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# CSRREPORT

## 2016

To Build a Trusted Identity as a Contributing Member of the Global Community



Yokohama Rubber is a signatory to the United Nations Global Compact.  
Yokohama Rubber is an advocate of Fun to Share, a climate change program working to realize a low-carbon society.  
Yokohama Rubber Group is an official partner of Chelsea F.C.  
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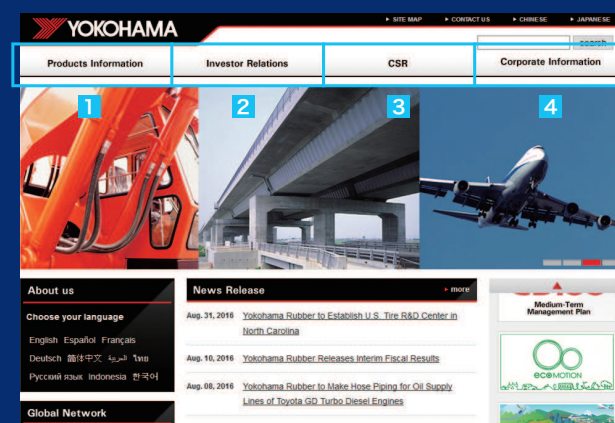
## Contents

01	Contents / Editorial Policy	
02	Message from Chairman	
03	Yokohama Rubber Group at a Glance / Corporate Philosophy	
05	CSR and Important Issues (Materiality) / Participation in initiatives in Japan and overseas / CSR and Environmental Management Promotion System	
07	Message from the PRESIDENT	
09	Dialogue with the Chairperson of the Board	
11	Yokohama Rubber's Tire Business and CSR	
13	Yokohama Rubber's MB (Multiple Business) and CSR	
15	Creating Value through Our Businesses	
16	Special Feature Yokohama Rubber's Important Issues	
17	For the Global Environment	
19	Together with Local Communities	
21	Together with Our Customers	
23	To Our Stakeholders and Investors	
25	Together with Our Business Partners	
27	Together with Our Employees	
29	Introduction of New Technology	
31	ISO26000 Compliance Activity Report	
33	Response to Outside Experts' Opinions/Third-Party Opinion	

### Editorial Policy

This report was created to share Yokohama Rubber Group's policies, approach to CSR, orientation and performance with each of its stakeholders in a concise and clear manner. Within this report, you will find information about Yokohama Rubber Group's stance toward achieving its vision of "to build a trusted identity as a contributing member of the global community" with an eye on 2017, when the company celebrates its 100th anniversary, and beyond. Additional details of our activities can be found on our CSR website, which contains a host of information compliant with GRI Guidelines Ver. 4 about the progress of Yokohama Rubber Group's CSR activities. We invite you to review this website together with the print version.

### Information Map Highlighting the information published on Yokohama Rubber's corporate website



#### 1 Products Information

Delivers information about product features and specifications, including tires, industrial products, and sporting goods

#### 2 Investor Relations

Presents investor relations information about management plans, growth strategy and earnings

#### 3 CSR

Provides information about ESG policies, activities and progress

#### 4 Corporate Information

Highlights the corporate philosophy, company profile and governance structure



Corporate website

## Message

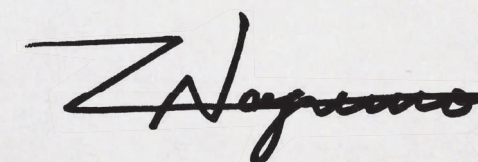
Yokohama Rubber will celebrate its centennial in 2017. In thinking about the next 100 years of the company, I believe it is very important to think about our vision for 2050 and what we need to do to accomplish this.

I want the Yokohama Rubber of 2050 to be an appealing company. This requires that we achieve stable, continuous growth globally and raise our profile internationally. In recent years, manufacturers from emerging countries have grown stronger and industry reorganization has become much more active. To maintain this identity as an appealing company well into the future, we will also need to engage in value-added businesses and play a lead role in industry reorganization.

Aimed at our centennial in 2017, we have been implementing the medium-range management plan Grand Design 100 (GD100) since fiscal 2006 to become a global company with a unique presence in terms of both corporate value and market position. In addition to our core business of supplying high performance, safe tires for automobiles, we have decided to also focus on tires for vehicles used in agriculture, industry and disaster relief applications through M&A. This will not only help us to achieve continuous growth, but also contribute broadly to society through our businesses.

Recently, I had the chance to talk with Ms. Nami Takenaka, Chairperson of Prop Station, a social welfare corporation helping people with disabilities participate in society (see page 9). Simply having solid financial performance does not mean that society will respect you as a company. You can question whether many companies are indeed contributing to society or not. Whether a company employs and utilizes a diverse workforce, including people with disabilities, women and foreign nationals, will have a major impact on that company's future.

I want to make Yokohama Rubber to be a top five tire company globally by 2030. To achieve this, I will make sure that we have a diverse workforce that works well together to achieve continual growth. I will also ensure that we value employees with broad perspectives and a unique presence.



**Tadanobu Nagumo**  
Chairman and Representative Member of the Board





# Yokohama Rubber Group at a Glance (as of December 31, 2015)

Company Name	The Yokohama Rubber Co., Ltd.	Number of Shareholders	12,501
Establishment	October 13, 1917	Number of Shares Issued and Outstanding	169,549,081
Paid-in Capital	JPY 38,909 million	Number of Consolidated Subsidiaries	122
Net Sales	JPY 629,856 million	Number of Affiliates Accounted for by the Equity Method	1
Fiscal Year End	December 31	Stock Exchange Listings	Tokyo and Nagoya
Chairman and Representative Member of the Board	Tadanobu Nagumo	Our Worldwide Locations	Japan, the USA, Canada, Australia, Germany, the Philippines, Vietnam, China, Thailand, Russia, etc.
President and Representative Member of the Board	Hikomitsu Noji	Website	http://www.y-yokohama.com/global/
Head Office	36-11 Shimbashi 5-chome, Minato-ku, Tokyo, Japan 105-8685		
Number of Employees	22,187 (consolidated)		

## Main Products

### Tires

Yokohama Rubber manufactures a wide range of tires, tubes, aluminum foil and automotive components for passenger vehicles, trucks and buses, light-duty trucks, construction vehicles, and industrial vehicles

### MB\*

Yokohama Rubber supplies conveyor belts, pneumatic fenders, marine hoses, rubber bearings, highway joints, industrial air springs, various high pressure hoses, couplings, sealants, urethane coating waterproof materials, various adhesives, electronic materials (coatings, encapsulants for LED), aerospace products (lavatory modules, tanks, couplings)

\*Acronym that stands for Multiple Business. This term is collectively used by Yokohama Rubber to refer to a diversified and growing business portfolio.

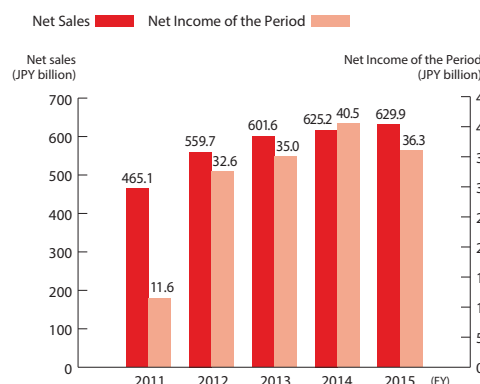
### Other

Sporting goods, information processing services, real estate leasing, and others

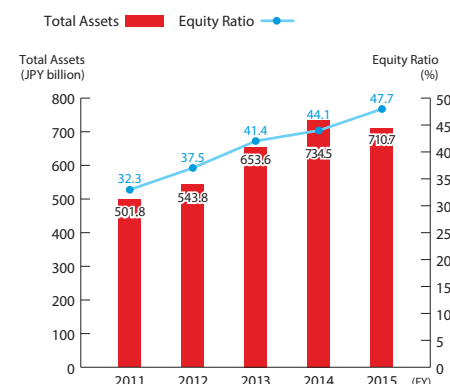
## International Presence



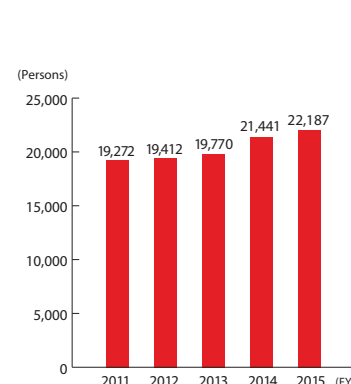
## Net Sales and Net Income (consolidated)



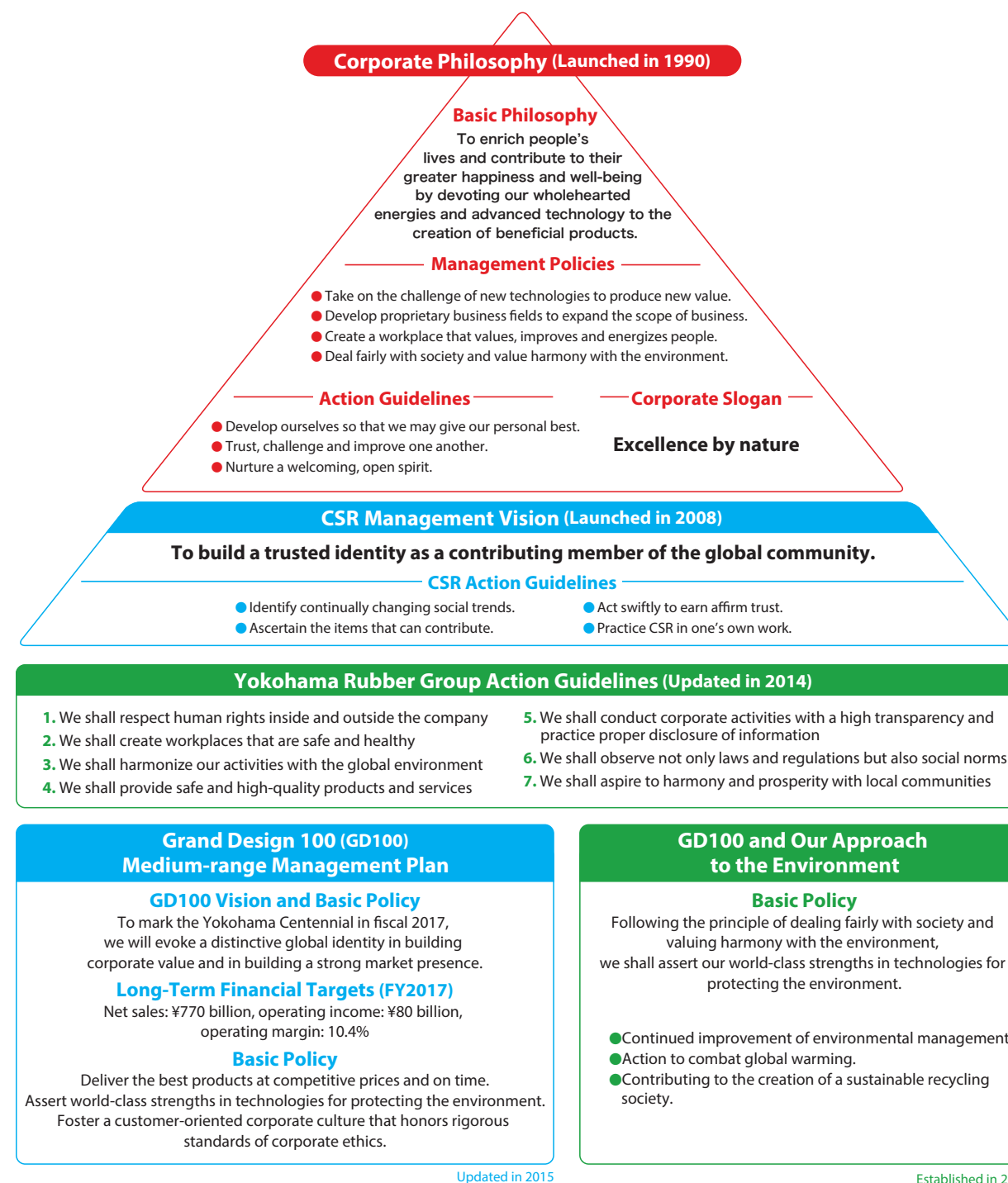
## Total Assets and Equity Ratio (consolidated)



## Number of Employees (consolidated)



# Corporate Philosophy (CSR Management Vision and Action Guidelines)



Updated in 2015

Established in 2006

## The Founding Spirit

- Production business is a social service. Its purpose is to make people's lives more convenient and enjoyable. Its aim should be to offer good, useful products at moderate prices.
- There must be a basic commitment to delivering quality products unrivaled by those of competitors.
- Management should adhere to the principles of fairness and consideration. The mission of a fair, honest management is to ensure capital, share the fruits of endeavor with its workers, and fulfill its responsibilities to consumers to act, in other words, rationally.
- A company should have as few employees as possible and make the best use of the productivity of machines. This is the great secret for improving efficiency.
- The success or failure of a business depends on how much one is willing to study, and with how much determination, to mutually improve and grow. Accordingly, one must make a great effort.



## CSR and Important Issues (Materiality)

Yokohama Rubber Group is committed to the ten principles of the UN Global Compact\*<sup>1</sup> and carries out the Plan-Do-Check-Act (PDCA) cycle following the framework of ISO 26000\*<sup>2</sup>.

\*1: A voluntary initiative in which companies participate in a worldwide framework for realizing a sustainable society by taking action as a good corporate citizen through creative and responsible leadership.

\*2: A set of guidelines created by the International Standards Organization (ISO) on the social responsibilities of companies and other organizations.

### The Ten Principles of the UN Global Compact

**Human Rights**

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

**Labour**

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

**Environment**


- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

**Anti-Corruption**

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

### ISO26000 Seven Core Subjects

- Organizational governance
- Human rights
- Labor practices
- The environment
- Fair operating practices
- Consumer issues
- Community involvement and development



WE SUPPORT

### ● Determining Important Issues (Materiality)

Starting in 2014, we have determined important issues (materiality) with regards to themes of great interest to and impacts on both the company and stakeholders, from among the many CSR issues that exist.

We focus on specific items among these and establish KPI as we work towards ongoing improvements by implementing the PDCA cycle to achieve these items.

<b>The global environment</b>	We challenge to build a sustainable society in harmony with the environment, to protect our blue planet and human beings.	<ul style="list-style-type: none"> <li>Materials</li> <li>Energy</li> <li>Water</li> <li>Biodiversity</li> <li>Emissions</li> <li>Products and services</li> <li>Environmental grievance mechanisms</li> </ul>
<b>Local communities</b>	We build a trusted identity as a contributing member of the global community by making contributions to the development and prosperity of local communities.	<ul style="list-style-type: none"> <li>Market presence</li> <li>Local communities</li> <li>Grievance mechanisms for impacts on society</li> </ul>
<b>Customers</b>	We supply safe and secure products through manufacturing focused on the heart and technology.	<ul style="list-style-type: none"> <li>Customer health and safety</li> <li>Product and service labeling</li> <li>Marketing communications</li> <li>Compliance (Product liability)</li> </ul>
<b>Shareholders/ investors</b>	We improve our company value by growing business opportunities.	<ul style="list-style-type: none"> <li>Economic performance</li> </ul>
<b>Business partners</b>	We promote CSR activities throughout the value chain.	<ul style="list-style-type: none"> <li>Supplier human rights assessment</li> <li>Supplier assessment for impacts on society</li> <li>Supplier environmental assessment</li> <li>Supplier assessment for labor practices</li> <li>Child labor</li> <li>Forced or compulsory labor</li> </ul>
<b>Employees</b>	We value and develop our people, and create opportunities for people.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Training and education</li> <li>Diversity and equal opportunities</li> <li>Human rights grievance mechanisms</li> </ul>

\*Please see page 15 for specific initiatives for stakeholders in terms of value creation through our businesses.

## Participation in Initiatives in Japan and Overseas

### Japan Association for the World Food Programme

We endorse the World Food Programme (WFP) in undertaking to eradicate hunger and poverty and supports the activities of the WFP as a trustee.

### Fun to Share Campaign

We have been supporting the new Fun to Share Campaign aimed at achieving a low-carbon society in response to climate change since 2014. We have also registered as a participating company and organization and made a declaration on the content of the initiatives.

**(Yokohama Rubber Co., Ltd.)**

Achieving a low-carbon society through fuel-efficient tires and environmental contribution products and activities.

### "Declaration of Biodiversity by Keidanren" - Promotion Partners

We have been in accordance with the idea of "Declaration of Biodiversity by Keidanren" and their promotion partners since 2009 to develop various approaches for the preservation of biodiversity. Basic policies and action guidelines have been set forth as "Yokohama Rubber's Guidelines on Biodiversity."

### Keidanren's Commitment to a Low Carbon Society

We are in accordance with, and participate in various activities for Keidanren's Commitment to a Low Carbon Society under the vision of "Japanese industries playing a role as core functions with their technological strength in order to achieve our target which is to halve the greenhouse gas emission of the world in 2050."

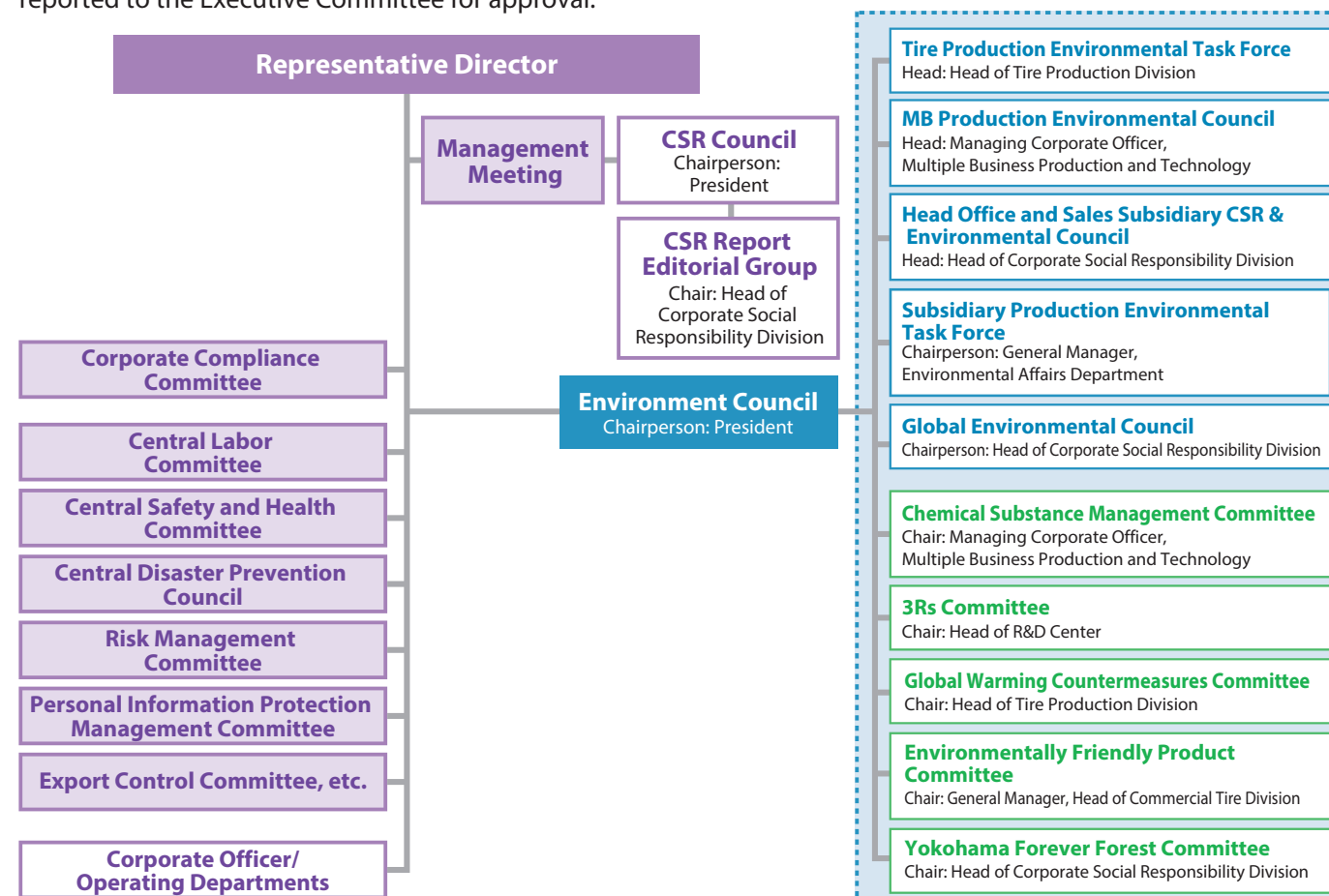
### WBCSD (World Business Council for Sustainable Development)

WBCSD refers to the unified association consists of top executives from global corporations in order to perform their leadership in their industry, have lively discussion, and propose policies with regards to the environment and sustainable development. We are participating in the Tire Industry Project which is to conduct surveys pertaining to possible impact on the environment and health to be made by tires, and to promote various activities to save energies in the buildings and offices.



## CSR and Environmental Management Promotion System

Twice a year, we hold a CSR\* Council and an Environmental Council, each chaired by the President, in order to plan and review CSR issues that Yokohama Rubber Group should be addressing. Matters that affect management are reported to the Executive Committee for approval.



■ CSR and environmental management promotion framework (as of April 1, 2016)



Message from the PRESIDENT

# Aspiring to Grow the Company with a Strong Presence in Advance of Our Centennial



**Hikomitsu Noji**  
President and  
Representative Member of the Board

## Yokohama Rubber's Mechanisms and Human Resource Development Initiatives for Continually Earning the Trust of Society

Yokohama Rubber will celebrate its centennial next year in 2017. I would like to take this opportunity to extend my appreciation for the support we have received over this time from customers, business partners and various other stakeholders.

Last year, there were a number of corporate scandals around the world that shook the confidence of consumers and society as a whole.

Yokohama Rubber, recognizing that these scandals are not someone else's problem, took stock of fraud and risk items at all business divisions, subsidiaries and affiliates in order to check whether information, goods, and money is centrally managed within operational flows. We also clarified accountability for meeting bodies and job duties and thoroughly implemented measures to prevent fraud.

Today, our work involves both digital tasks and analog tasks. For example, we have digitized work that handles data to every extent possible and established a mechanism whereby data is retained in its original condition without modification by others.

At the same time, we want workers to focus on analog tasks that produce added value for the company, such as communication with others and value creation. We are in the process of developing a system that will ensure corporate scandals never occur and that will maximize added value in terms of both systems and people.

## Raising Our Visibility Among Customers Around the World

To increase our visibility further, in 2015 we concluded a partnership agreement with Chelsea FC of the Premier League, one of the world's foremost professional soccer leagues. Soccer is a popular sport even in emerging countries, and so through this relationship, we hope to get our name out and let people know our tires are being used in motorsports and on some of the world's top vehicles. This will raise our brand profile and help pave the way for increasing our customer base around the world.

Environmental initiatives are another essential element for any company. Yokohama Rubber has declared its commitment to become a company having world-class strengths in technologies for protecting the environment when it comes to giving back to the environment. We offer some of the world's best tires when it comes to environmental performance. Our goal is to be a company with a strong presence in global markets for the next century. Toward that end, we will implement various initiatives and activities.

## Reinforcing Our Operating Base and Maximizing Added Value through CSR-centered Management

Safety, the environment, quality, and compliance represent pillars of CSR initiatives that form the very foundation of a company. A company's added value is largely determined by the extent to which it can reduce related risks to zero and accumulate positive value in other places. The greater the positive value, the greater the corporate value, which also translated into greater brand power, too.

Yokohama Rubber acquired Alliance Tire Group B.V. (ATG) of the Netherlands in 2016. ATG markets industrial tires in 120 countries around the world. Now, we will turn our attention to carefully examining ATG's plants and their supply chain.

Diversity is also an important issue for a global company. In Japan, we are examining ways to increase the number of females hired to work mainly at our plants. Increasing women in our workforce will not only make workplaces more dynamic and friendly, but it will also help to reduce manual labor and improve safety. In this manner, we will continue to work on making our job sites more female friendly.

As for business partners, we will continue to focus on sourcing materials from companies that disclose ESG, particularly those outside of Japan, and companies that have obtained ISO 9000 and ISO 14001 certification.

We must compete with peers in terms of business and products, but there are certain CSR issues that should be addressed with the cooperation of other companies. Our industry is already working together to implement distribution and environmental measures. There are many limits to what a single company can accomplish, so I hope to increase joint efforts with industry and communities.

## Establishing a Unique Presence Where Yokohama Rubber is Truly Needed

Advancements in GPS and control technologies have made the self-driving car a reality. The self-driving automotive society of tomorrow will be here very shortly. The advent of self-driving cars will require drastic changes in tire performance. Only those companies with the manufacturing capabilities to adapt technologically to these major changes in society will survive. Yokohama rubber will always be one step ahead of changes and reflect this in its business activities. This will enable us to be a company that contributes to society and maintains a strong presence.

Our goal under Grand Design 100 (GD100) is to become a global company with a unique presence. I want Yokohama Rubber to have a presence in the world as a company that is truly indispensable and a company that people are proud of using. To ensure our uniqueness in continually adapting to the changing times, Yokohama Rubber stands strongly committed to not only future technological development, but also CSR activities, too.



Dialogue with the  
Chairperson of the Board**Tadanobu Nagumo**Chairman and Representative Member  
of the Board**Ms. Nami Takenaka**Chairperson, Prop Station  
(Non-Profit Social Welfare Organization)

## Working towards better companies, and a better society, in which everyone can maximize their potential

Ms. Nami Takenaka, who has known Yokohama Rubber Chairman Mr. Tadanobu Nagumo for many years, is the Chairperson of non-profit social welfare organization Prop Station, an organization which uses information technology (IT) to help disabled people achieve more autonomy and participate more actively in society, encouraging disabled people to find work and helping to create work opportunities for them. Both Ms. Takenaka and Mr. Nagumo believe that we have a responsibility to help other people maximize their potential; in this dialogue, they discuss how people can be helped to make the most of their potential, both in business enterprises and in society as a whole.

### Opportunities for turning the impossible into the possible

**Ms. Takenaka:** Our activities involve unleashing the potential of people with severe disabilities who might have been thought incapable of working, using IT to enable them to work at home, from their beds. While this is a social initiative, we have had a lot of interest from people in the business world and in government. The extent to which businesspeople understand our activities is very important for us, and it is wonderful when an influential person like Yokohama Rubber Chairman Mr. Nagumo takes an interest in what we are doing.

**Mr. Nagumo:** It just so happens that currently Prime Minister Abe is promoting the “Plan for Promoting the Dynamic Engagement of All Citizens,” which is aimed at creating a society in which people who in the past have not been able to work will be able to work and play an active role.

**Ms. Takenaka:** The approach taken to promoting work for the disabled will be the litmus test as to whether Japan really can become a society characterized by the “Dynamic Engagement of All Citizens.”

**Mr. Nagumo:** When I first talked to you, Ms. Takenaka, I was amazed to hear that your initiative only came into being because of computers.

**Ms. Takenaka:** When we started out 25 years ago, it was just around the time when computers were starting to come into widespread use.

**Mr. Nagumo:** So this was around the time when Japan’s “Bubble Economy” had just burst?

**Ms. Takenaka:** Yes, that’s right. The Japanese economy was just bottoming out, and the people we were caring for made the suggestion to us themselves that this was the right time to be learning new skills, so that everyone would be able to use computers effectively. They pointed out that “if we are linked up by computer, we can work even from our beds.” Over the last 25 years, we have continued to keep pace with the developments in information and communications technology. As a result, thankfully, we have never had any complaints about the quality of the work done by the disabled people that we help.

**Mr. Nagumo:** While people tend to feel sorry for the disabled, and feel that they need help, there are actually many disabled people who are very capable, and for some people being disabled actually seems to be a source of creativity.

**Ms. Takenaka:** When people have no choice, they take action. When I heard them saying “If we had computers, we could work; we want to give it a try” , I felt certain that, if we could create an environment in which they could use computers, it would produce spectacular results.

**Mr. Nagumo:** I should think it is fair to say that, on the whole, business enterprises still don’t really understand how much disabled people are capable of.

**Ms. Takenaka:** No, they don’t understand. The thing is, people don’t usually think of someone who is bedridden as being able to work. What is more, because bedridden disabled people are not potential candidates for recruitment to meet a government-set disabled employee quota, they are completely off the radar for business enterprises. While you could say that it’s only natural that businesses don’t understand, I think it is also partly that we ourselves haven’t been making a big enough effort to educate them about it. Having said that, with the government’s new initiative aimed at the “Dynamic Engagement of All Citizens,” I feel that the opportunities to spread awareness among business enterprises have increased.

**Mr. Nagumo:** I suppose it relates to the fact that, even if a firm outsources work to disabled people through Prop Station, it doesn’t count towards filling the government-set disabled employee quota for that firm. If the government changed the system, then awareness among business enterprises would probably increase.

**Ms. Takenaka:** The calculation of the official disabled person employment rate is based solely on formal recruitment as a regular employee. For people who are bedridden, and people who require help from a carer to go to the toilet, securing regular employment of that kind is very difficult. So why can’t they work in other ways? Business enterprises would be able to meet the government-set disabled employee targets, and disabled people would become economically independent, develop a new sense of purpose, and possibly even become taxpayers; everyone would benefit. It’s up to the politicians to make the necessary decisions, of course; rather than it just being us promoting the idea, it would carry much more weight if business enterprises would make their voices heard in support as well.

**“Helping people to maximize their potential.”  
This is important not just for business enterprises,  
but for society as a whole.**

**Ms. Takenaka:** When I first met you, Mr. Nagumo, the thing that brought home to me that we were on the same wavelength was that the activities that we are implementing, and the way that Yokohama Rubber tries to ensure that every one of its employees is able to maximize his or her potential, are basically very similar in their essential features. It is a shame to allow people’s potential to lie dormant. I remember you saying that this is important for society as a whole, as well. I believe that this attitude is the secret to Yokohama Rubber’s successful development as a company.

**Mr. Nagumo:** I think that not just the disabled, but other people as well, often fail to develop 100% of their full potential. It is our responsibility as managers to think about how we can get people to realize their full potential. The same is true for society as a whole; it is vitally important that we become a society where everyone can develop all of their latent capabilities. The key factor is how you go about enhancing the sense of self-realization, job satisfaction, or motivation. It is very important for people to be able to feel that they are valued within their particular group or organization. The converse of that is we need to develop groups and organizations in which that sense of belonging is possible.



**Ms. Takenaka:** Work involves more than just earning money; it also helps to determine the extent to which a person feels needed. If someone feels that they are needed, they will respond by demonstrating an amazing level of energy and vigor. That is true right across the board, in big organizations as well as in small organizations.

**Working to build companies, and a society,  
in which people of all different kinds are accepted**



**Mr. Nagumo:** When disabled people are working at home, this can be a source of pride for a company’s employees, and it can also stimulate them to make even greater efforts in their own work.

**Ms. Takenaka:** I think that it provides an opportunity for employees to think about their work-styles, and also that it can lead to change within a company. This is not something that only applies to the disabled; it also applies to the ways in which women are able to work, and of course with the impact of globalization it is also becoming increasingly common to work alongside people of different nationalities and people with different religious beliefs.

**Mr. Nagumo:** People with different characteristics need to be working together in an atmosphere of mutual respect. I hope that Yokohama Rubber can be this kind of company. If a company is unable to achieve this, then it will be unable to attract and retain diversified human talent. As you pointed out just now, this issue does not only affect the disabled; unless individual company employees become more willing to take on different challenges, then 20 or 30 years down the road they will find that they have failed to realize their own ambitions in terms of the person they wanted to become. I hope that in the future I can get you to come and give a talk at our company, as an opportunity to make our employees more aware of this issue.

**Ms. Takenaka:** I am delighted to have had this opportunity to talk to you, and it would be wonderful if it helped to boost the motivation of your company’s employees. I believe I am right in saying that your company will celebrate its 100th anniversary next year. This is a company with a rich history. It would be marvelous if, 20 or 30 years from now, all of Yokohama Rubber’s employees, including the shop-floor workers, felt that this dialogue today had been the starting point for changes that had benefited the company over the intervening period.

**Mr. Nagumo:** Looking ahead to our next 100 years, I hope that we will be able to make changes that seem impossible now, and that by working together with one another we can create a better company, and a better society.

### Profile of Ms. Nami Takenaka

Having an eldest daughter who was severely disabled led Ms. Takenaka to undertake self-directed study in the fields of pediatric medicine, social welfare and education. In 1991 she founded the grassroots organization Prop Station. In 1998 the Ministry of Health and Welfare granted Prop Station Social Welfare Corporation status, and Ms. Takenaka took on the post of Chairperson. Prop Station is focused on helping the disabled to develop their full potential, to achieve increased independence, and to participate more actively in society; it provides support to help disabled people secure work.





## Yokohama Rubber's Tire Business and CSR

**Providing customers with tires that are not only environmentally-friendly, but also meet the unique needs of individual regions**

### Hikomitsu Noji

President and Representative Member of the Board,  
President of Tire Business

### Aiming to reduce the burden on the environment in every aspect of our operations

Yokohama Rubber, which has committed itself to building "a trusted identity as a contributing member of the global community," is taking steps to reduce the burden on the environment in every aspect of the company's operations. At Yokohama Rubber, we have established a set of standards for determining whether individual products can be classed as environmentally-friendly; our goal is to ensure that all of our company's products meet these criteria by fiscal 2017.

The biggest single impact that a tire has on the environment is the carbon dioxide emissions in the exhaust of the vehicle to which the tire is attached, so we have been working to find ways to contribute to improving vehicles' fuel efficiency. While working to further reduce rolling resistance of tires, we have been undertaking R&D to enhance aerodynamic performance by attaching fins to the outside of our tires. We have also been developing a new product: a tire that improves the driving performance of sports-type passenger vehicles while at the same time providing enhanced fuel economy. This new tire product is scheduled to be launched in August 2016. Even if a vehicle has superior fuel economy characteristics, if the tire pressure is not correct, fuel consumption will increase. To help overcome this problem, we are also working on the development of new tire products that maximize the performance of both tire and vehicle by making it more difficult for air to escape, thereby helping the tire to maintain the correct pressure for longer.

### Striving to achieve the kind of performance that people want from their tires

Road surface conditions and climatic conditions vary from country to country. The advent of automated driving in the near future can also be expected to have a major impact on how people drive. Nevertheless, no matter what country you are living in, the fundamental requirement for a tire is the same: to allow you to travel safely without the tire getting damaged.

For a company operating on a global scale, it is vitally important to respond to the variations in end-user needs between regions and over time, by providing tires that enable people to travel in safety regardless of the environment that

they are in.

As part of the efforts being made towards the realization of the "sustainable society," we at Yokohama Rubber are undertaking research into the making of synthetic rubber from biomass resources. In March 2016, we announced the launch of a new type of tire that is 25% lighter than conventional tires, making it possible to achieve a significant reduction in resource utilization. We will continue to undertake research in this area, with the aim of using technology development to respond to society's calls for protection of the global environment.

### Educating consumers about tire performance and proper tire usage

It is an unfortunate fact that, even today, the ordinary consumers who are the end users of our products tend not to have a very good understanding of tire performance. It is fair to say that relatively few consumers are familiar with even such basic concepts as rolling resistance and wet-grip performance. Even when someone is driving a low-fuel-consumption vehicle, if they are using the wrong type of tire, or if the tire pressure is too low, then the fuel economy of that vehicle will be lower than it should be. As a tire manufacturer, we have not been doing enough to educate consumers and spread awareness of the relevant concepts; in the future, we will need to be implementing awareness-raising activities that target ordinary consumers.

### Social issues



#### Tire safety

Accidents caused by unsatisfactory tire maintenance: **272 accidents**

\*Accidents caused by unsatisfactory vehicle maintenance:  
**546 accidents**

Source: Institute for Traffic Accident Research and Data Analysis (ITARDA)  
Accidents in Japan (Nationwide) Caused by Unsatisfactory Maintenance in 2015



#### Educating consumers

Percentage of consumers with inadequate knowledge of tire performance and tire safety: **15.1%**

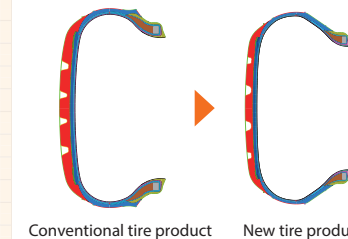
A significant percentage of consumers did not keep the air pressure in their tires high enough, necessitating an appeal to consumers to implement more effective tire pressure management, both in order to achieve improved fuel economy and for safety reasons.

Source: Japan Automobile Tyre Manufacturers Association (JATMA)  
Results of tire inspections performed on "Tyre Day" (April 8th)

## Products and services that contribute to solving social issues

### 01 Ultra-lightweight Concept Tire

At the Geneva Motor Show in March 2016, Yokohama Rubber showcased a new ultra-lightweight concept tire. As a result of extensive research on tire structure, materials, manufacturing methods etc., we have succeeded in simplifying the tire's structure and reducing its weight by 25% without negatively affecting braking performance, rolling resistance or any other aspects of tire performance. Preparations are underway for the full-scale commercial launch of this new tire. Reducing tire weight helps to improve vehicles' fuel economy, and contributes to reducing carbon dioxide emissions.



### 02 ADVAN FLEVA V701

The ADVAN FLEVA V701 is a new high-performance sport tire from Yokohama Rubber's flagship ADVAN tire brand designed to provide effortless handling. This new tire product was launched in Japan in August 2016. While retaining the responsive handling characteristic of ADVAN tires, the ADVAN FLEVA V701 also aims to improve vehicle fuel economy by reducing the tire's rolling resistance by around 20%. This enhanced fuel economy makes the ADVAN FLEVA V701 a unique environmentally-friendly sports tire.



### 03 LT151R Retread Tire

Retread tires (where the tread on a used tire is replaced with new tread so that the tire can be reused) offer significant environmental benefits in terms of reducing the consumption of resources. Yokohama Rubber's LT151R is a friction-resistant ribbed tire designed for use on small trucks and buses; launched in 2014, it has been very well-received, and in October 2015 a retread version was introduced. This is a product that provides enhanced safety at reduced cost.



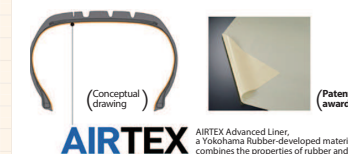
### 04 Aerodynamic Tires

Yokohama Rubber noticed that, when a vehicle is moving and the wheels are going round, the airflow around the upper part of the tire is different from that around the lower part of the tire; R&D work based on the recognition of this phenomenon has led to the development of a new type of aerodynamic tire, where fins in the shape of long, thin strips are attached to the outer part of the tire, making it possible to control the airflow over the tire, which in turn helps to reduce the air resistance affecting the moving vehicle and control the amount of lift experienced by the vehicle. This aerodynamic tire design helps to improve fuel economy while also contributing to vehicle safety. A prototype of the new tire was showcased at the Tokyo Motor Show in October 2015, and attracted a great deal of interest.



### 05 AIRTEX

To realize the goal of giving vehicles superior fuel economy, besides tire performance, having the right tire pressure is also vitally important. AIRTEX is a new technology for the inner lining on the inside wall of tubeless tires. By comparison with traditional lining materials, AIRTEX reduces air leakage by around 30%, while also making it possible to reduce tire weight. AIRTEX has been adopted for use in passenger vehicle tires since 2007, and a similar technology for reducing air leakage was introduced for commercial vehicles such as trucks and buses since 2013.



Yokohama Rubber's new inner lining technology for passenger car tires





## Yokohama Rubber's MB (Multiple Business) and CSR

### How the MB enables each of us to achieve meaningful CSR results

#### Takao Oishi

Member of the Board and Senior Managing Officer,  
President of Multiple Business

#### Creating products that help to solve society's issues

At Yokohama Rubber's MB (Multiple Business) Group, we handle a wide range of products, including industrial materials, hose and tubing products, sealing materials, adhesives, aerospace components, etc. We use the technology that Yokohama Rubber has accumulated through its tire business to diversify the company's business operations. As the MB Group's products are mainly oriented towards the business-to-business (B2B) market, many of them are used in locations where they are unlikely to be seen by ordinary consumers; nevertheless, these products make a substantial contribution in many different fields, playing an important role behind the scenes.

The MB Group is making active use of Yokohama Rubber's unique technologies to develop products that help to solve social issues from an environmental perspective; examples include our marine hose products, which are designed to prevent water quality contamination that could lead to pollution of the oceans, our urethane water-resistant coating materials, which help to reduce the "heat island" effect, and our hydrogen dispenser hoses for fuel-cell powered vehicles (which are attracting considerable attention as the "next-generation" vehicle that will help to reduce carbon dioxide emissions).

#### Aiming to become a trusted brand in markets throughout the world

The last few years have seen the countries of Asia and Africa developing at an impressive pace. Demand in the area of infrastructure improvement and in the resource development related businesses offers particularly strong potential, and if Yokohama Rubber can match those product groups in which we are highly competitive – such as industrial materials and construction equipment components, etc. – with market needs then I believe there is the possibility of achieving significant growth in the global market as a whole. In the B2B business sector, it is not just the products themselves that are important, but also the reputation of the company that supplies them. European companies in particular tend to have their own individual criteria, and are very exacting when it comes to choosing a supplier. So it becomes a question of how much trust customers place in your company. The extent to which each individual employee understands CSR and implements CSR

becomes very important, and sometimes you need to think carefully about where the real value of CSR lies. Also, I believe that one real key to success as a global enterprise is the degree to which a company understands the differences between individual overseas markets when developing its business operations, and the extent to which a company is able to utilize its know-how to develop products suited to overseas markets.

#### Gender-neutral global talent cultivation

For our company to achieve sustained growth there is a need for a gender-neutral approach to the cultivation of human talent that is able to operate effectively in a global environment. We are taking a proactive stance towards the recruitment of local talent (both male and female) overseas, with the goal of spreading awareness and appreciation of the Yokohama Rubber brand in countries throughout the world. In my own case, since joining Yokohama Rubber I have worked in around 40 different countries at one time or another. I see my mission as being to find ways to leverage this international experience in our human talent cultivation efforts. I anticipate that, in the future, our company will be providing the support needed to enable a diversified range of human talent to maintain high motivation and maximize their potential in many different countries.

#### Social issues



##### Rising demand for energy

Global demand for primary energy  
Expected to  
**increase by around 30%**  
by 2040 (compared to 2013)

Source: IEA, World Energy Outlook 2015



##### Trend towards people using smartphones for extended periods of time

Average amount of time per day that young people (aged 10 – 20) in Japan spend using a mobile phone (smartphone or conventional mobile phone) to access the Internet:

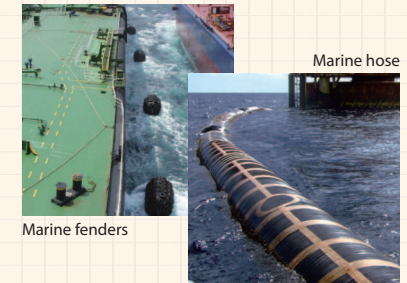
**Over 120 minutes per day**

Source: Institute for Information and Communications Policy (IICP),  
2014 Survey of Time Spent Using Information and Communications Media and Related Usage Behavior

## Products and services that contribute to solving social issues

### 01 Marine Products

Yokohama Rubber is a world leader in the manufacturing and sale of the pneumatic fenders and marine hose materials used in petroleum and liquefied natural gas (LNG) sea transport operations. As there is a danger of serious accidents involving oil spillage, marine pollution, etc., the requirements for these products in terms of safety and durability are extremely demanding; however, with our extensive rubber-related know-how, Yokohama Rubber has the necessary technical expertise, and in the future we plan to further expand our product line-up in this market segment.



Marine fenders

Marine hose

### 02 Environmentally-friendly, Energy Saving Belts

Yokohama Rubber also possesses world-class technology in the conveyor belt segment (conveyor belts are used for moving materials such as coal, mineral ores, gravel, and manufactured products and components). Yokohama Rubber's ECOTEX energy saving belts utilize the latest rubber compounding technology to optimize both adhesion and flexibility. ECOTEX conveyor belts provide reduced movement resistance and lower energy consumption while maintaining a high level of durability. We anticipate growing demand for our conveyor belt products, particularly in the emerging economies.



Energy saving belt

### 03 Hydrogen Gas Hoses

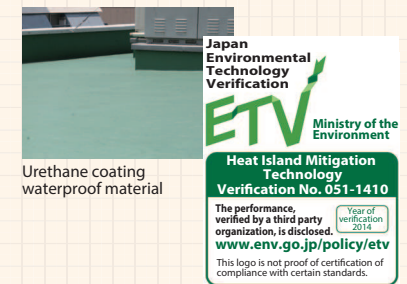
Fuel-cell cars, which represent the next generation of motor vehicles, rely on dispenser hoses to fill up with hydrogen. As hydrogen gas is stored under high pressure at very low temperatures, dispenser hoses have to meet demanding technical requirements. Yokohama Rubber and Iwatani Industrial Gases Corp. have jointly developed a new type of lightweight, highly flexible hose that makes hydrogen gas transportation and dispensing operations much easier to perform. To help encourage the widespread adoption of fuel-cell vehicles, work is now underway on the development of an 87.5MPa hose (the international standard for hydrogen dispensing hoses).



Hydrogen gas hose

### 04 "Urban Roof" Urethane Coating Waterproof Materials

"Urban Roof NX" is a range of urethane water-resistant coating materials with superior thermal insulation properties developed by Yokohama Rubber for use on building roofs. These coating materials contribute to energy conservation by preventing building temperature from rising due to the external temperature and direct sunlight. In combination with a heat-shielding top coating, "Urban Roof NX" can prevent rises in building temperature of as much as 8°C. In 2015, "Urban Roof NX" was awarded a Heat Island Mitigation Technologies Verification Number from Japan's Ministry of the Environment (MOE).



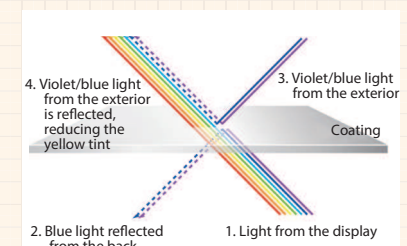
Urethane coating waterproof material



### 05 Blue Light\* Blocking Film

In today's world, where mobile phones and other portable electronic devices are so widely used in everyday life, there is strong evidence that the blue light emitted from device displays is having an adverse impact on human health, causing eye strain, "dry eye" symptoms, impaired retinal function, and disruption of the body clock, etc. Responding to society's need for a film that can effectively block blue light, Yokohama Rubber is working on the development of such a film.

\*The term "blue light" is used to refer to light in the 380 – 495nm band that appears violet or blue in the visible spectrum.



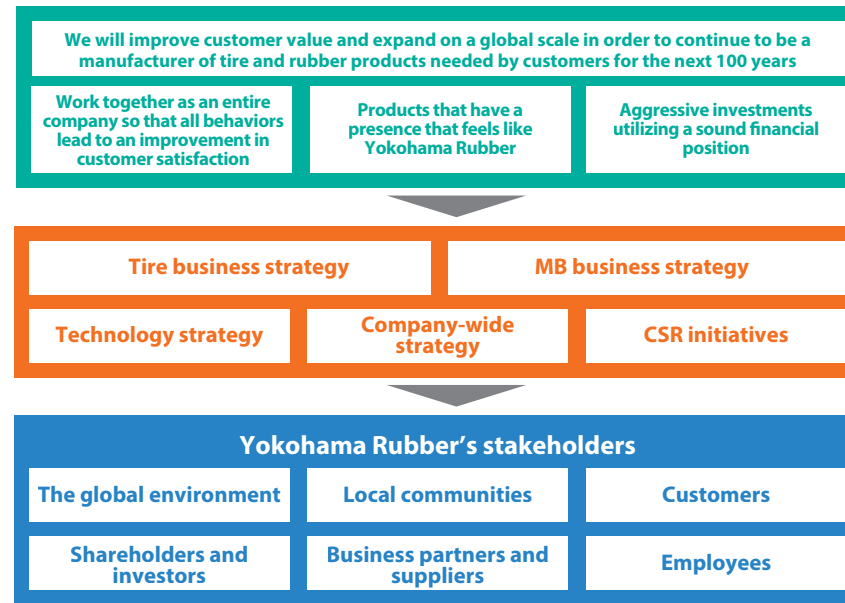
Example of a method for blocking blue light



# Creating Value through Our Businesses

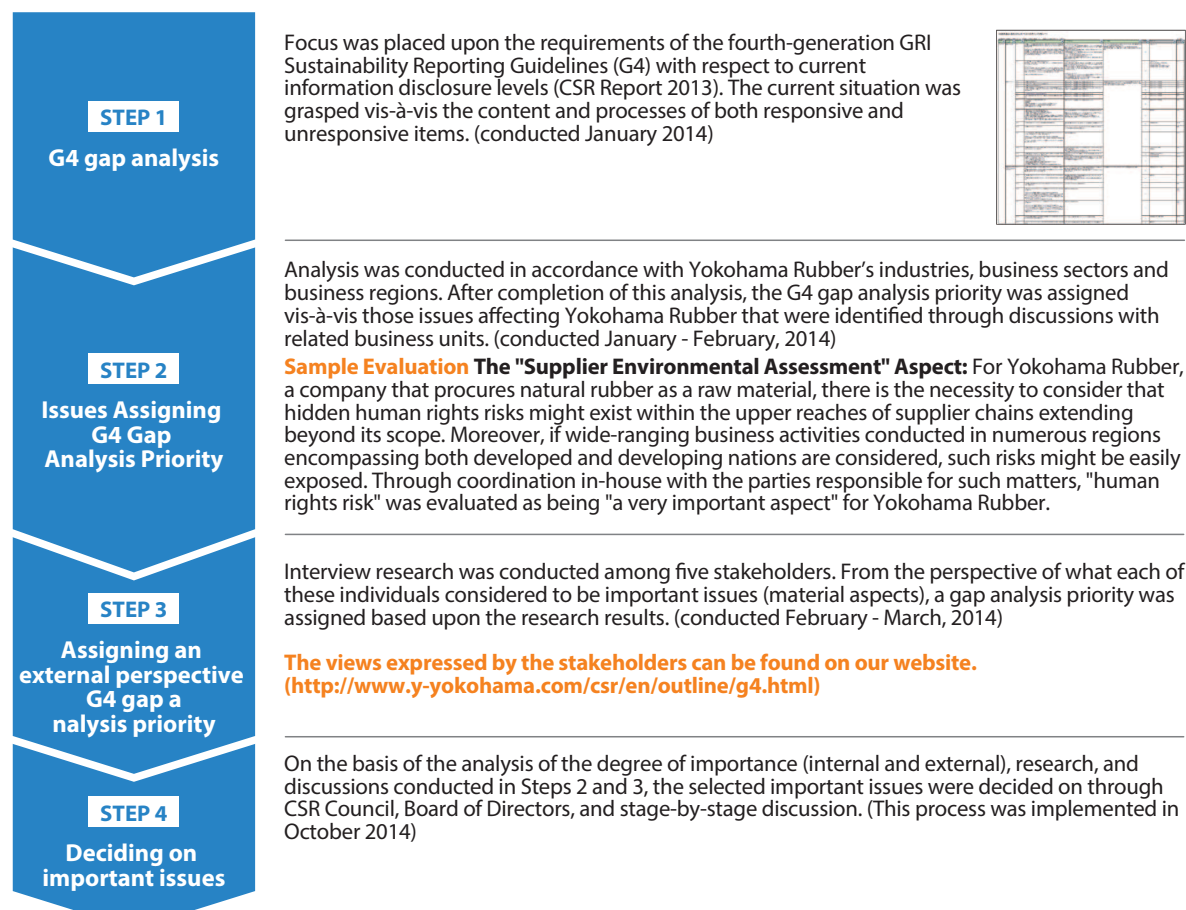
## GD100 Phase IV: All for growth

Phase IV (2015 to 2017) is the culmination of GD100 and is positioned as the phase for setting the stage for progress in our company's second century and resolving issues that have arisen up until now based on the theme of "All for Growth — Open the way for the next 100 years by bringing together the potential of Yokohama Rubber". We hope to bring together all forms of growth in our business activities, including the growth achieved in each phase, the growth of the Group overall, and individual growth. Net sales of 770 billion yen, operating income of 80 billion yen, and an operating margin of 10.4% have been set as the quantitative targets for 2017.



## Process used for identifying important issues

We identify important issues in relation to Yokohama Rubber's stakeholders and determine which issues should be prioritized.



We will strive for ongoing improvement by setting KPIs and implementing the PDCA cycle in relation to the selected important issues.

## Together with Local Communities

We build a trusted identity as a contributing member of the global community by making contributions to the development and prosperity of local communities.

- Organizational governance
- Community involvement and development



## For the Global Environment

We challenge to build a sustainable society in harmony with the environment, to protect our blue planet and human beings.

- Organizational governance
- The environment



## Together with Our Customers

We supply safe and secure products through manufacturing focused on the heart and technology.

- Organizational governance
- Consumer issues



# Yokohama Rubber's Important Issues

## To Our Stakeholders and Investors

We improve our company value by growing business opportunities.

- Organizational governance



## Together with Our Business Partners

We promote CSR activities throughout the value chain.\*

\*The overall series of activities or stakeholders providing or receiving value in the form of products or services.

- Organizational governance
- Human rights
- Fair operating practices
- Labour practices



## Together with Our Employees

We value and develop our people, and create opportunities for people.

- Organizational governance
- Human rights
- Labour practices



\* These symbols correspond to the ISO26000 framework outlined on page 31-32.





**For the Global Environment**

**We challenge to build a sustainable society in harmony with the environment, to protect our blue planet and human beings.**

## Contributing to a reduction in the burden on the environment by promoting the widespread adoption of retread tires in the transportation sector

At Yokohama Rubber, we have been focusing heavily on the manufacturing and sale of retread tires, which are used tires that have had the tread (the part of the tire that comes into contact with the road surface) replaced with new tread. In October 2015, we launched two new retread tire models designed for use on small trucks and buses: the LT151R, which offers outstanding wear resistance, and the iceGUARD iG91, a studless tire that provides superior driving performance on ice and snow.

Retread tires can be manufacturing using only around 30% as much raw material (by weight) as brand-new tires, and the amount of carbon dioxide emitted during the production process is approximately 60% less. The utilization of retread tires also helps to reduce the quantity of

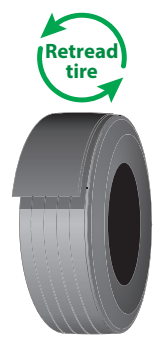
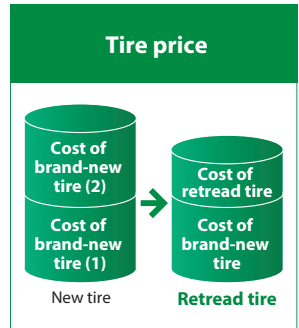
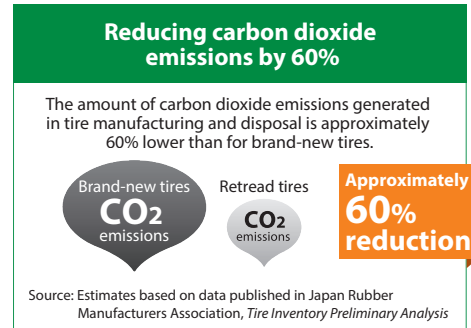
waste tires that need to be disposed of, so from the perspective of the "3Rs" (Reduce, Reuse, and Recycle), the widespread adoption of retread tires can be expected to be very effective in helping to safeguard the environment. When designing tires, Yokohama Rubber has for many years now taken into account the need to ensure that the tires will remain durable if they are retreaded and reused, thereby ensuring tire safety and quality, while also reducing the effective cost per tire.

The transportation sector in particular is experiencing rapidly growing demand for retread tires, partly in order to upgrade the sector's environmental management (with a particular focus on working to combat global warming), and partly to reduce costs. Currently, however, only around 20% of the tires used on trucks and buses in Japan are retread tires, a figure which is very low by comparison with the situation in Europe and North America, where awareness of the benefits of using retread tires is higher.

In the future, Yokohama Rubber will be working to promote wider adoption of retread tires in the transportation sector, by offering combinations of brand-new tires and retread tires that provide cost savings, and by stepping up PR efforts to spread awareness of the benefits of retread tires. We are also making a concerted effort to further enhance the quality and cost-effectiveness of retread tires using a variety of different approaches, including the development of new tire products that can be retreaded more than once, further enhancing the durability of brand-new tires, and working to increase the share of used tires that are recycled, etc.



Resource recycling in the form of retread tires can help to reduce the amount of carbon dioxide emitted at the tire production stage, while also contributing to a reduction in the quantity of waste tires generated. It is also an economical approach, providing significant cost savings.



## Developing an automotive air-conditioning hose for the next-generation, environmentally friendly refrigerants

Yokohama Rubber has developed and marketed a high-pressure automotive air-conditioning hose, the AC6B-11, designed for the HFO-1234yf, which has a significantly reduced environmental footprint.

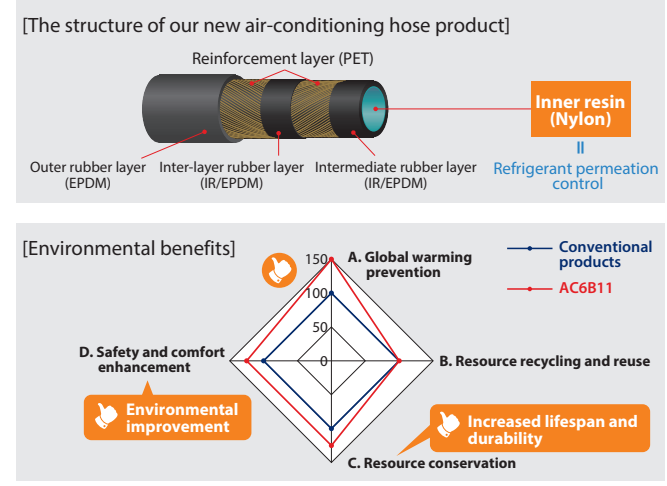
HFO-1234yf has a very low Global Warming Potential (GWP) of just 4, compared to 1,300 for conventional air-conditioning refrigerants. This ability to contribute to the prevention of global warming has provided impetus for a shift over to using HFO-1234yf. However, at high temperatures HFO-1234yf tends to react with moisture inside air-conditioning hoses, leading to the release of an acid that can result in significant degradation of the inner resin of conventional hoses, with the appearance of cracks, etc.

The new type of hose that Yokohama Rubber has developed incorporates an acid acceptor that captures and breaks down the acid runoff from the resin material, thereby successfully preventing degradation of the resin. Yokohama Rubber has been awarded patents for this technology not only in Japan, but also in North America, Europe, and China. The AC6B11 hose has already been adopted for use in cars designed for the European market, including the Subaru Impreza, the first production car in the world to use the new HFO-1234yf air-conditioning refrigerant.

The European and North American automotive industries has been gradually introducing a GWP 150 restriction on refrigerants, with all new vehicles in North America to comply by 2020 (2023 in Japan). There is also a movement to push forward these dates. Yokohama Rubber will continue to

further advance its development of products that meet various needs, such as the strict heat-resistance demands of overseas automotive makers and the various refrigerant and refrigerant oil\* combination requirements of different system makers, while contributing to the use of refrigerants with a low environmental burden.

\* Refrigerant oil: A lubricant for refrigerant compressors in refrigerating air-conditioning equipment



## Message from an automotive air-conditioner manufacturer



With the aim of contributing to the development of a new type of hose that would be able to cope with the new types of refrigerant now being introduced, we have been working together with Yokohama Rubber, undertaking repeated studies to determine the causes of cracks, and sharing ideas with one another. As a result of these research efforts, Yokohama Rubber has developed its new AC6B11 hose product.

During the development process, Yokohama Rubber shared their chemical know-how with us in a very easy-to-understand way, which proved very useful to us when providing product explanations to our car manufacturer customers. In addition, the test standards\* derived from the data obtained in this project have provided the basis for the new Valeo standard, which is being used to evaluate the chemical reliability of other products too.

While there are still some problems to be address in regard to hoses (including the need to add noise-reduction functionality, heat-resistance, etc.), we look forward to continuing to respond to our customers' suggestions in the future.

\* Test standard: Standards for testing methods regarding performance and functionality.

**Mr. Takeo Shimizu (left)**  
Department Head  
Thermal Asia Regional Operation R&D  
Valeo Japan Co., Ltd.

**Mr. Hirotaka Kajizuka (right)**  
Hose Design Group Leader  
Thermal Asia Regional Operation R&D  
Valeo Japan Co., Ltd.





## Together with Local Communities

We build a trusted identity as a contributing member of the global community by making contributions to the development and prosperity of local communities.

### Yokohama Rubber has been providing support for the "Heyuan Community Sustainable Development and Ecosystem Protection Project," which aims to help safeguard the biodiversity of, and the livelihoods of the people living in, the Three Parallel Rivers of Yunnan Protected Areas (a UNESCO World Heritage Site)

The Three Parallel Rivers region is an area in the north of Yunnan Province, China where three major rivers run parallel to one another. The area's rich animal and plant life has led UNESCO to designate it a World Heritage Site. Heyuan Village is one of the major tourism centers within the Three Parallel Rivers region; it is a minority nationality village located within the Laojunshan Nature Reserve, Lijiang, Yunnan. The village has just over 2,000 people living within an area of approximately 108 square kilometers. In the past, there were no significant cash crops to serve as a source of income, and the inhabitants relied on logging and hunting wild animals, which provided a limited amount of income for them. As a result of unrestricted logging that had continued over an extended period, the area's topography and its precious natural resources were damaged, and its biodiversity was under threat.



In 2011, Yokohama Rubber (China), Co., Ltd, which oversees Yokohama Rubber's business operations in China, began providing support for the "Heyuan Community Sustainable Development and Ecosystem Protection Project" initiated by Chinese environmental NGO Beijing Sansheng Environment and Development Research Institute.

The aim of this project is to facilitate the sustainable development of Heyuan Village by transforming the village economy so as to safeguard both local economic development and the local ecosystem. 2011 saw the establishment of a "Village Bank" to provide funding to support a shift away from logging towards arable and pastoral farming, and the provision of training in agricultural techniques began. In 2012, an "Ecological Scholarships (Education Support)" plan was launched to help families in the village who were experiencing a temporary fall in income because of the transformation of the local economy to pay their children's school fees. In 2013, the village was provided with equipment and funding support for the processing of honey, the herb *Gastrodia elata*, and other agricultural products, and in 2014 the "Laojunshan Ecological Agricultural and Forestry Product Sales Platform" was launched. The villagers have also been working in collaboration with business enterprises, receiving support to help them increase the value-added of their products through improve packaging, processing, etc., and have received assistance in developing distribution channels, as well as training in production techniques, etc.

As of March 2015, "Village Bank" branches had been established in nine locations in Heyuan Village, and 203 households (representing 42% of all

households in the village) were participating in the "Heyuan Community Sustainable Development and Ecosystem Protection Project." As a result, average household income rose from 650 Yuan in 2010 to 3,000 Yuan in 2013. The interest paid on loans from the Village Bank was donated to the village cooperative for use in ecosystem conservation and sustainable development initiatives, enabling the ecosystem protection area to be increased to around 3,055 hectares.

The Heyuan Village project is the first initiative of its kind in China that combines environmental protection efforts with economic development (with participation by business enterprises), and the project has attracted a great deal of positive comment within China. In March 2013 the "Heyuan Community Sustainable Development and Ecosystem Protection Project" was selected by the Development Research Center of China's State Council as a "Project Observation Point," and in September 2013 the Project was honored as an outstanding public-interest project in the first "Beautiful China, Green Magnificence" awards. In January 2015, the Project received the China Social Innovation Award, and Yokohama Rubber (China), Co., Ltd.

received the Outstanding Corporate Image Award.

With the aim of building on the three years' experience at Heyuan Village and expanding the project scope, in the spring of 2015 the provision of support began to Liguang Village, which is located within the same Nature Reserve. In the future, Yokohama Rubber will continue its involvement in sustainable community development initiatives.



Laojunshan

### Message from a local resident



When the project was first launched, at a time when we were having trouble making ends meet, nobody really understood the idea of establishing a "Village Bank" so that everyone in the village could benefit from the aid money. However, after a series of meetings were held, we gradually developed a more in-depth understanding of the arrangement. Villagers who in the past were viewed as being destroyers of the natural environment are now playing a leading role in safeguarding the environment, and I believe that being able to obtain benefits from protecting the environment has changed people's attitudes. By working together, the villagers have been able to make steady improvements in the state of the local ecosystem. In the future, we will continue working to overcome the apparent contradictions between environmental protection and economic development.

**Mr. Li Yukun**  
Vice Chairman, Heyuan Eco-Industry Cooperative

### Yokohama Rubber's activities to help safeguard biodiversity in Thailand by monitoring and mitigating the impact of business activities on the environment



An open day at the Biodiversity Learning Center

Since its establishment in 2004, Yokohama Tire Manufacturing (Thailand) Co., Ltd. (YTMT), which is Yokohama Rubber's tire manufacturing and sales subsidiary in Thailand, has been working steadily to minimize the impact of its production activities on the environment through the implementation of better environmental measures. Starting from 2008, as part of the "Yokohama Forever Forest Project" initiative, YTMT has planted over 60,000 trees in Thailand, helping to create a diverse habitat that can support a wide range of living creatures.

In September 2013, YTMT launched a new activity to help safeguard biodiversity. This involved catching and photographing birds, butterflies and dragonflies to calculate indicators that can give some idea of the current state of the local environment, as well as investigating the species distribution, availability of food, habitats and lifecycle, etc.; this information is being preserved in the form of a database. Using these data, YTMT has been able to verify that the natural environment in the vicinity of its factory is in a healthy state; the data are made public for the reference of other

interested parties.

In October 2015, YTMT established a new "Biodiversity Learning Center." Local residents have been invited to attend presentations at the Center to learn about YTMT's biodiversity preservation activities and Yokohama Rubber's other environmental initiatives. The local inhabitants commented that they hoped YTMT can continue making this kind of information available to the public, and that it would be much appreciated if the Center could be used as a venue for environmental education activities for local children. Responding to these suggestions, in February 2016 YTMT completed construction of a biotope eco-park and an expanded Biodiversity Learning Center, which are open to the general public.

In the future, YTMT will continue to implement measures to safeguard and enhance biodiversity, and will take steps to share the fruits of its endeavors as places for joint learning with local schools, local government bodies and ordinary members of the public.



Creating the biotope

Some of the living creatures found in the vicinity of the factory







Together with Our Customers

We supply safe and secure products through manufacturing focused on the heart and technology.

## Enhancing drivers' safety and peace of mind when driving on snow-covered or icy roads Yokohama Rubber introduces the iceGUARD5 PLUS

In August 2015, Yokohama Rubber announced the launch of the iceGUARD5 PLUS, a new studless tire that provides superior performance on icy roads. The design for the new tire reflected end-users' suggestions regarding their expectations for studless tire performance, analysis of usage conditions, etc.; intensive market research helped to solidify the product design concept. Surveys of drivers who use studless tires on a regular basis showed that the aspect of tire performance that they were most concerned about was performance on ice. The road surface conditions in those parts of Japan that receive heavy snowfall are actually some of the most challenging in the world. Despite the heavy snowfall, the temperature is usually not especially low; as a result, the snow melts during the daytime and then refreezes as ice during the night, making for very slippery, dangerous roads.

Yokohama Rubber's goal was to ensure that our studless tires would help to keep end-users safe, even in the face of these hazardous road conditions. We want consumers to be able to drive with complete peace of mind. This vision led us to develop a Super Absorptive Compound that is combined with Absorptive Giant White Gel that is up to 30 times larger than conventional gel.

The reason why tires tend to slip on icy roads is because the ice covering the road surface melts due to frictional heat, creating a film of water on the road surface. This film prevents the tires from getting a grip on the ice below.

Yokohama Rubber's iceGUARD5 PLUS, with its Super Absorptive Compound, enhances tire surface absorption capability by 20% compared to conventional tire products. The film of water on the road surface is absorbed almost instantaneously, ensuring good contact between the tire and the ice covering the road. The Super Absorptive Compound remains soft even at low temperatures, enabling it to fill the tiny depressions in the ice surface, thereby providing better adhesion, and enabling the tire to maintain its usual grip.

Another impressive feature of the iceGUARD5 PLUS is that this superior performance on icy road surfaces does not deteriorate over time. Extended use simulations showed that the deterioration in the ice friction coefficient is only around one-third of that seen with conventional tire products, ensuring that the iceGUARD5 PLUS is able to continue providing users with safety and peace of mind over a long period.

One of the areas that tire users were most interested in seeing improvement in was fuel economy. To this end, Yokohama Rubber combined some of the advanced fuel-efficient tire technologies that we have developed over the years. Thanks to adjustments to materials and tire structure, rolling resistance has been reduced by 7%.

During development, test drives were performed repeatedly under all possible conditions and with a range of different icy road surface scenarios, including slippery road conditions caused by compacted snow, black ice (where a thin layer of ice forms on the road surface), etc. In the

future, Yokohama Rubber aims to provide even higher-performance tire products, with a comprehensive range of functionality including

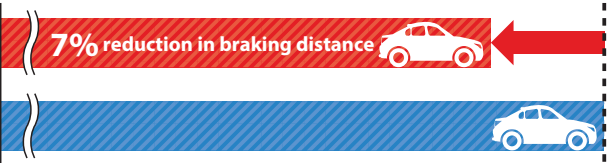
enhanced ability to perform controlled braking on icy roads, smoother acceleration and braking on snow-covered or icy roads.

**The use of the improved Super Absorptive Compound provides a braking distance on ice that is 7% shorter than with conventional tires\***

\*More detailed test data is available to the Tire Fair Trade Council.

[Test data for braking distance on ice (indicator)]

**iceGUARD5 PLUS**  
Conventional tire product (iceGUARD5)



## Striving for even better performance — Holding test drive days both in Japan and overseas

To ensure that customers' reactions to existing products and customer needs can be properly reflected in the development of future products, Yokohama Rubber holds test drive days, both in Japan and overseas, for the companies that purchase our products and for the media.

In fiscal 2015, a special test drive day was held for the new iceGUARD5 PLUS studless tire at Yokohama Rubber's own T\*MARY test track in Kamikawa district, Hokkaido (operations at which have since been relocated to TTCH). Over a hundred representatives of customer firms and of the media took part, having the opportunity to experience driving cars fitted with the iceGUARD5 PLUS tire in braking on ice tests, snow slalom, snow hillclimb, and snow handling tests, etc.

After the test drives, participants were asked to give their views, and also to fill out a questionnaire survey. Besides the many positive comments, such as "It is a very well-balanced tire; I would be able to sell this tire with confidence," and "You can feel quite relaxed going into a corner, and then put your foot down coming out of the corner and still maintain good handling," we also received some useful suggestions for future product development.

A test drive day has also been held at the Yokohama Test Centre of Sweden, located in Northern Sweden. There were around 250 participants from Yokohama Rubber customer firms in Germany, Italy, France, Norway and other parts of Europe. Participants had the opportunity to try out cars fitted with Yokohama Rubber's new iceGUARD5 PLUS studless tire, winter tires designed for use in Continental Europe, and studded tires designed for use in Scandinavia and Russia; they were able to compare these tires



A scene from the test drive day



with existing products, and experience how they handle on snow, braking performance on ice, etc. Although the weather on the day of the test was un-seasonally warm, resulting in less-than-ideal driving conditions, participants were still able to appreciate the high performance of Yokohama Rubber's new products and the disparity between these new tires and conventional tire products.

The views and impressions expressed by participants at test drive days like these will be reflected when Yokohama Rubber is planning new products in the future, helping us to decide on the positioning and goals of new products and enabling us to develop products that meet society's needs.

## Comments by test drive day participants

Taking part in this test drive day enabled our dealers to experience Yokohama Rubber's new winter tires for ourselves, and showed us that these products are high-performance tires that really do meet the requirements of driving in Scandinavia. I feel that these are definitely products that we will want to stock.

**Mr. Egli Stenshagen**  
Auto Grip

I am very happy to have had the opportunity to take part in such a marvelous test drive day. All of the participants, myself included, had looked forward to the event very much. I had never had the opportunity to take part in a winter test drive day before, which made this event even more special. Most of the other participants I talked to felt that, of all the test drive days they had participated, this was the one which enabled them to evaluate the tire products with the most precision and clarity.

**Mr. Michal Kamieniarz**  
ITR CEE

This was a very well-organized, truly outstanding test drive day. All of the members of our team had an incredibly good experience. I hope that Yokohama Rubber will continue to hold similar events in the future.

**Mr. Richard Peto**  
ALCAR Hungaria KFT





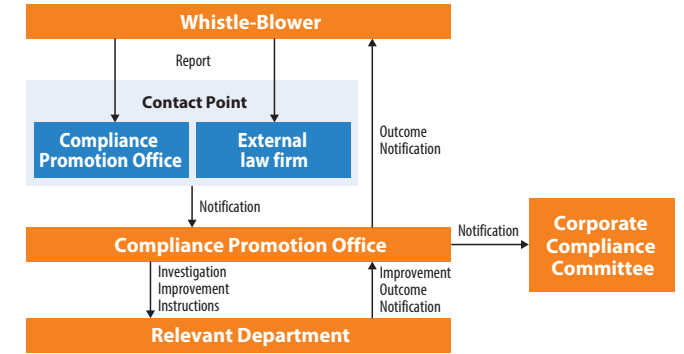
To Our Stakeholders and Investors

We improve our company value by growing business opportunities.

### Effective utilization of the compliance Whistle-Blowing System

Yokohama Rubber has established a Compliance Hotline contact window via the company's Compliance Promotion Office and an external law firm; this Compliance Hotline is available for the submission of reports by Yokohama Rubber Group (Japan) directors, regular employees and part-time employees, as well as by agency and contract staff working in the company's facilities. A total of 15,000 Compliance Cards (listing the Compliance Hotline telephone numbers and e-mail address) have been distributed to all applicable personnel, and the company guarantees that the submission of reports will not lead to unfair treatment of the reporting party. In 2015, the Compliance Hotline handled a total of 95 reports (anonymous or otherwise) and consultations.

[Whistle-Blowing System (Flow chart)]



### What is expected of an outside director at Yokohama Rubber

## OPINION An Outside Director's perspective



Hideichi Okada  
Outside Director

To help Yokohama Rubber realize its goal of becoming a truly global enterprise, I aim to leverage my international experience by actively getting the company's message across to people outside the industry.

I believe that there are three things that are expected of me as an outside director. Firstly, I can observe how the company is viewed by outsiders, from the perspective of a non-related party. Secondly, I can view the company from the perspective of a layman (as opposed to an expert). Thirdly, I can make use of the perspective given me by my international experience, which has involved participating in negotiations with government agencies and businesspeople in countries throughout the world. With all of this in mind, I am endeavoring to proactively offer my views regarding the company's management, and ask questions where needed. I feel that my views are respected by the company in regard to the way it is run.

I get the strong impression that, under the effective leadership of the Chairman and CEO, the management team at Yokohama Rubber is displaying a high level of cohesion and is advancing steadily in a concerted way. I feel that the company is boldly moving forward in the development of its global business strategy, and that the company's management is making steady progress in the right direction. In order to realize the goal of making Yokohama Rubber a truly global enterprise, steps need to be taken to ensure that even more importance is placed on corporate governance and compliance. To ensure that Yokohama Rubber, with its world-renowned technology, is able to achieve wider popularity in global markets, I believe that it is important to ensure that the company's management decisions are readily understandable, even when viewed from overseas. I will be doing my utmost to provide advice that can help, in some small way at least, towards the achievement of this goal.

## OPINION An Outside Audit & Supervisory Board Member's perspective



Akio Yamada  
An Outside Audit & Supervisory Board Member

I believe that Yokohama Rubber can achieve steady growth through the strengthening of compliance, while taking appropriate measures to handle the new risks that accompany the expansion of its' global operations.

With Yokohama Rubber aiming to further expand its operations on a global scale, the company will be required to give due consideration to global standards that take into account the needs of a wide variety of different stakeholders. The most fundamental requirement in this regard is the need to abide by the laws and regulations of the countries and regions in which the company operates (i.e. compliance).

Yokohama Rubber's recent acquisition of ATG (Alliance Tire Group B.V.) will necessitate dealing with types of stakeholders that the company has not had to deal with in the past. It also means that Yokohama Rubber is faced with new types of risk. Yokohama Rubber will need to respond by further strengthening its internal controls and compliance.

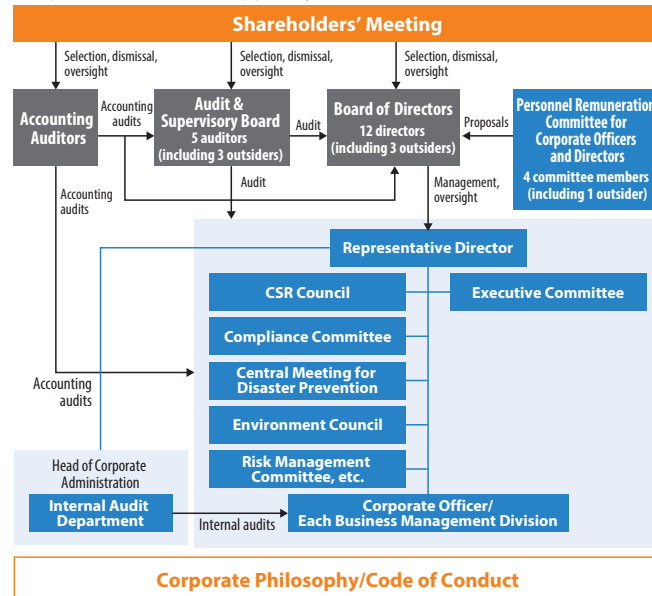
The Audit & Supervisory Board has a very important role to play in this regard. Yokohama Rubber already has in place a system whereby, prior to the holding of meetings of the board of directors etc., the Board of Auditors is provided in advance with detailed information and detailed explanations from the company's executive officers. In addition, close communication has been maintained with the internal audit & supervisory board members and the company's external auditors. There are also opportunities to exchange views with the Chairman and the President. As Yokohama Rubber's Outside Audit & Supervisory Board Member, I intend to fulfill my role properly by expressing frank opinions when appropriate.

### Ensuring transparency in all our business areas, and being properly prepared for a wide range of risks

#### Strengthening corporate governance

The Yokohama Rubber Group has put in place a corporate governance system designed to realize sound, transparent, fair business management in accordance with the Corporate philosophy, and is working to achieve a further strengthening of this system. In this way, we will be able to maintain solid management fundamentals supporting continued value creation, while maintaining the unshaken confidence of all stakeholders.

[Corporate Governance Support System]



Regarding the structure of the board of directors, Yokohama Rubber has obtained the agreement of the shareholders' meeting to add an additional outside director to the board; of the 12 members of the board of directors, 3 are now outside directors. Decisions regarding personnel and remuneration matters for company officers are approved by the board of directors following review by the Personnel Remuneration Committee for Corporate Officers and Directors; an outside director has now been added to the membership of this Committee, thereby ensuring enhanced transparency and fairness in its deliberations.

Please note that disclosure pursuant to the requirements of the Code of Conduct is outlined in Yokohama Rubber's Corporate Governance Report. (<http://www.y-yokohama.com/profile/governance/>) (available only in Japanese)

#### Promoting engagement with shareholders

With the aim of enhancing understanding of the company's corporate vision, business strategy and business plans, since 2013 Yokohama Rubber has implemented visits to and talks with individual key shareholders on an annual basis.

Besides holding quarterly business results briefings (attended by senior Yokohama Rubber managers) for investors and analysts, Yokohama Rubber also makes a proactive effort to communicate and to disseminate information, for example by making available its annual report, business results, and interim and end-of-period reports on the company's website.

With regard to stakeholders other than shareholders and investors, Yokohama Rubber engages in dialog with outside experts, and endeavors to ensure that the views obtained are reflected in the company's business operations. We also create opportunities for regular dialog between the local inhabitants living near Yokohama Rubber's overseas production locations and the managers of these production sites, so that we can listen to local residents' requests regarding factory operation; in this way, we strive to ensure smooth coexistence between our overseas production sites and the districts in which they are located.

#### Risk management

In order to put in place a framework to ensure that risks affecting the Yokohama Rubber Group as a whole are properly handled, meetings of the Risk Management Committee (chaired by the Director responsible for CSR) are held on a periodic basis, and the company is working constantly to realize improvements in this area. In 2015, Risk Management Committee meetings discussed the following issues:

- Review of the risk management system
- Revision of the guidelines for dealing with emergency situations
- Review of the key points to note for persons working or on assignment overseas in regard to overseas terrorist incidents
- Review of the system for the safeguarding of personal information and sharing of information





Together with Our Business Partners

We promote CSR activities throughout the value chain.

Project”, YTRC has been providing the saplings of other tree species for use in inter-planting with rubber trees, to help farmers who are thinking about adopting this new method.

The implementation of this project has helped to strengthen YTRC’s relationship with rubber farmers and other local residents, and YTRC is now providing additional consultation and support in regard to issues that relate to the working environment on rubber farms. It is hoped that this will contribute to an improvement in working conditions, including the prevention of child labor and forced labor, etc.

In the future, YTRC will be working in concert with local government authorities to try to expand the adoption of the “Agro-Forestry” method to include contract farmers, and will be taking steps to cultivate model “CSR Accredited Farms” whose operations pay due attention to the needs of the environment, human rights, etc.



### Message from the project’s leading advocate



Adoption of the “Agro-Forestry” technique can help farmers to obtain income not just from rubber, but also from vegetables, fruit trees, and medicinal plants, while often also boosting the rubber harvest.

Farmers tend to be reluctant to change their established agricultural techniques, but if they have the opportunity to visit farms where this method has been put into practice, exchange ideas with the researchers, and develop a better understanding of the techniques used, then this can help to expand the scale of adoption. I believe that the best way to help farmers acquire an understanding of the “Agro-Forestry” method is for them to be able to visit other farms where the method is already being used, and also for them to receive support in terms of provision of saplings and knowhow.

**Professor Sara Bumrungsri**  
Songkla University

## Implementation of the “CSR Accredited Farms” cultivation project in Thailand — Helping to ensure sustainable production of natural rubber

Y.T. Rubber Co., Ltd. (YTRC), which is Yokohama Rubber’s natural rubber processing subsidiary in Thailand, has adopted the “Agro-Forestry” technique advocated by Professor Sara Bumrungsri (of Songkla University), and has launched a program to cultivate “CSR Accredited Farms” which can help to ensure sustainable rubber production while also creating a healthy working environment.



Natural rubber is a vital raw material for the production of the tires and hoses that are Yokohama Rubber’s main products. With the aim of ensuring sustainable procurement of natural rubber, starting from 2014 Yokohama Rubber has been implementing surveys of biodiversity etc. in natural rubber farms in Southeast Asia that constitute the company’s main rubber procurement sources. These surveys led to the adoption of the “Agro-Forestry” approach. Rather than planting only rubber trees in the form of monoculture, “Agro-Forestry” involves inter-planting rubber trees with a dozen or so other tree species, including bamboo and fruit trees.

Surveys conducted in Professor Bumrungsri’s experimental farm showed that the use of the “Agro-Forestry” technique helps farms to maintain a state closer to that of natural forest than is possible with rubber tree monoculture, while also helping to conserve the biodiversity of the soil; an additional benefit is that the fruit and timber from the other tree species provide an additional source of revenue, boosting the rubber farmers’ income.

It has also been confirmed that reducing the amount of chemical fertilizer used helps to stimulate rubber tree growth, boost the amount of rubber collected, and increase the lifespan of the rubber trees.

YTRC has been introducing “Agro-Forestry” techniques to YTRC employees’ families and to local farmers, and has built up considerable evidence of the effectiveness of this technique. Using the sapling cultivation know-how developed through the “Yokohama Forever Forest

## Implementation of a questionnaire survey regarding CSR-aware procurement

In August – September 2015, Yokohama Rubber implemented a CSR-aware procurement questionnaire survey and interviews targeting the suppliers who handle the natural rubber which is a key raw material for Yokohama Rubber’s main products. The aim was to identify major issues relating to socially-responsible procurement, and to develop strategies for solving these problems.

The questionnaire survey was administered to suppliers, particularly in Thailand and Indonesia (which account for around 93% of all natural rubber procured by Yokohama Rubber). Suppliers were asked to answer 24 questions relating to conditions on suppliers’ own plantations and also other rubber farms with which they do business (including pesticide and chemical fertilizer usage status, measures taken to conserve forests and ecosystems, etc.), as well as the working environment for their company employees, human rights protection, etc.

The results obtained showed that almost all suppliers were meeting requirements in terms of the employee working environment, environmental protection measures, etc. However, some of the answers suggested that not all suppliers were clear about the usage of fertilizers on natural rubber farms other than their own in-house plantations, or about the legal and regulatory requirements in the districts in which they were operating.

We were also able to verify from the survey results that suppliers were providing support, in a variety of forms, to help boost productivity and

technical capabilities at the rubber farms with which they do business. Yokohama Rubber is considering providing similar support activities itself in the future.

In regard to CSR-aware procurement, in April 2016 Yokohama Rubber held the first-ever Suppliers’ Day for the company’s natural rubber suppliers. The event was attended by 41 representatives of 24 companies in five different countries. There was a presentation on Yokohama Rubber’s CSR-aware procurement policy, and a lively exchange of views regarding various CSR-related issues.

Yokohama Rubber also holds annual study meetings for the company’s suppliers. The fiscal 2015 study meeting features discussion of issues that included compliance and CDP Water Disclosure. From the point of view of maintaining a stable, continued supply of raw materials, the strengthening of relations with suppliers (including natural rubber plantation operators) is very important.

In the future, we will continue to implement surveys and visits to farms, both independently and in collaboration with suppliers and relevant government agencies, while also organizing study meetings and discussion meetings in different regions. Our aim is to realize CSR-aware procurement, including natural rubber related activities, that helps to build a strong relationship with local suppliers while at the same time contributing to local development and the safeguarding of the natural environment.





## Together with Our Employees

We value and develop our people, and create opportunities for people.

### The “In-house Skills Olympics” — Aiming to raise skill levels and facilitate the transmission of skills to new generations of workers at production facilities throughout the world

The Yokohama Rubber “In-house Skills Olympics” has been held every year since 2012 as one of the company’s measures to enhance skill levels for important skills throughout the company and ensure that skills are handed down to new generations of workers, thereby helping to ensure that “frontline” manufacturing and equipment proceeds smoothly. Following the preliminary rounds, the teams (comprising Yokohama Rubber workers from different production locations around the world who are aged 27 or under, or have been with the company for less than 5 years) travel to Japan for the finals, where they have an opportunity to



A scene from the practical tasks in the 2nd “In-house Skills Olympics”

demonstrate their superior skills and know-how in competition with the other teams. The participants in the 4th “In-house Skills Olympics” in 2015 included young employees from 15 tire production facilities in Japan and 26 facilities overseas. Besides receiving coaching from their colleagues and supervisors at their respective facilities, the participants also continued to practice the skills on which they would be tested right up until the day of the finals.

Besides a written exam, the tests included in the first “In-house Skills Olympics” in 2012 included arc welding and operation of high-speed cutters and screw-cutting lathes, all of which are vital skills in tire production; these practical tests took approximately three hours to complete. For the third and fourth “In-house Skills Olympics” in 2014 and 2015, the written exam was accompanied by practical tests that covered every aspect of electrical control technology, including electrical circuit diagram preparation, control panel construction, and software compilation. The participants began their preparations three days before the finals; on the day, each team had 15 minutes to complete the practical tasks.

To ensure that teams from other countries are not unfairly disadvantaged, every year the test materials and questions are translated into each team’s language.

Comments from participating team members have included: “Taking part helped me to realize the importance of being to get tasks finished within a specific period of time,” and “Having learned how to resolve

problems rapidly, I am looking forward to using these new skills in my regular work.” By bringing together contestants from different countries, the “In-house Skills Olympics” also provide a marvelous opportunity for promoting exchange and communication between shop-floor operatives from Yokohama Rubber facilities in different countries.

Not only do the “In-house Skills Olympics” help to enhance the speed at which technology levels are raised (through healthy rivalry), reports from individual production facilities suggest that participating has also helped to change employees’ mindsets.

In the future, the Yokohama Rubber Group will continue to hold the “In-house Skills Olympics,” and will be putting in place a system so that overseas plants can provide support for other plants, so that Yokohama Rubber’s monozukuri-based technology can be taken to an even higher level, and passed down to new generations of employees.



The practical tasks competition in the 4th “In-house Skills Olympics”



### Comments from participants in the “In-house Skills Olympics”

One of the challenges in the 4th “In-house Skills Olympics” involved collaborating with contestants from another factory, which meant working with people who spoke a different language; starting from three days before the finals, we were working with them on circuit diagram preparation, control panel construction, and software compilation. Being able to complete the task successfully by sharing ideas and encouraging one another gave us a really special feeling of satisfaction, and it was great to share the joy of success with our colleagues from the other plant. We are looking forward to making use of the electrical know-how that we have acquired back at our plant, and also to being able to provide support for other employees from our plant who may be competing in the “In-house Skills Olympics” in the future.

**André Meyers and Matt Perry**  
Yokohama Tire Manufacturing Virginia, LLC (YTMV)

### Enhancing safety awareness by giving employees the opportunity to experience danger in the “Safety Dojo”

In line with the Yokohama Rubber Group philosophy that “health and safety is the foundation of everything we do,” one of the health and safety targets that we have set ourselves is to “Build a safety culture aimed at reducing workplace risk to zero by fiscal 2017.” To realize this goal, we are working to eliminate risk from three angles: “People,” “Things (i.e. facilities),” and “Systems.” One of the measures that have generated particularly good results in terms of raising safety awareness has been the “Safety Dojo” initiative, which has been implemented at all Yokohama Rubber production locations, both in Japan and overseas.

On the shop-floor of a factory, people often don’t realize the danger of getting too close to machines that are in operation, and sometimes they thoughtlessly do things that would appear clearly dangerous in other circumstances. The goal of the “Safety Dojo” program is to use techniques such as virtual reality and visual examination, focusing on equipment when actually in operation in the factory, to heighten employees’ awareness of potential risks.

At Yokohama India Pvt. Ltd. (YIN), Yokohama Rubber’s tire production plant in India, all employees are required to undergo annual safety



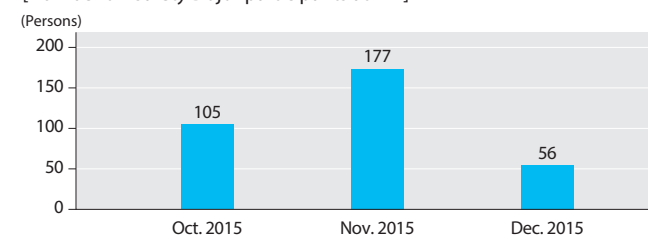
“Safety Dojo” at YIN

training covering 10 types of equipment; new hires have to undergo this “Safety Dojo” training before they are allowed to actually begin work on the shop-floor. Between the commencement of classes in July 2015 and the end of December 2015, all 338 employees at the plant completed this safety training. Participants were made more aware of the risk associated with particular items of equipment and of the types of injury that could be suffered, and made comments such as “Being able to actually see the risks and dangers for ourselves using virtual reality has brought home to us the importance of following procedures strictly.” This training has helped to reduce the incidence of accidents at YIN to a very low level.

In line with Yokohama Rubber Group’s goal of reducing to zero the possibility of serious accidents involving the equipment in use at our domestic and overseas production locations, in fiscal 2015 YIN identified 3,284 potential risks; effective measures to ameliorate these risk have been taken in 3,218 (approx. 98%) of cases.

Through these measures, YIN is working to comprehensively eliminate the dangers associated with production processes, and to firmly implant the importance of safety in employees’ minds.

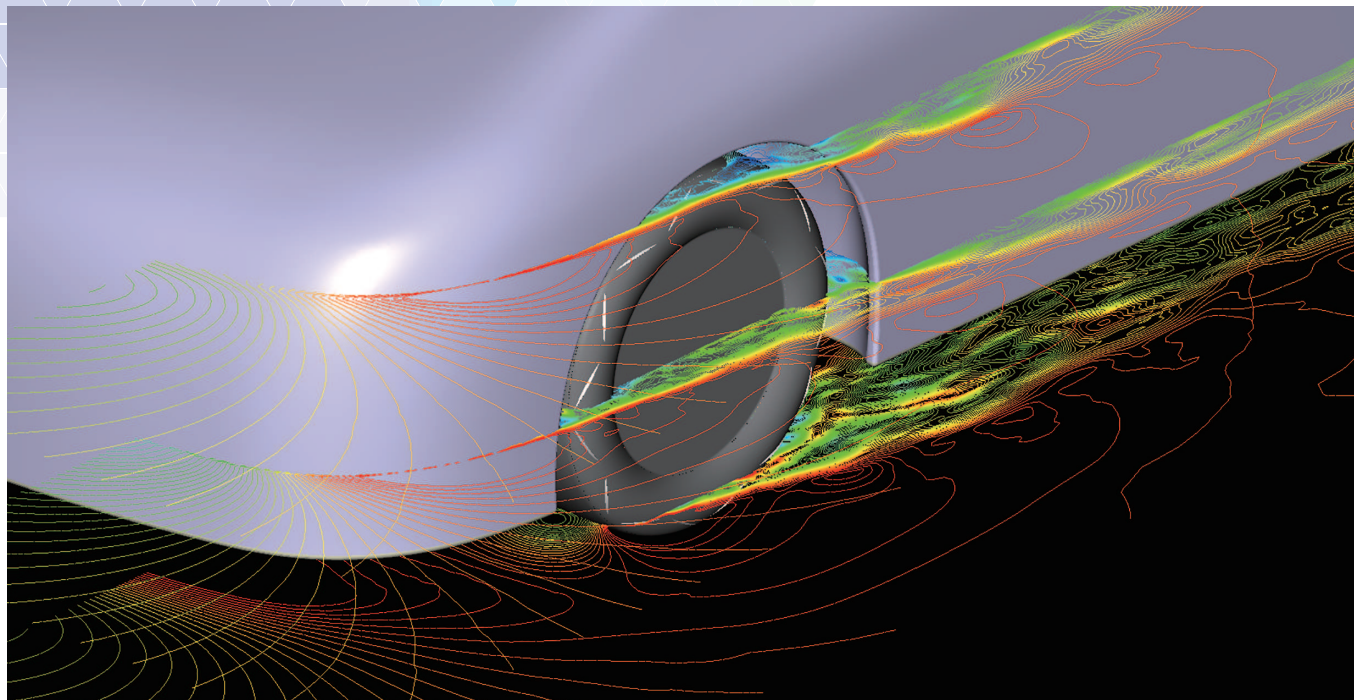
[Number of “Safety Dojo” participants at YIN]





# Introduction of New Technology

## Taking Yokohama Rubber's technology to a whole new level



Airflow around a moving vehicle (conceptual image)

### Further improvements in aerodynamic technology

Yokohama Rubber pays considerable attention to aerodynamics, specifically to controlling the airflow around the sides of a moving tire; this is partly to reduce tires' rolling resistance, and also for the potential environmental benefits. Since 2010, we have been undertaking ongoing research using aerodynamics simulations.

When a vehicle is moving, it is affected by air resistance acting from various different directions; the amount of air resistance experienced by the vehicle can affect its fuel consumption. At the same time, airflow around the vehicle's tires is highly complex, and it is known that this movement can affect the air flowing around the vehicle as a whole. By changing the airflow around the tire, by means of adjustments to the tire's shape (including the adding of small protruding "fins" to the side of the tire), it should be possible to reduce the air resistance of the vehicle as a whole, thereby contributing to an improvement in fuel economy. This concept was the starting point for the R&D that Yokohama Rubber undertook.

With the latest technology, simulations indicate that it should be possible to reduce vehicle air resistance by 2 – 3%, roughly equivalent to reducing tire rolling resistance by 2 – 3%.

Thanks to this attention to airflow and the resulting R&D work, Yokohama Rubber has succeeded in developing new aerodynamic technology that helps to control vehicle lift when a vehicle is moving. Controlling lift not only contributes to vehicle safety, it also has a positive impact on vehicle stability; up until now, it had proved difficult

to combine effective lift control with low air resistance. Yokohama Rubber's new aerodynamic technology, which reduces air resistance while also controlling lift, is thus a real breakthrough.

In the future, Yokohama Rubber will continue to build on these research achievements to realize further improvements in tire performance.



Adding protruding fins to the side wall of the tire helps to control airflow

## Laying the foundations for next-generation technology

### Development of biomass-derived synthetic rubber

Synthetic rubber, the main raw material used in tire manufacturing, is generally derived from petroleum. Producing synthetic rubber from biomass rather than petroleum could contribute to a significant reduction in carbon dioxide emissions. Yokohama Rubber has been undertaking a variety of research programs in collaboration with external research organizations with the aim of developing biomass-derived synthetic rubber. In fiscal 2015, this research bore fruit with the successful development of two important new technologies.

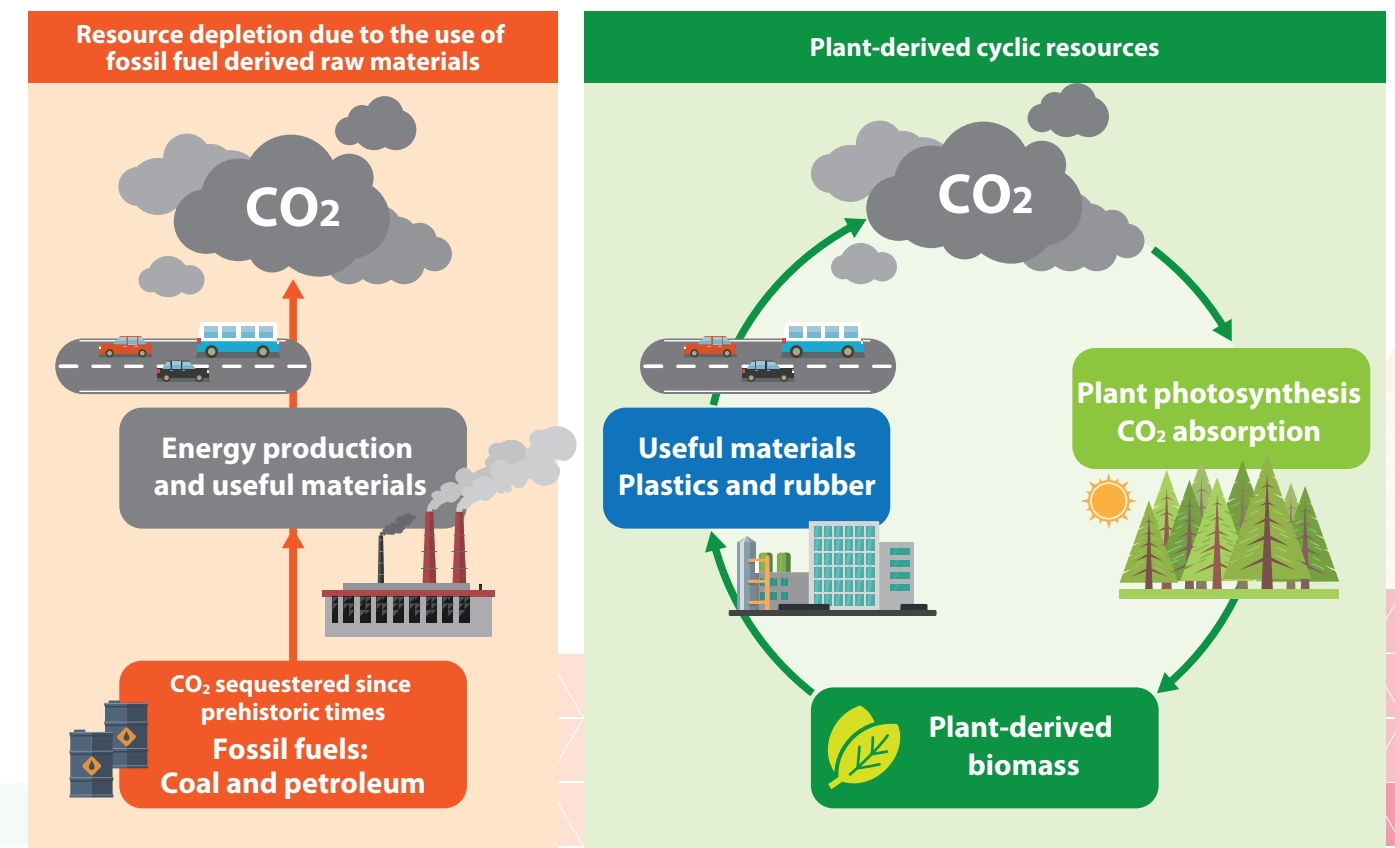
The first of these breakthroughs, resulting from collaborative research by Yokohama Rubber and Tokyo Institute of Technology, is the development of technology for synthesizing butadiene from cellulose (a sugar that is a key component of plant fibers) using industrial solid catalyst technology. Butadiene rubber, which has outstanding durability and resistance to low temperatures, is one of the most widely produced and widely used forms of synthetic rubber; if biomass-derived butadiene can be effectively commercialized, then this can be expected to lead to a significant reduction in the amount of fossil fuels consumed.

The second breakthrough is the result of collaborative research

between Yokohama Rubber, National Research and Development Agency RIKEN, and Zeon Corporation. Using cell design biotechnology, we have succeeded in developing technology for synthesizing isoprene (the raw material for producing synthetic polyisoprene rubber) from biomass. Synthetic polyisoprene rubber has a chemical structure very similar to natural rubber, and is sometimes referred to as "synthetic natural rubber." The development of this new technology has immense significance; not only will it contribute to reduced consumption of fossil fuels, it will also provide a new raw material that can supplement natural rubber (which is characterized by pronounced fluctuations in both price and production volume).

If these biomass-derived synthetic rubber technologies can be commercialized, then it should be possible to reduce the carbon dioxide emissions associated with rubber manufacturing to around one-quarter of the current level. While there are still significant obstacles to be overcome in terms of production cost, etc., nevertheless, whether viewed in terms of reducing the burden on the environment or of ensuring a stable supply of raw material, there is a clear need to continue undertaking R&D aimed at the commercialization of these technologies so that they can be used to revolutionize the mass production of tires.

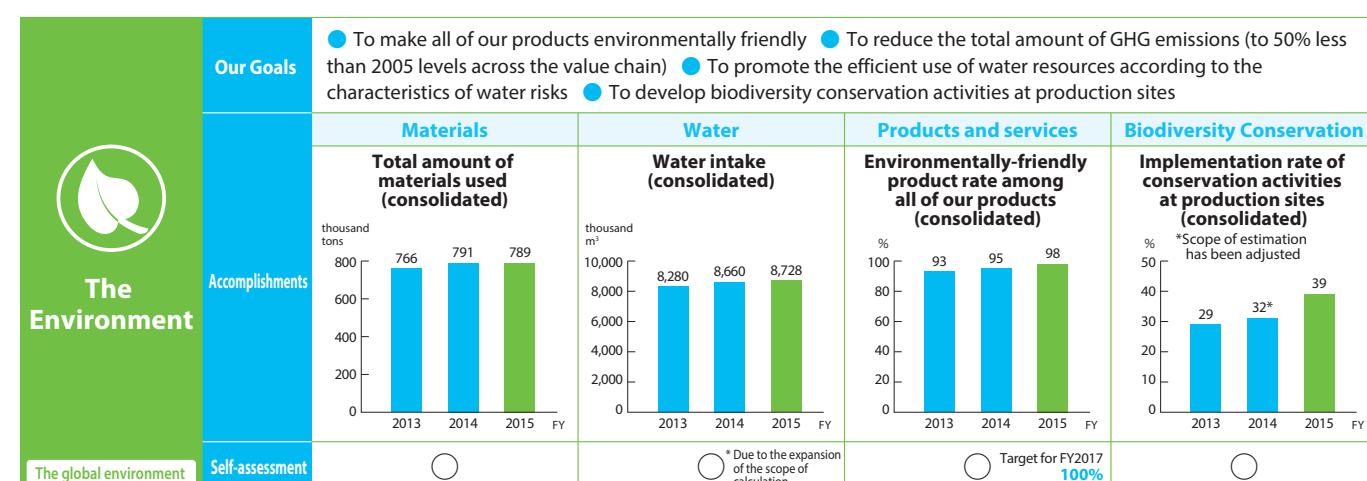
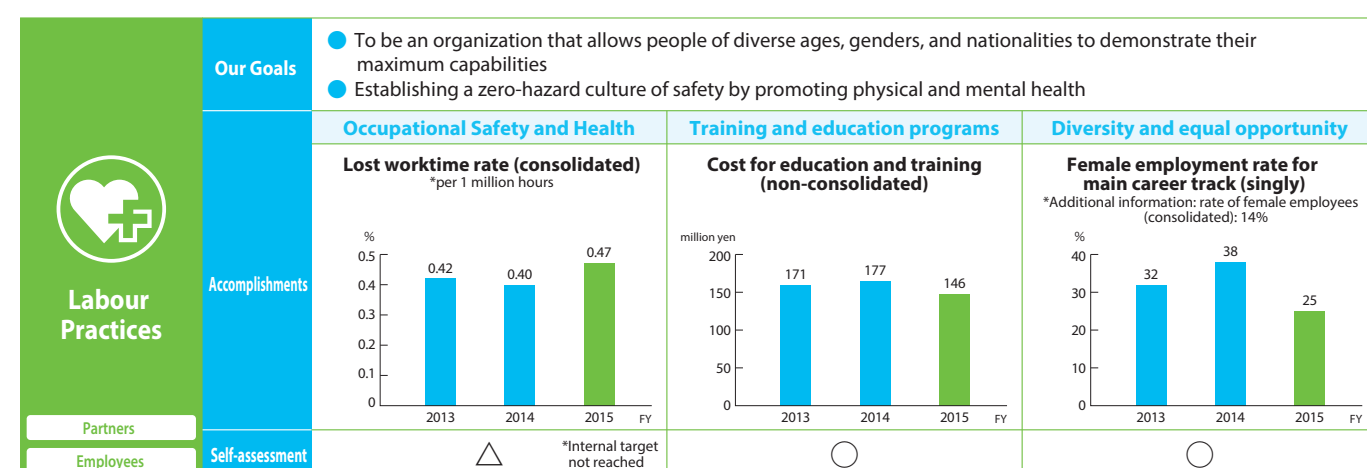
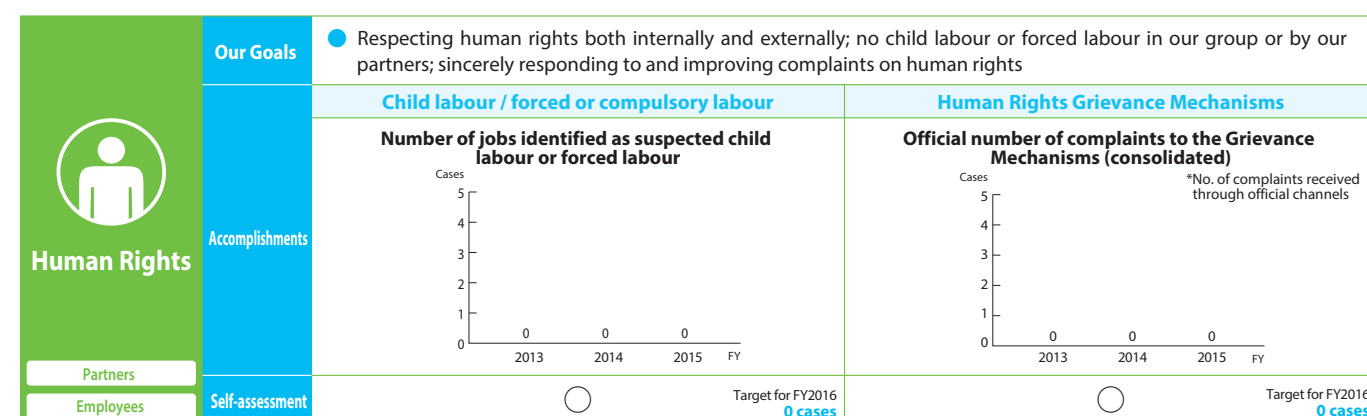
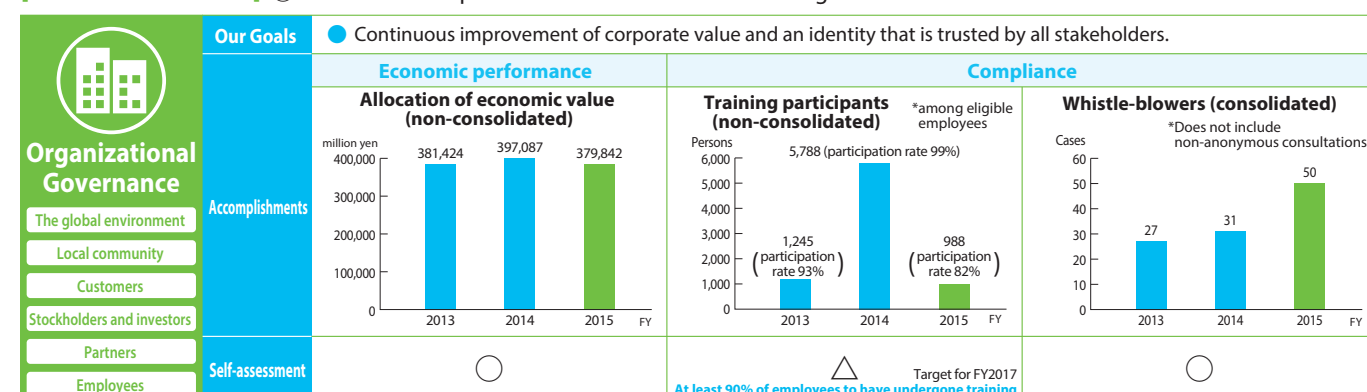
[Biomass-derived synthetic rubber]





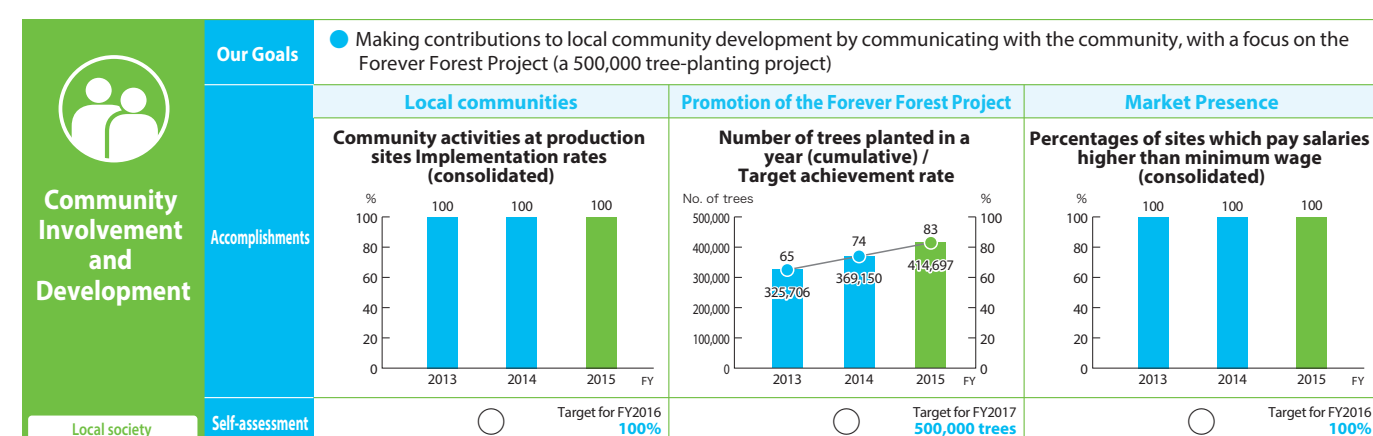
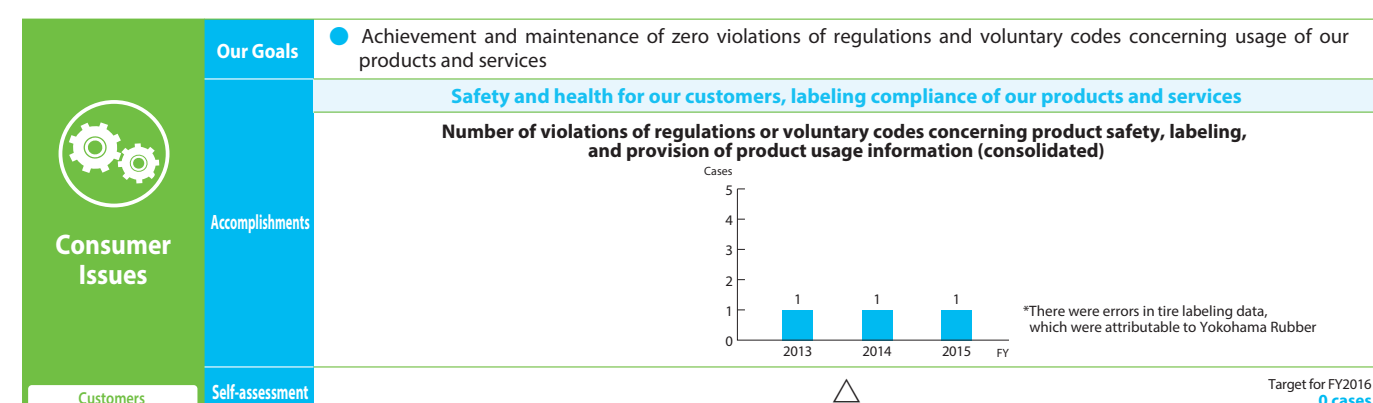
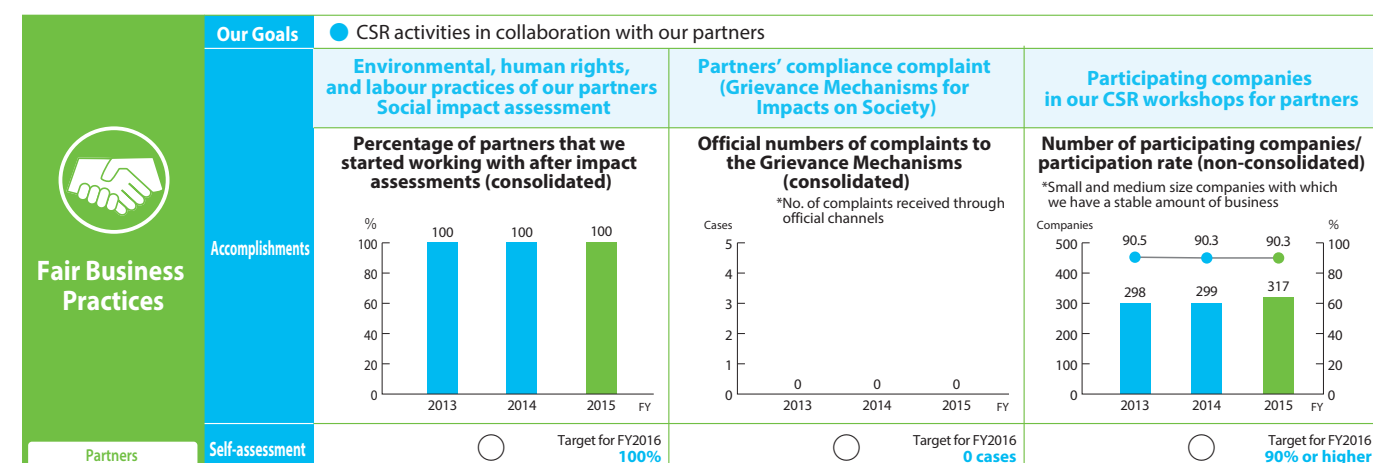
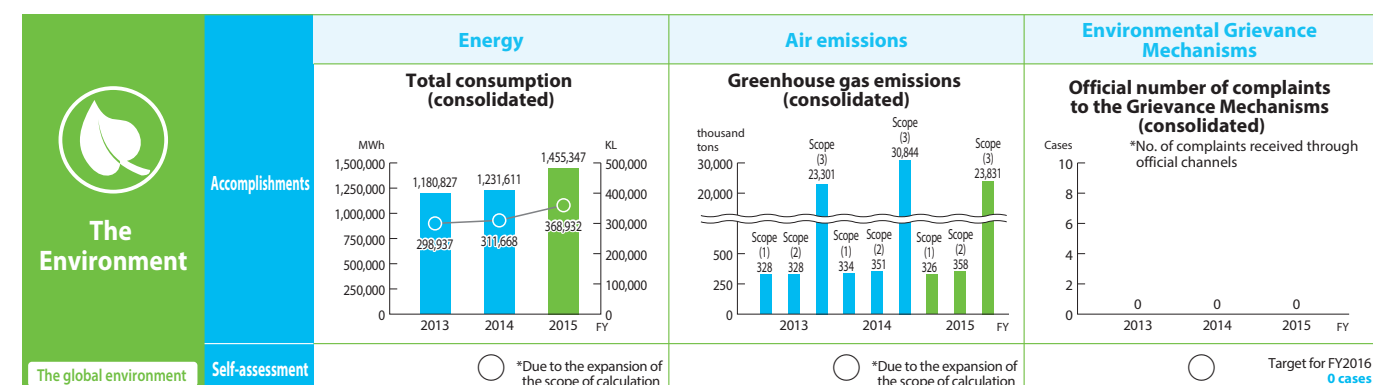
# Yokohama Rubber ISO26000 Compliance Activity Report

[Self-evaluation code] ○: Achieved or improved △: Unachieved or unchanged ×: Deteriorated



In FY 2014, the Yokohama Rubber Group selected priority issues for each group of stakeholders. In this section, we report on the priority items identified according to ISO26000 and our progress toward achieving them, as well as the data requested for disclosure. Please refer to our CSR Website for background details regarding the importance of each priority, our goals, our aspirations, the FY 2015 activity report, the challenges we faced, and future measures.

Please refer to our CSR Website for detailed reports of each achievement <http://www.y-yokohama.com/csr/en/>





# Response to Outside Experts' Opinions

Yokohama Rubber took the following actions in response to the opinions expressed by outside experts Ms. Mariko Kawaguchi and Mr. Hideto Kawakita in discussions regarding CSR Report 2015. A selection of these actions is presented below.

Views and suggestions put forward by Ms. Kawaguchi and Mr. Kawakita	Yokohama Rubber's Response
<b>Organizational Governance</b>	
It is vitally important that, besides encouraging subordinates to take a responsible approach towards the specified materiality (important issues), senior management must also commit to these objectives, and the various measures must be linked together organically. In particular, because senior managers' commitment is seen as being especially important, attention must be paid to this point when undertaking disclosure.	The CSR Council and Environmental Council, both of which are chaired by the President, are held twice a year, and a framework has been put in place for relevant departments to formulate and review measures relating to the important issues that the Yokohama Rubber Group needs to tackle. In addition, matters that could have an impact on the Group's operations are reported to the Executive Committee, and then implemented once the Executive Committee's approval has been obtained. Furthermore, the Yokohama Rubber Group's commitments have been announced in the Chairman's Message and in the top-level interview.
It would be good to see Yokohama Rubber clarify "what," "when" and "how" it is doing in regard to achieving thorough visualization of the measures being implemented with respect to environmental, social and corporate governance (ESG). The key issue here is the extent to which transparency has been enhanced.	Yokohama Rubber Group is working towards the realization of building "a trusted identity as a contributing member of the global community." Information on the ESG-related positive and negative impacts of measures implemented by relevant departments are reviewed by the department head, the responsible director, the CSR department (compliance etc.), and by senior management, thereby ensuring accurate transmission of information.
Regarding materiality, clarification is needed as to precisely who particular issues are material to; this will require more precise, more concrete definitions of the targets of particular issues. With regard to the concept of being an enterprise that continues to be valued by society over the long term, there is a need to determine a priority order as to precisely who the company is important to.	Yokohama Rubber positions the global environment, local communities, customers, shareholders and investors, suppliers, and employees as our important stakeholders. In accordance with the principles and goals of the U.N. Global Compact, and in line with the framework prescribed by ISO 26000, we implement measures with regard to the important issues (materiality) that the company should be addressing, and strive to contribute to the resolution of social issues. We have established a priority order for the activities we see to implement; for example, with respect to customers we prioritize customer health and safety, with respect to suppliers we prioritize supplier human rights assessment, and with respect to employees we prioritize occupational health and safety, diversity and equal opportunities, etc. (see page 5).
<b>The Environment</b>	
As a tire manufacturer, ensuring a stable supply of natural rubber and synthetic rubber is a key issue for you. One would hope that you could find a way to explain to consumers, in an easy-to-understand way, the significance of your efforts to ensure efficient utilization of resources.	We are currently working to reduce the weight of our products, and to manufacture them using the smallest possible quantity of resources and with the greatest possible potential for recycling and reuse. In this way, we can help to improve vehicles' fuel economy while also contributing to the prevention of global warming through the reduction in carbon dioxide emissions. In addition, because countries and regions in different parts of the world have different road surfaces and different climatic conditions, we are working to raise awareness of the need to check one's tire pressure on a regular basis. Also, as part of our efforts to ensure that used tires are properly disposed of, we monitor the status of illegal tire dumping, and we try to ensure the implementation of recycling systems that reduce the amount of waste generated by ensuring effective utilization of resources. We also endeavor to spread awareness of these products and services in an easy-to-understand way.
<b>Fair Operating Practices</b>	
As a continuation of its ambitious overseas expansion strategy, Yokohama Rubber is now attaching considerable importance to M&A activity. It would seem to be important to evaluate the firms with which Yokohama Rubber forges tie-ups from an ESG perspective, and to identify the potential risks that linking up with these firms may bring.	In line with our goal of being an enterprise that plays a valued and irreplaceable role in society, we and the companies that we join up with do implement mutual appraisal from an ESG perspective, and work to build mutual trust, so as to facilitate the sustainable development of the Yokohama Rubber Group.
<b>Consumer Issues</b>	
Rather than merely viewing CSR as a means of safeguarding oneself against risk, it would seem to be advisable for Yokohama Rubber to aim at creating value through the adoption of a more proactive approach towards reducing the burden on the environment and enhancing safety.	The single biggest impact that tires have on the environment is the carbon dioxide emissions generated when the vehicle to which the tires are attached is in motion. With this in mind, we are endeavoring to spread awareness of the importance of having all vehicles fitted with low-energy-consumption tires, which not only help to save energy but also make for safer driving in rainy weather.
It would be seem to be important for Yokohama Rubber to spread awareness of the positive benefits to society from the company's contribution towards safer and more energy-efficient "driving, turning and braking."	Regarding tire performance, we inform customers of the level of performance that our tires provide with respect to rolling resistance and wet-grip performance; we are continuing to implement measures to spread awareness among consumers of the need to fit the most appropriate type of tire for each particular vehicle, and of the need to ensure that the tire pressure is correct.
Would it not be a good idea for Yokohama Rubber to prioritize helping elderly drivers in Japan's Tohoku Region to cope with the need to drive in snowy conditions, so as to ensure that senior citizens in this region can maintain their mobility safely?	We view helping senior citizens and people living in under-populated, remote areas to drive safely as an important social issue. We share information with local government authorities and related organizations, and we are examining ways to help arrange tire checks and tire replacement service for senior citizens; although our contribution so far has been less than we could have hoped, we have also been providing winter tires for the use of senior citizens.

## Third-Party Opinion

The description herein refers to the opinions based on this report, a related website (<http://www.y-yokohama.com/csr/en/>), and also interviews held with persons in charge from the planning, quality assurance and materials functions of Yokohama Rubber's Tire and MB divisions, as well as from the Corporate Quality, Human Resources and Health and Safety, General Affairs, Compliance and CSR departments, along with on-site observation of activities aimed at helping to safeguard biodiversity at the Hangzhou Plant of Yokohama Rubber Group member company Yokohama Rubber Industrial Products Shanghai Co., Ltd. Suffice to say, Yokohama Rubber's various approaches to CSR are steadily progressing under the PDCA management cycle, especially with regard to its mitigation of environmental impacts.

### Truly Commendable Areas

- **Regarding conservation of biological diversity** (<http://www.y-yokohama.com/csr/en/report/environment/environment03.html>), I commend the Company for carrying out initiatives to foster a correct understanding of ecosystems and the positive and negative impacts that the Company's operations have on them, including by hosting employee-led workshops and briefings for the local community as well as conducting activities aimed at conserving biological and ecosystem diversity autonomously across a wide area, at seven factories in Japan, including the Mie Plant, based on the preliminary studies implemented at 15 of the Company's business locations both in Japan and overseas in fiscal 2010. In particular, I highly praise the fact that members comprising managerial employees taking part in activities at the Mie Plant have taken the lead in the monitoring efforts, which are ongoing. The Company has also begun to implement continuing efforts to monitor the state of ecosystems in the vicinity of its overseas production facilities, such as the Hangzhou factory. I hope that the Company will continue with these efforts, which use surveys of the current situation to provide a foundation for safeguarding and revitalizing ecosystems, at both its Japanese and overseas facilities in the future.
- **Regarding the Yokohama Forever Forest Project** (<http://www.y-yokohama.com/csr/en/mori/index.html>), in the eight years since the project was launched Yokohama Rubber's domestic and overseas sites have planted more than 410,000 trees with sufficient consideration towards the conservation and improvement of biodiversity. They nurtured the seedlings on their own, and not only were 83% supplied within the Yokohama Rubber Group in fiscal 2015 in Japan, but also they have provided a cumulative total of more than 270,000 seedlings so far to municipal governments and other companies. I also commend the Company for playing a leading role in the "Green Coastal Levee that Protects Lives" project planned for those areas affected by the Great East Japan Earthquake. I also truly commend this world-leading initiative for contributing to society to preserve and improve forest ecosystems and greenery. Going forward, I hope that the Yokohama Forever Forest Project website will evolve into a portal that also introduces (in a multilingual format) many examples of similar initiatives taking place at other companies.

### While Approving of Progress, Areas that May Require Further Improvement

- **Regarding corporate governance and CSR promotion system** (<http://www.y-yokohama.com/csr/en/report/governance/management.html>), while I commend Yokohama Rubber for establishing interim targets up to 2017, when it celebrates its centennial anniversary, and promoting initiatives using key performance indicators (KPI) based on the core issues addressed by ISO26000, going forward I sincerely hope the Company will develop a system that, led by the managers responsible for planning in each division, focuses on the Company's position in world markets and the evolution of its business model in the 2020s, and in particular, that it will continue to use targets and measures created using a bottom-up approach at its domestic and overseas sites in order to incorporate many different values globally in its management decisions and practices, and to promote the appointment of a diverse range of human talent to managerial positions. In terms of its reporting and communication, I would like to commend the Company for providing more detailed introductions of the initiatives (<http://www.y-yokohama.com/csr/en/data/>) being carried out by major Yokohama Group business locations in Japan and abroad; I hope that the Company will continue to provide this information in more detail, and also that the Company will promote stakeholder engagement further as required by ISO26000, setting up opportunities for continuous dialogue with NPOs in important operating regions.
- **Regarding its quality assurance promotion system** (<http://www.y-yokohama.com/csr/en/report/consumer/consumer02.html>), in regard to the discovery in February 2016 that the Yokohama Rubber had shipped tires with incorrect product labels attached, I commend Yokohama Rubber for implementing measures to prevent reoccurrence and for launching a "Company-wide Key Essentials Management System"; in the future, I continue to look forward to seeing the Company incorporate the minimization of impacts on customers as part of its management indicators and further advance quantitative and effective measures.

### Response to Third-Party Opinion

While we have received positive feedback regarding the progress made in our CSR initiatives, we take suggestions and recommendations very seriously, as something to be improved upon in continuing to meet the expectations of our stakeholders.

Safe workplaces, and the physical and mental wellbeing of employees, represent the very foundation of our corporate management, and we view it as being very important that employees of the Yokohama Rubber Group be able to carry out their duties safely. To this end, we are working, on a global basis, to build a working environment in which employees can maximize their potential and continue to work, by establishing a labor system that meets employee needs with respect to childcare, nursing care, etc., through mental health provisions, and by expanding the recruitment of a diverse range of human talent.

In addition, in order to ensure that our business operations can continue in a sustainable, stable manner, in the future we will continue to strive to make a positive contribution to local communities in the countries where we operate by providing products and services that help to address environmental and social issues, and through the implementation of activities to safeguard biodiversity, etc., in the vicinity of our business locations.

We will also be collaborating with social welfare organizations to develop new ways for persons with disabilities to work.

**Shuichi Tsukada**  
Officer  
Head of Corporate Social Responsibility Division  
Yokohama Rubber Co., Ltd.



川口 人志

**Hideto Kawakita**  
CEO and Editor/Publisher of Socio Management  
International Institution for Human,  
Organization and the Earth (IIHOE)



#### IIHOE

The International Institute for Human, Organization and the Earth is a non-profit organization established in 1994 for the democratic and balanced development of all the lives on the earth. Although it mainly provides management support for citizens' groups and welfare workers, the group is also heavily involved in providing CSR support to large corporations.  
<http://blog.canpan.info/iihoe/> (available only in Japanese)

- **Regarding the reduction of environmental impacts** (<http://www.y-yokohama.com/csr/en/report/environment/>), I would like to commend the Company for its development of technology that helps to make tires lighter, with better aerodynamic performance, and for its improvement (compared to the previous year) and achievement of interim targets in regard to total waste generated (on a per unit of production output basis) and greenhouse gas emissions (total emissions). Going forward, I strongly encourage the Company to try to meet the target that the Japanese government has recently set of reducing greenhouse gas emissions by 26% by 2030 (compared to 2013) as soon as possible, and to thoroughly shed light on its challenges and methods, such as transitioning to the non-fixation of energy usage adjustable to the fluctuation of production volume (Just-In-Time for Energy), and also to expand the use of powdered recycled rubber.
- **As for CSR at suppliers** (<http://www.y-yokohama.com/csr/en/report/partner/>), I commend the Company for encouraging natural rubber suppliers in Thailand to adopt "Agro-Forestry" techniques, for continuing to hold CSR workshops for suppliers in key countries, and for establishing a commendation system based on feedback from suppliers in regard to the results of supplier self-checks and field surveys. In order to more effectively improve initiatives being undertaken by suppliers, I strongly encourage the Company to implement more detailed evaluation of individual items and measures taken, and to establish a support system with suppliers for sharing and problem solving actual cases and further understanding initiatives in greater detail.
- **As regards employee safety** (<http://www.y-yokohama.com/csr/en/report/employee/employee01.html>), I commend Yokohama Rubber for responding to the serious accident that occurred in fiscal 2013 by investigating and rectifying the situation company-wide, and expanding the scope of the rectification efforts to include temporary and agency staff; the Hangzhou factory is also now implementing experiential training on an annual basis, with all employees from the plant manager on down required to participate. Moving forward, I continue to urge the Company to incorporate safety improvements and remedies for facility specifications without fail and to issue a report about the progress of evaluations and improvements to ensure the greater effectiveness of safety measures.
- **Regarding improvement of workplaces' ability to retain employees** (<http://www.y-yokohama.com/csr/en/report/employee/employee03.html>), I commend the fact that 3.91% of Yokohama Rubber employees took advantage of the systems for paid vacation, leave of absence or shorter work hours in order to care for a child or family member in need, and that Yokohama Rubber is working in collaboration with the labor union to arrange the holding of nursing care leave seminars. I continue to strongly urge the Company to establish an environment where employees can continue to work, while also taking leave. In terms of mental health care, I commend the Company for establishing hotlines where employees can discuss any problems they may be experiencing, including non-work-related matters; I hope that the Company will promote more effective measures of this kind in the future. I also praise the Company for making progress with the reemployment of retired workers and I expect the Company to encourage the participation and involvement of reemployed workers in their local communities.
- **As regards the enhancement of the human resource portfolio required as a global corporation over the midterm**, I think it is good that the Company is continuing to strengthen personnel development efforts across the Group (including overseas business locations) for managerial level employees; for example, at the Hangzhou plant, employees who were working at section chief level when the plant was first established have since been promoted to department manager. Meanwhile, going forward, I strongly encourage the Company to accelerate its development of the next generation of executives at both its head office and overseas sites based on a long-term goal and strategy that reflects how the Company sees itself being positioned in global markets in the 2020s, and the business models that it expects to have adopted.
- **As regards employment of persons with disabilities** (<http://www.y-yokohama.com/csr/en/report/employee/employee03.html>), I commend the Company for achieving the statutory employment rate of persons with disabilities and expanding job opportunities. I ask that the company to continue to work proactively toward implementing measures to ensure that employees with disabilities are retained over the long term.