly activities of Toyota such as Toyota CSR management and individual initiatives. Information on CSR initiatives is divided into chapters, including Society, Environment and Governance.

We have also made available the "Environmental Report 2017 - Toward Toyota Environmental Challenge 2050" excerpted from the Sustainability Data Book 2017.

In the Annual Report, Toyota shares with its stakeholders the ways in which Toyota's business is contributing to the sustainable development of society and the Earth on a comprehensive basis from a medium- to long-term perspective.

**Annual Report** [http://www.toyota-global.com/investors/ir\\_library/annual/](http://www.toyota-global.com/investors/ir_library/annual/)

**Securities Reports**  
<http://www.toyota.co.jp/jpn/investors/library/negotiable/>

**SEC Filings**  
[http://www.toyota-global.com/investors/ir\\_library/sec/](http://www.toyota-global.com/investors/ir_library/sec/)

**Financial Results**  
[http://www.toyota-global.com/investors/financial\\_result/](http://www.toyota-global.com/investors/financial_result/)

**Corporate Governance Reports**  
[http://www.toyota-global.com/investors/ir\\_library/cg/](http://www.toyota-global.com/investors/ir_library/cg/)

**Sustainability Data Book 2017**  
<http://www.toyota-global.com/sustainability/report/sr/>

**Environmental Report 2017**  
—Toward Toyota Environmental Challenge 2050—  
<http://www.toyota-global.com/sustainability/report/er/>

- The Toyota website also provides information on corporate initiatives not included in the above reports.  
 Sustainability <http://www.toyota-global.com/sustainability/>  
 Environment <http://www.toyota-global.com/sustainability/environment/>  
 Social Contribution Activities [http://www.toyota-global.com/sustainability/social\\_contribution/](http://www.toyota-global.com/sustainability/social_contribution/)

## Period Covered

Fiscal year 2016 (April 2016 to March 2017) Some of the initiatives in fiscal year 2017 are also included

## Scope of Report

Toyota Motor Corporation (TMC)'s own initiatives and examples of those of its consolidated affiliates, etc., in Japan and overseas.

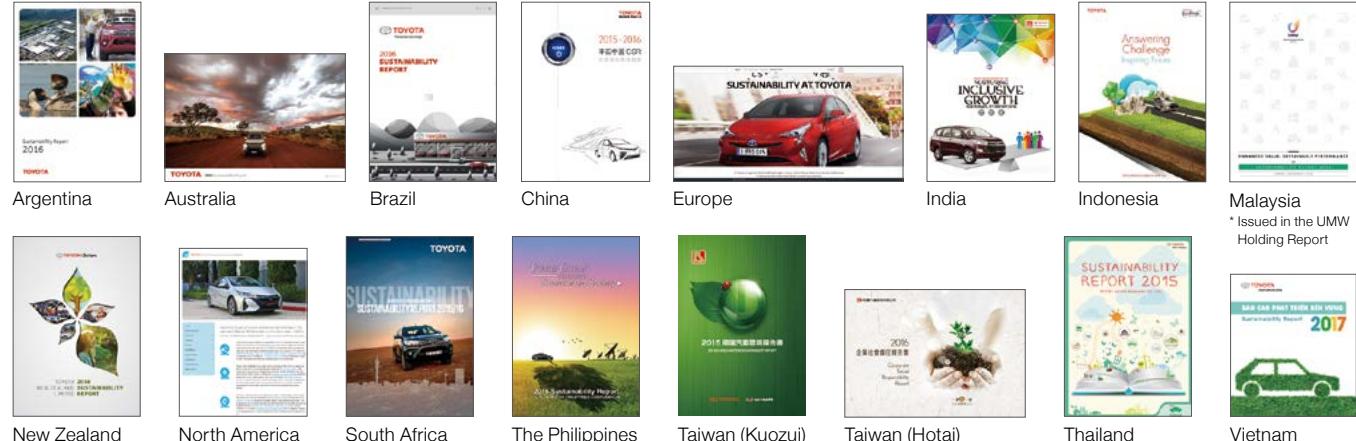
## Third Party Assurance

**Third Party Assurance** in the Environment section denotes data confirmed through third-party assurance

## Overseas Affiliates' Reports

Reports are being issued in a total of 16 countries and regions (including Japan) in which Toyota overseas consolidated affiliates and other companies operate.

The information disclosed globally by these reports covers about 88 percent of Toyota vehicles sold worldwide.



\*Issued in the UMW Holding Report



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# Overview of Toyota Motor Corporation

## Company Profile

Company Name	Toyota Motor Corporation
President and Representative Director	Akio Toyoda
Company Address	
Head Office	1 Toyota-cho, Toyota City, Aichi Prefecture, Japan
Tokyo Head Office	1-4-18 Koraku, Bunkyo-ku, Tokyo, Japan
Nagoya Office	4-7-1 Meieki, Nakamura-ku, Nagoya City, Aichi Prefecture, Japan
Date Founded	August 28, 1937
Capital	635.4 billion yen (as of March 31, 2017)
Main Business Activities	Motor vehicle production and sales
No. of Employees (Consolidated)	364,445 (as of March 31, 2017)
No. of Consolidated Subsidiaries	597 (as of March 31, 2017)
No. of Affil. Accounted for under the Equity Method	54 (as of March 31, 2017)

## Non-automotive Business



### Financial Services

Toyota Financial Services provides financial services primarily for vehicle loans and leasing in more than 30 countries and regions worldwide.



### Housing

Consolidating the Toyota Group's strengths, Toyota Home offers a wide variety of housing related services to meet different customer needs.



### Information Technology Services

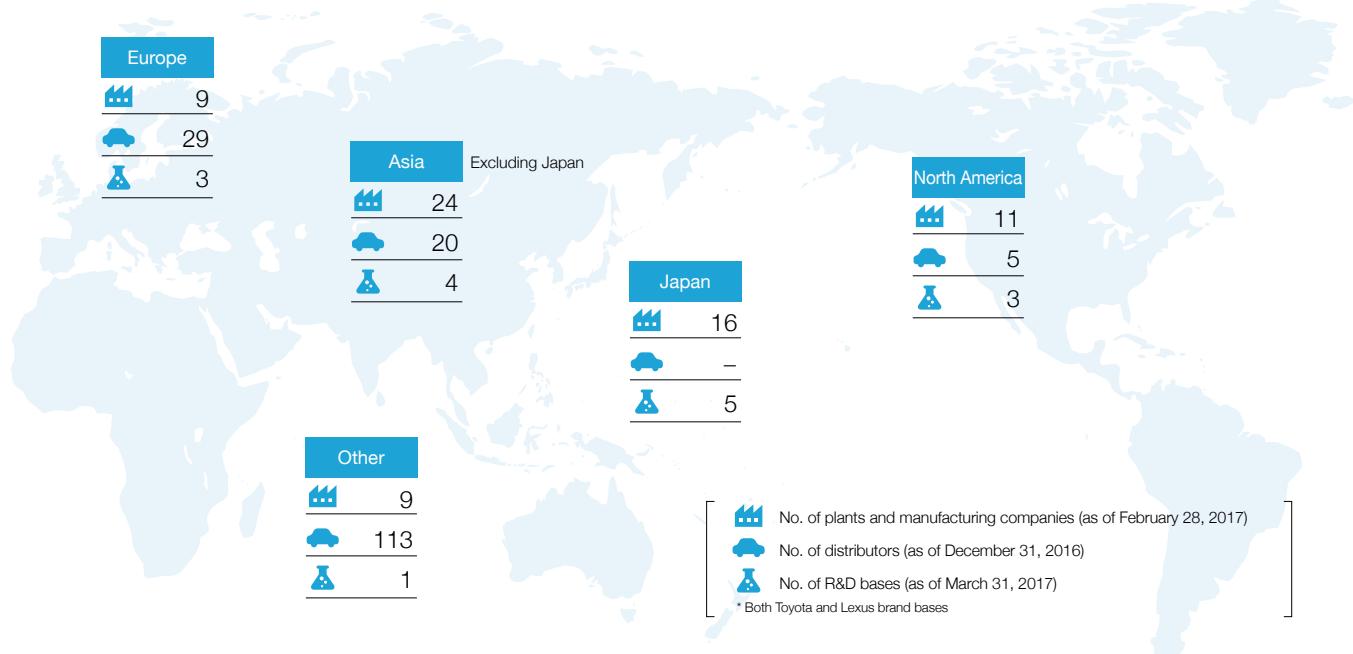
Toyota is working on a variety of "connected" services that utilize IT, such as e-TOYOTA businesses and ITS-related businesses.



### Other Business

Toyota is also involved in marine businesses, as well as biotechnology and afforestation businesses

## Global Perspective/Data by Region



No. of employees  
**364,445** persons  
(As of March 31, 2017)

No. of vehicles produced  
**8,975,509** units  
(FY2016)

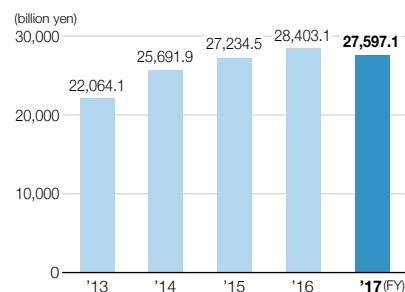
Total vehicle sales  
**8,970,860** units  
(FY2016)

Japan	58%	46%	25%
North America	13%	23%	32%
Europe	5%	7%	10%
Asia	17%	19%	18%
Other	6%	5%	15%

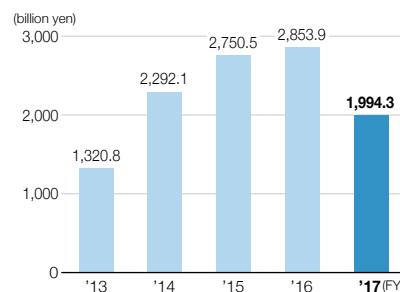


## Trends in Major Financial Results (on a Consolidated Basis)

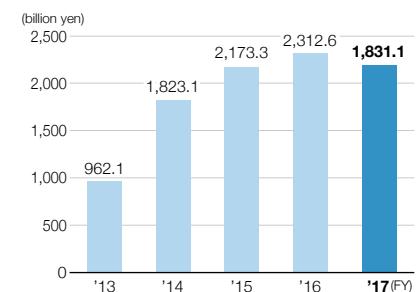
**Net Revenues**



**Operating Income**

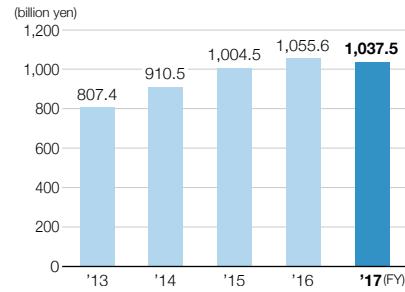


**Net Income**

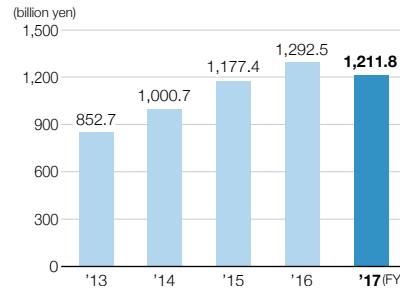


• Shows the net income attributable to the shareholders of Toyota Motor Corporation

**R&D Expenses**



**Capital Expenditures**



• Capital expenditure excludes vehicles for leasing

**Corporate Principles**

# Corporate Principles

Toyota strives to be a good corporate citizen trusted by all stakeholders and to contribute to the creation of an affluent society through all its business operations.

We would like to introduce the Corporate Principles which form the basis of our initiatives, values that enable the execution, and our mindset.

**Guiding Principles at Toyota**

Since its foundation to the present day, Toyota has handed down the "Five Main Principles of Toyoda (released in October 1935)" which embody the thinking of the founder of the Toyota Group, Sakichi Toyoda, and are the basis of the corporate management philosophy. In 1992, in response to changes in society and business structure, Toyota established the Guiding Principles (revised in April 1997) to clarify how Toyota is expected to be, based on the recognition that strong policies are important for finding the way to proceed, especially when the environment surrounding us is drastically changing.

In 2011, Toyota adopted "Toyota Global Vision," which is based on the Guiding Principles at Toyota.

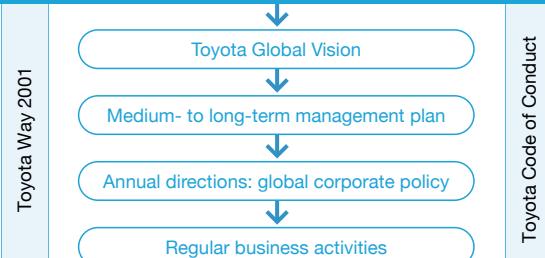
In order to achieve this vision, a medium- to long-term management plan is drafted and Toyota works toward achieving the goals specified in the plan. The Toyota Way 2001 and the Toyota Code of Conduct serve as an important guideline for the implementation of daily business operations. The Toyota Way 2001 clarifies the values and business methods that all Toyota employees around the world should embrace, and the Toyota Code of Conduct details the basic attitudes and mindset necessary for people to adhere to rules and act in good faith in their work at the company and private life in society.

**Guiding Principles at Toyota**

1. Honor the language and spirit of the law of every nation and undertake open and fair business activities to be a good corporate citizen of the world.
2. Respect the culture and customs of every nation and contribute to economic and social development through corporate activities in their respective communities.
3. Dedicate our business to providing clean and safe products and to enhancing the quality of life everywhere through all of our activities.
4. Create and develop advanced technologies and provide outstanding products and services that fulfill the needs of customers worldwide.
5. Foster a corporate culture that enhances both individual creativity and the value of teamwork, while honoring mutual trust and respect between labor and management.
6. Pursue growth through harmony with the global community via innovative management.
7. Work with business partners in research and manufacture to achieve stable, long-term growth and mutual benefits, while keeping ourselves open to new partnerships.

**Five Main Principles of Toyoda**

- Always be faithful to your duties, thereby contributing to the company and to the overall good.
- Always be studious and creative, striving to stay ahead of the times.
- Always be practical and avoid frivolousness.
- Always strive to build a homelike atmosphere at work that is warm and friendly.
- Always have respect for spiritual matters, and remember to be grateful at all times.

**Relationship with Philosophy, Policies and Regular Business Activities****Guiding Principles at Toyota**  
CSR Policy: Contribution towards Sustainable Development



&gt; Corporate Principles

&gt; CSR Structure

## Corporate Principles

### Toyota Global Vision

The Toyota Global Vision -announced in March 2011- reflects lessons learned from financial losses as a result of the global economic crisis of 2008 and recall issues. It also articulates the kind of company that Toyota wants to be and the kind of values it should esteem, which should be embraced throughout Toyota. It was announced as a clear statement to Toyota's customers and society as a whole.

The Five Main Principles of Toyoda, the Guiding Principles at Toyota and the Toyota Way have played a role of the backbone values of all Toyota operations.

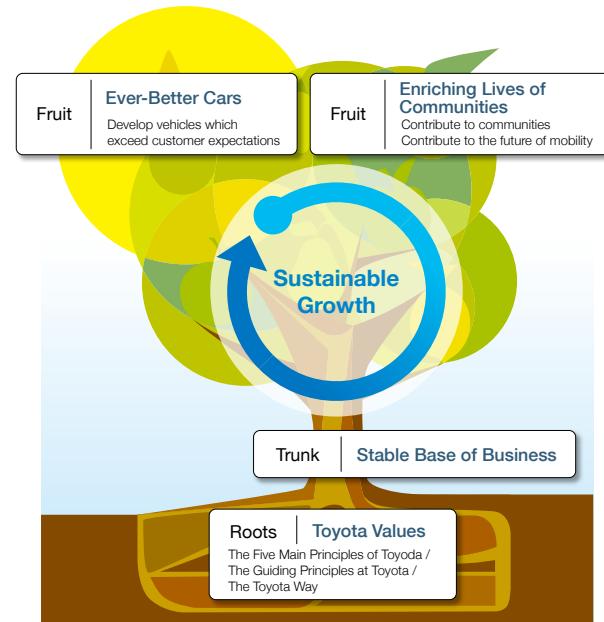
#### Rewarded with a smile

by exceeding your expectations

Toyota will lead the way to the future of mobility, enriching lives around the world with the safest and most responsible ways of moving people. Through our commitment to quality, constant innovation and respect for the planet, we aim to exceed expectations and be rewarded with a smile.

We will meet challenging goals by engaging the talent and passion of people, who believe there is always a better way.

We will strive to implement a positive cycle of making ever-better cars that exceed customer expectations, contributing to Enriching the Lives in communities, and being rewarded with the smile of customers and communities. This leads to a Stable Business Base. We aim to generate such virtuous cycles and achieve sustainable growth.



Toyota Global Vision [Web](http://www.toyota-global.com/company/vision_philosophy/toyota_global_vision_2020.html) [http://www.toyota-global.com/company/vision\\_philosophy/toyota\\_global\\_vision\\_2020.html](http://www.toyota-global.com/company/vision_philosophy/toyota_global_vision_2020.html)

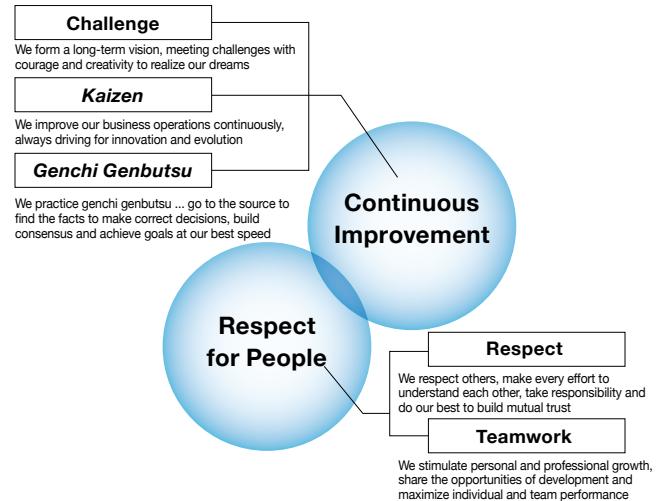
### Toyota Way 2001

The Toyota Way 2001 clarifies the values and business methods that all employees should embrace in order to carry out the Guiding Principles at Toyota throughout the company's global activities. With the rapid growth, diversification and globalization of Toyota, the values and business methods that had been passed on as implicit knowledge were identified and defined in April 2001.

The Toyota Way is supported by two main pillars: "Continuous Improvement" and "Respect for People." "Continuous Improvement" means that we are never satisfied with where we are and consistently seek further knowledge to pursue higher value. "Respect for People" means that we respect all Toyota stakeholders and believe that the growth of each employee will connect to the success of our business.

### Toyota Code of Conduct

The Toyota Code of Conduct organizes the basic attitudes necessary for people working at the company or otherwise, provides a basic code of conduct, and acts as a compass. It also details what is required of us and what we need to keep in mind. Along with



the Toyota Way 2001, it is deemed essential that each employee carries out the Guiding Principles at Toyota and fulfills their social responsibilities.

Toyota Code of Conduct [Web](http://www.toyota-global.com/company/vision_philosophy/toyota_code_of_conduct.html) [http://www.toyota-global.com/company/vision\\_philosophy/toyota\\_code\\_of\\_conduct.html](http://www.toyota-global.com/company/vision_philosophy/toyota_code_of_conduct.html)



## Corporate Principles

### CSR Policy

Toyota's CSR policy was an interpretation of the Guiding Principles at Toyota with a focus on relationships with stakeholders (established in January 2005, revised in August 2008). Toyota aims to become a company that is admired and trusted by society through ensuring that all employees recognize and act on our CSR Policy.

We also share this policy with our consolidated subsidiaries, make

a point of putting it into practice together, and expect our business partners to embrace its spirit and act in accordance with it as well. In addition, we participated in the formulation of and observe the standards outlined in the Charter of Corporate Behavior of the Nippon Keidanren (Japan Business Foundation), an alliance of leading Japanese corporations.

### CSR Policy: Contribution towards Sustainable Development

#### Preamble

We, Toyota Motor Corporation and our subsidiaries, take initiative to contribute to harmonious and sustainable development of society and the earth through all business activities that we carry out in each country and region, based on our Guiding Principles. We comply with local, national and international laws and regulations as well as the spirit thereof and we conduct our business operations with honesty and integrity. In order

to contribute to sustainable development, we believe that management interacting with its stakeholders as described below is of considerable importance, and we will endeavor to build and maintain sound relationships with our stakeholders through open and fair communication. We expect our business partners to support this initiative and act in accordance with it.

#### Customers

- Based on our philosophy of "Customer First," we develop and provide innovative, safe and outstanding high quality products and services that meet a wide variety of customers' demands to enrich the lives of people around the world. (Guiding Principles 3 and 4)
- We will endeavor to protect the personal information of customers and everyone else we are engaged in business with, in accordance with the letter and spirit of each country's privacy laws. (Guiding Principles 1)

candidates, regardless of nationality or size, and evaluate them based on their overall strengths. (Guiding Principles 7)

- We maintain fair and free competition in accordance with the letter and spirit of each country's competition laws. (Guiding Principles 1 and 7)

#### Shareholders

- We strive to enhance corporate value while achieving a stable and long-term growth for the benefit of our shareholders. (Guiding Principles 6)
- We provide our shareholders and investors with timely and fair disclosure on our operating results and financial condition. (Guiding Principles 1 and 6)

#### Global Society/Local Communities

##### Environment

- We aim for growth that is in harmony with the environment by seeking to minimize the environmental impact of our business operations, such as by working to reduce the effect of our vehicles and operations on climate change and biodiversity. We strive to develop, establish and promote technologies enabling the environment and economy to coexist harmoniously, and to build close and cooperative relationships with a wide spectrum of individuals and organizations involved in environmental preservation. (Guiding Principles 3)

##### Community

- We implement our philosophy of "respect for people" by honoring the culture, customs, history and laws of each country. (Guiding Principles 2)
- We constantly search for safer, cleaner and superior technologies that satisfy the evolving needs of society for sustainable mobility. (Guiding Principles 3 and 4)
- We do not tolerate bribery of or by any business partner, government agency or public authority and maintain honest and fair relationships with government agencies and public authorities. (Guiding Principles 1)

##### Social Contribution

- Wherever we do business, we actively promote and engage, both individually and with partners, in social contribution activities that help strengthen communities and contribute to the enrichment of society. (Guiding Principles 2)

#### Employees

- We respect our employees and believe that the success of our business is led by each individual's creativity and good teamwork. We stimulate personal growth for our employees. (Guiding Principles 5)
- We support equal employment opportunities, diversity and inclusion for our employees and do not discriminate against them. (Guiding Principles 5)
- We strive to provide fair working conditions and to maintain a safe and healthy working environment for all our employees. (Guiding Principles 5)
- We respect and honor the human rights of people involved in our business and, in particular, do not use or tolerate any form of forced or child labor. (Guiding Principles 5)
- Through communication and dialogue with our employees, we build and share the value "Mutual Trust and Mutual Responsibility" and work together for the success of our employees and the company. We recognize our employees' right to freely associate, or not to associate, complying with the laws of the countries in which we operate. (Guiding Principles 5)
- Management of each company takes leadership in fostering a corporate culture, and implementing policies, that promote ethical behavior. (Guiding Principles 1 and 5)

#### Business Partners

- We respect our business partners such as suppliers and dealers and work with them through long-term relationships to realize mutual growth based on mutual trust. (Guiding Principles 7)
- Whenever we seek a new business partner, we are open to any and all



&gt; Corporate Principles

&gt; CSR Structure

CSR Structure

# CSR Structure

## Toyota's CSR Initiatives

Since its foundation, Toyota has continuously strived to contribute to the sustainable development of society through the manufacture and provision of innovative and quality products and services that lead the times. Motor vehicles greatly expand the freedom of mobility, but impact society and the environment in various ways.

Always bearing this in mind, we listen carefully to our customers and the local community as we pursue a business that works towards harmony with people, society, and the global environment, as well as the realization of a sustainable society through *monozukuri* (manufacturing).

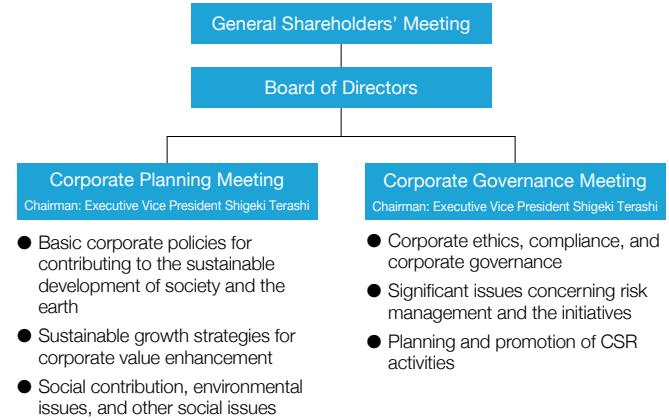
## Organization and Structure

We strive for sustainable growth by providing society with values such as "Safety and Peace of Mind," "Environmental Sustainability" and "*Waku-doki* (excitement and exhilaration that wows you)" through our business activities.

Toyota established the Corporate Planning Meeting and the Corporate Governance Meeting to promote these activities from a long-term and company-wide perspective.

Under the oversight of General Shareholders' Meetings and the Board of Directors, the Corporate Planning Meeting discusses growth and business strategies, taking into account a wide range of social issues. An optimal governance structure has been deliberated in the Corporate Governance Meeting, which serves as a supervising body over business implementation, to realize these growth and business strategies.

## CSR Structure (Corporate Value Enhancement)



## Initiatives Aligned with Global Society

Toyota is proceeding in cooperation with global society to carry out initiatives that contribute to sustainable development of society and the earth through all its business activities.

Regarding the environment, Toyota has been taking various initiatives under the banner of the Toyota Environmental Challenge 2050, with the goal of helping solve global environmental issues, such as climate change, water shortage, resource depletion, and dwindling biodiversity, which are commanding high levels of interest globally. Contributing to the environment is one of the most important management issues for Toyota. As part of these initiatives, Toyota is aiming to not only contribute to realization of the goal of keeping a global temperature rise this century well below 2°C<sup>\*1</sup>, which was agreed in the Paris Agreement, but also taking steps that will have positive impact on the environment.

Also regarding the UN's Sustainable Development Goals (SDG<sup>\*2</sup>), which went into effect in January 2016, Toyota plans to capitalize on its strength to help solve global social issues, for example, by taking actions to address climate change (goal 13), working to reduce traffic casualties (goal 3), and also building sustainable cities and communities and improving mobility (goal 11)

Toyota has also been a member of the World Business Council for Sustainable Development (WBCSD<sup>\*3</sup>) since its inception. In 2016, the results of the Sustainable Mobility Project (SMP), in which Toyota also participated in Bangkok, were adopted by the European Commission and will be used in the mobility plans of 50 cities within the European Union.

**SUSTAINABLE  
DEVELOPMENT  
GOALS**



World Business Council for  
Sustainable Development

\*1 At the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change held in Paris in December 2015, efforts to reduce net emissions of CO<sub>2</sub>, etc., to zero in the second half of this century were agreed upon as the Paris Agreement in December 2015, with a long-term goal of keeping the rise in the global average temperature to well below 2°C compared to the pre-industrial revolution level.

\*2 Adopted at the United Nations Sustainable Development Summit, which was held in September 2015 and attended by more than 150 world leaders, these new sustainable development goals through 2030 consist of 17 goals and 169 targets.

\*3 The World Business Council for Sustainable Development, headquartered in Geneva, conducts surveys and makes suggestions on economic growth, environmental preservation, and social development from a global perspective toward sustainable development. Around 200 companies from a range of manufacturing industries in countries across the world have joined the council. Since its inception in linkage with the Rio Earth Summit in 1992, the WBCSD has proposed the environmental management system "ISO 14000" and Eco-efficiency, a management philosophy that encourages business to search for environmental improvements that yield parallel economic benefits. The WBCSD also supports SDG-related initiatives.



&gt; Corporate Principles

&gt; CSR Structure

## CSR Structure

**Goals to Realize Toyota Global Vision**

The Global Vision for Those We Serve clearly defines the kind of company Toyota wants to be for its stakeholders, toward realization of the Toyota Global Vision.

The then CSR Committee formulated goals for each item and Priority KPIs for measuring progress, while holding discussions with various internal divisions and incorporating the results of

dialogues with outside experts. By evaluating their initiatives and KPIs and undergoing the PDCA cycles, the responsible divisions are strengthening their CSR activities.

The annual initiatives and results related to individual items are included in the related parts in this report. CSR Results Data, including Priority KPIs, are listed on page 140.

Global Vision for Those We Serve	Goals	Related stakeholders	Related part in this report	
Ever-Better Cars	1. Provide safe and reliable vehicles that inspire enthusiasm at affordable prices	Achieve the highest level of customer appraisal in terms of safety, quality and moving people	Customers	Initiatives for Improving Traffic Safety (P11-)
	2. Listen sincerely to customer voices and continue to reinvent ourselves through sufficient information disclosure and dialogue	Raise customer satisfaction concerning customer inquiries	Customers	Customer First and Quality First Measures (P18-)
Enriching Lives of Communities	3. Contribute for economic development of local communities with open stance to new suppliers and dealers and through sustainable growth based on mutually beneficial business relationships with dealers/distributors and suppliers	Suppliers: Promote local purchasing globally Dealers/distributors: Establish sales networks together to be rewarded with a smile	Business Partners	Respect for Human Rights (P46-) Collaboration with Business Partners (P51-)
	4. Contribute to realizing a sustainable society through initiatives of the Toyota Environmental Challenge 2050	Progress steadily with the Sixth Toyota Environmental Action Plan (2016-2020)	Global Society /Local Communities	Environmental Initiatives (P77-)
Stable Base of Business	5. Be aware of responsibilities of developing and producing vehicles and contribute for realization of new mobility society free from traffic accidents and congestion	Engage in advanced/cutting-edge research for a new mobility society, and promote the practical application and popularization thereof	Global Society /Local Communities	Initiatives for Improving Traffic Safety (P11-) Creating an Affluent Society (P25-)
	6. As a good corporate citizen, respect the culture and customers of every nation and region and contribute to social development	Continue stable social contribution activities at an appropriate level as a good corporate citizen	Global Society /Local Communities	Creating an Affluent Society (P25-) Social Contribution Activities (P40-)
Stable Base of Business	7. Create working environments for various employees to work proudly and with loyalty and confidence in fulfilling their potential, which realize their self-growth	Increase the ratio of employees who feel that their jobs are rewarding	Employees	Respect for Human Rights (P46-) Employees (P58-)
	8. Ensure sustainable growth by fostering the virtuous circle Ever-Better Cars > Enriching Lives of Communities > Stable Base of Business	Establish a stable base of business	Shareholders	Corporate Governance (P130-) Risk Management (P133-) Compliance (P138-)

• For details on communication with various stakeholders, please see Stakeholder Engagement (P74-).



- > Initiatives for Improving Traffic Safety > Customer First and Quality First Measures > Creating an Affluent Society > Social Contribution Activities
- > Respect for Human Rights > Collaboration with Business Partners > Employees > Stakeholder Engagement

## Society

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Society | Initiatives for Improving Traffic Safety

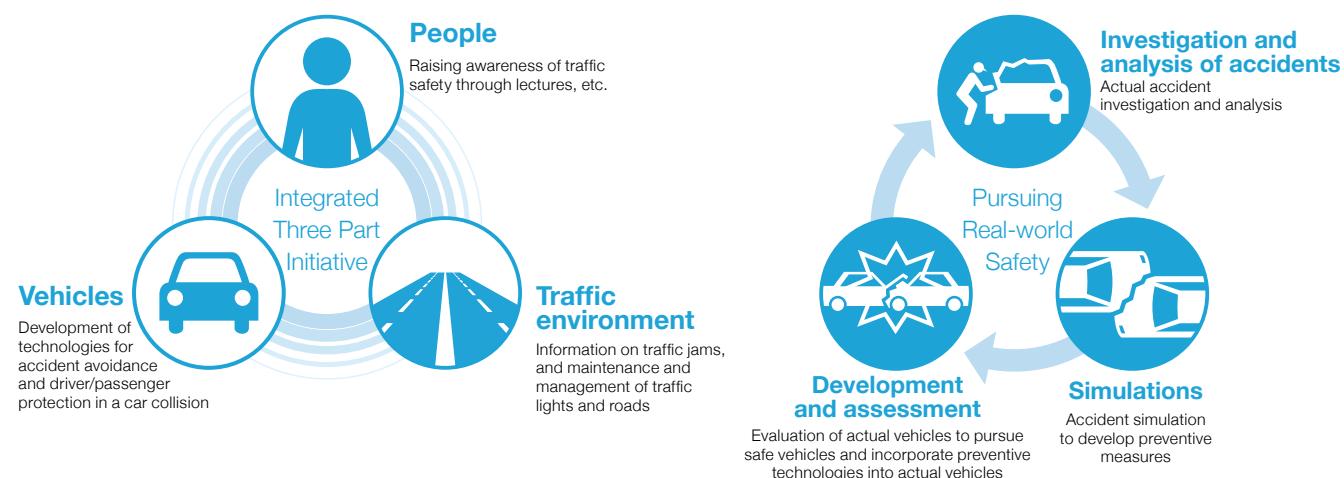
# Initiatives for Improving Traffic Safety

## Fundamental Approach

According to a World Health Organization (WHO) survey\*, 1.25 million people worldwide died in traffic accidents, making them the ninth leading cause of death. While the number of deaths due to traffic accidents has been decreasing slightly in Japan, the United States and Europe, it has been constantly increasing in emerging nations and regions where traffic safety education and transportation infrastructure have not kept up with increases in the number of cars on the road. On a global scale, traffic fatalities continue to increase constantly and are predicted to become the seventh leading cause of death by 2030 unless countermeasures are implemented.

In order to achieve Toyota's ultimate goal of Zero Casualties from Traffic Accidents, the development of safe vehicles is of course important, but it is also essential to educate people, namely drivers and pedestrians and to ensure safe traffic infrastructure including traffic signals and roads. Toward achieving a safe mobility society, Toyota believes it is important to promote an Integrated Three Part Initiative, involving people, vehicles, and the traffic environment, as well as to pursue Real-world Safety by learning from actual accidents and incorporating that knowledge into vehicle development. Toyota has also defined its Integrated Safety Management Concept as the basic philosophy behind technologies toward achieving the elimination of traffic casualties and is moving forward with developing such technologies.

\* Global status report on road safety 2015, WHO

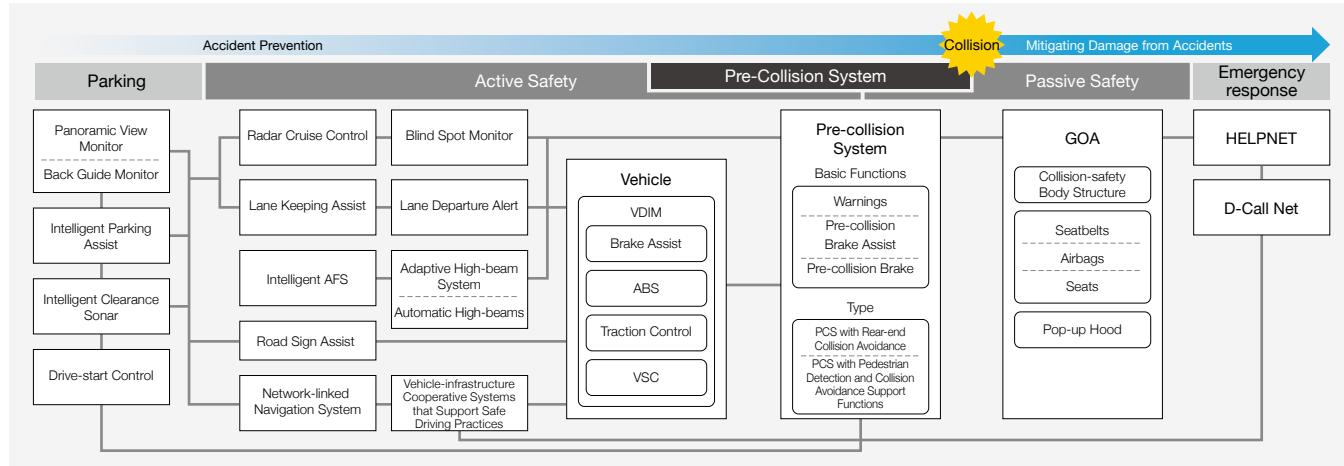


## Integrated Safety Management Concept

Toyota's approach is to enhance the safety level through development of various safety systems that work together in a car rather than developing each separately. The scope of responses, which previously focused on the moments immediately before and after an accident, is widened to provide

optimal driver support during every stage of driving from parking to normal operation, the pre-and post-crash timeframe, and post-accident rescue. The Integrated Safety Management Concept seeks to create safer cars through these measures.

## Integration of Individual Technologies and Systems



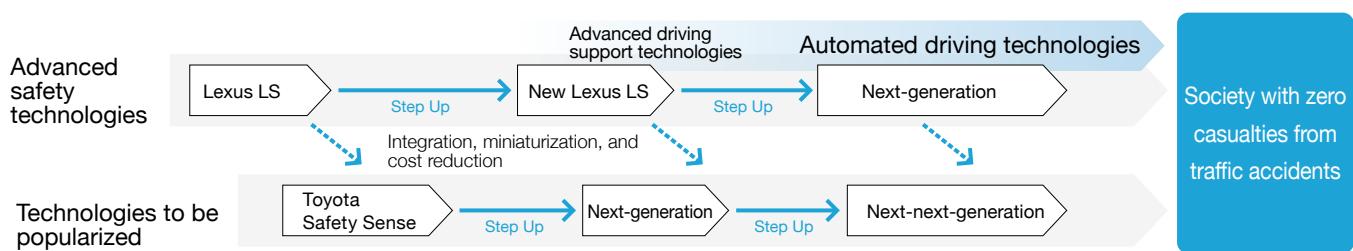
- > Initiatives for Improving Traffic Safety > Customer First and Quality First Measures > Creating an Affluent Society > Social Contribution Activities
- > Respect for Human Rights > Collaboration with Business Partners > Employees > Stakeholder Engagement

## Society | Initiatives for Improving Traffic Safety

### Popularization and Promotion of Safety Technology Development

To achieve a society with zero casualties from traffic accidents, it is necessary to more quickly develop safe driving systems that are highly effective in the market and install them in as many cars as possible.

To achieve this goal, it is necessary to take the two-pronged approach of developing advanced safety technologies and capitalizing on the expertise developed there to then develop technologies to be popularized.



### Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

#### Major Initiatives during FY2016 (result)

- Announced advanced safety technologies of the all-new Lexus "LS" sedan, such as PCS with Pedestrian Alert and Active Steering Assist, Front Cross Traffic Alert (FCTA), a large head-up display, Lexus CoDrive, and a 4-point popup hood system.
- Evolved Global Outstanding Assessment (GOA) based on TNGA was implemented in the C-HR and Prius PHV.
- Announced the accident-reduction effects of Intelligent Clearance Sonar

#### Major Initiatives during FY2017

- Announce the accident-reduction effects of Toyota Safety Sense
- Start test drive of cars equipped with Intelligent Clearance Sonar and safety education activities at dealer locations as part of the Sapotoyo program
- Announce initiatives at CSRC for the next fiscal year

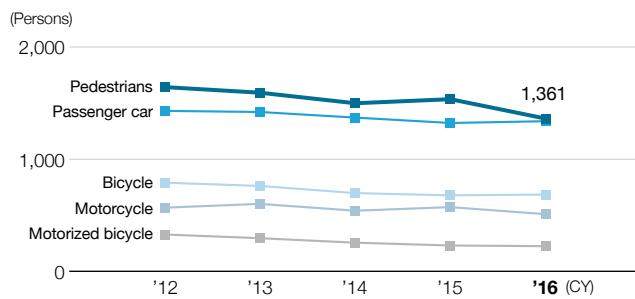
### Actual Status of Traffic Accidents and Toyota's Safety Technology

There were 3,904 traffic fatalities in Japan in 2016. Although the number fell below 4,000 for the first time since 1949, the 10th Traffic Safety Basic Plan announced by the Japanese government in March 2016 had listed the goal of reducing the number to 2,500 or fewer by 2020. So there still remains a huge gap. Meanwhile, pedestrians and the elderly (65 years or older) account for a large percentage of the traffic fatalities (see below graphs), suggesting there still remains a serious challenge to overcome in our efforts toward achieving Zero Casualties from Traffic Accidents. Traffic accidents could occur from various causes including the careless or improper operation of drivers, pedestrians dashing out in front of cars, and poor visibility during driving at night. By providing optimum support to different driving conditions and aggregating individual systems, the Integrated Safety Management Concept aims to make cars safer.

Another emerging issue is accidents caused by drivers accidentally stepping on the accelerator instead of the brake in parking spaces. The ability to recognize, judge and maneuver when driving tends to decline with age. In today's aging society, there is an increasing need for safety technologies that work in tandem with drivers, enabling the cars to detect and warn of imminent danger and helping to avoid collisions. Automated driving technology, which is an aggregation of advanced driving support technologies, is expected to make a big difference in helping to prevent accidents and reducing the number of casualties from traffic accidents, as it will make up for driver errors and make driving easier.

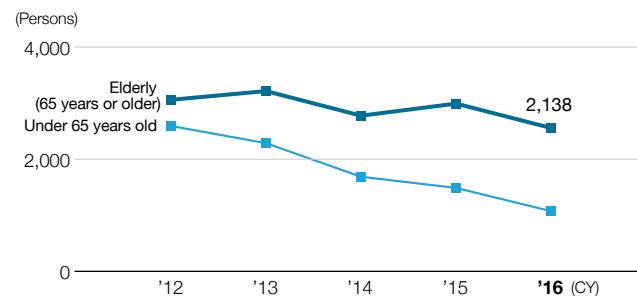
To realize a world in which every person can enjoy mobility safely, easily, and freely, Toyota plans to actively promote the development of automated driving technology with safety as the highest priority.

#### Number of Traffic Fatalities by Accident Type



Source: 2016 Traffic accident statistics by the National Police Agency

#### Number of Traffic Fatalities of the Elderly (65 Years or Older)



Source: 2016 Traffic accident statistics by the National Police Agency

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## Society | Initiatives for Improving Traffic Safety

### Active Safety

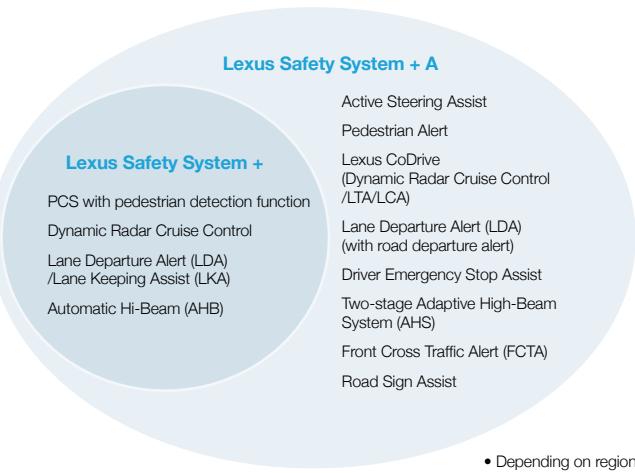
Toyota is developing Active Safety Systems that can keep cars and people free from accidents.

#### Multiple Safety Systems Are Packaged

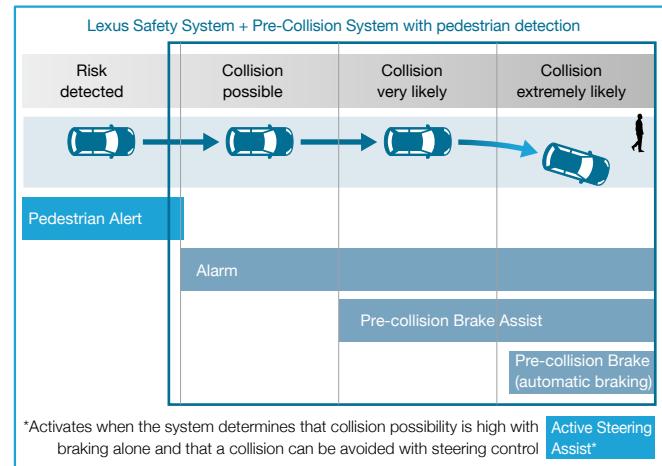
Coordinating a vehicle's individual safety systems enable us to pursue a higher level of safety. Based on this approach, two active safety packages called "Toyota Safety Sense" and "Lexus Safety System +," both of which coordinate multiple driving support devices to help prevent accidents, are available for Toyota and Lexus vehicles, respectively.

The all-new Lexus "LS" sedan scheduled for sales launch in the autumn of 2017 will feature the advanced active safety package Lexus Safety System + A. In addition to conventional PCS, which supports collision avoidance and damage reduction through alerts, Pre-collision Brake Assist and Pre-collision Braking, the new LS is equipped with Active Steering Assist, a world-first technology that can automatically control steering and braking. Active Steering

Assist determines when there is a high possibility of collision with a pedestrian in the lane of travel or with a continuous structure, such as a guardrail, and if the system also determines that it is difficult to avoid a collision with brake control alone but that it might be avoided with steering control, the system assists in collision avoidance or damage reduction through automatic steering control in addition to activating an alert and applying the brakes. The new sedan also features Lexus CoDrive, an advanced driving assist technology that can lead to automated driving. Lexus CoDrive adds Lane Change Assist (LCA) to the basic functions of Dynamic Radar Cruise Control and Lane Tracing Assist (LTA) to provide steering support that reduces driver burden when traveling on highways or motor-vehicle-only roadways.



#### Lexus Safety System + A Pre-collision System



#### ITS Connect, Cooperative Driving Support System

Launched in the autumn of 2015, ITS Connect features a cooperative driving support system which utilizes vehicle-to-infrastructure and vehicle-to-vehicle communication. The system acquires and alerts the driver of the information about the presence of cars and pedestrians that are in blind spots outside the field of vision of on-board sensors, and about traffic signals to help reduce accidents at accident-prone intersections.

Communicating Radar Cruise Control utilizes acceleration and deceleration data on a preceding vehicle, which are collected via vehicle-to-vehicle communication to improve headway control. As of June 2017, this system had been installed in the Crown, Prius, Prius

PHV, and the new Lexus RX, and is being considered for adoption in more models.

In the future, by linking ITS technologies with control technologies, Toyota is aiming to realize automated driving that will enable every driver to enjoy mobility safely, easily, and freely.



While waiting to turn right at an intersection, drivers are warned by an audio and visual alert if they may be unaware of an oncoming car or pedestrians

## Society | Initiatives for Improving Traffic Safety

### Passive Safety

Passive Safety combines a body structure that absorbs collision energy with devices that efficiently protect the vehicle occupants, in order to provide reliable occupant protection during a collision and minimize collision damage.

With respect to collision tests, Toyota in 1995 set up unique, stringent internal goals related to passive safety performance called "Global Outstanding Assessment (GOA)," in order to pursue a world-leading safety level, and developed a collision-safety body.

Since then, to maintain leadership in this field, Toyota has continued to advance its performance goals, improving the real safety performance of its vehicles in a wide variety of accidents. Furthermore, to analyze the human body injury mechanism, Toyota developed Total Human Model for Safety (THUMS), a virtual human body model that simulates effects on human bodies that cannot be measured using dummies. THUMS has been utilized in predicting injuries to the various parts of the human body.

### Impact-absorbing Body and High-strength Cabin

To reduce injury to vehicle occupants during a collision, it is crucial to prevent vehicle doors and other objects outside the vehicle from penetrating the cabin and to absorb the collision impact. The latest collision-safety structure consisting of an impact-absorbing body and a high-strength cabin incorporates the concept of "compatibility," aiming to ensure the mutual safety of vehicles of different weights and heights if they collide.

Furthermore, in car-manufacturing based on the next-generation platform strategy "Toyota New Global Architecture (TNGA)," Toyota developed a vehicle body that demonstrates exceptional collision safety in frontal, side, rear, and the newly developed oblique frontal collision tests, based on the latest GOA. The newly developed body was adopted in the Prius launched in 2015 and the C-HR launched in 2016, as well as the Prius PHV and Camry launched in 2017.

### THUMS Virtual Human Body Model

Toyota added three new models to represent children aged ten (138 cm tall), six (118 cm tall), and three (94 cm tall) to Version 4 of its THUMS virtual crash dummy software. As with the large male, average-build adult male, and small female models that are already being sold, the new models will come in two versions—a passenger version and a pedestrian version—for a total of six new additions to the THUMS line-up.

This expanded line-up takes into consideration the influence of age

and physique, and allows for more thorough injury analysis. Since 2007, Toyota has been applying THUMS to injury analysis of accidents involving general vehicles as well as motor sports. In March 2017, Toyota signed a four-year joint THUMS-based research agreement with the Global Institute for Motor Sport Safety, which presides over research on safety in motor sports. This research project will analyze the injury mechanisms that affect race drivers and consider measures to reduce injury.

### Outside Evaluations of Safety

ASV++ (the highest ranking) in the JNCAP<sup>\*1</sup> Active Safety Performance Assessment

Crown Majesta/Royal/Athlete, Prius, Prius PHV, Lexus RX, GS/GS F

Five Star Award (the highest ranking) in the JNCAP Passive Safety Performance Assessment

Alphard/Vellfire, Passo, Prius, Prius PHV

TSP+ (the highest ranking) in the New Car Assessment Program of the Insurance Institute for Highway Safety (IIHS) in the U.S.

Avalon, Camry, Corolla, Highlander, Prius, Prius V, RAV 4, Scion iA, and Lexus CT, ES, NX, RC, RX

Five Star Award (the highest ranking) in the NCAP<sup>\*2</sup> in the U.S.

86, Avalon, Camry, Corolla, Highlander, Prius, RAV 4, Sienna, Yaris iA, Lexus ES, IS, NX, RX AWD

Five Star Award (the highest ranking) in the Euro NCAP<sup>\*2</sup> in Europe

C-HR, Prius, Hilux (Safety Pack)

Five Star Award (the highest ranking) in the ANCAP<sup>\*2</sup> in Australia

Corolla HB, Land Cruiser, Prius, RAV 4, Lexus IS, RX

Five Star Award (the highest ranking) in the ASEAN NCAP<sup>\*2</sup>

Innova, Sienta

Grade 1 (the highest ranking) in the KNCAP<sup>\*2</sup> in South Korea

RAV 4

<sup>\*1</sup> JNCAP (Japan New Car Assessment Program) offers vehicle safety information, published by the Ministry of Land, Infrastructure, Transport and Tourism and the National Agency for Automotive Safety and Victim's Aid. The information is intended to promote better vehicle safety.

<sup>\*2</sup> NCAP (New Car Assessment Program) is a new car assessment program being carried out in various countries.

• Period: Japan: April 2016–March 2017; United States NCAP: 2017 model year; United States IIHS: December 2015–November 2016; Other: January–December 2016

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## Society | Initiatives for Improving Traffic Safety

### Emergency Response

Every minute counts in emergency response for accidents or sudden illness. Since 2000, Toyota rolled out Helpnet service, an emergency reporting system utilizing the G-Book information network (the current T-Connect) and G-Link. As of June 2017, Helpnet has approximately

1 million members.

During an emergency, such as an accident, an operator is just a switch away to help identify the situation and connect to the police and fire authorities.

### Automatic Emergency Reporting System (D-Call Net)

Automatic Collision Notification (ACN<sup>\*1</sup>) using telematics, which employs advanced communication technology, is effective in the event of an accident.

In a time-critical situation, an on-board device can automatically notify the call center and summon an ambulance.

In November 2015, Toyota started pilot operation of D-Call Net (AACN<sup>\*2</sup>) an automatic emergency reporting system that uses an ACN system, in collaboration with HEM-Net (Emergency Medical Network of Helicopter and Hospital), a certified non-profit organization; Honda

Motor Co., Ltd.; and HELPNET (Japan Mayday Service Co., Ltd). As soon as a traffic accident occurs, big data on past accidents is analyzed and information is sent from the car regarding the direction and severity of the collision and whether seat belts were fastened. That information prompts a decision whether to urgently dispatch an EMS Helicopter. Shortening the notification time can help reduce the number of traffic fatalities and lessen the severity of injuries, as well as prevent secondary accidents and ease traffic congestion.

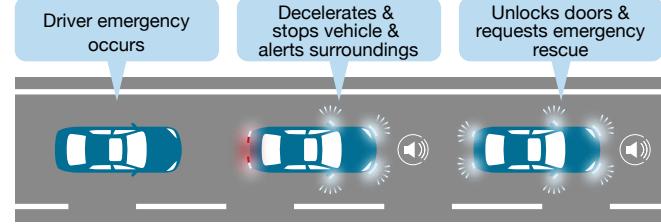
<sup>\*1</sup> Automatic Collision Notification (ACN): Called HELPNET in Japan

<sup>\*2</sup> Advanced Automatic Collision Notification (AACN)

↗ Creating an Affluent Society P27

### Driver Emergency Stop Assist

If non-operation by the driver continues during use of Lane Tracing Assist on a motor-vehicle-only roadway, Driver Emergency Stop Assist, in addition to prompting the driver to steer, decelerates and stops the vehicle within its lane while alerting those outside the vehicle with hazard lights and the horn, thereby helping prevent or reduce damage to the vehicle or to others. After activating the vehicle's hazard lamps and bringing the vehicle to a stop, the system unlocks the doors and activates an automatic HELPNET connection for a rescue request, contributing to early driver rescue. Driver Emergency Stop Assist will be featured in the Lexus LS to be launched in the autumn of 2017.



### Parking Assist

About 30% of all traffic accidents are said to occur in parking lots\*. Checking around the car for safety and repeated steering maneuvers tend to burden drivers, causing pedal misapplications operation which can lead to serious accidents.

Toyota has developed technology to improve visibility and to assist driving maneuvers during parking operations in order to prevent accidents and minimize damage.

\* Source: "Statistics of Parking Lot Accidents" (statistics from six prefectures in Tohoku Region) from the General Insurance Association of Japan

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## Society | Initiatives for Improving Traffic Safety

### Accident-reduction Effects of Intelligent Clearance Sonar (ICS)

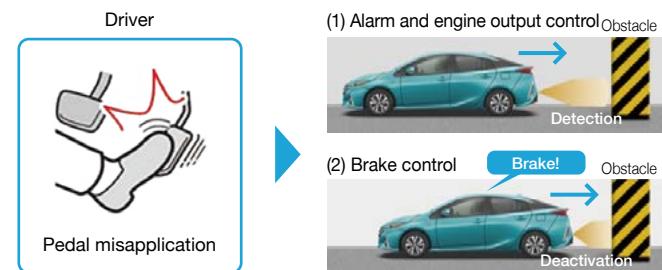
Toyota conducted a survey of accidents occurring in parking lots involving three models (the Alphard, the Vellfire, and the Prius) equipped with the ICS—a system that helps to prevent or mitigate collision damage in parking spaces. The results of the survey, which was conducted during the 18-month period from January 2015 to June 2016, showed that pedal misapplication accidents had fallen by approximately 70% and accidents related to reversing had been reduced by approximately 40%.

Additional sensors and an expanded detection range made possible by longer detection distance, coupled with software improvements, enable the ICS installed in the three models to help reduce collision damage caused by pedal misapplication, and to support collision avoidance with adjacent vehicles and obstacles, as well as to mitigate damage when moving at low speed within a parking lot or

pulling into a parking space.

In March 2017, ICS licensing seminars targeting Toyota dealers were held. Dealer staff gained knowledge about safety technology, and will hold ICS hands-on events in the future to promote the accident-reduction effects of ICS and teach customers how to use it correctly.

#### Image of the System in Operation



### Parking Support Brakes

The Lexus LS to be launched in the autumn of 2017 will feature Parking Support Brakes, which combine Rear Cross Traffic Auto Brake (RCTAB) and Rear Pedestrian Support Brake with ICS. RCTAB alerts drivers to the presence of an approaching vehicle behind them

when backing out of a parking spot, and Rear Pedestrian Support Brake is the world's first system (as of June 2017; Lexus research) that alerts drivers to the presence of pedestrians behind them.

### Automated Driving

To help achieve Zero Casualties from Traffic Accidents, Toyota has been conducting research and development on automated driving technologies since the 1990s. Toyota's unique approach to automated driving, called the "Mobility Teammate Concept," seeks out a relationship between people and vehicles so they stand by and support one another as companions would do. Based on this philosophy, Toyota is aiming to help realize a world in which every

person, including the elderly and the physically challenged, can enjoy mobility safely, easily, and freely.



### Structure for Developing Automated Driving Technologies and Their Development Status

In January 2016, Toyota established the Toyota Research Institute, Inc. (TRI) to accelerate research and development of AI technology, an integral component of automated driving, with a plan to invest 1 billion dollars over five years.

In August 2016, TRI announced a partnership with the University of Michigan to accelerate artificial intelligence research. Then, in September 2016, TRI announced a partnership with Open Source Robotics Foundation, a U.S. NPO, to conduct research on robotics and automated driving.

Then, in March 2017, TRI announced its plan to collaborate with research entities, universities and companies on materials science research, investing a total of 35 million dollars.

Toyota plans to proceed with research and development on automated driving technologies at both the TRI and Toyota Connected North

America, a new U.S. company established jointly with Microsoft Corporation in April 2016.

Some of the advanced technologies that have been developed at these research institutions and incorporated into automated driving are still at the demonstration test stage, while others have already been incorporated into production vehicles as advanced driving assist technologies.

In FY2015, Toyota tested a automated driving system for driving on motor-vehicle-only highways called "Highway Teammate" to demonstrate the capabilities of automated driving technologies for merging, lane keeping, lane changing, and branching.

In FY2016, Toyota provided its Urban Teammate, an automated driving system for ordinary roads, to the 42nd G7 Summit.

## Society | Initiatives for Improving Traffic Safety

### Support for Initiatives at Collaborative Safety Research Center (CSRC), the U.S.

In January 2011, with the goal of establishing safer and more reliable transportation means, Toyota established the CSRC inside the Toyota Technical Center (TTC) located in the state of Michigan. The first-phase project was completed at the CSRC in March 2017. Over a five-year period, the CSRC started and completed 44 research projects jointly with 23 universities and research organizations, publishing more than 200 technical papers. Furthermore, the CSRC has been making its research results public through presentations at various vehicle safety-related conferences so that these results

can be utilized by people engaged in the development of vehicle and traffic safety technologies.

In 2017, Toyota started a new second-phase project called "CSRC Next." This reflects Toyota's position that it is important to understand how humans will cope with advancing vehicle technologies. Toyota will invest 35 million dollars over five years, focusing the CSRC's research on the issues related to and possibilities of autonomous and connected vehicle technologies.

### Initiatives Targeting People

Believing that educating people is also important for preventing traffic accidents, Toyota started the Toyota Traffic Safety Campaign in Japan in the 1960s, in cooperation with Toyota dealers nationwide. Through this campaign, Toyota started donating traffic safety picture books and story-telling card sets to children starting kindergarten and nursery school nationwide. Since then, Toyota has been holding the Toyota Safety School, designed for small children, and Toyota Driver Communication, a safe driving technique seminar, on a regular basis

at the Toyota Safety Education Center Mobilitas, established at the Fuji Speedway in 2005.

Overseas, Toyota affiliates are taking initiatives on education and driving technique improvement, taking into account each country or region's traffic and accident situations, as well as people's awareness about traffic safety. Additionally, capitalizing on its many years of traffic safety programs, Toyota is supporting efforts by local affiliates, for example helping train safe driving instructors in Thailand and Vietnam.

### New Initiatives in Traffic Safety Education Activities (Japan)

To help achieve a society with zero casualties from traffic accidents, Toyota has always been engaged in education activities, such as safe driving seminars and traffic safety schools.

In 2016, Toyota joined with Toyota dealers nationwide to enhance the Toyota Traffic Safety Campaigns, marking their 48th year, by launching a new traffic safety awareness program named the *Machihotaru* (City Firefly) Project. This highly effective initiative recommends that drivers drive with high beam headlights, which can illuminate a longer distance, and that pedestrians wear accessories made of reflective materials, which are easier for drivers to recognize.

In the autumn of 2016, Toyota began participating in the "AICHI: No Longer the Worst" project organized by 10 Nagoya-area media companies in Aichi Prefecture, which had the largest number of traffic fatalities in Japan for 13 years in a row. Implementing initiatives centered on the *Machihotaru* Project, Toyota distributed various tools, such as fliers, pamphlets, and reflective materials, to help raise awareness about the Project.

Furthermore, to help prevent the use of smartphones while driving, which has become a societal problem, Toyota, Komeda Co., Ltd., and KDDI Corporation jointly implemented an initiative to prevent smartphone-related traffic accidents. Through the joint initiative, a smartphone application called Driving Barista, designed to help drivers develop the habit of not touching their smartphones while driving, was distributed to drivers for free within Aichi Prefecture. The three companies carried out an education campaign that was easy for anybody to participate in and could lead to accident reduction.



Reflective sticker featuring the *Machihotaru* Project mascot

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Society | Customer First and Quality First Measures

# Customer First and Quality First Measures

## Fundamental Approach

The origins of Toyota's "Customer First" and "Quality First" principles lie in the Five Main Principles of Toyoda, which embody the thinking of Sakichi Toyoda, and the spirit of audit and improvement of Kiichiro Toyoda. Since its foundation, Toyota has established a corporate culture that focuses particular attention on quality that will produce customer smiles and on continuous *kaizen* (improvement) achieved through *genchi genbutsu* (onsite, hands-on experience).

In accordance with our commitment to quality as stated in the Toyota Global Vision, each employee in every area maintains a constant and strong awareness of issues and a sense of ownership and makes ongoing efforts to implement *kaizen* and to collaborate closely with personnel in other fields to enhance customer safety, peace of mind, and satisfaction.

## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

Major Initiatives during FY2016 (result)	Major Initiatives during FY2017
<b>Quality</b>	
<ul style="list-style-type: none"> <li>● Prompt quality improvement further through reorganization (the introduction of the in-house company system)</li> <li>● Continued to strengthen regional quality activities led by CQO</li> <li>● Increased the number and quality of quality-learning facilities to develop human resources working from the customer's standpoint</li> </ul>	<ul style="list-style-type: none"> <li>● Lay down a solid foundation for measures to comprehensively prevent reoccurrence of recall issues that occurred in the past</li> <li>● Introduce new technology and established quality assurance systems to support those technologies</li> <li>● Expand quality-learning facilities on a global scale to teach personnel about the customer first and quality fist principles.</li> </ul>
<b>Customers</b>	
<ul style="list-style-type: none"> <li>● Held Customer Month exhibitions on customer feedback and enhancing work quality as measures that link customer feedback to employee action</li> <li>● Reorganized the system of proactive information release to customers</li> <li>● Conducted experience and learn from customer feedback training and measures through the Toyota Consumer Affairs Advisory Group</li> </ul>	<ul style="list-style-type: none"> <li>● Hold customer feedback exhibitions to raise awareness of "something is different" or "something is missing" compared to customer expectations</li> <li>● Deploy a system for searching customer feedback on the company intranet</li> <li>● Continue to promote existing activities</li> </ul>

## Initiatives to Improve Quality

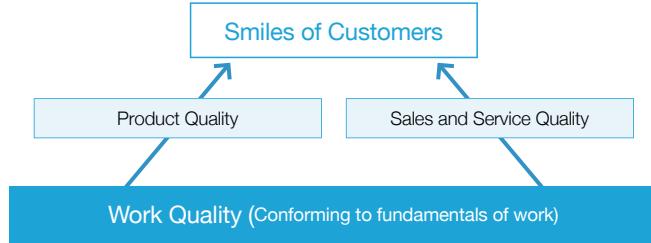
Toyota sees quality as the combination of product quality, sales and service quality, and the quality of work performed by each employee that serves as the foundation supporting the other aspects of quality. We also believe that products and services that can gain the confidence of customers can be created only when each employee engaged in every process from development and design to purchasing, production, sales, and after-sales service builds in

quality and personnel involved in each process implement the quality assurance cycle.

The origins of quality lie in the spirit of audit and improvement, and Toyota's unchanging *monozukuri* (manufacturing) pursues ever higher quality through continuous improvement based on repeated implementation of PDCA.\*

\* By repeatedly implementing the cycle of Plan, Do, Check, and Action, continuous *kaizen* is achieved in business operations.

### Toyota's Concept to Quality



### Quality Assurance Cycle



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## Society | Customer First and Quality First Measures

### Organization and Structure

Toyota establishes a Quality Function Policy each year based on the global company-wide policy. In FY2017, priority measures were identified and action was taken to address issues with “creation of quality with the participation of all employees while respecting the fundamentals of their jobs for the benefit of customers” as the theme. The fundamentals of implementation are function management and policy management.

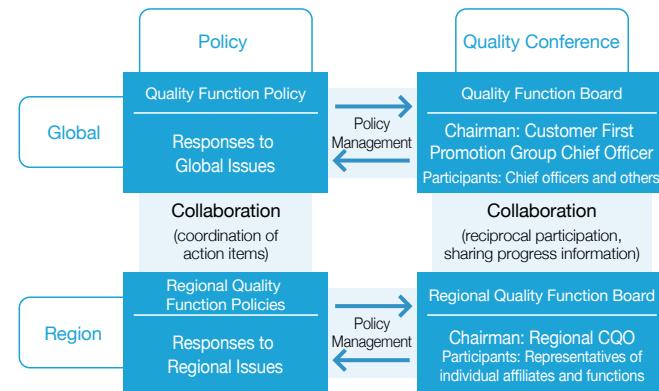
Function management refers to setting company-wide policy based on a function that ensures quality and each division taking action in collaboration with other divisions.

Policy management refers to the formulation and implementation of action plans for achieving targets in each division based on the company-wide policy. During the implementation phase, progress and results are reported through Quality Function Board and other forums and responses are carried out as needed.

In addition, in order to strengthen quality improvement activities led by the regions, Toyota has appointed Chief Quality Officers (CQOs)

in Japan and other regions around the world to address regional issues and promote global collaboration. In 2012 the Customer First Promotion Group (CF Promotion Group) was established to strengthen in-house systems for quality improvement in order to cater to customer's perspectives to be a Quality Leader.

### Global Implementation Structure of Policy and the Quality Conference



### Strengthen Quality Improvement Measures through Region-driven Measures Centered on CQOs

Global Chief Quality Officer Meetings have been held since 2013 as opportunities for regional Chief Quality Officers (CQOs) to gather and globally share information on the current status of regional customers and measures being taken in each region.

In FY2016, CQOs participated in the conference that deliberated on and adopted the Quality Function Policy, which is made up of TMC officers, to develop a shared awareness of global quality issues and

direction. Each CQO seeks to reflect that awareness in the quality function policy for their region and to incorporate issues into the work of each individual in their respective regions.

Having the CQOs gather in a single meeting in this way promotes closer collaboration between the Head Office and regions and further reinforces globally-integrated quality activities.

### Coping with Quality Troubles

We have a system whereby each employee takes action to enhance quality in accordance with the Customer First Principle and prepares for and responds in a timely manner to quality-related issues.

When making recall decisions, quality failures are determined not simply based on legal compliance, but also from the customer's perspective, putting safety and peace of mind first. Final decisions are made with the participation of regional representatives, who are closest to customers, so that feedback from regional customers can be accurately reflected.

After a decision is made, Toyota contacts individual customers through dealers and posts information on its website to ensure prompt repair service.

We will continue to improve our products so that our customers can drive Toyota cars safely.

A Toyota website page with domestic recall and other information (U.S.A)

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## Society | Customer First and Quality First Measures

### **“Storyteller Activities” Maintain Focus on the Series of Recall Issues**

February 24, the day that President Akio Toyoda attended U.S. Congressional hearings held to investigate the series of recall issues that occurred in 2010, was designated “Toyota Restart Day,” and we are creating mechanisms and taking measures to raise awareness in order to maintain focus on the lessons learned from the incidents that occurred at that time.

In 2017, in addition to President Toyoda’s message and reflections on the incidents, we initiated new “Storyteller Activities” as a companywide measure. Employees who experienced those incidents take on the role of a storyteller to convey the facts of and lessons learned from the series of recall issues within their own work sites. Since 2010, more than 10,000 new employees have joined Toyota, and as personnel changes take place within organizations, the number of employees with first-hand experience from that time

is decreasing every year. Human resources who can hand down this information at each worksite are essential for permanently maintaining the experiences and lessons of the recall issues. Since Toyota Restart Day, the storytellers have spoken of their experiences and the lessons they learned at their work sites and have worked to train the next generation of storytellers in order to prevent any fading of the lessons learned from the recall issues.



Storyteller Activities

### **Quality Month Activities for Raising Employee Awareness regarding Quality**

Toyota designates every November as Quality Month and sets a theme each year with the aim of encouraging each employee to consider the importance of the Customer First and Quality First policies and raising work quality so that we can be rewarded with the smiles of customers. Activities are conducted to promote the sense of ownership in quality by employees in a manner that will lead to action.

The theme in FY2016 was “raising work quality to achieve customer satisfaction.”

Companywide measures were taken to learn about the current status of Toyota quality and to promote increases in the work quality of each employee.



Quality Month poster

The worksite quality discussions conducted every year are good opportunities to review quality at each worksite with a sense of ownership. This year, employees reviewed preconceptions and misunderstandings that everyone has experienced, work regarding which there are concerns about failure, and other topics with the aim of completely eliminating errors throughout the worksite. Worksite sharing of information on errors that led to customer inconvenience and considering specific measures are raising work quality. The highly-relatable topics were praised, with participants making comments after the discussions such as “I was able to speak openly about my day-to-day concerns” and “I felt that the topics concerned me personally.”

In addition, Quality Exhibitions were held at the Head Office and each plant so that all employees could learn about the current status of Toyota quality and reaffirm their awareness of the Customer First and Quality First principles.

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## Society | Customer First and Quality First Measures

### Customer First Measures

Toyota's principle of Customer First exists for the purpose of providing customers with products and services that earn their smiles. On this basis, Toyota hopes to offer cars with superior features in terms of environmental, safety and quality performance, while also offering the intrinsic appeal of cars, such as driving

performance, at an affordable price.

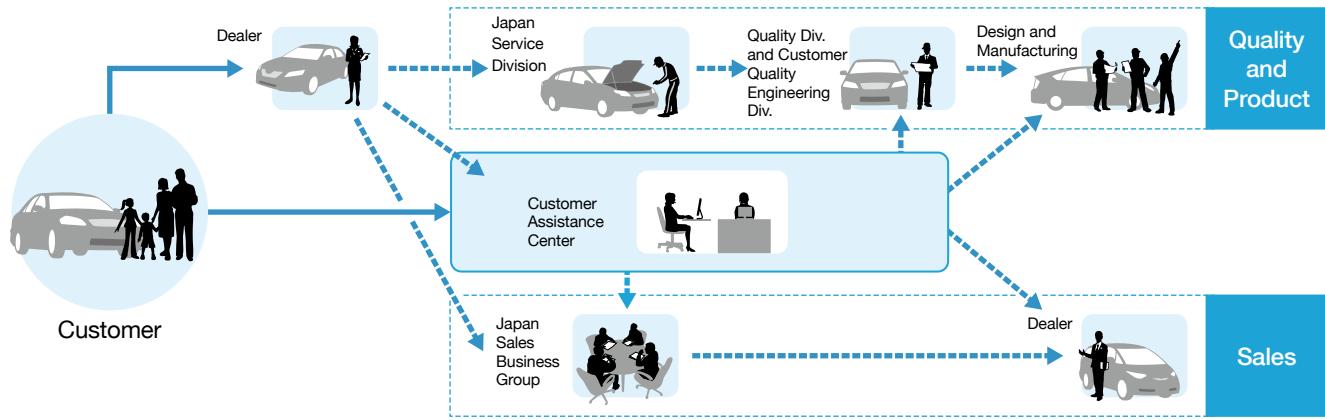
Therefore, in order to make ever-better cars, Toyota makes rigorous use of customer opinions gleaned from dealers and the Customer Assistance Center.

### Organization and Structure

In order to respond to customer inquiries, opinions, and requests, the most recent customer feedback is gathered from dealers, Also, customer assistance centers were created and initiatives are being

undertaken to link the received feedback to the creation of better products and services.

### System for Implementing Customer Feedback (Japan)



### Toyota Customer Assistance Center and Lexus Information Desk

The Toyota Customer Assistance Center, and the Lexus Information Desk, offer toll-free phone consultation 365 days a year and accept brochure requests 24 hours a day in Japan. With this convenient customer-oriented system, Toyota offers speedy, appropriate and empathetic responses to customer inquiries, and listens to opinions and requests, based on the principle of Customer First. At the same time, Toyota undertakes initiatives to link this feedback to the

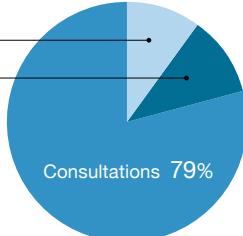
creation of better products and services. Furthermore, the Salesperson Support Desk has been established in order to support dealers in implementing the Customer First principle. Toyota also conducts surveys of customers who use the telephone service via an automated response system, in an effort to make further improvements.

### Number and Content of Calls Received by the Center and the Desk in 2016

Number of calls received: 370,000 (global)

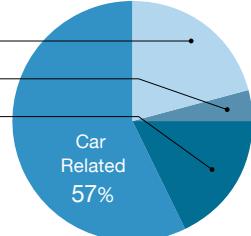
Breakdown of call content (Japan)

Opinions and requests	10%
Salesperson support	11%



Content of calls received (Japan)

Navigation and audio systems related	21%
Brochure requests	4%
Other (car delivery date etc.)	18%



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## Society | Customer First and Quality First Measures

### Customer Feedback from Each Country and Region

In order to offer products and services based on the Customer First principle, Toyota has established customer assistance centers not only in Japan, but also in the U.S., Europe, other Asian countries,

and at each distributor around the world. Some customer feedback received at these centers is listed below.

#### Customer Feedback Delivered to Toyota

##### [Compliments]

**U.S.A.**

The engine of the Yaris that I bought in 2008 broke down after about 500,000 km, and I had to get rid of the car. This may not be record-breaking mileage, but I commuted about 160 km every day.

**It was a highly reliable vehicle, even on hot days when the temperature was 38 degrees and on snowy days when the temperature was minus 12 degrees.**

Thank you for making such a good car.

**U.K.**

I studied cars in the past, and I am amazed by the advances in technology and the wonderful engineering when I'm driving. I never imagined that technology such as that on the Prius would ever appear.

**The innovation and farseeing insight are extraordinary.**

I can't but help feel gratitude for the engineers and designers who created this ideal car.

**I'm looking forward to the cars of the future in 30 and 40 years from now.**

**Poland**

On my eighth birthday, my father bought a Carina E. The car was driven through many countries of Europe. Ten years later when I turned 18 and left home to go to university, my father gave me the car.

**I was extremely pleased, as it's a very durable car and it evokes many memories of times with my family.**

**I have many memories of the car from the past 20 years.**

If I ever have the chance, I would like to revisit the Toyota plant that I saw while traveling in Japan on my honeymoon.

**Japan**

I was driving home when my car stopped running at an intersection near a Toyota business site and I didn't know what to do when several Toyota employees came to my assistance, towed the vehicle to a safe location, looked into what caused the problem, and provided various advice.

**I am grateful for the heartwarming response by the employees and was impressed by their meticulous training.**

##### [Claims and Consultations]

**Japan**

There was much feedback:

**"It's difficult to understand how to use a first-aid repair kit to fix a flat tire!" and "I do not understand how to start the engine if the smart key battery runs out!"**

At the customer assistance centers and dealers, it was difficult to explain how to fix the problems over the phone so we had to keep customers waiting for a long time.

**Japan and U.S.A.**

To repair my hybrid car, the whole inverter had to be replaced, which was very expensive.

Is it possible to replace only the broken part with a new part?

**Countermeasures**

##### [Initiatives for Improvement]

##### FAQ Movies were delivered on the Internet

In order to respond more effectively to feedback, the Toyota website began posting videos explaining how to deal with problems on the Inquiries & FAQ page. We are taking measures to accelerate responses to customer problems.

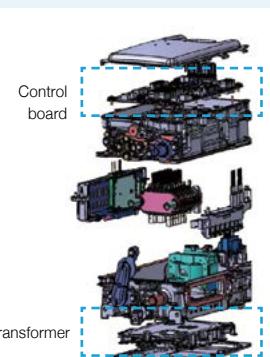


Access to a smartphone site using a QR code. The site has information on methods of dealing with seven issues during emergencies.

##### [Initiatives for Improvement]

##### Initiatives for Overhaul and Reuse of Hybrid Vehicle Parts

Some hybrid vehicle components are dismantled and parts are repaired or replaced in order to reduce repair costs. We are also working to establish technology for rebuilding and reusing damaged parts that have been recovered and will expand the covered vehicle series in the future.



Example: Prius

We made it possible to replace the internal control boards and transformer components of power control units so that repairs can be made at lower cost compared to replacing the entire unit.

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## Society | Customer First and Quality First Measures

### Ongoing Customer First Staff Education

To coincide with the designation of every May as Consumer's Month by the Japanese government, Toyota has declared it Customer's Month, and undertakes initiatives aimed at spreading awareness of the Customer First principle throughout the company. The Customer Feedback Exhibitions are one of such initiatives. The exhibitions present feedback from customers not just in Japan but around the world and initiatives taken from the customer's perspective. The exhibitions serve as forums for each employee to reconfirm the importance of listening to customer feedback.

For the exhibition held in May 2017, the customer feedback previously presented on panels organized by sales, service, products, and stakeholders was changed to classifications in line with the reality of customer emotions such as customer anger, customer confusion, customer pleasure, and feedback derived from unique overseas circumstances. The exhibition featured numerous videos and other media, enabling attendees to vicariously experience customer feelings. In addition, a seminar on customer-first measures

taken by companies in other industries was held so employees could humbly learn about consideration for customers.

Throughout the year, the "Experience and Learn from Customer Feedback" sessions are held to observe and experience the function of the call center, Customer Assistance Center. The facility and vehicle evaluation from the customer's viewpoint is also held by a group of experts, the Toyota Consumer Affairs Advisor Group. A Customer Feedback Board summarizing customer feedback has been posted on the company intranet each month since May 2017, drawing employee attention to issues of concern to customers.



A customer feedback exhibition



Video shown at the exhibition

### After-Sales Services Measures

Better service and better cars are, as it were, the two wheels of the cart. Customer car use requires regular check-ups, legal checkups, and repair due to breakdown or accidents. After-sales service will continue supporting Toyota and Lexus brands during the customers' ownership.

In particular, the average duration of car use is long, increasing by 20% to 30% since 2000 (in FY2016, the average vehicle age

excluding minivehicles in Japan was 12.8 years).

As a result, the role of after-sales service is becoming increasingly important. Toyota is taking measures to provide ever-better services in accordance with the concept of the 3S Spirit (*Seikaku + Shinsetsu = Shinrai*: Accuracy + Caring = Trust) so that we can achieve high levels of customer satisfaction regarding vehicle use.

### Organization and Structure

Better service means the ability to safely, accurately, promptly, and inexpensively perform maintenance and repairs in cases of breakdown. To do this, we are working to enhance the serviceability of vehicles that can be repaired quickly and the availability of service parts and to develop service engineers.

Based on the idea that after-sales services begin at the stage of vehicle development, we believe that serviceability is also one aspect of a car's performance, and serviceability improvement based on market feedback is incorporated into vehicle development.

Toyota has also established a system to quickly deliver parts to countries around the world so that repairs and other service can be completed in a timely manner. Parts inventories and inspection work are being made more efficient by applying Toyota Production System concepts at dealer worksites.

In the area of service support tools, we are introducing innovations in line with advances in IT to enable diagnoses through communications

while a vehicle is in use. Service, technology, sales, and other divisions are collaborating on repair techniques to deploy easy-to-repair car manufacturing. They also provide of manuals that quickly give the necessary information and make repair work quick and easy.

There are currently approximately 180,000 Toyota personnel involved in after-sales service in Japan and overseas, and educational systems and facilities are being established in each region. The Tajimi Service Center in Gifu Prefecture, Japan, plays a central role in enhancing the knowledge and technical skills of service staff worldwide.

### Better Service and Supporting Factors

#### Better Service (Maintenance and Repairs)

**Safety**    **Accuracy**    **Promptness**    **Inexpensive**

Cars (serviceability)  
Parts supply

Service  
Engineers

Tools and  
facilities

Repair techniques  
(information)

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## Society | Customer First and Quality First Measures

### Training Centers Develop Global Service Technical Staff

Toyota's training centers include the Tajimi Service Center in Japan, which is a global training facility, as well as facilities in Europe, Africa, the Middle East, Oceania, Latin America, and the Caribbean. The Tajimi Service Center is responsible for North America and Asia and plays a role as mother center for training centers in all regions worldwide.

The Tajimi Service Center, which opened in July 2013, includes study centers and drive evaluation courses with a variety of road conditions on a vast 187,000 m<sup>2</sup> site. The latest service technologies compatible with the most recent technology of Toyota cars on the market are gathered at the center to increase the knowledge and improve the technical skills of the staff members that come to the center for training.

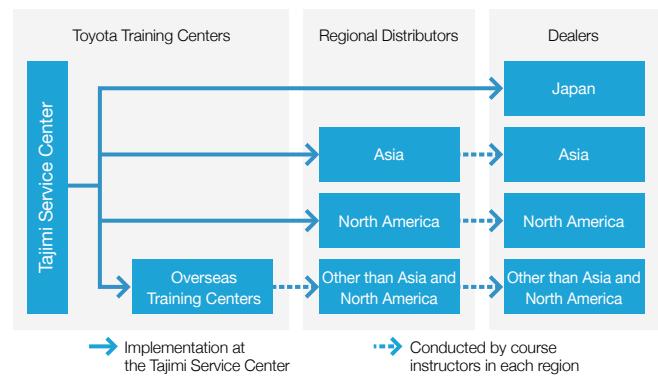
In FY2016, a total of 1,894 staff members from 27 sites in Japan and overseas were trained at the center, bringing the total number since the center opened to 6,654.

The BP Annex, a sheet metal repair R&D and training facility, opened in January 2017, contributing to the creation of a foundation for reinforcing global competitiveness in service technology.



Tajimi Service Center (Japan)

### Service Technology Process



### Initiative with Toyota National Dealers' Advisory Council to Listen Directly to Customer Feedback

Dealers offer services to customers directly; therefore, dealers and manufacturers are working together to promote activities for ever-better cars and ever-better services.

In Japan, the sectional meetings of Toyota National Dealers' Advisory Council and Toyota are discussing after-sales services.

Technical Sectional Meetings, which have been held regularly since

1977, investigate quality issues and serviceability from the customer's perspective.

At Service Meetings, held since 1990, various issues regarding the service sites of dealers are investigated. The results of both meetings are used to implement improvements.

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Society | Creating an Affluent Society

# Creating an Affluent Society

## Fundamental Approach

To help realize a mobility society of the future and affluent lifestyles, Toyota is working on a wide variety of initiatives beyond just automotive manufacturing, including building environmentally-friendly communities where people connect more freely, developing life-supporting robotics and sponsoring sport events such as the Olympic Games Tokyo 2020 and Paralympic Games.

Through collaboration with governments, local communities, other corporations and the academic world, Toyota is committed to realizing a sustainable society for the greater happiness of all.

## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

Major Initiatives during FY2016 (result)	Major Initiatives during FY2017
Smart Mobility Society	
<b>Connectivity Products and Services</b>	<b>Connectivity Products and Services</b>
<ul style="list-style-type: none"> <li>● Reinforced organizations and functions by establishing Connected Company and announced strategies</li> <li>● Established TOYOTA Connected North America</li> <li>● Promoted research and development regarding use of big data</li> <li>● Launched the Prius PHV and the e-Care connected service</li> <li>● Launched the TC smartphone navigation (application) service</li> <li>● Engaged in cross-industry collaboration (in areas such as ridesharing, communications, and insurance) and started verification tests</li> </ul>	<ul style="list-style-type: none"> <li>● Further promote vehicle connectivity by expanding the installation of on-board data communication modules (DCM)</li> <li>● Promote research on and utilization of big data that will lead to ever-better cars</li> <li>● Promote collaboration with other industries and commercialize services centered on the Mobility Service Platform (MSPF)</li> </ul>
<b>Future Mobility Society</b>	<b>Future Mobility Society</b>
<ul style="list-style-type: none"> <li>● Utilized Ha:mo verification tests in Toyota City for tourism and revitalization strategies in the local community, and promoted commercialization with further improvement in operation and systems</li> <li>● Strengthened infrastructure and improved operations for the Ha:mo verification test in Grenoble, France</li> <li>● Ensured smooth launch and full-scale operation of the verification tests in Tokyo</li> <li>● Progressed steadily with the Ha:mo verification test in Okinawa and developed the local operational structure</li> </ul>	<ul style="list-style-type: none"> <li>● Continue full-scale implementation of verification tests in the Tokyo area</li> <li>● Stabilize business in Toyota city and Okinawa</li> <li>● Steadily launch and implement projects in Thailand and Okayama</li> <li>● Develop and promote new installation sites</li> <li>● Enhance and improve system functions and reduce costs</li> </ul>
Assisted Mobility Vehicles	
<ul style="list-style-type: none"> <li>● Implemented partial updates to Hiace and Regius Ace</li> <li>● Redesigned a wheelchair loading and unloading system (Porte, Spade)</li> <li>● Launched Prius PHV with rotating and tilting passenger seat</li> </ul>	<ul style="list-style-type: none"> <li>● Voxy, Noah, and Esquire with Welcab side lift-up seat equipped</li> </ul>
Partner Robots	
<b>Rehabilitation Partner Robots</b>	<b>Rehabilitation Partner Robots</b>
<ul style="list-style-type: none"> <li>● Complied with the Pharmaceutical and Medical Device Act and improved quality and user-friendliness by incorporating feedback from clinical research</li> </ul>	<ul style="list-style-type: none"> <li>● Rental services to start in the autumn of 2017 for the Welwalk WW-1000 Rehabilitation Assist Robot, designed to support rehabilitation of individuals with lower limb paralysis as a result of stroke and other causes</li> </ul>
<b>Human Support Robot (HSR)</b>	<b>Human Support Robot (HSR)</b>
<ul style="list-style-type: none"> <li>● Steadily introduced and expanded use of the HSR Development Platform in research labs Accelerated functional development in the research and development community and initiate social implementation to verify effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>● HSR to be adopted as the standard platform of RoboCup@Home, a competition at the RoboCup world championship involving performance of various real-world tasks in household environments.</li> <li>● Deploy and expand HSR development platform to solidify use by research institutions Advance practical application in collaboration with the development community</li> </ul>
Biotechnology & Afforestation	
<b>Housaku Keikaku: An agricultural IT management tool</b>	<b>Housaku Keikaku: An agricultural IT management tool</b>
<ul style="list-style-type: none"> <li>● Completed the Advanced Model Agricultural Business Formation Trials under the auspices of the Ministry of Agriculture, Forestry and Fisheries and established the foundations for human resource development techniques through worksite <i>kaizen</i> (improvement)</li> <li>● Announced collaboration with JA Group Hokkaido and JA Group Nagano Prefecture to supplement existing collaboration with JA Group Aichi Prefecture and JA Group Ishikawa Prefecture</li> </ul>	<ul style="list-style-type: none"> <li>● Reinforce and expand collaboration with local governments, JA, and others and continue to raise the productivity of agricultural companies and develop <i>kaizen</i> human resources at agricultural production sites</li> <li>● Further advance measures centered on <i>Housaku Keikaku</i> and take measures to achieve the cutting-edge agriculture of the future</li> </ul>

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## Society | Creating an Affluent Society

### Smart Mobility Society

Toyota seeks to create the smart mobility society of the future where cutting-edge Internet of things (IoT) technology is also used to connect cars, people, and communities and everyone feels free, secure, comfortable, and excited in all aspects of their lives from car transport to everyday activities.

Toyota is contributing to enriching the lives of communities as set forth in its Toyota Global Vision through initiatives centered on three fields: connected with people, connected with vehicles and roads, and connected with society and communities.

### Organization and Structure

We established the Connected Company in April 2016 as a part of our efforts to create a smart mobility society and to mark the start of the full-scale connected car era. The company plays a central role in collaborating with related internal organizations to consolidate

organizations including strategic planning, product planning, and onboard functions and sensors and accelerate the pace of decision making and is taking measures to promote connectivity.

### Next-generation Telematics: Connected with People

#### Toyota's Connected Strategies

Since the launch of the G-Book on-board information service in 2002, we have improved navigation functions and enhanced connectivity functions with a focus on safety and security including security services. Information on vehicle location, speed, driving conditions, and other factors gathered from vehicles equipped with Toyota telematics services is accumulated as big data and used with traffic information and statistical data.

The accumulated big data makes it possible to create new services and business, and connectivity platforms including information infrastructure will become a crucial business foundation for automakers in the future.

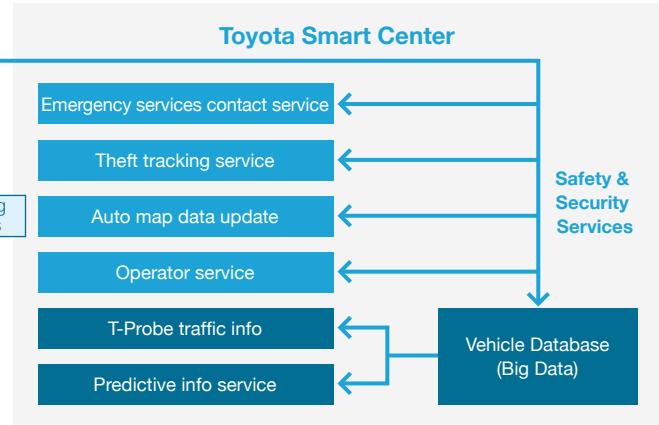
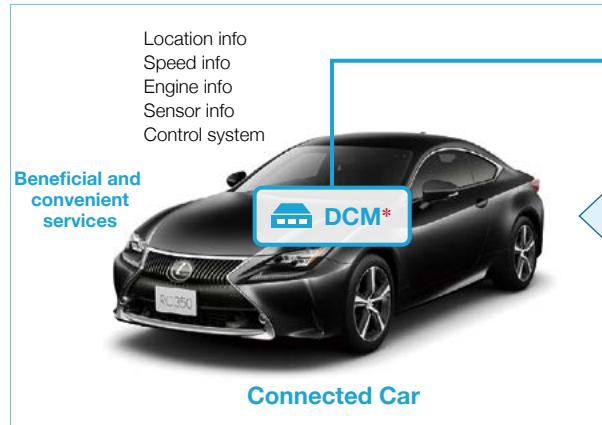
Connectivity will lead to the creation of new automobile appeal and value. Our approach to connectivity is that it will expand the value chain through speed and footwork that exceed customer

expectations and contribute to the development of a mobility society. We are also pursuing the creation of new business and innovation in the automobile business. The strategies for achieving this are, first, connect all cars and complete the connectivity platform that will serve as an information foundation. Second, we will make contributions to customers and society by promoting the use of big data based on this platform and promote a revolution in Toyota's business itself. Third, we will collaborate with various other industries and IT firms based on this platform to create new mobility services. We are carrying out these three strategies nearly simultaneously.

#### Three Strategies



#### Current Connected Services



\* Data communication module: An on-board intelligent communications module developed exclusively for telematics services.

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## Society | Creating an Affluent Society

### “Connect” All Cars

Toyota will develop such globally uniform DCMs by 2019. DCMs will be the standard equipment in nearly all new Toyota and Lexus vehicles sold in Japan and the U.S. by 2020, and will gradually be installed in a range of new vehicles in other major markets over time. Prior to this, Toyota is cooperating with KDDI Corporation to develop a Global Communications Platform that can use vehicle location information to automatically connect to selected telecommunications carriers in each country and region.

In addition, we established Toyota Connected, Inc.\*1 in the U.S. in

partnership with Microsoft Corporation to consolidate and utilize information collected from vehicles. The company operates the Toyota Big Data Center and is conducting research and development into the utilization of big data. Toyota Media Service Corporation, which operates Toyota telematics and other services, was renamed Toyota Connected Corporation in June 2017. The company will play a central role in global implementation of connected strategies that make use of accumulated cutting-edge car and IT technologies and expertise.

\*1 In conjunction with the renaming of Toyota Media Service, the company name will be changed to Toyota Connected North America, Inc.

### Creation of New Value and Business Revolution

Toyota provides the real-time Traffic Information Service with nationwide coverage in Japan using big data. Big data use is being expanded internally and by dealers.

Internal use includes the provision of driving data feedback to design and quality divisions, and early detection and response to market problems and other applications that will lead to ever-better cars. With regard to use by dealers, we launched e-Care, a service that provides notice of the need for repair or maintenance based on

information transmitted by the vehicle, encouraging owners to bring their cars to the dealer for service.

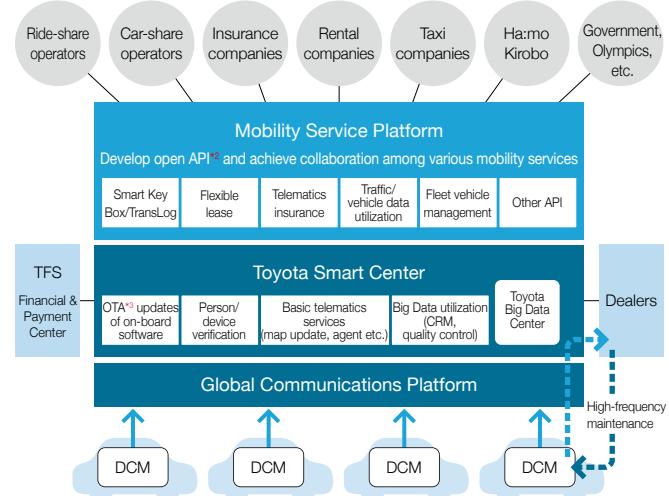
To create new value in the future, we are conducting research on generation of dynamic maps that include information on lane-by-lane congestion and the presence of obstacles and on further advances regarding driving assistance services. To support safer and more comfortable driving, we are using artificial intelligence to develop an agent that fully understands the driver and is a constant presence.

### Creation of New Mobility Services

All Toyota and Lexus connected cars are linked to the Toyota Smart Center and safe and secure driving assistance services are provided. The Toyota Smart Center has a Toyota Big Data Center that collects data and is creating a Mobility Services Platform (MSPF) on top of the center for development of new and appealing mobility services. Collaboration among various companies and services will be achieved through the MSPF, contributing to the creation of a new mobility society.

Toyota Insurance Management Solution USA (TIMS), which was established in April 2016, is a first step in these endeavors. We are also collaborating with ride sharing, auto rental, taxi, and other businesses and conducting verification tests to develop and commercialize products and services.

### Establishment of Mobility Services Platform



\*2 API (Application Program Interface): Application Program Interface Functions used for programming. App functions can be used simply by calling the functions.

\*3 OTA (Over The Air): Software update “over the air” by wireless transmission.



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## Society | Creating an Affluent Society

### Collaboration with Various Industries

TIMS Established	A new company was established to score customer driving behavior based on vehicle data collected from Toyota big data and provide the scores to partner insurance companies.
Collaboration with Ride-Sharing Operators	Development of a program to lease vehicles to customers and collect lease fees from income earned as ride-share drivers.
Collaboration with Car-Sharing Operators	Address issues regarding provision of vehicle keys such as the risk that users will make off with vehicles and the need to modify vehicles to create safe and convenient car sharing services.
Smart Key Box Development	Development of a smart key box (SKB) that safely delivers keys without vehicle modification by transmitting a key code to the user's smartphone to operate the lock.
Partnership with Getaround in North America	A pilot car sharing service using SKB was launched in January 2017 in partnership with Getaround. A lease program is also provided to the company.

### New Prius PHV Connected Service at the Vanguard of Connected Strategies

The second-generation Prius PHV, which was launched in February 2017, was released as the flagship car of Toyota's connected strategies. It features Toyota's first 11.6-inch T-Connect SD navigation system and DCM. The T-Connect DCM Package of various communication services supports safe, secure, and convenient driving.

Users can, for example, perform remote operations such as confirming the vehicle battery charge status, operating the air-conditioning, and searching for charging stations using a smart phone. In addition, e-Care provides customer support based on information transmitted by the vehicle. When a warning light comes on while driving, the Toyota Smart Center immediately diagnoses the likely cause of the problem based on vehicle data, determines if continued operation is possible, and generates appropriate advice. The diagnostic information is shared with a dealer and center operator to provide prompt and accurate customer support.



Left: two-screen display; right: charging schedule

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## Society | Creating an Affluent Society

### Next-generation Traffic Systems: Connected with Communities and Society

To realize a society in which everyone can travel comfortably, Toyota is working on the commercialization of Ha:mo, a new transport system which optimally combines personal mobility with public transportation. Environment-friendly, highly maneuverable, ultra-compact electric vehicles are used. Stations are set up near access points to public transportation systems such as train stations to encourage a short, quick ride from trains or private automobiles.

Ha:mo also offers new options for mobility, including utilization for a membership-based car sharing service or for mobility in tourist destinations, mountainous areas and remote islands where public transportation infrastructure is limited. Commercial operation is commenced for one portion of the project for which repeated verification tests were conducted starting in FY2016.

### Sharing and Rental Service Business Launched

In October 2013, Toyota launched an ultra-compact EV sharing service project suited for short distance, urban transportation in Toyota City, Aichi Prefecture. The verification test stage was completed in March 2017, and in April the business was transferred to UPR Corporation and service commenced.

In January 2016, Toyota launched the *Churamai Ha:mo* Project, a tourism service demonstration test intended to minimize environmental burdens and contribute to the promotion of regional tourism on the Motobu Peninsula on Okinawa Island. The project was transferred to the Smart Resort Okinawa Yanbaru Promotion Association, which is supported by six cities and towns on Okinawa, in April 2017 and the provision of services to tourists began. Also, in April 2017, Toyota partnered with the Okinawa Churashima Foundation to conduct demonstration tests in the Ocean Expo Park

on Okinawa to respond to diversifying needs.

In Thailand, a joint project based on developed schemes was launched with Toyota Motor Thailand (TMT), Toyota's manufacturing affiliate in Thailand, and Chulalongkorn University. A sharing service that provides an additional means of transportation on the University campus will commence in December 2017 under the name CU Toyota Ha:mo.



The COMS vehicle used for Ha:mo RIDE (left) and the Churamai Ha:mo Project (right)

### Public Transportation Collaborative Verification Test (Okayama City, Okayama, Japan)

A public transportation collaborative verification test using 10 COMS vehicles and a one-way format (i.e., users need not return vehicles) will commence in Okayama City, Okayama Prefecture in October 2017. The test will verify the potential of use as a means of transport connecting train stations or bus stops with the last mile

to users' destinations, a mobility issue being confronted by many regional cities. It will also verify the effects of collaboration with public transportation. There are plans to link the project to initiatives in the following and subsequent fiscal years.

### Ultra-compact EV Sharing Verification Project (Grenoble, France)

Toyota has been conducting a car sharing verification test in Grenoble, France, which has strict environmental regulations, since October 2014. The project is being undertaken by a group of partners who share a common vision for the future of urban mobility including the local government and electric company. A three-year demonstration period has been set.



Grenoble, France

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## Society | Creating an Affluent Society

### Personal Mobility Sharing Service Verification Project (Tokyo)

In April 2015, Toyota commenced Times Car PLUS × Ha:mo, a verification test of a service that combines Times Car PLUS (a car sharing service operated by Park 24 Co., Ltd.) and a sharing system using Ha:mo, mainly in central Tokyo, to address transport

problems in major cities. One hundred vehicles were introduced for the program, which offers a new means of transportation that allows users to pick up and drop off vehicles at any of approximately 100 stations located primarily in Chuo and Koto wards.

### Energy Management

We are making an effort to connect local communities including homes, convenience stores, and schools, with cars, transportation infrastructure and factories to maintain a good balance between electric power supply and demand, with the goal of optimizing

energy consumption in communities and society as a whole. Toyota is also initiating programs to build a hydrogen-based society, one of the key solutions to a challenge of fossil fuel depletion.

### Virtual Power Plant Project Starts (Toyota City, Aichi Prefecture)

Chubu Electric Power Co., Inc., Denso Corporation, Toyota Motor Corporation, and Toyota Turbine and Systems Inc. together with Toyota City, an environmental model city, commenced a project in June 2017 to create an innovative virtual power plant, a next-

generation energy management system that uses ICT. The project seeks to achieve local production and local consumption of renewable energy in Toyota City and will run from June 2017 to March 2020.

### F-Grid Concept of Mutual Energy Support among Local Communities and Factories (Ohira Village, Kurokawa-gun, Miyagi Prefecture)

Since the 2011 Great East Japan Earthquake, Toyota has been working to create smart communities centered on factories in order to solve energy problems and support the Tohoku region. F-grid is a system that comprehensively manages the energy inside an industrial park where factories are located with the aim of developing low-carbon, competitive infrastructure that can respond in the event of a disaster. The F-grid Center distributes the heat and electricity generated by large gas engines and solar panels to participating companies to maintain an optimal balance. By making energy consumption visible and averaging out the consumption,

energy can be used stably and efficiently throughout the community. F-grid Ohira, Miyagi Limited Liability Partnership, established in the North Sendai Central Industrial Park (Ohira Village, Kurokawa-gun, Miyagi Prefecture), is in charge of operations and management of the F-grid center and started supplying power to seven companies in stages beginning in April 2013. Emergency support functions for supplying electric power to surrounding communities via the electric power company during disasters and other emergencies were completed in October 2015.

### Measures for the Creation of a Hydrogen-based Society

To achieve a hydrogen-based society, Toyota is working on expanding the use of hydrogen and researching and developing a hydrogen supply chain.

Environmental Initiatives P97

### Cooperative ITS—Connected with Vehicles and Roads

To achieve Toyota's ultimate goal—zero casualties from traffic accidents—we are using ITS technologies to connect cars with one

another, cars with pedestrians, and cars with roads, contributing to realization of a safe transportation society.

Initiatives for Improving Traffic Safety P13

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## Society | Creating an Affluent Society

### Assisted Mobility Vehicles

As Japan enters into a period of a super-aging society, government policy is shifting towards home-based medical treatment and nursing care. As a result, there is growing need for assisted mobility that is easy to use at home. Toyota named its assisted mobility vehicles Welcab with the hope of contributing to the happy lives of customers.

Our goal is to make vehicles that are comfortable and safe as well as simple and easy-to-use, and that gives people with disabilities and the elderly the freedom of mobility and furthermore accommodates the needs and wants of caregivers.

### Organization and Structure

We plan and develop Welcab vehicles based on five development perspectives—ease of getting in and out of the vehicle, comfortable and smooth ride, ease of operation for drivers and caregivers, ease of communication inside the vehicle, and reasonable pricing—while pursuing market needs. Customers can experience Welcab vehicles firsthand at Welcab stations established at dealers and Heartful Plazas, which are general Welcab exhibit sites, and Welcab consultants are on site to help customers choose the most appropriate vehicle.

As of May 2017, there were 236 Welcab Stations and 10 Heartful Plazas in Japan.



Welcab Stations



Toyota Heartful Plaza

### Promote Normalization as an Ordinary Car

We received numerous instances of customer feedback indicating that customers considered buying a Welcab but did not do so because of the high price, there was no longer any need, or the customer did not know how long such a vehicle would be necessary. To address these customer concerns, Toyota is exploring ways to make assisted mobility vehicles into ordinary vehicles in terms of both function and cost.

We have added functions such as a second row seat that can be retrofitted and a forward-folding stowable slope for wheelchair-

adapted models. We are also taking measures to reduce costs such as producing Welcab vehicles on the same lines used for conventional vehicles.

As of May 2016, the Welcab product line comprised 47 models in 26 vehicle series.

We also offer user-friendly goods such as a product that helps maintain the posture when getting in and out of the vehicle as an item that encourages seniors with medium to low levels of physical disability to go out more.

### New Wheelchair Storage Device Developed

Toyota developed an easy to operate electric slide wheelchair storage device to support the increasing number of seniors who are taking care of seniors and the many women who are involved in nursing care.

Storing a wheelchair is a time-consuming task that requires considerable strength. In the case of the new wheelchair storage device, a first for Toyota, operation is simple—the wheelchair is set in place, the direction is changed, and the wheelchair is fixed in place—and no strength is needed. The wheelchair is stored simply by operating a switch. Operating time is approximately halved compared to earlier devices, and the device can store wheelchairs

weighing up to 35 kg (compared to 30 kg with earlier devices). New Wheelchair Storage Device Made Available on Porte and Spade in June 2016.



A Porte with the new wheelchair storage device (electric slide type)



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## Society | Creating an Affluent Society

### Toyota Supports Production of Outing Support Guidebook for Seniors

Daily outings by seniors are an important habit for preventing dementia and seclusion and maintaining mental and physical health. CORrect health iNformation for Cooperative and Innovative DEnvelopment of society (CONCIDE) issued an Outing Support Guidebook for Enhancing the Quality of Life of Seniors to convey the importance of going out and its various effects. Toyota offered financial support for this effort, providing information on examples of assisted mobility vehicles supporting outings by seniors, a guide to first-time vehicle selection, and information on safe use.



Outing Support Guidebook for Seniors

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## Society | Creating an Affluent Society

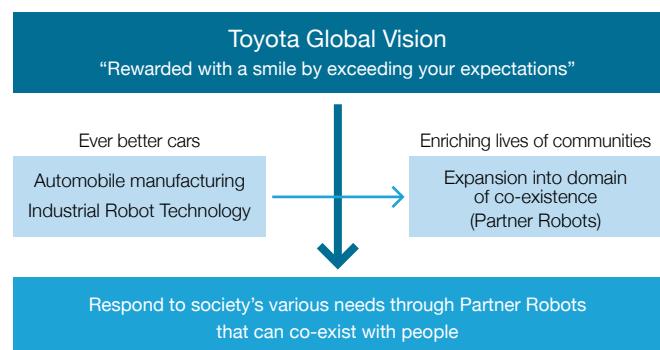
### Partner Robots

Based on the spirit of its founding corporate principle of contributing to the world and to people by enriching society through *monozukuri* (manufacturing), Toyota is responding to various social needs by developing human-assisting partner robots that co-exist with people and support their lives.

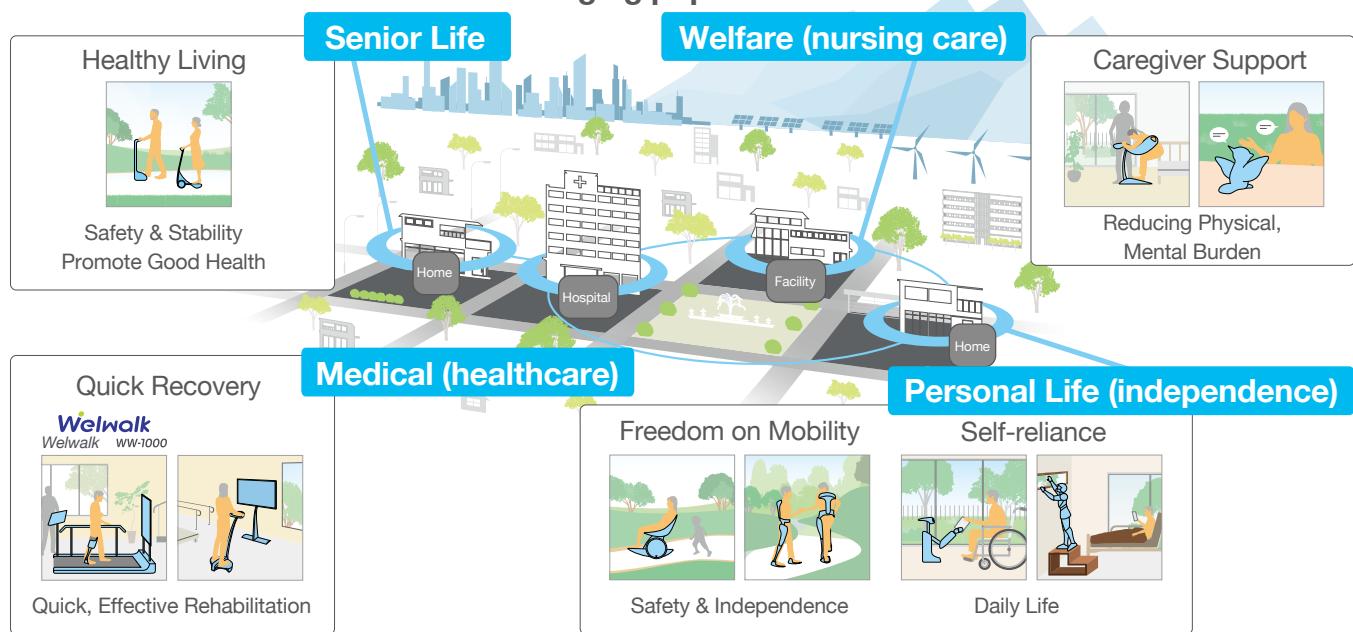
Toyota is working towards the practical application of partner robots pursuant to a vision based on a concept of "mobility for all and the joy of self-reliance" with four fields of support: senior life, medical (healthcare), personal life (independence), and welfare (nursing care). By providing robots that support the independence seniors and disabled persons and can reduce the burdens on those who assist them with a focus on development that can respond to the needs of future society with a low birth rate and aging population, Toyota is contributing to the

development of a sustainable society and the realization of comfortable lifestyles for all people.

#### Partner Robot Development Concept



### Of the many fields of activity, we are first responding to the low birthrate and aging population



#### Schedule and Status of Development for Practical Application

	2017	About 2020	Field
Walk Training Assist	Approval as a medical device was obtained in November 2016. Rental of the Welwalk WW-1000 rehabilitation support robot will begin in the fall of 2017.		Senior Life Medical
Conversation Robots	The National Center for Geriatrics and Gerontology, located in Obu City, Aichi Prefecture, is conducting trials and working towards practical application with the objectives of preventing and curtailing the progression of dementia.		Medical Welfare
Stand-and-ride Personal Mobility	We are conducting repeated demonstration tests through hands-on writing events at commercial facilities, on public roads, and other locations. We plan to expand use sites in cooperation with police and government.		Senior Life
Balance Training Assist	These robots were introduced at 21 healthcare institutions located nationwide for clinical research. We are working towards practical application based on <i>genchi genbutsu</i> (onsite hands-on experience) and feedback from physicians and physical therapists.		Medical
Human Support Robot (HSR)	Toyota is creating a development community through open innovation and accelerating technology development and verification trials for practical application.		Personal Life
Patient Transfer Assist	We are conducting verification tests with the aim of creating easy-to-use devices. We are working towards practical application by repeating the cycle of development and verification.		Welfare

Development

Verification

Commercialization



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## Society | Creating an Affluent Society

### **Welwalk WW-1000 Rehabilitation Assist Robot Rental Service Begins**

Toyota will commence rental services for the Welwalk WW-1000 Rehabilitation Assist Robot, designed to support rehabilitation of individuals with lower limb paralysis as a result of stroke and other causes, in the fall of 2017.

The Welwalk WW-1000 features a range of rehabilitation support functions based on motor learning theory including the ability to adjust difficulty level according to the patient and to provide feedback regarding the patient's gait characteristics. The robot's simple construction and functions, such as easy fitting and central touch panel operation, ensure ease of use in clinical settings. Development of rehabilitation robots in the medical support field began at the end of 2007 with the collaboration with Fujita Health University in Toyoake City, Aichi Prefecture. Verification testing has been conducted at medical facilities since 2011. Between 2014 and

the end of March 2017, Walk Training Assist robots were installed in 23 medical facilities throughout Japan for clinical research. Feedback from patients and healthcare persons involved in the clinical research indicates that this robot has the potential to aid in lower limb recovery, and as a result, the use of the robot as a medical device has been officially approved and certified. Toyota hopes to rent 100 units of the Welwalk WW-1000 robots to medical facilities beginning in the fall of 2017.



Welwalk WW-1000

### **Winglet, Personal Mobility Robot**

Toyota is developing the Winglet, a personal mobility robot that supports human mobility and makes day-to-day activities more convenient. It is a form of mobility that makes it possible to travel seamlessly from inside commercial facilities and other indoor locations to outdoors.

The Winglet is used at the MEGA WEB car-themed facility in the Tokyo waterfront subcenter, at events, and on public roads by a wide range of people including seniors. We are expanding verification trials with the aim of creating mobility that can coexist with people.

### **Human Support Robot Platform Provided**

The Human Support Robot (HSR) is intended to provide a wide range of support including assistance, independence, and household tasks. In addition to fundamental tasks such as picking up and carrying objects, we are conducting development with an eye towards application in preventive health care and health management and are conducting repeated verification trials in senior facilities and households with disabled persons. Further technology development and verification will be necessary to expand the circumstances where HSR can be used. Consequently, Toyota is providing HSR as a platform to universities and research

institutions. We are working towards practical application by creating a development community and sharing results, and to date have provided HSR to 13 institutions.

HSR has been chosen as the standard platform at the RoboCup@Home world championship to be held in Nagoya in July 2017.



HSR

### **Development of Pocobee, a Talking Robot**

Toyota is developing talking robots positioned to encourage caregivers with the aim of supporting care that imposes substantial psychological burdens. Pocobee is a talking robot being developed to prevent and curtail the progression of dementia and contribute to reducing the burdens on dementia patient caregivers in preparation for the future increase in dementia patients and reduction in the working age population. The robot detects user speech and facial expressions and is able

to converse while moving its eyes and body. The aim is to reduce anxiety and stress and restore self-confidence by talking to users. Trials to verify the effects on dementia commenced in 2016, and we are working towards early practical application.



Pocobee

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## Society | Creating an Affluent Society

### Biotechnology and Afforestation

To contribute to solving global problems such as global warming, energy issues and food shortages, Toyota believes in the need for businesses that contribute to the environment, in new fields in addition to the automotive business.

For this purpose, in 1998 we established an organizational structure

to support R&D and commercialization of such businesses, and have been carrying out initiatives in various fields. We are conducting R&D on fostering new business in three fields: biomass utilization, contribution to agriculture and livestock industries, and greenification.

### Biomass Utilization

Toyota is developing technology to produce ethanol and other biofuels efficiently and at low cost from various types of biomass resources as a form of renewable energy that contributes to the reduction of CO<sub>2</sub> emissions from vehicles.

Demonstration trials are currently underway, primarily in Southeast Asia, using a high ethanol production yeast developed by Toyota.

Attention is being focused on napier grass, a perennial grass in the Poaceae family that thrives on poor land unsuitable for cultivation, as a biomass resource, and a production and purchasing system for low-cost materials is being established in Indonesia. We are also breeding high-productivity varieties using DNA markers from sugarcane.

### Greenification

We are engaged in the urban greening business with the aim of alleviating urban heat island effects.

Toyota Roof Garden Co., Ltd. is a sales company that handles reforestation products developed by Toyota. Its main business

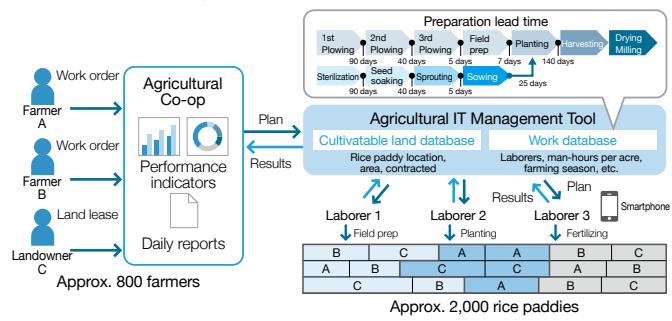
activities are specialized green construction of rooftops, walls, and parking areas and sales of materials, TM9 low-maintenance slow-growth Zoysia grass, and year-round irrigation control systems.

### Contribution to Agricultural and Livestock Production

Toyota used the production control methods and process *kaizen* (improvement) expertise it established in the automotive business to develop *Housaku Keikaku*, an agricultural IT management tool, in order to raise productivity in agriculture. *Housaku Keikaku* has been provided to rice-growing agricultural corporations since 2014. Toyota has participated since April 2014 in the Advanced Model Agricultural Business Formation Trials conducted by the Ministry of Agriculture, Forestry and Fisheries, established the Rice Production Kaizen Network in collaboration with Ishikawa Prefecture, nine rice-growing agricultural corporations in Aichi Prefecture and Ishikawa Prefecture, conducted verification tests to raise efficiency and quality even further in conjunction with the provision of *Housaku Keikaku*, and has built foundations for human resource development through on-site *kaizen*. Toyota announced collaboration with Hokkaido and Nagano Prefectures in April 2017. As of May 2017, 33 companies have

introduced the management tool. Expanding the introduction of the tool to more corporations, we will continue our efforts to further contribute to improving efficiency and quality of rice farming.

#### *Housaku Keikaku* System Overview





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## Society | Creating an Affluent Society

### **Housaku Keikaku Agricultural IT Management Tool Wins Minister of Economy, Trade and Industry Award (Japan)**

In October 2016, *Housaku Keikaku* won a Minister of Economy, Trade and Industry award at the FY2016 Informationization Month Commemorative Ceremony held by the Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Land, Infrastructure, Transport and Tourism.

*Housaku Keikaku* was recognized for contributing to improving organizational development and motivation and achieving production organization and productivity increases by agricultural corporations. It was also rated highly for promoting the use of IT by creating new approaches to agricultural continuity and growth through IT.



Senior Managing Officer Shigeki Tomoyama  
appeared at the award ceremony

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Society | Creating an Affluent Society

## Olympic Games, Paralympic Games and Special Olympics

### Fundamental Approach

Competing in sports brings about “courage” and “inspiration.” The Olympic and Paralympic Games possess a “power” that enriches people and society through various activities that are centered on sports.

Toyota believes strongly in the vision and philosophy that the Olympic and Paralympic Games strive to achieve, and became an “Official Worldwide Olympic Partner” of the International Olympic Committee (IOC) and an “Official Worldwide Paralympic Partner” of the International Paralympic Committee (IPC) in 2015. By providing various activities and sustainable mobility, Toyota would like to help “Achieve an ever better, more peaceful and equal world.”

In addition, Toyota entered into an agreement as a “National Partner” with the Special Olympics Nippon Foundation (SON) in January 2016.

Toyota has been supporting SON’s activities and national tournaments to help people with intellectual disabilities to participate in sports.

### Olympic and Paralympic Games initiative

#### What Toyota Is Aiming for as a Partner

The terms of the agreements with the IOC and the IPC are valid until 2024 and include the Olympic Games Tokyo 2020 and Paralympic Games. Toyota will participate as a partner in the mobility field. Through the Olympic Games and Paralympic Games, Toyota is aiming to achieve the following goals: “Ever Better MOBILITY FOR ALL,” “Ever Better SOCIETY” and “Ever Better TOYOTA.” Toward the realization of a society in which everyone can participate

and strive, Toyota will take initiatives in the following three fields: mobility, sports, and social issues.

**Ever Better  
MOBILITY  
FOR ALL**

**Ever Better  
SOCIETY**

**Ever Better  
TOYOTA**

### Initiatives in the Mobility Field

In the area of mobility, Toyota will provide Olympic vehicles that will bring a smile to everyone who comes to the Olympic events. Specifically, Toyota will provide vehicles equipped with the latest and most advanced technologies as of 2020 (4,100 vehicles will be provided for the events) and will also propose future social and transport systems. Additionally, Toyota will provide safe, secure, and comfortable mobility to everyone, including people with disabilities and visitors from overseas.



UD taxi



Welcab

#### Mobility Initiatives

##### Environment

- Providing mobility that satisfies the world's highest environmental performance standard
- Demonstrating commercialization technologies toward popularizing hydrogen Providing fuel-cell vehicles and fuel-cell buses Install and promote hydrogen stations, proposing future communities

##### Safety and Security

- To provide safe and secure transportation meeting the world's highest performance standards, Toyota will introduce the latest AI technologies, ITS with automated driving technologies, and Connected Car technologies.

##### Comfort

- Introduce an event vehicle system that utilizes Toyota's logistics expertise to help ensure smooth, even operation

##### Universal Design

- To ensure unrestricted mobility for people with disabilities, the elderly, and people accompanied by children, Toyota will introduce “universal design (UD)” taxis into the market and provide Welcab as event vehicles.

##### Varied Mobility

- To provide *Waku-doki* (excitement and exhilaration that wows you) and the joy of mobility both inside the event venues and when traveling between venues, Toyota will provide a compact mobility device and robots.

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## Society | Creating an Affluent Society

### Initiatives in the Sports Field

In the area of sponsoring or supporting athletes, Toyota plans to continue its multifaceted support, focusing on existing athletic clubs for athletes without disabilities. On becoming a Paralympic partner, Toyota decided to provide focused support to athletes with disabilities. Specifically, Toyota plans to support equipment that takes advantage of Toyota's strength in *monozukuri* (manufacturing), in addition to hiring such athletes as employees as it does with athletes who do not have disabilities.

Among the various sports organizations for the disabled, Toyota will focus its support on Boccia and wheelchair basketball.

All of Toyota will contribute to the Olympic and Paralympic movements, with its employees cheering on competitors and serving as event volunteers, focusing on the athletes and sports organizations selected for support.

### Initiatives in the Social Issue Field

Since the time of its founding, Toyota has always considered social contribution to be important. In conjunction with its participation in the Olympic and Paralympic Games, Toyota established a structure to enable each of its offices, regional headquarters, and plants worldwide to better address the social issues of individual areas around the world.

Using Toyota's sponsorship fund, the IPC started the National Paralympic Committee (NPC) Development Program with the goal of increasing the organizational strength and expanding the base of individual countries' Paralympic organizations. To promote sports events for people with impairments on a global-scale, Toyota will support all NPCs (178 countries).

### Toyota Becomes a Gold Partner of the Japan Boccia Association and Official Sponsor of the Japan Wheelchair Basketball Federation

Toyota is sponsoring these two organizations in order to help increase recognition and popularization of sports events for the disabled.

Boccia is a sport in which even people with severe impairments, such as cerebral palsy, can participate and that many people can enjoy together, regardless of gender or age or whether one is impaired or not.

Among sports events for the disabled, wheelchair basketball has a great number of participants and enjoys a wide base that includes leagues even for unimpaired athletes, as well as university federations.

Both sports transcend the boundaries between athletes with and without impairments and serve to widely spread the joy and excitement of sports among many kinds of people.

In conjunction with the sponsorships announced recently, Toyota plans to encourage its employees to cheer on competitors and serve as event volunteers, to conduct awareness activities at sales outlets, and to consider assisting in athlete mobility during competitions and so on.



Boccia (top) and wheelchair basketball (bottom)

### Special Olympics Initiative

The Special Olympics (SO) is an international sports organization that provides various sports training opportunities and holds events and competitions that give people with intellectual disabilities opportunities to demonstrate their abilities. The SO's mission is to continuously provide opportunities for the participating athletes to improve their health, experience their own courage and joy, and share their talents, skills, and friendship with their family members, other athletes, and people in the community. Agreeing with this mission, Toyota is providing a variety of support, such as providing vehicles and volunteers for the Games, in various countries and regions.

In October 2016, the business cards of all Toyota employees in Japan began to feature the SO logo, in addition to the Olympic and Paralympic logos, in order to increase recognition of the SO.

During the same month, the 6th Special Olympics Yell Run event was held in Tokyo. Using the Toyota's test drive course at MEGA WEB, a

total of four runs were held: the Kids Run, Parent-Child Run, 3-hour Relay, and 3-hour Relay Unified (for teams consisting of runners with and without impairments). The proceeds from the event were donated to an activity fund, covering expenses such as sending the Japanese team to the 2017 Special Olympics World Winter Games in Austria. The event was attended by more than 1,600 people, including 150 volunteers. Toyota sent a 20-person cheerleading squad/brass band, as well as 27 employees who participated as volunteer runners.



6th Special Olympics Yell Run held at MEGA WEB

WOW ACTION [Web](https://toyota.jp/wows/actionclip/special_olympics/) [https://toyota.jp/wows/actionclip/special\\_olympics/](https://toyota.jp/wows/actionclip/special_olympics/)



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## Society | Creating an Affluent Society

### Promoting Various Sports, from Company Teams to Lessons for Children

Toyota is working to help create affluent communities by adopting initiatives that promote various sports.

Since our founding in 1937, Toyota has focused particularly on company sports. The image of players competing, including the challenge, teamwork and never giving up, embodies the spirit that Toyota holds so dear. The image of coworkers working hard together helps raise the work ethic and liven up the workplace.

There are currently 35 athletic clubs and teams, each of which balance sport with work to bring excellent results.

Out of gratitude to people for their support of Toyota, Toyota is carrying out community contribution activities. For example, Toyota carried out more than 100 programs in 2016, including sending Toyota athletes to lead "Dream Classes" at elementary schools in Toyota City, Aichi Prefecture, and providing support for sports classes offered by Toyota dealers and sports events held by local communities.



Toyota Baseball Team, which won the championship for the first time in the intercity baseball tournament in 2016



Rugby workshop



Baseball clinics for youth baseball teams



Tokyo My Challenge

### Support Provided to 2016 Land of Hope Iwate National Sports Festival and Land of Hope Iwate National Sports Festival for People with Disabilities, a Symbol of Recovery

Sharing the hope of invigorating the region through the power of sports five years after the disaster, Toyota provided support for these events with the people of Iwate Prefecture. Before the festivals, a publicity event in Tokyo, a baseball clinic for elementary school students led by Koji Uehara of the Red Sox, Sports Egao Classrooms at elementary schools in disaster-affected areas, and a rugby match between Toyota Verblitz and Kamaishi Seawaves were held among other events to publicize and raise expectations for the National Sports Festivals. Toyota also provided support on the operational front by sending employee volunteers to assist during the festivals. A cumulative total of 93 employees from Toyota, including Toyota Group companies in Aichi Prefecture, and a cumulative total of 176 employees from the Iwate Plant of Toyota Motor East Japan, as well as employees of Toyota dealers in Iwate Prefecture all joined forces to participate as event operation volunteers at the two festivals.



Exhilaration at the two festivals

### Results of Major Sports Activities in FY2016

Rio Olympic and Paralympic Games (athletes who participated from Toyota)

Olympic	7-man rugby	Masakatsu Hikosaka (best 4)
Olympic	Women's basketball	Mika Kurihara and Kaede Kondo (best 8)
Olympic	Pole vault	Seito Yamamoto
Paralympic	Track and field 4x100m relay	Keita Sato and Hajimu Ashida (bronze medal)
Paralympic	Wheelchair tennis	Takuya Miki (4th place in doubles)
Paralympic	Shot-put	Tyrone Pillay (bronze medal)

\*Toyota South Africa Motors (TSAM) employee

### Baseball Team

At the 87th Intercity Baseball Tournament, the Toyota Baseball Team won the championship for the first time since the team was formed in 1947.

### Major Community Contribution Activities in FY2016

JFA Kokoro Project, "Dream Class"

JFA, Toyota City, Chukyo University, and Toyota worked together to send their athletes to lead "Dream Classes" at elementary schools in Toyota City. In FY2016, Toyota was in charge of 37 classes out of a total of 93.

Activities by the Toyota National Dealers' Advisory Council

Running class (Netz Toyota Kitami), rugby workshop (Toyota Corolla Tokushima), basketball workshop (Netz Toyota Tokai and former players on the Women's Basketball Team), wheelchair workshop (Toyota West Tokyo Corolla and Takuya Miki), etc.

Activities in collaboration with local governments

Clinics and other events are held based on requests from local governments, primarily at the home bases of athletic teams and in locations where they travel to compete. Examples: Elementary and middle school softball clinic (Iwate Prefecture), mingling with rugby players (Morikoro Park), local running class (Tahara City, Aichi Prefecture), basketball workshop (Fuchu City, Tokyo), and baseball clinics for youth baseball teams (Bunkyo Ward, Tokyo)

Tokyo My Challenge "Fun to Clean."

Toyota athletes, as well as employees of several Toyota Group companies (in the Tokyo area) and dealers, along with their family members, walked a route of approximately 5 km within Tokyo, picking up trash along the way

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Society | Social Contribution Activities

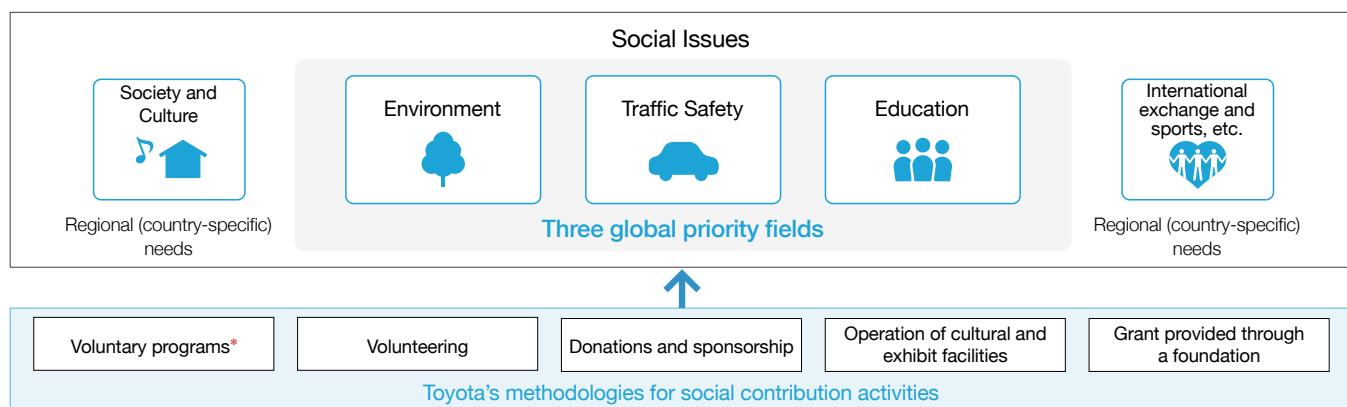
# Social Contribution Activities

## Fundamental Approach

Based on Toyota's origins, which can be traced back to the founding principle of contributing to society by making automobiles, we have been striving to contribute to the sustainable advancement of society.

We set the environment, traffic safety, and education as the three global priority fields for our initiatives, in addition to making social contributions through our main business. To these, we have added fields such as society and culture according to the social needs of each country or region, undertaking active measures while utilizing our resources of technology and expertise, etc. In addition, emphasis has been placed on support for volunteering and sustaining automotive and manufacturing cultures. The Toyota Global Vision announced in March 2011 positioned enriching the lives of communities as one of the main objectives of Toyota's business, in addition to making ever-better cars. We are taking steps to enrich the lives of communities, with a sense of gratitude toward the people that comprise them.

## Social Contribution Activity Fields



\* Social contribution activities that are planned, developed, and implemented by a company on its own depending on the situation

## Principles and Policies of Social Contribution Activities (Established in 1995)

Purpose	We in the Toyota Group will undertake social contribution activities to contribute to sustainable social vitality
Stance	We will maximize the benefits of our social contribution activities by working with partners; by using our resources effectively; and by concentrating on initiatives that address real social needs, including the need for fostering human resources
Employee participation	We will support independent social contribution activities that our employees undertake as members of the community
Information disclosure	We will disclose information about our social contribution activities, aiming to promote the development and improvement of societies
Global perspective	We will adopt a global perspective on social contribution activities while adapting our activities to needs and circumstances in each nation and region where we operate

## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

Major Initiatives during FY2016 (result)	Major Initiatives during FY2017
Social contribution (excluding Great East Japan Earthquake Restoration Support)	
<ul style="list-style-type: none"> <li>● Promoted activities in fields including environment, traffic safety, education, society and culture</li> <li>● Supported and aided the Special Olympics Nippon through employee volunteers and the participation of athletes from Toyota Motor athletics clubs</li> <li>● Enhanced cooperation aimed at expansion of activities which leverage Toyota's global expertise</li> </ul>	<ul style="list-style-type: none"> <li>● Continue the activities described to the left</li> <li>● Expand activities toward realization of an inclusive society in which diversity is accepted and anyone can live happily, for example by strengthening support and sponsorship of the Special Olympics</li> <li>● Continue the activities described to the left</li> </ul>
Great East Japan Earthquake Restoration Support	
<ul style="list-style-type: none"> <li>● Continued restoration support activities, such as holding voluntary programs in disaster-struck areas and dispatching employee volunteers</li> </ul>	<ul style="list-style-type: none"> <li>● Continue the activities described to the left</li> </ul>

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## Society | Social Contribution Activities

### Organization and Structure

In Japan, the Corporate Citizenship Division, a specialized division for corporate social contribution activities, plays the lead role in organizing activities.

Since April 2015, the Corporate Planning Meeting has deliberated on growth and business strategies, taking a wide range of social challenges into consideration. The Meeting discusses social

contribution initiatives along with business strategies.

Outside Japan, Toyota and Toyota regional headquarters in the United States, Europe, Asia and China have formed a network to strengthen their promotional efforts. The regional headquarters conduct promotional activities within their regions while maintaining close communications with Toyota.

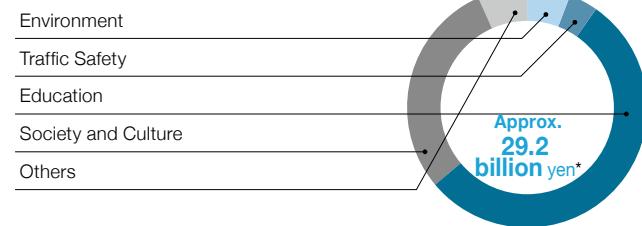
### Domestic Implementation Structure



### Overseas Implementation Structure

U.S.A.	The Philanthropy Executive Council under the Executive Committee is responsible for leading philanthropy strategy and ongoing decision making as needed
Europe	The Toyota Fund for Europe Board is responsible for setting direction on social contribution activities, as well as for selection and approval of projects proposed to Toyota Motor Europe
Asia	Regional social contribution meetings are led by Toyota Motor Asia Pacific to consider the deployment and direction of activities within the region
China	Toyota Motor (China) Investment promotes activities in China based on local needs and in collaboration with related affiliates

### FY2016 Expenditure for Social Contribution Activities



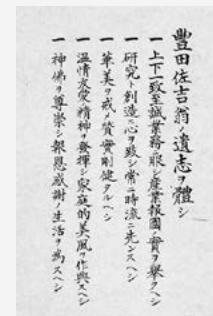
\* Figures for Toyota and major subsidiaries, calculated on a consolidated basis  
Overseas affiliates' results have been converted to yen based on the average exchange rate for fiscal 2016

### Toyota's Social Contribution Activities, which Started with Sakichi Toyoda's Hope for People's Happiness

Toyota's social contribution activities trace their roots to Sakichi Toyoda, the father of Toyota Motor Corporation's founder, Kiichiro Toyoda. In 1925, Sakichi pledged one million yen (at the time) to the Imperial Institute of Invention and Innovation to encourage battery-related inventions because he wanted to support inventions that would enrich people's lives. In the end, the invention of such batteries proved to be extremely difficult and none have yet been completed. Still, the progress that has since been made in this field has had a tremendous impact on industries and people's lives. Toyota's long history of social contribution activities can be traced back to Sakichi, who held a hope for people's happiness. After Sakichi's death, this spirit was handed down to Kiichiro and others who started the automotive industry in Japan, through the concepts of contributing to the development and welfare of the country and feelings of gratitude, and was later incorporated into the Five Main Principles of Toyoda, the Guiding Principles at Toyota, and the Toyota Global Vision. These precepts have been handed down to the present.



Sakichi Toyoda



Five Main Principles of Toyoda

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## Society | Social Contribution Activities

### Environment

Toyota actively provides environmental education, supports environmental programs, and undertakes reforestation. As forests are the basis of a sustainable society, Toyota carries out continuous ownership and preservation of its forests under appropriate

**Activity Case (Japan)** The Forest of Toyota was created by rejuvenating a company-owned forest in Toyota City as a satoyama model. It is offered as a site for environmental learning targeting a wide segment of society with a focus on local children.

In July 2016, the Biotope Club of the local Sueno Elementary School indicated that the students of the club wanted to know the depth of a pond and learn how to preserve local plants as a reference for improving the biotope at their school. In response, a program for learning about improvement techniques and creatures living in the biotope was carried out. The students who attended the program took the lead in applying what they learned to improve the biotope at their school. Toyota plans to continue providing opportunities for environmental learning that matches the wishes of the people in the local communities.



Reed-pulling work

#### Other activities

- Toyota Shirakawa-Go Eco-Institute
- Toyomori
- Toyota Mie Miyagawa Forest Project
- Toyota Environmental Activities Grant Program
- AQUA SOCIAL FES! etc.

management. Furthermore, Toyota has implemented environmental activities in Japan and overseas with an emphasis on collaboration with society and regions, and our employees have undertaken regional environmental preservation through volunteer activities.

**Activity Case (Overseas)** Toyota has been conducting an initiative to stop desertification in Xiaobazi Township, Fengning Manchu Autonomous County, Hebei Province, since 2001 in collaboration with partners such as the Chinese Academy of Sciences. The initiative carries out countermeasures that address the causes of desertification and conducts tree-planting events to improve the lives of local residents. The initiative has also created a model of sustainable afforestation by establishing mechanisms for sustaining activities by residents even after support has ended. Management of the program was transferred to TMCI in 2011. In June 2017, around 100 people (employee volunteers and media personnel) attended a tree-planting event. There, they learned first-hand through a panel display about the steady efforts that have been made and the environmental changes that have occurred over the past 17 years.



Xiaobazi Township in 2015

#### Activities in other countries

- Smart Eco-drive (South Korea)
- Stop Global Warming (Thailand)
- Toyota Eco Youth (Indonesia and Malaysia) etc.

### Traffic Safety

Toyota is addressing traffic safety through integration of people, cars, and the traffic environment, with the aim of completely eliminating traffic casualties. As a part of these efforts, Toyota has been conducting educational activities since the 1960s, targeting people

**Activity Case (Japan)** In FY2016, as part of its traffic safety programs, Toyota joined with Toyota dealers nationwide to launch a new traffic safety awareness program named the *Machihotaru* (City Firefly) Project. This initiative recommends effective use of high beam headlights to drivers and wearing accessories made of reflective materials to pedestrians. For its dealers, Toyota held safe driving instructor training seminars led by former Mobilitas Chief Instructors, in addition to loaning traffic safety education tools. For example, at Toyota Corolla Tokushima, employees received training on safe driving attitude and techniques, which they are now propagating by advising customers.



Toyota Safety School (Toyota Corolla Tokushima)

#### Other activities

- Toyota Traffic Safety Campaign
- Toyota Safety School
- Hands-on Traffic Safety Events
- Toyota Driver Communication etc.

such as drivers and pedestrians, to raise awareness of traffic safety and has been continuously implementing various programs for a wide range of people. Such programs are also being implemented at overseas affiliates in recent years.

**Activity Case (Overseas)** TMT has promoted a traffic safety campaign called the White Road Project (implies "safe road" in Thai) since 1988. As part of this campaign, TMT has so far opened White Road Theme Parks where children can enjoy learning about traffic safety, a traffic safety education program, and a traffic safety campaign targeted at younger generations and new drivers in collaboration with Toyota dealers. TMT's activities are conducted with the cooperation of Thailand's Ministry of Education, Royal Thai Police, Ministry of Transport, and other organizations. Its long standing initiatives have been acclaimed by the Thai government.



At White Road Theme Park

#### Activities in other countries

- Driving schools held in collaboration with dealers (India)
- Traffic Safety Education for Children (Vietnam, Cambodia, Argentine)
- Traffic safety education for high school students (U.S.A. and Australia), etc.

- > Initiatives for Improving Traffic Safety > Customer First and Quality First Measures > Creating an Affluent Society > Social Contribution Activities
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## Society | Social Contribution Activities

### Education

In accordance with our principle that “*Monozukuri* is about Developing People,” Toyota provides support worldwide to promote the development of the human resources who will become the leaders of tomorrow. Respecting the culture and customs of every nation, Toyota aims to help realize an affluent society through

**Activity Case (Japan)** In September 2016, Toyota held fuel cell vehicle classes for the upper-grade students of elementary schools in Iwaki City, Fukushima Prefecture. The goals of these classes were to provide young people who will become the leaders of tomorrow the opportunity to experience cutting-edge technologies, focused on fuel-cell vehicles (FCVs), and to arouse their interest in the environment, science, and *monozukuri*. With the help of members of Toyota’s Battery & Fuel Cell Production Engineering Division serving as instructors, this project enables students to have a broad range of experiences through *monozukuri*. Students who attended the class made comments such as, “Hydrogen is awesome” and “I want to get a job working on environmental problems,” indicating that the classes were useful educational experiences to introduce the students to the coming hydrogen-based society.



Workshop with Toyota employees acting as instructors

#### Other activities

- Work Experience Program
- Scientific Jack-in-the-Box! The Why/What Lecture
- Hearing-impaired children touring Toyota
- Toyota First Experience Program
- etc.

corporate activities rooted in local communities. Toyota also provides support in occupational and educational areas and promotes programs that convey the importance of *monozukuri* to ensure sustainable advance of such a society.

**Activity Case (Overseas)** Toyota, TMCI, and the China Soong Ching Ling Foundation (CSCLF) jointly established the Toyota Study Assistance Fund to support high-achieving Chinese students who face financial hurdles to entering university or pursuing graduate degrees. The program marked its 10th year in 2016, with the cumulative number of students reaching around 2,600. In addition to financial support, a summer camp program designed to enhance the student’s autonomy and skills, support for student voluntary activities, and other educational programs are provided and students are invited to travel to Japan to expand their perspectives. To provide networking opportunities, an online community that includes students, graduates, CSCLF and Toyota has also been established.



2016 summer camp program

#### Activities in other countries

- Toyota Family Learning Program (U.S.A.)
- Toyota Teach (South Africa) etc.

### Society and Culture

In the area of culture, Toyota supports music, dance, and other programs with an emphasis on promoting local culture, supporting youth, and expanding perspectives. In the area of society, Toyota supports mecenat programs, social welfare, and independent

**Activity Case (Japan)** The Toyota Choreography Award was established in 2001 as a joint project of Toyota and Setagaya Public Theatre, with the goal of discovering and nurturing the next generation of choreographers. This program, which promotes dance and supports the activities of choreographers in Japan, has to date selected a total of 70 groups as finalists out of 1,951 applications. Finalists are currently active in many areas. The program will end after the 10th Award, and the last performance by award recipients will be held in 2017.



Shintaro Hirahara, the winner of the Next Generation Choreographer Prize and Audience Prize of the Toyota Choreography Award 2016 ©bozzo

#### Other activities

- Toyota Community Concerts
- Toyota Lobby Concert
- Toyota Master Players, Wien
- Net TAM
- etc.

lifestyles in order to promote communication and the pursuit of mutual benefit with local communities to create a society where diverse people respect and support each other.

**Activity Case (Overseas)** One of the missions of the TSSC (Toyota Production System Support Center), founded in 1992, is utilizing the Toyota Production System (TPS) to support manufacturing industries in North America. TSSC is supporting companies outside the automotive and related industries, as well as nonprofit organizations and government entities that have a true desire to improve their operations and better serve customers. In healthcare, TSSC has helped reduce wait times at emergency rooms, ensure timely delivery of medicines and medical supplies, and reduce inventory in stock rooms. It has also expanded its support of nonprofit organizations in areas such as hunger relief, disaster recovery, and education. To date, TSSC has implemented more than 300 improvement measures for various organizations.



Activity to support medical supply inventory

#### Activities in other countries

- Medical & Dental Outreach Program (The Philippines)
- Supporting Free Surgery Project (Venezuela) etc.

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## Society | Social Contribution Activities

### Supporting Employees' Volunteer Activities

Toyota supports employees' participation in volunteer activities undertaken on their own initiative and seeks to establish communities where people support one another. In Japan, Toyota works with relevant parties to plan and conduct programs that address various

**Activity Case (Japan)** In conjunction with the Olympic Games Tokyo 2020 and Paralympic Games, Toyota has been holding the Toyota Barrier-free Seminar as a way of helping its employees to achieve "barrier-free hearts" since 2016. By providing employees with opportunities to learn about various impairments and practice relating to them, encouraging changes in attitude and behavior, the seminar expands the circle of volunteers. In FY2016, the seminar was held seven times, attended by a cumulative total of 342 employees and their family members. With the goal of helping realize a society in which people support and help each other in communities and workplaces, the seminars try to help participants develop an attitude of self-motivated action.



Toyota Barrier-free Seminar

#### Other activities

- TABLE FOR TWO
- Volunteering to Preserve Loggerhead Turtle Spawning Beach
- Thinning of Planted Forests by Volunteers etc.

issues surrounding communities in four key fields: environment, disaster relief, social welfare, and sports. Toyota also internally disseminates volunteer information from outside organizations.

**Activity Case (Overseas)** Since 2013, Toyota Motor Europe (TME) has been carrying out employee-driven charity activities in collaboration with Serve the City, a Belgium-based NGO that helps refugees and socially disadvantaged people. In 2015, TME donated a brand new Proace van to Serve the City. In 2016, TME donated money raised through various employee-run lunchtime and fun weekend activities, including bake sales, yoga lessons, and photo shoots, to Serve the City for purchasing a mobile kitchen. This mobile kitchen made it possible to serve warm meals on the streets of Brussels.

Furthermore, a Proace van was parked inside the TME lobby, where employees filled it with food and hygiene products from their homes. Through this initiative, two vans' worth of supplies were collected and donated to Serve the City.



Charity activities (bake sale)

#### Activities in other countries

- Volunteer activities by Team Toyota (U.S.A.)
- Support for the homeless (U.S.A., South Korea)
- Volunteer Support for the Special Olympics (Japan, U.S.A.) etc.

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## Society | Social Contribution Activities

### Cultural and Exhibit Facilities

The ideas of contributing to society through manufacturing and leading the times through research and creativity represent the passion of our predecessors and have been passed on to the Toyota of today. While Toyota strives to preserve its founding spirit and

concepts in the form of its automotive and manufacturing culture, it also manages and operates cultural and exhibit facilities as platforms for everyone to come together to think about ways to create an enriching future for people and cars.

#### Cultural and Exhibit Facilities

##### Facility name and overview

###### **Toyota Kuragaike Commemorative Hall** (Toyota City, Aichi Prefecture)

Introducing the history of Toyota and the dreams and passions of Kiichiro and his team who supported its founding

**Web** [http://www.toyota.co.jp/en/about\\_toyota/facility/kuragaike/](http://www.toyota.co.jp/en/about_toyota/facility/kuragaike/)



###### **Sakichi Toyoda Memorial House** (Kosai City, Shizuoka Prefecture)

Exhibiting the life story of Sakichi Toyoda, the founder of the Toyota Group, at his birthplace

**Web** [http://www.toyota-global.com/company/profile/facilities/sakichi\\_toyoda\\_memorial\\_house.html](http://www.toyota-global.com/company/profile/facilities/sakichi_toyoda_memorial_house.html)



###### **Toyota Commemorative Museum of Industry and Technology** (Nagoya City, Aichi Prefecture)

Exhibits and demonstrations to introduce the history of Toyota Group, which used the textile machinery business as a springboard to enter the world stage of car manufacturing

**Web** <http://www.tcmit.org/english/>



##### Facility name and overview

###### **Toyota Kaikan Museum** (Toyota City, Aichi Prefecture)

Displaying Toyota's vision and state-of-the-art technologies, and providing a reception point for plant tours

**Web** [http://www.toyota.co.jp/en/about\\_toyota/facility/toyota\\_kaikan/](http://www.toyota.co.jp/en/about_toyota/facility/toyota_kaikan/)



###### **Toyota Automobile Museum** (Nagakute City, Aichi Prefecture)

Introducing the history of automobiles through approximately 160 vehicles representing various eras from around the world

**Web** <http://www.toyota.co.jp/Museum/english/>



###### **MEGA WEB** (Koto-ku, Tokyo)

Site in Tokyo's waterfront district enabling visitors to look, ride, and feel cars, and enabling Toyota to receive and send out information

**Web** <http://www.megaweb.gr.jp/about/english.html>



### Foundations

#### Toyota Foundation

The Toyota Foundation was established in 1974 with the goal of contributing to long-term and wide-ranging social activities from a global perspective. It supports research and projects that seek solutions to problems in various fields, such as people's living environment, the natural environment, social welfare, education and culture.

Specifically, the foundation conducts a variety of support programs, including the Research Grant Program, International Grant Program, Grant Program in Japan, Communication with Society Program, and the Initiative Program.

**Web** <http://www.toyotafound.or.jp/english/index.html>

#### Toyota Mobility Foundation

The foundation was established in August 2014 to realize a prosperous mobility society while eliminating disparities in mobility. While capitalizing on Toyota's expertise, the foundation is working together with NPOs and research organizations worldwide that possess superior visions and experience, to solve mobility issues and help create a society with improved mobility.

**Web** <http://toyotamobilityfoundation.org/en/>

#### Grant Program Examples

Region	Project name
Bangkok, Thailand	Traffic Congestion Mitigation Project (Ended in March 2017)
Da Nang, Vietnam	Transportation Means Diversification Promotion Project
Mimasaka City, Okayama Prefecture, and Toyota City, Aichi Prefecture	Project for establishing a system to eliminate disparities in mobility in mountainous regions
Bengaluru, India	Idea contest to improve access to metro transit
U.S.A.	Next Generation Mobility Challenge, a contest for solutions to solve mobility problems

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Society | Respect for Human Rights

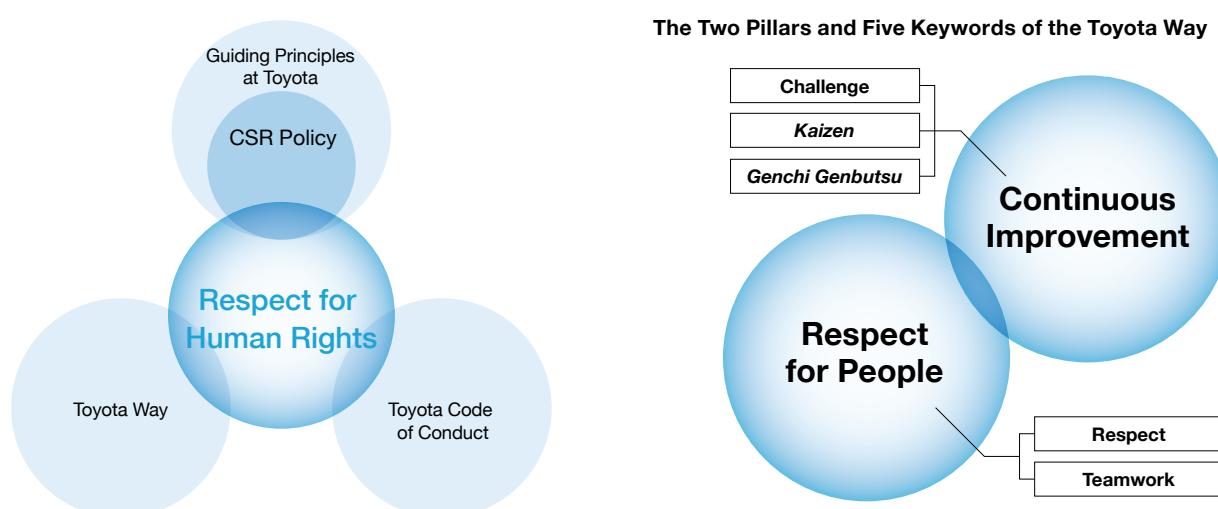
# Respect for Human Rights

## Fundamental Approach

The Guiding Principles at Toyota and the Toyota Code of Conduct, which consolidates Toyota's approach to putting these principles into practice, as well as the CSR Policy: Contribution towards Sustainable Development, contain the concept of respecting and honoring the human rights and other rights of all the people involved in Toyota's business.

Furthermore, of the two pillars of the Toyota Way,—"Continuous Improvement" and "Respect for People"—. "Respect for People" refers to respect for all stakeholders as well as respect for the character and abilities of employees as individuals and facilitating personal achievement by linking the personal growth of employees to company performance. Thus, putting the Toyota Way into practice means respecting human rights.

The Toyota Way is the moral foundation for sharing common values with all business units across the world. In addition, various measures are implemented so that employees can work with confidence, vigor, and enthusiasm. Efforts are also made to fully reflect and put into practice such concepts throughout Toyota's global business activities, which include subsidiaries and suppliers.



## Major Initiatives during FY2016

### Toyota

Toyota established self-checking for the Consolidated Compliance Program to confirm whether business is being executed in line with the concept of respect for human rights, and follow-up is performed for the various functions each year.

### Subsidiaries in Japan and Overseas

Toyota requests the implementation of self-checking for the Consolidated Compliance Program once a year at its subsidiaries in Japan and once every two years at overseas subsidiaries. As a part of this initiative, subsidiaries have been requested, since 2012, to propose and implement improvement measures addressing human rights and labor issues based on the results of self-checking.

In 2015, self-checking was conducted at 195 subsidiaries in Japan and 216 overseas subsidiaries. Of those subsidiaries that responded with self-checking results in 2016, Toyota requested those requiring improvements to make the necessary improvements.

### Suppliers

Toyota developed and rolled out the Toyota Supplier CSR Guidelines in 2009. They clearly describe Toyota's policies and approaches to human rights, along with supplier expectations. The suppliers are requested to perform self-inspections in accordance with the guidelines. At the end of 2012 the Toyota Supplier CSR Guidelines were revised. Since then Toyota sends a newly developed questionnaire pertaining to human rights and labor that are deemed critical check items to suppliers every other year and then collects the results, which helps us confirm their practices, make improvement requests as needed and monitor their improvement activities.

In 2015, Toyota again sent the questionnaire to its suppliers in Japan and overseas (approximately 3,000 companies). Of those suppliers that responded to the questionnaire in 2016, Toyota requested those requiring improvements to make the necessary improvements.

### Dealers

In Japan, the Toyota National Dealers' Advisory Council (TNDAC) which is comprised of Toyota dealers, voluntarily developed and issued the TNDAC CSR Guidelines in 2005. They include explicit statements about Toyota compliance policies and what is expected of the dealers. As a specific action for improvement, each dealer checks the items related to human rights and labor in the CSR Check List and executes a PDCA cycle and reports their activities of the year to the TNDAC.

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## Society | Respect for Human Rights

### Organization and Structure

Toyota is responding to changes in circumstances such as heightened social demands concerning human rights by continuously enhancing and reviewing its corporate initiatives. For example, in conjunction with the reinforcement of the due diligence concept and the introduction and revision of international norms based on this approach, a Human Rights Working Group was established in 2011 to incorporate various functions including corporate planning (now Corporate Affairs), overseas external affairs, audit, legal affairs, accounting, purchasing planning and human resources with the aim of researching various international norms

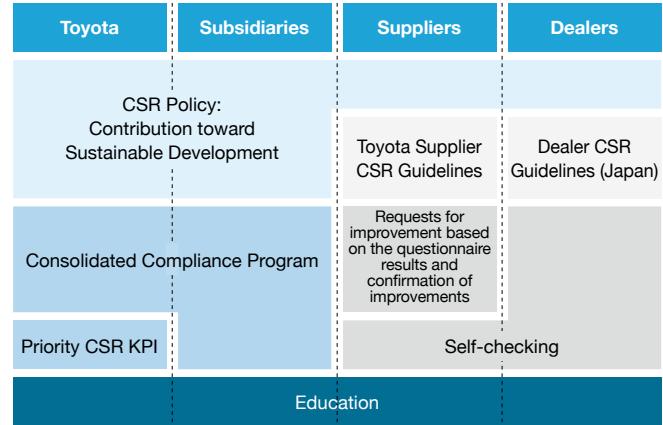
and studying measures that Toyota should take. Based on the Group's work, we continuously reinforce and review various CSR measures relating to human rights and labor. Since April 2015, an optimal governance structure has been deliberated in the Corporate Governance Meeting, which serves as a supervising body over business implementation, to realize growth and business strategies that have taken a wide range of social challenges into consideration. The Meeting discusses matters related to human rights and labor.

### Organizational Diagram



[Members] Human Resources Div. Global Audit Dept. Accounting Div.  
Legal Div. Purchasing Planning Div.  
Overseas External Affairs Div.  
Corporate Affairs Dept.

### Sharing and Applying Policies on Respect for Human Rights



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Society | Respect for Human Rights

## Toyota's Approaches to Conflict Minerals Issues

Toyota is taking various measures to realize protection of human rights. Civilians in certain regions around the world are being subjected to massacres, plunder, abduction, conscription of child soldiers, and other inhumane conduct as a result of armed conflict, thereby giving rise to international condemnation. In the Democratic Republic of the Congo (DRC), which is located in central Africa, the unlawful mining and smuggling of the country's abundant mineral resources is said to be a major source of funding for armed groups.

Toyota undertakes business with a strong awareness that violations of human rights, environmental degradation, unlawful mining, and other issues in these conflict regions as well as the issue of minerals that provide sources of funding to armed groups through such actions are major social issues concerning the supply chain.

Toyota has conducted a reasonable country of origin inquiry with

due diligence for its products since May 2013. A report summing up the survey results for the period during January- December of 2016 was compiled in the 2016 Form SD and Conflict Minerals Report and submitted to the U.S. Securities and Exchange Commission on May 31, 2017.

We aim at procurement and usage that are free from conflict minerals originated in the DRC or an adjoining country and relating to illegal conduct including human rights infringement. For that purpose, Toyota will work together with parts suppliers, automotive industry organizations and other relevant organizations.

**Web** [2016 Form SD and Conflict Minerals Report  
pdf/form\\_sd\\_201705\\_final.pdf](http://www.toyota.co.jp/pages/contents/jpn/investors/library/sec/pdf/form_sd_201705_final.pdf)

## Toyota's Policy on Conflict Minerals

Toyota has adopted Policies and Approaches to Conflict Minerals Issues—a set of guidelines the company is supposed to refer to in tackling conflict minerals issues. Based on the guidelines, Toyota is

dealing with the issues. Meanwhile, the company revised the Toyota Supplier CSR Guidelines in 2012, asking its suppliers to engage in responsible material procurement.

### Toyota's Policies and Approaches to Conflict Minerals Issues

We—Toyota Motor Corporation and its subsidiaries—promote obtainment of materials with full deliberation and care to avoid the procurement or usage of materials which are unlawful or which are obtained through unethical or otherwise unacceptable means. We recognize that the situation surrounding conflict minerals originated in the DRC or an adjoining country is one of the significant social issues among supply chains.

We aim at procurement and usage that are free from conflict minerals originated in the DRC or an adjoining country and relating to illegal conduct including human rights infringement.

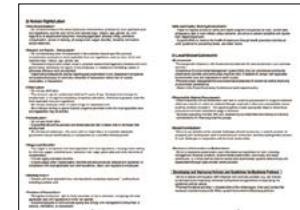
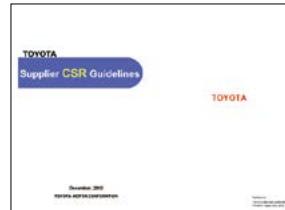
To achieve such procurement and usage, we conduct inquiries tracing back through our supply chains and confirm if conflict minerals are used. And we take appropriate steps to discontinue procurement of materials that can cause social problems or finance armed groups if usage is detected.

Based on mutually beneficial relationships, we ask our suppliers to understand our policies and approaches and to promote responsible material procurement.

### Excerpt from the Toyota Supplier CSR Guidelines (“Responsible Material Procurement”)

We obtain materials with full deliberation and care to avoid the procurement or usage of materials which are unlawful or which are obtained through unethical or otherwise unacceptable means (such as conflict minerals\*). We expect suppliers to take appropriate steps to discontinue procurement of these materials if usage is detected.

\* Conflict minerals: Minerals originating from the DRC or an adjoining country that have directly or indirectly contributed to the financing of armed groups



Toyota Supplier CSR Guidelines

**Web** [Toyota Supplier CSR Guidelines  
http://www.toyota-global.com/sustainability/society/partners/supplier\\_csr\\_en.pdf](http://www.toyota-global.com/sustainability/society/partners/supplier_csr_en.pdf)

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## Society | Respect for Human Rights

### **Establishment of an In-house System, Industry-to-industry Collaboration, and Participation in Public-private Alliance for Responsible Minerals Trade (PPA)**

In 2011, Toyota launched a cross sectional task force in charge of dealing with conflict minerals issues. The team, formally called the Conflict Minerals task force, consists of representatives from relevant departments such as corporate planning (current Corporate Affairs), purchasing, accounting, public relations, external affairs, legal and material engineering within the company. The team has begun considering what actions are to be taken regarding conflict minerals. Also in 2011, Toyota set up a working group on conflict minerals jointly with the JAPIA.<sup>\*1</sup> The move represented the domestic automotive industry-wide efforts to cope with issues associated with conflict minerals.

In 2012, Toyota and its parts suppliers belonging to the JAPIA joined hands in conducting a trial-based survey on conflict minerals used in their products, kicking off their preparations for launching full-fledged investigation into the issues.

In 2013, the Japan Conflict-free Sourcing Working Group was established by automakers and companies belonging to the JEITA.<sup>\*2</sup> Main activities undertaken by the Japan Conflict-free Sourcing Working Group include the investigation of identity regarding firms engaging in smelting in conflicted areas and making visits to organizations representing smelters. The association has been also pressing for smelters to obtain a certificate confirming that minerals they use in their products are DRC conflict-free.

Toyota's efforts to work with other industry groups on the issue of conflict minerals are not limited to activities in Japan. Toyota has been working globally to deal with the issue. For example, the company has participated in a working group set up by the AIAG,<sup>\*3</sup> a U.S. group tasked with setting code of conduct for the auto industry. Toyota has been also cooperating with the CFSI<sup>\*4</sup> through activities of each working group.

Through AIAG, we supported and contributed to CFSI activities. Toyota Motor Engineering & Manufacturing North America, Inc., a U.S. subsidiary of Toyota, contacted 93 smelters/refiners between January and December, 2016, as Co-Leader of AIAG's Smelter Engagement Team, and contacted an additional four smelters/refiners in addition to the 93 above as Team-Lead of the Global Smelter Engagement Teams Working Group, performing smelters' survey and encouraging them to participate in Conflict-Free Smelter Program (CFSP).

In addition, Toyota has participated in the Public-private Alliance for Responsible Minerals Trade (PPA<sup>\*5</sup>), a multi-sector initiative whose members include the U.S. government, industry organizations and

citizen groups. The PPA encourages responsible minerals trade that is free from material procurement in certain areas marred by regional conflict, including the DRC or an adjoining country, and coordinates support to organizations engaged in the critical work to develop conflict-free supply chains.

Toyota agrees with the spirit of the PPA's efforts, and considers resolving issues that may hinder the trading of legitimate mineral resources in those countries. For this purpose, it refrains from requesting suppliers to not use any minerals in the area, regardless of their relation to human rights violations. Based on that awareness, it believes promoting initiatives industry-wide for use of materials that are free from conflict at smelters who are upstream in the supply chain is one way to resolve human right infringement issues and ultimately develop a more civil society.

As a result of the industry-wide cooperation outlined above, the number of conflict-free smelters and refiners worldwide has been increased to 241 as of November 2016.<sup>\*6</sup> Toyota has confirmed that 237 out of those 241 conflict-free smelters were named by our suppliers in response to our request for the 2016 survey.

\*1 JAPIA: Japan Auto Parts Industries Association (<http://www.japia.or.jp/english/>)

\*2 JEITA: Japan Electronics and Information Technology Industries Association (<http://www.jeita.or.jp/english/>)

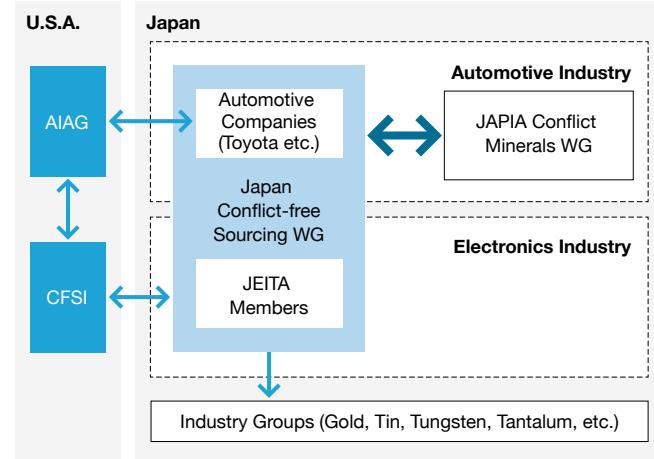
\*3 AIAG (Automotive Industry Action Group): An organization which lays down the code of conduct in the U.S. automobile industry (<https://www.aiag.org/>)

\*4 CFSI: Conflict-Free Sourcing Initiative (<http://www.conflictfreesourcing.org/>)

\*5 PPA: The Public-private Alliance for Responsible Minerals Trade (<http://www.resolv.org/site-ppa/>)

\*6 Toyota started analysis of the survey results in November 2016

#### **Overview of Industry-to-industry Collaboration**



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## Society | Respect for Human Rights

### **Reasonable Country of Origin Inquiry (Details and Results of Surveys Implemented in FY2016)**

In May 2013, Toyota launched a full-scale reasonable country of origin inquiry. Since then, the survey has been conducted globally, covering its subsidiaries operating both in Japan and abroad. In 2016, Toyota carried out the survey for all kinds of business undertaken by Toyota, including automobiles and marine transportation equipment. Tracing back through our supply chains globally, suppliers operating in Japan and overseas were asked to check if conflict minerals have made their way into the supply chains of their products. We contacted suppliers who had not submitted a Conflict Minerals Reporting Template (CMRT), and collected CMRTs from more than 6,000 suppliers in total. We have reviewed suppliers' CMRTs and requested them to make corrections if there are errors and/or omissions in order to effectively improve our efforts associated with conflict minerals.

Before the survey began, Toyota held a briefing session for suppliers while formulating a manual detailing how to fill in the survey sheet and developing a tool used to compile survey results. Also, Toyota supported a briefing session co-sponsored by JAPIA and JEITA. Further, we have been collaborating with our suppliers via regular communications, made possible by our strong and close relationships. As we have been closely communicating with major Tier-1 suppliers, some of the feedback we received from them was integrated into conflict minerals survey-related materials, such as survey manuals, FAQs and other tools. Those materials are provided to suppliers free of charge, with the aim to provide support on the survey.

In addition, Toyota has been doing its due diligence regarding identification of the origin of minerals being used by its suppliers, and their distribution and production processes in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas.

Based on the risks identified through the due diligence, the issue

has been discussed at the management level, then the company designed and implemented a strategy to respond to such risk, which was documented as a risk management plan.

For domestic and overseas suppliers for Toyota brand and Lexus brand vehicles, we have identified priority suppliers for following up to mitigate the identified risk in accordance with the internally-developed criteria and procedures.

The 2016 survey results were incorporated into Form SD and the Conflict Minerals Report, which have been filed with the SEC.

Automobile supply chains are broad and complex, and as a result, in many instances the 2016 survey was not able to identify smelters/refiners and mines in upstream portions of the supply chain.

For details on the survey results, please see below.

As for an in-house system for handling the inquiries on details of survey results, it is designed that all the inquiries we receive from outside parties are raised to the Conflict Minerals task force and discussed among the members of the team.

**2016 Form SD and Conflict Minerals Report**  
Web [http://www.toyota.co.jp/pages/contents/jpn/investors/library/sec/pdf/form\\_sd\\_201705\\_final.pdf](http://www.toyota.co.jp/pages/contents/jpn/investors/library/sec/pdf/form_sd_201705_final.pdf)

### **Results of Surveys Implemented in 2016**

#### **Conflict Minerals' Country of Origin**

Because sufficient information to identify a portion of the smelters/refiners and the countries of origin of conflict minerals was not provided by its suppliers, Toyota was unable to determine if any of its products to be DRC conflict-free.

#### **Facilities Used to Process Conflict Minerals**

During the course of our due diligence on the source and chain of custody of the necessary conflict minerals, Toyota has collected information on some, but not all, of its smelters/refiners. Among those smelters/refiners, we found some of them processed minerals sourced in the DRC or an adjoining country. However, through our due diligence, we were unable to obtain sufficient information to determine whether those conflict minerals were from mines which financed or benefited any armed group.

#### **Future Effort Details**

- Improve the reasonable country of origin inquiry (RCOI) survey and due diligence
- Improve the measures of the RCOI survey based on feedback from major Tier 1 suppliers
- Conduct awareness-raising activities for suppliers such as providing conflict minerals survey-related materials including guidance manuals, holding sessions on a regular basis in cooperation with JAPIA and continuing to communicate and exchange opinions with trade partners with direct business
- Encourage smelters/refiners to participate in the Conflict-free Smelter Program through the industry organizations such as AIAG and JAPIA
- Continue industry-wide cooperation such as contribution to CFSI through AIAG and participation in PPA
- Follow up with suppliers if there is room for improvement in terms of responsible material procurement, which is among the requirements described in the Toyota Supplier CSR Guidelines

## **Future Efforts**

Toyota aims to become a company that does not use conflict minerals originating from the DRC or an adjoining country that were mined and sold under the control of armed forces to finance conflict and violation of human rights, as materials for their products. Toyota has pledged to become DRC conflict free in collaboration with suppliers. Toyota finds it necessary to establish the environment that enables implementation of survey and due diligence through gathering information on smelters and lobbying to organizations of smelters. For that environment to be created, Toyota will work with industry and other groups.

- > Initiatives for Improving Traffic Safety > Customer First and Quality First Measures > Creating an Affluent Society > Social Contribution Activities
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Society | Collaboration with Business Partners

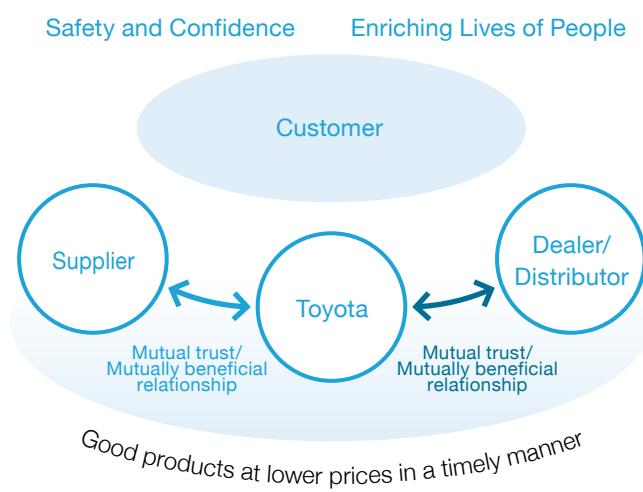
# Collaboration with Business Partners

## Fundamental Approach

In order to contribute to society through car-manufacturing and *monozukuri* (manufacturing) and put into practice the principle of "Customer First," it is necessary to undertake various activities in a spirit of shared principles, cooperation, and collaboration with our business partners such as suppliers and dealers.

Toyota pursues open and fair business activities, and engages in ongoing CSR initiatives while enhancing cooperation with business partners to raise quality in terms of safety and customer confidence, and works to further raise customer satisfaction.

Excerpt from "CSR Policy: Contribution towards Sustainable Development"
<ul style="list-style-type: none"> <li>● We respect our business partners such as suppliers and dealers and work with them through long-term relationships to realize mutual growth based on mutual trust.</li> <li>● Whenever we seek a new business partner, we are open to any and all candidates, regardless of nationality or size, and evaluate them based on their overall strengths.</li> <li>● We maintain fair and free competition in accordance with the letter and spirit of each country's competition laws.</li> </ul>



## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

Major Initiatives during FY2016 (result)	Major Initiatives during FY2017
<b>Suppliers</b>	
<ul style="list-style-type: none"> <li>● Continued initiatives to promote CSR measures in the supply chain</li> <li>● Addressed issues concerning human rights in the supply chain including the issue of conflict minerals</li> </ul>	<ul style="list-style-type: none"> <li>● Continue and reinforce the activities described to the left regarding the supply chain</li> </ul>
<b>Dealers</b>	
<ul style="list-style-type: none"> <li>● Provided information to dealers through CSR website</li> <li>● Proposed and carried out social contribution activities from local perspectives</li> <li>● Promoted the J-ReBORN Plan</li> </ul>	<ul style="list-style-type: none"> <li>● Work together with dealers to continue engaging in the activities described to the left</li> </ul>

- > Initiatives for Improving Traffic Safety > Customer First and Quality First Measures > Creating an Affluent Society > Social Contribution Activities
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## Society | Collaboration with Business Partners

### Collaboration with Suppliers

Since its establishment, Toyota has sought to work closely with its suppliers in its manufacturing activities. In good times and bad, Toyota and its suppliers have faced the same issues together and Toyota has built strong and close relationships with them according to the spirit of mutual benefit based on mutual trust. With the recent globalization of business activities Toyota will cherish these ties—including those with new partners—and will promote the Customer First Policy together with them. Toyota believes that the most important task in purchasing is to build close relationships in which Toyota and suppliers do business on an equal footing based on mutual respect, thus building firm bonds of trust and promoting mutual growth and development.

It is also important to contribute to the sustainable development of society and the sustainability of the earth by working with suppliers in various countries and regions to ensure legal compliance and respect for human rights, and to carry out initiatives that contribute to local communities and global society.

Toyota's global purchasing activities based on close cooperation revolve around the following three policies making up the Basic Purchasing Policies.

#### Basic Policies at Toyota Purchasing

##### 1. Fair Competition Based on an Open-door Policy

Toyota is open to any and all suppliers, regardless of nationality, size, or whether they have done business with us before. Our choice of suppliers is purely on the basis of business considerations.

We evaluate the overall strengths of prospective suppliers, including their quality, technological capabilities, and reliability in delivering the required quantities on time. In addition, we consider their operational approach and systems for tackling ongoing reform and efforts addressing social responsibilities, such as environmental issues.

##### 2. Mutual Benefit Based on Mutual Trust

We believe in developing mutually beneficial, long-term relationships based on mutual trust.

To foster that trust, we pursue close and wide-ranging communication with suppliers.

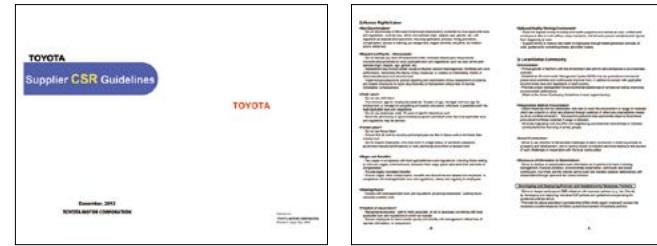
##### 3. Contributing to Local Economic Vitality through Localization: Good Corporate Citizenship

Toyota is vigorously promoting local production in response to demand for automobiles in each region worldwide. For local production, we actively procure from local suppliers, including parts, materials, tools, equipment and others materials. In this way, we aim to contribute to the local society and act as a good corporate citizen.

### Implementation of the Toyota Supplier CSR Guidelines

At Toyota, we believe it is important to engage in coordination with suppliers, and issued the Toyota Supplier CSR Guidelines in February 2009. Toyota suppliers are asked to implement their own independent CSR activities based on the Toyota Supplier CSR Guidelines, and in turn expand their individual CSR policies and guidelines to their own suppliers.

Furthermore, in December 2012, Toyota revised the guidelines to clearly indicate to companies in its supply chain its principles regarding human rights issues (strengthening of monitoring and corrective actions, and approaches towards conflict minerals) in order to enhance and strengthen the global scale of CSR initiatives.



Toyota Supplier CSR Guidelines  
[Web](http://www.toyota-global.com/sustainability/society/partners/supplier_csr_en.pdf) [http://www.toyota-global.com/sustainability/society/partners/supplier\\_csr\\_en.pdf](http://www.toyota-global.com/sustainability/society/partners/supplier_csr_en.pdf)

### Initiatives towards Respecting Human Rights in Supply Chains

Toyota developed the Toyota Supplier CSR Guidelines to its suppliers, clearly indicating its policy of respecting human rights and what it expects of its suppliers, and has expanded them. Furthermore, as part of efforts to strengthen its initiatives regarding

human rights and labor issues, Toyota created a questionnaire to assess the situation at each supplier. When necessary, Toyota asks the suppliers to make improvements and follows up on improvement activities.

### Promoting Environmental Activities in Supply Chains

Toyota believes that it is important to work with the suppliers to carry out environmental activities and therefore established the Toyota Green Purchasing Guidelines.

In January 2016, Toyota published a revised edition based on the

Toyota Environmental Challenge 2050. The main revisions include enhancing initiatives such as for greenhouse gases (GHG) and biodiversity, reinforcing lifecycle perspectives and strengthening the supply chain management.

[Environmental Initiatives P120](#)

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## Society | Collaboration with Business Partners

### Approaches towards Conflict Minerals Issue

Based on its Policies and Approaches to Conflict Minerals Issues, Toyota strives to procure conflict-free raw materials that do not involve human rights infringements or other abuses. We conduct

investigations that trace global supply chains and by taking measures to avoid use in cases where there are concerns that raw materials are being used as a source of funds for armed groups.

 Respect for Human Rights P46

### Corruption Prevention Measures in Supply Chains

In response to the global expansion of its business and rising societal demands, Toyota adopted the Anti-Bribery Guidelines in 2012 to completely eliminate corruption. Toyota is strengthening its

preventive measures and working to prevent corruption by informing business partners of its anti-corruption stance.

 Anti-Bribery Guidelines (For Business Partners) <http://www.toyota-global.com/sustainability/society/partners/>

### Support for the CSR Activities of Suppliers

Toyota asks its suppliers to practice CSR and sponsors the CSR Study Meetings every year in order to support their CSR activities. Toyota is also working to propagate knowledge about CSR in general and to raise awareness about various issues such as "Why CSR needs to be promoted" and "Why the entire supply chain must also be included."

In FY2016, CSR Study Meetings targeting 500 persons from 300 suppliers in Japan were conducted to promote fair trading throughout the entire supply chain as a legal issue, and to explain Toyota's environmental initiatives and requests to suppliers.

Toyota participates in the supplier CSR education program of the Automotive Industry Action Group (AIAG)\* to support its overseas suppliers in their activities to promote CSR. In the previous fiscal year, Toyota participated in the development of the Supplier Responsibility Training Project, an e-learning program that is a new training tool which enables suppliers to undergo training through the AIAG website, and will continue working to help raise awareness of CSR across its supply chains.

\* AIAG (Automotive Industry Action Group): An organization which lays down the code of conduct in the U.S. automobile industry (<https://www.aiag.org/>)

### Suppliers' CSR Activities

To promote CSR, Toyota suppliers also voluntarily hold CSR lectures and workshops, and engage in volunteer activities.

CSR lectures are held every year by Toyota's supplier associations, Kyohokai and Eihokai, with the aim of improving member companies' awareness and understanding of CSR and encouraging the implementation of CSR initiatives. In July 2016, a lecture was presented entitled, "What should environmental management aim for?", which included specific case examples.

CSR workshops are held by Eihokai following CSR lectures or study groups to promote opinion exchange on various subjects, with

participants divided into small groups. Through these activities, participants study the initiatives being taken by member companies in order to improve the level of CSR initiatives at all suppliers. In terms of volunteer activities, as part of the initiative to promote CSR, Kyohokai and Eihokai jointly hold volunteer-staffed goods collection drives (collecting unneeded cell phones, miswritten pre-paid postcards, unused postal stamps, etc.) to help people in the areas hit by the Great East Japan Earthquake. The proceeds from these collection drives are donated to the local government in the affected area (Iwate Prefecture).



CSR lecture



CSR workshop



Volunteer welfare council



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## Society | Collaboration with Business Partners

### Collaboration with Sales Networks

Dealers/distributors are the front line where Toyota's "Customer First" principle is directly observed. Toyota and its dealers/distributors always work as one to enhance customer satisfaction based on a

strong relationship of trust, close two-way communication, and the shared value of Toyota products and services.

### Domestic Dealers

The Toyota domestic sales network comprises 281 dealers, operating around 5,500 sales outlets including used car outlets as of June 2017. Under the Customer First policy, we have a "Customer First, Dealer Second, Manufacturer Third" concept. Toyota supports the dealers

to make concerted efforts of meeting customer expectations with a goal of raising their level of satisfaction. We believe, through these efforts, we can realize dealer success, which ultimately leads to Toyota's growth.

### Organization and Structure

The Toyota National Dealers' Advisory Council (TNDAC) established the special CSR study group and created the TNDAC CSR Guidelines in 2005. In 2006, They adopted the Toyota Dealers CSR Declaration to promote unified CSR activities involving all Toyota dealers in Japan. The TNDAC CSR Guidelines are based on the three pillars of Compliance, Environment, and Social Contribution. The guidelines promote activities that help dealers improve the satisfaction level of customers and stakeholders as well as encourage the entire Toyota Group to be proactive and engage in CSR initiatives in order to have a presence that is respected and liked

by people in the global and local communities. Being on the frontline in contact with customers, each dealer establishes a basic CSR policy and engages in activities according to that policy. Using a self-auditing tool called the "CSR Checklist" made up of nearly 400 items, dealers are consistently going through the PDCA cycle and reporting their activity results to TNDAC each year. Toyota is sharing its know-how, including the checklist system, auditing method, and textbook creation, to support the CSR activities of dealers.

### Overview of Toyota's Support toward Toyota Dealers' Activities

The TNDAC adopted the Toyota Dealers CSR Declaration, and Toyota provides support for CSR activities that encourages dealers to voluntarily promote. The CSR Support website was launched in 2006 to help share information. CSR and compliance related education and promotion tools as well as a collection of past initiatives are created and distributed, and Toyota also shares information through seminars and lectures held by the TNDAC. Toyota also supports revisions to the CSR checklist necessitated by law revisions, etc.

#### TNDAC's Major CSR Initiatives

- 
- Distribution of the CSR Checklist and the evaluation result feedback sheet
  - Operation of the Toyota Dealers Helpline, distribution of the Helpline Report Digest, various types of tools, and handouts
  - CSR workshop
  - CSR lecture
-

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## Society | Collaboration with Business Partners

### J-ReBORN Plan Hopes to Invigorate Japan with Dealers

To respond to changes in the Japanese automotive market due to depopulation, aging, a shrinking market and technological advances, Toyota is promoting the J-ReBORN Plan, a new domestic sales strategy.

The plan is rooted in the idea of using the nationwide dealer network

to revitalize Japan. Toyota has coined the slogan “Ever Better Dealerships” and is working together with the dealers to promote activities that attract everyone including customers.

Toyota is taking on the challenge to try and win back as many car fans as possible.

#### J-ReBORN Plan

[Toyota]  
Ever-Better Cars

[Dealers]  
Ever Better Dealerships

**Embracing the challenge of revitalizing  
the automobile business of the 2020s**

**Developing a fan base for cars, Toyotas and dealers**

1. Increase CS\* and productivity to a tremendously high level
2. Continue to create and retain Toyota fans

\* CS: Customer Satisfaction

#### Four Priorities Addressed by the J-ReBORN Plan

**(1) ReBORN changes the focus from “the car and business” to “a customer-centric approach”**

1. Marketing activities designed to capture young consumers (young in terms of thinking and behavior)
2. Strengthen ties with customers by improving productivity to a tremendously high level

**(2) ReBORN transforms Toyota into the best  
company in every region**

3. Embrace activities of the entire Toyota Group that increase Toyota’s regional presence
4. Create and promote examples of dealers that look ahead at future issues

### Dealer Staff Acting as Visiting Soccer Instructors through the JFA Youth & Development Programme (Japan)

In May 2017, Toyota signed a JFA Youth & Development Programme (JYD) partnership agreement with the Japan Football Association (JFA). As an official JYD supporter, Toyota will support and engage in onsite soccer instruction activities targeted at preschoolers nationwide.

JYD is a program that JFA has been running since January 2016, with the goals of continuously developing and further popularizing soccer in Japan and developing the next-generation of soccer players.

In terms of specific activities, staff members of nationwide Toyota dealers, parts distributors, and rental & leasing companies first obtain the JFA Official Kids Leader license. Then in July 2017, participating dealers will begin offering classes that teach kids in local kindergartens, nursery schools, etc. soccer skills as well as the joy of moving their bodies, in collaboration with soccer associations in individual prefectures.

The goal of these activities is to help the next-generation of kids to grow up healthy in mind and body.



**Signing of an agreement in May 2017**



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## Society | Collaboration with Business Partners

### Toyota First Experience Program

The Toyota First Experience Program aims to nurture future car fans by providing children of the “virtual era” with opportunities to gain real-life experience through all five senses and to experience the global environment and economy up close. This program works together with dealers to encourage activities that are rooted in the community and offers a “traveling classroom” that visits elementary schools in the area.

The classroom activities offer learning in a fun way using a hands-on experience for the students. The class for fourth graders is the First Car Experience Class, which teaches students the power and control of a car using the properties of air, which is linked to their science curriculum, as well as an actual car and a model. The class for fifth graders is the Class to Fully Understand Cars, which teaches the students about the relationship among cars, the environment and economics using quizzes or games, as part of learning about the

automotive industry in their social studies class.

In FY2016, the First Car Experience Class was conducted at 102 schools and the Class to Fully Understand Cars, at 342 schools, for a total of 444 schools. Since starting in 2008, the program has provided classroom activities to approximately 140,000 children in 2,814 schools.



Hands-on activity showing kids how heavy a car is

### AQUA SOCIAL FES!! (ASF)

As part of the hybrid car “Aqua” branding campaign, the ASF was started in 2012 as an environmental protection and conservation program related to water. A wide variety of action programs have been developed in all 47 prefectures, from Hokkaido to Okinawa. Toyota is in charge of the overall ASF planning, promotion and execution, and the specific action program development and operations are carried out by regional NPOs and local newspapers. Recently thanks to its activities, the ASF is creating a social ripple effect where, for example, local governmental bodies have budgeted for environmental restoration costs or local companies used the ASF as part of an instruction course for their employees. In addition, dealers are building a deeper connection with local residents by participating in activities and providing operations staff, who perform duties such as reception tasks and giving directions in parking lots. There are also cases of dealers who embrace the ASF philosophy and independently hold their own ASF activities.

The ASF events host more than 10,000 participants every year, and in June 2017, which marked the sixth year of the events, the

cumulative total of participants exceeded 60,000.

Most participants were young, at an average age of 27, and the activities were quite varied, including waterfront clean-up of rivers, lakes, and seas; extermination of invasive species; planting trees; and revitalization of terraced rice paddies and satoyama. Nearly 90 percent of the participants who answered a questionnaire expressed their support for the program, saying, “My interest in the local area has been heightened” or “I want to participate again.”



Terraced rice paddy preservation project (Saga Prefecture)



Komatsu Beach Clean Project (Tokushima Prefecture)

### Receiving Visitors from Toyota Dealers Overseas

Every year, Toyota receives visitors from Toyota dealers all over the world at Toyota dealers throughout Japan. These visitors want to learn customer satisfaction (CS) activities from Toyota of Japan. The visitors learn how Japanese dealers improve customer satisfaction levels throughout the entire value chain, including new car sales, service, insurance, used cars, and credit, to win regular customers. The visitors learn through *genchi genbutsu* (onsite hands-on experience) activities and incorporate them into various activities at their own dealership locations after returning to their home countries. Fostering active communication among dealer personnel with

different cultural backgrounds, these visits help both sides to notice and learn something new, improving themselves.



Visitors



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## Society | Collaboration with Business Partners

### Overseas Dealers and Distributors

The overseas dealers and distributors are important Toyota partners that are crucial in achieving ever-better cars for customers worldwide.

Toyota has approximately 170 distributors and around 10,000 dealers located overseas that are involved in activities rooted in the local community that help promote and create Toyota's fan base.

### Organization and Structure

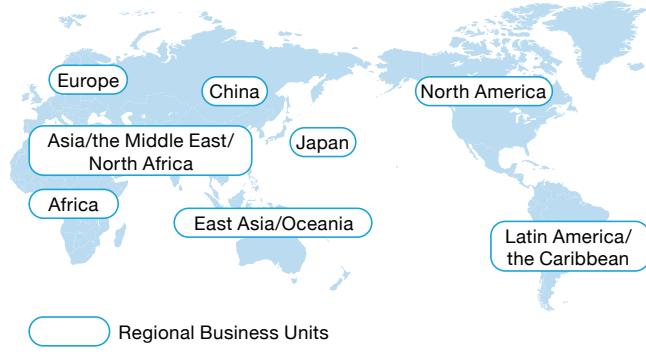
Toyota's sales operations are divided into seven regions (excluding Japan) throughout the world: North America, Europe, China, Asia/the Middle East/North Africa, East Asia/Oceania, Africa and Latin America/the Caribbean, and the sales system provides the best cars and services according to the market characteristics of each region. In addition, Toyota strives to ensure ever-better cars by listening to the customer feedback from our overseas distributors and dealers because the car usage conditions and environment as well as the required functions and services can vary greatly depending on the region and country.

In order to implement product planning, sales strategies, and local sales promotion activities that respond more appropriately and carefully to these different local needs, Toyota reorganized its business units in 2013. Toyota No.1 was primarily in charge of developed nations where car markets have matured and replacement demand promotion and product development incorporating advanced technologies are required. Toyota No.2 was in charge of emerging nations where prompt introduction of products that match exploding market needs and acquiring new customers are the main issues, and will oversee each regional headquarters. Afterwards, as environmental regulations were tightened and the business environment continued to change in various countries, Toyota in April 2017 united its region-based business units by reorganizing and integrating Toyota No.1 and Toyota No.2 into the Business Planning & Operation Unit, which will coordinate as a

united regional function with the product-based in-house companies. This change is designed to enable rapid and effective responses to customer needs, and to strengthen a structure for supporting regions and customers better than before.

Under this system, Toyota cooperates with distributors by region and country to deliver ever-better cars that meet the needs of customers in each market.

Since 1984, a Global Conference has been held every four years to bring together all the overseas distributors and dealers as well as the entire executive team of Toyota. At this conference, Toyota shares policies and strategies as well as expresses their appreciation for the hard work put in every day by the overseas distributors and dealers in order to improve customer satisfaction.



Regional Business Units

### Environmental Initiatives Put into Practice in Collaboration with Domestic and Overseas Dealers and Distributors

Toyota is working with domestic and overseas dealers and distributors to create measures such as developing personnel and creating stores that are environmentally-friendly and lowering potential environmental risks through promotion activities.

Environmental Initiatives P121

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Society | Employees

# Employees

## Fundamental Approach

Toyota's philosophy regarding its employees, who support its stable base of business, has been systematically organized as the Toyota Way in Human Resources Management. The goal of the Toyota Way in Human Resources Management is the realization of management that shows respect for people, that is, providing all employees with opportunities to achieve social contribution and self-actualization through their work, and enabling them to exercise their abilities to think, be creative, and utilize their strengths to the maximum extent possible.

For this goal to be achieved, "a relationship of mutual trust and mutual responsibility between labor and management"<sup>\*</sup> is essential, in which the company gives the highest priority to ensuring stable employment for its employees and strives to improve labor conditions, while all employees execute their duties and responsibilities for the prosperity of the company. This philosophy is shared by all Toyota affiliates around the world, and is reflected and implemented in management and various policies.

Toyota believes that these initiatives will not only lead to the realization of management that shows respect for people, but also to customer satisfaction and social contribution.

**Concept of the Toyota Way in Human Resources Management that Helps Build a Work Environment in which Employees Can Work in a Harmonious Manner**

### Toyota Way in Human Resources Management

**Purpose** Realization of management that shows respect for people

**Principle** Establishment of a relationship of mutual trust and mutual responsibility between labor and management

Building an environment in which employees can work with full confidence in the company

Building a framework that promotes constant and voluntary wisdom and improvement

Comprehensive human resources development

Nurturing teamwork that aims to ensure the fulfillment of individual roles and optimization of the whole

#### \* A relationship of mutual trust and mutual responsibility between labor and management

Toyota experienced labor disputes and personnel cuts during the management crisis of the 1950's. These difficult experiences led Toyota to conclude the Joint Declaration of Labor and Management in 1962. Since then, both parties have worked to nurture a relationship in which employees proactively cooperate to improve productivity, while the company works to maintain and improve working conditions. Further, by sharing this understanding with employees and enhancing employee awareness in times of crisis, Toyota has also created "a relationship of mutual trust and mutual responsibility between labor and management," based on which employees and management execute their duties and responsibilities for the prosperity of the company. This concept is the foundation of Toyota's labor-management relations. Now, 50 years after the conclusion of the Joint Declaration of Labor and Management, Toyota is striving to further strengthen the labor-management bond.

## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

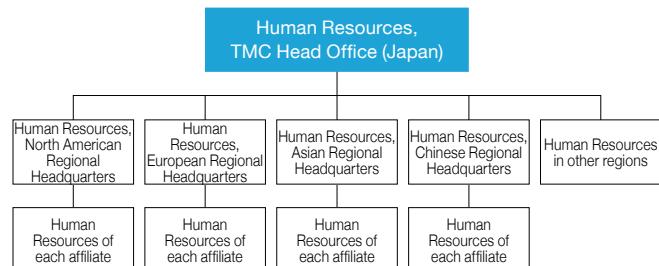
Major Initiatives during FY2016 (result)	Major Initiatives during FY2017
<b>Safety and Health</b>	
<ul style="list-style-type: none"> <li>● Established a culture that promotes interactive development of safety, and continued activities based on people, work, and workplace</li> <li>● Promoted activities to improve health (BMI maintenance, smoking cessation, <i>Iki-iki</i> health programs)</li> </ul> <p>Results: 20.8% of employees whose BMI is 25.0 or higher (up 0.4% from last year) Smoking rate: 27.8% (down 0.9% from last year)</p> <ul style="list-style-type: none"> <li>● Enhanced awareness of mental health and promote programs to prevent problems</li> </ul> <p>Results: ±0% new sick leave, recurring sick leave down 0.06% from last year</p>	<ul style="list-style-type: none"> <li>● Establish a culture that promotes interactive development of safety, and continue activities based on people, work, and workplace</li> <li>● Promote activities to improve health (Health Challenge 8, <i>Iki-iki</i> health programs)</li> <li>● Enhance awareness of mental health and promote programs to prevent problems</li> </ul>
<b>Human Resources Development</b>	
<ul style="list-style-type: none"> <li>● Planned and launched the Training of Newly Appointed Executives in the Toyota Group</li> <li>● Created a program for early development of executive staff</li> </ul>	<ul style="list-style-type: none"> <li>● Continue program for early development of executive staff</li> <li>● Reinforce mindsets and discipline</li> </ul>
<b>Diversity and Inclusion</b>	
<ul style="list-style-type: none"> <li>● Reinforced initiatives designed to accelerate programs that promote women's participation in the workplace</li> <li>● Developed a framework for employees to improve their skills and continue working after retirement until the age of 65</li> </ul>	<ul style="list-style-type: none"> <li>● Promote the development of workplace environments where diverse human resources can be active</li> <li>● Continue the activities described to the left</li> </ul>

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## Society | Employees

### Organization and Structure

Every year, Toyota brings all the personnel managers together from the main affiliates all over the world, including the Head Office. They hold discussions on how to build a work environment in which employees can trust the company, how to build a framework that promotes constant and voluntary improvement, how to develop human resources and how to work on nurturing teamwork. The content of those discussions is used for each affiliate to make policy the following year in order to implement policy to realize Personnel and Labor Toyota Way consistently.



### Results of Employee Satisfaction Survey

By providing its employees with opportunities to achieve social contribution and self-actualization through work, Toyota aims to enable all employees to exercise their abilities to think, be creative, and utilize their strengths to the maximum extent possible. Toyota conducts an employee satisfaction survey every other year to provide an index for measuring the results of these efforts and utilizes the analysis results for planning and implementing measures that will enable employees to work without worry. The survey conducted in FY2015 of shop floor employees indicated a 71.9 percent satisfaction rate. The reasons given were the same as in FY2013

(previous survey): "Pay level" being the most common reason, followed by "Human relations at the workplace" and "Work quality and level." The employee satisfaction survey conducted in FY2016 of administrative and engineering employees indicated a 78.0 percent satisfaction rate. The most common reason given was the "work quality and level" followed by "pay level" and "human relations at the workplace." According to the same survey conducted every other year overseas, in FY2016, there was an affirmative response rate of 74 percent (-2 percent from previous year) for administrative and engineering employees and 72 percent ( $\pm 0$  percent from previous year) for shop floor employees.

#### Results of Employee Satisfaction Survey (Japan)

(FY) (%)	2011	2012	2013	2014	2015	<b>2016</b>
Administrative and Engineering employees	73.9		77.2		<b>78.0</b>	
Shop floor employees	64.4		69.2		71.9	

#### Reasons for Affirmative Responses by Administrative and Engineering Employees on FY2016 Survey (Japan)

Satisfaction with company life	
Most common reason	Work quality and level
Second most common reason	Pay level (salary, bonus)
Third most common reason	Human relations at the workplace

#### Reasons for Affirmative Responses by Shop Floor Employees on FY2015 Survey (Japan)

Satisfaction with company life	
Most common reason	Pay level (salary, bonus)
Second most common reason	Human relations at the workplace
Third most common reason	Work quality and level

#### Percentage of Employees Who Feel that They Have Undergone Personal Growth (Japan)

(FY) (%)	2011	2013	2014	2015	<b>2016</b>
Administrative and Engineering employees	76.5	77.2	78.4		<b>77.6</b>
Shop floor employees	72.6	75.8			77.6

#### Results of Employee Satisfaction Survey (Overseas)

(FY) (%)	2010	2012	2014	<b>2016</b>
Administrative and Engineering employees	74.0	74.0	76.0	<b>74.0</b>
Shop floor employees	72.0	72.0	72.0	<b>72.0</b>

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Society | Employees

## Safety and Health

Ensuring employee safety and health is one of Toyota's most important business activities and has a universal and timeless value. Upon assuming the position of General Safety and Health Supervisor in 1957, then Senior Managing Officer Eiji Toyoda explained his basic stance on safety and health: "Safe work is 'the gate' to all work. Let us pass through this gate." Toyota has handed these words down as the fundamental principle of safety, incorporating the strong desire of employees to never be involved in an occupational accident. With this fundamental principle always in mind, Toyota promotes cooperation between labor and management and continuously strives to create dynamic work environments that are conducive to the mental and physical well-being of employees. With regard to health, Toyota reviews its mental and physical health measures annually while using the reduction in the number of sick days from illness or injury as a results KPI that can contribute to higher productivity and carried out the PDCA\* cycle to improve priority policies implemented under the leadership of company safety

and health managers. The results are discussed with the Toyota Health Insurance Union, labor unions, and industrial health personnel (in the personnel and health and safety divisions) twice each year to support implementation of lifestyle related disease countermeasures, mental health measures, health checks of employees who work long hours, prevention of heat stroke, prevention of influenza, and other measures for efficient workplace operations, leading to reductions in healthcare costs and various measures to support good health.

\* A cycle of continuous improvement in operations through repeated implementation of Plan, Do, Check, and Action.

### Basic Philosophy for Safety and Health

Safe work  
Reliable work  
Skilled work  
Safe work is "the gate" to all work  
Let us pass through this gate

## Promoting a Three-pronged Approach to Safety

Toyota has promoted the establishment of a culture that promotes interactive development of safety and health in its global corporate policy and is taking measures to elevate safety in its custom and culture. We are implementing initiatives to promote compliance with basic rules with executives and managers taking leadership roles and all personnel participating so that employees at every worksite are aware of the risks present and take preventive action independently. In FY2016, the rate of lost-workday cases was 0.60 (down 0.15 from the previous fiscal year).

We will continue taking action to eventually achieve zero accidents and the continuation of zero accidents at all worksites and will intensify efforts regarding the three pillars of safety: human resource development (raising awareness of hazards through education and on-the-job training and conducting programs with the participation of all personnel), risk management (development of safety management systems), and environmental and facility preparation (provision of safe machinery and comfortable workplace environments).

### Frequency of Industrial Accidents (Frequency Rate of Lost Workday Cases: Global)

(FY)	2012	2013	2014	2015	<b>2016</b>
(%)					
Frequency rate of lost workday cases	0.78	0.79	0.89	0.75	<b>0.60</b>

### Frequency of Industrial Accidents (Frequency Rate of Lost Workday Cases: TMC)

(FY)	2012	2013	2014	2015	<b>2016</b>
(%)					
All industries	1.59	1.58	1.66	1.61	<b>1.63</b>
Manufacturing industry	1.00	0.94	1.06	1.06	<b>1.15</b>
Automobile manufacturing industry	0.10	0.18	0.23	0.20	<b>0.18</b>
Toyota	0.07	0.06	0.06	0.03	<b>0.07</b>

Data source: All industries, manufacturing industry, and automobile manufacturing industry (2016 Survey on Industrial Accidents by the Ministry of Health, Labour and Welfare)

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## Society | Employees

### Global Safety Measures

Toyota is promoting safety and health measures in overseas regions, primarily through regional headquarters. Toyota is currently working with each region to continue to develop the safety management system (OSHMS\*) globally by creating a system that incorporates not only unique regional requirements but requirements that are shared throughout the world. Using this approach, weaknesses can also be identified through *genchi genbutsu* (on-site hands-on experience) in order to improve safety management.

Toyota also holds an annual global safety meeting, attended by managers responsible for safety and health in each region. By studying measures for handling common issues and sharing



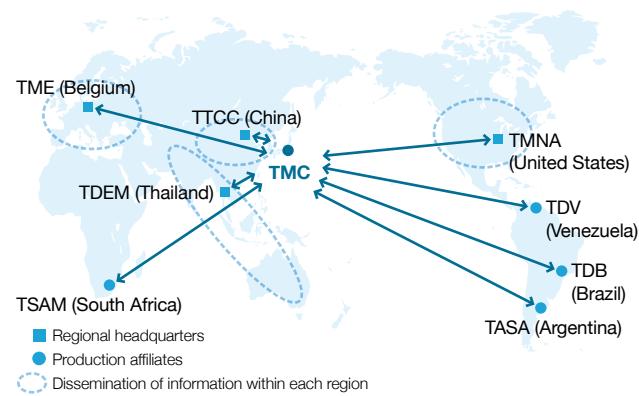
Global Safety Meeting (held in Brazil in 2016)



information on unique activities and best practices in each region, the conference participants raise the level of safety and health activities.

\* OSHMS: Occupational Safety and Health Management System

### Structure for Sharing Global Information and Collaboration



By collaborating with regional headquarters and production affiliates and sharing various types of information, Toyota is globally improving its safety and health measures.

### Genchi Genbutsu (On-site Hands-on Experience) at Overseas Affiliates

Toyota's Head Office has worked together with the headquarters of each region and uses *genchi genbutsu* (onsite hands-on experience) to confirm the safety status of overseas affiliates based on the safety management system. Toyota promotes improvements in safety by using this system and method to clearly identify any issues.

For example, we confirm if measures are implemented based on accidents that have occurred at the sites of other affiliates, if they are effective to prevent the same problem from occurring, and if a system has been created to make the effort active and continuous. Furthermore, successful examples of effective measures and activities are introduced and used at the sites of other affiliates.



Checking vehicle accident prevention measures in North America



Checking the site of an accident in China

### Creating a Safe Work Environment for On-premise Suppliers (Construction, Contracting, Outsourcing, Delivery, etc.) (Japan)

At Toyota, improvements to the work environment continue to be made by providing opportunities to communicate and tackling each issue in order to ensure outside workers can work safely on the premises. For example, when performing routine cleaning and inspection of equipment, improvements to the work environment are made

for problem areas, such as adding lights for dark work spaces or installing gripping to slippery footholds.

Going forward, we will continue to carry out improvements that address each issue confronting actual workers so that the improvements can be established globally.

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## Society | Employees

### Building Up Good Health (Japan)

Toyota adopted the development of healthy people and healthy worksites as a company-wide policy and in FY2017 promoted and implemented the Health Challenge 8 program. This program encourages employees to make improvements in their health-related practices in eight areas to maintain and enhance their mental and physical health: (1) appropriate weight (BMI), (2) eating breakfast, (3) drinking, (4) snacking, (5) exercise, (6) not smoking, (7) sleep, and (8) stress. The aim is to develop mentally and physically healthy people, encouraging each employee to address one more issue than currently or to raise awareness and adopt even better health-related practices in those areas already being addressed.

Specific measures include providing individual results reports indicating the status of implementation regarding the eight health-related practices when reporting the results of medical exams and using Health Challenge 8 Implementation Sheets that indicate healthy activity targets and weekly status confirmations to encourage awareness of and action for health development by each individual. In addition, feedback on organization analysis results is provided to worksites to clearly show those items with low levels of implementation and other worksite support such as exercise instruction and health lectures is provided to promote the development of health-related custom and culture through workplace-driven health programs. In addition, company cafeterias are offering low-calorie, nutritionally-balanced options to support improvement in eating habits, and worksite environments that prevent second-hand smoke are being established.

### Bolstering Mental Health Care (Japan)

To actively promote good mental health, Toyota conducted Self-care and Line Care Training in FY2016 with the aim of preventing mental health problems from occurring or recurring.

Self-care Training targets new and young employees and helps teach them how to identify warning signs and deal with stress.

Line Care Training includes psychological training for managers and review of case studies for newly-appointed general managers. In addition, Listener Training for supervisors who directly supervise subordinates was conducted. Trainees receive advice on how to care for employees at workplaces and collaborate with industrial health personnel.

### Health Management of Overseas Personnel

Healthcare institutions serving overseas personnel vary depending on the worksite, and as a result, the status of health support differs from that of personnel in Japan.

In FY2016, we continued to provide health check-ups for personnel assigned overseas, with in-house physicians and nurses providing

We are deploying the Toyota Health Handbook as a tool to support employee self-management and self-help efforts relating to health and conducting various activities that can be of use to health self-management such as retaining medical exam data and health promotion records.

### Health Challenge 8

- Appropriate weight (BMI under 25)
- Breakfast (eating breakfast every day)
- Drinking (not drinking alcohol or having no more than one drink per day)
- Snacking (snacking after supper and before sleeping no more than twice weekly)
- Smoking cessation (not smoking)
- Exercise (exercising for at least 30 minutes one or more days per week)
- Sleep (sleeping soundly)
- Stress (avoiding excessive stress)

### Percentage of Employees Whose BMI is 25.0 or Higher

(FY)	2013	2014	2015	<b>2016</b>
(%)				
Percentage of employees whose BMI is 25.0 or higher	19.8	20.6	20.4	<b>20.8</b>

\* The target is no more than 20.0%

### Smoking Rate

(FY)	2013	2014	2015	<b>2016</b>
(%)				
Smoking rate	29.7	29.1	28.7	<b>27.8</b>

\* The target is no more than 28.0%

Toyota established internal guidelines on health consultations for industrial health personnel and has been working since 2012 to standardize and systematize the details of consultations and responses. The support system for employees who go on leave and return to work was revised in collaboration with personnel divisions. Also, Workplace Return Support Guidelines were enacted companywide in January 2017 and measures were enhanced to facilitate the smooth return to work by employees and provide support for their day-to-day activities following their return.

advice via email to follow up on their health. The status of health-related conditions at local sites is confirmed through regular exchanges of information with local contact personnel and rounds by in-house physicians and others, and healthcare information is provided to locally-stationed staff via the Internet and by other means.

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Society | Employees

## Human Resource Development

Toyota is committed to developing human resources in accordance with the philosophy that “*Monozukuri* is about developing people.” In order to sustain growth, it is important to strive toward achieving people-centric *monozukuri* (manufacturing) and utilize people’s wisdom to make improvements day after day. In order to support the globalization of business with the various cultures and customs that exist, all employees must share the same

values to carry out policies such as ever-better cars and Customer First. To ensure this, Toyota develops human resources for sustainable growth by implementing an educational program centered on the Toyota Way globally, which is based on On-the-job training (OJT) that is crucial for the development and passing down the tradition of excellent *monozukuri* (manufacturing).

### Five Key Values for The Toyota Way

Challenge

Kaizen

*Genchi Genbutsu*

Respect

Teamwork

↗ Corporate Principles P6

### Practice of the Toyota Way

We have organized and arranged job types and techniques into what we call “Global Content” to share the values and ways of thinking of The Toyota Way so that it can be understood and practiced by Toyota employees working all over the world. This Global Content is practiced by Toyota employees through training and OJT both in Japan and overseas. Workers share the Global Content, which act as a common language, giving Toyota an advantage that unifies everyone and providing a platform to work more effectively.

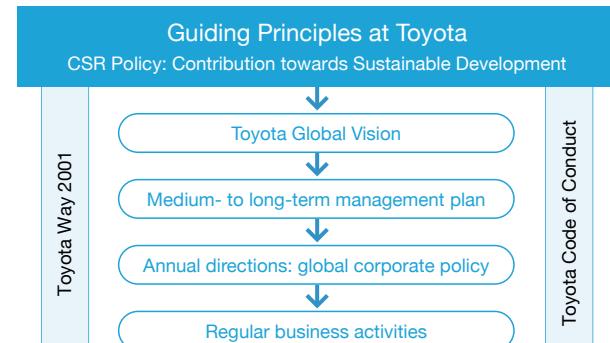
### List of Global Content

	Administrative and engineering employees	Shop floor employees
Managers	<b>Policy management</b> <ul style="list-style-type: none"> <li>● Measures for achieving <i>kaizen</i> (improvement) on a companywide scale</li> <li>● Measures for maximizing organizational output</li> </ul> <b>On-the-job development (OJD)</b> <ul style="list-style-type: none"> <li>● A four-step method for promoting human resource development through the practice of regular business activities and guidance</li> </ul> <b>Management at Toyota</b> <ul style="list-style-type: none"> <li>● Overall image of the rules of management at Toyota</li> <li>● Implementation items for effective worksite management</li> </ul>	<b>Skills and roles of management and supervision</b> <ul style="list-style-type: none"> <li>● Manager and supervisor skills for managing execution of standard operations</li> <li>● Group and team operational knowledge gained from managing irregularities</li> </ul>
General employees	<b>Problem solving</b> <ul style="list-style-type: none"> <li>● Methods of working using an eight-step method for identifying and solving problems (The Toyota Way)</li> </ul> <b>Ji kotei-kanketsu (built-in quality with ownership)</b> <ul style="list-style-type: none"> <li>● A three-step method for building in quality in each process</li> </ul>	<b>Problem solving</b> <ul style="list-style-type: none"> <li>● Techniques for improving current conditions in order to realize ideal working conditions</li> </ul> <b>Production skills</b> <ul style="list-style-type: none"> <li>● Knowledge regarding recognizing irregularities and crucial points</li> <li>● Trouble-shooting capability</li> </ul> <b>Basic skills</b> <ul style="list-style-type: none"> <li>● Minimum skills necessary for production line work process</li> </ul>
	Toyota Way	● Toyota's values ● The fundamentals of all work

### Evaluation of and Feedback to Each Employee in Connection with Principles and Policies

The regular business activities (topics and roles) of Toyota employees are derived from annual directions linked to the Guiding Principles. Evaluation and feedback are mechanisms linked to human resource development based on close communications between subordinates and superiors. Specifically, topics and roles are determined at the beginning of each fiscal year and employees consult with their supervisors periodically. During these consultations, supervisors assess the employees' self-evaluations and provide feedback. Repeating the cycle leads to human resource development. Results for each half year are reflected in bonuses, and abilities exhibited in the prior year are reflected in raises.

### Relationship with Philosophy, Policies and Regular Business Activities



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## Society | Employees

### Global Human Resource Development Structures

Global executive staff development undertaken by the global headquarters, TMC human resource development undertaken by Toyota Motor Corporation, and overseas affiliate human resource development undertaken by affiliates in each region is conducted with the aim of sharing the values of the Toyota Way.



### Global Executive Human Resource Development

The Global 21 Program for global executive human resource development is a mechanism for excellent human resources located throughout the world to acquire skills and knowledge suitable for global Toyota executives and for individuals to exercise their strengths to the maximum extent in their respective areas of responsibility. The program comprises following three pillars.

1. Indication of management philosophy and expectations of executives  
The Toyota Way and Global Vision are disseminated and incorporated into global human resource evaluations and various types of training.
2. Human resource management  
Evaluation standards and processes are standardized globally

to ensure fairness and consistency. There are five major areas of evaluation: issue creativity, issue execution capabilities, organizational management capabilities, human resource utilization capabilities, and popularity. Global assignments for transfer and postings are made among countries and regions without regard for region or functions.

#### 3. Training deployment and training programs

Global assignments and executive training are carried out. Development of human resources at overseas affiliates is based on training at each local affiliate, and personnel undertake on-the-job training at Toyota Motor Corporation to learn Toyota's ways of performing work. TMC's human resource development includes programs compatible with Global 21 within TMC educational systems.

### Management Human Resource Development (Japan)

All personnel who are promoted to general manager, department manager, or section manager positions undergo one year of training for their respective positions. The training is based on reviews of Toyota's history, group training on company policies, and seminars that include discussions in small groups. Officers and general manager class personnel serve as instructors, and a climate of teaching and learning is reinforced.

Training of personnel selected from among managers is also conducted to develop executive human resources. By having such personnel perform secretarial work for top officers, attend overseas business schools for short periods, work on management issues, and attend leadership programs for executives in Japan, opportunities are created for top managers to directly observe the personnel and officer candidates are mentally prepared.

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### Administrative and Engineering Human Resource Development (Japan)

The foundation of human resource development is practice of the Toyota Way. On-the-job training (OJT) emphasizes *genchi genbutsu* (onsite hands-on experience), while off-the-job training (OFF-JT) opportunities for growth are also created under the guidance of supervisors or superiors.

For example, Toyota provides a globally-shared training program, where employees first participate in group training to learn steps for problem solving and then apply them in actual work duties.

Under the 2015 review of human resource development structures, companywide OJT and OFF-JT were improved for new, young, and mid-level employees. New employees undergo comprehensive training on fundamental knowledge on various areas for one

year after hiring. In the third and sixth through eighth years of employment, young and mid-level employees undergo specialized training and group training consisting of the five pillars of OJT in accordance with the Global Vision.

#### Five Pillars of OJT for Young and Mid-level Employees

Specific Measures	
Way of working	Problem solving, the Toyota Production System, etc.
Making ever-better cars	Comparison of new vehicles and competing vehicles
Enriching the lives of communities	Participation in volunteer activities
Customer First policy	Learning customer feedback at call centers
Company history	Learning from the founding spirit and the history of failure

### Study Dispatch Program for Young Employees (Japan)

The scale of programs activities to dispatch young employees to overseas posts was expanded and a Study Dispatch Program was launched in 2014 to accelerate the development and enhance the skills of young employees.

Employees in their fourth year or later with the company are

dispatched to overseas subsidiaries, overseas graduate programs (including MBA programs), or domestic affiliates to study for one to two years, acquire practical skills, deepen understanding of different cultures, and improve their language skills in the workplace.

347 employees have been dispatched during FY2017.

### Shop Floor Employee Human Resource Development (Japan)

When conducting human resource development, emphasis is placed on the cycle of clarification of goals and formulation of development plans, development and assignment, and evaluation and feedback, and supervisors and superiors conduct OJT at worksites. Programs include OFF-JT, including rank-specific training for individual qualifications and training for managers and supervisors, as well as specialized skills acquisition programs that combine OJT and OFF-JT for the systematic acquisition of knowledge and techniques.

Amidst a declining birth rate and aging population, a shrinking workforce, diversification of worksite members, and other changes, to maintain production systems, one of Toyota's strengths, it is necessary that worksite members form a single unit and maximize results as an organization. Specific responses to these changes include increasing the number of employees who work after

retirement at age 60 until age 65 under re-employment programs and support for the increase in female technical employees. In addition, Toyota is creating mechanisms that dig down to the elemental technology unit for technical evaluations, holding start-up seminars to support transferred employees, and taking other measures to support the efficient and effective acquisition of necessary work skill requirements in order to develop human resources who can respond flexibly to new technologies and changes in production systems.

With regard to advisors and trainers, Toyota is promoting human resource development under a climate of teaching and learning including fostering the provision of internal support by superiors to subordinates.

### Human Resource Development of Overseas Employees at TMC Head Office

With the goal of promoting self-reliance in overseas affiliates, we have a program in place where employees temporarily transfer from overseas affiliates to the TMC Head Office for human resource development using OJT. Transferees focus on learning skills, know-how and the Toyota Way throughout their training period, which ranges from six months to three years. In addition, executives of

affiliates serve as a general manager at the Head Office to learn about the decision-making process in Toyota and build a network with other employees.

As of June 2017, a total of 539 transferees from 55 affiliates in 30 countries were working in Japan under the program.

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Society | Employees

## Diversity and Inclusion

Toyota has positioned diversity and inclusion as key management strategies and is working to create appealing environments where human resources with various skills and values can work and each individual can achieve self-realization. We believe that new

ideas created and the identification of new issues from diverse perspectives will lead to even greater competitiveness, which we hope to link to making ever-better cars.

### Promoting Diversity and Inclusion

Gender

Nationality

Those performing  
childcare or nursing  
care

Elderly people

Disability

LGBT

### Making Ever-better Cars

## Working at Home Program (Japan)

Toyota's work style reforms are intended to raise productivity and support the balance between performing childcare or nursing care and work. In October 2016, the Working at Home Program was expanded and the Free Time & Location (FTL) Program was introduced. The objectives are to maximize the abilities of each individual and maximize results by transforming to more flexible working styles. The earlier Working at Home Program covered only employees with children or who are providing nursing care to a family member, but the FTL Program can be used by other employees as long as certain conditions are met, the employee agrees, and the

employee's supervisor consents.

As of the end of FY2016, approximately 13,000 employees were eligible, and a total of 2,300 employees were working under the program.

In the next two years, Toyota plans to distribute work-only PCs that can be used for working from home to eligible employees. Many participants support the program, commenting that they are able to work more efficiently with a greater awareness of time and that they have more time to spend with family.

### Work Style Reforms (Comments from FTL Program Participants)

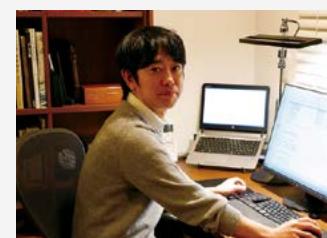
Kumiko Tomita, Pricing Group, TMA-Japan

Commuting took a lot of time, so I tried working from home for the entire day. Before I started working from home, I created a concrete schedule and drew an image of working from home. My work consists primarily of creating documents, and when necessary, I use a Web camera to participate in meetings. Because of the time difference, meetings with overseas affiliates are held early in the morning, but by participating from home, the physical burdens are less than when I had to come to work early to avoid the congestion. When I work from home, I have a very detailed schedule prepared with my supervisor, so I'm able to work with a strong awareness of time, dedicating myself to particular tasks at particular times. As a result, I think that my productivity has increased.



Shinya Mori, MS Product Planning Division

All of my team members use the FTL Program, and my wife who works in another department uses it too. I use the program to go home from work early and start working when my child goes to sleep. The benefits of FTL are the ability to effectively use time and increase productivity. I think what's important is to produce results as a team. To do this, it's necessary to share information on how we're proceeding with our work so that team members can see who is doing what, when, and where. Thanks to FTL, I'm able to spend more time with my family while maintaining my work output.





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### Diversity Management Measures (Japan)

Managers implement diversity management measures to create workplace environments where diverse human resources can work with enthusiasm. Toyota has established “Ikubosses” who are able to perform diversity management. Toyota fosters supervisors who can generate organizational results by understanding and supporting

the values and careers of their subordinates and conducting management based on flexible attitudes and positions while considering the enhancement of their own and their subordinates' private lives.

### “Ikuboss” Measures Needed in a Time of Diversifying Human Resources (Japan)

Toyota implements “Ikuboss” measures to promote the development of workplace environments where diverse human resources including women, seniors, employees providing nursing care to family members, and others can work with enthusiasm. In order to develop supervisors who can understand and support sensitivities that value the careers of subordinates and perform management based on flexible attitudes and positions (i.e., Ikubosses), we implemented an Ikuboss Trial where 200 managers experienced working from home. As a result, more than 90% of the participants felt that working from home is significant and increases productivity. This also led to greater acceptance of use of the Working at Home Program.

In addition, Ikuboss Declarations prepared by 500 managers were posted on the Sodatete Net intranet. Measures being taken in individual worksites and messages to subordinates were posted in succession, promoting a culture of mutual support for the activities of diverse members.



Ikuboss Declarations posted on the Sodatete Net intranet

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## Society | Employees

### Measures to Promote Women's Participation in the Workplace (Japan)

Measures to promote employment opportunities for women by supporting a good work-life balance include career development support, implementation of flexible working formats such as returning to work early after taking leave, and creating an environment that facilitates childcare so that Toyota becomes a company where

women feel comfortable having and raising children while working. Toyota Group companies are collaborating on various measures such as holding female employee networking meetings for employees of different companies and allowing employees to use the daycare facilities of other companies.

Toyota has decided on the following plan to build an environment to promote women's participation in the workplace.

#### 1. Implementation Period

From April 1, 2016 to March 31, 2018

#### 2. Our Challenges

Issue #1: The number of female employees is not large enough, and the average length of service of female engineers is shorter than that of male engineers.  
Issue #2: The proportion of women in managerial positions is low.

#### 3. Targets

1) Employment rate of female graduates Administrative: 40%, Engineering: 10%  
2) Number of female managers —The number of women in managerial positions in 2014 to be increased three fold by 2020, and fivefold by 2030

#### 4. Details of Actions

##### Action 1 Maintain a hiring rate for female graduates (Administrative: 40%, Engineering: 10%)

###### [Initiatives to continue]

- Carrying out the following actions to increase the female employment rate [from April 2015]  
(Increase opportunities for applicants to meet a diverse range of female managers and specialists)
- Continue to participate in "Toyota Female Engineer Development Foundation" [from December 2014]

##### Action 2 Support a balance between work and childcare, and create an atmosphere and environment to support an early return to work from maternity leave

###### [Initiatives to continue and expand]

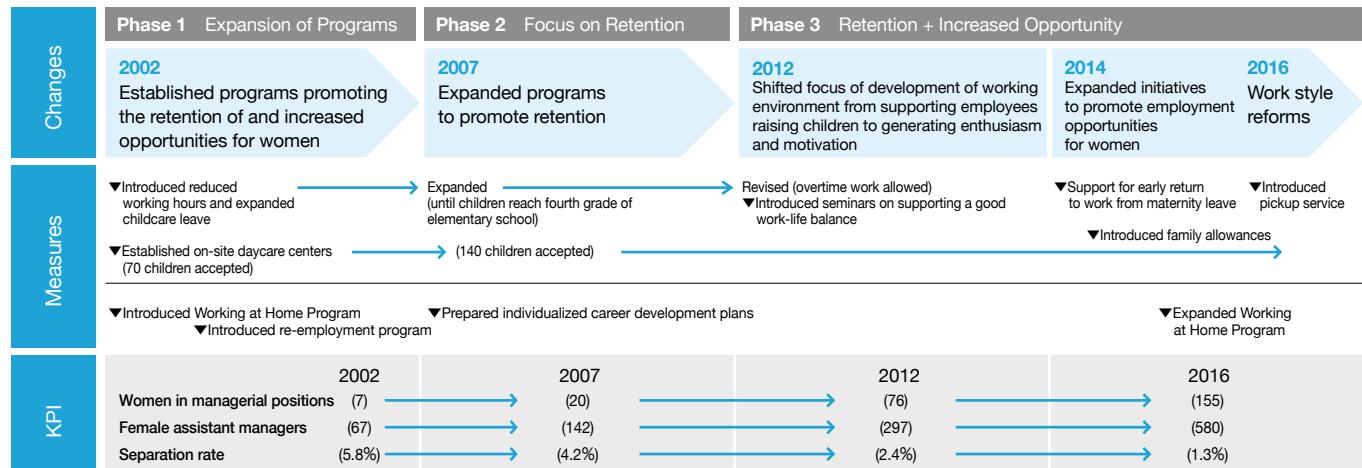
- < Support a balance between work and childcare >
- Continue and expand support for childcare [from April 2007]  
(Expansion of usage for "working at home" program, provision of child care facilities)
- Create a working atmosphere that supports women's participation in the workplace [from April 2016]  
(Produce and distribute hand-outs for supervisors and male employees)
- Promote male employees' participation in child care [from October 2016]
- < Support for early return to work from maternity leave >
- Raise awareness in women, their supervisors and spouses by holding pre-maternity leave seminars [from July 2015]
- Promote usage of all-day "working at home" program and subsidy for child care cost [from April 2016]

##### Action 3 Develop career awareness and systematic personnel training from an early stage

###### [Initiatives to continue and expand]

- < Career awareness >
- Promote initiatives to enhance female awareness [from June 2015]  
Hold roundtable discussions, support the development of female networks in administrative and engineering through social network services, and introduce role models
- < Systematic personnel training >
- Prepare for personalized development plans that take into account the life events of each individual for women in administrative and engineering positions [from April 2009]
- Enhance programs for managerial level employees [from April 2016]

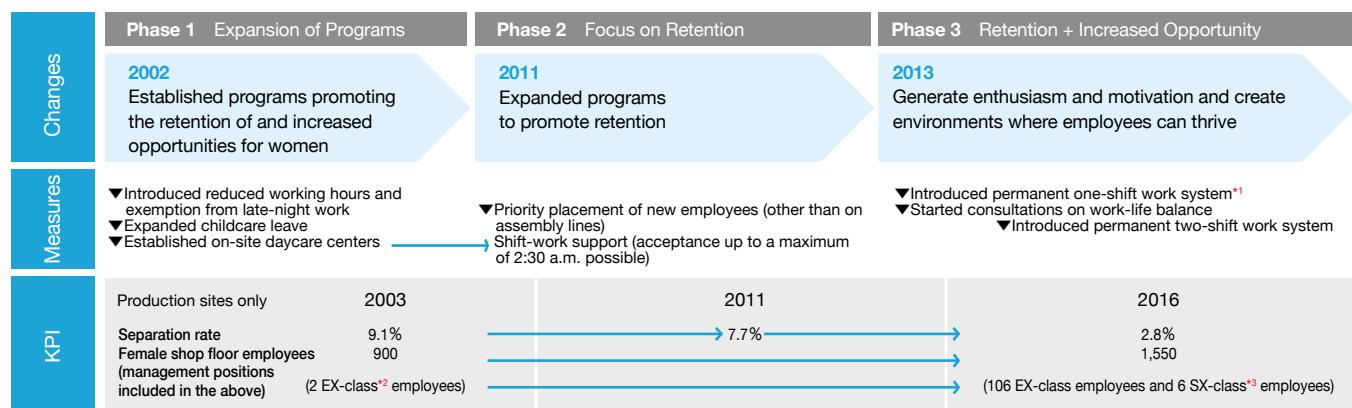
### Overall Image of Initiatives to Promote Women's Participation in the Workplace (Administrative and Engineering Employees)



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### Overall Image of Initiatives to Promote Women's Participation in the Workplace (Shop Floor Employees)



\*1 A program that allows employees who perform childcare to always work during the daytime at plant worksites with shifts.

\*2 Expert

\*3 Senior Expert

### Toyota Female Engineer Development Foundation (Japan)

Toyota Motor Corporation and nine group companies established the Toyota Female Engineer Development Foundation in December 2014 to contribute to the promotion of women's participation in the workplace in manufacturing businesses overall in Japan. The Foundation aims to foster female engineers who can thrive in manufacturing industries and increase the number of female students who want to work in STEM careers. It conducts a program that presents information on engineering careers to high school students in the form of on-demand courses taught by female engineers at high schools in Aichi Prefecture, a development program for female engineering university students to support career building as well as a scholarship program that provides financial support.

One development program, the Future Female Engineers Camp, serves as a forum to raise awareness so that female scholarship recipients who seek to work in the future as engineers proactively enhance their skills while still enrolled in university. First-year students participate in student networking programs and group discussions to eliminate general anxiety regarding the future and deepen their understanding of manufacturing by attending panel discussions and

roundtable discussions conducted by female engineers who are active on the cutting edge of manufacturing as well as facility and worksite tours. Second-year students can experience group work that is close to actual working conditions to form a more concrete image of their future careers as engineers and gain opportunities to consider goals for raising their levels of specialization through university life. The Future Female Engineers Camp, held in February 2017 at the Toyota Motor Corporation Head Office, was attended by 105 first-year students and 118 second-year students. Participants made comments such as "I formed a somewhat concrete image of becoming an engineer" and "Over the two days, I was able to think about my future from a different and broader perspective than previously."

Various materials are posted on websites such as reports on the Future Female Engineers Camp, activity report pamphlets, the *Rikejo* (Female Engineer) Newspaper, which introduces female engineers who work for the Toyota Group, and Career Map, which presents information on jobs in manufacturing. These materials present information on women who work in engineering positions.



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### Work-life Balance Support Measures (Japan)

Against a backdrop of a declining birth rate and aging population, Toyota is taking measures to become a company where women feel comfortable having and raising children while working as a part of its initiatives to support employment opportunities for women. Such measures, which also involve men, include support for maintaining a good work-life balance by reforming work styles and reducing the burdens of childcare.

A Pre-Maternity Leave Seminar was introduced in FY2015. The seminar is for married couples where both members work for Toyota and is conducted from a perspective of sharing the burdens of housework and childcare. It is attended not just by female employees who plan to take maternity leave, but also by their husbands and their respective supervisors. At the seminar, participants receive useful information and discuss how they can provide support to each other as a team, including ways for the couple to efficiently take childcare leave, methods of dividing up housework, and sharing information on schedules.

In FY2017, Toyota substantially expanded its day care centers and introduced a pickup service using daycare center buses that travel

between the head office and plant districts at some sites. The pickup service reduces the burdens of dropping off and picking up children at day care facilities and makes group daycare for infants possible. In addition, six Toyota Group companies collaborated to introduce a program that allows employees of other companies to use their daycare facilities. Construction on a daycare facility for up to 300 children where daycare for sick children will be accommodated at the Toyota Memorial Hospital, which is located near the Head Office, and is scheduled for completion in 2018. Toyota plans to open the facility to the local community as well.



Pickup service



Nursery playground

### Toyota Selected as Excellent Company for Female Employees in Aichi

Toyota Motor Corporation was selected by Aichi Prefecture as an excellent company for female employees, a certification of its proactive efforts to create employment opportunities by women.

The Excellent Company for Female Employees in Aichi is a certification program established by the prefectural government in 2015. This is the first time that a company has been selected as an excellent company. Toyota was selected in recognition of the work style options that it affords employees according to their individual values and circumstances including the creation and expansion of programs to promote employment opportunities for women starting in 2002, introduction of the permanent one-shift work system,\* support for employees who return to work soon after taking postnatal leave or parental leave, and expansion of the Working at Home Program.

\* A program that allows employees who perform childcare to always work during the daytime at plant worksites with shifts.



Excellent Company for Female Employees in Aichi  
Certificate

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## Society | Employees

### Major Initiatives of Nursing Care Policy (Japan)

As social attitudes regarding nursing care are changing, Toyota has continued to expand and improve company measures on nursing care since 2009, in order to reduce employee anxiety and burdens regarding nursing care and to create an environment in which employees can devote themselves to work with a sense of assurance.

One example is holding nursing care lectures by outside experts such as licensed social welfare workers and nursing care workers since 2009 in order to enhance the provision of information.

In FY2016, Toyota held a total of six lectures, two each on three topics: understanding nursing care, preparing for nursing care, and balancing nursing care and work. The lectures were attended by a total of approximately 530 employees and their family members.

#### Use of Child Care and Nursing Care Leave (Japan)

(FY)	2012	2013	2014	2015	<b>2016</b>
(Persons)					
Male	19	22	20	43	<b>44</b>
Female	467	424	469	577	<b>602</b>

#### Use of Flexible Working Hours System (Japan)

(FY)	2012	2013	2014	2015	<b>2016</b>
(Persons)					
Male	20	17	18	41	<b>342</b>
Female	817	977	1,140	1,322	<b>1,515</b>

\* Data up to and including FY2015 indicates the number of people using shortened working hours or the Working at Home Program for childcare or nursing care. Data for FY2016 indicates the number of people using shortened working hours for childcare or nursing care, and the number of people using the Working at Home Program, regardless of whether or not it is for the purpose of childcare or nursing care.

### Major Initiatives in Nursing Care

Support for the Work-Life Balance	Provided Information	Nursing Care Services	Economic Support
<ul style="list-style-type: none"> <li>● Nursing care leave and shortened working hours</li> <li>● Increase flexibility in working hours system           <ul style="list-style-type: none"> <li>(1) Change the units of time to apply systems such as shortened hours and so on</li> <li>(2) Change the working hour settings of the "working at home" program</li> <li>(3) Expand applicable periods for various work-life balance support programs</li> <li>(4) Establish a new nursing care leave program</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Create a consultation hotline at the Toyota Health Insurance Union</li> <li>● Publish pamphlets on nursing care</li> <li>● Hold nursing care lectures</li> <li>● Hold hands-on nursing care seminars</li> </ul>	<ul style="list-style-type: none"> <li>● Introduce a nursing care savings program</li> <li>● Form a partnership with a major nursing care service provider</li> <li>● Expand nursing care service providers</li> <li>● Introduce home care workers services</li> </ul>	<ul style="list-style-type: none"> <li>● Introduce nursing care insurance</li> <li>● Create parent nursing care insurance</li> <li>● Introduce a nursing care financing program</li> </ul>

### Job Placement Program for Over-60s (Japan)

Following the introduction of the Internal Re-employment Program for Retired Professionals in 1991, an Optional Re-employment Application System was launched in 2001 to outplace applicants to external affiliates and other sites, providing a framework for helping over-60s to continue working at either external or internal workplaces.

Based on the revisions to the Law on Stabilization of Employment of Elderly Persons in FY2006 and again in FY2013, programs were

updated to their present state, in order to expand re-employment opportunities.

In addition, starting from FY2016, the Advanced Skilled Partner System was set up for shop floor employees to encourage employees to retire when they reach 65 years old by maintaining their job rank and salary at their current position in order to motivate employees to remain active until 65.

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## Society | Employees

### Employment of Fixed-term Contract Employees (Japan)

When hiring fixed-term contract employees, appropriate hiring and contract renewals are conducted with maximum efforts focused on maintaining stable employment and improving their work capacity. With the full-time staff appointment system, fixed-term contract employees who have worked for Toyota for at least one year and have a recommendation from their workplace get the chance to take an examination for regular employment. This leads to increased motivation and vitality. Fixed-term contract employees are also given the opportunity to re-try the examination in their third year. It is necessary to

maintain strong technical skills in the workplace in order to achieve sustainable growth, and to this end, Toyota will continue actively working to hire fixed-term contract employees as full-time employees.

### Full-time Employee Hiring Results and Plan (Japan)

(FY)	2015	2016	<b>2017</b>
(Persons)			
Number of full-time employees hired	387	377	<b>400</b>

### Employment of Persons with Disabilities (Japan)

We believe that persons with disabilities deserve the chance to become socially self-reliant and make it a rule to provide them with opportunities to work together with non-challenged individuals. As of April 2017 the number of people with disabilities employed was 1,785 accounting for 2.173 percent of the entire workforce (including special-purpose subsidiaries) which is above the legal requirement of 2.0 percent.

Efforts are under way to create an even more employee-friendly working environment, including hosting an internal sign language workshop, deploying counselors to provide all kinds of support, and spreading good workplace examples across the organization. Toyota Loops Corporation began operation in April 2009 with 28 people with disabilities and received certification from the Minister of Health, Labour and Welfare as a special-purpose subsidiary of Toyota Motor Corporation in October of that year. As of June 1, 2017, Toyota Loops employed 215 persons with disabilities.

Toyota Loops handles primarily work that is outsourced from Toyota such as internal printing, mail services and enclosing catalogues. It also performs tasks on behalf of other companies such as issuing visitor and employee identification cards, issuing asset number labels, and performing document shredding as well as erasing data from discarded PCs, and providing nursing assistance at Toyota Memorial Hospital. The number of support staff has also been increased in conjunction with the expansion of employment in order to eliminate or reduce

anxieties that employees may have regarding their health or work. We are also reinforcing support structures by creating a consultation hotline and providing consultations with an industrial physician and counseling by a clinical psychologist and psychiatrist. We actively exchange information with governmental bodies, local communities, and social welfare organizations to create working environments where each employee can work with reassurance.

Ten Toyota Loops employees participated in the Abilympics in Aichi Prefecture (a national technical skills competition for persons with disabilities) held in December 2015. A total of four competitors won the gold: one person from the Product Packing Division, one from the Office Assist Division, one from the Computer Data Input Division and one from the Word Processing Division. In addition, one person won silver and two people won bronze, making this year the highest number of medal winners with seven people.

### Number of Employees with Disabilities

(FY)	2013	2014	2015	2016	<b>2017</b>
(Persons)					
Employees with psychological disorders	22	26	28	33	<b>48</b>
Employees with intellectual disabilities	40	51	54	61	<b>86</b>
Employees with physical disabilities	29	44	52	74	<b>81</b>
Transferred employees and others	36	42	42	46	<b>45</b>

### Initiatives regarding LGBT Employees (Japan)

Toyota has launched initiatives with the aim of creating workplaces with an appropriate understanding and acceptance of LGBT people (sexual minorities).

In our new graduate hiring activities, we have removed the requirement to indicate gender on the application entry sheet, and we conduct human rights awareness training for new graduate employees. We also conduct training for employees who have

been newly promoted to management positions, where we improve understanding of LGBT issues as a part of promoting diversity and inclusion. Furthermore, Toyota has established an internal and external harassment consultation hotline and is taking facility-based measures such as creating dedicated bathrooms in parts of the Head Office and Nagoya office. We will continue to conduct such measures.

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## Society | Employees

### Localization of Management at Overseas Facilities

Toyota is localizing management at overseas facilities from a medium- to long-term perspective under a structure where the allocation of roles is clearly defined: the head office determines what needs to be done, and overseas affiliates decide how they will carry out those tasks.

In principle, executives responsible for overseas operations including chief officers live at the respective overseas locations and create management systems that have close ties with local communities. Toyota also actively hires local human resources. Of eight regional headquarters, three are currently headed by non-Japanese chief officers. As of July 2017, Toyota Motor Corporation had seven non-Japanese executives (of which one is an outside director).

Toyota will continue to actively foster and promote local personnel on the principle that this ensures the right resources will be in the right places, driving forward the localization of decision-making, operation and management posts. This should facilitate the timely

understanding of customer and employee needs in each region, enabling us to make appropriate business decisions.

#### Percentage of Local Employees Comprising Management at Overseas Affiliates

(FY)	2012	2013	2014	2015	<b>2016</b>
(%)					
Local employees	60.1	64.7	62.9	62.6	<b>65.8</b>

#### Non-Japanese Executives Responsible for Overseas Operations

Region	Officer
North America region	James E. Lentz, Senior Managing Officer
Europe region	Johan van Zyl, Senior Managing Officer
Latin America & Caribbean region	Steve St. Angelo, Senior Managing Officer

### Creating Happy Workplaces

In order to strengthen its human resource base, which supports Toyota's growth, the company has created a positive working environment in which employees can work with confidence, vigor and enthusiasm.

#### WE LOVE TOYOTA Initiative (Japan)

In order to deepen loyalty based on the notion of "All Toyota," an internal campaign called We Love Toyota has been carried out since FY2009.

As a part of these activities, We Love Toyota seminars were held in April and June 2016. Approximately 400 participants attended including corporate executives. Teamwork and ties between participants were deepened by forming teams consisting of members who had never met before and discussing the joy of driving through the "Internal Prius Cup."

Some 4,400 employees in 550 teams representing divisions and overseas affiliates competed in the 70th Toyota Relay Race

Toyota strives to foster employees' pride and loyalty to the company, workplace and colleagues by encouraging a culture of teamwork through communication and friendly competition.

Competition, held in December 2016. More than 30,000 people came and cheered on the competitors, enhancing the sense of unity within Toyota.



WE LOVE TOYOTA Seminars



70th Toyota Relay Race Competition



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Society | Stakeholder Engagement

# Stakeholder Engagement

## Fundamental Approach

In the preamble of its CSR Policy, Toyota declares that it will engage in stakeholder-oriented management in order to contribute to sustainable development and strive to maintain and develop sound relationships with stakeholders through open and fair communications.

Specifically, Toyota's relevant divisions and offices all over the world act as the main contacts to hold dialogues with major stakeholders. They communicate Toyota's philosophy and also help deepen mutual understanding. Additionally, Toyota maintains communication with external experts in order to examine, for example, the direction of its sustainability-related initiatives. Toyota will continue to further strengthen dialogue with stakeholders to earnestly address society's expectations and to utilize them in our future initiatives.

## Implementation Status of Stakeholder Engagement

Stakeholder		Communication methods	Frequency	Description	Incorporation into corporate activities
Customers	Based on our "Customer First" philosophy, we take measures to incorporate the comments and opinions of customers into better products and services	Toyota Customer Assistance Center	As needed	Responding to customer opinions using telephone and e-mail forms	Improving customer satisfaction activities
		Official website, product website	As needed	Disseminating company information and business details, providing FAQ, etc.	Improving customer satisfaction activities
		Information dissemination through various types of social media	As needed	Disseminating company information and business details	Disseminating information in response to customer demand
Employees	Bilateral communications to build teamwork and foster a sense of unity based on a labor-management relationship founded on mutual trust and responsibility	Joint labor-management roundtable conferences/Labor-management meetings	Several times a year	Discussions/negotiations, opinion exchanges and mutual understanding regarding labor-management issues	Strengthening labor-management relationships
		Employee satisfaction survey	Once or twice every two years	Surveying employees satisfaction regarding workplace culture and company life	Improving workplace culture, and evaluating and planning various labor-management and personnel policies
Business Partners	Close communication to achieve a mutually beneficial relationship based on mutual trust	Dealers: Various, meetings, seminars, and events with dealers	As needed	Sharing corporate policies	Building closer, mutually beneficial relationships based on mutual trust
		Suppliers: General conference of suppliers, various meetings with Toyota's supplier associations, seminars, and events	As needed	Sharing purchasing policies, and strengthening of mutual study and partnership	
Shareholders	Timely and appropriate disclosure of operating results and financial condition to shareholders and investors, and constructive dialogues toward sustained growth and corporate value enhancement	Shareholder's meeting	Once a year	Unconsolidated and consolidated financial statements, audit and supervisory board reports, and deliberation and decisions on resolutions	Improving management quality through constructive dialogues
		Financial results announcement	Four times a year	Press and telephone conferences to explain Toyota's financial status and initiatives	
		Face to face meeting	As needed	Meetings to explain Toyota's financial status, local projects, technologies, products, etc. and to exchange opinions with institutional and private investors	
		Investor information website, etc.	As needed	Providing information on financial status, business details, etc. Website "T-ROAD," a collection of Presidents' messages is launched	
Global Society/Local Communities	Dialogue with various stakeholders to build good relationships with local communities and to solve global social and environmental issues	Roundtable conferences with local residents	Several times a year	Briefing local representatives on Toyota's initiatives and holding opinion exchange meetings at each plant	Promoting mutual understanding and forming stable local communities
		Inviting local communities to Toyota's events and participating in local events	As needed	Social gatherings with local residents	
		Participating in joint projects between public and private sectors	As needed	Cooperating in progressive initiatives such as verification tests	
		Participating in economic and industry organizations	As needed	Participating in the planning and implementation phases of various organizations' policies	
		Participating in collaborative activities with NGOs and NPOs	As needed	Social contribution activities throughout the world	Recognizing social needs in individual regions



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## Society | Stakeholder Engagement

### **Toyota Stakeholders Meeting 2016 Held**

The Toyota Stakeholders Meeting 2016 was held at the Head Office (Toyota City, Aichi Prefecture) over two days in November 2016. The goal of the meeting was to directly convey Toyota's determination to carry forward its founding principles and clear a path for its own future to a broad range of its stakeholders. The meeting was attended by approximately 2,500 people, including private investors, local and government representatives, students, suppliers, and dealers.

President Akio Toyoda, Gill Pratt, CEO of the Toyota Research Institute (TRI), and other company officers made presentations on various concepts such as Ever Better Cars, Creating Value for the Future, Future Society Brought about by AI, and Approach to Passing the Toyota Production System on to Future Generations. Through sessions with audience participation and test drives of various cars, the guests were able to gain firsthand experience of Toyota's initiatives.



Gill Pratt making a presentation at the Toyota Stakeholders Meeting 2016

### **Promoting Dialogue with Private Investors**

We make an effort to promote more dialogue with shareholders and private investors, in order to assist them in making long-term investments. We present the aspirations of our top management and the corporate initiatives for sustainable growth directly to our investors, and in turn invite their input.

We held 11 IR conferences for private investors in FY2016, with some 1,800 people attending. Business presentations were given, vehicle models including the i-Road were on display, and engineers provided technical presentations. It is our aim that the hands-on experience and interactive communications would help investors understand the Toyota businesses better and support us through long-term investments.

We also set up a booth at IR events organized by stock exchanges and others in an attempt to expand our communication opportunities. As a means to deepen our communications and disseminate company information, we have established "T-ROAD," which is a special website that features the president's messages for shareholders and private investors, and introduces Toyota's initiatives.



T-ROAD

T-ROAD [Web](http://www.toyota.co.jp/jpn/investors/t-road/?adid=ag400_sustainable) [http://www.toyota.co.jp/jpn/investors/t-road/?adid=ag400\\_sustainable](http://www.toyota.co.jp/jpn/investors/t-road/?adid=ag400_sustainable)

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## Toyota Environmental Challenge 2050

Toyota has promoted a wide range of initiatives to address increasingly severe global environmental issues, such as extreme weather phenomena attributed to greenhouse gas emissions, biodiversity depletion due to development, and water shortages caused by population growth. The Toyota Environmental Challenge 2050 was announced in October 2015 as a means of contributing to the realization of a sustainable society. The challenge reaffirms our commitment to reducing the environmental burden of automobiles to as close to zero as possible, while developing measures to contribute to positive impact on the Earth and its societies.



### ① Achieving Zero CO<sub>2</sub> Emissions: Challenge of Achieving Zero



#### New Vehicle Zero CO<sub>2</sub> Emissions Challenge

Reduce global average CO<sub>2</sub> emissions from new vehicles by 90% from Toyota's 2010 global level

##### Actions

- Accelerate widespread use of next-generation vehicles to save energy and utilize a diverse range of fuels
- Accelerate global expansion of hybrid vehicles and plug-in hybrid vehicles
- Accelerate widespread use of fuel cell, electric, and other zero-emissions\*1 vehicles

\*1 Zero emissions: Complete elimination of harmful exhaust gas emissions. In recent years, zero emission vehicles refer to EVs and FCVs, which do not emit CO<sub>2</sub> at all. In the environment field, zero emission means complete elimination of incinerated waste and landfill waste.



### ⊕ Benefiting the Earth: Net Positive Impact Challenge



#### Challenge of Minimizing and Optimizing Water Usage

Minimize water consumption and implement wastewater management based on individual local conditions

##### Actions

- Reduce water consumption in existing production processes as well as introducing technologies that reduce industrial water consumption through rainwater use and improving water recycling rates
- Manage wastewater quality by complying with strict standards, improving the local environment by returning clean water



#### Life Cycle Zero CO<sub>2</sub> Emissions Challenge

Completely eliminate all CO<sub>2</sub> emissions from the entire vehicle life cycle

##### Actions

- Reduce CO<sub>2</sub> emissions along the entire vehicle life cycle, from materials production, parts and vehicle manufacturing to driving and disposal stage
- Reduce CO<sub>2</sub> emissions during materials production by developing and expanding use of low-emission materials
- Promote eco-friendly actions through wider use of recycled materials



#### Challenge of Establishing a Recycling-based Society and Systems

Promote global deployment of End-of-life vehicle treatment and recycling technologies and systems developed in Japan

##### Actions

- Establish a recycling-based society with four key features: use eco-friendly materials; use auto parts longer; develop recycling technologies; and manufacture vehicles from End-of-life vehicles
- Two global projects started in 2016:
  - Toyota Global 100 Dismantlers\*2 Project
  - Toyota Global Car-to-Car Recycle Project

\*2 Dismantlers: Auto-dismantling businesses operators



#### Plant Zero CO<sub>2</sub> Emissions Challenge

Achieve zero CO<sub>2</sub> emissions at all plants by 2050

##### Actions

- All production plants, develop and adopt low-CO<sub>2</sub> technologies and implement daily *kaizen*, while promoting the use of renewable energy and hydrogen
- Reduce energy consumption to one third or less by simplifying and streamlining production processes and taking innovative energy-saving measures
- Adopt renewable energies at plants, including the use of wind power produced on-site at our Tahara Plant by around 2020



#### Challenge of Establishing a Future Society in Harmony with Nature

Connect nature conservation activities beyond the Toyota Group and its business partners among communities, with the world, to the future

##### Actions

- Enhance Toyota's long-standing nature conservation activities in the areas of nature fostering, environmental grants, and environmental education
- Develop three "connecting" projects started in 2016, sharing our know-how and environmental experiences
  - Connecting communities: Toyota Green Wave Project
  - Connecting with the world: Toyota Today for Tomorrow Project
  - Connecting to the future: Toyota ESD\*3 Project

\*3: ESD: Education for Sustainable Development

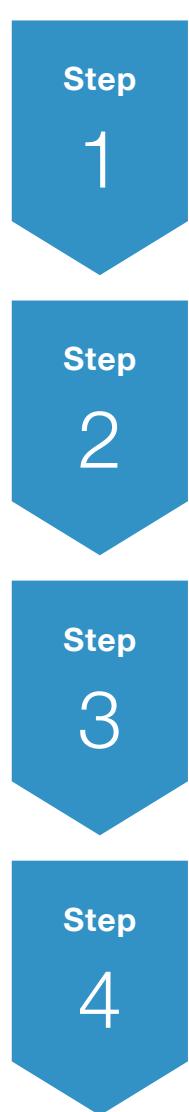
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## Toyota Environmental Challenge 2050

### Processes to Identify and Implement the Key Challenges (Materiality)

Environmental challenges may involve both business risks and opportunities. It is therefore essential to identify key challenges (materiality) from both risk and opportunity perspectives when formulating a long-term vision. In order to grasp the potential risks and business opportunities, Toyota has collected information, analyzing and identifying environmental challenges from the standpoints of their importance for both stakeholders and our business.

For the implementation phase, we have created the Sixth Toyota Environmental Action Plan to carry out the company-wide specific initiatives to accomplish the Six Challenges under the Toyota Environmental Challenge 2050.



#### Step 1 Collect and Analyze Information

We examined a wide range of global trends in collecting and analyzing information. These include scientific predictions for the environment in 2050, global frameworks and policy trends, development in emerging countries, major index from external rating agencies, and world leaders' remarks on environmental issues at G7 Summits. This broad examination provided us with an understanding of macroeconomic trends and important needs of societies, leading us to grasp potential risks and opportunities.

#### Step 2 Identify Environmental Challenges (Materiality)

We identified environmental challenges (materiality) through analysis of both the external and internal environments. Our analysis of the external environment is derived from ESG investor and research organization surveys and major indices, along with communication with stakeholders including international organizations, NGOs, and consumers, while the internal analysis is based on the Guiding Principles at Toyota, the Toyota Earth Charter, and discussions among internal related divisions.

#### Step 3 Identify Key Challenges (Materiality)

We identified the key environmental challenges (materiality) by considering two aspects, which are the influence on stakeholders, and impacts on our potential business risks and opportunities. This helped us prioritize the importance of key challenges.

#### Step 4 Toyota Environmental Challenge 2050 Approval, Regular Review, and Information Disclosure

High priority challenges for both stakeholders and Toyota were formulated in the Toyota Environmental Challenge 2050 (Six Challenges) and approved by the Corporate Planning Meeting, which decides our medium- to long-term strategies. Steady implementation of our challenges requires management's recognition of environmental activities as potential business opportunities and effective investments, in addition to involving Group companies to strengthen collaboration with our business partners. We will review and evaluate our action plans on a regular basis.

### The Sixth Toyota Environmental Action Plan: Action Plan to Implement the Six Challenges

The Toyota Environmental Action Plan defines the Toyota Earth Charter in specific corporate activities to ensure steady progress of our goals. We created the First Toyota Environmental Action Plan in 1993, followed by a review every five years afterwards to implement our plans.

The Sixth Toyota Environmental Action Plan clearly defines the initiatives to be implemented between FY2016 and 2020 in order to meet the Six Challenges of the Toyota Environmental Challenge 2050.

Toyota will contribute to the sustainable development of society and the Earth in harmony with the global environment through *monozukuri* (manufacturing), car manufacturing, providing products and services.

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## FY2016 Review of the Sixth Toyota Environmental Action Plan

Area	FY2016 Results Overview
<b>Low Carbon</b> (Climate Change, CO <sub>2</sub> )	<p><b>1</b>  <b>Challenge 1:</b> We are working to reduce global average CO<sub>2</sub> emissions from new vehicles through improved environmental performance of vehicles and expanded vehicle lineups.    In addition to the steady sales of hybrid vehicles (HVs), the second-generation Prius PHV was launched to accelerate development and widespread adoption of plug-in hybrid vehicles (PHVs).    For electric vehicles (EV), we have established the development structure for early launch of new models.</p>
	<p><b>2</b>  <b>Challenge 2:</b> In the area of vehicle development, we subjected eight vehicle models sold in Japan to life cycle assessment using Eco-VAS*. CO<sub>2</sub> emissions from Prius PHV were reduced by 5 percent compared with the previous model.    In the area of logistics, we promoted <i>kaizen</i> measures to reduce CO<sub>2</sub> emissions.</p> <p>*1 Eco-VAS (Eco-Vehicle Assessment System): Comprehensive environmental impact assessment system throughout the entire vehicle development process based on the concept of life cycle assessment (LCA) from vehicle production and use to disposal stages. The aim of Eco-VAS is to serve as a valuable environmental management tool for chief engineers.</p>
	<p><b>3</b>  <b>Challenge 3:</b> We made steady progress reducing CO<sub>2</sub> emissions in production activities by developing and applying new technologies on a global scale and implementing shop-oriented initiatives in order to smoothly roll out improvements. As we change and update our production lines, we are deploying simplified and streamlined technologies developed in each shop, such as the new painting line adopted for the Prius production. We actively promoted our ESCO activities that support energy-saving activities in our plants.</p>
<b>Recycling</b> (Resources, Water)	<p><b>4</b>  <b>Challenge 4:</b> For effective water use, we introduced reduction technologies at plants around the world along with water saving activities. Since water-related issues and measures differ depending on regional conditions, we formulated the Toyota Water Environment Policy as a common approach. In accordance with this policy, we evaluate our impact on the water environment from a range of perspectives, including water volume and quality. We defined the Challenge prioritized plants, and we are now working to introduce necessary measures.</p>
	<p><b>5</b>  <b>Challenge 5:</b> In the area of production, we promoted reductions in the volumes of collected dust from molding process and sludge. In the area of logistics, we introduced simplified and returnable*2 packaging and wrapping materials. These efforts led to a steady reduction in the amount of waste and packaging and wrapping materials. In the area of resources recycling, we issued guidelines for End-of-life vehicle recycling laws prior to legislation and created a manual on appropriate treatment of waste oil, fluid, and HFC generated from End-of-life vehicles. In Vietnam and Thailand, we launched establishment of End-of-life vehicle proper treatment systems. In Japan, we reinforced the capacity for collecting and recycling batteries from End-of-life vehicles, and made steady progress on remanufacturing HV batteries for stationary use and others.</p> <p>*2 Returnable: To enable used packaging materials to be returned to original shipping points for reuse.</p>
<b>Harmony with Nature</b>	<p><b>6</b>  <b>Challenge 6:</b> Under the Toyota Green Wave Project, TMC and its affiliates established the All-Toyota Harmony with Nature Working Group and held joint events.    Under the Toyota Today for Tomorrow Project, we announced our partnerships with IUCN*3 and WWF*4, and received positive feedback.    In the Toyota ESD Project, the Toyota Shirakawa-Go Eco-Institute reached 190,000 cumulative visitors and strengthened its educational programs for children for the future.</p> <p>*3 IUCN (International Union for Conservation of Nature): Founded in 1948 through an international initiative, International Union for Conservation of Nature is a global nature conservation network comprising nations, government agencies, and non-governmental organizations.</p> <p>*4 WWF: World Wide Fund for Nature</p>
<b>Management</b>	<p><b>Environmental Management:</b> In response to occurrence of minor environmental non-compliance issues and complaints, we reinforced our proactive prevention measures, and conducted full implementation and standardization of past measures.    Regarding initiatives with suppliers, we have completed the revision of our purchasing guidelines worldwide. In the area of sales and services, we promoted the formulation of regional environmental guidelines.    We worked on the improvement of information disclosure and our Environmental Report 2016 received the Excellence Prize in the Global Warming Countermeasure Reporting Category of the 20th Environmental Communication Awards.</p>

> Toyota Environmental Challenge 2050 > FY2016 Review of Sixth Toyota Environmental Action Plan > Challenge 1 New Vehicle Zero CO<sub>2</sub> Emissions Challenge > Challenge 2 Life Cycle Zero CO<sub>2</sub> Emissions Challenge  
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## FY2016 Review of the Sixth Toyota Environmental Action Plan

✓✓ : Steady progress toward FY2020 target  
 ✓ : Issues exist, but FY2020 target is expected to be met  
 – : FY2020 target is not expected to be met

	Action Items	Specific Actions and Goals	FY2016 Results	Action Items Evaluation																															
<b>(1) New Vehicle Zero CO<sub>2</sub> Emissions Challenge</b>																																			
Low carbon (climate change, CO <sub>2</sub> )	1. Develop technologies to achieve the best fuel efficiency performance	<ul style="list-style-type: none"> <li>Reduction rate in average CO<sub>2</sub> emissions from new vehicles globally by over 22% from 2010 global level as of 2020                             <ul style="list-style-type: none"> <li>- Develop high-performance powertrain through TNGA and introduce it in steps</li> <li>- Achieve further high-performance development of HVs and expand their deployment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Reduction rate in average CO<sub>2</sub> emissions from new vehicles globally (Japan, U.S., Europe, and China) The FY2016 results were down 11.9% from the FY2010 level. We are promoting initiatives toward meeting our 2020 goal by developing low-CO<sub>2</sub>-emitting engines and transmissions through TNGA, making further improvements in the environmental performance of HVs, and expanding the product lineup</li> </ul>	✓✓																															
	2. Promote development of next-generation vehicles using electric power and widespread adoption according to their features	<ul style="list-style-type: none"> <li>HV: Promote higher performance and expand the lineup to broaden consumer adoption of HVs, aim to reach annual HV sales of 1.5 million units and cumulative sales of 15 million units by 2020</li> <li>PHV: Establish PHV as core electric vehicle in support of fuel diversification and develop higher-performance PHVs and promote widespread adoption</li> <li>EV: Promote technology development for short-distance purposes in combination with low-carbon traffic systems</li> <li>FCV: Promote activities to further reduce cost, achieve greater compactness and durability, and strengthen product appeal toward effective use of hydrogen as an important future energy source</li> </ul>	<ul style="list-style-type: none"> <li>HV: Making steady progress toward meeting the targeted number of units sold, by making further improvements in the environmental performance and expanding the product line-up (In FY2016, we launched three new hybrid models in Japan (Vitz, CH-R, and Lexus LC 500h) HVs account for 43% of the Toyota vehicles sold in Japan and 15% globally)</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>FY2020 goal</th><th>FY2016 results</th></tr> </thead> <tbody> <tr> <td>Global</td><td>Number of HVs sold</td><td>Year</td><td>1.5 million units</td><td>1.40 million units</td></tr> <tr> <td></td><td></td><td>Cumulative</td><td>15 million units</td><td>9.94 million units</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>PHV: In February 2017, Toyota launched the second-generation Prius PHV. CO<sub>2</sub> emissions during driving were reduced, and product performance including EV driving range was significantly enhanced Positioning PHVs as the pillar of next-generation eco-friendly vehicles after hybrid vehicles, Toyota is accelerating PHV development toward widespread adoption</li> <li>EV and FCV: Toyota considers these types of vehicles viable options toward achieving emission-free vehicles through the use of renewable energy and CO<sub>2</sub>-free hydrogen. Based on the concept of "the right vehicle for the right place at the right time," we established a development structure for early launch of EVs as well as FCVs</li> </ul>	Region	Item	Base year	FY2020 goal	FY2016 results	Global	Number of HVs sold	Year	1.5 million units	1.40 million units			Cumulative	15 million units	9.94 million units	✓✓																
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<b>(2) Life Cycle Zero CO<sub>2</sub> Emissions Challenge</b>																																			
3. Promote environmental management for product development (Eco-VAS)	3. Promote environmental management for product development (Eco-VAS)	<ul style="list-style-type: none"> <li>Steadily promote environmental target management using vehicle environmental assessment (Eco-VAS) at the development stage                             <ul style="list-style-type: none"> <li>- Reduce life cycle environmental impact or both new models and fully redesigned models compared with previous models</li> <li>- Disclose assessment results properly to customers on website and in product catalogues</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In Japan, we used the Eco-VAS to conduct life cycle assessment of eight vehicle models including new and redesigned models. Life cycle CO<sub>2</sub> emissions of all the assessed models were reduced compared to their reference vehicles. (CO<sub>2</sub> emissions from the second-generation Prius PHV were 5% lower than those from the 2012 model)</li> </ul>	✓✓																															
	4. Study practical use development of catalyst technology-based CO <sub>2</sub> absorption and new material creation (artificial photosynthesis, etc.)	<ul style="list-style-type: none"> <li>Develop artificial photosynthesis technologies from CO<sub>2</sub>, water, and solar power                             <ul style="list-style-type: none"> <li>- Complete basic verification tests for creation of primary CO<sub>2</sub>-absorbing material (material or fuel) using the world's most efficient photosynthetic unit in 2020</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Achieved a world-leading efficiency level in synthesizing formic acid using only CO<sub>2</sub>, water, and solar power</li> </ul>	✓✓																															
	5. Raising transport efficiency and reducing CO <sub>2</sub> emissions in logistics activities	<ul style="list-style-type: none"> <li>Promoting CO<sub>2</sub> reduction activities by further improving transport efficiency (Take comprehensive measures to reduce total distance travelled and promote further modal shift)</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>Target (FY2020)</th></tr> </thead> <tbody> <tr> <td>Japan</td><td>Total emissions</td><td>FY1990</td><td>25% reduction</td></tr> <tr> <td></td><td>Emissions per transport volume</td><td>FY2006</td><td>14% reduction (1% reduction)</td></tr> <tr> <td>Overseas</td><td colspan="3">Measure performance</td></tr> </tbody> </table>	Region	Item	Base year	Target (FY2020)	Japan	Total emissions	FY1990	25% reduction		Emissions per transport volume	FY2006	14% reduction (1% reduction)	Overseas	Measure performance			<ul style="list-style-type: none"> <li>Achieved the goal by promoting kaizen activities</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>FY2016 results</th></tr> </thead> <tbody> <tr> <td>Japan</td><td>Total emissions</td><td>FY1990</td><td>36% reduction</td></tr> <tr> <td></td><td>Emissions per transport volume</td><td>FY2006</td><td>17% reduction</td></tr> <tr> <td>Overseas</td><td colspan="3">Measure performance</td></tr> </tbody> </table>	Region	Item	Base year	FY2016 results	Japan	Total emissions	FY1990	36% reduction		Emissions per transport volume	FY2006	17% reduction	Overseas	Measure performance		
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6. Contribute to local communities through the expansion of local grid energy management technologies	<ul style="list-style-type: none"> <li>Establish micro-grid (F-grid) and regional optimal energy management technology and promote domestic and overseas rollout                             <ul style="list-style-type: none"> <li>- Verify the tests in Ohira-mura project in Tohoku and Motomachi Plant project in Toyota City</li> <li>- Deploy technologies at other plants in Japan and countries in Asia, etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Promoted all projects as planned                             <ul style="list-style-type: none"> <li>- Ohira-mura, Tohoku: Down 24% after the introduction of energy-saving equipment; Down 31% after the introduction of environment-friendly equipment</li> <li>- Motomachi Plant, Toyota City: Planning NEDO verification tests (2018 and 2019)</li> <li>- Other plants in Japan, Asia: Collected information such as introduction environment, laws and regulations</li> </ul> </li> </ul>	✓✓																																
7. Promoting an integrated approach to reduce CO <sub>2</sub> emissions in road traffic sectors	<ul style="list-style-type: none"> <li>Contribute to realization of smart mobility society through IT and ITS technologies                             <ul style="list-style-type: none"> <li>- Based on the verification tests results of next-generation transportation system Ha:mo in Japan and France, which we use ultra-compact EVs, aim to deploy technologies in other regions and establish business models, considering the Olympic Games Tokyo 2020 and Paralympic Games</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Improved profitability, systems, and functional development in verification tests (use cases) in various areas including Toyota City, Grenoble (France), Okinawa, Tokyo, and Okayama City toward building sustainable business operation models Particularly in Toyota City and Okinawa, promoted utilization and commercialization of the Ha:mo system, in line with local organizations and local governmental measures</li> </ul>	✓✓																																
	<ul style="list-style-type: none"> <li>Actively participate in integrated traffic flow improvement project for establishment of a low-carbon mobility society                             <ul style="list-style-type: none"> <li>- Establish WBCSD/SMP 2.0 Sathorn Model and formulate roadmap for Bangkok rollout</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In June 2016, implemented 24 measures to help control the amount of traffic and manage its flow in the Sathorn Road district of Bangkok, validating the congestion-easing effects of traffic management (Traffic flow rate: Improved by 12.6%; length of queue at traffic lights: down by 1 km) In February 2017, proposed a roadmap for deploying the measures implemented in the Sathorn Road district throughout Bangkok to Thailand's National Traffic Management Board (chaired by the Deputy Prime Minister Somkid), and received approval</li> </ul>	✓✓																																
	<ul style="list-style-type: none"> <li>Promote adoption of eco-driving globally                             <ul style="list-style-type: none"> <li>- Promote eco-driving globally among customers and employees</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                             <ul style="list-style-type: none"> <li>- Continued to promote customer education activities, such as eco-driving advice through dealers and eco-driving support through rental &amp; leasing shops</li> <li>- In October 2016, TDEM created and distributed pamphlets to be utilized for raising awareness of customers and employees for eco-driving to the distributors and business entities under its control.</li> </ul> </li> </ul>	✓✓																																

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## FY2016 Review of the Sixth Toyota Environmental Action Plan

	Action Items	Specific Actions and Goals	FY2016 Results	Action Items Evaluation																																								
Low carbon (climate change, CO <sub>2</sub> )	(3) Plant Zero CO <sub>2</sub> Emissions Challenge	<p>8. Reduce CO<sub>2</sub> emissions in production activities</p> <ul style="list-style-type: none"> <li>Promote activities to reduce CO<sub>2</sub> emissions through the development and deployment of low-CO<sub>2</sub> production technologies and daily kaizen           <ul style="list-style-type: none"> <li>Pursue further productivity and include offices and other sites in rollout of activities</li> </ul> </li> <li>Utilize clean energies in accordance with the particular conditions of each country and region           <ul style="list-style-type: none"> <li>Promote introduction's in stages toward 2020</li> </ul> </li> <li>Manage greenhouse gases (GHG) emissions from sources other than energy sources</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>Target (FY2020)</th></tr> </thead> <tbody> <tr> <td>Global<sup>*1</sup></td><td>Emissions per vehicle</td><td>FY2001</td><td>39% reduction</td></tr> <tr> <td>TMC</td><td>Emissions per vehicle</td><td>FY2001</td><td>48% reduction</td></tr> <tr> <td></td><td>Total emissions</td><td>1990</td><td>28% reduction</td></tr> <tr> <td>Overseas</td><td>Promote regional No. 1 reduction activities</td><td></td><td></td></tr> </tbody> </table> <p><sup>*1</sup> TMC + worldwide consolidated subsidiaries (manufacturing)</p>	Region	Item	Base year	Target (FY2020)	Global <sup>*1</sup>	Emissions per vehicle	FY2001	39% reduction	TMC	Emissions per vehicle	FY2001	48% reduction		Total emissions	1990	28% reduction	Overseas	Promote regional No. 1 reduction activities			<ul style="list-style-type: none"> <li>Promote technological development and steadily introduce developed technologies toward achieving the FY2020 goals</li> <li>Accelerate shop-oriented daily kaizen activities</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>FY2016 results</th></tr> </thead> <tbody> <tr> <td>Global</td><td>Emissions per vehicle</td><td>FY2001</td><td>34% reduction</td></tr> <tr> <td>TMC</td><td>Emissions per vehicle</td><td>FY2001</td><td>46% reduction</td></tr> <tr> <td></td><td>Total emissions</td><td>1990</td><td>45% reduction</td></tr> <tr> <td>Overseas</td><td>Implement reduction scenarios that match local situations</td><td></td><td></td></tr> </tbody> </table>	Region	Item	Base year	FY2016 results	Global	Emissions per vehicle	FY2001	34% reduction	TMC	Emissions per vehicle	FY2001	46% reduction		Total emissions	1990	45% reduction	Overseas	Implement reduction scenarios that match local situations			✓✓
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Recycling (Resources, Water)	(4) Challenge of Minimizing and Optimizing Water Usage	<p>9. Reduce water consumption in production activities</p> <ul style="list-style-type: none"> <li>Promote continual activities to reduce water consumption in consideration of water environment in each country and region           <ul style="list-style-type: none"> <li>Introduce innovative initiatives linked with planning of new plants and production line reforms</li> <li>Reduce water consumption through daily kaizen and other activities</li> </ul> </li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>Target (FY2020)</th></tr> </thead> <tbody> <tr> <td>TMC (vehicle plants)</td><td>Emissions per vehicle</td><td>FY2001</td><td>12% reduction</td></tr> <tr> <td>Overseas</td><td>Promote regional No. 1 reduction activities</td><td></td><td></td></tr> </tbody> </table>	Region	Item	Base year	Target (FY2020)	TMC (vehicle plants)	Emissions per vehicle	FY2001	12% reduction	Overseas	Promote regional No. 1 reduction activities			<ul style="list-style-type: none"> <li>Promote introduction of water usage reduction technologies as well as daily water conservation activities</li> </ul> <table border="1"> <thead> <tr> <th>Region</th><th>Item</th><th>Base year</th><th>FY2016 results</th></tr> </thead> <tbody> <tr> <td>TMC (vehicle plants)</td><td>Emissions per vehicle</td><td>FY2001</td><td>20% reduction</td></tr> <tr> <td>Overseas</td><td>Implement reduction scenarios that match local situations</td><td></td><td></td></tr> </tbody> </table>	Region	Item	Base year	FY2016 results	TMC (vehicle plants)	Emissions per vehicle	FY2001	20% reduction	Overseas	Implement reduction scenarios that match local situations			✓✓																
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	(5) Challenge of Establishing a Recycling-based Society and Systems	<p>10. Reduce consumption of dwindling natural resources through use of renewable resources and recycled materials</p> <ul style="list-style-type: none"> <li>Reduce use of petroleum-derived plastics           <ul style="list-style-type: none"> <li>Develop technology for recycled plastics and eco-plastics meeting quality and performance requirements</li> <li>Establish collection systems for used plastics</li> </ul> </li> <li>Promote reuse of rare resources and use of recycled materials           <ul style="list-style-type: none"> <li>Develop CFRP recycling technologies</li> <li>Develop technologies for recycling and reducing use of rare earth materials</li> </ul> </li> </ul> <p>11. Achieve industry-leading levels in easy-to-dismantle design for effective resource recycling</p> <ul style="list-style-type: none"> <li>Maintain and improve industry-leading levels for easy-to-dismantle design           <ul style="list-style-type: none"> <li>Integrate reliable easy-to-dismantle designs into all models including next-generation vehicles (EV, FCV) and smart mobility vehicles</li> <li>Develop and integrate easy-to-dismantle designs into new technologies and new materials parts</li> </ul> </li> </ul> <p>12. Contribute worldwide through End-of-life vehicle treatment and recycling technology developed in Japan</p> <ul style="list-style-type: none"> <li>Deploy proper End-of-life vehicles treatment technology overseas Japan in accordance with conditions in each country and region           <ul style="list-style-type: none"> <li>Conduct proper End-of-life vehicle treatment in accordance with local End-of-life recycling laws, while enhance initiatives in countries and regions where laws are expected to be introduced, based on the guidance.</li> <li>Establish 100 of proper ELV treatment facilities (seven sites by 2020)             <ul style="list-style-type: none"> <li>Target number of sites was reduced from 10 to 7 in consideration of changes to the external environment</li> </ul> </li> </ul> </li> </ul> <p>13. Deploy original End-of-life vehicle resources recycling system overseas</p> <ul style="list-style-type: none"> <li>Promote advanced development of Toyota's original recycling technologies and provide support overseas Japan           <ul style="list-style-type: none"> <li>Enhance technologies for remanufacturing and recycling nickel-metal-hydride batteries (lowering cost) and provide support overseas</li> <li>Establish technologies for remanufacturing and recycling lithium-ion batteries and provide support overseas</li> <li>Practical use of recycling wiring harnesses in Japan (expand scale of operations)</li> <li>Practical use of recycling magnets in Japan (expand scale of operations)</li> <li>Develop power generation and storage systems using HV units</li> <li>Study and set goals for bumper collection and recycling technologies in major regions overseas</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Petroleum-derived plastics           <ul style="list-style-type: none"> <li>Ran trials to recover plastics from End-of-life vehicles three times a year, working with several dismantling companies in the Chubu region</li> <li>Continued to collect and recycle End-of-life bumpers generated through repair work at Toyota dealers</li> </ul> </li> <li>Rare resources           <ul style="list-style-type: none"> <li>Set out to develop technologies for recycling CFRP materials</li> <li>Continued to work on reducing the amount of rare earth metals used in hybrid components</li> </ul> </li> </ul> <p>Continued to apply easy-to-dismantle designs to newly developed vehicles as well, such as the Prius PHV and Lexus LC (TNGA-based vehicles)</p> <ul style="list-style-type: none"> <li>Took the following initiatives:           <ul style="list-style-type: none"> <li>Issued the "Guidelines for Automobile Recycling Laws" prior to legislation</li> <li>Created the "Waste oil, fluid, HFC proper Treatment Manual (Basic Edition)" on dismantling End-of-life vehicles, assuming countries and regions without sufficient dismantling facilities and equipment</li> <li>Launch to establish the infrastructure necessary for End-of-life vehicles proper treatment in preparation for enactment of End-of-life vehicle regulations (Vietnam)</li> <li>Launch to establish a system for End-of-life vehicles proper treatment, using existing infrastructure (Thailand)</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>Took the following initiatives:           <ul style="list-style-type: none"> <li>Since FY1997, collected and recycled a total of 73,000 batteries from ELVs</li> <li>In Japan, reinforced the capacity for collecting and recycling batteries towards globalization (expansion of volume) of battery recycling in the future</li> <li>Continuing to promote remanufacturing (testing and re-assembly) and reuse of batteries, including application of stationary batteries</li> <li>Completed development of smelting-less copper recycling technology for 99.96% purity, and began to examine new processing technologies</li> <li>Collected magnets from End-of-life hybrid vehicle, extracting rare earth from magnets and recycling into magnets since FY2012</li> <li>Collected a total of 28 tons of magnets</li> <li>Continued to examine the application of reuse in stationary storage battery systems</li> <li>Carried out verification tests for recycling End-of-life bumpers into plastic pellets at North American Parts Operations (NAPO)</li> </ul> </li> </ul>	✓✓																																								



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	(5) Challenge of Establishing a Recycling-based Society and Systems																																																																				
Recycling (Resources, Water)	14. Reduce waste and use resources efficiently in production activities	<ul style="list-style-type: none"> <li>• Promote activities to reduce waste through development and deployment of waste reduction-oriented production technologies and daily <i>kaizen</i> <ul style="list-style-type: none"> <li>– Promote waste reduction and efficient use of resources through improving yields and other source-oriented measures</li> <li>– Promote activities to reduce resources loss by reducing amounts of valuables and waste generated</li> </ul> </li> <li>• Promote activities to reduce metal scrap generation and implement All-Toyota campaigns to effectively use resources internally</li> </ul>					<ul style="list-style-type: none"> <li>• Continue to reduce the dust from casting processes and reduce the volume of sludge by increasing the recycling rate</li> </ul>					✓✓																																																									
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	15. Reduce packaging and wrapping materials and using resources efficiently in logistics activities	<ul style="list-style-type: none"> <li>• Promote <i>kaizen</i> mainly for increasing use of returnable containers and reducing amount of packaging materials (Japan)</li> <li>• Continue <i>kaizen</i> at conventional level (down 14% from FY2006) (Overseas)</li> <li>• Promote awareness of case studies</li> </ul>					<ul style="list-style-type: none"> <li>• Promote simplified and returnable packaging materials (Japan)</li> <li>• Continue to make the same level of improvement as before (down 28% from FY2006) (Overseas)</li> <li>• Assess improvement practices</li> </ul>					✓✓																																																									
Harmony with Nature	(6) Challenge of Establishing a Future Society in Harmony with Nature																																																																				
	16. Promote nature conservation activity "Connecting regional conservation activities with region and community"	<ul style="list-style-type: none"> <li>• Toyota Green Wave Project - an initiative to connect with local communities through the various activities undertaken by all Toyota companies and their global affiliates to preserve the natural environment           <ul style="list-style-type: none"> <li>– Continue the currently sustainable plant activity and simultaneously expand the various activities of all Toyota Group companies to overseas subsidiaries, affiliates and local communities and expand the reach of activities in partnership with stakeholders</li> </ul> </li> </ul>					<ul style="list-style-type: none"> <li>• Establish the All-Toyota Harmony with Nature Working Group (WG) at group companies and others (23 companies) and commence activities (Connecting activities)           <ul style="list-style-type: none"> <li>– Expand harmony-with-nature activities by carrying out a total of 116 activities per year at all Toyota companies in Japan</li> <li>– Hold a joint event twice a year to strengthen group collaboration (May 2016, Tree-planting festival; October 2016, Ecosystem conservation)</li> <li>– Enhance awareness</li> <li>– Summarize the Green Wave Project activities in a booklet, distribute to employees in the Working Group companies, and post on the company website in June 2016</li> <li>– Enhance information dissemination to recognize biodiversity and the activities of the individual companies</li> </ul> </li> <li>• Develop the "Plant in Harmony with Nature" project           <ul style="list-style-type: none"> <li>– Apply the knowledge obtained through biodiversity conservation activities from the new Toyota R&amp;D Center project to each plant implementing sustainable plant project activities, in order to improve the level of harmony-with-nature activities</li> <li>– Selected a model plant in Japan and commenced activities in March 2017</li> </ul> </li> </ul>					✓✓																																																									
	17. Boost nature and biodiversity conservation grants to connect environmental activities to the world	<ul style="list-style-type: none"> <li>• Connect environmental and biodiversity conservation activities to the world through grants for those activities           <ul style="list-style-type: none"> <li>– Toyota Today for Tomorrow Project –</li> <li>– Strengthen grants for projects helping to solve environmental issues as a means to prioritize the environment field among social contribution activities</li> <li>– Collaborate with global organizations and stakeholders to provide new value and extend the circle of activities globally</li> </ul> </li> </ul>					<ul style="list-style-type: none"> <li>• Announced partnerships with an international organization and NGOs           <ul style="list-style-type: none"> <li>– Issued a press release on the IUCN Red List Project (May 2016, Switzerland)</li> <li>– Issued a press release on the WWF Living Asian Forest Project (July 2016, Tokyo and Nagoya)</li> <li>– Announced Toyota's initiatives at the Sixth World Conservation Congress (September 2016, U.S.)</li> <li>– At the thirteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP13), Toyota held its first side event jointly with IUCN, BirdLife International, and Conservation International (December 2016, Mexico)</li> <li>– Through the above-described activities, Toyota built cooperative relationships with international organizations and NGOs, receiving positive feedback, in particular from government officials, experts, and NGOs.</li> </ul> </li> <li>• In addition to collaborating with the above organizations, continue the Toyota Environmental Activities Grant Program from FY2000 to assist NGOs and NPOs</li> </ul>					✓✓																																																									

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## FY2016 Review of the Sixth Toyota Environmental Action Plan

	Action Items	Specific Actions and Goals	FY2016 Results	Action Items Evaluation
Harmony with Nature	(6) Challenge of Establishing a Future Society in Harmony with Nature			
	18. Boost contribution to environmental education "Connecting environmental activities to the future"	<ul style="list-style-type: none"> <li>Toyota ESD Project - an initiative to strengthen environmental education using regional business bases and company property, and thereby connect environmental conservation activities to the future                     <ul style="list-style-type: none"> <li>- Toyota ESD Project - an initiative to strengthen environmental education using regional business bases and company property, and thereby connect environmental conservation activities to the future</li> <li>- Promote development of educational programs taking advantage of the special characteristics of company-owned land (The Toyota Shirakawa-Go Eco-Institute, Forest of Toyota, Miyagawa Forest in Mie Prefecture, etc.) and promote human resources development to connect to the future</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>(Global)                             <ul style="list-style-type: none"> <li>- Opened a learning center at Toyota Motor Thailand for the general public</li> <li>(Employee education)                             <ul style="list-style-type: none"> <li>- Same as No.25 (Forest of Toyota)</li> <li>- Held hands-on nature programs for local elementary school children (6,050 children in FY2016)</li> <li>- The cumulative number of visitors reached 160,000 as of March 31 2017</li> <li>- Held two sessions of seminars such as "Living in Satoyama" to learn about forest resource utilization and forest management while having fun (Toyota Shirakawa-Go Eco- Institute)</li> <li>- The number of visitors who stayed at the Institute in FY2016 reached 16,529</li> <li>The cumulative number of visitors reached 190,000 as of March 31 2017</li> <li>- Strengthened programs for nurturing children for the future, held children's summer and winter camps (six different camp themes, for a total of 15 camps), with 243 children participating from all over Japan (up by 101 children (240%) from the previous fiscal year) (TOYOTA Mie Miyagawa Mountain Forest)</li> <li>- Held a total of four hands-on forest programs for learning forestry and lumber utilization in cooperation with local NGOs and high schools (New Toyota R&amp;D Center)</li> <li>- Conducted a survey of wasps jointly with a local junior high school as part of its environmental education program</li> <li>Conducted a survey of harvest mice as part of environmental education for employees</li> </ul> </li> </ul> </li> </ul> </li></ul>	✓✓
	19. Promoting environmental contributions through biotechnology and afforestation business automotive peripheral technologies, and forest conservation activities	<ul style="list-style-type: none"> <li>Respond to environmental issues with bio technology                     <ul style="list-style-type: none"> <li>- Promote cellulose ethanol development by further improvement of yeast ferment capacity</li> <li>- Contribute natural capital creation by applying to farming biomass business and agriculture area</li> </ul> </li> <li>Contribute to "Adaptation" in climate change through urban greening business and group owned technology                     <ul style="list-style-type: none"> <li>- Respond to heat island (Dissemination of wall greening, High efficient shading paint)</li> </ul> </li> </ul> <p>• Establish a model to use resources effectively in Forestry in Miyagawa, Mie Prefecture</p> <p>• Realize a sustainable technical center in harmony with nature and local communities at the new research and development facility currently in the planning stage</p>	<ul style="list-style-type: none"> <li>Initiatives in biomass and agriculture fields                     <ul style="list-style-type: none"> <li>- Began verification tests at overseas cellulosic ethanol pilot plants</li> <li>- Improved market acceptance of the resQ45 series, a manure-composting and deodorizing material for the livestock industry*</li> <li>- Concluded cooperative agreements with local governments, with the goal of expanding the use of <i>Housaku Keikaku</i> (an agricultural IT management tool + site improvement tool) by agricultural corporations</li> </ul> </li> <li>Promoted urban greening initiatives                     <ul style="list-style-type: none"> <li>- Promoted market acceptance of Smart Green Parking (SGP) and Smart Green Wall (SGW), or special urban greening materials*</li> </ul> </li> </ul> <p>* Sold by Toyota Roof Garden, a consolidated subsidiary</p>	✓✓
			<ul style="list-style-type: none"> <li>TOYOTA Mie Miyagawa Mountain Forest                     <ul style="list-style-type: none"> <li>- Carried out initiatives to reduce forest maintenance costs for revitalize sustainable forestry</li> <li>- Utilized harvested lumber in company facilities and related commercial facilities</li> </ul> </li> <li>New Toyota R&amp;D Center                     <ul style="list-style-type: none"> <li>- Continued steady environmental conservation activities and surveys at the development site and reported the results to the Environment Monitoring Committee (twice a year)</li> <li>- Worked with experts to continue activities to conserve wild birds, which are declining in number in the Mikawa District</li> <li>Confirmed successful breeding of owls, as well as oriental dollarbirds, very few of which had successfully bred in the region, in the nest boxes that had been installed</li> <li>- Publicized the knowledge obtained through conservation activities in environmental reports (four times) and academic society meeting (twice)</li> </ul> </li> </ul>	✓✓
Management	Management			
	20. Strengthening consolidated environmental management	<ul style="list-style-type: none"> <li>Enhance activities of various environmental committees to improve environmental management activities and ensure superior environmental performance (CO<sub>2</sub>, water, etc.) across all business activities in countries and regions around the world</li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>- Regularly held the (annual) All-Toyota Production Environment Conference and Liaison Committee (Board of Directors meeting)</li> <li>- Held an environmental global award ceremony (to promote kaizen activities at overseas affiliates)</li> <li>- Held the Sixth Toyota Global Environment Conference in November 2016 and discussed Toyota Environmental Challenge 2050, etc. with managers from various regions</li> </ul> </li> </ul>	✓✓
		<ul style="list-style-type: none"> <li>Thoroughly comply with environmental laws and regulations and strengthen proactive prevention measures for environmental risks</li> <li>Improve chemical substance management by carefully monitoring legal trends in each country and region</li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>- Held seminars, etc. targeting those responsible for environmental initiatives at Toyota Group companies in Japan (key point expansion, potential risk identification, and countermeasures)</li> <li>- Six cases of environmental non-compliance (1 at TMC, 5 in Japan, and 0 overseas); one complaint (1 in Japan)</li> <li>All were minor non-compliance issues and complaints, and corrective measures and <i>yokoten</i> (sharing) to other departments were completed.</li> </ul> </li> </ul>	✓
		<ul style="list-style-type: none"> <li>Improve chemical substance management by carefully monitoring legal trends in each country and region</li> </ul>	<ul style="list-style-type: none"> <li>Deployed chemical substance management globally                     <ul style="list-style-type: none"> <li>- Ensured entry of chemical substance data into the IMDS</li> <li>- Monitored processes and evaluated suppliers' chemical substances management.</li> </ul> </li> </ul>	✓✓
	21. Reduce vehicle exhaust emissions to improve urban air quality in each country and region	<ul style="list-style-type: none"> <li>Steadily introduce low-emissions vehicles to improve urban air quality in each country and region</li> <li>Contribute to air quality improvement through air quality research in collaboration with research organizations in each country</li> </ul>	<ul style="list-style-type: none"> <li>In response to tightening of emissions regulations, designed to help improve the urban environment in various countries and regions, we steadily introduced vehicles that satisfied these regulations</li> </ul>	✓✓

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## FY2016 Review of the Sixth Toyota Environmental Action Plan

	Action Items	Specific Actions and Goals	FY2016 Results	Action Items Evaluation																																														
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22.	Reducing VOC emissions in production activities	<ul style="list-style-type: none"> <li>Develop and deploy VOC emissions reduction technologies through reduced usage of paint and thinners in painting processes                     <ul style="list-style-type: none"> <li>Promote continual reduction in VOC emissions through initiatives linked to painting equipment upgrade plans as well as daily kaizen</li> </ul> </li> </ul> <table border="1"> <thead> <tr> <th>Scope</th><th>Region</th><th>Item</th><th>Target (FY2020)</th></tr> </thead> <tbody> <tr> <td rowspan="2">Vehicle body painting</td><td>Japan*1</td><td>Emissions volume per area painted</td><td>26g/m<sup>2</sup> or less (average for all lines)</td></tr> <tr> <td>TMC</td><td>Emissions volume per area painted</td><td>19g/m<sup>2</sup> or less (average for all lines)</td></tr> <tr> <td>Overseas</td><td></td><td>Promote regional No. 1 reduction activities</td><td></td></tr> <tr> <td>Bumper painting</td><td>TMC</td><td>Emissions volume per area painted</td><td>310g/m<sup>2</sup> or less (average for all lines)</td></tr> <tr> <td>Other painting</td><td>Japan/ Overseas</td><td>Promote VOC emissions reduction activities</td><td></td></tr> </tbody> </table> <p>*1 TMC + consolidated subsidiaries in Japan (manufacturing)</p>	Scope	Region	Item	Target (FY2020)	Vehicle body painting	Japan*1	Emissions volume per area painted	26g/m <sup>2</sup> or less (average for all lines)	TMC	Emissions volume per area painted	19g/m <sup>2</sup> or less (average for all lines)	Overseas		Promote regional No. 1 reduction activities		Bumper painting	TMC	Emissions volume per area painted	310g/m <sup>2</sup> or less (average for all lines)	Other painting	Japan/ Overseas	Promote VOC emissions reduction activities		<ul style="list-style-type: none"> <li>Continue efforts to limit the use of cleaning solvents and to recover a larger percentage of solvents                     <ul style="list-style-type: none"> <li>Promoted switching bumper-painting processes to water-borne paints in conjunction with facility remodeling</li> </ul> </li> </ul> <table border="1"> <thead> <tr> <th>Scope</th><th>Region</th><th>Item</th><th>FY2016 results</th></tr> </thead> <tbody> <tr> <td rowspan="2">Vehicle body painting</td><td>Japan</td><td>Emissions volume per area painted</td><td>21.5g/m<sup>2</sup></td></tr> <tr> <td>TMC</td><td>Emissions volume per area painted</td><td>14.6g/m<sup>2</sup></td></tr> <tr> <td>Overseas</td><td></td><td>Promoted coating efficiency improvement and other activities</td><td></td></tr> <tr> <td>Bumper painting</td><td>TMC</td><td>Emissions volume per area painted</td><td>193g/m<sup>2</sup></td></tr> <tr> <td>Other painting</td><td>Japan/ Overseas</td><td>Promoted painting condition optimization, etc.</td><td></td></tr> </tbody> </table>	Scope	Region	Item	FY2016 results	Vehicle body painting	Japan	Emissions volume per area painted	21.5g/m <sup>2</sup>	TMC	Emissions volume per area painted	14.6g/m <sup>2</sup>	Overseas		Promoted coating efficiency improvement and other activities		Bumper painting	TMC	Emissions volume per area painted	193g/m <sup>2</sup>	Other painting	Japan/ Overseas	Promoted painting condition optimization, etc.		✓✓
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23.	Promoting environmental activities in cooperation with business partners (suppliers)	<ul style="list-style-type: none"> <li>Reinforce cooperation with suppliers to further promote environmental activities globally                     <ul style="list-style-type: none"> <li>Ensure compliance with each country's laws and regulations while steadily promoting chemical substance management</li> <li>Pursue cooperative environmental initiatives in a broad range of areas, including CO<sub>2</sub> emissions reduction, resource recycling, water impact reductions, and the establishment of societies in harmony with nature</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>Completed revising purchasing guidelines at the global level (at 36 affiliates in 15 countries) based on the TOYOTA Green Purchasing Guidelines, which were revised in Japan (in January 2016)</li> <li>Requested suppliers in Japan to conduct self-assessments in order to ensure thorough chemical substances management, and carried out activities to enhance future initiatives.</li> <li>Continued to implement the CDP Supply Chain Program (to address climate change and the water environment)</li> <li>Enhanced mutual studies through holding an annual CSR Study Meeting, etc.</li> </ul> </li> </ul>	✓✓																																														
24.	Promoting environmental activities in cooperation with business partners (dealers and distributors)	<ul style="list-style-type: none"> <li>Promote environmental management in cooperation with dealers and distributors (Japan)                     <ul style="list-style-type: none"> <li>Promote environmental initiatives by adhering closely to the Toyota Dealer CSR Checklist and promote CO<sub>2</sub> emissions reduction, etc., by improving environmental management (Overseas)</li> <li>Promote and strengthen environmental initiatives led by each regional headquarters and distributor in each country (CO<sub>2</sub> reduction, etc.)</li> <li>Promote and strengthen Dealer Environmental Risk Audit Program (DERAP)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>Promote environmental initiatives by updating the content of the Toyota Dealer CSR Checklist, and promote CO<sub>2</sub> emissions reduction, etc., by using external environmental certification systems and improving environmental management (Overseas)</li> <li>Currently creating environmental guidelines for the sales and services fields in each region                             <ul style="list-style-type: none"> <li>Promote and strengthen environmental initiatives (CO<sub>2</sub> emissions reduction, etc.)</li> </ul> </li> <li>Eighty-three distributors and 4,233 dealers from 80 countries worldwide participated in the Dealer Environmental Risk Audit Program (DERAP), and 91% of participating dealers satisfied the five requirements (up 2% from the previous fiscal year)</li> </ul> </li> </ul>	✓✓																																														
25.	Bolster global employee education and awareness activities	<ul style="list-style-type: none"> <li>Raise awareness of environmental conservation through global environmental education among employees                     <ul style="list-style-type: none"> <li>Systemize environmental education programs conducted in cooperation with consolidated affiliates</li> <li>Conduct environmental education in accordance with situations in each country and region</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>In collaboration with the Toyota Institute, continued to provide environmental education to managers and new employees in conjunction with the Toyota Global Environment Month (observed at Toyota companies globally), which marked its 45th year in 2016                             <ul style="list-style-type: none"> <li>Additionally, planned and implemented various measures starting in January 2016 and continuing throughout the year to ensure that the Toyota Environmental Challenge 2050 is fully understood inside the company and to further improve the environmental awareness of our employees</li> <li>Developed an internal environmental education plan in line with the Sixth Toyota Environmental Action Plan in each country and region</li> </ul> </li> </ul> </li> </ul>	✓✓																																														
26.	Enhance active disclosure of environmental information and communication	<ul style="list-style-type: none"> <li>Enhance environmental information disclosures                     <ul style="list-style-type: none"> <li>Expand business organizations subject to collection of environmental information, and creation of the system</li> <li>Further enhance "Environmental Report" contents</li> </ul> </li> <li>Further enhance environmental communications activities in each country and region globally</li> </ul>	<ul style="list-style-type: none"> <li>Took the following initiatives:                     <ul style="list-style-type: none"> <li>After obtaining an approval for its three-year plan for enhancing environmental information disclosure, the Production Environment Committee set out to create a system for acquiring newly disclosed information and third-party verification</li> <li>Effectively described the progress status in line with the Toyota Environmental Challenge 2050 and the Sixth Toyota Environmental Action Plan, in the Environmental Report 2016                             <ul style="list-style-type: none"> <li>Received the Excellence Prize in the Global Warming Countermeasure Reporting Category of the 20th Environmental Communication Awards</li> <li>Produced and made public videos effectively spotlighting Toyota employees who are striving to meet the Toyota Environmental Challenge 2050                                 <ul style="list-style-type: none"> <li>Produce a series of the video through 2020</li> </ul> </li> </ul> </li> <li>Made it a standard practice to feature the environmental topics of overseas affiliates on the TMC website                             <ul style="list-style-type: none"> <li>Planning to build a system for sharing information with overseas affiliates in order to achieve further standardization</li> </ul> </li> </ul> </li> </ul>	✓✓																																														

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Environment | Challenge 1 | New Vehicle Zero CO<sub>2</sub> Emissions Challenge

Challenge 1

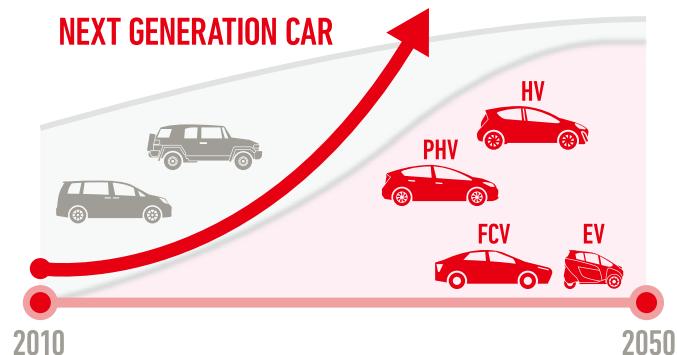
## New Vehicle Zero CO<sub>2</sub> Emissions Challenge

### Fundamental Approach

Extreme weather phenomena around the world are wreaking havoc on society, attesting to the reality of global warming. If further measures are not taken to reduce emissions of greenhouse gases, it is estimated\* that average global temperatures could rise between 3.7 and 4.8°C by 2100 compared with pre-industrial levels. In order to keep the temperature increase less than 2°C, reducing CO<sub>2</sub> emissions to zero will not be enough—we must further reduce it below zero.

Amid global efforts to hold the temperature rise less than 2°C, Toyota has taken on the "New Vehicle Zero CO<sub>2</sub> Challenge," in which Toyota will strive to reduce vehicle CO<sub>2</sub> emissions by 90 percent in comparison with 2010 levels, by 2050. This Challenge involves not only raising the mileage of engine vehicles, but also accelerating the development of next-generation eco-friendly vehicles with low or zero CO<sub>2</sub> emissions, including hybrid vehicles (HVs), plug-in hybrid vehicles (PHVs), electric vehicles (EVs), and fuel cell vehicles (FCVs), and spreading these vehicles on roads everywhere. Eco-friendly vehicles contribute to the society only when they come into widespread use. Toyota is committed to continue working hand in hand with stakeholders to build an infrastructure that supports the widespread adoption of these vehicles.

\* 5th Assessment Report of IPCC Working Group III (2014)



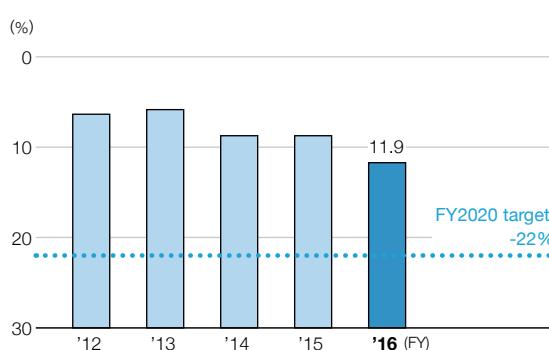
### Developing Technologies to Achieve the Leading Fuel Efficiency Performance

Toyota is committed to reducing the global average CO<sub>2</sub> emissions from new vehicles more than 22 percent by FY2020 from the FY2010 level to steadily proceed with our challenge. As specific initiatives, we will further improve the performance of HVs and expand their use in line with developing and deploying powertrains with high environmental performance, based on our next-generation platform strategy known as TNGA\*.

In FY2016, while expanding the availability of vehicles with hybrid systems by launching the new hybrid model C-HR in Japan as well as a hybrid model of the Vitz, we improved the efficiency of conventional engine vehicles. These initiatives ensured steady progress for our 2020 goals.

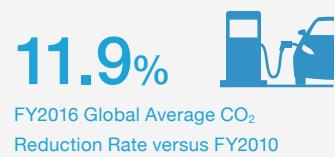
\* Toyota New Global Architecture (TNGA): Toyota's company-wide global program to structurally transform automobile design. The goal of TNGA is to dramatically improve the basic performance and marketability of Toyota vehicles by reforming and integrally redesigning powertrain components and vehicle platforms.

Global Average CO<sub>2</sub> Emissions from New Vehicles Third Party Assurance  
Reduction Rate versus FY2010 (Japan, U.S., Europe, China)



The average CO<sub>2</sub> emissions (g/km) of new vehicles in each year, based on the fuel efficiency value (CO<sub>2</sub> emissions) certified by each national authority

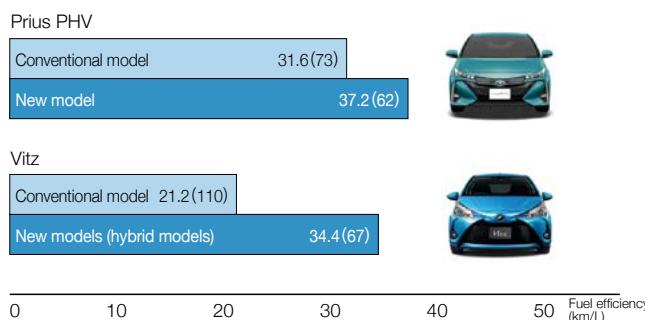
[Environmental Data P126-R](#)



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## Environment | Challenge 1 | New Vehicle Zero CO<sub>2</sub> Emissions Challenge

### Fuel Efficiency Comparison between Selected New Models Introduced in FY2016 (in Japan) and Old Models



### Fuel Efficiency of FY2016 New Hybrid Models (in Japan)



- Fuel efficiency values are based on JC08 test cycle verified by (Ministry of Land, Infrastructure, Transport and Tourism of Japan)
- CO<sub>2</sub> emissions (g/km) in brackets

### Environmental Performance Was Greatly Improved with Adoption of Redesigned Engines, Transmissions and Other Components Based on TNGA

The fundamental vehicle performance of Toyota's newly developed powertrain components were thoroughly reviewed in line with highly-efficient, compact, and lightweight design.

The newly developed 2.5-liter engines for gasoline vehicles and those for HVs attained world's top maximum thermal efficiency levels of 40% and 41% respectively.

The new 8-speed and 10-speed automatic transmissions achieved world's top level of transmission efficiency by drastically reducing loss. Furthermore, the multi-gear, compact, and lightweight design contributes to CO<sub>2</sub> emissions reduction.

The hybrid system benefits from the compact, lightweight, loss-reducing technologies deployed in the fourth-generation Prius. These were combined for a completely redesigned hybrid system for 2.5-liter engines, as well as a high-performance Multistage THS II newly developed for FR cars.

These newly developed powertrains will be deployed in Toyota vehicles between 2017 and 2021. We plan to launch nine new engines with 17 variations, four new transmissions with 10 variations, and six new hybrid systems with 10 variations in the five-year period. These will be installed in 60% of Toyota vehicles sold (in Japan, U.S., Europe, and China), reducing CO<sub>2</sub> emissions by 15% or more.



Inline 4 cylinder 2.5-liter direct injection gasoline engine



10-speed automatic transmission for FF vehicles

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## Environment | Challenge 1 | New Vehicle Zero CO<sub>2</sub> Emissions Challenge

### Promoting Development of Next-generation Vehicles Using Electric Power, and Widespread Use According to Their Features

Eco-friendly vehicles contribute to the environment only when widespread. Based on this concept, we will expand our lineups of hybrid vehicles, PHVs, EVs, and FCVs, promoting their further adoption. HV sales target for 2020 is 1.5 million units annually and 15 million units in cumulative total.

In 2016, cumulative sales of the Aqua hybrid model reached 1 million units in Japan, while those of Lexus hybrid model reached 1 million units globally. With these milestones, the global cumulative sales of HVs topped 10 million units in January 2017, of which 15% Toyota sells today are HVs (43% in Japan). It took us around 20 years to achieve these results since we launched the first-generation Prius in 1997.

As for PHVs, we will further accelerate the expansion of their use as a mainstay of our next-generation eco-friendly vehicle lineup, taking measures for low-CO<sub>2</sub> emissions while driving and fuel diversification, which will lower CO<sub>2</sub> emissions even further.

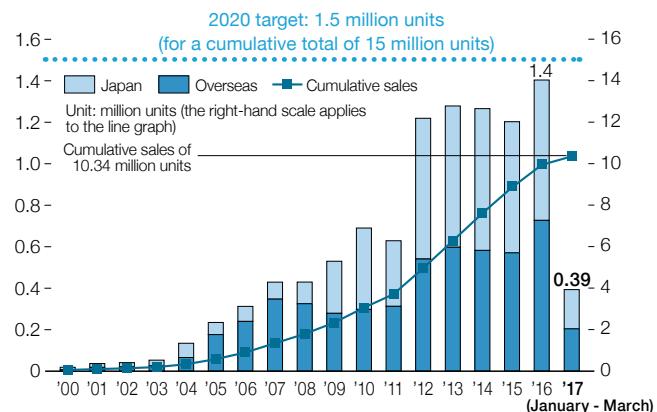
In February 2017, we launched the second-generation Prius PHV, resulting in a big evolution in eco-friendly vehicle technology.

Toyota considers FCVs and EVs, which emit no CO<sub>2</sub> while driving and have the potential of attaining massive CO<sub>2</sub> reductions through the use of renewable energies and CO<sub>2</sub>-free hydrogen, to be the future eco-friendly vehicles. We strive to work on promoting widespread use of these vehicles according to their individual features, by considering energy issues and infrastructure status, as well as vehicle use in countries and regions.

In FY2016, Toyota established a structure that will enable early commercial introduction of EVs.

 Environmental Data P123-A

#### Annual HV Sales and Cumulative Sales (Global) Third Party Assurance



Over **1 million** units sold  
Aqua Hybrid Model  
Cumulative Vehicle Sales in Japan  
(February 2016)

Over **1 million** units sold  
Lexus Hybrid Models  
Cumulative Global Vehicle Sales  
(April 2016)

#### Toyota Fuel Cell Bus Purchased by Tokyo Metropolitan Government (Japan)

In March 2017, two fuel cell buses (FC bus) purchased by the Bureau of Transportation of the Tokyo Metropolitan Government became the first FC buses to operate as city-run route buses in Japan.

The FC buses use the Toyota Fuel Cell System developed for the Mirai fuel cell vehicle. This system offers exceptional environmental performance, with high energy efficiency compared with gasoline, diesel, and other internal combustion engines, and without emitting any CO<sub>2</sub> or substances of concern (SOCs) when driving.

We plan to deliver more than 100 FC buses, mainly in Tokyo, in preparation for the Olympic Games Tokyo 2020 and Paralympic Games.



FC bus

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Environment | Challenge 1 | New Vehicle Zero CO<sub>2</sub> Emissions Challenge

## Eco-friendly Vehicles Contribute to the Environment Only When Widespread

### Global cumulative sales of hybrids exceed 10 million units

Mitigating the environmental effects of automobiles has long been a priority for Toyota. Based on the stance that eco-friendly vehicles contribute to the environment only when they are widely used, we have striven to make hybrid vehicles widespread. In August 1997 Toyota launched the Coaster Hybrid EV in Japan, followed in December of that year by the launch of the Prius, the world's first mass-produced hybrid passenger vehicle. Toyota hybrid vehicles' global cumulative sales exceeded 10 million units as of January 31, 2017 with tremendous support from customers around the world.



The environment surrounding eco-friendly vehicles has changed dramatically since Toyota launched the first hybrid vehicle 20 years ago. The spread of Prius created a new customer standard of choosing cars based on their environmental performance. As the number of automakers developing and launching new hybrid vehicles increased, so a new market segment of "hybrid vehicles" was established.

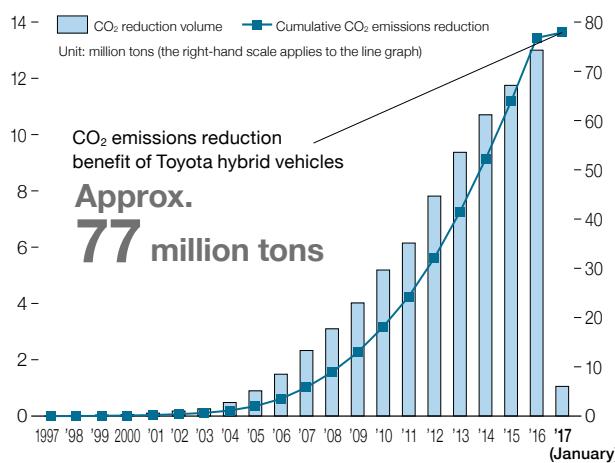
Now that customers around the world opt for hybrid vehicles and other highly fuel-efficient vehicles, it made possible for the automotive industry as a whole to contribute to addressing global environmental issues. Having reached the milestone of selling 10 million hybrid vehicles, Toyota is encouraged to keep striving to make ever-better cars for its customers.

### Hybrid Vehicles Continue to Restrain CO<sub>2</sub> Emissions

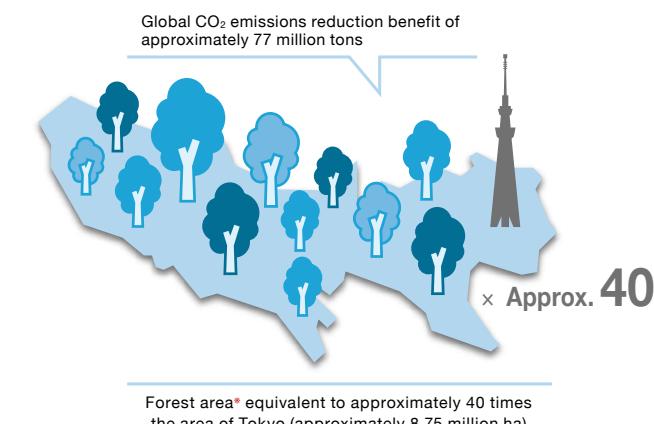
Toyota calculated that by the end of January 2017, the use of 10 million Toyota's hybrid vehicles in lieu of conventional gasoline vehicles of similar class and engine performance has reduced

CO<sub>2</sub> emissions by approximately 77 million tons, and has saved approximately 29 million kL of gasoline.

#### CO<sub>2</sub> Emissions Reduction Benefit of Toyota Hybrid Vehicles (Toyota Calculations)



#### Trees' CO<sub>2</sub> Absorption Equivalent



\* A one hectare man-made forest of Japanese cedar (1,000 trees) aged about 40 years is estimated to absorb approximately 8.8 tons of CO<sub>2</sub> annually (reference: Ministry of Agriculture of Japan, Forestry and Fisheries website)

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## Environment | Challenge 1 | New Vehicle Zero CO<sub>2</sub> Emissions Challenge

### Do What Should Be Done: The World's First Prius

The development of the first-generation Prius was Toyota's answer to how it could help the world cope with resource and environmental issues in the 21st century amid the increasingly urgent need to lower greenhouse gas emissions. The development team, being motivated

by desires to make hybrid vehicle a useful part of the future and do what should be done instead of doing what is possible, was ready to take a leap. The result was the world's first mass-produced hybrid passenger car.

#### Making the Hybrid Widespread as an Ordinary Car—Takeshi Uchiyamada, Chairman of the Board of Directors and Development Leader for First-generation Prius

When we launched the first-generation Prius, no one even knew what a hybrid was and those who drove it were called geeks. Today, thanks to many customers with expectations for this unknown car, we've reached a milestone with sales units of 10 million hybrid vehicles, which helped hybrid become just an ordinary type of vehicle. We are so grateful for all the customers who have supported us to develop hybrid vehicles and make them widely accepted. We are committed to continue working hand-in-hand with our customers, to contribute to address environmental issues.

お客様に支えられて



New Prius PHV press conference (February 2017)

### Prius PHV is a Pillar for the Next-generation Eco-friendly Vehicles, Offering the Largest Contribution to the Environment Today

In order to further reduce CO<sub>2</sub> emissions, Toyota is pursuing higher energy efficiency to save limited fossil fuels, while accelerating the fuel diversification beyond fossil fuels using hydrogen and electricity. In this strategy, our hybrid vehicles (HV) are positioned to raise energy efficiency while the fuel cell vehicles (FCV) and electric vehicles (EV) support fuel diversification. Besides these environmental technologies, the plug-in hybrid vehicles (PHV) combine the best of HVs and EVs to currently provide the greatest environmental benefits.

In February 2017, the second-generation Prius PHV was launched in Japan as a major innovation and as the next-generation eco-friendly vehicle to follow in the footsteps of HVs as the next-generation eco-friendly vehicle. With a larger-sized battery, the new Prius PHV boasts an EV-mode cruising range increased to 68.2 km, while achieving the high fuel efficiency of 37.2 km/liter\* in gasoline driving mode in the JC08 test cycle\*, the same as the fourth-generation Prius. This makes

it possible for customers to use EV mode during most short-distance drives such as daily commuting and shopping trips.

The Prius PHV also features the world's first solar charging system among mass-produced vehicles. This system supplies an amount of electricity sufficient for driving a vehicle up to around 6.1 km per day. "A key reason why the Prius has enjoyed so much popularity is that we developed it from the customer's viewpoint," says Prius PHV Development Leader Shoichi Kaneko. "The second-generation Prius PHV was also developed through a process of listening carefully to the customers and reflecting their views into the development. Just like the hybrid vehicles, we're looking forward to the day when the Prius PHV becomes accepted by society as just another ordinary car and a mainstream of the eco-friendly vehicle movement."

\* JC08 test cycle: Test mode defined by Ministry of Land, Infrastructure, Transport and Tourism of Japan to measure vehicle fuel efficiency (km/L) using several driving patterns.  
 \* Excluding A grade model



Second-generation Prius PHV



Solar charging system



Shoichi Kaneko, Prius PHV Development Leader

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Environment | Challenge 2 | Life Cycle Zero CO<sub>2</sub> Emissions Challenge

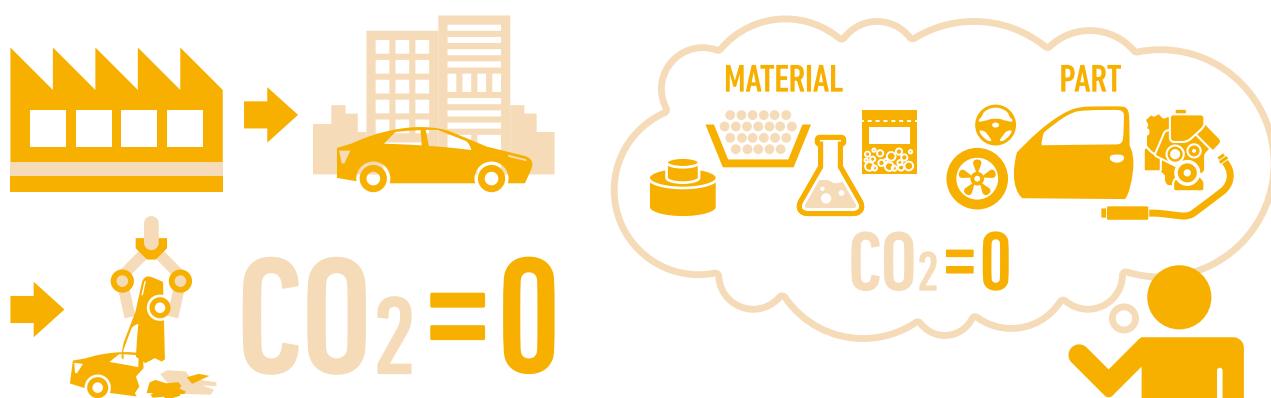
Challenge 2

## Life Cycle Zero CO<sub>2</sub> Emissions Challenge

### Fundamental Approach

The "Life Cycle Zero CO<sub>2</sub> Emissions Challenge" takes an approach to zero CO<sub>2</sub> emissions not only while driving, but also in the entire vehicle life cycle including materials and parts manufacturing, vehicle assembly, disposal and vehicle recycling.

Because some next-generation eco-friendly vehicles may increase CO<sub>2</sub> emissions in the processes of materials and parts manufacturing, we strive to develop low CO<sub>2</sub> emitting materials during manufacturing and their widespread use, as well as reducing material usage and the number of parts used. In order to reduce CO<sub>2</sub> emissions at the disposal and recycling stages, we further push forward expanding the use of recycled materials and applying eco-friendly designs that make it easier to dismantle vehicles, pursuing "ever-better cars."



### Promoting Environmental Management in Product Development (Eco-VAS)

#### Steady Promotion of Environmental Target Management

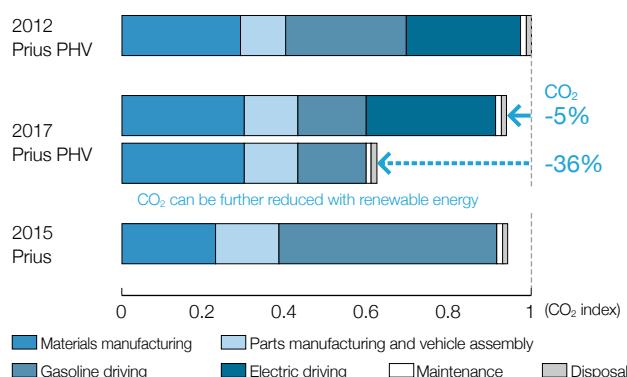
To reduce the environmental impact of its vehicles, Toyota has introduced the Eco-Vehicle Assessment System (Eco-VAS) to set and achieve environmental targets such as life cycle CO<sub>2</sub> and recyclability, under the guidance of the chief engineer, including at the development stage. In this system, we conduct LCA<sup>\*1</sup> which assesses the impact of the vehicle life cycle on the environment at all stages including materials and parts manufacturing, vehicle assembly, driving, maintenance, and disposal.

In FY2016, we conducted LCA for one new model and seven redesigned models<sup>\*2</sup>. For the second-generation Prius PHV launched in February 2017, the life cycle CO<sub>2</sub> emissions were reduced by 5 percent compared with the 2012 model year. This was achieved by reducing CO<sub>2</sub> emissions while manufacturing, even though the total battery capacity was nearly doubled in order to increase the EV driving range (to 68.2 km). Prius PHV has potential to reduce CO<sub>2</sub> emissions even further when charged with electricity from sources of renewable energy.

<sup>\*1</sup> LCA (Life Cycle Assessment): A comprehensive technique to assess vehicle's impact on the environment over the entire life cycle from resource mining through to disposal and recycling, by quantifying the impact of each stage

<sup>\*2</sup> Passo, Auris Hybrid, Roomy/Tank, C-HR, Pixis Joy, Vitz Hybrid, Prius PHV, Lexus LC

Prius PHV LCA Results



- Evaluations are based on driving a vehicle in JC08 test cycle (Ministry of Land, Infrastructure, Transport and Tourism of Japan) for a lifetime mileage of 100,000 km (Toyota data).
- LCA assessment results are shown as an index.



The LCA that Toyota conducts on its passenger vehicles has been tested and certified by German third-party organization TÜV Rheinland based on ISO 14040/14044 standards.



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## Environment | Challenge 2 | Life Cycle Zero CO<sub>2</sub> Emissions Challenge

### Response to Scope 3

Scope 3 is a standard established to measure CO<sub>2</sub> emissions at all stages of a company's business activities and identify areas for future reductions. Scope 3 accounts for not only CO<sub>2</sub> emissions from their activities and those of their consolidated subsidiaries (Scope 1 and Scope 2), but emissions from other stages of the life cycle, such as procured materials and parts, transportation, employee commuting and business travel, along with the driving, maintenance, and disposal of customer vehicles.

For FY2016, Toyota calculated its Scope 3 total CO<sub>2</sub> emissions to be 401.75 million t-CO<sub>2</sub>. Breaking down the total, most of the emissions

were from category 1 and category 11 emissions, combining for approximately 97.1% of the total Scope 3 emissions.

Category 1 covers emissions from materials and parts at the manufacturing stage, while category 11 covers emissions from vehicles driven by customers. Therefore, use of lightweight parts, materials selection, development of fuel efficiency improvement technologies, and next-generation eco-friendly vehicles are important measures that will lead to CO<sub>2</sub> emissions reduction.

Moving forward, we will continue to monitor Scope 3 emissions and utilize the findings to take measures for developing technologies.

### CO<sub>2</sub> Emissions Ratio of 15 Categories in Scope 3 (FY Global Basis)

Third Party Assurance

Category	Emissions volume (million tons-CO <sub>2</sub> )	Emissions ratio (%)
1. Purchased goods and services	<b>61.20</b>	15.2
2. Capital goods	<b>3.89</b>	1.0
3. Fuel- and energy-related activities (not included in Scope 1 or 2)	<b>0.96</b>	0.2
4. Upstream transportation and distribution	<b>0.85</b>	0.2
5. Waste generated in operations	<b>0.12</b>	0.0
6. Business travel	<b>0.14</b>	0.0
7. Employee commuting	<b>0.71</b>	0.2
8. Upstream leased assets	—	—

Category	Emissions volume (million tons-CO <sub>2</sub> )	Emissions ratio (%)
9. Downstream transportation and distribution	<b>0.01</b>	0.0
10. Processing of sold products	<b>1.07</b>	0.3
11. Use of sold products	<b>328.94</b>	81.9
12. End-of-life treatment of sold products	<b>3.71</b>	0.9
13. Downstream leased assets	—	—
14. Franchises	—	—
15. Investments	<b>0.15</b>	0.0
Total for categories 1 through 15	<b>401.75</b>	100.0

- The calculation range mainly covers financial consolidated automotive businesses
- CO<sub>2</sub> emissions from the use of sold products are calculated from the average fuel efficiency and estimated lifetime mileage of vehicles in Japan, U.S., Europe, China; the consolidated number of vehicles sold in FY2016; and the CO<sub>2</sub> emission factor.
- Upstream and Downstream leased assets are included in the other category, and Franchises are not included.

↗ Environmental Data P127-S

### Pursuing Transport Efficiency and Reducing CO<sub>2</sub> Emissions in Logistics Activities

To reduce CO<sub>2</sub> emissions in its logistics activities, Toyota Motor Corporation (TMC) is taking measures to improve the transport efficiency of parts for production and replacement, as well as completed vehicles.

In FY2016, we continued fuel efficiency initiatives, including loading efficiency improvement activities, reducing CO<sub>2</sub> emissions per unit of workload (transported volume) to 105.2 g-CO<sub>2</sub>/tkm (down 3.0% year on year).

CO<sub>2</sub> emissions from logistics operations totaled 0.282 million tons (up 2.5 percent year on year), due largely to an increase in completed vehicles shipments in Japan.

At the global level, Toyota began assessing CO<sub>2</sub> emissions in each country and region in FY2007, and indicated global target guidelines starting in FY2013. Based on these guidelines, each country and region set up a goal toward which they have been carrying out reduction activities. As a result, Toyota's global CO<sub>2</sub> emissions in FY2016 totaled 2.10 million tons.

We will strive to further improve transport efficiency and reduce CO<sub>2</sub> emissions per transport volume.

#### Trends in CO<sub>2</sub> Emissions per Ton-kilometer (Transport Volume) from TMC Logistics Operations (Japan)

Third Party Assurance

FY	2012	2013	2014	2015	2016
(million tons)					
CO <sub>2</sub> emissions from logistics operations	0.298	0.290	0.278	0.275	<b>0.282</b>
(g-CO <sub>2</sub> /tkm)					
CO <sub>2</sub> emissions per ton-kilometer	1.067	1.066	1.096	1.084	<b>1.052</b>

- CO<sub>2</sub> conversion factors: The CO<sub>2</sub> conversion factors were calculated based on guidelines such as the "Guidelines on Disclosure of CO<sub>2</sub> Emissions from Transportation & Distribution (version 3.0)" issued by Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism of Japan.

↗ Environmental Data P127-T

#### Global Logistics CO<sub>2</sub> Emissions

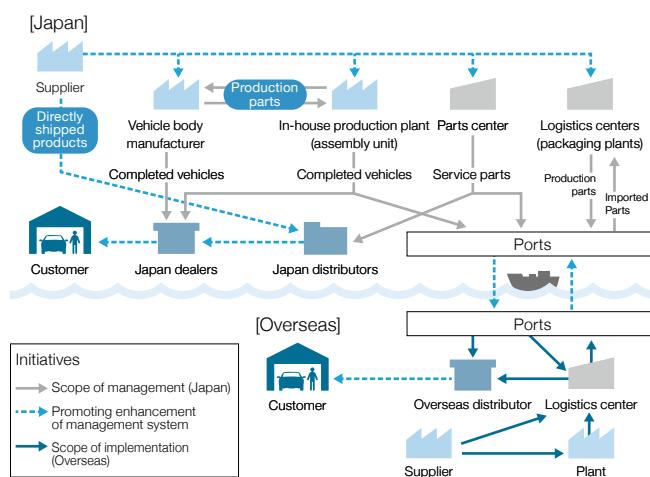
FY	2016
(million tons)	
CO <sub>2</sub> emissions from logistics	<b>2.10</b>

- Total CO<sub>2</sub> emissions from business that handle logistics in each region (seven regions: North America, Europe, China, Southeast Asia, South Africa, South America, Japan) from delivery of production parts, service parts, and completed vehicles
- Transport between regions (e.g., Japan to North America) has been excluded from the scope of calculations
- Some production and sales businesses (different to businesses that handle logistics) that directly handle deliveries in North America, China, and Southeast Asia have been excluded from the scope of calculations
- CO<sub>2</sub> emissions have been calculated according to the calculation methods of each business

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## Environment | Challenge 2 | Life Cycle Zero CO<sub>2</sub> Emissions Challenge

### Scope of CO<sub>2</sub> Emissions from Logistics

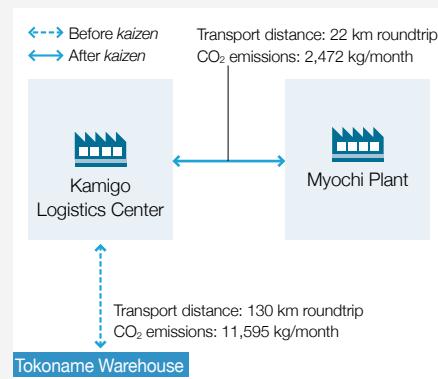


### Results of TMC Kaizen Initiatives to Reduce CO<sub>2</sub> Emissions (Japan)

Kaizen item	Products	Main kaizen activity	Reduction volume (thousand tons)
Reduction in total transport distance	Completed vehicles	Sea route review, Increased number of loaded vehicles, etc.	1.2
	Production parts	Expansion of railway usage, improved loading efficiency, etc.	4.6
	Service parts	Allocation of vehicles and delivery routes review, etc.	0.7
Total			6.5

### Shortening Transport Distance by Terminating Use of Tokoname Warehouse (Japan)

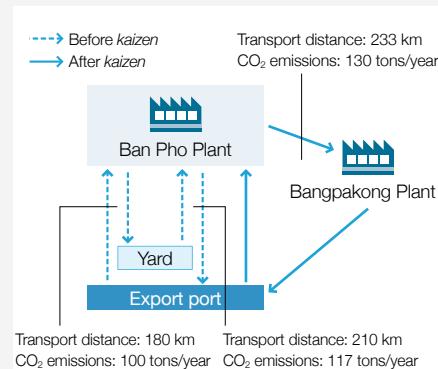
The Kamigo Logistics Center located in Aichi Prefecture had previously stored service parts in the Tokoname Warehouse 65 km away and had them delivered as needed. However, because it was our focus to reduce the CO<sub>2</sub> emissions associated with the transport distance, we reviewed the transport efficiency. We transferred all the production parts stored at the Myochi Plant, located 11 km away from the Kamigo Logistics Center, to other plants starting August 2016, using the vacant space for the service parts previously stored at the Tokoname Warehouse. This resulted in reducing monthly CO<sub>2</sub> emissions by 4,562 kg. Furthermore, at the end of 2016, we shifted all the remaining service parts at the Tokoname Warehouse to the Myochi Plant and terminated the use of the Tokoname Warehouse, reducing monthly CO<sub>2</sub> emissions by 4,561 kg. This shortening of transport distance succeeded in reducing monthly CO<sub>2</sub> emissions by 9,123 kg in total.



### Reducing CO<sub>2</sub> Emissions by Raising the Reuse Rate of Transport Containers (Thailand)

At the Ban Pho Plant in Thailand, containers used for transporting imported parts from ports to the plant were being reused for exporting parts. The percentage of containers available for reuse, however, had been only about 20% of the total. The remaining empty containers were transported to a yard (storage) near the port.

To eliminate the waste in transport efficiency, the remaining containers were sent to the Bangpakong Plant, located near the Ban Pho Plant, where they were reused to ship parts for export, raising the container reuse rate to more than 90%. As a result, the truck driving distance needed for parts import and export was shortened from 390 km to 233 km, reducing the CO<sub>2</sub> emissions per container by 0.16 tons, for an annual reduction of about 88 tons.



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## Environment | Challenge 2 | Life Cycle Zero CO<sub>2</sub> Emissions Challenge

### Promoting an Integrated Approach to Reduce CO<sub>2</sub> Emissions in Road Transport Sectors

#### Project to Mitigate Traffic Congestion in Bangkok Using Sathorn Model

The global urbanization trend has created the need for urban transport measures that harmonize vehicles with social systems in order to reduce carbon emissions and smooth people movement. Therefore, Toyota is actively participating in integrated traffic management projects to realize low-carbon mobility societies. The WBCSD\*1 makes policy proposals to achieve sustainable development based on the three pillars of economic growth, environmental conservation, and social development. Toyota is participating in the WBCSD's Sustainability Mobility Project 2.0. The project's goal is to combine the latest technologies and traffic management methods of participating companies into sustainable mobility for the world's cities, thereby creating new social systems. Verification projects are conducted in six cities around the world. Toyota is the leader of the verification project in Bangkok, which received a grant from the Toyota Mobility Foundation to verify new traffic management methods for alleviating congestion. The project uses Sathorn Road, the most congested road in Bangkok, as a model case. In June 2016, we carried out the third social verification test. This test combined Park & Ride\*, shuttle buses, flextime, and other traffic demand controls with traffic bottleneck mitigation, effective traffic signal operation, and other traffic flow management to reduce rush-hour travel times by 27 percent. The test proved a success in effectively managing traffic through public-private partnership. In February 2017, we proposed a roadmap for deploying the Sathorn

model throughout Bangkok to Thai National Traffic Management Board (Chairman: Vice Prime Minister Somkid Jatusripitak) and it was approved. Ministry of Transport leads the roadmap by the collaboration between government agencies and public-private partnerships. In April 2017, the Sathorn Model Project held a closing ceremony, "Road to Deploy Sathorn Model to Bangkok," to celebrate its success.

The project has moved from the verification stage supported by Toyota and other private-sector companies, to the implementation phase throughout Bangkok, led by the Thai government. While challenges remain with securing promotion structures and expertise, Toyota is committed to continuing its contributions.

\*1 WBCSD: World Business Council for Sustainable Development comprises CEOs from approximately 200 companies for the realization of sustainable development.

\*2 Park & Ride: A method of mitigating traffic congestion in urban areas and sightseeing spots. People drive cars to a designated place, moving to their destination by transferring to trains or buses.



Thai Transport Minister Arkhom Termpittayapapaisith (third from left) takes part in the Sathorn Model Project closing ceremony

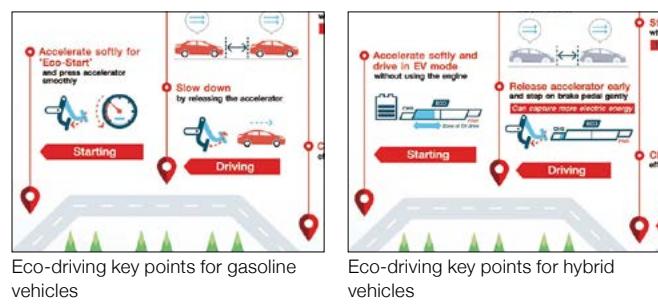
#### Promoting Eco-driving Globally

Toyota is promoting integrated measures in road traffic sectors to reduce CO<sub>2</sub> emissions while driving. As one of the initiatives, we will pursue the promoting activities for eco-driving globally among our customers and employees.

Eco-driving leads to improved fuel efficiency and reduced CO<sub>2</sub> emissions through soft acceleration, keeping proper inter-vehicle distance and accelerating and decelerating less. Practicing eco-driving is also a good way to ensure safe driving.

In October 2016, Toyota Daihatsu Engineering & Manufacturing (TDEM) launched a program to raise eco-driving awareness by distributing APEco-Driving Guidelines to all of its affiliates and dealers in Asia Pacific. The guidelines explain the key points for optimal eco-driving for both gasoline vehicles and hybrid vehicles. The company also calls for the creation of leaflets and holds eco-driving fuel efficiency competitions etc. as necessary.

Going forward, TDEM and its affiliates will continue to leverage these guidelines to train employees and raise awareness among customers across Asia.



## Environment | Challenge 3 | Plant Zero CO<sub>2</sub> Emissions Challenge

### Challenge 3

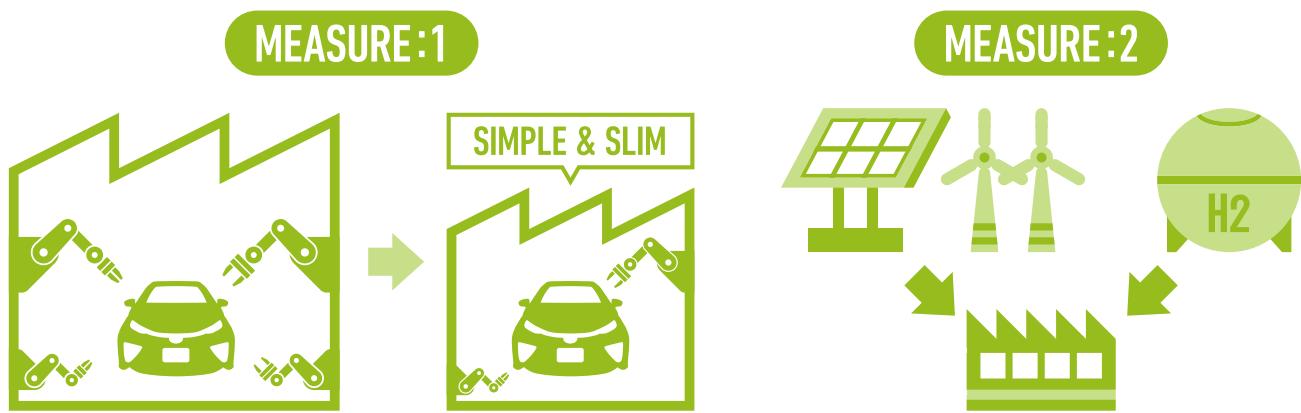
# Plant Zero CO<sub>2</sub> Emissions Challenge

#### Fundamental Approach

Since CO<sub>2</sub> is emitted not only when vehicles are being driven, but when they are in the manufacturing process, the restraint of CO<sub>2</sub> emissions to suppress climate change is also the challenge for manufacturing plants. The two main pillars of this challenge are manufacturing technology improvement and switching forms of energy.

In the area of manufacturing technologies, simplifying and streamlining our processes to reduce their complexity and the time they require enable us to reduce CO<sub>2</sub> emissions. We can also obtain reduction effects by raising energy efficiency in manufacturing processes. Furthermore, we use every possible means to reduce CO<sub>2</sub> emissions including introducing an innovative process called "Karakuri" that does not consume any energy at all.

Regarding initiatives on the energy used, we will effectively utilize renewable energies such as solar power and wind power along with hydrogen energy.



## Reduce CO<sub>2</sub> Emissions in Production Activities

### Activities to Reduce CO<sub>2</sub> Emissions in Production Activities

In our production activities, we have been developing and deploying low-CO<sub>2</sub> production technologies along with taking daily measures to achieve our reduction targets.

In FY2016, Toyota Motor Corporation (TMC) has steadily promoted energy-saving activities, with a focus on painting processes and casting processes, which create significant CO<sub>2</sub> emissions.

In the painting process, we introduced gas burners to the water-based paint preheating furnace and booth air-conditioning system.

In the casting process, we worked toward pulsed-blow and other air-saving systems to reduce the amount of compressed air used in the process with high air supply loss.

In both processes, we implemented energy-saving initiatives to reduce power and air consumption by shutting down all power during machine downtime, and to increase the use of LED lighting. As a result, we managed to reduce CO<sub>2</sub> emissions per unit produced to 0.398 tons (down 2.5 percent year on year), against total CO<sub>2</sub> emissions of 1.16 million tons (up 0.7 percent year on year).

On a global scale, we introduced innovative technologies when launching new production lines while actively switching to renewable energy sources.

We also accelerated *genchi genbutsu* (onsite hands-on experience) activities and reduced energy consumption globally, including *yokoten* (sharing)\* of 29 general-use examples such as steamless and airless processes, and conversion to LED lighting, being promoted by our ESCO activities that support energy-saving activities in our plants. Nevertheless, because of increased production volumes, we did increase CO<sub>2</sub> emissions to 7.87 million tons (up 4.1 percent year on year). Our CO<sub>2</sub> emissions per unit produced was 0.747 tons (up 0.5 percent year on year) due to lower productivity of some companies for model discontinuations and production line changes.

In order to reduce CO<sub>2</sub> emissions from production activities, we will strive to accelerate our energy saving activities by promoting steamless processes and carrying out daily reduction activities, as well as introducing further innovative technologies.

\* Yokoten (sharing) refers to sharing of improvement practices, know-how, violation and other information within the Group

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## Environment | Challenge 3 | Plant Zero CO<sub>2</sub> Emissions Challenge

### Trends in Total CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources) and CO<sub>2</sub> Emissions per Unit Produced at TMC

FY	2012	2013	2014	2015	<b>2016</b>
(million tons)					
CO <sub>2</sub> emissions	1.16	1.20	1.18	1.15	<b>1.16</b>
(tons/unit)					
CO <sub>2</sub> emissions per unit produced	0.415	0.414	0.413	0.408	<b>0.398</b>

- Scope: Production and non-production divisions (excluding employee benefit facilities)
- Conversion factors: CO<sub>2</sub> emissions were calculated using the Nippon Keidanren's 1990 conversion factors.

[Environmental Data P127-U](#)

Third Party Assurance

### Trends in Global CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources) and CO<sub>2</sub> Emissions per Unit Produced

FY	2012	2013	2014	2015	<b>2016</b>
Total CO <sub>2</sub> emissions (million tons)					
TMC	1.22	1.26	1.25	1.21	<b>1.22</b>
Japan (excluding TMC)	3.67	3.73	3.66	3.55	<b>3.61</b>
North America	1.08	1.13	1.17	1.13	<b>1.21</b>
China	0.55	0.66	0.65	0.69	<b>0.70</b>
Europe	0.27	0.29	0.29	0.27	<b>0.30</b>
Asia (excluding Japan), Australia, Middle East, South Africa, Latin America	0.80	0.77	0.77	0.72	<b>0.83</b>
Total	7.59	7.84	7.79	7.57	<b>7.87</b>
(million tons)					
Scope 1	2.66	2.80	2.72	2.49	<b>2.60</b>
Scope 2	4.93	5.04	5.07	5.08	<b>5.27</b>
(tons/unit)					
CO <sub>2</sub> emissions per unit produced	0.770	0.757	0.753	0.744	<b>0.747</b>

- Scope: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 121 companies
- Conversion factors: Using the Greenhouse Gas (GHG) Protocol

[Environmental Data P126-Q](#)

Third Party Assurance

### Won the 63rd Okochi Memorial Production Prize for Developing a New Car Painting Line that Reduces Environmental Footprint (Japan)

In March 2017, Toyota Motor Corporation was awarded the 63rd Okochi Memorial Production Prize.

Presented by the Okochi Memorial Foundation, the Okochi Memorial Prize is one of the oldest and most prestigious annual industrial awards in Japan, recognizing remarkable achievements related to research and development, and the application of production engineering, technology, and systems. This is Toyota's 11th Okochi Memorial Prize, received for the first time in 16 years.

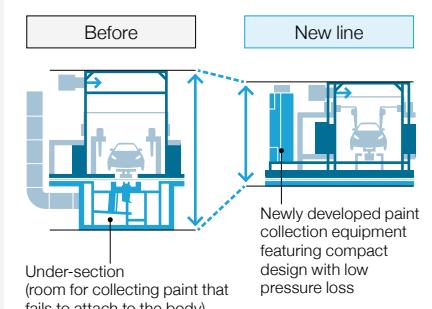
The award is for the various car painting processes used to finish a vehicle account for the greatest proportion of CO<sub>2</sub> emissions in car manufacturing. This award recognizes a new Toyota car painting line that achieves dramatic reductions in volume of floor area and CO<sub>2</sub> emissions (Tsutsumi Plant, Prius production line). In this initiative, we developed and deployed new painting technologies while thoroughly improving all the various individual painting processes. While maintaining the previous high levels of quality, the new painting line reduced the volume of floor area used by line equipment by 40 percent, and CO<sub>2</sub> emissions from the line by 32 percent.

Specifically, this technology development enabled us to shorten the length of processes, reduce the height of equipment, and make the incidental equipment more compact. Lowering the floor of the under-section of the booth was the most contribution to the line. In this area, we developed a new method using centrifugal force to collect paint that does not attach to the car body. The method makes the equipment more compact and reduces pressure loss, thereby reducing CO<sub>2</sub> emissions.

The new technologies have already been adopted on the painting line for Prius production and we plan to expand them to other plants in Japan and overseas as well.



Ceremony for 63rd Okochi Memorial Prize



Painting booth (cross sectional view)

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## Environment | Challenge 3 | Plant Zero CO<sub>2</sub> Emissions Challenge

### Promoting the Use of Renewable Energy

The development and deployment of low-CO<sub>2</sub> production technologies and daily *kaizen* activities have been reducing CO<sub>2</sub> emissions at production sites. We also have introduced the No. 1 regional CO<sub>2</sub> reduction activities by using renewable energies matching the needs of each country and region. TMC led the way in 2008 at the Tsutsumi Plant, producer of the Prius, with the deployment of a solar power generation system generating rated power of 2,000 kW, which is equivalent to the electricity for

500 households. In FY2016, the system generated 1,981 MWh of electricity.

Solar panels were also installed, and renewable energy was introduced, at the TMC Honsha Plant and overseas plants of TMMK (U.S.) and TSAM (South Africa) during 2016.

We will actively introduce further renewable energy systems after considering the balance of environmental, regional, and economic factors.

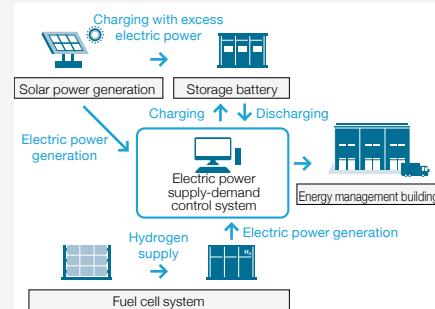
### Constructed a Zero-emissions Building Using Stationary Pure Hydrogen Fuel Cell Technology (Japan)

At its Honsha Plant, TMC completed an energy management building in August 2016 which uses stationary pure hydrogen fuel cells. Here, we aim to completely eliminate CO<sub>2</sub> emissions through energy-saving measures and the use of renewable and hydrogen-based energy.

Inside the energy management building, we save energy by allowing each employee to switch the air-conditioning and lighting on and off, as well as maximizing the use of natural lighting and ventilation as energy-saving measures, keeping energy consumption to a minimum.

The stationary pure hydrogen fuel cells have a rated power output of 3.5 kW. The fuel cells are part of an energy management system which also combines solar power generation with storage batteries made from End-of-life Prius batteries. The system predicts energy demand to provide efficient power streams relying mainly on highly efficient fuel cells, supplemented by solar power

with storage batteries. The pure hydrogen fuel cell system was newly developed for use in small-offices. This project represents the first operational start within a commercial environment. Based on monitoring results after the installation and testing of the pure hydrogen fuel cells, Toyota will progress with the development and installation of efficient hydrogen utilization technology at the plant's other buildings.



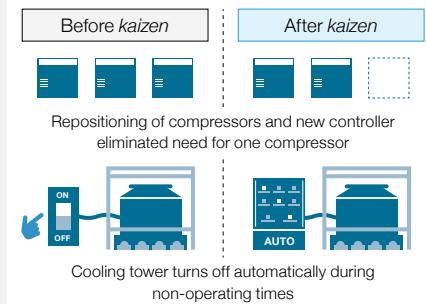
Overview of energy management system used in energy management building

### CO<sub>2</sub> Reduction Initiatives at TDB Plant (Brazil)

Toyota do Brasil Ltda. (TDB), a vehicle production and sales company, has reduced CO<sub>2</sub> emissions by controlling its facilities in accordance with line operational status. The activity consists of three main pillars. First, in the painting processes, the company used trial and error to optimize the operating time of the Regenerative Thermal Oxidizer (RTO), which thermally breaks down odor from the drying oven, reducing CO<sub>2</sub> emissions per unit produced by 1.65 kg.

In the plant's motive force center, the compressors' positions were realigned and a new control system was developed to ensure the compressor was operated only when necessary. These measures eliminated the need for one 200-kW compressor, reducing CO<sub>2</sub> emissions per unit produced by 0.11 kg.

In the welding processes, while the cooling tower was previously turned on and off manually, a new automated system was introduced to turn off the tower during machine downtime, reducing CO<sub>2</sub> emissions per unit produced by 0.04 kg.





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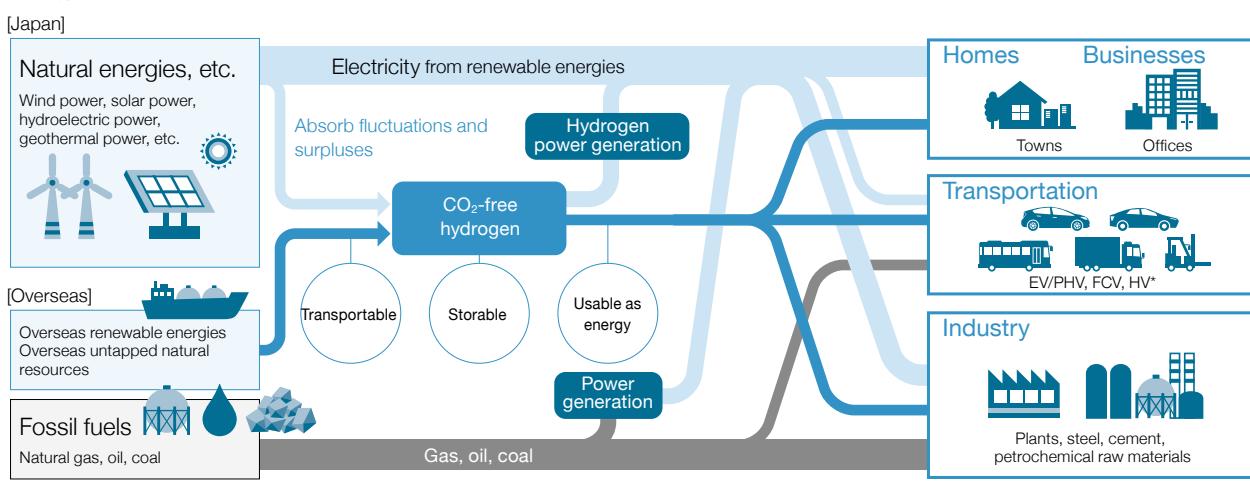
## Environment | Challenge 3 | Plant Zero CO<sub>2</sub> Emissions Challenge

# For an Ever-better Society Toyota's Next Challenge

## Vision for a Low-carbon Society in 2050

Under the Paris Agreement, "net-zero carbon" has been promoted for eliminating net CO<sub>2</sub> emissions worldwide by the end of this century. Renewable energy derived from natural sources is becoming the main force, and there is great expectation for hydrogen as a means of absorbing fluctuations and surpluses, while serving as an alternative to fossil fuels for energy storage and transportation. Amid the diversification of energies, Toyota is moving beyond the reduction of CO<sub>2</sub> emissions from cars and plants together with people in various local communities to contribute to the realization of a low-carbon society.

### Energy Flow Vision to Achieve an 80 Percent Reduction in CO<sub>2</sub> Emissions (Year 2050)



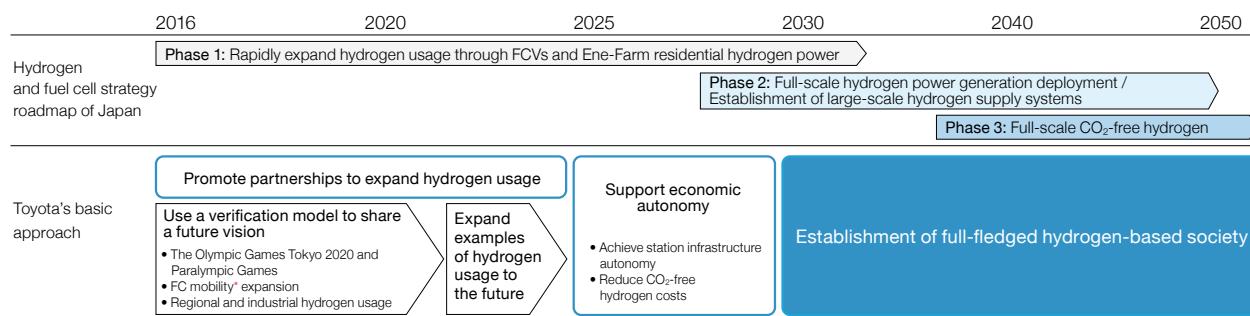
## Strategies and Steps

Building infrastructure and promoting new energies are major challenges to realizing a hydrogen-based society. In addition to promoting widespread use of FCVs, Toyota is actively building partnerships with local communities and industry to promote future hydrogen usage in line with the national energy roadmap of Japan. We will strive to expand the use of hydrogen energy and make it economically viable.

### Toyota's Current Mission

- ① Achieve a hydrogen-based society through the widespread use of FCVs
- ② Collaboration with government, local communities, and the energy industry to build structures and perform verification tests

### Aligning Toyota's Strategies and Steps with National Policies of Japan



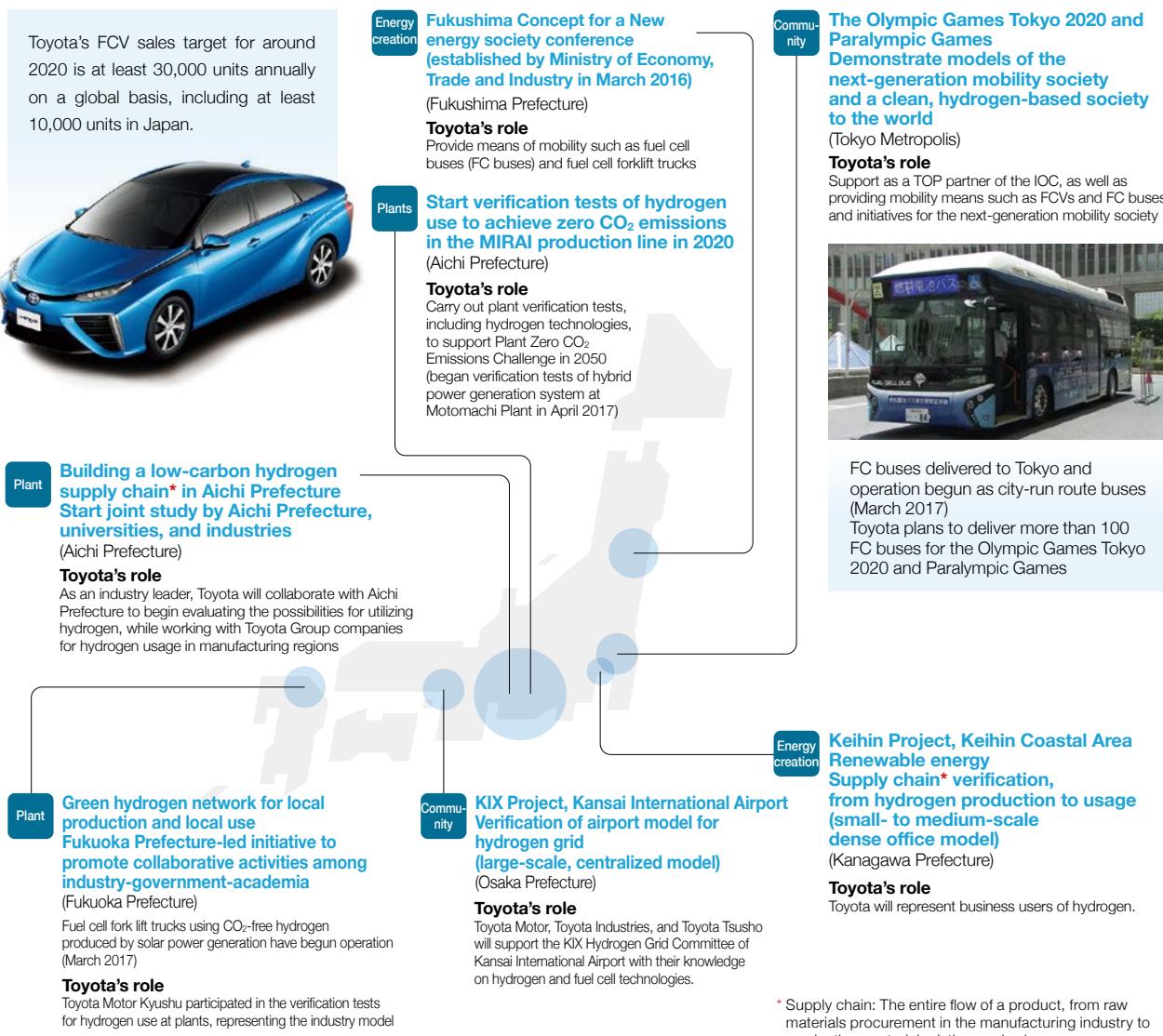
\* FC mobility: Traffic environments and movement using fuel cells



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## Environment | Challenge 3 | Plant Zero CO<sub>2</sub> Emissions Challenge

### Toyota's Involvement in Regional Projects in Japan to Realize Hydrogen-based Society



### Major Overseas Projects (Partnerships for the Widespread Use of FCVs and Hydrogen Usage)

Country	Project name
Australia	MIRAI test launch (July 2016)
UAE	Participated in joint research for realizing a hydrogen-based society (January 2017)
China	Started driving experiment by launching MIRAI on a test basis (January 2017)
Canada	Started driving experiment by launching MIRAI on a test basis (February 2017)
United States	Shell and Toyota collaborate on building a hydrogen station network in California (February 2017)
United States	Started verification tests for large-scale FC trucks at the Port of Los Angeles (April 2017)

### Establishment of Hydrogen Council

In January 2017, the Hydrogen Council was established in Davos, Switzerland as the first global hydrogen initiative. The council is represented by 13 leaders, including Toyota, from global companies striving to promote hydrogen usage as a means to achieve climate change goals. We will collaborate with many leading stakeholders to meet the goals, promoting recommended measures of hydrogen usage.





## Environment | Challenge 4 | Challenge of Minimizing and Optimizing Water Usage

### Challenge 4

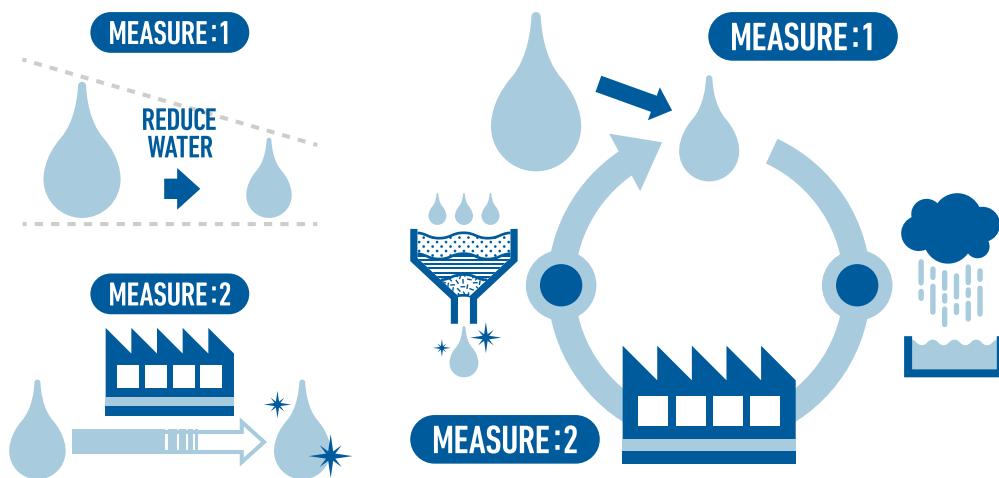
# Challenge of Minimizing and Optimizing Water Usage

#### Fundamental Approach

According to forecasts, the world's population will grow to 9.1 billion by 2050, water demand will increase 55 percent from current levels, and 40 percent of the world's population is therefore expected to suffer water shortages\*. Water is used in painting and other car manufacturing processes, making it imperative to reduce impacts on the water environment as much as possible. We have two main strategies to adopt our challenge; thoroughly reducing the amount of water used, and comprehensive water purification and returning it to the Earth.

Toyota has pursued various effective initiatives, such as collecting rainwater to reduce the amount of industrial water usage, raising the water recycling rate through filtering, recycling wastewater for reuse, and returning clean water to the local environment. As the local water environment differs depending on the region, moving forward, we intend to expand our water environment initiatives around the world, taking the local needs into account.

\* According to Toyota data



#### Reduce Water Consumption in Production Activities

To reduce water usage in our production activities, we have been working to introduce innovative technologies alongside planned upgrades to our production lines, and to conduct regular activities to reduce water consumption.

In FY2016, Toyota Motor Corporation (TMC) managed to reduce steam usage in production processes as one of the measures to reduce water consumption. As a result, total water consumption was 10.7 million m<sup>3</sup> (down 1.9 percent year on year). Water consumption per unit produced was 4.3 m<sup>3</sup> (down 8.0 percent year on year).

Globally, Toyota is steadily implementing measures to reduce water consumption according to the actual water environment in each country and region. In regions with scarce water resources, we are

encouraging water recycling. In the painting pretreatment process in particular, with its high water consumption, we are improving transport position for the vehicle bodies to reduce the amount of water left on them and removed from the system. Nevertheless, because of increased production volumes, we increased water consumption to 31.3 million m<sup>3</sup> (up 7.0 percent year on year). Also, our water consumption per unit produced was 3.0 m<sup>3</sup> (up 1.4 percent year on year) due to lower productivity of some companies through production line changes.

Moving ahead, we will continue striving to minimize impacts on the water environment through the promotion of water-saving and recycling measures.

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## Environment | Challenge 4 | Challenge of Minimizing and Optimizing Water Usage

<b>Trends in Total Water Consumption and Consumption per Unit Produced at TMC</b>					
FY	2012	2013	2014	2015	<b>2016</b>
(million m <sup>3</sup> )					
Total water consumption (company-wide)	11.5	11.6	11.5	10.9	<b>10.7</b>
(m <sup>3</sup> /unit)					
Water consumption per unit produced	4.8	4.9	4.9	4.7	<b>4.3</b>

- Scope: Production and non-production divisions (excluding employee benefit facilities)
- Water consumption per unit produced indicates the amount of water consumed per unit produced at vehicle assembly plants.

<b>Trends in Global Water Consumption and Consumption per Unit Produced</b>					
FY	2012	2013	2014	2015	<b>2016</b>
(million m <sup>3</sup> )					
TMC	5.1	5.3	5.2	4.9	<b>4.7</b>
Japan (excluding TMC)	10.5	12.1	11.9	11.3	<b>12.1</b>
North America	5.0	5.0	5.3	5.0	<b>5.9</b>
China	2.5	2.6	2.5	2.5	<b>2.2</b>
Europe	1.0	1.4	1.2	1.1	<b>1.4</b>
Asia (excluding Japan), Australia, Middle East, South Africa, Latin America	5.1	4.8	4.9	4.5	<b>5.0</b>
Total	29.2	31.2	31.0	29.3	<b>31.3</b>
(m <sup>3</sup> /unit)					
Water consumption per unit produced	3.2	3.1	3.0	2.9	<b>3.0</b>

- Scope: TMC and consolidated vehicle assembly subsidiaries and other companies, a total of 38 companies in Japan and overseas
- Companies added to scope of coverage from FY2013
- Revised due to an error in past data

### Initiatives in Each Country and Region to Reduce Water Consumption (South Africa, United States, Argentina)

Toyota plants around the world are taking steady daily measures to reduce water consumption in production activities, in accordance with the water environments in each country and region. We feature the following leading initiatives in three regions.

#### Improving the quality of cooling water

In South Africa, hard water containing relatively high amounts of magnesium and calcium is common. At manufacturing company Toyota South Africa Motors (TSAM), the hard water has caused clogging of molding equipment and cooling systems, forcing the company to frequently replace water used in production. TSAM resolved the clogging by preprocessing the water to raise alkalinity and by using the conditioned water for cooling, which successfully resulted in reducing water consumption by 48 m<sup>3</sup> annually.



Wastewater discharge pipe coated with calcium from the naturally hard water (left) and conditioned alkaline cooling water (right) (TSAM)

#### Adjusting spray nozzles and spray timing

At manufacturing company Toyota Motor Manufacturing, Mississippi (TMMMS), the painting booth experienced issues in the preprocessing and electro-coating stages after a change in production volume, including occurrence of bubbles after spraying, along with cleanliness issues and malfunctions due to defects with the drain. To solve these problems, the company changed the type of spray nozzle and the spray timing to ensure optimal spray volume. These measures led to an annual water consumption reduction of 11 m<sup>3</sup>.



Before (left) and after (right) spray nozzle improvement (TMMMS)

#### Visualizing water usage and optimally controlling peripheral equipment

At manufacturing company Toyota Argentina (TASA), the production capacity has grown more than fourfold since 2004 through successive expansions of the production facilities. The expansions have resulted in production lines that do not conform to the original energy usage approach, forcing TASA to reconsider its production methods. In the painting processes, for example, the company introduced new systems to visualize the water consumption on conveyor rails used to prevent static electricity in the coating booth, while the peripheral equipment was reformed to ensure optimal control. These measures reduced annual water consumption by 14,000 m<sup>3</sup>.

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Environment | Challenge 4 | Challenge of Minimizing and Optimizing Water Usage

## Toyota's Water Environment Challenge: Connecting with Society to Make Our Plants No. 1 Regionally

Water is one of the recyclable resources on the Earth. In the recycling processes, we consume water and drain it back into the environment. Since water is a local resource for each community, overuse of water by one user in a local community can limit the water consumption for others.

Moreover, if the water remains dirty after use, it can be equal to lose water. In recent years, due to the climate change the problem of uneven distribution of water resources has been getting serious. This has highlighted the importance of taking

measures reflecting respective local water conditions.

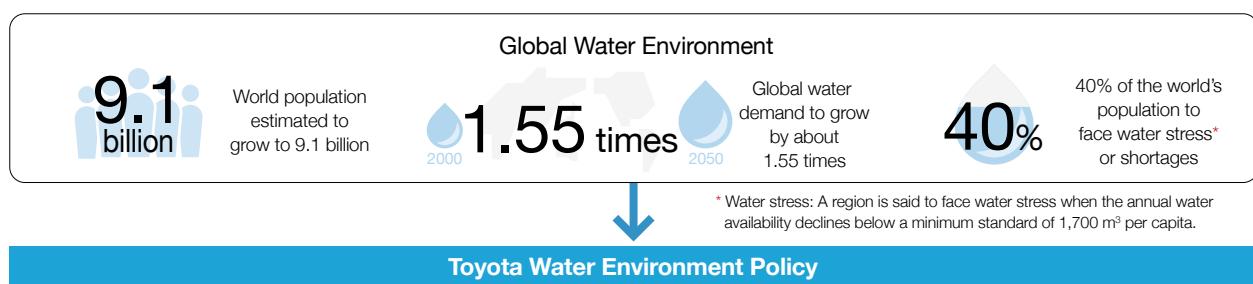
Car-manufacturing consumes significant amounts of water. At Toyota, we are minimizing our impact on water environments by taking thorough measures to reduce water on the input end, and thorough measures to purify water on the output end of the cycle. Our goal is to become the No. 1 regional plant by taking measures to control water consumption volume and water quality in consideration of local water conditions, and connecting these activities to support prosperous societies.

### Formulating the Toyota Water Environment Policy

Although water-related issues and measures differ depending on the region, it is necessary for Toyota as a whole to unite behind a common approach in order to achieve the goals of our water environment Challenge on a global level. To achieve that end, we formulated the Toyota Water Environment Policy.

The Toyota Water Environment Policy is comprised of a "Basic

Stance," "Challenge of Minimizing and Optimizing Water Usage," and "Three Directions for Initiatives (Pursuit of Environmental Technologies, Community-rooted Operations. Cooperation with Society)." Based on this policy, we will strive for societies with plentiful water environments.



Striving to consider the importance of water sustainability, Toyota will aim for realizing prosperous societies that will share a sound water environment to the future.

### Challenge of Minimizing and Optimizing Water Usage



### Three Directions for Initiatives

#### Pursuit of Environmental Technologies

Explore the potential for new technologies to promote the thoroughly efficient use of water resources

#### Community-rooted Operations

Recognize water as a community asset and take continual measures to improve the water environment

#### Cooperation with Society

Promote cooperation and collaboration with stakeholders by engaging in active communication and information disclosure



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## Environment | Challenge 4 | Challenge of Minimizing and Optimizing Water Usage

### Four Processes for Minimizing and Optimizing Water Usage

Toyota implements its challenge based on the following four processes

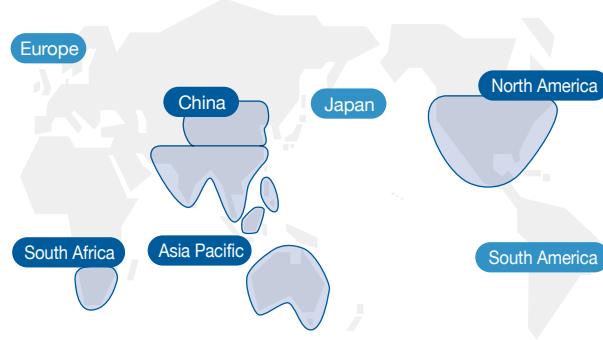


#### Designate Challenge-focused Plants

Toyota has collected various types of data through databases and evaluation tools to understand the current status of the water environment in each country and at each plant. We also have evaluated plant operational data, water usage volumes, water quality, and other information from various points of view to determine impacts on the water environment. Plants that will lead our way in accomplishing the Challenge have been designated as Challenge-focused plants. We are prioritizing four plants around the world, for example, for deployment of initiatives to reduce water usage. The technologies and measures developed at these plants will then be promoted worldwide.

The surveys and evaluations of water environments will be updated to enable us to respond to environmental changes in each country and region.

#### Challenge-focused Plants (as of 2016)

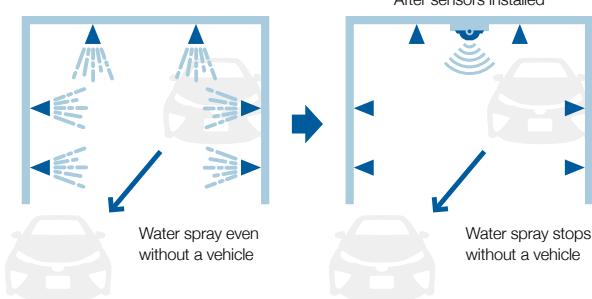


#### Every Drop Counts – Our Commitment to Efficient Water Use

Toyota has traditionally targeted efficient use of our water resources, with activities including ongoing improvements to our processes, wastewater recycling and rainwater use. To reduce water use in the painting process, which uses a lot of water, we have reviewed a range of conditions previously accepted as the norm. For example, we fully investigated the relationship between product quality and the quality of the water used to wash the vehicle bodies. By adding water quality to our managed conditions, we succeeded in roughly halving the amount of water previously thought necessary to clean the body sufficiently. We have also installed sensors so that the sprayers only operate when a vehicle is passing by, which has helped with water drainage and has reduced the amount of water used.

Toyota continues to implement thorough improvement activities and to develop innovative technologies while making greater use of its technologies and know-how.

#### Installation of Sensors



#### Communication with Local Communities and Information Disclosure

Toyota has actively cooperated with and disclosed information to its stakeholders. We engage with local communities through collaborative councils and invite local stakeholders to tour our plants, ensuring mutual communication. We communicate with a broad range of stakeholders through our Environmental Report and website. In terms of information disclosure, we

received the highest "A Rank" for two consecutive years in CDP's "CDP Water," a ranking of companies with exemplary water management, which attests to the soundness of our management and environmental information disclosure. Going forward, we will continue our efforts at communication and disclosure as we strive to be the No.1 plants in our regions.

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Environment | Challenge 5 | Challenge of Establishing a Recycling-based Society and Systems

Challenge 5

## Challenge of Establishing a Recycling-based Society and Systems

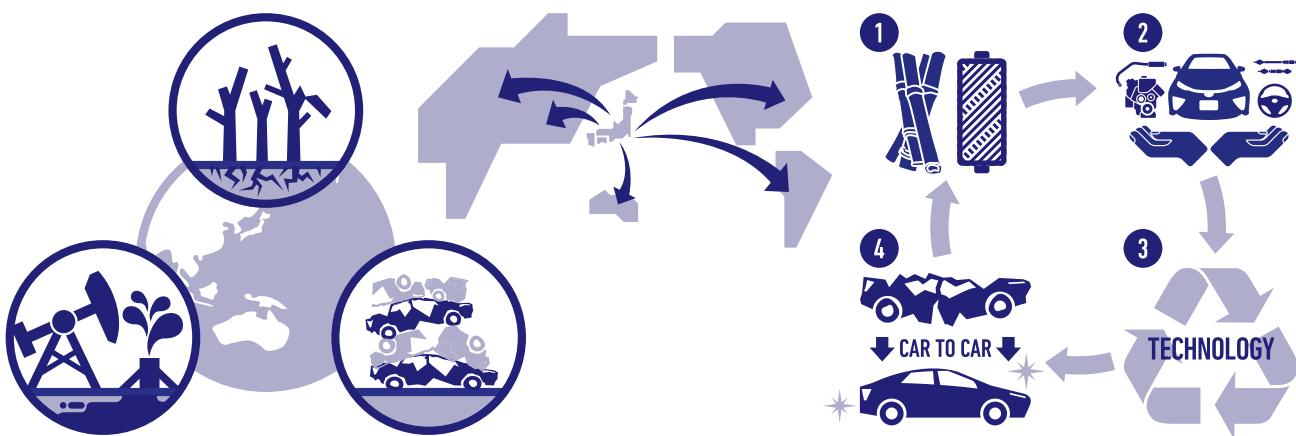
### Fundamental Approach

Due to global population increase along with the pressure for economic growth and convenient lifestyles, the pace of resource consumption is accelerating. If the present trends continue, large-scale exploitation will bring the depletion of natural resources, and appropriate disposal will be unable to keep pace with the increasing amounts of waste generated by mass consumption, resulting in environmental pollution.

To prevent the environmental impact caused by End-of-life vehicles, Toyota launched the Toyota Global 100 Dismantlers Project, to establish social systems for End-of-life vehicle proper treatment.

In order to improve resource efficiency toward an ideal resource-recycling based society, initiatives are needed in four key areas: (1) use eco-friendly materials, (2) use auto parts longer, (3) develop recycling technologies, and (4) manufacture vehicles from End-of-life vehicles.

Toyota aims to realize the ultimate recycling-based society, and promotes the Toyota Global Car-to-Car Recycle Project (TCCR) so that we can use resources from End-of-life vehicles for manufacturing new vehicles.



### Reduce Consumption of Dwindling Natural Resources through Use of Renewable Resources and Recycled Materials

#### Reduce the Use of Petroleum-derived Plastics

Since the early 1990s, Toyota has been collecting and recycling bumpers replaced at dealers as a way to support global-wide sustainable economic growth by reducing the usage of petroleum-derived plastics.

Some plastic parts collected from ELVs were reused for energy as a heat source except using for used parts. Others were recycled into plastics for non-automobile use after going through a machine-automated sorting process.

In FY2016, we teamed up with dismantling companies and plastic recycling manufacturers in the Chubu region of Japan to conduct three trial tests as part of prior studies to build a framework for collecting and recycling ELV-derived plastics. Amid the growing need to further promote plastic recycling, we will continue to study new technologies for collecting and recycling plastics from End-of-life vehicles.

#### Promote the Reuse of Rare Resources and Recycled Materials

Hybrid vehicles, plug-in hybrids, fuel cell vehicles, and other next-generation eco-friendly vehicles use significant amounts of rare resources compared with conventional gasoline vehicles. Some of these resources often carry risks such as resource depletion or uneven supply among regions. In order to promote the reuse of resources and the adoption of recycled materials, we are collaborating with partner companies to establish a framework for collecting and recycling hybrid batteries and motor parts, along with cemented carbide tools used in production.

HV batteries, for example, contain rare metals such as nickel and cobalt. Since launching the first-generation Prius in 1997, we have built our own recovery network to collect End-of-life HV batteries to be recycled. As of March 2017, we have collected 73,300 End-of-life HV batteries in total.

Environmental Data P125-J, L, M

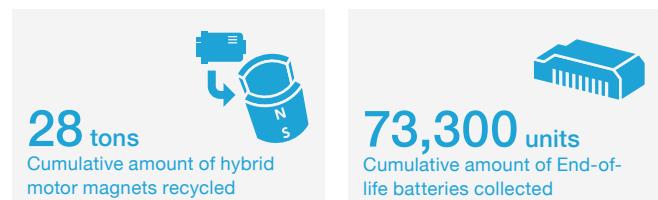
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The collected batteries undergo inspection to determine which parts can be remanufactured into stationary storage batteries or vehicle replacement batteries while other parts are recycled as raw metal materials.

Toyota began recycling HV motor magnets in 2012. As of March 2017, we recycled a cumulative 28 tons of magnets, extracting rare earth. For cemented carbide tools, we launched a system to extract and recycle tungsten\*1 in 2010. As of March 2017, we recycled a cumulative total of approximately 154 tons of cemented carbide tools. The use of Carbon Fiber Reinforced Plastics (CFRP) is expected to increase in the future to support the design of light-weight vehicles. We have made progress towards effective thermal recovery\*2 for this material, while also starting in FY2016 the development of carbon fiber separation and collection technologies for material recycling systems.

As next-generation eco-friendly vehicles become further widespread, the amount of End-of-life parts, such as batteries and motors that contain rare resources, is expected to rise. We will continue material recycling activities for End-of-life parts and CFRP.



\*1 Tungsten: Japan imports all of its demand for tungsten, which is used in the cutting edges of 80% of cemented carbide tools.

\*2 Thermal recovery: During the incineration of waste, thermal energy generated is recovered and reused.

## Achieve Industry-leading Levels in Easy-to-dismantle Design for Effective Resource Recycling

To promote material recycling of End-of-life vehicles, Toyota directly visits dismantling companies in Japan and overseas to investigate actual conditions and gain insight into the development of vehicle structure that make it easy to dismantle and separate parts. We have actively adopted these designs for new models since 2003 with the launch of the Raum passenger car.

The new Prius PHV and Lexus LC unveiled in FY2016 adopt the Toyota New Global Architecture (TNGA)\*1, a new concept for car manufacturing which ensures superior stability and control along with a comfortable ride with minimal vibration and sway. Although

the design with a lower center of gravity and the lowered hood have made the engine room smaller, the design still ensures safe and speedy dismantling of the wiring harnesses above the engine space and other parts.

In other areas where we adopt new structures, parts, and other technologies, we will continue to ensure easy-to-dismantle designs in order to maintain and enhance the capability to dismantle vehicles.

\*1 TNGA: Toyota's company-wide global initiative to structurally transform automobile design. TNGA aims to dramatically improve the basic performance and marketability of Toyota vehicles by reforming and integrally redeveloping powertrain components and platforms.

### Vehicle Structure for Easy Dismantling

**Removal of heavy battery components from hybrid vehicle**  
 Component removal times for the Prius are further reduced. The new easy to dismantle mark has been added to assist in hoisting heavy components with good balance.

**Use of "Easy to dismantle mark"**  
 "Easy to dismantle marks" are added to show key points for disassembly tasks.

**Removal of door trim\***  
 The easy to dismantle mark indicates places where the load required for removing the door trim is 30 percent less than usual.  
 \*2 Door trim: The panels lining the inner part of the door.

**Wiring harness\***  
 Use of pull-tab type ground terminal for wiring harness  
 Assembled condition      During dismantled  
 Pull-off direction  
 Separated from thinner areas  
 \*3 Wiring harness: A bundled assembly of wires running throughout the vehicle body for power supply and signal communications.

**Wiring harness layout innovation**  
 The wiring harness can be stripped out without interfering with other components.

**Removal of instrument panel**  
 The positioning of the V-grooves makes it easy to remove the instrument panel by pulling it strongly.

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### Contribute Worldwide through Appropriate End-of-life Vehicle Treatment and Recycling Technology Developed in Japan

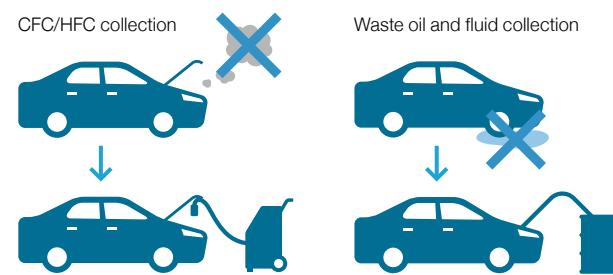
When End-of-life vehicles are not properly disposed or dismantled, that may not only affect regional environments, but cause risks to the health and safety of local residents. To prevent these problems, we promote the Toyota Global 100 Dismantlers Project. Through this project, we aim to establish social systems for properly treating of End-of-life vehicles without imposing regional environmental impact. Our long-established End-of-life vehicle technologies and know-how contribute to the establishment of social systems.

In FY2016, we prepared basic operating procedures for the purpose of properly dismantling End-of-life vehicles with tools commonly available. This manual was created for countries and regions where there are no suitable dismantling facilities and tools. We have been constantly researching the flow of End-of-life vehicles and setting an each target level according to the conditions of regional infrastructure in cooperation with local affiliates for proper treatment of End-of-life vehicles.

There are regions in the world facing the risk of dramatic increases in the number of End-of-life vehicles. We will strive to establish recycling-based societies with proper End-of-life vehicle treatment and efficient resource collection by expanding the Toyota Global 100 Dismantlers Project gradually.

[Environment Data P125-1](#)

#### Image of Appropriate End-of-life Treatment and Recycling System



### Expand Original Recycling Systems for End-of-life Vehicles Worldwide

In order to realize an ultimate recycling-based society, we promote the Toyota Car-to-Car Recycle Project (TCCR) that is based on the concepts of reduce, reuse, and recycle, aiming specifically at elimination of resource-related risks and global warming.

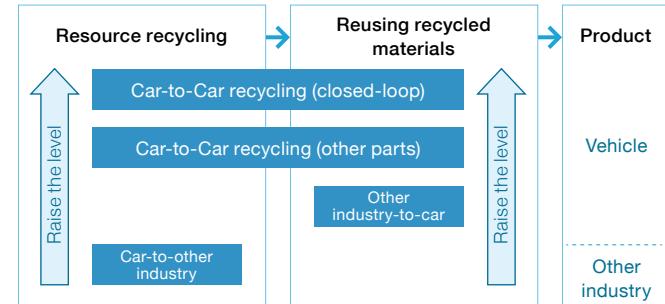
In FY2016, we began with a model case in Japan as a blueprint toward the establishment of a global recycling-based society. Specifically, we set year 2030 as a milestone and conceptualized ideal social systems along with expected issues and their countermeasures.

Moving ahead, we expect a large increase in the amount of hybrid batteries used overseas.

In FY2016, we began studying to boost recycling capacity and raise the level of collection and recycling structure toward globalization of battery recycling systems.

The ultimate goal of this project is closed-loop recycling, the concept that the vehicles parts and materials are recycled into identical parts. We will continue promoting “Car-to-Car Recycling” through gradual progress in both phases of this system, namely the first phase of resource recycling in which vehicle parts and materials are turned into raw materials for new parts, and the second phase of fully reusing recycled materials in new vehicles.

#### Image of “Car-to-Car Recycling”



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## Environment | Challenge 5 | Challenge of Establishing a Recycling-based Society and Systems

### Reduce Waste and Use Resources Efficiently in Production Activities

Toyota strives to reduce the volume of waste from production activities by developing and deploying new production technologies while taking continual day-to-day improvement measures in terms of the sources of waste, the amount of waste generated, resources loss, and cost reduction and so forth.

In FY2016, Toyota Motor Corporation (TMC) continued to take waste reduction measures such as sludge volume reduction. The total waste volume, as a result, was 33.8 thousand tons (down 4.1 percent

year on year), and the waste volume per unit produced was 11.6 kg (down 7.2 percent year on year).

On a global level, as a result of Toyota's continual waste reduction activities in conjunction with cost reduction, the waste volume per unit produced was 45.0 kg (down 0.7 percent year on year). However, the total waste volume was 474 thousand tons (up 2.9 percent year on year) due to increase of waste to be managed for aggregation in some companies.

#### Trends in Total Waste Volume and Waste Volume per Unit Produced at TMC (Japan)

FY	2012	2013	2014	2015	2016
(thousand tons)					
Total waste volume	33.9	36.0	35.9	35.2	<b>33.8</b>
(kg/unit)					
Waste volume per unit produced	12.1	12.4	12.5	12.5	<b>11.6</b>

- Scope: Production and non-production divisions (excluding employee benefit facilities)
- The total waste volume in production divisions consists of waste generated through production activities
- Waste volume: Waste at cost + incineration\* + landfill
- Waste at cost: Waste that is recycled for a fee
- Revised due to an error in past data

#### Trends in Global Waste Volumes and Waste Volume per Unit Produced

FY	2012	2013	2014	2015	2016
Total waste volume (thousand tons)					
TMC	34	36	36	35	<b>34</b>
Japan (excluding TMC)	367	365	353	348	<b>359</b>
North America	31	32	29	29	<b>30</b>
China	19	20	17	17	<b>17</b>
Europe	10	14	14	11	<b>12</b>
Asia (excluding Japan), Australia, Middle East, South Africa, Latin America	26	27	26	21	<b>22</b>
Total	487	494	475	461	<b>474</b>
(kg/unit)					
Waste volume per unit	49.4	47.7	46.0	45.3	<b>45.0</b>

- Scope of coverage: TMC and consolidated company in Japan and overseas, a total of 121 companies

#### Environmental Data P126-Q

- Waste volume: Waste at cost + incineration + landfill

### Achieve Zero Landfill Waste by Composting Bio-sludge with Worms (India)

Indian manufacturing affiliate TKM uses biological treatment to purify waste and water through manufacturing processes. TKM uses the purified treatment for sprinkling or returns it to the local water environment. The biological treatment conducted at wastewater processing facilities, meanwhile, decomposes the organic matter included in water into bacteria. It is necessary to treat waste of the carcasses of propagated bacteria as bio-sludge, which was landfilled between 2009 and 2015. The decomposition process for landfill waste, however, takes several months in addition to the fact that 500 trucks worth of waste from the Bangalore area was brought in to the landfill waste area daily. TKM therefore turned to composting using worms, which requires only 35 days to process. As a result, TKM achieved zero landfill waste from bio-sludge. The compost is a superior biomass resource used for fertilizer and soil conditioning, effectively recycled for tree-planting at the site and as a fertilizer for local farms. Because finely processed gardening waste (tree clippings, etc.) to be added to the worm-fed bio-sludge improves the composting, TKM has been testing to determine optimal input.



Curing condition before processing (left) and after processing (right)

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## Environment | Challenge 5 | Challenge of Establishing a Recycling-based Society and Systems

### Reduce Packaging and Wrapping Materials and Use Resources Efficiently in Logistics Activities

Toyota Motor Corporation (TMC) is taking a broad range of initiatives to reduce the amount of packaging and wrapping materials used in logistics. These include increasing packaging efficiency in containers, using returnable containers\* to reduce the amount of unrecyclable materials used, and making packaging and wrapping materials simplified and lighter.

In FY2016, TMC succeeded in reducing the amount of packaging and wrapping material per shipment unit to 6.87 kg/m<sup>3</sup> (down 6.7 percent year on year) by making packaging and wrapping materials smaller and adopting returnable shipping containers. The total volume of packaging and wrapping materials used amounted to 51.4 thousand tons (up 1.0 percent year on year), due to the effects of fluctuations in shipment volume and other factors.

On a global basis, Toyota continued efforts to quantify its use of packaging and wrapping materials, while gathering information on best practices.

In FY2008, TMC began implementing measures to determine the usage volume of packaging and wrapping material at affiliates worldwide. Assessments for all regions, excluding North America, have almost been completed. It has been difficult to grasp the usage at suppliers in North America, and TMC is currently adjusting the assessment method. Moving forward, we will promote the efficient use of resources when shipping goods, while striving to reduce the volume of packaging and wrapping materials.

\* Returnable: To enable used packaging materials to be returned to original shipping points for reuse.

**Trends in Usage of Packaging/Wrapping Materials** Third Party Assurance  
at TMC (Japan) and Packaging/Wrapping Materials per Shipment Unit at TMC (Japan)

FY	2012	2013	2014	2015	2016
(thousand tons)					
Usage of packaging and wrapping materials	56.0	56.3	51.7	50.9	<b>51.4</b>
(kg/m <sup>3</sup> )					
Usage of packaging and wrapping materials per shipment unit	7.23	6.97	6.98	7.36	<b>6.87</b>

**Results of Activities to Reduce Usage of Packaging/Wrapping Materials at TMC (FY2016, Japan)** Third Party Assurance

Improvement	Products	Main improvement activities	Reduction volume (thousand tons)
Simplification of packaging styles	Production parts	Production process improvement, reuse, etc.	0.37
	Service parts	Simplification of wrapping specifications	0.20
	Service parts	Increase in parts quantity per box, simplification of packaging specifications, etc.	0.03
Use of returnable containers	Service parts	Expanding use of returnable containers (increasing number of applicable items)	0.14
Total			0.74

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Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

## Challenge 6

# Challenge of Establishing a Future Society in Harmony with Nature

### Fundamental Approach

It is critical for humans to conserve forests and other natural environments in all regions for coexistence in harmony with nature. However, deforestation is progressing across the world, resulting in the fragmentation of habitats of diverse species, as well as the continuing loss of biodiversity.

Toyota Group companies have engaged in planting trees at plants, environmental conservation activities in their surrounding areas, and environmental education in order to “enrich the lives of communities” in each region. Moving forward, we will promote our three “connecting” projects. We will expand these activities at group, regional, and organizational levels using the insights we have gathered so far, aiming for a future where people and nature live in harmony.

#### ● Toyota Green Wave Project

Connecting Communities



#### ● Toyota Today for Tomorrow Project

Connecting with the World



#### ● Toyota ESD Project

Connecting to the Future

## Promote Expansion of Nature Conservation Activities Connecting Communities — Toyota Green Wave Project

Toyota Group companies have planted trees at plants and undertaken environmental conservation activities in their surrounding areas. The Toyota Green Wave Project is an initiative to connect these diverse activities promoting harmony with nature.

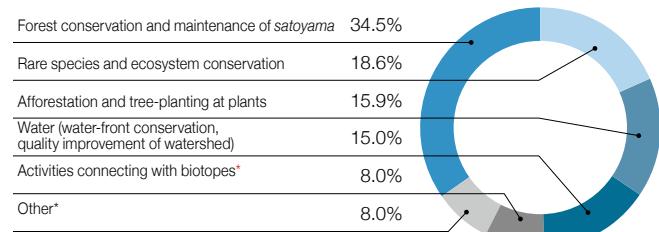
By extending the Toyota Group activities to promote harmony with nature in regions in Japan and overseas, we aim to expand natural habitats and help create a sustainable society, benefitting biodiversity.

### All-Toyota Harmony with Nature Working Group Activities

The Toyota Green Wave Project kicked off in May 2015 with the launch of the All-Toyota Harmony with Nature Working Group represented by 23 Group companies. This working group is striving to expand activities in harmony with nature, enhance the dissemination of information, and strengthen Group-wide cooperation.

In FY2016, we steadily promoted and implemented activities in Japan, carrying out 116 All-Toyota individual activities, an increase of 17% from the planning stage. Furthermore, the strengthened relations among participating companies began to bear fruit, as the activities began to spread throughout Japan, especially in the Chubu region. Additionally, in October 2016, a total of 21 employees from 15 Group companies jointly participated in the cleanup campaign at Fujimae Tidal Flat (Nagoya City), which has been registered under the Ramsar Convention. This was the second All-Toyota activity led by the working group, following the first in the previous spring.

### All-Toyota Harmony with Nature Working Group Activities by Individual Companies (116 Activities in Japan)



\* Biotope: A small-scale habitat that makes you feel familiar with natural ecosystem, either artificially developed or restored to its natural condition, in which plants and animals can live constantly.

\* Ecosystem monitoring, countermeasures to exterminate foreign species, coastal ecosystem conservation



Second All-Toyota unified activity



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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

### "All-Toyota Green Wave Project" Vol. 2 Published

In June 2016, we published and distributed to employees a booklet (vol. 1) on the Green Wave Project in order to explain the project's significance, the importance of biodiversity, and examples of activities by Toyota Group companies. In June 2017, we published the second issue, presenting All-Toyota activities in FY2016 which began to spread across Japan, raising employees' awareness of participation in such activities and promote the importance of cross-functional cooperation.



Booklet centerfold (FY2016 Challenge Map)

Toyota Environment Green Wave  Search

[http://www.toyota-global.com/sustainability/environment/challenge6/green\\_wave/index.html](http://www.toyota-global.com/sustainability/environment/challenge6/green_wave/index.html)

### Sustainable Plant Activities

Since 2007, Toyota has been pursuing sustainable plant activities positioning the Prius-producing Tsutsumi Plant as its model plant. With the concept of "plant development that fully utilizes natural resources while operating in harmony with nature," the Tsutsumi Plant is taking measures to reduce energy consumption, switch energy sources, enhance communication with local communities, and preserve biodiversity.

As part of these sustainable activities at plants, the number of trees planted at sites by employees, family members, and local residents in regions in Japan and overseas reached a cumulative 1.18 million trees in 2016. Various wildlife is propagating in these forests at our plants, creating habitats rich in nature and wildlife.

At the Motomachi Plant, the Environmental Center\* has been leading afforestation activities at the site to create and maintain natural habitats for wildlife, raising employees' environmental awareness. In 2016, the center created water spaces as a biotope by the forested area. Trees planted in the area have grown, and the creation

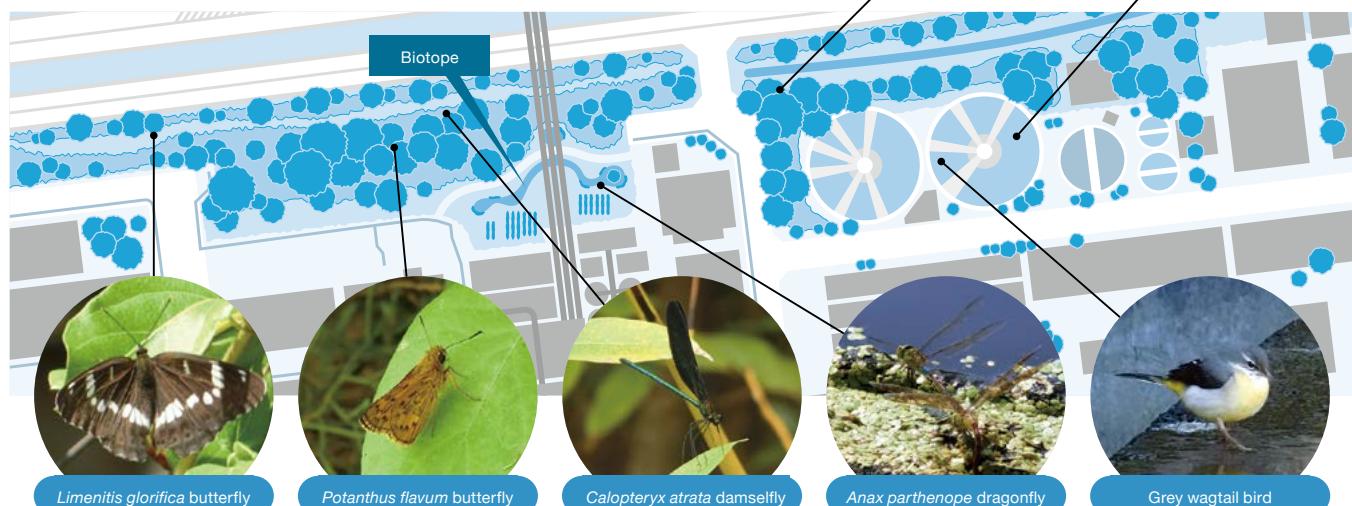
of water spaces has facilitated further diversification of the habitat. Employees have taken the initiative to survey the area's wildlife, discovering kingfishers, *Potanthus flavum* butterflies, and *Anax parthenope* dragonflies. Using dragonflies as an index of biodiversity, the employees found the number of species had risen from six before the biotope addition to 14 after, reflecting the successful creation of new habitats.

We will continue to create new habitats to ensure that people and nature live in harmony at all of our plants.

\* Environmental Center: A facility that powers the Motomachi Plant utilizing energy obtained from combustible waste generated at Toyota plants. Various experimental measures related to a low-carbon society, resource recycling, and harmony with nature are being verified in the center.



### Wildlife Confirmed through Employee Survey



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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

### Initiatives at the New Toyota R&D Center Promoting Harmony with the Natural Environment and Local Communities

Toyota is proceeding with plans to construct a new research and development facility in the overlapping area of Toyota City and Okazaki City. This new R&D Center will be a hub for the development of sustainable next-generation mobility. The main design concept is to build a technical center that operates in harmony with both the natural environment and local communities. About 60 percent of the total project site will be preserved as areas for the regeneration of forest and restoration of yatsuda rice paddies in collaboration with the local community. Toyota is also actively sharing information that includes the status of these activities and knowledge gained through them.

Toyota has taken initiatives to protect the Japanese eight-barbel loach, which lives in waterways and ponds surrounding yatsuda rice paddies, by promoting a reduction in the use of agrochemicals and

chemical-based fertilizers, as well as the restoration of abandoned yatsuda rice paddies. In FY2016, we completed an additional initiative to transform U-shaped gutters into stone-lined waterways and network the waterways to ensure the loaches can move freely. In order to confirm the benefits, we are attaching tracking markers to loach each year to confirm their movement.



U-shaped gutters before construction (left) and stone-lined waterways after construction (right)



Japanese eight-barbel loach

### Preserving Loggerhead Turtle Spawning Beach (Japan)

The Omotehama coastline on the Atsumi Peninsula in Aichi Prefecture is a well-known spawning site for loggerhead turtles. Toyota supports shoreline conservation NPOs "Omotehama Network" and "Akabane Juku," preserving this coastline. Since 2011, Toyota employees and their families have been participating in conservation activities. These include coastal cleanups and building sand-arresting barriers to facilitate sand accumulation. Since FY2016, we also have been supporting the building of sand fences\* using reeds.

In March 2017, 190 employees and their families from the coastal Tahara Plant and the Head Office region participated in the fence-building project, to prepare for return of the turtles for spawning in May.

\* Sand fences: Dead reeds and branches are driven into the beach in a grid pattern to slow winds crossing the beach and prevent beach erosion.



Preserving loggerhead turtle spawning areas on Omotehama coastline

### Support Reforestation in a National Park to Reduce CO<sub>2</sub> Emissions (India)

In July 2016, TKM, our Indian manufacturing company, organized a reforestation drive at the Bannerghatta National Park, and 500 saplings were planted. The event witnessed participation from 600 TKM employees with their families, along with 150 students from Delhi public School, Bangalore South, and 100 members from the Karnataka Forest Department.

Reforestation through tree-planting is said to be one of the most effective ways of reducing CO<sub>2</sub> emissions. A fully grown tree can absorb 20 kg of CO<sub>2</sub> and generates about 118 kg of oxygen per year.

TKM initiated a large scale afforestation drive in 2009, and since then it has planted 265,000 saplings. "Environmental conservation is inherent in the Toyota's culture," says TKM Vice President Raju Ketkale. "It is not just imperative to create necessary awareness, at the same time, one needs to action out measures along with the involvement of the local community. Therefore, we involve our employees physically in afforestation drives and environment month activities."



Children take part in tree-planting activities

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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

### Boost Grant for Environmental Activities Connecting to the World - Toyota Today for Tomorrow Project

Toyota has conducted cooperative activities in Japan and overseas environmental NGOs including the Toyota Environmental Activities Grant Program and afforestation programs in China and the Philippines. We have established Toyota Today for Tomorrow Project to bolster our long-standing grant program on a global basis.

### Launch a Five-Year Partnership with WWF on Living Asian Forest Project

In July 2016, Toyota entered into a five-year partnership with WWF (World Wide Fund for Nature) aiming at accelerating the globe's transition to sustainability. Toyota is the first car company and the first Japanese company to sign a Global Corporate Partnership agreement with WWF.

To promote biodiversity conservation under the partnership, Toyota made a 1 million US dollar grant to WWF in 2016 to support the Living Asian Forest Project.

The Living Asian Forest Project aims to strengthen existing WWF activities to conserve tropical forests and wildlife in Southeast Asia and launch new conservation initiatives. The project will take place in WWF priority places Borneo (Kalimantan) and Sumatra in Indonesia. In the future, the project will expand to the Greater Mekong region. The partnership recognizes that the sustainable production and use of natural rubber is required for forest ecosystem conservation. Demand for natural rubber, the main resource for car tires, is expected to continue rising. Toyota will collaborate with industries and stakeholders to actively contribute to natural rubber sustainability activities promoted by WWF.



With the aim of contributing to society, we will work together with organizations engaged in nature conservation around the world by establishing projects to solve issues in the areas of living in harmony with nature and biodiversity.

### Toyota Environmental Activities Grant Program

In 1999, Toyota was honored with the Global 500 Award from the United Nations Environment Programme (UNEP). To commemorate receipt of this award, in FY2000, we launched the Toyota Environmental Activities Grant Program to support the environmental activities of NPOs and other groups. The two main themes behind the program are biodiversity and climate change. The grants are offered in the categories of project support overseas (up to 7 million yen per project) and project support in Japan (up to 3 million yen or 1 million yen per project).

Over the 17 years since the program was established, we have supported 332 projects in 53 countries and regions worldwide.

**332** projects  
Cumulative Number  
of Support at Toyota  
Environmental Activities  
Grant Program



Environmental Data P125-N

One of the domestic projects, the Ube City Network for Global Warming Prevention in Yamaguchi Prefecture worked on "Summer Holiday Hybrid Mini Solar Car Workshop Class."

In the class, local elementary school children were taught the fundamentals of energy and climate change, followed by the demonstrations of how solar panels can generate electricity and charge batteries. The children gained a valuable understanding of the vast potential of solar power and other renewable energies, while building their awareness of climate change. At the same time, the project taught children the joys of making things and encouraged their interest in science.

The project activities are now being introduced to other areas of the prefecture.



Children enjoy building hybrid mini solar cars

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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

One of the overseas projects, the Japan Environmental Education Forum promoted and verified the effectiveness of biodiversity educational materials among Bangladeshi elementary school students and their parents. In the Sundarbans region of Bangladesh, a registered world heritage, there is a rising concern over the deterioration of natural habitats. To help alleviate the problem, the forum distributed educational materials and promoted learning programs in 82 public elementary schools nationwide. The enjoyable educational materials included a dice and board game using Sundarbans National Park as its theme, a card game exploring the relationship between Sundarbans nature and human activities, and a

DVD on Sundarbans nature for parents.

The forum is now working to have the developed materials approved by the Bangladeshi government as supplementary teaching aids.



School testing nature education materials



Final version of Bangladesh nature education materials

### Held Environmental Events Hosted by IUCN and Toyota, Collaborating with NGOs around the World (United States, Mexico, South Africa)

In May 2016, Toyota began a five-year partnership with International Union for Conservation of Nature (IUCN)<sup>\*1</sup> to raise awareness of the biodiversity crisis. Under the partnership, we are providing a grant of 1.2 million dollars to support the IUCN Red List of Threatened Species<sup>\*2</sup>. The support made it possible for IUCN to conduct assessments of more than 28,000 species, accounting for 35 percent out of 80,000 species requiring assessment. This represents a major step forward in the IUCN's goal of gaining a comprehensive view of the conservation status of biodiversity on the Earth. In September 2016, the 6th IUCN World Conservation Congress was held in Hawaii. Held once every four years, the congress gathered some 10,000 participants to discuss strategies and issues involved with biodiversity and nature conservation over the next four years. Toyota and IUCN co-hosted a panel discussion on private sector engagement in biodiversity field, followed by a reception to celebrate their partnership for the Red List.

In December 2016, the United Nations held its Convention on Biological Diversity, 13th Meeting of the Conference of the Parties (CBD<sup>\*3</sup> COP<sup>\*4</sup> 13) in Cancun, Mexico. In the conference, Toyota collaborated with IUCN and environmental NGOs BirdLife International and Conservation International to host a side event—the first time Toyota has held an event at a COP meeting.

BirdLife International and Conservation International conduct local surveys to support the Red List and protect regions where rare species live. Toyota is proud to support activities for the Red List, and has provided vehicles to the two organizations. We held a vehicle ceremony with the organizations at the COP side event. The vehicles will be used for activities in Mexico and South Africa. The ceremony was attended by Mr. Braulio Ferreira de Souza Dias, Executive Secretary of the Secretariat of the Convention on Biological Diversity, reflecting the importance of collaboration between NGOs and private sectors in conserving nature.



The 6th IUCN World Conservation Congress



Vehicle donation ceremony at COP13

<sup>\*1</sup> IUCN: Founded in 1948 through an international initiative, International Union for Conservation of Nature is a global nature conservation network comprising nations, government agencies, and non-governmental organizations.

<sup>\*2</sup> Red List: The IUCN Red List of Threatened Species is a list of threatened species managed by the international organization IUCN.

<sup>\*3</sup> CBD: Convention on Biological Diversity

<sup>\*4</sup> COP: Conference of the Parties is a conference among convention signatory nations to discuss the contents of the conventions.

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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

### Boost Contributions to Environmental Education Connecting to the Future – Toyota ESD Project

Human resources development is crucial for expanding environmental conservation activities to the future. Consequently, the Toyota Education for Sustainable Development (ESD) Project promotes sustainable human resource development that matches the community.

Our corporate training approach is to nurture environmentally

conscious employees and leverage their awareness to make it better for business. Additionally, we are connecting our training activities to the future by making the best use of the features of business sites and company-owned fields to provide environmental education to children, who will be responsible for sustainable societies in the future.

#### Toyota Shirakawa-Go Eco-Institute

Toyota Shirakawa-Go Eco-Institute, located in the world heritage site Shirakawa-Go, was opened in 2005 with the goal of widely promoting locally rooted environmental education valuing nature's inherent wisdom.

Located in rich nature at the foot of Hakusan (Mt. Haku), the Institute provides many adults and children visiting Shirakawa-Go with hands-on nature programs as well as working on ecosystem surveys of wildlife, along with forest conservation activities.

In 2015, to commemorate the institute's 10th anniversary, we enhanced the hand-on nature programs under the slogan, "Trail walking for adults. Forest play helps kids grow stronger." The Institute aims to provide opportunities and education to enable individuals to understand and take action on their own initiative through shared education that enhances growing and learning together toward living in harmony with nature. There is a special emphasis on "Children's camp" that nurtures children's environmental awareness, self-reliance, and ability to take action.

In FY2016, Shirakawa-Go hosted a total of 15 children's camps with six different camp themes. The number of participants reached 243 children, compared with 101 in the previous year, attesting to the participants' strong interest.

The total number of people staying overnight at Shirakawa-Go in FY2016 was 16,529, and the number of people who participated in institute programs during the year was 12,336. Since opening in 2005, the institute has welcomed more than 190,000 visitors.

Toyota Shirakawa-Go Eco-Institute will continue to develop new hands-on nature programs to nurture an awareness of living in harmony with nature among a growing number of adults and children.



Children participating in a children's camp



#### Forest of Toyota

Forest of Toyota in Toyota City is a company-owned forest near the urban areas. It has been maintained based on the environment of *satoyama*, which was once part of our lives, creating a forest where wildlife can naturally inhabit. Since 1997, the forest has been open to the public. Anyone can walk freely through the forest and take part in various events to experience the *satoyama* environment and learn about nature through their five senses.

Since 2001, we have provided hands-on learning events for regional elementary schoolchildren. In 2016, the forest accepted 6,050 children.

In FY2016, as a new event, we held two sessions of a special program for adults on the theme of life using fire.

The program explored the history of mankind that encountered fire and created various tools, and the way people have continually managed *satoyama* environments to provide them with firewood, charcoal, and other resources. Participants had an opportunity to make a fire, use it for cooking, and carry out forest maintenance to make firewood.

The program was well-received by the participants together with feedback that they had rediscovered the wonder of fire, and that they wanted to pass along the wisdom of forestry to the next generation. At the Forest of Toyota, we will continue to hold programs which introduce the beauties of *satoyama* environments and living in harmony with nature.



Making fire by hand with the string method



Splitting firewood

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## Environment | Challenge 6 | Challenge of Establishing a Future Society in Harmony with Nature

### TOYOTA Mie Miyagawa Mountain Forest

In Odai Town, Taki District of Mie Prefecture, Toyota has introduced automobile manufacturing expertise to the forest site for management, such as cultivating water sources and providing other functions which benefit the public.

We are fully leveraging the region's long-standing timber industry to connect the public with forests, as well as providing opportunities to learn about the timber industry. Since 2015, we have been holding hands-on seminars for local high-school carpentry students to learn how to use tools from professionals.

Wood from the forest is also used in Toyota's office facilities. In this way, we promote forest conservation and resource recycling through a virtuous cycle of cultivation, cutting and use.



Local high-school students take part in a hands-on forestry experience



Toyota Automobile Museum uses wood from the Mie Miyagawa Forest (flooring for the book cafe)

### Launch a Biodiversity and Sustainability Learning Center at the Ban Pho Plant (Thailand)

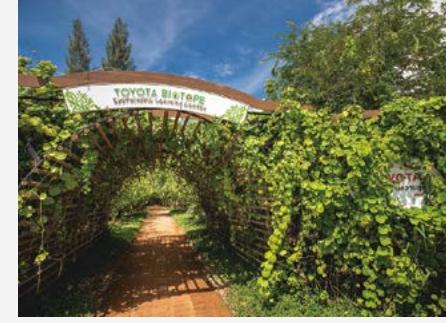
Opened in 2007, the Ban Pho Plant in Thailand operated by manufacturing company Toyota Motor Thailand (TMT) strives to be the world's No. 1 plant in terms of environmental conservation and knowledge dissemination. The plant launched the Eco-Forest, an afforestation project in 2008, and embarked on the Toyota biotope project the following year.

In June 2016, Her Royal Highness Princess Maha Chakri Sirinkhon graciously presided over the launch of the Learning Center "Cheewa Panavet." Cheewa Panavet is a combination of three Thai words, "cheewa" (life), "pana" (forest), and "vet" (habitat). The Learning Center consists of three main sections, namely the Eco Forest, the Toyota Biotope, and the Royal Commemoration Exhibition Building. Currently, there are 43 species of plant, while the Toyota Biotope is a habitat of more than 218 species of living organisms spanning over 96,000 m<sup>2</sup>. The Royal Commemoration Exhibition Building exhibits projects on the environment and there is an exhibition room on ecosystems on ground level and below the ground.

Toyota has contributed to the sustainable development and human resources of Thailand. The opening of the new Learning Center has brought a new level for environmental conservation and enlightenment activities.



Cheewa Panavet, Toyota's Biodiversity and Sustainability Learning Center in Thailand



Biotope

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## Environment | Environmental Management

# Environmental Management

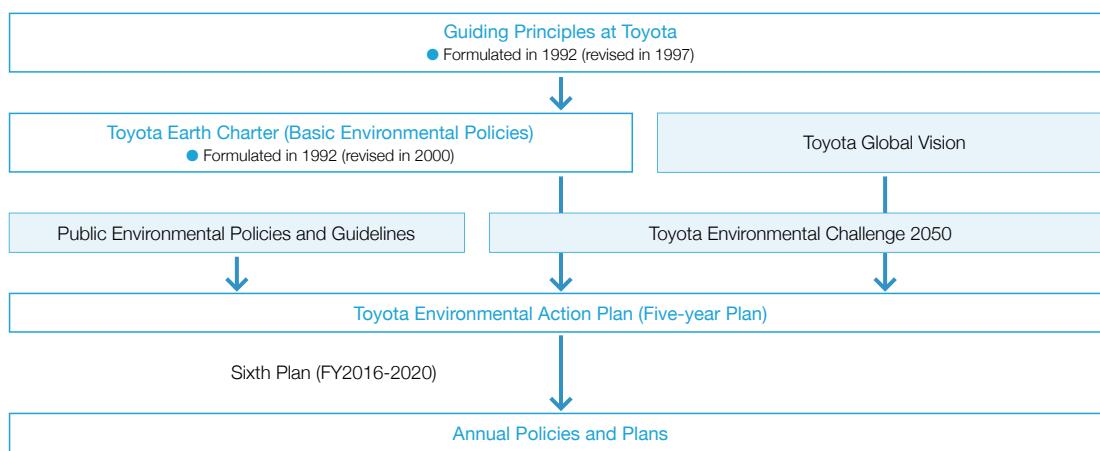
### Fundamental Approach

Toyota's environmental philosophy and policies are based on the Guiding Principles at Toyota established in 1992 (revised in 1997). Policies for environmental initiatives were formulated in 1992 as the Toyota Earth Charter (revised in 2000). This Charter is shared among 661 Toyota affiliates\* subject to the Consolidated Environmental Management System (consolidated EMS) around the world.

The Toyota Global Vision announced in 2011 emphasizes the importance of "Respect for the Planet." Based on its philosophy and policies, Toyota formulated the Toyota Environmental Challenge 2050 in FY2015 as its first long-term vision for environmental initiatives. In FY2016, Toyota started the Sixth Toyota Environmental Action Plan (FY2016-2020), initiating new programs for sustainable development in harmony with society toward the year 2050.

\* Since FY2016, in addition to the subsidiaries based on the formal standards, those based on the effective control standards have also been added due to the amendment of the Japanese Companies Act.

### Structure of Toyota's Environmental Management System



### Toyota Earth Charter

#### I. Basic Policy

##### 1. Contribution toward a prosperous 21st century society

Contribute toward a prosperous 21st century society. Aim for growth that is in harmony with the environment and set as a challenge the achievement of zero emissions throughout all areas of business activities.

##### 2. Pursuit of environmental technologies

Pursue all possible environmental technologies, developing and establishing new technologies to enable the environment and economy to coexist harmoniously.

##### 3. Voluntary actions

Develop a voluntary improvement plan, based on thorough preventive measures and compliance with laws, which addresses environmental issues on the global, national, and regional scales, and promotes continuous implementation.

##### 4. Working in cooperation with society

Build close and cooperative relationships with a wide spectrum of individuals and organizations involved in environmental preservation, including governments, local municipalities, related companies and industries.

#### II. Action Guidelines

##### 1. Always be concerned about the environment

Take on the challenge of achieving zero emissions at all stages, i.e., production, utilization, and disposal.

- (1) Develop and provide products with top-level environmental performance
- (2) Pursue production activities that do not generate waste
- (3) Implement thorough preventive measures
- (4) Promote businesses that contribute toward environmental improvement

##### 2. Business partners are partners in creating a better environment

Cooperate with associated companies.

##### 3. As a member of society

Actively participate in social actions.

- (1) Participate in the creation of a recycling-based society
- (2) Support government environmental policies
- (3) Contribute to non-profit activities

##### 4. Toward better understanding

Actively disclose information and promote environmental awareness.

#### III. Organization in Charge

Promotion by the Corporate Planning Meeting which consists of top management

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## Environment | Environmental Management

### Promotion Structure and Framework

Since April 2015, the Corporate Planning Meeting has deliberated on growth and business strategies with a wide range of challenges taken into consideration. Environmental initiatives along with business strategies are discussed in this meeting.

TMC has three core environment-related committees: the Environmental Product Design Assessment Committee, the Production Environment Committee, and the Resource Recycling Committee. These committees consider their issues and responses and all relevant divisions work together to promote company-wide initiatives.

As the foundation of our consolidated environmental management system (EMS), Environment Committees have been established in six regions around the world where Toyota operates business (Europe, China, South Africa, Asia Pacific, North America, South America). These committees steadily promote environmental initiatives and enhance our global responses.

In Japan, we promote consolidated environmental initiatives through established meeting bodies including the All-Toyota Production Environment Conference, the All-Toyota Production Environment Meeting, and the All-Toyota Logistics Environment Conference.

### Organizational Structure (as of the End of June 2017)



\* PDCA: The circular process of Plan-Do-Check-Act to continually improve business

### Main Companies Subject to Consolidated EMS in Japan (Alphabetical Order)

#### Production Companies

Group 1	Group 2	Group 3	Group 4	Group 5
• Consolidated subsidiaries • Automotive production companies and others • TMC secondary companies	• Companies not subject to consolidated accounting • Main parts manufacturers • Body manufacturers, etc.	• Consolidated subsidiaries • Parts manufacturers	• Consolidated subsidiaries • Various other products production companies	• Companies not subject to consolidated accounting • Parts manufacturers
Daihatsu Motor Co., Ltd. Gifu Auto Body Co., Ltd. Hino Motors, Ltd. Toyota Auto Body Co., Ltd. Toyota Motor East Japan, Inc. Toyota Motor Hokkaido, Inc. Toyota Motor Kyushu, Inc.	Aisan Industry Co., Ltd. Aisin AI Co., Ltd. Aisin AW Co., Ltd. Aisin Seiki Co., Ltd. Aisin Takaoka Co., Ltd. Denso Corporation JTEKT Corporation Tokai Rika Co., Ltd. Toyoda Gosei Co., Ltd. Toyota Boshoku Corporation Toyota Industries Corporation Toyota Tsusho Corporation	Cataler Corporation Central Motor Wheel Co., Ltd. Kyoho Machine Works, Ltd. Primearth EV Energy Co., Ltd. Toyota Home Co., Ltd. Yutaka Seimitsu Kogyo, Ltd.	Admatechs Co., Ltd. Japan Chemical Industries Co., Ltd. Shintec Hozumi Co., Ltd. Toyota Turbine and Systems Inc.	Chuo Pack Industry Co., Ltd. Chuo Spring Co., Ltd. Fine Sinter Co., Ltd. FTS Co., Ltd. Futaba Industrial Co., Ltd. Koto Manufacturing Co., Ltd. Kyowa Leather Cloth Co., Ltd. Taito Kogyo Co., Ltd. Toyoda Iron Works Co., Ltd. Trinity Industrial Corporation Tsuda Industries Co., Ltd.
All-Toyota Production Environment Conference Members		All-Toyota Production Environment Meeting Members		All-Toyota Logistics Environment Conference Members

#### Governance

#### CSR Achievement Data / ISO 26000 Comparison

### Scope of Companies Subject to Consolidated EMS

The consolidated EMS scope covers all consolidated subsidiaries\* on the financial accounting basis and non-consolidated subsidiaries considered material from the viewpoint of environmental management. The 661 consolidated EMS companies consist of 242 production and sales companies under the direct control of TMC (13 production and sales companies, 80 production companies, and 149 non-production companies), as well as 419 companies managed by way of consolidated subsidiaries.

\* Since FY2016, in addition to the subsidiaries based on the formal standards, those based on the effective control standards have also been added.

### Details of Actions

1. Jointly adopt the Toyota Earth Charter and draft individual environmental policies
  2. In production, set quantitative goals and follow up on those goals
  3. In sales, develop environmental management systems, and carry out environmental communication and other initiatives
  4. Implement top-level environmental responses based on actual conditions in each country and region
- TMC's requirements for non-consolidated companies on the financial accounting basis may vary according to region and the nature of business.

### Scope of Overseas Consolidated EMS (as of the End of March 2017)



(as of March 31, 2017)

#### Sales Companies

Fukuoka Toyopet Corporation  
Shizuoka Toyota Motor Co., Ltd.  
Toyota Corolla Aichi Co., Ltd.  
Total: 31 companies

#### Logistics Companies

• Consolidated subsidiaries  
• Finished vehicle distribution  
• Parts distribution

Aichi Rikuun Co., Ltd.  
Tobishima Logistics Service, Inc.  
Toyofuji Shipping Co., Ltd.  
Toyota Transportation Co., Ltd.

#### Other Business

TACTI Corporation  
Toyota Central R&D Labs., Inc.  
Toyota Enterprises Inc.  
Toyota Modelista International Corporation  
Toyota Technocraft Co., Ltd.  
and others  
Total: 45 companies

\* Including one company not subject to consolidated accounting



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## Environment | Environmental Management

### Promote Strengthening of Consolidated Environmental Management

#### Environmental Performance in Each Country and Region

Toyota formulates annual policies and conducts initiatives based on the policies to ensure that all business activities achieve top levels of environmental performance.

In FY2016, each of our production and sales companies formulated fiscal year plans and promoted measures to ensure achievement of the plan goals.

#### Action Policies and Results of Major Affiliates Implementing Consolidated Environmental Management in FY2016

	Action Policy	Goals	Activity Results
Overall	<ul style="list-style-type: none"> <li>• Promote environmental management through strengthened cooperation with each region</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve goals in all areas</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthened consolidated environmental management</li> <li>• Carried out environmental meetings in Japan and overseas</li> <li>• Conducted global ECO Awards</li> <li>• Promoted activities under the Sixth Toyota Environmental Action Plan</li> </ul>
Production (83 companies) Japan (40 companies) Overseas (43 companies*)	<ul style="list-style-type: none"> <li>• All companies to implement initiatives toward achieving FY2016 goals</li> <li>• All companies to strengthen activities to prevent recurrence of non-compliance and complaints</li> <li>• Maintain and improve environmental management systems</li> </ul>	<ul style="list-style-type: none"> <li>• Achieve goals in Japan and other regions</li> <li>• Zero non-compliance and complaints</li> <li>• Renew ISO 14001 certification</li> </ul>	<ul style="list-style-type: none"> <li>• All companies implemented systematic measures and nearly all the goals were achieved</li> <li>• While there were no major issues, there were six minor incidents of non-compliance (non-compliance: 5 incidents in Japan excluding those at TMC; complaints: 1 incidents)</li> <li>• ISO 14001 acquisition: 100% in Japan and overseas</li> </ul>
Sales (107 companies) Japan (55 companies) Overseas (52 companies*)	<ul style="list-style-type: none"> <li>• Promote environmental initiatives by ensuring thorough implementation of CSR checklist among dealers, reducing CO<sub>2</sub> emissions by improving environmental management, and supporting third-party certification</li> <li>• Promote and strengthen environmental initiatives led by regional headquarters and distributors in each country</li> <li>• Promote and strengthen Dealer Environmental Risk Audit Program (DERAP)<sup>②</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Increase number of dealers acquiring EMS certification</li> <li>• Build environmental initiative promotion frameworks in each region</li> <li>• Percentage of dealers that achieved goals: 80% or more</li> </ul>	<ul style="list-style-type: none"> <li>• Dealers acquiring Eco-Action 21<sup>①</sup> certification: 7</li> <li>• Environmental activities framework under way according to plans in each region</li> <li>• Percentage of dealers achieving goal: 91%</li> </ul>

\*1 Eco-Action 21: An easy-to-adopt guideline by Ministry of the Environment of Japan under which companies raise their environmental awareness, set goals, and take action. The guideline integrates environmental management systems, environmental performance assessment, and environmental reporting into a single system.

\*2 DERAP: Toyota uses DERAP to reduce environmental risks at overseas dealer service shops.

\* Includes the 12 production and sales companies

\* The 65 other Toyota Group companies in Japan and overseas are implementing individual activities on their own initiative.

#### Eco-factory Activities

Toyota is promoting eco-factory activities with the aim of surely incorporating environmental measures into plant activities, and becoming No. 1 regional plant. Our eco-factory activities are to build and develop a mechanism which surely incorporates environmental measures into each stage from planning to design and operations. These measures will be utilized for projects such as construction of new plants, major renovations of existing plants, and capacity

expansions. We confirm environmental consciousness through *genchi genbutsu* (on site, hands on) and rectify issues to ensure our environmental measures are performed.

In 2016, we carried out eco-factory measures at eight plants around the world, in Mexico, China, Brazil, Indonesia, and Malaysia. We will continue to promote eco-factory activities as a means to contribute to regional environmental conservation around the world.

#### Eco-factory Activities

Region	Mexico	China				Brazil	Indonesia	Malaysia
Office, plant	TMMGT	TMCAP	GTE*	GTMC Plant No.3	TFTM new plant	TDB new engine plant	TMMIN new engine plant	ASSB Plant No. 2
Planning stage	2016							2016
Audits of facility specifications	2017			2016	2016			2017
On-site audit (building)	2018			2017	2017			2018
On-site audit (equipment)	2018			2017	2018			2018
Compliance and risk assessment	2019		2016	2018	2019	2016	2016	2019
Performance assessment	2020	2016		2019	2020	2016	2017	2020

\* Plants expanding production capacity (since FY2013)

\* The years indicate activities implemented in FY2016 or planned for fiscal years thereafter

: Completed



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## Environment | Environmental Management

### Global ECO. Awards

Toyota conducts its own Global ECO. Awards to encourage *kaizen* activities at overseas affiliates and promote *yokoten*\* (sharing) of the best improvement practices throughout the Toyota Group. In FY2016, six finalists out of 19 teams selected from six regions around the world were invited to give their presentations in Japan.

Toyota do Brasil (TDB) won the Platinum Award for its continuous CO<sub>2</sub> reduction initiatives. The remaining five teams, all winners of the Gold Awards, also made impressive presentations on their important issues, sharing the examples of their excellent achievements.

\* *Yokoten* (sharing): Promoting the sharing of information on non-compliance incidents, improvement practices, and know-how throughout the Toyota Group.

### Award Results

Award Categories		Award for On-site Kaizen Activity	Award for Affiliates with the Best Performance
Area	Production	Production Affiliate (Plant)	Production Affiliate (Plant)
Platinum Award	Logistics	Administration, Production and Logistics affiliate	
		TDB (Brazil) ..... <a href="#">Challenge 3 P96</a>	TMMK (U.S.) TMMI (U.S.) TMMMS (U.S.) FTCE (China)
Gold Awards		TMMC (Canada) TSAM (South Africa) ..... <a href="#">Challenge 4 P100</a> GTMC (China) TMCP (China) TMT (Thailand) ..... <a href="#">Challenge 2 P92</a>	
Silver Awards		TMMWV (U.S.) TMMMS (U.S.) ..... <a href="#">Challenge 4 P100</a> Toyota Logistics Services, Inc. (U.S.) TMMP (Poland) TMMF (France) Toyota Logistics Services Deutschland GmbH (Germany) TSAM (South Africa) TFTM (China) GTE (China) TKM (India) ..... <a href="#">Challenge 5 P106</a> TMT Ban Pho Plant (Thailand) TMT Gateway Plant (Thailand) TASA (Argentina) ..... <a href="#">Challenge 4 P100</a>	 Platinum Award winners from TDB members with then TMC Senior Managing Officer Hirofumi Muta

### Legal Compliance Activities

Toyota aims to ensure that its production activities pose zero environmental risk to local communities. The foundation of our efforts is preventive measures to avoid non-compliance issues and complaints. Neglecting preventive measures can lead to situations where non-compliance may occur. We consider these situations to be non-compliance near-misses, and we take stringent measures to root out the causes of these near-misses and prevent reoccurrence. For incidents posing significant risk, we implement *yokoten* (sharing) of reoccurrence prevention measures through environmental affairs meetings at all Group companies. Additionally, we are taking measures to completely eliminate the use of ozone-depleting substances (ODS). In FY2016, Toyota was not involved in any major environmental incidents causing air or water pollution, nor was the Group subject to fines or penalties. However, in one incident at the Toyota Honsha Plant in Japan, a hose for facility cooling water became detached and leaked cooling water around the equipment, causing oil waste to be discharged into a local river through rainwater ditches. The plant immediately notified local government authorities and took measures to collect the oil film.

To prevent reoccurrence, the plant improved the hose connection and attached an oil monitor on the rainwater tank to alert the plant of abnormalities prior to discharge, sharing these measures.

Regarding reporting and storage of Poly Chlorinated Biphenyl (PCB) waste, in accordance with the Law Concerning Special Measures against PCB Waste of Japan, since FY2005 we have used outside subcontractors to handle high concentration PCB waste. So far we have completed the disposal of 5,243 containers of waste, and we will continue to work with subcontractors to dispose of the remaining four units of transformers and condensers. For equipment containing low concentration PCB waste, we have been updating our plans on a regular basis and are progressing with proper disposal.

At six of our production plants, we completed groundwater pollution prevention measures in 1997. We continue to conduct pumping aeration and purification to complete purification and ensure that groundwater is purified to levels below standards.

The levels of trichloroethylene at production plants are reported to the government and to local councils in the surrounding communities.

[Environmental Data P126-O. P](#)

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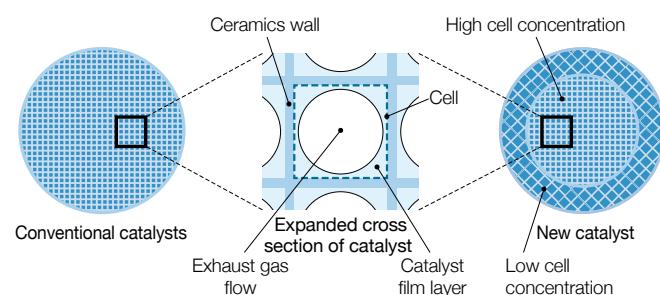
## Environment | Environmental Management

### Reduce Vehicle Exhaust Emissions to Improve Urban Air Quality in Each Country and Region

To improve air quality Toyota has been working on research and development for new catalyst technologies which enhance air purification performance to ensure vehicle exhaust gas emissions as clean as possible.

In FY2016, we commercialized the catalyst using the world's first FLAD® substrate. This substrate is integrally molded with different cell cross-sectional area at the inner portion compared to the outer portion. Developed jointly with Denso Corporation, FLAD® exhibits optimal cell density at both the inner and outer portions, which enables a uniform flow of exhaust gas through the catalyst. As a result, it uses 20 percent less precious metal in approximately 20 percent less volume, while maintaining the same exhaust gas purification performance as the conventional type. The new catalyst debuted in the Lexus LC series in March 2017 and will be gradually rolled out in other new models.

Toyota will continue collaborating with Group companies and partners to actively develop new catalyst technologies which use fewer precious metals and achieve cleaner exhaust gas emissions.



### Reduce VOC Emissions in Production Activities

Volatile Organic Compounds (VOCs\*) are one of the causes of photochemical oxidation, the cause of photochemical smog. Toyota has been striving to reduce VOCs emitted in vehicle painting processes. Specifically, we have reduced the use of paints and thinners, continuously promoting initiatives linked to painting facility refurbishment plans and day-to-day activities to reduce VOC emissions.

For FY2016, as a result of continuous day-to-day activities to reduce VOC emissions, the volume of VOC emissions per area painted in TMC body painting processes (average for all lines) was 14.6 g/m<sup>2</sup> (down 8% year on year). For TMC and its consolidated subsidiaries in Japan, VOC emissions volume was 21.5 g/m<sup>2</sup> (down 1.5 % year on year). The volume of VOC emissions per area painted in TMC bumper painting processes (average for all lines) was 193 g/m<sup>2</sup> (down 24% year on year).

\* VOC (Volatile Organic Compounds): Used in painting, adhesives, and other products, VOCs are volatile at room temperature under normal pressure. VOCs cause air pollution and soil contamination, raising concerns about the influence on the human body.

#### Trends in VOC Emissions Volume in Vehicle Body Painting Processes at TMC in Japan (Average for All Lines)

Third Party Assurance

FY	2012	2013	2014	2015	2016
(Unit: g/m <sup>2</sup> )					
VOC emissions per area painted	20.0	18.8	17.2	15.8	<b>14.6</b>

#### Trends in VOC Emissions Volume in Vehicle Body Painting Processes by Consolidated Subsidiaries in Japan

FY	2012	2013	2014	2015	2016
(Unit: g/m <sup>2</sup> )					
VOC emissions per area painted	24.6	24.1	22.6	21.8	<b>21.5</b>

• Vehicle assembly plants of TMC and consolidated subsidiaries and other companies in Japan, a total of eight companies

#### Trends in VOC Emissions Volume in Bumper Painting Processes at TMC in Japan (Average for All Lines)

FY	2012	2013	2014	2015	2016
(Unit: g/m <sup>2</sup> )					
VOC emissions per area painted	319	310	282	253	<b>193</b>

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## Environment | Environmental Management

### Promote Environmental Activities in Cooperation with Business Partners (Suppliers)

Toyota purchases a wide range of materials, parts, and equipment from many different suppliers. We have collaborated with suppliers on implementing environmental initiatives through Green Purchasing Guidelines<sup>\*1</sup>, seminars, and other means. Ensuring compliance with each country's laws and regulations and improving the management of substances of concern are fundamental requirements for suppliers. Additionally, after releasing the Toyota Environmental

Challenge 2050, we revised the "Toyota Green Purchasing Guidelines" in January 2016, asking suppliers to promote a broad range of environmental initiatives to reduce greenhouse gases (GHG) and protect ecosystems in support of the Challenge. We have been working even closer with suppliers to that end.

<sup>\*1</sup> Green Purchasing Guidelines: Prioritizing the purchase of parts, materials, equipment, and services with a low environmental footprint when manufacturing products.

#### Completed Revision of the Green Purchasing Guidelines Globally

Toyota conducts purchasing not only in Japan, but in regions around the world. Each affiliate has its own Green Purchasing Guidelines. After the revision of the Toyota Green Purchasing Guidelines in Japan (completed in January 2016), 36 overseas affiliates in 15 countries also revised their guidelines in FY2016. Affiliates also held seminars and other events in their respective countries to raise awareness and compliance.



From left, Green Purchasing Guidelines of TME (Europe), TDEM (Thailand), and Kuozi Motors (Taiwan)

#### Mutual Study about the Environment

Toyota holds an annual CSR Study Meeting in Japan attended by many suppliers. In FY2016, the lecture featured the Toyota Environmental Challenge 2050 as its main theme. At the Head Office in Japan, we promote environmental activities through a special exhibition corner featuring the Six Challenges along with videos and pamphlets designed to provide information and raise awareness.

#### Assessing Risks and Opportunities Related to Climate Change and the Water Environment in Supply Chains

We introduced the CDP Supply Chain<sup>\*2</sup> Program in FY2015 to support the continual implementation and improvement of environmental initiatives conducted with suppliers. The program enables us to assess environmental risks and opportunities across the supply chain. We have been enhancing the program's activities through briefings and other types of communication with suppliers.

<sup>\*2</sup> Supply chain: The entire flow of business activities related to a product, from procurement of materials for manufacturing, to production control, logistics, and sales.

#### Ensuring Compliance with REACH and Other Global Regulations on Chemical Substances

In order to minimize severe negative impacts on human health and the environment due to the production and usage of chemical substances, nations are strengthening laws related to chemical substances, which include the Chemical Substances Control Law in Japan, and the ELV Directive<sup>\*3</sup> and REACH regulation<sup>\*4</sup> in Europe. To properly respond to these regulations, Toyota has built and is operating chemical substance management frameworks in cooperation with its suppliers.

In FY2016, we requested suppliers in Japan to conduct self-assessments of their operations. Based on the results, we have been working with suppliers to take further measures.

<sup>\*3</sup> End of Life Vehicles (ELV) Directive: A European Union directive on vehicle disposal designed to reduce the impact of End-of-life vehicles on the environment

<sup>\*4</sup> Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation: A European Union regulation for managing chemical substances to protect human health and the environment.



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## Environment | Environmental Management

### Promote Environmental Activities in Cooperation with Business Partners (Dealers and Distributors)

Toyota has strong bonds of trust with its dealers and distributors built on shared values for products and services, supporting a long history of collaborative initiatives in environmental activities. Given their direct contact with customers, dealers are a critical partner in carrying out environmental initiatives. Therefore, we are fully implementing a CSR checklist among Toyota dealers in Japan

and taking measures to enhance environmental controls to reduce CO<sub>2</sub> emissions.

In overseas regions, we strongly promote environmental management through environmental activities led by regional headquarters and distributors along with continual DERAP implementation.

#### Promoting Environmental Initiatives at Domestic Dealers

The Toyota National Dealers' Advisory Council (TNDAC) promotes unified efforts among all dealers in Japan to implement voluntary activities based on the Toyota Dealer CSR Guidelines set forth in 2005. To further promote environmental initiatives, TNDAC encourages dealers to attain third-party certification of their environmental management systems and accelerate the development of environmentally conscious dealerships and human resources, in which we aim to bolster customer trust in Toyota dealers. In FY2016, we used the Toyota dealer CSR checklist to promote thorough environmental assessments at dealers while also encouraging the acquisition of Eco-Action 21 accreditation. As a result, seven additional dealers attained Eco-Action 21 accreditation. Moving forward, we will strive to improve environmental initiatives by working together with dealers to enhance environmental performance and planning Toyota's new initiatives.

#### Raise Ratio of Dealers Achieving DERAP

Toyota continues the Dealer Environmental Risk Audit Program (DERAP) to reduce environmental risks at overseas dealer service shops. These audits aim to establish a framework to deal with five fundamental environmental requirements, including the proper management of waste and treatment of wastewater.

In FY2016, 83 distributors and 4,233 dealers from 80 countries worldwide participated in the program, representing an increase of 12 distributors and 253 dealers from FY2015. 91 percent of these participating dealers satisfied the five requirements (up 2% year on year).

Globally, there are still many Toyota distributors and dealers which do not participate in the program. We will continue to support expansion of DERAP participation and promote the activities of the participating companies. We will also be responsible for creating environmental guidelines of each overseas region based on global environmental guidelines for dealers and distributors, tracking the progress of their operation.

#### TDB and ABRADIT Jointly Recognize Eco Dealers (Brazil)

ABRADIT, the association of Toyota dealers in Brazil, was founded in 1975 to unify local dealer initiatives. Since then, ABRADIT has collaborated with production and sales company Toyota do Brasil (TDB) on various initiatives contributing to the success of local dealers.

In 2015, TDB and ABRADIT jointly launched the Eco Dealer Award as a way to raise environmental awareness following a nationwide drought in Brazil in 2014. In FY2016, the second year of the program, dealers submitted 13 projects for consideration under the theme of energy efficiency. The Kurumá Veículos team won the grand prize for its adoption of LED lighting and energy-efficient air conditioning systems.



TDB executives join award candidates

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## Environment | Environmental Management

### Further Strengthen Global Employee Education and Awareness Activities

In accordance with the national policies of Japan, Toyota designated June as its “Toyota Environment Month” in 1973 and has been taking measures since then to raise employees’ awareness and actions for the environment. In 1991, we changed the name to “Toyota Global Environment Month,” expanding our activities globally.

We ensure that all global employees are aware of Toyota Global Environment Month by displaying a common poster worldwide, distributing the President’s message on the environment through global affiliates in their local languages, and making event-related notifications on monitors at various locations throughout company sites and on the intranet.

To further raise awareness during Toyota Global Environment Month, our in-house environment character “Ecoba” made appearances at the main gate of our plants during commute times and in cafeterias at lunch time.

At our environmental lectures, astronaut Ms. Naoko Yamazaki discussed global warming and the recent issue of space debris,

while also praising Toyota for announcing the Toyota Environmental Challenge 2050 as our plan to voluntarily tackle various environmental issues. The lecture was simulcast live, allowing more than 1,100 people to enjoy Ms. Yamazaki’s valuable insights. Since 2017, we have been accelerating initiatives throughout the year, such as conducting internal environmental seminars by the general manager from the Environmental Affairs Division and reimbursing test fees for employees who have passed the certification test for environmental specialists (Eco Test) sponsored by the Tokyo Chamber of Commerce and Industry.



“Ecoba” makes appearance at a site



Astronaut Ms. Naoko Yamazaki delivers a lecture

### Enhance Active Disclosure of Environmental Information and Communication

Toyota Motor Corporation (TMC) strives to proactively disclose environmental information and enhance its communication through an annual Environmental Report, its website, and events.

In February 2017, our Environmental Report 2016 won the Excellence Prize in the Global Warming Countermeasure Reporting Category of the 20th Environmental Communication Awards sponsored by Ministry of the Environment of Japan and other organizations. In March 2017, TMC unveiled a new video contents website, “econohito,” which features employees striving to carry out environmental initiatives in support of the Toyota Environmental Challenge 2050.

Toyota's overseas consolidated subsidiaries actively engage in

environmental communication with a broad range of stakeholders in accordance with the needs of each country and region.



Awards ceremony for Environmental Communication Awards



Video content “econohito”

> Toyota Environmental Challenge 2050 > FY2016 Review of Sixth Toyota Environmental Action Plan > Challenge 1 New Vehicle Zero CO<sub>2</sub> Emissions Challenge > Challenge 2 Life Cycle Zero CO<sub>2</sub> Emissions Challenge  
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Environment | Environmental Data

## Environmental Data

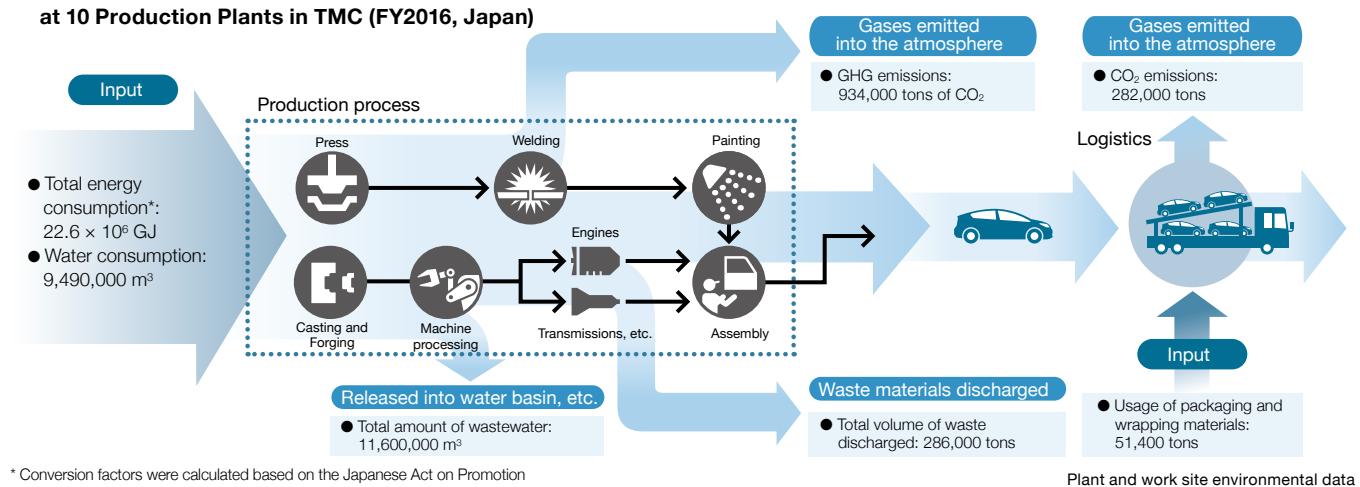
### Challenge 1 New Vehicle Zero CO<sub>2</sub> Emissions Challenge

**A Sales of Clean Energy Vehicles (Global)** Third Party Assurance

Year	2015	2016
(1,000 units)		
Hybrid and plug-in hybrid vehicles	1,203.9	<b>1,400.6</b>
Fuel cell vehicles	0.5	<b>2.0</b>
Total	1,204.4	<b>1,402.6</b>

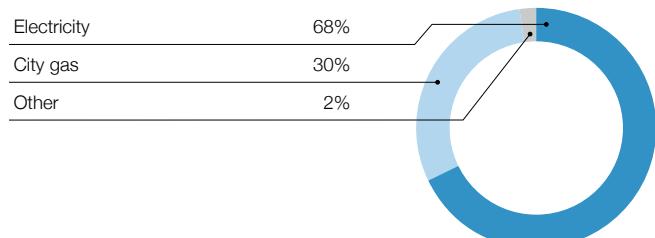
### Challenge 2 Life Cycle Zero CO<sub>2</sub> Emissions Challenge

**B Resources Input and Substances Discharged from Logistics Activities at 10 Production Plants in TMC (FY2016, Japan)**



### Challenge 3 Plant Zero CO<sub>2</sub> Emissions Challenge

**C Calorific Energy Use Ratio at TMC (FY2016, Japan)**



Third Party Assurance

**D Global CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources)**

**FY** Third Party Assurance

	2015	2016
Total CO <sub>2</sub> emissions (million tons)		
TMC	1.55	<b>1.56</b>
Japan (excluding TMC)	4.28	<b>4.35</b>
North America	0.96	<b>1.03</b>
China	0.64	<b>0.66</b>
Europe	0.27	<b>0.30</b>
Asia (excluding Japan), Australia, Middle East, South Africa, Latin America	0.73	<b>0.83</b>
Total emissions	8.43	<b>8.73</b>
Tons/unit		
CO <sub>2</sub> emissions per unit produced	0.828	<b>0.829</b>

• Scope of coverage: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 121 companies

• Conversion factors: Using the Greenhouse Gas (GHG) Protocol

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[Environmental Data P127-W](#)

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## Environment | Environmental Data

### E Global Energy Consumption (from Stationary Emission Sources)

Third Party Assurance

FY	2015	2016
By region		
(PJ <sup>*1</sup> )		
TMC	16.0	<b>16.4</b>
Japan (excluding TMC)	45.8	<b>46.9</b>
North America	12.8	<b>13.9</b>
China	5.5	<b>5.5</b>
Europe	3.3	<b>3.7</b>
Asia (excluding Japan), Australia, Middle East, South Africa, Latin America	7.4	<b>8.1</b>
Total consumption	90.8	<b>94.5</b>
(GJ/unit <sup>*2</sup> )		
Energy consumption per unit produced	8.93	<b>8.97</b>

\*1 PJ (Peta joule): Peta represents 10<sup>15</sup> and a joule is a unit of energy

\*2 GJ (Giga joule): Giga represents 10<sup>9</sup> and a joule is a unit of energy

- Scope of coverage: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 121 companies

[Environmental Data P126-Q](#)

Conversion factors: Using the Greenhouse Gas (GHG) Protocol

[Environmental Data P127-X](#)

FY	2015	2016
By energy type		
(PJ)		
Electricity	37.7	<b>38.5</b>
City gas	28.0	<b>29.5</b>
Natural gas	15.6	<b>17.1</b>
LPG	2.2	<b>2.3</b>
LNG	1.2	<b>1.2</b>
Coke	1.0	<b>0.9</b>
Coal	0.5	<b>0.5</b>
Heavy oil A	1.2	<b>1.0</b>
Diesel oil	0.5	<b>0.4</b>
Kerosene	0.3	<b>0.2</b>
Steam	1.1	<b>1.1</b>
Hot water	0.6	<b>0.6</b>
Others	0.6	<b>0.8</b>
Renewable energy	0.3	<b>0.4</b>
Total consumption	90.8	<b>94.5</b>

### Challenge 4 Challenge of Minimizing and Optimizing Water Usage

#### F Global Water Withdrawal Volume by Source

FY	2016
(million m <sup>3</sup> )	
Municipal water	<b>46.0</b>
Groundwater	<b>9.0</b>
Rainwater	<b>0.2</b>
Wastewater from other organizations	<b>2.1</b>

- Scope of coverage: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 104 companies

#### G Global Water Discharge by Destination

FY	2016
(million m <sup>3</sup> )	
River/lake	<b>23.2</b>
Brackish surface water/seawater	<b>2.6</b>
Sewage	<b>8.9</b>
Other organizations	<b>0.6</b>

- Scope of coverage: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 69 companies

#### H Global Recycled Wastewater

FY	2016
(million m <sup>3</sup> )	
Volume of recycled wastewater	<b>1.4</b>

- Scope of coverage: TMC and consolidated subsidiaries and other companies in Japan and overseas, a total of 15 companies

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## Environment | Environmental Data

### Challenge 5 Challenge of Establishing a Recycling-based Society and Systems

I Trends in Vehicle Recovery Rate and ASR* <sup>1</sup> Recovery Rate at TMC (Japan)						Third Party Assurance
FY	2012	2013	2014	2015	2016	
(%)						
Vehicle recovery rate* <sup>2</sup> (converted into a per-vehicle value)	99	99	99	99	<b>99</b>	

\*1 Automobile Shredder Residue: Residue after vehicles are shredded

\*2 Vehicle recovery rate: Calculated by combining the percentage recycled and recovered through the dismantling and shredding processes, approximately 83% (quoted from the April 2003 joint council report), with the remaining ASR rate of 17% × ASR recovery rate of 98%

\*3 ASR recovery rate: Recovery volume/amount collected

J Trends in Damaged and Removed Bumpers Collected and Recovered at TMC (Japan)					
FY	2012	2013	2014	2015	2016
(thousand pieces)					
Amount collected	951	912	855	809	<b>770</b>
(%)					
Collection rate	723	725	729	694	<b>674</b>

### K Volume of Raw Materials Used and Ratio of Recycled Materials Used (Global)

FY	2016
(million tons)	
Volume of raw materials used	<b>13.9</b>
(%)	
Ratio of recycled materials used	<b>24</b>

### Challenge 6 Challenge of Establishing a Future Society in Harmony with Nature

#### N Results of Toyota Environmental Activities Grant Program (Global)

FY	2012	2013	2014	2015	2016	Cumulative total*
Country/region covered and number of grants						
Asia-Pacific	8	8	7	5	<b>7</b>	<b>105</b>
North America, Latin America	1	0	0	1	<b>0</b>	<b>20</b>
Africa	0	2	1	3	<b>1</b>	<b>29</b>
Europe	0	0	2	1	<b>2</b>	<b>12</b>
Japan	10	14	11	16	<b>18</b>	<b>166</b>
Total	19	24	21	26	<b>28</b>	<b>332</b>

\* FY2000–2016 (grant topics: biodiversity, global warming)



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## Environment | Environmental Data

### Environmental Management

#### **Environment-related Non-compliance Incidents and Complaints at TMC (Japan)**

FY	2012	2013	2014	2015	2016
(Cases)					
Non-compliance incident	1 <sup>*1</sup>	1 <sup>*2</sup>	0	0	1
Complaint	0	0	0	0	0

\*1 See P24 of "Respect for the Planet—Toyota's Environmental Initiatives—2013"

\*2 See P15 of "Respect for the Planet—Toyota's Environmental Initiatives—2014"

- Number of non-compliance incidents and complaints are determined based on internal standards

#### **P Trichloroethylene Levels at TMC (FY2016, Japan)**

Third Party Assurance

Plant	Levels of Groundwater before Remediation
mg/L (Environmental standard value: 0.01)	
Honsha Plant	Less than 0.002-0.93
Motomachi	Less than 0.002-0.12
Kamigo	Less than 0.002-0.10
Takaoka	Less than 0.002-0.18
Miyoshi	Less than 0.002-0.10
Tsutsumi	Less than 0.002-0.27

- In 1997, Toyota completed implementation of measures to prevent outflow of groundwater at the six production plants listed above.
- Toyota is continuing groundwater remediation using pump and aeration treatment without exceeding the standard values.
- Trichloroethylene levels are reported to the authorities concerned.
- Levels are also explained to citizens at local council meetings.
- Measurements are taken at all Toyota Motor Corporation (TMC) plants, and nothing is detected at plants other than those listed.
- The levels are expressed as a range since each plant includes multiple measurement points.

#### **Q Scope of Data Coverage (TMC and Consolidated Subsidiaries and Other Companies in Japan and Overseas, a Total of 121 Companies)**

Third Party Assurance

TMC: One company

Japan: 39 of the main companies subject to consolidated EMS (P44) and their subsidiaries, a total of 77 companies

Group 1	Group 2	Group 3	Group 4	Group 5
Gifu Auto Body Co., Ltd.	Aisan Industry Co., Ltd.	Cataler Corporation	Admatechs Co., Ltd.	FTS Co., Ltd.
Daihatsu Motor Co., Ltd.	Aisin AW Co., Ltd.	Kyoho Machine Works, Ltd.	Shintec Hozumi Co., Ltd.	Kyowa Leather Cloth Co., Ltd.
Toyota Motor Kyushu, Inc.	Aisin AI Co., Ltd.	Central Motor Wheel Co., Ltd.	Toyota Turbine and Systems Inc.	Koito Manufacturing Co., Ltd.
Toyota Motor East Japan, Inc.	Aisin Seiki Co., Ltd.	Toyota Home Co., Ltd.	Japan Chemical Industries Co., Ltd.	Taiho Kogyo Co., Ltd.
Toyota Motor Hokkaido, Inc.	Aisin Takaoka Co., Ltd.	Primearth EV Energy Co., Ltd.		Chuo Pack Industry Co., Ltd.
Toyota Auto Body Co., Ltd.	Aichi Steel Corporation	Yutaka Seimitsu Kogyo, Ltd.		Chuo Spring Co., Ltd.
Hino Motors, Ltd.	JTEKT Corporation			Tsuda Industries Co., Ltd.
	Denso Corporation			Toyoda Iron Works Co., Ltd.
	Tokai Rika Co., Ltd.			Trinity Industrial Corporation
	Toyota Gosei Co., Ltd.			Fine Sinter Co., Ltd.
	Toyota Industries Corporation			
	Toyota Boshoku Corporation			

Overseas: 43 production companies and production/sales companies

North America	China	Europe	Asia (excluding Japan), Australia, Middle East, South Africa, Latin America
TMMK (U.S.)	TFTM	TMR (Russia)	TSAM (South Africa)
TMMI (U.S.)	TFTD	TMMP (Poland)	Kuozui (Taiwan)
TMMWV (U.S.)	TTFC	TMMF (France)	TMCA (Australia)
TMMAL (U.S.)	TFAP	TMUK (U.K.)	TASA (Argentina)
TMMTX (U.S.)	TTFE	TMMT (Turkey)	TDB (Brazil)
TMMMS (U.S.)	FTCE	TPCA (Czech Republic)	TDV (Venezuela)
BODINE (U.S.)	SFTM		
TABC (U.S.)	GTMC		
TMMC (Canada)	GTE		
CAPTIN (Canada)	TMCAP		
TMMBC (Mexico)			

#### **R Global Average CO<sub>2</sub> Emissions from New Vehicles (Japan, U.S., Europe, China) Conversion Factors Used to Calculate Reduction Rate versus FY2010**

Gasoline	2.32 kg-CO <sub>2</sub> /L
Diesel oil	2.58 kg-CO <sub>2</sub> /L

- "Greenhouse Gas Emissions Accounting and Reporting Manual" (version 4.3), Japanese Act on Promotion of Global Warming Countermeasures



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## Environment | Environmental Data

### **S Conversion Factors Used to Calculate Respective Emission Volume of 15 Categories in Scope 3 and Ratio of Total Emissions**

Category	Conversion factors								
Category 1: Purchased goods and services	<ul style="list-style-type: none"> <li>• Ministry of the Environment of Japan, "Emissions of Japan Units Database for Accounting for Organizations' Greenhouse Gas Emissions, etc. Throughout the Supply Chain" (version 2.4)</li> </ul>								
Category 2: Capital goods	<ul style="list-style-type: none"> <li>• Japan Environmental Management Association for Industry, "Carbon Footprint Communication Program, Basic Database" (version 1.01)</li> </ul>								
Category 3: Fuel- and energy-related activities (not included in Scope 1 and Scope 2)	<ul style="list-style-type: none"> <li>• "Greenhouse Gas Emissions Accounting and Reporting Manual" (version 4.3), Japanese Act on Promotion of Global Warming Countermeasures</li> </ul>								
Category 5: Waste generated in business operations	<ul style="list-style-type: none"> <li>• Ministry of the Environment of Japan, "Emissions Units Database for Accounting for Organizations' Greenhouse Gas Emissions, etc. Throughout the Supply Chain" (version 2.4)</li> </ul>								
Category 6: Business travel	<ul style="list-style-type: none"> <li>• Ministry of the Environment of Japan, "Emissions Units Database for Accounting for Organizations' Greenhouse Gas Emissions, etc. Throughout the Supply Chain" (version 2.4)</li> </ul>								
Category 7: Employee commuting	<ul style="list-style-type: none"> <li>• Ministry of the Environment of Japan, "Emissions Units Database for Accounting for Organizations' Greenhouse Gas Emissions, etc. Throughout the Supply Chain" (version 2.4)</li> <li>• Japan Environmental Management Association for Industry, "Carbon Footprint Communication Program, Basic Database" (version 1.01)</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Gasoline</td> <td>2.66 kg-CO<sub>2</sub>/L</td> </tr> <tr> <td>Diesel oil</td> <td>2.74 kg-CO<sub>2</sub>/L</td> </tr> </table>	Gasoline	2.66 kg-CO <sub>2</sub> /L	Diesel oil	2.74 kg-CO <sub>2</sub> /L				
Gasoline	2.66 kg-CO <sub>2</sub> /L								
Diesel oil	2.74 kg-CO <sub>2</sub> /L								
Category 9: Transportation and distribution (downstream)	<ul style="list-style-type: none"> <li>• "Greenhouse Gas Emissions Accounting and Reporting Manual" (version 4.3), Japanese Act on Promotion of Global Warming Countermeasures</li> </ul>								
Category 11: Use of sold products	<ul style="list-style-type: none"> <li>• Japan Environmental Management Association for Industry, "Carbon Footprint Communication Program, Basic Database" (version 1.01)</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Gasoline</td> <td>2.66 kg-CO<sub>2</sub>/L</td> </tr> <tr> <td>Diesel oil</td> <td>2.74 kg-CO<sub>2</sub>/L</td> </tr> </table> <ul style="list-style-type: none"> <li>• "Greenhouse Gas Emissions Accounting and Reporting Manual" (version 4.3), Japanese Act on Promotion of Global Warming Countermeasures</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Gasoline</td> <td>2.32 kg-CO<sub>2</sub>/L</td> </tr> <tr> <td>Diesel oil</td> <td>2.58 kg-CO<sub>2</sub>/L</td> </tr> </table>	Gasoline	2.66 kg-CO <sub>2</sub> /L	Diesel oil	2.74 kg-CO <sub>2</sub> /L	Gasoline	2.32 kg-CO <sub>2</sub> /L	Diesel oil	2.58 kg-CO <sub>2</sub> /L
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### **T Trends in Conversion Factors Used to Calculate CO<sub>2</sub> Emissions from Logistics at TMC (Japan)**

Railway	22.0 g-CO <sub>2</sub> /tkm
Vessel	39.0 g-CO <sub>2</sub> /tkm
Gasoline	2.32 kg-CO <sub>2</sub> /L
Diesel	2.62 kg-CO <sub>2</sub> /L
Heavy oil C	2.98 kg-CO <sub>2</sub> /L

- Used "Guidelines on Disclosure of CO<sub>2</sub> Emissions from Transportation & Distribution" (version 3.0) issued by Ministry of Economy of Japan, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism of Japan, and other guidelines

### **U Trends in Conversion Factors Used to Calculate Total CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources) and CO<sub>2</sub> Emissions per Unit Produced at TMC**

Electricity	0.3707 kg-CO <sub>2</sub> /kWh
Heavy oil A	2.6958 kg-CO <sub>2</sub> /L
Heavy oil C	2.9375 kg-CO <sub>2</sub> /L
Kerosene	2.5316 kg-CO <sub>2</sub> /L
LPG	3.0040 kg-CO <sub>2</sub> /kg
City gas	2.1570 kg-CO <sub>2</sub> /Nm <sup>3</sup>
Coke	3.2426 kg-CO <sub>2</sub> /kg
Coal	2.3557 kg-CO <sub>2</sub> /kg
Hot water	0.0570 kg-CO <sub>2</sub> /MJ*
Cold water	0.0570 kg-CO <sub>2</sub> /MJ
Steam	0.0570 kg-CO <sub>2</sub> /MJ

\* MJ (Mega joule): Mega represents 10<sup>6</sup> and a joule is a unit of energy  
• Calculated based on the Nippon Keidanren's 1990 conversion factors

### **V Trends in Conversion Factors Used to Calculate Global CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources) and CO<sub>2</sub> Emissions per Unit Produced**

- GHG Protocol was used to calculate emissions
- Emissions from electric power were calculated using the 2001 conversion factor from the "CO<sub>2</sub> Emissions from Fuel Combustion" from IEA, Paris, France (2007 edition)
- For items other than electric power: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan
- For city gas, steam, hot water, cold water, and coke-oven gas, the conversion factors used were those quoted in the Japanese Act on Promotion of Global Warming Countermeasures (April 2016)

### **W Conversion Factors Used to Calculate Global CO<sub>2</sub> Emissions (from Energy Consumption at Stationary Emission Sources)**

- GHG Protocol was used to calculate emissions
- Emissions from electric power were calculated using the 2014 conversion factor from the "CO<sub>2</sub> Emissions from Fuel Combustion" from IEA, Paris, France (2016 edition)
- For items other than electric power: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan
- For city gas, steam, hot water, cold water, and coke-oven gas, the conversion factors used were those quoted in the Japanese Act on Promotion of Global Warming Countermeasures (April 2016)

### **X Conversion Factors Used to Calculate Global Energy Consumption (from Stationary Emission Sources)**

- Electricity conversion factor is 3.6 (GJ/MWh)
- Other energy conversion factors were based on the Japanese Act on Promotion of Global Warming Countermeasures (April 2016)



> Toyota Environmental Challenge 2050 > FY2016 Review of Sixth Toyota Environmental Action Plan > Challenge 1 New Vehicle Zero CO<sub>2</sub> Emissions Challenge > Challenge 2 Life Cycle Zero CO<sub>2</sub> Emissions Challenge  
 > Challenge 3 Plant Zero CO<sub>2</sub> Emissions Challenge > Challenge 4 Challenge of Minimizing and Optimizing Water Usage > Challenge 5 Challenge of Establishing a Recycling-based Society and Systems  
 > Challenge 6 Challenge of Establishing a Future Society in Harmony with Nature > Environmental Management > Environmental Data

## Environment | Environmental Data

### Environmental Accounting

#### Environmental Costs Scope of coverage: Toyota Motor Corporation

#### FY2015 and 2016 Results Based on Format of Ministry of the Environment of Japan

Third Party Assurance

(billion yen)	Category	Toyota				Five vehicle body manufacturers *1			
		2015		2016		2015		2016	
		Investments	Costs	Investments	Costs	Investments	Costs	Investments	Costs
	(1) Pollution prevention costs	1.1	1.5	0.3	1.4	0.5	2.1	0.3	2.3
Costs within business area	(2) Global environmental conservation costs	14.9	0.8	18.3	0.8	1.5	0.5	1.5	0.5
	(3) Resource recycling costs	0	2.0	0.1	2.0	0.3	1.6	0.4	1.7
Upstream/downstream costs	Recycling-related costs, industry organization shared costs	0	0.5	0	0.5	0	0.1	0	0.1
Management activities costs	Costs for environmental advertisements, environmental reports publishing, full-time environment-related employees, etc.	0	27.0	0	22.5	0	2.2	0	2.2
R&D costs	R&D costs to lower environmental concern	0	379.2	0	395.2	0.4	42.7	0.5	41.8
Social activities costs	Grants, etc. to environmental conservation organizations	0	0.2	0	0.6	0	0	0	0
Environmental damage response costs	Soil and groundwater remediation costs, etc.	0.2	14.2	0.2	9.1	0	0	0	0
Total		16.2	425.4	18.9	432.1	2.7	49.2	2.7	48.6
		441.6		451.0		51.9		51.3	

\*1 Five vehicle body manufacturers: Toyota Motor East Japan, Inc., Daihatsu Motor Co., Ltd., Toyota Auto Body Co., Ltd., Hino Motors, Ltd., Toyota Motor Kyushu, Inc. (total based on each company's respective calculation standards)

#### Economic Effect

##### Substantial Effect

Third Party Assurance

FY	2015		2016		Five vehicle body manufacturers*1	
	2015	2016	2015	2016	2015	2016
(billion yen)						
Reduction in energy costs through energy conservation	0.5	0.6	0.7	2.0		
Reduction in waste processing and treatment costs	-0.2	0.1	0	0		
Sales of recycled products	2.1	2.4	3.9	4.9		
Other (revenues from environmental technologies, etc.)	10.0	10.3	0	0		
Total	12.4	13.4	4.6	6.9		

##### Customer Benefits: Amount of Reduction in Oil Consumption by Switching to Hybrid Vehicles

Third Party Assurance

FY	2015		2016		Cumulative from December 1997 (first-generation Prius launch)
	2015	2016	2015	2016	
(billion yen)					
Japan	215.8	226.8		1,409.8	
Worldwide	595.6	619.5		4,237.6	

##### Customer Benefit Calculation Method (Japan Only)

• Calculation method: (Difference in average annual fuel efficiency\*2 × number of vehicles owned\*3 × average annual mileage\*4 × average gasoline price in each year)\*5

\*2 Difference in fuel efficiency between hybrid vehicles on the road in the fiscal year and corresponding gasoline vehicle models

\*3 Number of vehicles owned by customers as estimated by Toyota from the number of hybrid vehicles sold each year adjusted for average vehicle age

\*4 Calculated by Toyota estimate

\*5 Nationwide average gasoline price in each year in Japan calculated by the Oil Information Center, the Institute of Energy Economics Japan

#### Environmental Efficiency (Sales/Environmental Footprint)

##### CO<sub>2</sub> Index for Vehicle Production (for 10 Plants Only)

Third Party Assurance

FY	2012 2013 2014 2015 2016					
	Index	284	311	319	342	337
(billion yen)						
Sales		9,760	11,040	11,210	11,590	11,480

• Sales/CO<sub>2</sub> emissions is used as an index, with FY1990 as 100

##### Waste Index for Vehicle Production

Third Party Assurance

FY	2012 2013 2014 2015 2016					
	Index	585	628	654	612	600
(billion yen)						
Sales		9,760	11,040	11,210	11,590	11,480

• Sales/waste emissions is used as an index, with FY1990 as 100



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# Corporate Governance

## Fundamental Approach

Toyota regards sustainable growth and the stable, long-term enhancement of corporate value as essential management priorities. Building positive relationships with all stakeholders, including shareholders, customers, business partners, local communities and employees, and consistently providing products that satisfy customers are key to addressing these priorities. To this end, Toyota constantly seeks to enhance corporate governance. Moreover, the Company complies with the general principles of the Corporate Governance Code promulgated in June 2015. The specifics of these efforts are discussed by the Corporate Governance Meeting and reported to the Board of Directors.

In March 2011, Toyota announced the Toyota Global Vision, formulated in light of the operating environment at the time and the Guiding Principles at Toyota. Based on a commitment to being a company that customers will choose and will feel good about having chosen, the Toyota Global Vision clearly defines Toyota's aspirations for the future.

## Actual Results for the Previous Fiscal Year and Major Initiatives for the Current Fiscal Year

### Major Initiatives during FY2016 (result)

- Transformation into a company system for speedy decision-making by consolidating accountability and authority for presidents
- Augmentation of a system to enable the Board of Directors to make decisions and supervise operations effectively
- Comprehensive and coherent communication regarding financial and non-financial information through the issuance of the Sustainable Management Report (Annual Report) and more productive dialogue with stakeholders

### Major Initiatives during FY2017

- In order to further increase the speed of decision-making and operational execution, Toyota is introducing an operating officer system, further clarifying that members of the board of directors are responsible for decision-making and management oversight and that operating officers are responsible for operational execution.
- Toyota is reorganizing its region-based business units into one business unit, "Business Planning & Operation," which will coordinate as a united regional function with the product-based in-house companies.

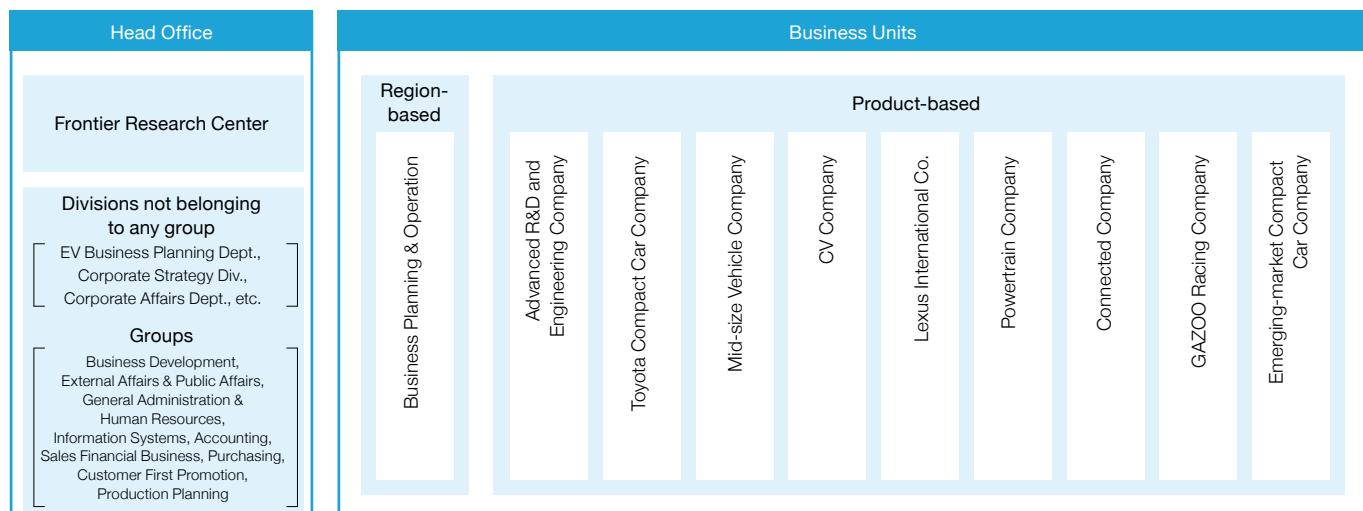
## Organization and Structure

### Business Execution and Supervision

With the aim of achieving the Toyota Global Vision, Toyota has been implementing ongoing revisions in its operational framework in order to quickly respond to the unprecedented rapid changes occurring in the external environment. Toyota introduced region-based operations in 2011, followed by the business unit system in 2013 and the in-house company system in 2016. Under the in-house company

system, product-based in-house companies handle integrated operations spanning from product development to production. These companies work with the Business Planning & Operation Unit to promote the development of ever-better cars from the customer's viewpoint (the existing region-based business units were reorganized into this unit in April 2017).

### "Company-based" Structure Overview



## Governance | Corporate Governance

Furthermore, in April 2017, to accelerate decision-making and business execution, Toyota more clearly delineated the roles of the Members of the Board of Directors as decision making and oversight, and the role of executives as business execution. The Corporate Planning Meeting operates under the Board of Directors. This meeting considers growth strategies, factoring in the positive impacts that Toyota's operations have on various social issues, and works with management to promote CSR and enhance corporate value throughout the Group. The Corporate Governance Meeting provides operational oversight by deliberating on issues

### Board of Directors and Related Systems

Toyota's Board of Directors consists of nine directors (of which three are outside directors). The systems related to the Board of Directors are based on comprehensive considerations with the aim of ensuring prompt, appropriate decision making and appointing the right person to the right position. Toyota believes that it is crucial to appoint individuals who comprehend and are capable of putting into practice its core concepts of making ever-better cars and *genchi genbutsu* (onsite, hands-on experience). Moreover, these individuals must be able to contribute to decision making aimed at sustainable growth into the future. Toyota's Executive Appointment Meeting, half the members of which are Outside Directors, makes recommendations to the Board of Directors regarding such appointments.

### Audit & Supervisory Board

Toyota has adopted an Audit & Supervisory Board system. The six Audit & Supervisory Board Members (including three outside members) play a key role in Toyota's corporate governance by undertaking audits in line with the audit policies and plans established by Audit & Supervisory Board. Toyota's appointments to the Audit & Supervisory Board are based on the belief that candidates must offer broad-ranging experience and insight, particularly in their respective fields of expertise, and be able to audit business execution and advise management from a fair and neutral standpoint. Toyota's Executive Appointment Meeting, half the

related to the governance structure arising in the course of the implementation of these growth strategies.

Toyota has also established an International Advisory Board, comprising experts from around the world. The board provides advice on management issues from a global perspective as needed. Toyota also deliberates on and monitors management and corporate conduct from the diverse stakeholder perspectives provided by a wide variety of meetings, such as the Labor-management Council/Joint Labor-management Round Table Conference.

In order to ensure that outside perspectives are adequately reflected in management decision making, the Company has three Outside Directors, all of whom are registered as independent officers with the relevant financial instruments exchanges. When selecting Outside Directors who will serve as independent officers, Toyota considers the requirements set forth in the Companies Act and the standards of independence established by the relevant financial instruments exchanges. Toyota's Outside Directors draw on their broad experience and insight, including their respective fields of expertise, to inform decision-making from a perspective that is independent of business execution.

members of which are Outside Directors, makes recommendations to the Audit & Supervisory Board regarding such appointments. Three individuals, all of whom are registered as independent officers with the relevant financial instruments exchanges, have been appointed as Outside Audit & Supervisory Board Members. When selecting Outside Audit & Supervisory Board Members, Toyota considers the requirements set forth in the Companies Act as well as the standards of independence established by the relevant financial instruments exchanges.

### Remuneration of Members of the Board of Directors and Audit & Supervisory Board Members

Basic remuneration and bonuses for Members of the Board of Directors are effectively linked to corporate performance while reflecting individual job responsibilities and performance. Remuneration standards in each member's home country are also taken into account when determining remuneration amounts and methods. Bonuses are paid based on the relevant fiscal year's consolidated operating income, comprehensively taking into account dividends, the levels of bonuses for employees, trends at other companies, medium- to long-term business performance and past remuneration. Because the role of Outside Directors includes monitoring and supervising management from an independent

standpoint, they are not paid bonuses. Director remuneration and bonuses are decided by the Board of Directors with reference to proposals submitted by the Executive Remuneration Meeting, half the members of which are Outside Directors.

Remuneration for Audit & Supervisory Board Members consists only of fixed basic payments and does not include bonuses. As a result, this remuneration is not readily impacted by business performance, helping to ensure independence from management. Remuneration for Audit & Supervisory Board Members is determined by the Audit & Supervisory Board within the scope determined by resolution of the Shareholders' Meeting.

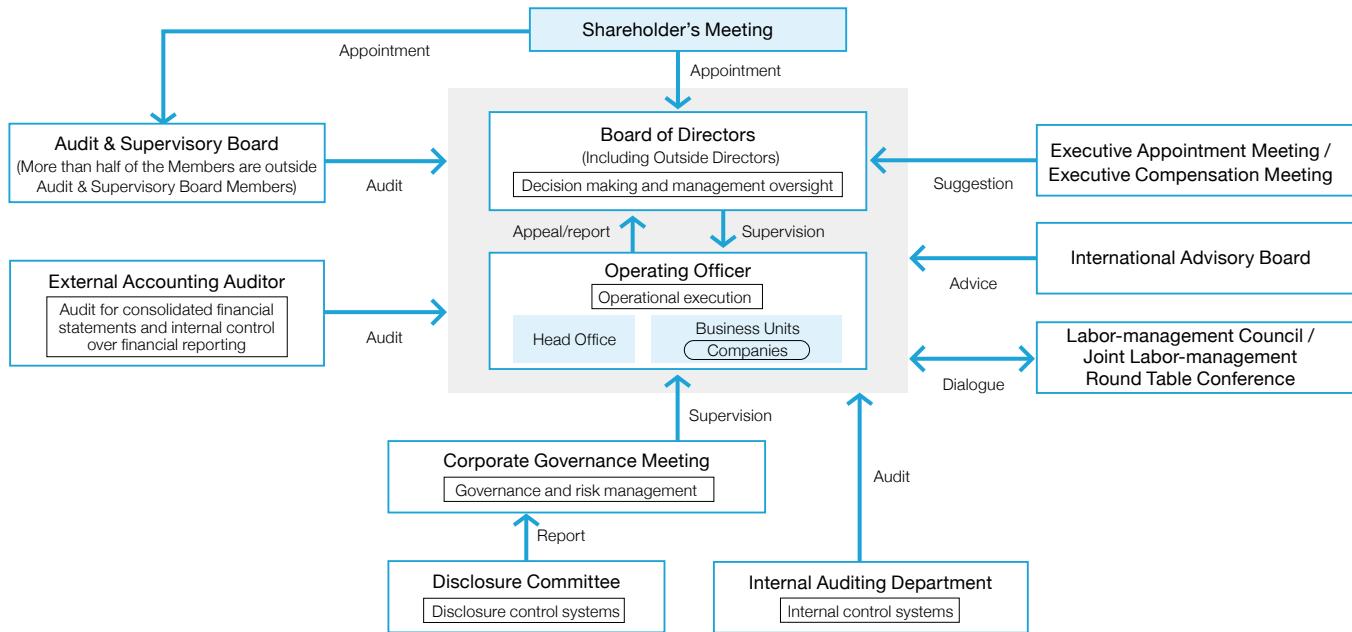
## Governance | Corporate Governance

### Analysis and Evaluation of the Effectiveness of the Board of Directors

After the Secretariat of the Board of Directors' Meeting conducts a quantitative analysis of the state of performance pursuant to an instruction of the Chairman of the Board of Directors, a survey is conducted of Members of the Board of Directors (Members of the Board of Directors and Audit & Supervisory Board Members) regarding the state of execution of operations and of the supervision of such execution. Furthermore, interviews are held individually with Members of the Board of Directors, including the Outside Members of the Board of Directors and Outside Audit & Supervisory Board

Members, based on results of the survey. The Secretariat of the Board of Directors' Meeting combines and explains the findings to the Chairman of the Board of Directors and reports and discusses the findings at the Board of Directors' Meeting. For FY2016, it was confirmed, as a result of the evaluation, that effectiveness was secured. Since meaningful comments were provided regarding "information sharing," "operation" and other matters during the process of the evaluation, Toyota will make improvements during FY2017 to further enhance effectiveness.

### Corporate Governance Organizational Diagram (Emphasizing Frontline Operations + Multidirectional Monitoring)



### Fundamental Approach and Maintenance of Internal Control Systems

#### Basic Stance on System for Ensuring Appropriate Business Operations

Toyota and its subsidiaries work to foster a sound corporate culture based on the Guiding Principles at Toyota and the Toyota Code of Conduct. Toyota integrates the principles of problem identification and *kaizen* into its operational processes and continuously strives to develop employees who will put these principles into practice.

#### System to Ensure Appropriate Operations

Toyota endeavors to maintain and properly operate a system for ensuring the appropriateness of business operations as a corporate group in accordance with its Basic Policies on Establishing Internal Controls. Each fiscal year, Toyota inspects the maintenance and implementation of internal controls to confirm that the organizational units responsible for implementing internal controls are functioning autonomously and enhancing said controls as necessary. The findings of these inspections are reviewed by the Corporate Governance Meeting and Board of Directors.

For further information on Fundamental Approach and Maintenance of Internal Control Systems, please refer to "IV. Basic Approach to Internal Control System and its Development" in the Corporate Governance Report.

# Risk Management

## Fundamental Approach

Toyota has been working to reinforce its risk management systems since the series of recall issues in 2010. In June 2010, Toyota established the Risk Management Committee (now the Corporate Governance Meeting) and appointed risk managers for the global group and each section as part of global measures to comprehensively prevent and mitigate the impact of risks that could arise in the course of business activities.

## Organization and Structure

Toyota has appointed a global chief risk officer (CRO) to head global risk management and established a structure under the global CRO to monitor risk on a daily basis. This structure enables the Company to respond immediately in the event of an emergency.

Beneath the global CRO are regional CROs appointed to oversee specific regions, and each region has its own risk management structure.

Within the head office, risk management is assigned by function to chief officers and risk managers, while in each in-house company, risk management is assigned to the company president and risk managers. These individuals coordinate and cooperate with the regional head offices.

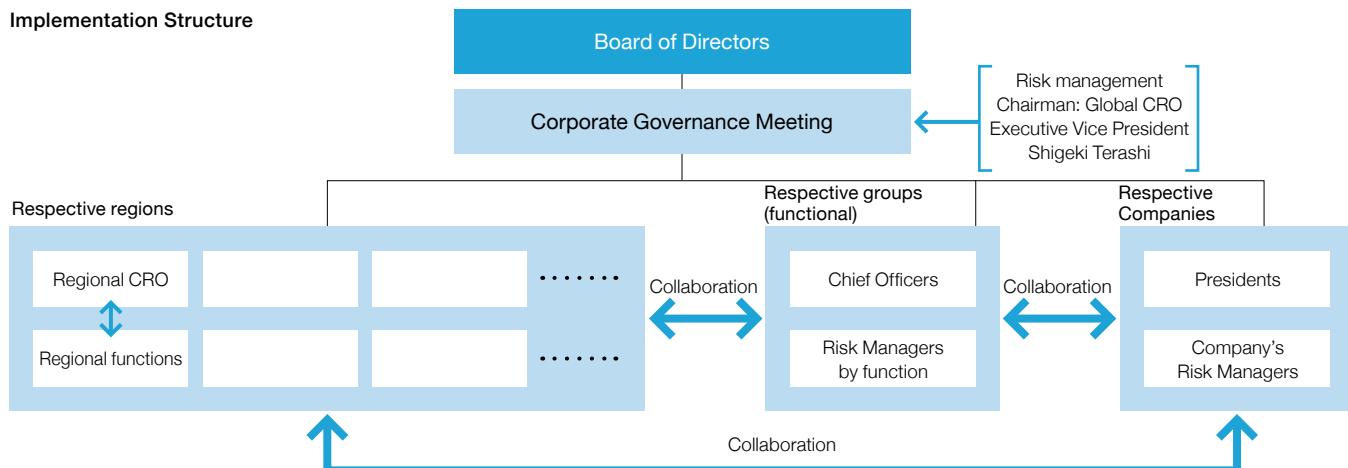
Furthermore, Toyota established the Corporate Governance Meeting in April 2015 as a business supervisory body. The meeting discusses the governance structure with the goal of ensuring the success of growth and business strategies in light of a wide range of social challenges.

Two of the meetings of the Corporate Governance Meeting are attended

by the regional CROs, all chief officers and all in-house company presidents. This practice is intended to aid in the initiation of action to prevent risks. Meeting participants comprehensively identify risks to business activities, review and report on major current risk items, and review the status of improvements and reinforcements to each region's risk management system. Reports are also made on the status of initiatives to address imminent and serious risks with global implications. In these ways, the meeting endeavors to manage and prevent risk. In addition, Toyota advances special measures related to information security and business continuity management (BCM), areas in which the level of risk facing corporations has been growing in recent years. Risks related to Toyota's businesses and other factors that could significantly impact the decisions of investors are listed in Toyota's Form 20-F under the categories Industry and Business Risks; Financial Market and Economic Risks; Regulatory, Legal, Political and Other Risks.

Form 20-F [Web](http://www.toyota-global.com/investors/ir_library/sec/) [http://www.toyota-global.com/investors/ir\\_library/sec/](http://www.toyota-global.com/investors/ir_library/sec/)

## Implementation Structure



## Governance | Risk Management

### Initiatives for Information Security

With cyber-attacks becoming more sophisticated and complicated, the information and information systems of the company and the network of control systems regarding the plant facilities and automobiles could become attack targets, which has increased the importance of information security for Toyota.

Toyota will ensure safety and security of our customers from cyberattack. From the viewpoints of governance and risk management, regarding it as our social responsibility to protect our customers' personal information, Toyota is taking a range of measures to reinforce information security.

In June 2016, Toyota and its consolidated subsidiaries established

the Information Security Policy in order to clarify the basic policy and initiatives of information security and work cooperatively to address information security.

#### Toyota's Basic Approach to Information Security

1. Compliance
2. Maintenance of stable business infrastructure
3. Providing safe products and services
4. Contribution to the establishment of safe cyberspace
5. Information security management

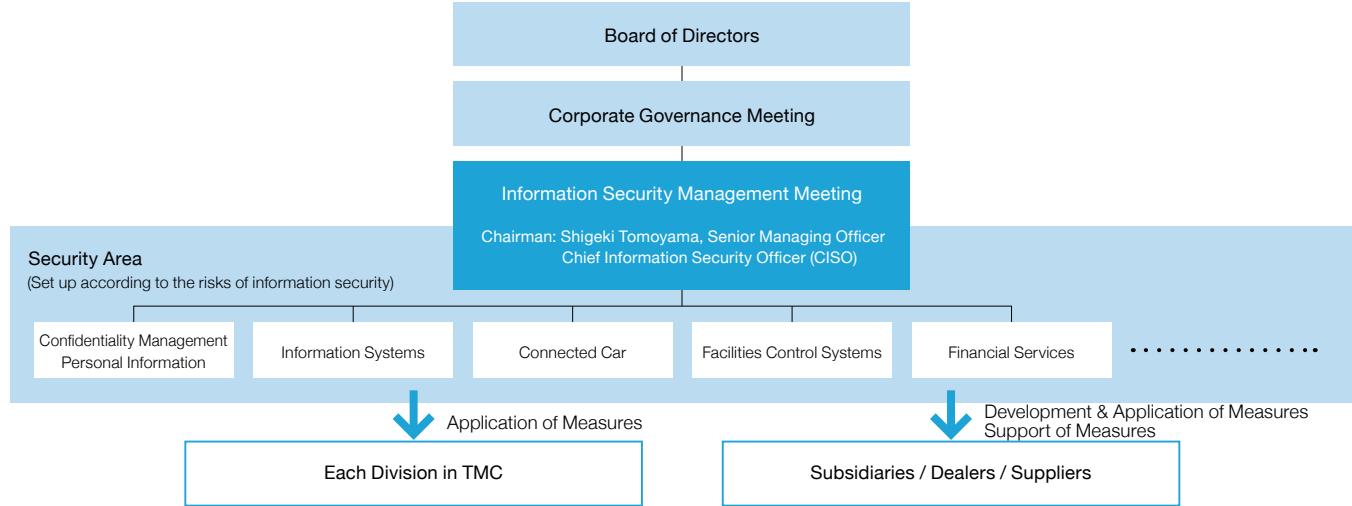
Information Security Policy [Web](http://www.toyota-global.com/sustainability/governance/risk-management/pdf/information-security-policy_en.pdf) [http://www.toyota-global.com/sustainability/governance/risk-management/pdf/information-security-policy\\_en.pdf](http://www.toyota-global.com/sustainability/governance/risk-management/pdf/information-security-policy_en.pdf)

### Organization and Structure

Under the Chief Information Security Officer, security officers are respectively assigned in the individual security fields to promote activities.

Details of activities in each security field and overall common

challenges have been shared and discussed at the Information Security Promotion Meeting to improve information security throughout Toyota.



## Governance | Risk Management

### Initiatives for Information Management

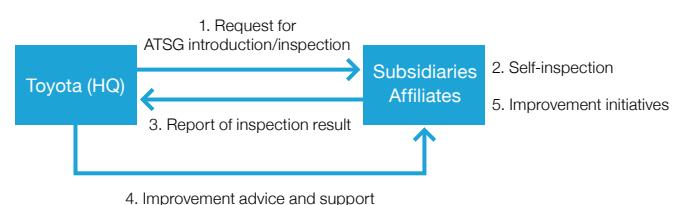
Toyota has established the All Toyota Security Guidelines (ATSG) covering Toyota, its subsidiaries and affiliates that seek to prevent in-house information leaks, cyber attacks, which have been on the rise recently, etc. and is trying to ensure complete information security. The ATSG establishes measures in organizational, personnel, technological, and physical management and also stipulates an incident/accident response system. We work to ensure information security from multiple approaches.

Under the ATSG, an annual inspection of the status of information security initiatives at each company is conducted to maintain and continuously improve information security.

#### All Toyota Security Guidelines (ATSG)

1. Organizational management measures (Establishment of systems and rules)
2. Personnel management measures (Employee education, etc.)
3. Technical management measures (Network measures, etc.)
4. Physical management measures (Control of room entry and exit, etc.)
5. Establishment of an incident/ accident response system

#### Structure for ATSG Implementation at Subsidiaries and Affiliates



### Business Continuity Management at Toyota

Although Toyota was not directly affected by large-scale disasters such as the Great East Japan Earthquake and the Thailand floods, our production operations were brought to a halt for a long period of time which caused inconvenience to customers both in sales and services. We have deep concerns about the possibility of the Nankai Trough Massive Earthquake these days, as the Toyota Group Companies' main functions are concentrated in the Nankai Trough areas, and it is expected that a large scale earthquake would severely impact our production and logistics operations.

To be prepared for such incidents, the Business Continuity Plan (BCP) was established to facilitate early recovery of business operations with

limited resources.

In order to contribute to enriching lives of communities, Toyota will work on disaster recovery according to the Basic Guidelines described below, and also took actions based on the BCP when the Kumamoto Earthquake struck in April 2016.

#### Toyota's Basic Guidelines (Priorities Following a Disaster)



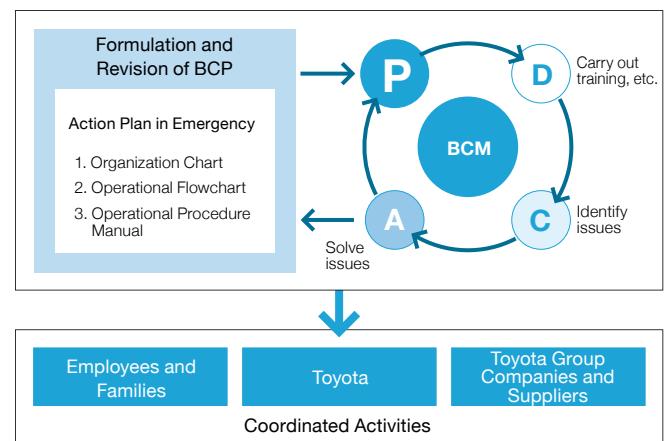
### Business Continuity Management at Toyota

The PDCA\* cycle is implemented and continuous improvement is undertaken through training, etc., to constantly raise the practical effectiveness of Toyota's BCP.

These activities are identified as the Business Continuity Management (BCM), which are delivered through coordination among employees and their families, Toyota Group companies and suppliers, and Toyota.

Through this process of formulation and review of the BCP, we aim to develop human resources with the ability to respond to an incident and to build, as a routine task, a system of risk-resilient organizational structures, workplaces, and individuals.

\* PDCA: Process of continuously improving processes by going through the cycle of Plan (P), Do (D), Check (C), and Action (A)



## Governance | Risk Management

### Humanitarian Aid and Early Recovery of Disaster-affected Areas (Communities)

To improve the feasibility of actions that follow the Basic Guidelines and give priority to regional recovery following a disaster, and to help build disaster-resilient communities, Toyota has concluded comprehensive disaster support agreements with local governments (October 2013: Toyota City; February 2014: Miyoshi City; March 2015: Tahara City; August 2015: Susono City).

Humanitarian support and regional recovery assistance are to be provided under mutual cooperation with local governments. Toyota is preparing relevant implementation structures by incorporating necessary provisions in its business continuity plan (BCP) and conducting joint training with local governments.

Details of the major support items are described on the right. Other support items agreed with individual local governments include provision of designated shelter facilities.

#### Details of recovery support

1. Rescue and relief in the wake of the disaster
2. Provision of temporary evacuation facilities to accommodate local people affected by the disaster
3. Provision of food, drinking water, and daily necessities for distribution through local governments
4. Cargo handling assistance at municipal relief supply facilities
5. Provision of land necessary for restoration of local infrastructure (water supply and drainage, roads, etc.)
6. Employee participation in local recovery activities

### Building a Disaster-resilient Supply Chain Together with Suppliers

Toyota has provided recovery support in accordance with the following priorities: (1) Humanitarian aid; (2) Early recovery of the affected area; (3) Restoration of Toyota's operations and production. Since the Great East Japan Earthquake, with the aim of prompt initial action and early recovery, we have united with suppliers in each country and region to build a disaster-resilient supply chain by sharing supply chain information and setting up measures of preparedness.

In sharing supply chain information in Japan, Toyota receives highly confidential information from suppliers to build up a database known as the RESCUE\* system based on the concept of protecting Japanese *monozukuri* (manufacturing). Under strict compliance with

its duty to protect other companies' confidential information, Toyota conducts regular training with suppliers that could be usefully applied in the event of a disaster. It was also utilized after the occurrence of the Kumamoto Earthquake in April 2016.

This system has been standardized and shared with other companies along with case studies of its application through the Japan Automobile Manufacturers Association, helping thus to lay the foundations of a disaster-resilient supply chain.

Toyota is implementing equivalent initiatives with suppliers in each country and region overseas.

\* RESCUE: REinforce Supply Chain Under Emergency

### RESCUE System Storing Supply Chain Information



### **Strengthening Local Collaboration and Support in Preparation for Natural Disasters**

If the Nankai Trough Massive Earthquake strikes, it could cause tremendous damage. Therefore, Toyota, which owns the Tahara Plant, one of the largest plants in Japan, in Tahara City, Aichi Prefecture, concluded a disaster support agreement with Tahara City in March 2015.

Since the signing of the agreement, Toyota and Tahara City have been conducting joint drills in order to strengthen their ability to carry out actual disaster relief operations.

In August 2016, during the Tahara City Comprehensive Disaster Drill, Toyota employees operated forklifts to move cargo at the relief supply receiving facility, confirming with the local officials how to carry out actual operations.

In the Tahara Coastal Corporate Forum, comprised of the local government and companies in the area, Toyota Tahara Plant is assuming part of the role of collecting the damage status information from various companies and exchanging information with the city's disaster relief headquarters. The Tahara Plant has also been implementing disaster-related measures together with the local community, for example, conducting tsunami and earthquake disaster prevention communication drills. Through these partnerships, Toyota is proceeding with what it can do as a corporation and is also working with the local community to improve its disaster resilience. Toyota will also continue to discuss and examine the optimum method for collaborating with the local governments in communities where its offices and plants are located.



Toyota employee operating a forklift during relief supply operation training during the Tahara City Comprehensive Disaster Drill

### **Promoting Voluntary Recovery Support of Disaster-stricken Areas by Employees (Training Disaster Volunteer Coordinators)**

Within the scale of actions to take when a large-scale disaster occurs, Toyota aims for the rapid recovery of disaster-stricken areas, and plans to participate in regional recovery operations as a company. In order to encourage employees to independently engage in restoration activities, Toyota since 2015 has been holding disaster volunteer coordinator training seminars hosted by the Toyota City Social Welfare Council. The goal is to train 300 coordinators in the Toyota Honsha District, and 72 have been trained as of March 2017.

Following the Kumamoto Earthquake in April 2016, Toyota sent 11 in-house disaster volunteer coordinators to the Kumamoto City Disaster Volunteer Center as an initiative matching the local needs. These coordinators matched the earthquake victims' needs with volunteers, and also helped the victims move into temporary housing.

The Kumamoto Earthquake was the first time for Toyota to send volunteer coordinators to a disaster-stricken area, and it provided Toyota with a valuable opportunity to support disaster recovery and develop its human resources on a *genchi genbutsu* (onsite hands-on experience) basis.



Toyota employees working as coordinators at the Kumamoto City Disaster Volunteer Center

# Compliance

## Fundamental Approach

The Guiding Principles at Toyota state that Toyota shall "honor the language and spirit of the law of every nation and undertake open and fair business activities to be a good corporate citizen of the world." Toyota believes that by adhering to this principle in its actions, it can fulfill its corporate social responsibility and ensure compliance. In accordance with its basic internal control policies, Toyota promotes initiatives centered on the construction of frameworks, including the adoption and enforcement of the code of conduct as well as education and other means of human resource development. Toyota has also established consultation hotlines; any concerns that are reported to said hotlines are assiduously addressed to ensure that no potential problem is overlooked.

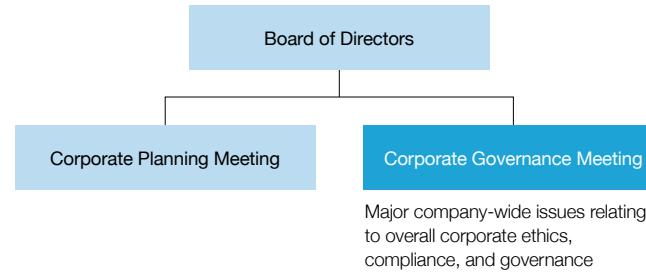
The Toyota Code of Conduct (adopted in 1998 and revised in March 2006) outlines the basic frame of mind that all Toyota personnel should adopt and sets forth concrete guidelines to assist them in upholding the Guiding Principles at Toyota and carrying out their social responsibilities. A booklet containing the Toyota Code of Conduct is distributed to all employees to better enable them to put the code into practice in their own lives both at work and in the community.

Toyota Code of Conduct [Web](http://www.toyota-global.com/sustainability/governance/compliance/) <http://www.toyota-global.com/sustainability/governance/compliance/>

## Organization and Structure

Toyota established the Corporate Governance Meeting in April 2015 as a business supervisory body. The meeting discusses governance structure with the goal of ensuring the success of growth and business strategies in light of a wide range of social challenges. Matters related to compliance are discussed by this meeting.

## Organizational Diagram



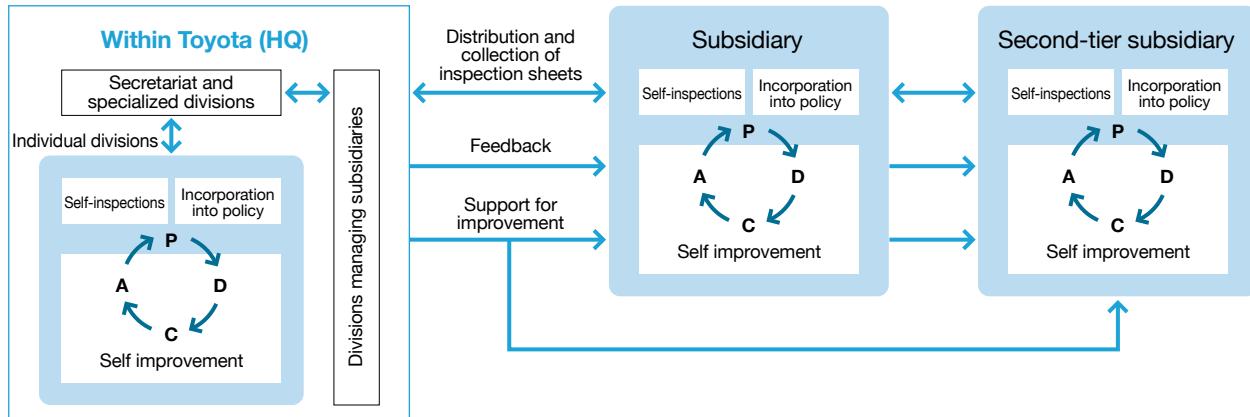
## Checks to Enhance Compliance

In FY2008, Toyota began implementing internal checks to enhance its compliance structure. In FY2009 these checks were extended to subsidiaries in and outside Japan. Since then, these checks have been carried out and improved upon every year. Results are reported to the Corporate Governance Meeting and used as a basis for further

improvement.

By incorporating improvement initiatives into each year's action plans, we ensure that these checks lead to ongoing positive action. Moreover, subsidiaries are visited in order to keep track of their compliance efforts and provide them support as needed.

## Activity Diagram



## Governance | Compliance

### Ensure Thorough Compliance

To ensure that awareness of compliance issues extends throughout the company, Toyota conducts education and training programs for directors, newly-appointed departmental general managers and newly-recruited employees in addition to company-wide e-learning programs. In addition to standard legal areas including labor law, antimonopoly law, and subcontracting law, we conduct business compliance seminars on bribery prevention, personal information protection, product liability law, and other topics. Approximately 1,000 persons attended these seminars in FY2016. Toyota also conducts on-demand seminars at individual divisions on a wide range of topics based on the specific needs of each division.

#### Main Past Educational Themes

- Contracts
- Bribery Prevention
- Act against Unjustifiable Premiums and Misleading Representations
- Export Operations Management
- Intellectual Property (trademarks)
- Subcontracting Law
- Confidentiality Control
- Copyright
- Product Liability Act
- Act on the Protection of Personal Information
- Labor
- Antimonopoly Law
- Insider Trading Regulations
- Taxation
- Safety and Health, etc.

### Corruption Prevention Measures

In response to the global expansion of its business and rising societal demands, Toyota adopted the Anti-bribery Guidelines in 2012 to completely eliminate corruption. Toyota is strengthening its preventive measures and working to prevent corruption by raising awareness and spreading the anti-corruption message through internal training and education and informing business partners of its anti-corruption stance.

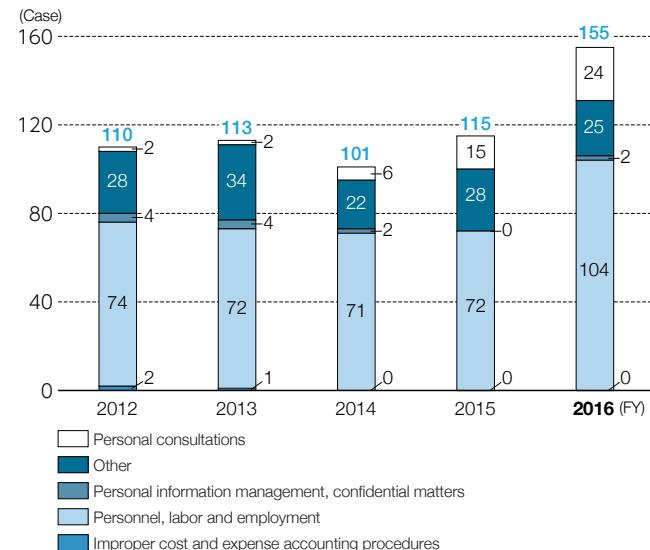
Furthermore, Toyota has been incorporating bribery prevention into its checking activities since 2013, and has been promoting improvement activities towards reinforcing its anti-bribery systems at Toyota as well as its subsidiaries.

**Anti-bribery Guidelines (For Business Partners)**  
[Web](http://www.toyota-global.com/sustainability/governance/compliance/) <http://www.toyota-global.com/sustainability/governance/compliance/>

### The Compliance Hotline

Toyota has established a number of hotlines for swift and appropriate resolution of any concerns, complaints, or questions that employees may have. The Compliance Hotline allows employees to have consultations concerning these compliance-related issues and has been set up at an outside law firm (subcontractor). Upon request, the content of consultations is conveyed anonymously to a secretariat within Toyota and the details are investigated with scrupulous care to ensure that the identity of the employee having the consultation is not revealed. If the results of the investigation indicate a compliance-related issue, a response is immediately implemented.

#### Content and No. of Consultations with the Compliance Hotline (Japan)



## CSR Achievement Data

# CSR Achievement Data

CSR activity results for the past three years are listed in the table below.

## Data List (Fiscal Year-end)

 KPI Strategic Focus

Area	Items		Unit	FY2014	FY2015	FY2016
Ever-better cars	Overall	Vehicle sales (consolidated)* <sup>1</sup>	Thousand vehicles	8,972	8,681	8,970
		Those sold in Japan		2,154	2,059	2,274
		Research and development expenses	Billion yen	1,004.5	1,055.6	1,037.5
		No. of Welcabs sold (Japan)	Vehicles	16,810	15,869	17,050
		Market share of Welcab (Japan)	%	66.9	68.0	70.0
	Quality	No. of Welcab models (Japan)	Models	28	25	26
		J.D. Power (US) Initial Quality Study (IQS) ranking No. 1	Segments	1	3	7
		Good Design Award (Japan)	—	Harrier, Voxy/Noah	MIRAI (Gold Prize), Alphard/Velfire, Hiace/ Regiusace (Long Life Design Award)	Prius/Prius PHV, Sienta (including the Welcab series)
		No. of calls to customer call centers (Global)* <sup>2</sup>	Thousand calls	389	374	370
Enriching lives of communities	Environment	New Vehicle Zero CO <sub>2</sub> Emissions Challenge	Japan (collision)	2	1	4
			Japan (prevention): ASV+ in 2014 and 2015 ASV++ in 2016	5	13	5
			U.S.A.	13	12	13
			Europe	1	3	3
			China	4	3	— * <sup>3</sup>
			TSP	3	5	0
			TSP+	4	10	13
			No. of shipped vehicles fitted with VICS (cumulative)	12,220	13,130	14,180
			No. of vehicles registered as G-BOOK, T-Connect, G-Link users (cumulative)	4,200	4,700	5,300
Stable base of business	Employees	Dealers / Distributors and Suppliers	Annual HV Sales(Global)* <sup>2</sup>	Million units	1,266	1,204
			Cumulative HV Sales (Global)* <sup>2</sup>		7,339	8,543
			CO <sub>2</sub> emissions reduction benefit of Toyota Hybrid Vehicles(Global)	Million tons	54 (as of Mar. 31, 2015)	66 (as of Mar. 31, 2016)
			Global average CO <sub>2</sub> emissions from new vehicles reduction rate versus FY2010 (Japan, U.S., Europe, China)	%	8.8	8.8
			CO <sub>2</sub> emissions per ton-kilometer (transport volume) from TMC logistics operations (Japan)	Million tons	0.278	0.275
			Plant Zero CO <sub>2</sub> Emissions Challenge	Million tons	7.79	7.57
			Global CO <sub>2</sub> emissions (from energy consumption at stationary emission sources)* <sup>4</sup>	Tons/unit	0.75	0.74
			CO <sub>2</sub> emissions per unit produced*	Million m <sup>3</sup>	31.0	29.3
			Global water consumption* <sup>4</sup>	m <sup>3</sup> /unit	3.0	2.9
			Water consumption per unit produced* <sup>4</sup>			3.0
Enriching lives of communities	Environment	Challenge of Minimizing and Optimizing Water Usage	Total waste volume at TMC (Japan)	Thousand tons	35.9	35.2
			Waste volume per unit produced at TMC (Japan)	kg/unit	12.5	12.5
			Recovery rate(Japan)	%	97	97
			Airbag		94	93
			Vehicle recovery rate(Japan)	%	99	99
			VOC emissions volume in vehicle body painting processes at TMC in Japan (average for all lines)	g/m <sup>2</sup>	17.2	15.8
			No. of violations of environmental laws and regulations (Japan)	No. of violations	0	0
			No. of parts suppliers (Global)	Companies	3,148	3,435
			No. of parts suppliers (overseas)		2,682	3,006
			No. of non-Japanese parts suppliers		1,321	1,436
Stable base of business	Employees	Social Contribution Activities	No. of dealers (overseas)	Dealerships	9,395	10,058
			No. of countries / regions sold to	—	178	176
			Total expenses for social contribution activities* <sup>4</sup>	Billion yen	21.6	25.3
			No. of Toyota Community Concert participants (Japan)		37,400	41,800
			No. of Why/What Lecture participants (Japan)	No. of visitors	1,138	1,339
			No. of visitors to the Forest of Toyota (Japan)		13,035	11,790
			No. of distribution of traffic safety educational materials (picture books)	Million parts	2.55	2.54
			Toyota Environmental Activities Grant Programs	No. of programs (cumulative)	278	304
						332
			No. of foreign executives at TMC (unconsolidated)	Persons	7	8
Stable base of business	Employees	Employees	Local employees comprising management at overseas affiliates	%	62.9	62.6
			Non-Japanese CEOs/COOs in major overseas subsidiaries	%	58	53
			No. of female managers (unconsolidated)	Assistant manager	366	496
				Managerial positions	101	135
			Employment ratio of people with disabilities (including unconsolidated and one special-purpose subsidiaries)* <sup>5</sup>	%	2.14	2.14
			Employment of people with disabilities (including unconsolidated and one special-purpose subsidiaries)* <sup>5</sup>	Persons	1,116	1,201

\*1 Including Daihatsu and Hino

\*2 Results for January to December

\*3 Due to there being no Toyota cars eligible for assessment in 2016

\*4 Toyota and consolidated subsidiaries in Japan and overseas (consolidated base differs by item)

\*5 No. of people with disabilities employed and their employment ratio are current as of April 2017

## CSR Achievement Data

 KPI Strategic Focus

Area	Items	Unit	FY2014	FY2015	FY2016
Stable base of business	No. of employees taking the childcare and nursing care leave program (unconsolidated)	Persons	489	620	646
	Male		20	43	44
	Female		469	577	602
	No. of male employees taking leave after birth of their child*6	%	-	-	93.8
	No. of employees using the flexible working hours system (unconsolidated)*7	Persons	1,132	1,363	1,857
	Male		17	41	342
	Female		1,115	1,322	1,515
	Frequency rate of lost workday cases (unconsolidated)	-	0.06	0.03	0.07
	Rate at which the BMI standard (25.0) is exceeded (unconsolidated)*8	%	20.6	20.4	20.8
	Smoking rate (unconsolidated)	Persons	29.1	28.7	27.8
	Full-time employees (unconsolidated)		67,905	72,779	75,218
	Male		60,474	64,583	66,399
	Female		7,431	8,196	8,819
	Average age (unconsolidated)	Years old	39.2	38.7	39.1
	Male		39.6	39.3	39.7
	Female		33.5	34.0	34.7
	Average years of service (unconsolidated)	Years	17.8	17.3	17.7
	Male		18.5	17.9	18.3
	Female		12.5	12.6	13.3
	Percentage of annual paid leave taken*9 *10	%	-	-	102.3
	Average monthly overtime per employee*9	Hours/month	-	-	21.3
	Newly-hired employees (unconsolidated)	Persons	1,489	2,185	2,513
	Male		1,289	1,970	2,166
	Female		200	215	347
	Administrative		127	103	213
	Male		63	61	83
	Female		64	42	130
	Engineering		540	514	647
	Male		485	466	562
	Female		55	48	85
	Shop floor		822	1,568	1,653
	Male	%	741	1,443	1,521
	Female		81	125	132
	Re-employed retirees (unconsolidated)		884	903	779
	Employees who feel their own growth (unconsolidated)	%	77.2	-	77.6
	Administrative and engineering		74.0	-	70.0
	Employees who feel their own growth (overseas)		77.2	-	78.0
	Administrative and engineering		-	71.9	-
	Employees who are satisfied with company life (unconsolidated)		76.0	-	74.0
	Administrative and engineering		72.0	-	72.0
Financial Information (Consolidated)	Net revenues	Billion yen	27,234.5	28,403.1	27,597.1
	Japan		14,403.8	14,759.4	14,830.8
	North America		9,677.5	11,051.9	10,239.0
	Europe		2,848.2	2,661.3	2,681.0
	Asia		4,981.2	5,003.8	4,819.8
	Other		2,449.2	2,210.2	2,161.0
	Operating income (Operating income ratio: %)	Billion yen (%)	2,750.5 (10.1)	2,853.9 (10.0)	1,994.3 (7.2)
	Japan		1,571.4	1,677.5	1,202.2
	North America		584.5	528.8	311.1
	Europe		81.1	72.4	12.2
	Asia		421.7	449.1	435.1
	Other		111.5	108.9	58.6
	Net income	Billion yen	2,173.3	2,312.6	1,831.3
	Shareholders' equity		16,788.1	16,746.9	17,514.8
	Total assets		47,729.8	47,427.5	48,750.1
	Net assets	%	17,847.3	18,088.1	18,668.9
	ROE		13.9	13.8	10.6
	Dividend per share		Yen 200	210	210
	Capital expenditures	Billion yen	1,177.4	1,292.5	1,211.8
	Vehicle production	Thousands vehicles	8,929	8,576	8,975
Global Expansion	No. of plants and manufacturing companies	Plant and manufacturing companies	16	16	16
			11	11	11
			10	9	9
			24	24	24
			9	9	9
	No. of distributors	Distributors	5	5	5
			29	29	29
			16	16	20
			117	117	113
Governance (unconsolidated)	Outside Directors	Persons	3	3	3
	No. of consultations made to the Compliance Hotline	Consultations	101	115	155
CSR Evaluation	FTSE4Good Index (listed)		○	○	○
	DJSI Asia Pacific (listed)		○	○	○

\*6 Percentage of male employees who took more than a half-day or full day of leave within two months of the birth of their child (including annual paid leave and childcare leave)

\*7 Includes the use of systems other than those for childcare or nursing care

\*8 In FY2016, we began to use the percentage of employees whose BMI exceeded the standard value of 25.0, and the numbers for the prior years were corrected retroactively.

\*9 Union member average

\*10 As a fraction of the number of days given each year. Includes days of annual paid leave carried over from previous years. (Annual paid leave can be carried over for up to two years.)

## ISO 26000 Comparison

# ISO 26000 Comparison

Initiatives described in the report are defined as below according to ISO 26000's seven core subjects and issues.

Core Subjects in ISO 26000	Issues	Page
<b>Organizational Governance</b>	1 Organizational Governance	Corporate Principles P5–7 CSR Structure P8–9 Corporate Governance P130–132 Risk Management P133–137 Compliance P138–139
<b>Human Rights</b>	2 Due diligence	Respect for Human Rights P46–50
	3 Human rights risk situations	Collaboration with Business Partners P51–57
	4 Avoidance of complicity	Employees P58–73
	5 Resolving grievances	Compliance P138–139
	6 Discrimination and vulnerable groups	
	7 Civil and political rights	
	8 Economic, social and cultural rights	
	9 Fundamental principles and rights at work	
<b>Labor Practices</b>	10 Employment and employment relationships	Employees P58–73
	11 Conditions of work and social protection	
	12 Social dialogue	
	13 Health and safety at work	
	14 Human development and training in the workplace	
<b>Environment</b>	15 Prevention of pollution	New Vehicle Zero CO <sub>2</sub> Emissions Challenge P85–89
	16 Sustainable resource use	Life Cycle Zero CO <sub>2</sub> Emissions Challenge P90–93
	17 Climate change mitigation and adaptation	Plant Zero CO <sub>2</sub> Emissions Challenge P94–96
	18 Protection of the environment, biodiversity and restoration of natural habitats	Challenge of Minimizing and Optimizing Water Usage P99–102
		Challenge of Establishing a Recycling-based Society and Systems P103–107
		Challenge of Establishing a Future Society in Harmony with Nature P108–114
<b>Fair Operating Practices</b>	19 Anti-corruption	Collaboration with Business Partners P51–57
	20 Responsible political involvement	Compliance P138–139
	21 Fair competition	
	22 Promoting social responsibility in the value chain	
	23 Respect for property rights	
<b>Consumer Issues</b>	24 Fair marketing, factual and unbiased information and fair contractual practices	Initiatives for Improving Traffic Safety P11–17
	25 Protecting consumers' health and safety	Customer First and Quality First Measures P18–24
	26 Sustainable consumption	Social Contribution Activities P40–45
	27 Consumer service, support, and complaint and dispute resolution	Collaboration with Business Partners P51–57
	28 Consumer data protection and privacy	New Vehicle Zero CO <sub>2</sub> Emissions Challenge P85–89
	29 Access to essential services	Life Cycle Zero CO <sub>2</sub> Emissions Challenge P90–93
	30 Education and awareness	Plant Zero CO <sub>2</sub> Emissions Challenge P94–96
		Challenge of Establishing a Recycling-based Society and Systems P103–107
		Compliance P138–139
<b>Community Involvement and Development</b>	31 Community involvement	Initiatives for Improving Traffic Safety P11–17
	32 Education and culture	Creating an Affluent Society P25–39
	33 Employment creation and skills development	Social Contribution Activities P40–45
	34 Technology development and access	
	35 Wealth and income creation	
	36 Health	
	37 Social investment	



## ISO 26000 Comparison

## CSR Policy Comparison with ISO 26000 Issues

CSR Policy: Contribution towards Sustainable Development		ISO 26000 Ref. No.
<b>Preamble</b>	We, Toyota Motor Corporation and our subsidiaries, take initiative to contribute to harmonious and sustainable development of society and the earth through all business activities that we carry out in each country and region, based on our Guiding Principles. We comply with local, national and international laws and regulations as well as the spirit thereof and we conduct our business operations with honesty and integrity. In order to contribute to sustainable development, we believe that management interacting with its stakeholders as described below is of considerable importance, and we will endeavor to build and maintain sound relationships with our stakeholders through open and fair communication. We expect our business partners to support this initiative and act in accordance with it.	1 2 4 22 23 24
<b>Customers</b>	● Based on our philosophy of "Customer First," we develop and provide innovative, safe and outstanding high quality products and services that meet a wide variety of customers' demands to enrich the lives of people around the world. (Guiding Principles 3 and 4)	25, 27 29, 30
	● We will endeavor to protect the personal information of customers and everyone else we are engaged in business with, in accordance with the letter and spirit of each country's privacy laws. (Guiding Principles 1)	24, 28
<b>Employees</b>	● We respect our employees and believe that the success of our business is led by each individual's creativity and good teamwork. We stimulate personal growth for our employees. (Guiding Principles 5)	14
	● We support equal employment opportunities, diversity and inclusion for our employees and do not discriminate against them. (Guiding Principles 5)	5, 6, 10
	● We strive to provide fair working conditions and to maintain a safe and healthy working environment for all our employees. (Guiding Principles 5)	11, 13
	● We respect and honor the human rights of people involved in our business and, in particular, do not use or tolerate any form of forced or child labor. (Guiding Principles 5)	3, 4, 9
	● Through communication and dialogue with our employees, we build and share the value "Mutual Trust and Mutual Responsibility" and work together for the success of our employees and the company. We recognize our employees' right to freely associate, or not to associate, complying with the laws of the countries in which we operate. (Guiding Principles 5)	5, 7 8, 12
	● Management of each company takes leadership in fostering a corporate culture, and implementing policies, that promote ethical behavior. (Guiding Principles 1 and 5)	19, 20
<b>Business Partners</b>	● We respect our business partners such as suppliers and dealers and work with them through long-term relationships to realize mutual growth based on mutual trust. (Guiding Principles 7)	21
	● Whenever we seek a new business partner, we are open to any and all candidates, regardless of nationality or size, and evaluate them based on their overall strengths. (Guiding Principles 7)	37
	● We maintain fair and free competition in accordance with the letter and spirit of each country's competition laws. (Guiding Principles 1 and 7)	21
<b>Shareholders</b>	● We strive to enhance corporate value while achieving a stable and long-term growth for the benefit of our shareholders. (Guiding Principles 6)	—
	● We provide our shareholders and investors with timely and fair disclosure on our operating results and financial condition. (Guiding Principles 1 and 6)	1
<b>Global Society/Local Communities</b>	<b>Environment</b> ● We aim for growth that is in harmony with the environment by seeking to minimize the environmental impact of our business operations, such as by working to reduce the effect of our vehicles and operations on climate change and biodiversity. We strive to develop, establish and promote technologies enabling the environment and economy to coexist harmoniously, and to build close and cooperative relationships with a wide spectrum of individuals and organizations involved in environmental preservation. (Guiding Principles 3)	15, 16 17, 18
	<b>Community</b> ● We implement our philosophy of "respect for people" by honoring the culture, customs, history and laws of each country. (Guiding Principles 2)	2, 7, 8
	● We constantly search for safer, cleaner and superior technologies that satisfy the evolving needs of society for sustainable mobility. (Guiding Principles 3 and 4)	26, 34
	● We do not tolerate bribery of or by any business partner, government agency or public authority and maintain honest and fair relationships with government agencies and public authorities. (Guiding Principles 1)	19, 20
<b>Social Contribution</b>	● Wherever we do business, we actively promote and engage, both individually and with partners, in social contribution activities that help strengthen communities and contribute to the enrichment of society. (Guiding Principles 2)	31, 32 33, 35 36, 37



Toyota has become a Worldwide Olympic/Paralympic Partner in the category of vehicles, mobility services and mobility solutions.

## TOYOTA MOTOR CORPORATION

Published by Corporate Affairs Dept.,  
Toyota Motor Corporation

Published: October 2017

Previous report published: October 2016

Next scheduled report: October 2018

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Web version URL

<http://www.toyota-global.com/sustainability/report/sr/>