



Manufacturing that creates harmony between the environment, people and goods

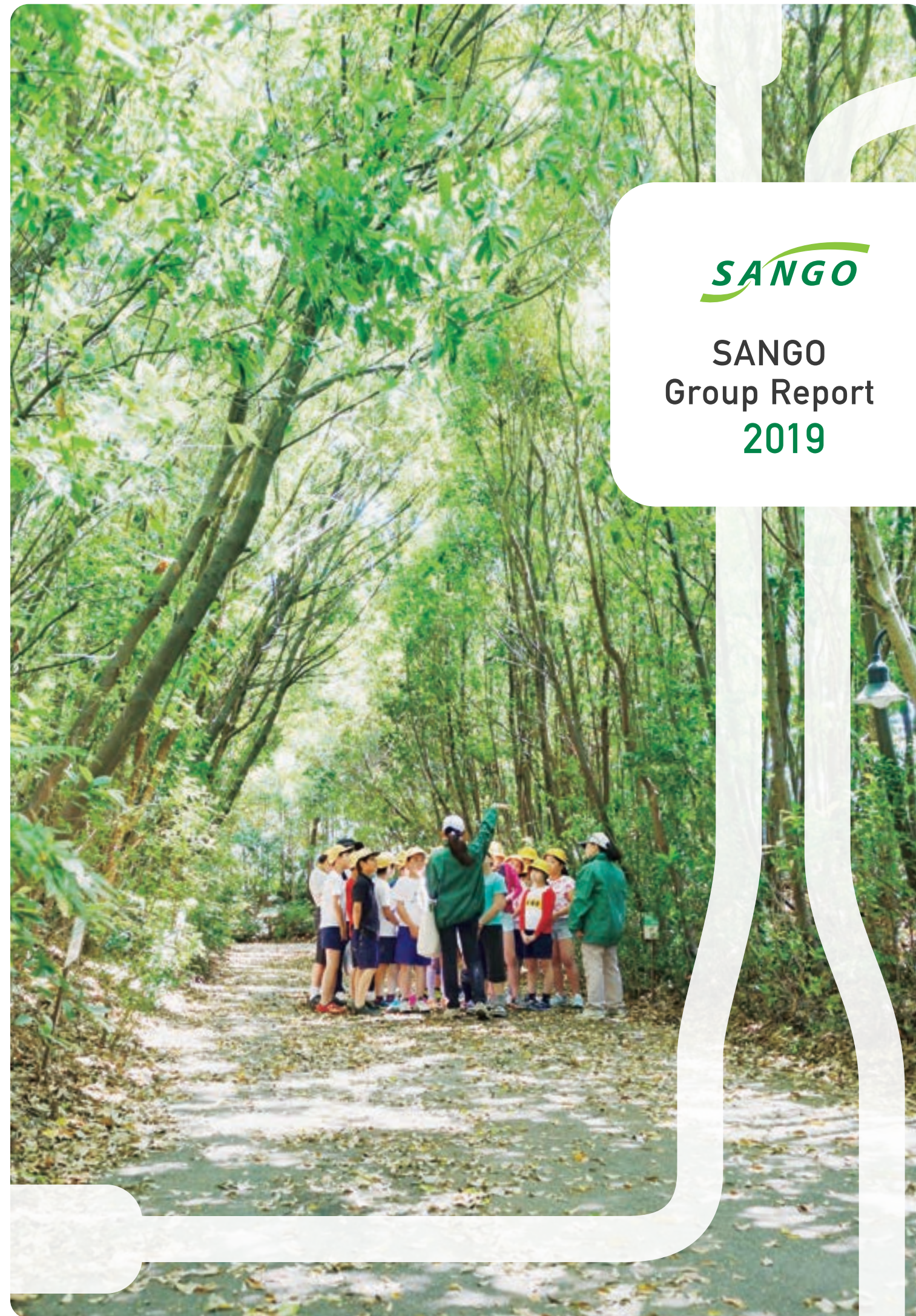
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**SANGO**  
**Group Report**  
**2019**





# 100th anniversary and beyond

The Sango spirit -- an untiring sense of challenge  
and the desire to make wide-ranging  
contributions to society

## Editorial Policy

The goal of this report is to unambiguously demonstrate the Sango Group CSR activities to all of our stakeholders. The basic policy in compiling this report has been to focus on our approach towards technologies for the future. This includes our Long-term 2030 Outline, which we have formulated with the aim of transcending the once-in-a-century structural transformation of the automotive industry. This report conveys to our many stakeholders our current situation, our approach to the challenges we face, and our future goals.



### Cover page photograph

This is a scene of local schoolchildren invited to participate in a "Nature Observation" event held at our head office (ECO 35) every May. Students learn the significance of nature through the discovery of insects and wild birds living in the Sango woods which they would not normally see in their daily lives.

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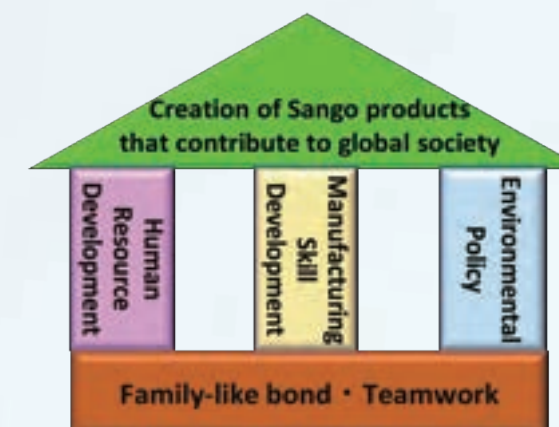
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## Company Creed

Three intertwined elements of prosperity  
Prosperity for our country, for our company  
and for ourselves

## Corporate Principles

With a steadfast commitment to the preservation of our family-like bond and teamwork, and the development of our human resources, manufacturing skills, and environmental policy, we shall persevere in our challenge to create Sango products that contribute to global society.



## Hierarchy of Our Policies and Principles

CSR Policy  
SANGO WAY





# Continuing to hone our manufacturing capabilities will open the path to Sango's future.

With the opportunity to celebrate our 90th anniversary in 2018, the Sango Group would like to express our sincere gratitude for your support and guidance. As many have noted, the automobile industry is in a period of great transformation. It is our intention to not only survive these tides of change, but also achieve a continuous and sustainable growth for the next 100 years and beyond. This report takes up three major areas out of the several measures taken up during the previous year as part of this journey.

President *Hojo Tsunekawa*

## 01 Recreated in our own words Revision of Our "Corporate Principles"

Initially established ten years ago to mark the 80th anniversary of the company's founding, the Corporate principles have been revised and polished. Although the main intent remains unchanged, our new basic policy states that "With our family-like ties and teamwork that will never change, we will pursue the development of human resources, manufacturing capabilities, and an earth-friendly environment, and continue our challenge to create Sango products that contribute world-wide." The principles have been improved with the belief that

shorter sentences and simpler language will promote a clearer understanding for every employee and lead to practical implementation. Moreover, instead of taking a top-down approach, the voices of younger generations were included, as they will be the ones to shoulder the future of the Sango Group. It is expected that these Corporate principles will become a part of every aspect of the company and by reflecting them in everyday language and behavior, they will become ingrained into our company culture.

## 02 Look into the future and consider what needs to be done today Planning the "Long-term 2030 Outline"

Although continuing growth is being predicted in the global market for our main product area of automotive exhaust systems, beyond 2030 we anticipate very tough overall business conditions, as electrification begins to make headway. In this age, what direction should the Sango Group take, and what should be done today to prepare for this? A management vision called the "Long-term 2030 Outline" was formulated in order to both spell out and share these issues.

The Long-term 2030 Outline's 3 categories

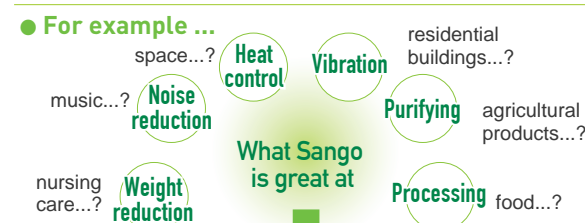
- **The Sango Group goals for the future**  
What the Sango Group should be by 2030
- **Detailed Approach**  
What needs to be done in detail, from management planning, development, manufacturing, and sales to work-styles
- **Image of the progress towards these goals**  
Investment for each approach and image of the targets for sales and profit

\*Image below (excerpt)

Sango Group goals for the future		
Opening up new paths for the Sango Group with new ideas and decisive action		
A corporate group where its employees and companies take on inspirational challenges to achieve new progress		
A corporate group that offers new value to fields other than automotive, achieving a safe and secure environment and way of life		
New approaches	Non-automotive fields	<b>New products that utilize core technologies</b> <ul style="list-style-type: none"><li>● Development of new products that utilize thermal management technology</li><li>● Development of new products that utilize forming and joining technologies</li></ul>
	Automobiles	<b>Power train business (Exhaust system products)</b> <ul style="list-style-type: none"><li>● For passenger cars ▶ Development of new products utilizing integrated / reinforced noise reduction, emissions control, and thermal management technologies</li><li>● For commercial vehicles ▶ Promotion of sales to multiple customers through innovative emissions control technology</li></ul>
		<b>Chassis business (Drive system products, electric system products)</b> <ul style="list-style-type: none"><li>● Development of new products that utilize forming technology as their strength</li></ul>
		<b>Body components</b> <ul style="list-style-type: none"><li>● Development of new products utilizing pipe-related technologies as their strength</li></ul>
Maintaining existing business and building new business growth		<ul style="list-style-type: none"><li>● Promotion of sales to overseas customers, while maintaining and expanding current business through enhanced, superior cost competitiveness</li><li>● Maintaining and expanding precision steel products by enhancing processing techniques</li></ul>
Business management innovation	Greater global management	
	Expanded functions to create new products	
	Major changes to create new working styles	
		<ul style="list-style-type: none"><li>● Management efficiency reforms through restructuring within the organization</li><li>● Strengthening of group company business foundations and development of a global governance system</li><li>● Enhancement of R&amp;D functions (such as the Sango Group Toyota Technical Center)</li><li>● Shifting of resources through selection and centralization, and active utilization of alliances with other companies</li><li>● Innovation of the work process through reconstruction of the IT infrastructure</li><li>● Implementation of work styles that will encourage the coexistence of a sense of purpose in life and the need to meet work challenges.</li></ul>



Work-style reforms that the government is promoting, changes in the automotive industry, and technological innovations are behind Sango's long-term vision. This year marks the end of the Heisei era and the beginning of the Reiwa era, just as drastically changing external business conditions are bringing fundamental transformation to every company in the industry. Although this fact should not be misconstrued, it must still be noted that, as automobile electrification progresses, there will come a day when cars no longer need mufflers. However, this does not mean that Sango technologies will become obsolete, as the knowhow in such areas as pipe bending, precision stamping, and others are valuable assets and without a doubt, will continue to be useful, not just for the cars of the future, but also in other non-automotive fields. There are many technical aspects to the approaches described in the "Long-term 2030 Outline", because after all, the Sango Group mission continues to be a dedication to contributing to society with our manufacturing capabilities. Refining the technologies that have been fostered for 90 years, and utilizing them in broader fields around the world is the challenge set forth in our vision. This leads us to consider what non-automotive fields lend themselves to our capabilities. Such a question is broad in scope and simply creating any brand new business could seem to lack reason. Thus, the best way



Think in association to the contents in our everyday life

to proceed may be to apply a characteristically Sango approach to this question. We begin by coming up with flexible ideas and looking at non-automotive fields that are familiar to everybody. "Searching for something that can give us small happiness in our everyday lives" is also the start of a new "challenge." For work-style reforms as well, a "Sango approach" is the key. Generally speaking, this should involve revisions of work regulations and other measures to achieve diversified employment structures and less overtime. As a manufacturing company, reducing defects for a single product, for example, will allow those at the work site to go home early. Improving the operating efficiency of a line that normally requires three people will allow one person to work shorter working hours. This may bring up new issues, but we believe that measures to solve them can be found through experience gained in everyday work activities. Only eleven years away, 2030 is a future that is not far off and one that can be reached successfully with the placement of mid-term and long-term milestone targets. By coming up with flexible and passionate ideas, and further mastering the art of manufacturing, we shall not just overcome the coming transformation, but turn it into new strengths.



## 03 Working together like a crew on the same boat, we will overcome the rough seas ahead Concluding the "Labor and Management Statement"

One must be strongly determined to survive in this age of significant changes. This applies to employers and employees, and as both make up the crew on a boat called the Sango Group, they must all row together. The Labor and Management Statement was published so as to create an opportunity for the company and the Sango Labor Union to mutually renew their awareness of this concept. Our corporate culture is based on "family-like ties", which is also integrated into our new basic policy. When we were still a small-scale factory, our grandmothers would prepare

us chilled watermelon to help us cool down. At sunset, they would bring us homemade omusubi (rice balls) and we would eat together. Such history lives on, and people from other companies often note that "Sango exudes an atmosphere of home and the people are kind." Today, in a situation that can only be described as challenging, our family-like ties should be channeled to pool our potential power, making us even stronger, as both management and employees cooperate on the journey forward.

## Further expansion of Sango Group contributions to society Implementing a CSR Policy

Formulated in 2017, the Sango CSR Policy is embodied by the three pillars of environment, society, and governance, also known as "ESG", with an underlying foundation of six key initiatives. The CSR Policy and these three pillars continue to be promoted through each meeting body to this day. The Sango Group CSR Policy is incorporated into all company activities, from the company creed, Corporate principles, and Long-term 2030 Outline, to fiscal year policies. It ensures that we remain a company that "contributes to society, engenders trust, and achieves sustainable growth" through continuous improvement. With our manufacturing capabilities, Sango products have met the needs of society over the years and we continue to contribute to society through further development of this craftsmanship.

At the same time, with a strong awareness of our position as a manufacturer, we are dedicated to conserving the global environment and contributing to local communities. Efforts are increasing every year, through such initiatives as the Sango Tree Planting Project, creating biotopes at factories, or the tree planting events celebrated together with people from the surrounding local communities near group companies both in and outside of Japan. The Sango Tree Planting Project and the tree planting activities in particular have been developed into activities that now represent the Sango Group CSR approach. In FY 2018, the total number of trees planted in Japan and overseas was approximately 270,000.



Tree planting event at Yawatayama Plant (2009), with Dr. Akira Miyawaki (left).

### CSR Policy To be a company that contributes to society, is trusted, and grows sustainably



## To Our Stakeholders



We will continue to aggressively pursue the mastery of manufacturing capabilities to create a bright future.

To this end, I would like to urge all Sango employees to interpret their work from a broad perspective that includes holding an interest and caring about technology, culture, and society, as well as other facets of our surroundings. The ideas to resolve issues are in our everyday lives. If it catches your attention, do some research. Put it into action once you have acquired knowledge on the topic. Those small actions can bring improvements to future jobs, generate new products, and lead to the development of a new business. Creating a bright future is not as difficult as one may think.

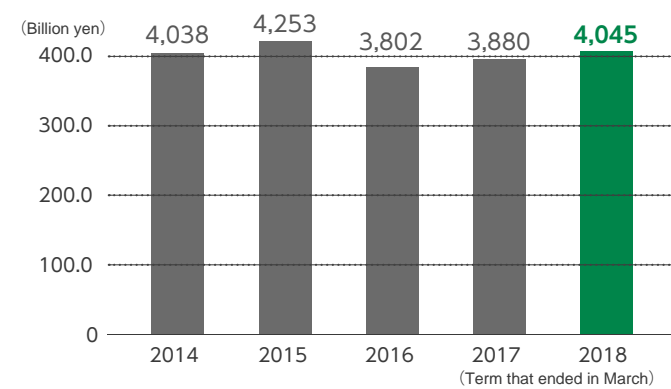
Upon the 90th anniversary of our foundation, I am deeply appreciative of the encouragement given to the Sango Group from across the country and the world. The Sango Group exists because of each and every individual at each Sango Group location. We will continue to facilitate sustainable growth, work alongside everyone in the local communities, and make contributions to society in a collective effort.



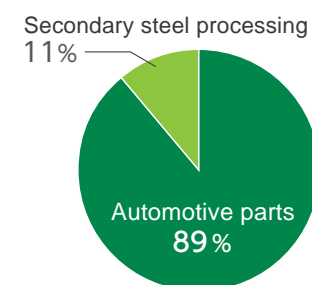
# Company Overview

<b>Company name</b>	Sango Co., Ltd.
<b>Representative</b>	President Kozo Tsunekawa
<b>Head office</b>	1-3-1 Mutsuno, Atsuta-ku, Nagoya City, Aichi-ken
<b>Founded</b>	June 1, 1928
<b>Incorporated</b>	June 1, 1950
<b>Capitalization</b>	608 million yen
<b>Main Products</b>	Mufflers, exhaust pipes, exhaust manifolds, vehicle body products, impactdoor beams, other automotive parts, cold forged products, cold finished steel bars, drawn pipes, carbon steel pipes for mechanical structures, machined / ground steel bar products
<b>Customers</b>	Toyota Motor Corporation, Hino Motors, Ltd., Daihatsu Motor Co., Ltd., Nissan Motor Co., Ltd., Mitsubishi Motors Corporation, Isuzu Motors, Ltd., Subaru Corporation, Mazda Motor Corporation, Toyota Industries Corporation, JTEKT Corporation, KYB Co., Ltd., Toyota Tsusho Corporation, Sumitomo Corporation, Asai Sangyo Co., Ltd., Metal One Corporation, Canox Corporation (random order)
<b>Main Banks</b>	MUFG Bank, Ltd., Sumitomo Mitsui Banking Corporation

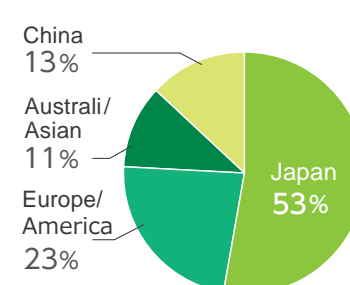
## Sales(Consolidated)



## Sales composition by business field\*



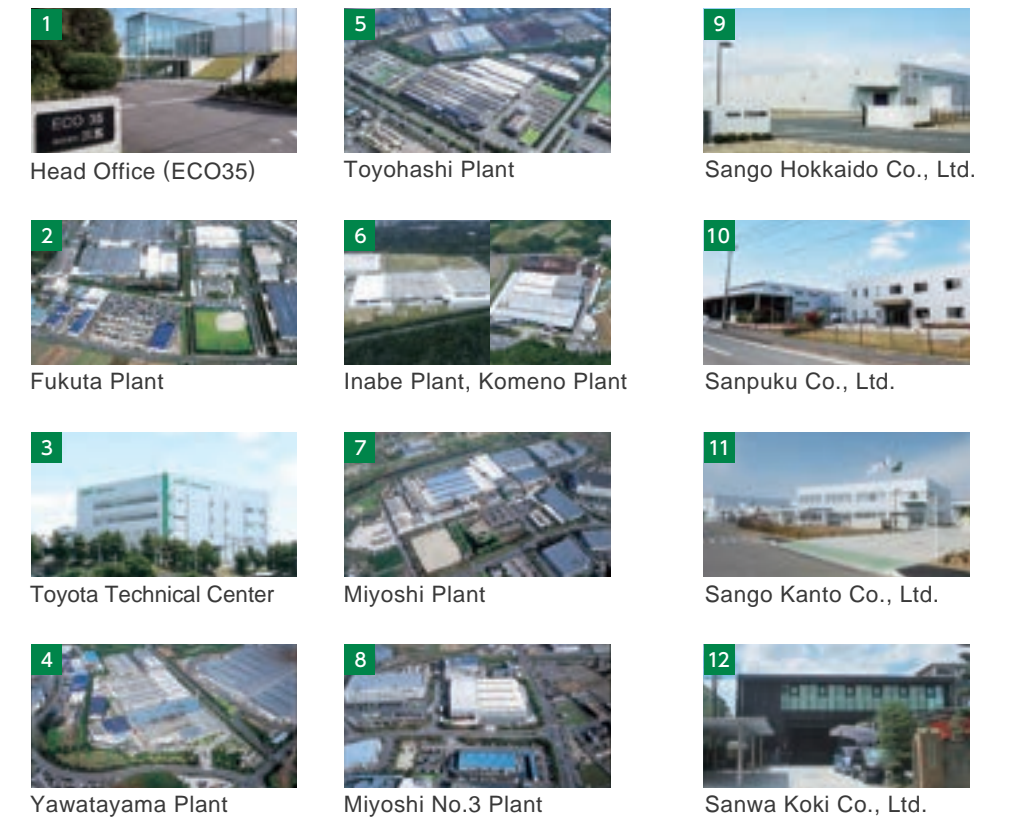
## Sales composition by region\*



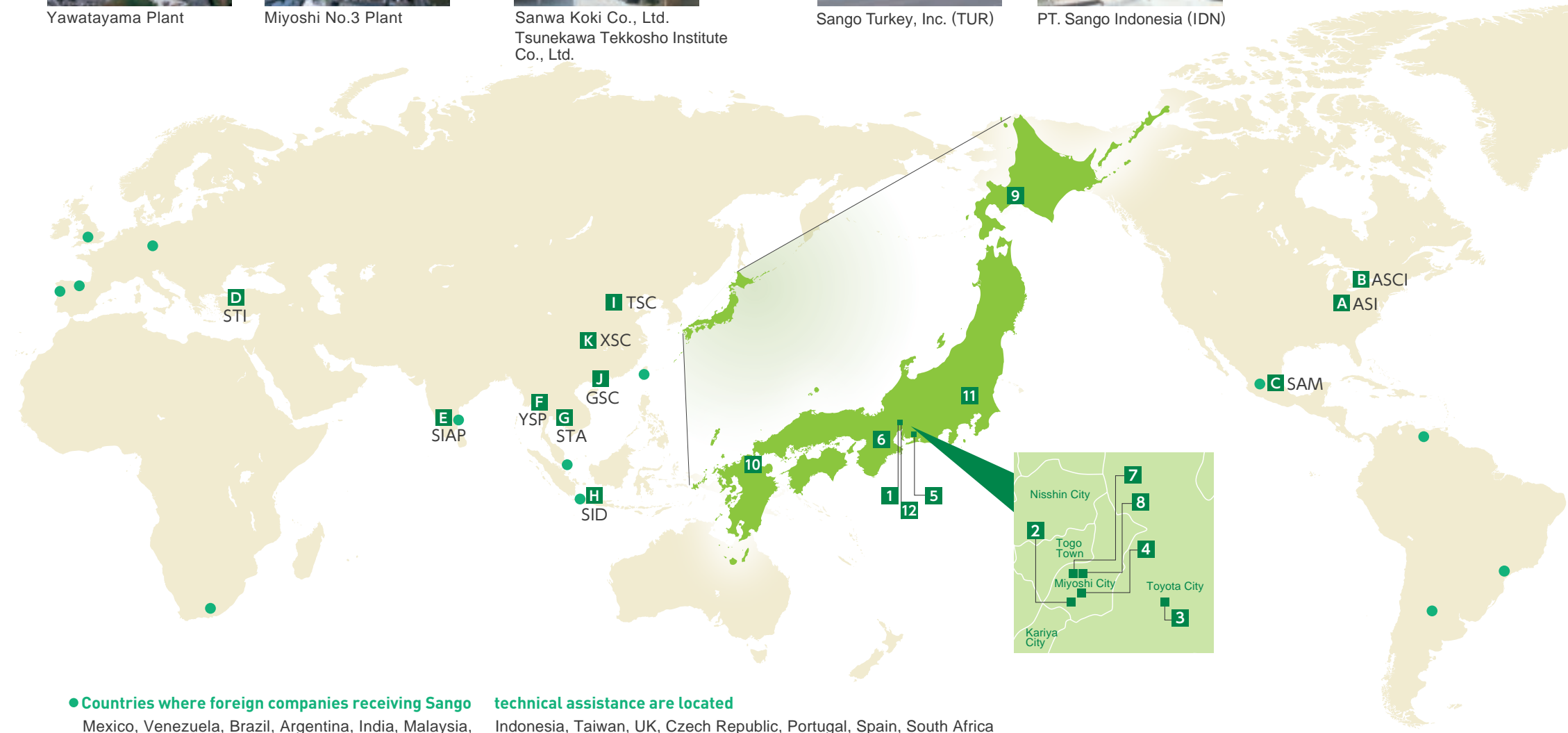
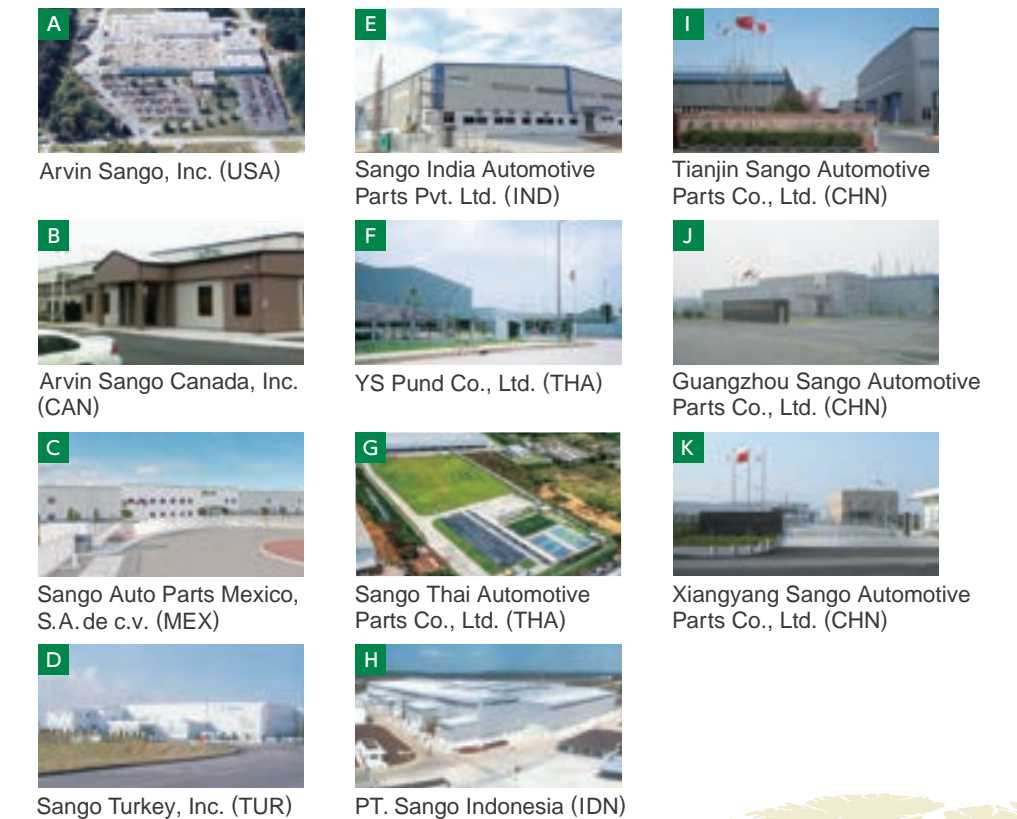
\*Results for Sango Co., Ltd. and consolidated subsidiaries for FY 2018.

# Global Network

## Domestic plants and group companies



## Overseas group companies



# Product Overview

## Exhaust Systems

### Exhaust manifolds



Single wall tubular manifolds



Air gap manifolds



Catalytic converters (made using spin forming)



SCR after-treatment systems

### Pipe components for engines



EGR pipe



Heat collectors



Spin-formed sub-mufflers



Dual mode mufflers (internal valve)

### Mufflers



Laser welded mufflers



Titanium mufflers



Sports mufflers

## Body, chassis products



A-pillars



Roof side rails



Floor cross members



Radiator supports



Cross members



Door impact beams

## Secondary Steel Products



Cold finished bars



Carbon steel pipes for mechanical structure purposes



Cold finished bars (drawn)



Steel wires (drawn) for cold heading and extruding



Steering shafts



Cold forged products

# A Look at Sango by the numbers



## Environment

Total amount of CO<sub>2</sub> discharge  
**131,235t**<sup>\*1</sup>



Total number of trees planted (world-wide)  
**271,464**



Total amount of CO<sub>2</sub> absorbed / fixed as a result of planting trees  
**44t**



## Society

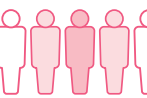
Number of employees

**7,031**<sup>\*1</sup>



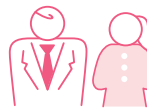
Average age

**40.1**<sup>\*2</sup>



Ratio of female employees

**6.86%**<sup>\*2</sup>



Average number of years at the company

**15.9**<sup>\*2</sup>



Employment rate of persons with disability

**2.1%**<sup>\*2</sup>



Rate of returning to work after maternity leave

**100%**<sup>\*2</sup>



Number of training courses

**62**



Number of educational correspondence courses

**120**



Number of workers who have acquired a National Trade Skill Test & Certification qualification (Total)

**298**



## Governance

Number of directors

**6**<sup>\*3</sup>

(including 1 external director)



Number of auditors

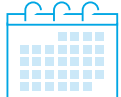
**4**<sup>\*3</sup>

(including 2 external directors)



Number of Board of Directors meetings

**16/year**<sup>\*3</sup>



Attendance rate at Board of Directors meetings

**93.1%**<sup>\*3</sup>



Number of reported whistleblowing cases

**6/year**<sup>\*2</sup>



Number of employees who took security training

**621/year**<sup>\*1</sup>



<sup>\*1</sup> Results for Sango Co., Ltd. and consolidated subsidiaries for FY 2018. <sup>\*2</sup> Results for Sango Co., Ltd. and Sango Corporation for FY 2018. <sup>\*3</sup> Results for Sango Corporation for FY 2018.



# Sango Growth and Development

Since its founding 90 years ago, Sango has supported the development of the automotive industry through the manufacture of exhaust systems and their components.

As the company grows and establishes new industrial bases to meet the changing times, we will continue responding to emerging needs by aggressively taking up bold new challenges.

## Consolidated sales (Billion yen)



## Sango History of New Product Development

1954

Began production of exhaust system products



Outer shell lock seam process for mufflers

1973

Adopted built-in catalytic converters in accord with emission control regulations

Emission control regulation-compliant exhaust systems



1977

Established tube mill facility (production lines integrated)



Added Tubing Department to Fukuta North Plant

1987

Began production of heat- and corrosion-resistant stainless steel mufflers



Stainless steel muffler

1990

Began production of door impact beams as a result of revised safety standards



Door impact beam

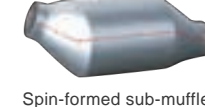
Began production of fabricated exhaust manifolds



Tubular exhaust manifold

1999

Began production of eccentric/oblique spin-formed products



Spin-formed sub-muffler

2001

Began production of high impact-absorbing propeller shaft tubes



Propeller shaft tube with crushable structure

2002

Began production of hollow and lightweight steering shafts



Steering shafts

2008

Began production of eco-friendly exhaust heat recovery devices



Heat collector

2010

Began production of urea SCR after-treatment exhaust systems for trucks

Urea SCR system



2011

Began production of cold forged drive shafts



Drive shaft

Toyota Technical Development Award



# Sango's future as seen through the "STEP 5" heat recovery product

The Sango Group has robust experience in developing and manufacturing exhaust systems.

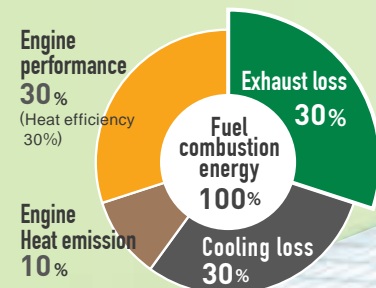
In 2008, before any other companies considered it, we began using our expertise and knowledge to develop heat collectors, which are devices that recover exhaust heat and help improve energy efficiency.

By 2018, we had completed the "Step 5" version of this device.

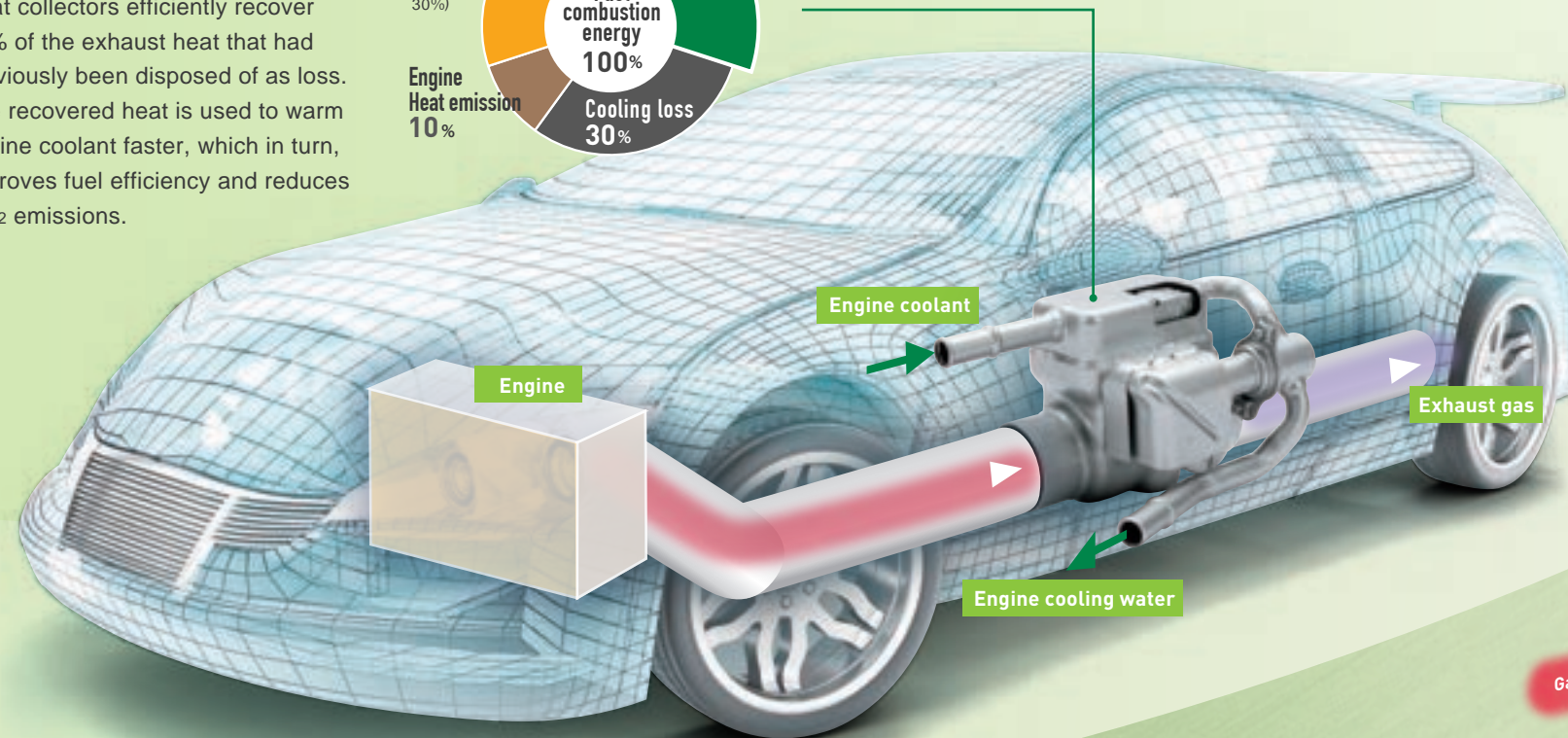
## Key improvements achieved by "Step 5"

### Technology used to recycle unused exhaust heat

Heat collectors efficiently recover 30% of the exhaust heat that had previously been disposed of as loss. The recovered heat is used to warm engine coolant faster, which in turn, improves fuel efficiency and reduces CO<sub>2</sub> emissions.



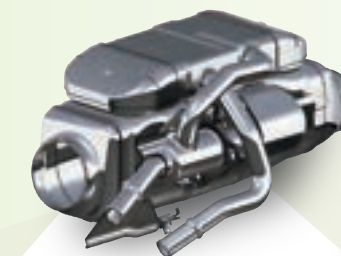
### Heat collector



Integrating the gas inlet and outlet sections inside the heat exchanger, Sango's original heat exchanger structure provides a significant reduction in size and weight.

### STEP4

(conventional product)



### STEP5

(newly developed product)

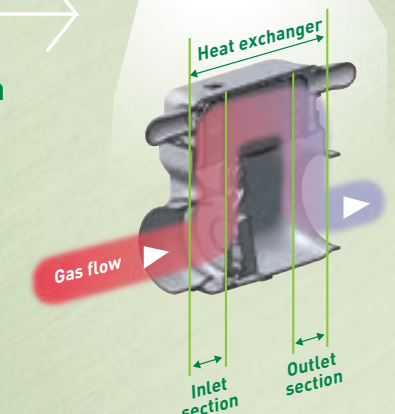
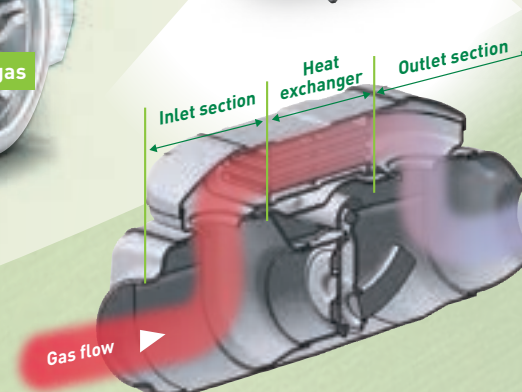


Size reduction

**60%**

Weight reduction

**41%**



## Development of the world's number 1 heat collector Sango's growing capabilities in manufacturing

In 2018, we completed development of the STEP 5 heat collector, number 1 in the world in performance with its compact size, lighter weight, and higher heat exchanger efficiency. Its most significant feature is a major reduction in size and weight while maintaining functionality. Compared to the conventional STEP 4, it is 60% smaller in size and 41% lighter in weight, yet maintains a fuel efficiency improvement level that is top class within the industry.

In order to build a product that appeared to be impossible, we reviewed the production process from scratch. We also stepped into new boundaries for in-house production of heat exchangers.

Converting outsourced parts to in-house production meant a series of first time challenges, such as thermal energy calculation, brazing, and thin metal sheet processing. Although there were many obstacles, the company found solutions to problems through the cross-disciplinary teamwork of members from design, production engineering, and manufacturing functions. We believe that Sango was able to achieve such results because of the company's strong, internal family-like ties and high technological skills fostered over many years. By applying our company's strengths to create new products and ideas, Sango will continue its mission to contribute to society.

"STEP 5" has won awards from the customer

## A demonstration of tight-knit Sango teamwork contributes to higher customer evaluation

When compared with conventional products, significant reductions in both size and cost were achieved through Sango companywide, cross-functional efforts. This led to recognition from Toyota Motor Corporation in not just one, but two different awards.

Toyota Project Awards 2018  
Received an award for the  
"Technology Section"

Toyota Global General Meeting for Suppliers 2019  
Received award for the  
"Technology Development Award  
in Excellence"



Reporting the award to the manufacturing site for the Step 5 heat collector.





# Commitment for environmental initiatives

## Long-Term Environmental Vision

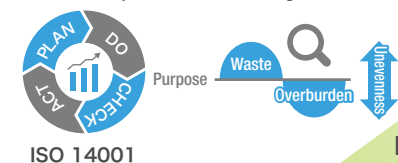
### Long-Term Environmental Vision: Sango Environmental Challenge 2050

Towards a better global environment in 2050, the Sango Group will strive to balance economic growth and preservation of the global environment. To contribute to the realization of a sustainable society, the Sango Group will take up initiatives aimed at creating 3 areas of value.



## 5th Challenge

Creation of an environmental management system, control of environmental risk, and the prevention of contamination in conjunction with continuous improvement (enhanced operations and management)



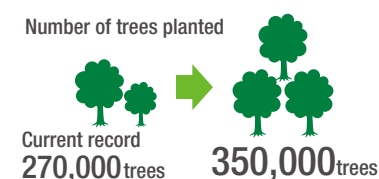
Consolidated control by the Sango Group (From July 2019)

Reduction of discharge (CO<sub>2</sub>, waste, chemical substances, water, etc.) in all business activities

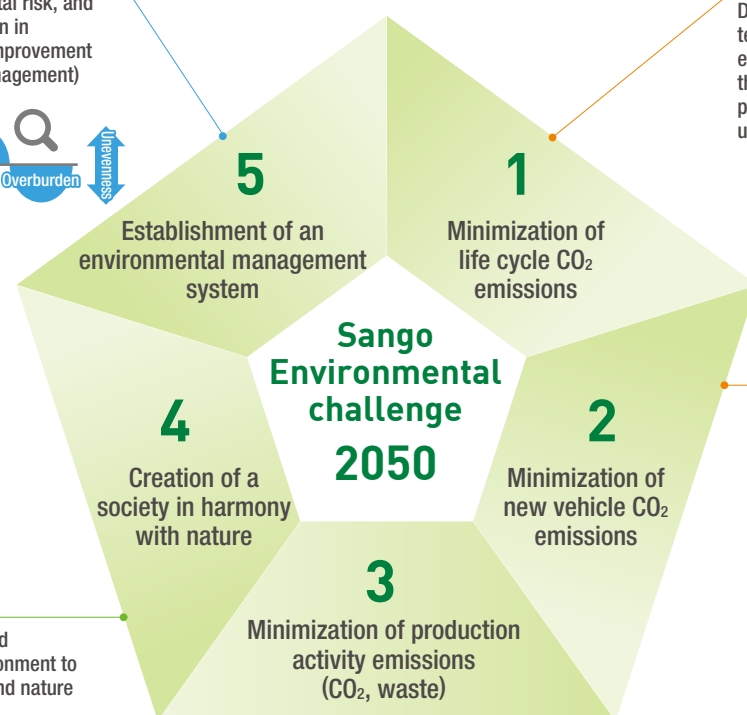
## 4th Challenge

Preservation of biodiversity and protection of our natural environment to realize a society where man and nature co-exist in harmony

- Tree planting
- Elimination of invasive species



## 5 Challenges



## 1st Challenge

Development of products and technology that are environmentally-friendly throughout their life cycle, from material procurement to manufacturing, usage, disposal, and recycling.



## 2nd Challenge

Development of high value-added products and technology that contribute to the customer's environmental value

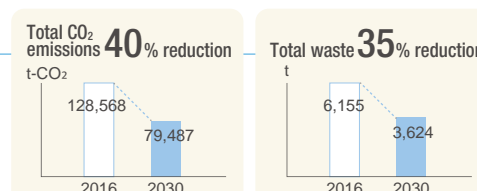
→ Contribute to CO<sub>2</sub> reduction by improving fuel efficiency

- Utilization of exhaust heat
- Weight reduction



## 3rd Challenge

Reduction of emissions and waste from production activity through innovations in manufacturing methods



## Environmental Basic Policy

### Sango Basic Global Environmental Policy

#### Basic policy

- 1 With this basic policy, the Sango Group aims to achieve a sustainable society that will balance economic growth and the preservation of the global environment, through the creation of environmentally-friendly products, more environmentally-friendly production sites, and the "Sango Tree Planting Project."
- 2 We will not only comply with laws, regulations, and agreements, but also take this a step further by setting our own standards and putting them into practice. Furthermore, we will respond in a fair and sincere manner to requests made by our stakeholders.
- 3 We will provide environment-related information in a timely and appropriate manner to ensure the safety and security of our stakeholders.
- 4 To raise the environmental awareness of every employee, we will conduct employee education and development programs, continuously training employees so that they can contribute to environment preservation activities.

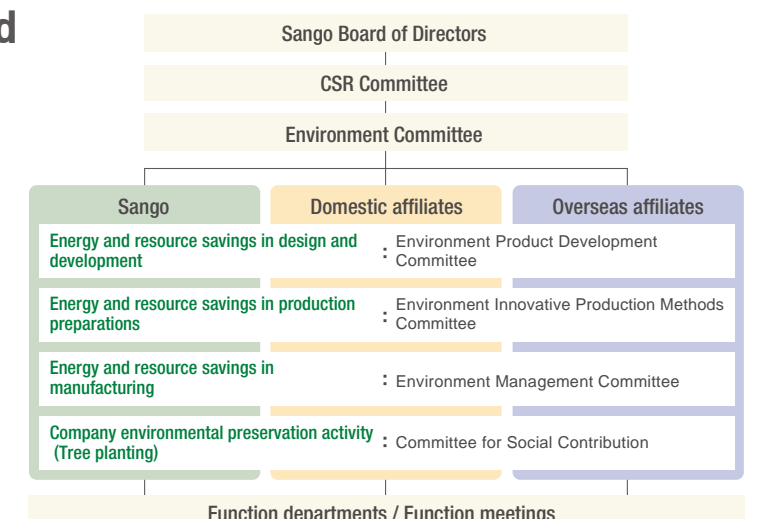
## Code of conduct

1st Challenge	2nd Challenge	3rd Challenge	4th Challenge	5th Challenge
We will strive to develop products and technology that takes the environment into account at every stage of the product life cycle, from development, design, procurement, production, logistics, specification, to disposal.	We will strive to develop products and technology with higher added value that contribute to the customer's environmental value.	We will save energy and resources through innovations in manufacturing. We will strive to create manufacturing processes that reduce environmental burden, including the reduction of greenhouse gases, waste, and chemical substances.	We will take up the protection of our natural environment and the preservation of biodiversity to achieve a society where people and nature can coexist.	We will build a global environmental management system and control environmental risks, correlating them with business management strategies. We will also strive for continuous improvement and the prevention of contamination.

## Promotion Structure

### A structure to promote and raise environmental awareness at all affiliates

As a first step and based on the structure for promotion shown on the right, we began more precise data collection and the implementation of training about the "Sango Environmental Challenge 2050" for the entire corporate group, both in Japan and overseas, in FY2018. We began this training at Sango Kanto, then on to Sango Hokkaido and Sanpuku in September. From November, we rolled the training out to overseas companies, including STI in Turkey and TSC (Tianjin), GSC (Guangzhou), and XSC (Xiangyang) in China. It is scheduled for completion by July 2019.







## Tree planting

## From Sango to local communities, and then on to the world The "Sango Tree Planting Project" keeps growing

Sango Group tree planting activities started in 2007 under the personal guidance of Dr. Akira Miyawaki and a total of 271,464 trees had been planted by FY2018. For this fiscal year, tree planting events will take place in 11 locations inside and outside Japan, including the United States, Thailand, Indonesia, China, and regions of Tohoku, Kanto, and Tokai.

## FY2018 Sango's Tree-Planting Activities

## Domestic entities



ECO35 Tree Planting Event (April)



Sango Kanto The 3rd Tree Planting Event (October)



Inabe Plant The 6th Tree Planting Event (May)

## Overseas entities



ASI (USA) The 5th Tree Planting Event (May)



TSC (China) The 6th Tree Planting Event (May)



XSC (China) The 1st Tree Planting Event (November)



STA (Thailand) Planting mangroves (April)



YSP (Thailand) Planting mangroves (May)



SID (Indonesia) The 3rd Tree Planting Event (November)

## 〈Building good relations with local communities〉

As the first tree planting activity outside the company, 4,584 trees were planted in the Miyoshi City Botagaie Park in cooperation with the city of Miyoshi in Aichi Prefecture. The event was hosted by the Botagaie-Koen Donguri-no-kai, whose members gathered acorns, and with Sango support, they cultivated seedlings for 4 years, which were then planted by Sango employees and families from the local community.

Every year we participate in tree planting events aimed at building a "Forest Seawall" along the Sanriku Coast, which was affected by the Great East Japan Earthquake.

This effort involves collecting tree seeds in Tohoku, cultivating them at Sango, and then planting the cultivated seedlings. To this day, we have provided 20,000 seedlings. For this continuous and long-term support, we received a panel of appreciation from the Forest Seawall Association in April 2018.

## VOICE

### Sharing the joy of tree planting at our company in Xiangyang China.

In peripheral areas of our plant, 123 employees and their family members planted 1,664 seedlings indigenous to the local area, including the *Quercus variabilis*, *Osmanthus fragrans* and others. They are looking forward to seeing these trees grow.



XSC (China) Ms. Du Yalan, Administration Division

## Regional cooperation



Bodagaie-Koen (Miyoshi City) Tree Planting Event (February)



Millennium Hope Hills (Iwanuma City) Tree planting event with a view of the ocean (May)

## Biotopes

## Biotopes created to preserve biodiversity and firefly watching events



Yawatayama's biotopes are homes for living creatures



A scene from a firefly watching event

In addition to the ECO35 facility, a small retention pond within the premises of Yawatayama Plant was transformed into a biotope in September.

At the ECO35 biotope, efforts have emphasized environmental awareness and the provision of spaces where more living creatures can live. This includes a "firefly watching event", which is held every year on an evening in June. The aim of this event is to welcome Sango employees and their families to an introduction of our approach to the environment, as well as the ecology of fireflies.



# With Our Customers

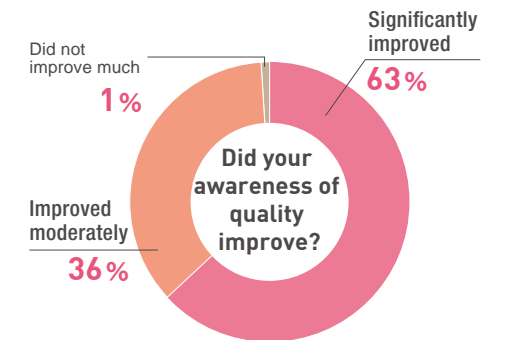
## Quality Improvement

## To enhance awareness for quality for the entire group Quality Exhibition held for employees

To improve quality awareness at Sango domestic affiliates, overseas affiliates, and suppliers, a Quality Exhibition was held as a special event during Quality Month (November).

The main exhibits at this event have traditionally displayed examples of improvement. In 2018, however, we revised the content with the concept of "take a look, feel, and think". A demonstration exhibit for employees featured a "Look for abnormalities quiz" using tablets, VR (virtual reality), and a display of actual defective products that had occurred in the field.

## ►Quality Exhibition Survey results



## Take a Look

Exhibits showed problem situations with images and defective products that had actually occurred in the field. Many saw these problems or situations for the first time, giving them pause to think, "How would I feel if this happened to my car?"



Actual defective products that occurred in the field and videos

## Feel

This display featured a "Where can abnormalities be found?" quiz corner. The quiz created a virtual reality experience by filming work scenes with a 360-degree camera and uploading them into the VR system and tablets.

About the quiz, participants remarked that "It was experience-based, and I enjoyed discovering the importance of daily inspections," and "The exhibitions were easy to understand for office workers and engineers who cannot actually experience being on work sites", thus providing employees with an opportunity to enjoy themselves while learning about quality.



Participants trying VR and tablet quizzes

## Let's consider

Here, employees watched a video that followed products made by Sango as they move on to the next processing steps. Where will the product in front of you be taken to next, how will it be processed, and what kind of car will it be used in? To respond to these questions from our employees, this display focused on a single part, filming it as it underwent changes, starting at the No. 3 Miyoshi Plant, moving on to the supplier, and then to Fukuta Plant. Understanding how one member's work is linked to following processes drives home the importance of quality.



Exhibition videos

## 〈Bringing the exhibition to remotely located plants〉

The plants in Toyohashi and Inabe, as well as the domestic affiliates Sango Hokkaido, Sango Kanto, and Sanpuku are located far from Sango's event site, so satellite Quality Exhibitions were held at these sites.

In cooperation with each of the sites, more than 1,000 people in total participated, thus allowing all participants to share views on defects that have occurred within our company group.



Sango Kanto Quality Exhibition



Sanpuku Quality Exhibition

More than 2200 people from across the Sango Group participated in this new project. Participants were not only from manufacturing departments, but also from human resources and general affairs. We will continue to work on quality improvement activities for the entire Sango Group.





# Together with Our Employees

Labor and Management Proclamation

## Labor and Management Proclamation signed declaring unity in the face of an era of major transformation

A labor and management proclamation was signed by Sango Co., Ltd. and the Sango Labor Union during the Sango 90th anniversary ceremony held in October 2018. In this proclamation, labor and management pledged that "labor and management (i.e. company and union, where union members are employees) shall renew the resolution to overcome difficulties together" in this period of major change in the automotive industry. To create this statement, members were selected from both the company and the union and they held many study and review meetings on such matters as the history of the company and the union, the basics of labor and management relations, what legacy must be passed on to future generations, and what commitments labor and management should make to the local community.



President Tsunekawa and Mr. Mori, Chairman of the union's central executive committee pledge to overcome difficulties together.



Labor and Management Proclamation

[Excerpt from Labor and Management Proclamation]

- 1. Labor and Management relationship shall be based on mutual understanding, mutual trust and joint responsibility.
- 2. In the aim for continuous development, each member will strive to fulfill his or her duties, while the company will strive to develop human resources who actively take on new challenges and to create a corporate climate which allows it.
- 3. We aim to be a company that contributes to global environments and local communities / society through our business.

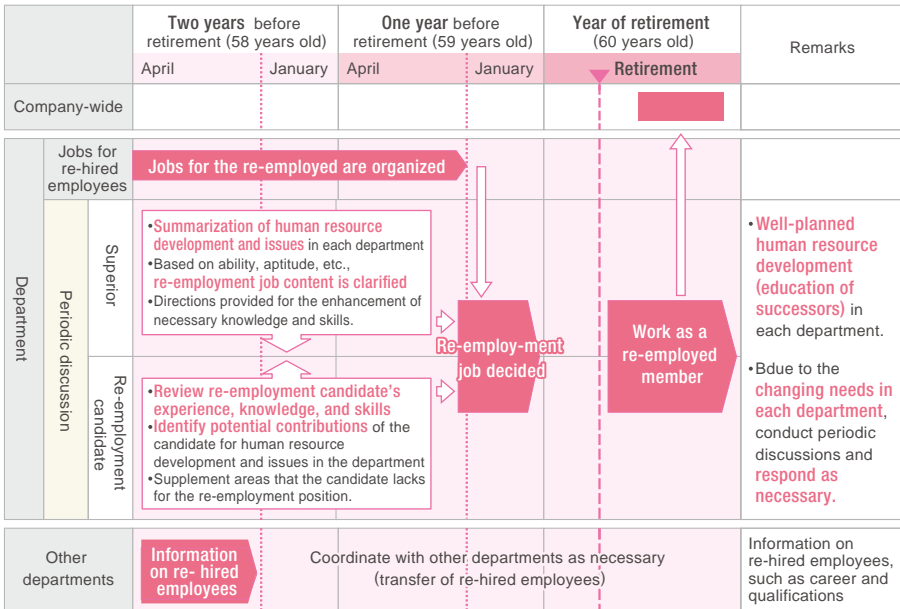
All employees understand and share the idea in the Labor and Management Proclamation, and maintain, continue to enhance and forever inherit good and sound labor and management relationships which do not change regardless of time.

Promoting Diversity

## Developing worker-friendly job sites that respond to changes of life stages

Ninety percent of employees who retire at age 60 use the re-employment system and continue actively working, using the techniques and skills they have acquired over many years. Depending on health conditions or individual requests, we also have a program to introduce retired employees to workplaces other than where they worked before retirement, where they can use their abilities much more effectively or where they can work seamlessly. We are striving to create workplaces where our employees can feel an even greater sense of satisfaction.

► Re-employment process



From FY2019 onward, we will reexamine the interview system in order for management and re-hired employees to thoroughly discuss post-retirement employment in a comfortable way. With regard to workplaces, in order to offer a broad range of opportunities for extending a member's work experience, we will introduce a system which starts two years before retirement and shares information on re-employment with all departments in the company. In addition to the re-employment system, we also have

programs for childcare support, which includes a childcare leave program and a program of shorter working hours for parents, and a long-term nursing care leave program for employees who provide long-term care for family members. These programs are equally available to both men and women, and through them, we are creating a system for a better work-life balance, so that employees can work at Sango for as long as they want, in a way that suits their personal circumstances.

Partnership Activities with Overseas Affiliates

## Strengthening human resource functions in collaboration with overseas affiliates

We are promoting activities for the purpose of reinforcing partnerships with overseas affiliates and improving the skills of HR Department members. In these activities, we are conducting assessments regarding human resources (self-assessment). We identify issues, plan improvement activities for the issues, and promote improvements in collaboration with Sango's Human Resources Department. The improvement activities are a good opportunity, not only for the members of the HR Departments at overseas affiliates to acquire knowledge and personal networks, but also for the members of Sango's HR Department to gain a better understanding about overseas work conditions. This leads to human resource development for both organizations.



Sharing issues at the meeting

Partnership Activities with Overseas Affiliates

## Enhancing capabilities of overseas leaders through technical training

The purpose of this activity is to understand the ideal Group Leader and improve their skills. We invite Group Leaders and Group Leader candidates working at manufacturing sites in overseas affiliates to Sango and conduct training. With regard to members for the first fiscal year of this training, 9 people were selected from YSP (Thailand). They started this program in September 2018. One trainee stated confidently, "I am discovering new things every day, and my life here is very exciting. I would like to learn even more and stimulate other members of our company." As for the department that accepted the trainees, they stated "We are impressed by their attitudes to absorb everything they learn. Their presence is also a good stimulation for other people in our department." A positive cycle has been created in the group as a whole.

We will proceed with this activity so that all employees involved in this training can act as a bridge connecting Japan and the overseas affiliates.



Training in practical welding skills



Enjoying Japan during the holidays





# Together with Our Employees

## Sango Training System

### Business skill improvement through a variety of training courses

We have developed human resources who can play active roles in the front line of workplaces through basic training. In this training, we develop the abilities required in each level, from new employees to managerial positions. Furthermore, we support them to attend courses such as language training and correspondence education to provide opportunities to learn independently.

	Group training at managerial level	Self-development	Generation-specific
Managerial position	<ul style="list-style-type: none"><li>Mental health care/communication</li><li>Section manager training</li><li>Director level training</li></ul>	Education for responding to globalization	Pre-management Juku for those in their thirties
Leader position	<ul style="list-style-type: none"><li>New executive training</li><li>Mental health care</li><li>OJT &amp; communication training</li></ul>	Problem solving course	Twenties trainee program
General employees	<ul style="list-style-type: none"><li>Mid-level employee training</li><li>TPS training</li><li>Leadership training</li><li>QC leader training</li></ul>	Educational correspondence course	
New employees	<ul style="list-style-type: none"><li>Introduction to TPS (Toyota Prod. System)</li><li>QC introductory course</li><li>Good work practices</li></ul>		
	<ul style="list-style-type: none"><li>New employee training</li><li>Basics in logical thinking / expression</li><li>Business manners training</li><li>Good meeting practices / presentations</li></ul>		

## Trainee Program

### Early development of global awareness through overseas training starting with people in their twenties

The generation-specific trainee system sends young employees in their twenties to overseas affiliates for one year, where they receive language and practical training at overseas affiliates. This program aims to develop human resources at an early stage in their careers, teaching language skills and providing a global vision and experience. An understanding of different cultures and the networking which can only be gained through overseas life play an important role even after returning to Japan. In FY 2018, one employee participated in this program at ASI (USA).

#### VOICE

I would like to make use of my exchange experience at ASI around the world.



**Trainee** Tsuyoshi Harauchi \*Second from the right  
(Production Engineering Division, Production Engineering Field)

At first, I concentrated on improving my English skills, but my communication is also expanding with people from other countries who became my friends in language school, including local engineers and their families. I learned local safety rules related to production engineering in practical training. I would like to make use of these experiences to become a bridge between local and Sango members.

## Pre-Management Juku

### Developing ambition and management concepts with the aim of becoming next generation leaders

In generation-specific training for members in their thirties, that are necessary for leaders, Pre-Management Juku aims to nurture executive candidates by developing ambition and management concepts, so that they will be able to lead future generations of the Sango Group.

Through activities on a theme assigned to teams for one year, Juku trainees selected from each department work to broaden their viewpoints and improve their skills, so they can be considered a future managerial candidate. In FY2018, eight employees selected in May worked hard on the challenge assigned to them to "Create a New Business", presenting their work to the Directors at the end of the term.

Trainees are provided guidance from advisors, special

lecturers and the President during the period of activity, but all operations are conducted by the teams themselves in order to encourage self-initiative. A

total of 29 Juku students graduated, and are now actively working at their own job sites.



Students of pre-management Juku in the 4th fiscal year

## Safety in the Workplace

### Strengthening risk management systems towards the prevention of accidents and disasters

Corporate activity involves a variety of risks. However, these risks can be mitigated by predicting and managing them to avoid accidents or damage from disasters.

In the manufacturing workplace, we have appointed "Safety Specialists" whose function is to indicate where risk lies and work with management to reduce the risk. This leads to the early discovery of risk factors. Also, in crane work where serious accidents can occur, we strive to prevent accidents through repeated (refresher) training to qualified operators.

A self-diagnosis was carried out at each affiliate in Japan, using a common assessment sheet. Follow-ups to the diagnosis confirmed by each professional on-site then focus on preventing accidents.

In addition, we systematically conduct visualization activities for risks in work, equipment, and chemical substances. This is followed with efforts to make improvements that will reduce accidents and damage from disasters by managing risk factors.



Overseas affiliate staff members taking part in a diagnosis using the common assessment sheet

## Promotion of Physical and Mental Health

### Enhancement of a health care system to promote prevention and early treatment

As an approach towards employee health care, regular health checkups are carried out along with special medical checkups for some types of work. We also have a follow-up system for employees who need follow-up health checks, dental checkups that are free of charge, medical examinations for members with long-term overtime by industrial physicians, stress checkups and mental health care which is aimed at early identification of poor health. Other physical and mental health promotion initiatives include efforts to install exercise machines at each plant, mental health campaigns, and non-smoking activities.



Taking a pleasant walk around the plant

## Creating a Sense of Unity Among the Employees

### The whole company is working on Creating teamwork through sports



The Ekiden Relay Road Race was livened up by runners and supporters



GSC (Guangzhou China) Twenty three people joined the 3 km Running Competition

Sango Group holds sports events to create a sense of unity among employees.

In November, we held the "2nd Sango Group Ekiden Relay Road Race" at Fukuta Plant. A total of 900 people from Sango and Sango business partners attended. The race included a Diversity Category and a General Category, with teams from different workplaces competing against each other. All teams did their best, receiving loud cheers from supporters.

A race was also held at an overseas affiliate, with a 3 km-Running Competition at GSC (Guangzhou, China) in March, 2019.

Such activities not only enhance teamwork, they also promote the good health.





## Together with Our Suppliers

### Environmental Conservation Activities

#### Promotion of green purchasing guidelines

In the interests of environmental conservation, Sango actively promotes procurement of environmentally-friendly parts and materials. However, the state of the global environment is worsening year by year as abnormal weather increases and the world faces waste disposal problems resulting from mass consumption. In 2018, we released the "Sango Group Green Purchasing Guidelines" and we are promoting activities aimed at socially sustainable development, while working with our suppliers for a better harmony with the environment.

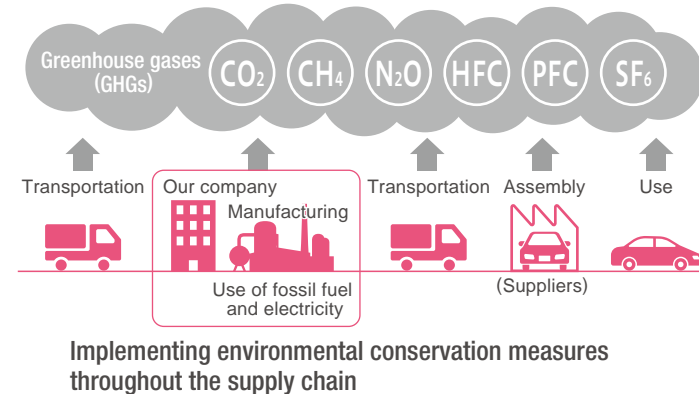


A meeting held by the Engineering Planning Department to follow up on chemical substance control.

#### [Requests to our suppliers]

1. Establishment of an environmental management system
2. Reduction of greenhouse gases (GHGs)
3. Reduction of environmental impact on water
4. Promotion of resource recycling
5. Control of chemical substances
6. Build a society in harmony with nature

\* "5. Control of chemical substances" is mandatory, and is the most important item.



### Cooperation with Suppliers

#### Strengthening partnerships by sharing secure information

Sango suppliers are often invited to join events held at Sango on safety, quality and kaizen. In some instances, suppliers may take ideas from these events back to their own companies, basing similar initiatives there on a company-wide scale—the sharing of such information is exactly for this kind of purpose, and we encourage utilization of this information to solve problems within their companies.



A supplier meeting



Suppliers participating in an exhibition at Sango

## Together with Local Communities

### Volunteer Activities

#### Contribution to society as a supporter of the Special Olympics Aichi 2018

Sponsored by the international sports organization, The Special Olympics, The 2018 National Summer Games were held in Aichi Prefecture. This organization provides sports training and opportunities to persons with intellectual developmental disorders. A total of 63 members from Sango basketball, table tennis, and badminton sports clubs joined The Games as volunteers to work on setting up the venue and managing the contest.



Members of the basketball club serving as scorers

Held once every four years, it is the purpose of the National Games to encourage communication and friendship among participating players from all over Japan. Sango club members also enjoyed participating and communicating with the players, making it a meaningful activity for all.

#### TOPICS

#### Supporting the Special Olympics Aichi 2018 by recycling unwanted PCs

Rare metals were collected from recovered PCs, and a part of the profits from the sale of the resources was donated to the Special Olympics. This also contributed to the employment of people with intellectual disabilities who played active roles in such operations as the disassembly work at our plants. 144 PCs were provided by Sango, with 17 PCs provided by individual employees.

### Plant Tour

#### A plant tour for elementary schoolchildren offers them an experience at an actual manufacturing site

Ninety four pupils in the fifth grade of Chubu Elementary School in Miyoshi City visited Fukuta Plant and the watched spinning line, the manufacturing process for mufflers—our main product, the heat collector line, and a performance of "karakuri", etc. By asking local people to visit our plant, we offer an opportunity for them to learn what we as a local company are making, and at the same time, allow them to see and have an interest in manufacturing and efforts toward safety and security.



Elementary schoolchildren listening to an explanation about "karakuri."

### Group Company Activities

#### Regional contribution activities by overseas affiliates to further facilitate exchanges with the local community



#### Volunteer participation in Christmas parade (ASI / USA)

Regular and temporary employees numbering around 50-strong, and their families volunteered their time to make a float for the Christmas parade, a popular event in Madison, Indiana. ASI members threw candy to the gleeful crowds watching the parade. (The ASI float has won consecutive first prizes in the corporate category.)



#### We conducted cleanup activities around plants (SIAP / India)

As a regional corporate contribution activity, 29 employees participated in cleanups in the peripheral areas of an industrial complex (the BIDADI area.) SIAP will continue participating in this activity as it aims to be a company that is rooted in the local community.



#### Activities to alleviate air pollution, "The Blue Sky Battle Plan" (TSC / China)

TSC is promoting equipment modifications and improvements in line with the Chinese government Blue Sky Battle Plan campaign. Improvements include a reduction in VOC (volatile organic compound) emissions by installing the latest combustion-type exhaust emission control device on our paint line.



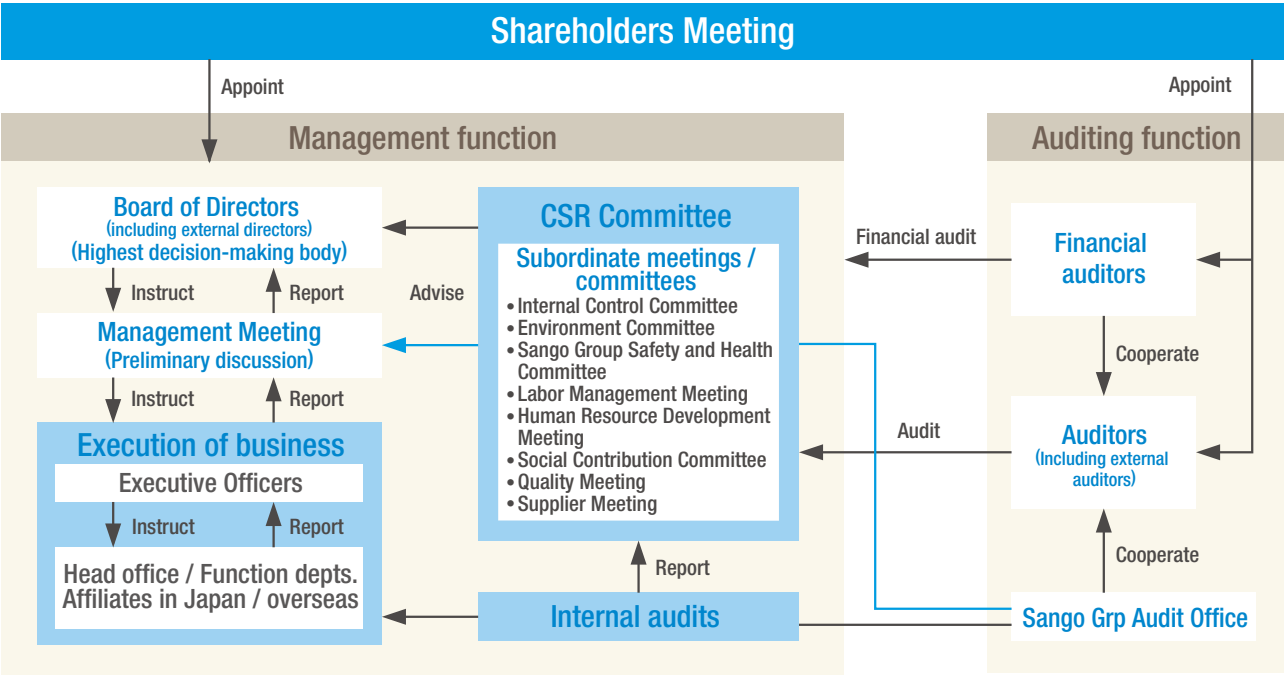


# Governance

## Corporate Governance System

### Aiming for sound and sustainable management for our stakeholders

Sango has established the corporate governance system shown below. This system enables us to make transparent and fair decisions quickly, taking into consideration all of our stakeholders, including our employees, shareholders, customers, suppliers, and local communities.



The highest decision-making body in the Sango Group is the Board of Directors, which consists of six directors, including one external director, and it decides on critical issues concerned with management and statutory matters. At the same time, to ensure fairness and independence, our auditors, including the external auditors, supervise management and audit how directors are executing their duties.

## Internal Controls Committee

### Establishment of an effective internal controls system to minimize risk and maximize profits

The basic approach for Sango internal control systems is to ensure operations within company organizations are carried out properly. In accordance with this basic tenet, our Internal Controls Committee promotes initiatives for three main areas: ❶ corporate governance; ❷ compliance; and ❸ risk management.



# Compliance

## Compliance Enlightenment Activity

### Posting a compliance example in the company magazine for easy understanding and practice

The company magazine, Sunshine, is issued every other month, and includes a "Sango★Compliance Newsletter!" on the last page, so that everyone can learn about laws and regulations. With cartoons and explanations, the article helps employees realize what acts they might do that would be considered improper and raise awareness to take care about such topics as information leaks through social media, harassment prevention, and compliance with driving rules and manners.



An example of a "Sango★Compliance Newsletter!"

## Education on Important Laws and Regulations

### In-house education on important laws and regulations requiring strict compliance



Training session given by an in-house lecturer on important laws and regulations

There are various laws and regulations related to our operations. Even if an illegal act is carried out inadvertently, a heavy fine would still be imposed on the company or individuals. To prevent such a situation from arising as a result of ignorance about prohibitions, Sango holds various training workshops about laws and regulations that relevant employees should be aware of, using examples of actions that are likely to lead to a violation of such laws as The Antimonopoly Act, the Subcontract Act, and the Worker Dispatch Act.

## Whistle-blowing System

### Established a consultation contact for violations of laws and regulations for the early detection and correction of wrongful acts

Wrongful acts should not happen at a company. However, if such an act does occur, we must respond to it as early as possible to minimize damage to the company. We have a "Sango☆Helpline," as a reporting system for illegal acts. There are "internal (legal affairs)" and "external (attorney's office)" consultation contacts. In order to protect whistle-blowers, confidentiality obligations for relevant persons are stipulated in the Company Rules to prevent leaking of corporate information, under the section "Whistle-blowing system operational regulations".



An information poster displayed in the company