



## A new frontier, a new lifestyle.

Sekisui Chemical Group — produce a better world with creative technologies.

> The onrush of a conquering force is like the bursting of pent-up waters into a chasm a thousand fathoms deep. — Sun Tzu

SEKISUI CHEMICAL CO., LTD.

## Sekisui Chemical Group's Philosophy for CSR

Sekisui Chemical Group aims to meet the expectations of its stakeholders and contribute to society through its business activities, and has embodied this ambition in its Corporate Philosophy called

the "3S Principle" (Service, Speed, and Superiority).

Our Group Vision clarifies that we will endeavor to improve the lives of the people of the world and

the Earth's environment, while defining Creation of Housing / Social Infrastructure and

Chemical Solutions as areas of society on which to focus our efforts.

Our desire is to continue opening new horizons through prominence in

technology and quality under our Group slogan

"A new frontier, a new lifestyle."

As globalization of our businesses advances and the stakeholders with whom we interact grow more diverse, we have prepared this CSR Report to communicate to stakeholders around the world the unchanging ideas and efforts of the Sekisui Chemical Group.

Origin of the "Sekisui" Company Name Sekisui means "pent-up water" and is an expression used in Sun Tzu's "Art of War," an ancient Chinese classic. "The onrush of a conquering force is like the bursting of pent-up waters into a chasm a thousand fathoms deep" means "the victor of a battle is determined in a fell swoop with tremendous force, just as a full body of water (pent-up water or "Sekisui") drops into a deep gorge."The expansion of business activities will inevitably encounter problems and challenges. To overcome such difficulties, it is important to gain a full understanding of and to analyze one's opponent's circumstances, to consolidate one's own structure, and then release the power of pent-up waters to be victorious in battle.

#### **Editorial Policy**

The pages of this report are structured in line with the Sekisui Chemical Group's concept of its Corporate Social Responsibility (CSR) in terms of Three Prominences—in Environment, Customer Satisfaction (CS) & Quality, and Human Resources—along with Three Attitudes of Sincerity: in Compliance, Risk Management, and Communication.

- We have decided on the information that should be covered in this report based on its importance both to society and to the Sekisui Chemical Group, taking into consideration inputs, including surveys conducted within and outside the Group and independent review.
- To ensure that information is both comprehensive and easy to read, data posted on the Sekisui Chemical Group's website conforms to the Global Reporting Initiative's (GRI's) Sustainability Reporting Guidelines. This report is a digest version of this information, focusing on key CSR issues specified in the medium-term management plan.



→Web Web denotes there is more detailed information available

on our website

Related data and materials are accessible on our website as the CSR Report 2016 Data Book (PDF).

#### Access the following URL to download PDF files:

https://www.sekisuichemical.com/csr/report/

Sekisui Chemical home page  $\rightarrow$  CSR  $\rightarrow$  Corporate Social Responsibility Report  $\rightarrow$  Corporate Social Responsibility Report 2016

- The calculation criteria for the key performance indicators (KPIs) used in this report are shown in the PDF Data Book.
- To ensure the reliability of this report, the content of environmental and social reporting is subject to independent practitioner's assurance.

#### **Reference Guidelines**

- The website version is presented in accordance with the "Core" standards of the GRI's Sustainability Reporting Guidelines ver. 4.
- A GRI Guidelines comparison table is available on the Sekisui Chemical Group website.
- In preparing this report, we also refer to the Environmental Reporting Guidelines (2012 Edition) issued by Japan's Environment Ministry.

#### Scope of This Report

Entities Encompassed by This Report: The basic function of this report is to comment on the activities of the Sekisui Chemical Group, focusing chiefly on the business facilities that play key roles in those activities. Timeframe Encompassed by This Report: April 2015-March 2016 (Includes some activities that occurred outside this timeframe.)

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#### Scope of Independent Practitioner's Assurance

The environmental and social information contained in the CSR Report 2016 (the Report version and PDF Data Book) is subject to independent practitioner's assurance for the appropriateness of calculation methods and the accuracy of calculation results. Information that falls within the scope of independent practitioner's assurance is identified by a  $\checkmark$  mark.

#### Disclaimer

Readers are requested to note the following: The information in this report includes not only past and present facts concerning Sekisui Chemical Co., Ltd, and its affiliates but also future forecasts based on current plans and projections and management plans and management policies as of the time of publication. Changes in various factors could cause the results of business activities in the future and other circumstances to differ from these forecasts. Also, since the figures in the tables and graphs contained in this report have been adjusted through rounding off and other means, in some cases total figures may not be equal to the sums of their parts. In addition, for some items data for past fiscal years has been revised in line with expansion in the scope of summation, revision of calculation methods, and changes to environmental load coefficients.



## TOP MESSAGE

We are committed to securing the sustainable growth of the Sekisui Chemical Group by helping to solve a wide range of global issues through our ongoing business activities and continuously creating new value for society.

**President and Representative Director** 

Jeij Koge

Operating Environment of the Sekisui Chemical Group

What are your thoughts on the business environment in fiscal 2015 and policies for the future?

#### Operating income reached a record high in fiscal 2015.

Economic conditions outside Japan during fiscal 2015, the fiscal year ended March 31, 2016, were mixed. On the one hand, the pace of economic growth slowed in emerging countries including China. The economies of resource-rich nations also suffered as a result of such factors as the decline in crude oil prices. On the other hand, modest recovery trends were evident mainly in developed countries. Turning to the domestic market, signs of instability began to emerge from the New Year. This was largely attributable to appreciation in the yen's value, a downturn in share prices, continued anxiety toward financial conditions in Europe, and uncertainties surrounding the U.S. economy.

Under these circumstances, strong performances by products in such strategic fields as Automobiles and Transportation as well as Life Science, helped to drive the Sekisui Chemical Group's overall results. Buoyed

by robust growth, the Company reported record-high operating income in fiscal 2015.

Fiscal 2016 is the final year of our medium-term management plan SHINKA!-Advance 2016. As a result, our efforts throughout this 12-month period will play a vital role in mapping out a vision for growth that will take us to a higher plane. In order to ensure the Group's sustainable growth, I will continue to vigorously promote the three core policies that I introduced following my appointment as president. Guided by these policies, the Group will draw on the theme of "co-creation and innovation" to bring to market a steady stream of new products and businesses, cultivate new markets by "opening frontiers," and promote rigorous management efficiency while implementing the careful selection and concentration of businesses by "fortifying earning power."

## **Changes in the Business Environment Anticipated Over the Coming 10 Years**





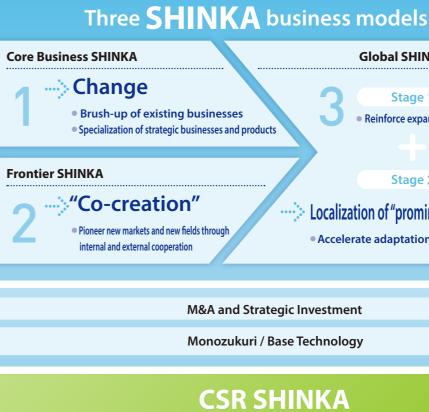
• Aging of society around the world Rising social security costs and pressure on public finances Concentration of the population in urban areas and aging urban infrastructure

Population growth in emerging markets Climate change, more severe Degradation of ecosystem

## **Initiatives of the Sekisui Chemical Group**

**Urban Infrastructure & Housing Company Environmental Products Company**  Housing Piping materials Refurbishing Building materials Real estate Performance materials

#### Framework of the New Medium-Term Management Plan SHINKA!-Advance 2016 (Fiscal 2014-2016)



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Asia drives global economic growth Growing global economic ties



- Issues arising related to limits on various resources including water, food, raw materials, and fuel
- Diversification of energy sources

#### **High Performance Plastics Company**

Electronics

- Automobiles and transportation
- Buildings and infrastructure •Life sciences

#### **Global SHINKA**

Stage 1 Reinforce expansion of existing businesses

#### Stage 2

Localization of "prominent business models" Accelerate adaptation to local communities

The Relationship between Business Activities and CSR

What do you see as the Sekisui Chemical Group's corporate social responsibility?

#### Our mission is to create value for society through our business activities.

"Service," or creating value for society through business activities, is a key component of our "3S Principle" Corporate Philosophy. This is in fact, the very essence of our corporate social responsibility.

The Sekisui Chemical Group engages in a wide range of business activities. Regardless of the merits, this wide range of business activities means that we not only have a considerable impact on society, but also a significant responsibility. Recognizing the critical need to ensure a common understanding of the importance of CSR across the Group as a whole, we have positioned CSR SHINKA as a core management strategy of our medium-term management plan.

In identifying priority fields, we also took steps to

#### The Sekisui Chemical Corporate **Group's Principles**

Philosophy The "3S Principl Shareholder Custome First Satisfaction and the

#### **Group Vision**

#### **Management Strategies**

#### Compliance

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A striking feature of fiscal 2015 has been the number of corporate improprieties reported by the media. What is the Sekisui Chemical Group's stance toward compliance?

#### We continue to promote a corporate culture that strives to eliminate the risk of impropriety.

I have often commented to employees that "100-1 = 0." A momentary incident or action by a single employee can obliterate a company's credibility and reputation years in the making. It is therefore imperative that we eliminate the risk of impropriety to the greatest extent possible. Putting in place the necessary structure and systems to eliminate any and all risks is a given. Of equal importance is the need to ferment a corporate culture in which silence is considered unacceptable. It is vital that employees understand the negativity of leaving things unsaid.

In fiscal 2015, we focused on strengthening accounting compliance. In addition to conducting educational seminars at business sites in Japan and overseas, we revised a portion of our intra-company whistle-blowing system. As well as mandating the need to report any breach of compliance, we bolstered measures aimed at protecting whistleblowers while expanding the scope of the system. Through these and other means, we took steps to eliminate complacency and to reform an in-house culture that was prone to follow precedents.

position the environment as an important business

pillar from 2003. Working in unison, we reexamined

those areas in which to increase our prominence, and

have made every effort to balance ecological concerns

with economic development in order to contribute to

society. Put simply, our mission is to expand and create

in its efforts to reach a higher plane. In order to ensure

commitment to help create a better society. Rallying to

a common cause, our aspirations are embodied in the

Creating value for society\* through business

Transforming markets with all the power and

vitality of a mighty waterfall

Earning the trust of society\* through

prominence in technology and guality

All of society as a whole, including the five stakeholders : our "Customers;

"Shareholders""Employees""Business Partners" and "Local Communities and

a presence that is strong enough to last a century, we

will ensure that all employees are united in their

Group slogan "A new frontier, a new lifestyle."

The Sekisui Chemical Group has opened the door

Environment-Contributing Products.

**S**ervice

activities

Speed

**S**uperiority

the Environment

CSR Encompassing the Group and Supply Chain

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How does the Group reconcile concerns for human rights, labor standards, and the environment with respect to the supply chain when carrying out its business activities?

#### We are forging increasingly close ties with business partners while maintaining a deep respect for international norms.

Focusing on CSR across the supply chain is a basic prerequisite for gaining the acceptance of society.

The Sekisui Chemical Group maintains a deep respect for international norms, standards, and initiatives including the Universal Declaration of Human Rights, the ILO's International Labor Standards, the Ruggie Framework, and the United Nations' Global Compact, which form the basis of its CSR management policy. In particular, the Group has pledged its commitment to prevent global warming, maintain biodiversity, and work with customers and business partners to build a recycling-oriented society. In addition, we have declared our opposition to human rights violations as well as forced and child labor across

Our Response to New CSR Indicators

What are your thoughts on and how will you respond to the introduction of Japan's Corporate Governance Code and sustainable development goals (SDGs)\* in fiscal 2015?

#### We maintain a flexible approach toward the introduction of new guidelines and are committed to realizing a sustainable society.

Sekisui Chemical disclosed details of its approach and initiativ toward the principles of the Japan Corporate Governance Coo in October 2015. In addition to its Basic Policy for Constructiv Dialogue with Shareholders, the Company has disclosed detail of its Criteria for Independence of Outside Board Members. The decision has also been made to newly establish an adviso committee on such matters as nomination and remuneration supplement the functions of the Board of Directors. With the introduction of SDGs, companies are being asked to closely examine how they can help resolve issues confronting society. This is especially true for efforts aimed at balancing economic

Self-Evaluation and Overview of CSR Activities in Fiscal 2015

Group's CSR activities over the past year, is there any one aspect that stands out?

#### We are focusing on the development of Environment-Contributing Products and maintaining a high sales ratio.

In fiscal 2015, the Sekisui Chemical Group worked diligently to balance ecological concerns with economic development while bringing to market a host of innovative products. As a result, the ratio of Environment-Contributing Product sales to total sales reached 44% helping the Group achieve record-high profits.

At the 21st Conference of the Parties (COP21), a gathering organized by the United Nations on the subject of climate change each year, participating nations agreed on initiatives designed to hold any increase in worldwide temperatures to not more than two degrees Celsius (3.6 degrees Fahrenheit). With the urgent need to strengthen

the supply chain. From a CSR procurement perspective, we take steps to confirm the extent to which environmental and human rights concerns are incorporated into



the activities of suppliers as well as the status of compliance, health, and safety initiatives. We have already confirmed that all of the Group's suppliers surveyed in Japan comply with its standards. In fiscal 2015, we began steps to survey overseas suppliers including those in North and Central America.

ves	development and the need to eradicate poverty with concerns
de	regarding the environment and its protection. For its part, the
ve	Sekisui Chemical Group is well positioned to address many of
ils	the world's challenges. Moving forward, I will steer the Group
	toward sustainable growth by putting in place a structure that is
ry	capable of taking acceptable risks in order to make the most of
to	every opportunity. Through our business activities, we will then
;	overcome many of the world's immediate issues and achieve
	each SDGs.
	* SDGs: Sustainable Development Goals

A set of global-scale sustainable development goals that the international community n collectively address over the next 15 years.

## How would you assess the Group's CSR activities in fiscal 2015? Reflecting on the

renewable and clean energy is growing in importance. In fiscal 2015, Sekisui Chemical completed development of a high-capacity film-type lithium-ion battery. In addition to storing clean energy, this battery boasts high levels of safety and a long service life. The battery is scheduled for delivery to the housing sector in fiscal 2016. In the future, plans are in place to extend application to the automobile field. The Sekisui Chemical Group is committed to realizing a sustainable society by developing unique Environment-Contributing Products for use throughout the world.

efforts aimed at conserving and creating energy, the use of

#### Key CSR Issues and the CSR Medium-Term Plan

## Promoting the CSR medium-term plan in line with priority issues extracted from a variety of challenges

#### CSR Medium-Term Plan (Fiscal 2014–2016)

		Key Measures	Targets	FY2015 Results 🖌
	Overall	Further penetration of CSR management	Rollout into individual business plans	Establishment of a CSR training structure
		1 Expand sales of Environment-Contributing Products	Percentage of net sales: 50% or more	Percentage of net sales: 44.3%
		2 Reduce environmental impact	Identical targets in Japan and overseas	
		1) Reduce greenhouse-gas emissions	Maintain total volume (vs. FY2013)	Reduced by 9.9% in Japan and 0.6% overseas
		2) Reduce waste	<ul> <li>12% reduction per unit of output (vs. FY2013)</li> </ul>	Increased by 4.4% in Japan and reduced by 9.1% overseas
	Environment	3) Address water risks	<ul> <li>Ascertain current conditions and draft countermeasures</li> </ul>	<ul> <li>Completed inspections at 50 business sites in Japan and 48 overseas business sites</li> </ul>
Three F		3 Conserve the natural environment	<ul> <li>Participation of all employees in Sekisui Environment Week (Participation rate: 100%)</li> </ul>	Sekisui Environment Week participation rate: 67%
Prominences			<ul> <li>10-point improvement in the JBIB Land Use Score Card<sup>®</sup></li> </ul>	8.0-point improvement in the JBIB Land Use Score Card <sup>®</sup>
ine		1 Improve Basic Qualities	Zero major quality issues	Zero major quality issues
nce	CS & Quality		Halve external failure costs (vs. FY2013)	Reduced by 5% (vs. FY 2013)
Ň		2 Improve Attractive Qualities	Increase customer satisfaction	<ul> <li>Issued VOICE, a compilation of feedback from customers</li> </ul>
		1 Strengthen Group human resources	Increase internal job postings by 30/year	Increased internal job postings by 43/year
		2 Train global talent employees	Number of global talent employees: 400	Number of global talent employees: 329
	Human Resources	3 Promote diversity (Women, the elderly, non-Japanese people, people with disabilities)	<ul> <li>Percentage of women among new hires: 30%</li> <li>Percentage of international hires: 20%</li> </ul>	<ul> <li>Percentage of women among new hires: 27%</li> <li>Percentage of international hires: 25%</li> </ul>

		Key Measures	Targets	FY2015 Results
		1 Prevent corruption and fraud	Zero occurrences	Zero occurrences
Thre	Compliance	2 Prevent major compliance issues	Zero occurrences	Zero occurrences
ee At		1 Thorough preventive measures	Improve the quality of risk management activities	Risk score reduced by 14%
Attitud	Risk Management	2 Strengthen risk management systems (Japan)	Disaster-prevention system utilization rate: 90%	Disaster-prevention system utilization rate 91%
les of		3 Strengthen risk management systems (overseas)	<ul> <li>Site-specific risk management manuals developed at 100% of sites</li> </ul>	<ul> <li>Site-specific risk management manuals developed at 92% of sites</li> </ul>
fSin		1 Enhance dialogue with stakeholders	Maintain selection to key SRI indices	Maintained selection to key SRI indices
ocerity	Communication	2 Address human rights and supply chain initiatives (child labor, discrimination)	Promote CSR procurement globally	CSR surveys conducted at major suppliers of Group companies in the U.S.
×		3 Promote environmental and social contribution activities	<ul> <li>Increase employee participation (vs. FY2013)</li> </ul>	Increased the TABLE FOR TWO participation rate by 9.7%

#### Identifying key CSR issues

## The Process of Identifying Key CSR Issues (Materiality)

As venues for deliberation on CSR management, we have set up the CSR Committee and five subcommittees: the Environmental Subcommittee, the CS & Quality Subcommittee, the Human Resources Subcommittee, the Safety Subcommittee, and the Compliance Subcommittee.



Candidates for key CSR issues were identified through considering global guidelines, SRI surveys, and developments at other companies, and then analyzing the opinions and expectations of each stakeholder. These candidates and CSR issues already addressed were sorted into key CSR issues for the future.

#### Step2 Assess the importance of candidates for key CSR issues

The candidates for key CSR issues sorted in Step 1 were subjected to overall evaluation along the two axes of their importance to stakeholders (A) and importance to Sekisui Chemical Group management (B). Along axis A, candidates were assessed from the perspectives of expectations of each stakeholder, world trends, and positive and negative impacts on the planet and society, while along axis B they were assessed from the perspectives of consistency with management policies and management strategies, correspondence to CSR issues, risk and reputation, and priories based on a timeline.

#### Step3 Formulate the CSR medium-term plan

Following deliberation in the CSR Committee, key performance indicators (KPIs) were set by the responsible departments for the identified key CSR issues. The CSR medium-term plan was formulated and approved by the Committee.

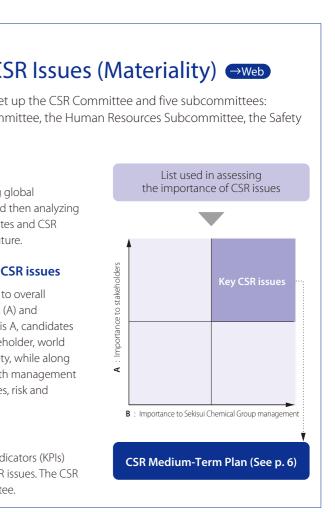
## Outline of the CSR Medium-Term Plan

Under CSR SHINKA, the basis of the medium-term management plan, we will further advance CSR management in pursuit of greater vitality among our human resources and the essence of Sekisui.

With regard to Prominence in the Environment, we will contribute to returns on natural capital through Group-wide progress on expanding net sales of Environment-Contributing Products, lessening environmental impact, and conserving the natural environment.

With regard to Prominence in CS & Quality, we aim to deliver attractive products and services and the quality our customers require by improving both Basic Qualities and Attractive Qualities.

With regard to Prominence in Human Resources, we will increase the strengths of human resources throughout the entire Group, based on the three axes of Group, Global, and Diversity policies. To do so, we will hire and train the human resources we need, deploy diversity manegement across the entire Group, and work toward centralized management of Group HR data that supports these efforts, using information technology.









Initiatives of the Housing Company

## **Building Disaster-Resistant Homes** for a More Comfortable Life

The frequent occurrence of natural disasters in recent years has become a major social issue not only in terms of the disasters themselves, but also maintaining people's lifestyles in the aftermath of a catastroph Sekisui Heim provides homes that are not only disaster-resistant, but also enable people to live comfortably following a natural disaster.

#### INTERVIEW

# Planning

Housing Product Research & Development Department Housing Company Sekisui Chemical Co., Ltd.

#### Disaster resistance is necessary for selecting homes in Japan

When choosing a home, a key concern for many customers is how resistant houses are to earthquakes and other natural disasters. In particular, customers have stated that their minimum requirements when selecting homes are resistance to major earthquakes as well as the ability to live with a sense of reassurance following a disaster.

Customers focusing on the structural strength of houses goes without saying.

#### Using highly precise construction methods made possible only by factory production

Applying factory production to most areas of home construction is the main reason why Sekisui Heim homes are resistant to natural disasters. Using factory processes to realize a level of precision impossible at a construction site is one reason why Sekisui Heim

#### Youko Sakagawa

Product Planning

homes feature such highly sturdy structures. Homes built on-site tend to vary in strength and quality depending on the skill of the carpenters, materials used, and weather conditions. In contrast, all Sekisui Heim homes feature a uniform level of quality not dependent on people or weather, resulting in homes with a high degree of structural strength.

#### Spreading the word about living securely after a disaster through Sekisui Heim

Confident in the strengths of Sekisui Heim homes, our challenge going forward is to convey to customers in an easy-to-understand way the security and benefits offered by these homes after natural disasters, just like we did when proposing Smart Heim V to H\* systems. Searching for ways to explain these ideas in a way anyone can easily understand, we want to make the worry-free lifestyles offered by Sekisui Heim homes the choice of an even greater number of customers.

#### Homes that maintain normal lifestyles following a major natural disaster

I am in charge of developing V to H\* systems that power houses using the electricity stored in electric vehicles. While these systems already exist, they were incomplete products, unable to use electricity generated by homes to charge electric vehicles during power outages. Our development of a system that makes it possible for electricity generated from Smart Heim home solar panels to charge electric vehicles is revolutionary, as it enables customers to continue living normally to a certain degree during blackouts caused by major natural disasters. My dream is to spread V to Heim Smart Heim homes with V to H systems throughout Japan. Major natural catastrophes are a constant threat, with a large earthquake likely occurring in the not-too-distant future. In light of this, I am convinced that the useful feature of V to H provides high added value to customers. Making these homes available to people nationwide allows us to contribute to society. that a magnitude seven

\*V to H: Vehicle to Home A system for daily use that delivers power stored in electric vehicles to

**'/U**% **OVER** Japan's Earthquake Research

Social background

An over 70% probability

probability of a major

occurring in Japan

years is over 70%.

or above earthquake

next 30 years

Committee estimates th magnitude seven earthquake within the next 30

will occur in Japan in the

Shirou Kondou General Affairs Department Tokyo Sekisui Heim Industry Co., Ltd.



# Production

#### **Realizing disaster-resistant homes through** precise construction and strict inspections only possible in factories

Sekisui Heim homes offer exceptional earthquake resistance owing to a hybrid structure equipped with both viscous-and strength-type seismic resistance features. Our factories play an important role to this end by offering customers with homes that are constructed through modules assembled according to predetermined design criteria.

This high degree of earthquake resistance can only be enabled through factory manufacturing processes. For example, home construction at factories enables a level of quality that is impossible by other means owing to the use of computers to ensure uniform production of all components, eliminating mistakes and waste, as well as welding using large-sized equipment to ensure precision and strength.

In addition, full-time inspectors perform exacting and strict inspections that include house plan checks, accuracy checks, functional testing, and visual examinations. This level of quality control, precision, and testing not possible on construction sites is what makes Sekisui Heim homes resistant to natural disasters.

SPECIAL ISSUE | Solving Social Issues through Products and Services

#### REPORT 1 Initiatives of the Housing Company

## **Factory production** is the source of disaster-resistant homes

Home manufacturing performed at factories offers a high level of precision with minimal errors and strict quality control not found at construction sites. Owing to this approach, Sekisui Heim homes feature a level of seismic resistance that far exceeds government standards.

#### Enhancing precision and quality

Wind and rain cause building materials to deteriorate and warp during construction, potentially weakening a house's earthquake resistance. Conversely, these concerns are eliminated when homes are manufactured indoors. Without the use of two types of automatic welding equipment to ensure precise and strong welding, structural strength is impossible.

In contrast to the world of carpentry, where carpenters able to build four houses a year are considered top class, Sekisui

Heim factories are able to produce numerous homes per day. The undeniable technical prowess created from the experience accumulated through these operations is contributing to the improvement of construction precision and quality.



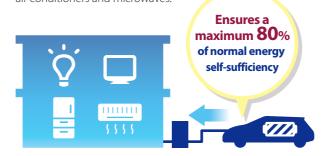
(as of May 12, 2016)

This is the number of times that modules have been subjected to seismic testing at an intensity level of 7 on the Japanese scale using the Hasuda Plant's earthquake simulation equipment.

#### Living normally even **during power outages**

It is standard for conventional home storage batteries to be used for supplying electricity only to equipment connected to power distribution boards intended as an emergency power source for providing the bare minimum amount of lighting needed during blackouts rather than less critical home appliances.

Sekisui Heim's V to Heim solves this issue by using electric vehicle large-capacity storage batteries to ensure a maximum 80% of normal energy self-sufficiency. This system allows residents to use TVs and PCs to stay abreast of the latest disaster-related information as well as operate air conditioners and microwaves.





#### with around **SIX** times the storage capacity

The system based on the Nissan Leaf has a storage cell capacity of around 30kWh, which is around six times greater than standard home-use batteries (5kWh).

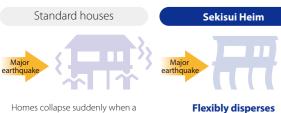
#### Around **6,000**w The total volume of electricity that

can be used simultaneously from power stored in electric vehicle storage batteries.

#### Building structurally strong homes

Though being low-rise houses, Sekisui Heim homes feature the same "box-rahmen construction" design used in skyscrapers, which prevents collapses by absorbing seismic shock across the entire structure. The strength of this structure lies in the accurate and sturdy welding of pillars and beams.

Sekisui Heim homes also feature both viscous-and strength-type seismic resistance not only resistant to standard tremors, but also flexibly maintain structural integrity even in the case of distorted vibrations by dampening the rate of earthquake acceleration.



Homes collapse suddenly when a major earthquake exceeds the limits of structural resistance due to rigidity.

#### 공공공공공공공 공공공공공공 공공공공공공공 Over 200 homes

## produced per month

This is the number of homes Tokyo Sekisui Heim Co., Ltd's Hasuda Plant manufactures monthly. Our experienced engineers are able to produce approximately 10 homes per day.



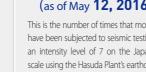
#### Approximately **10** inspectors

This is the number of certified inspectors who form the backbone of our strict inspection system that extends across all processes, from component delivery to shipping.

Approximately 130,000~150,000 components

This is the number of materials /components that form a single Smart Heim home, with records for every single item accurately cataloged using computers.

# 2.763 times



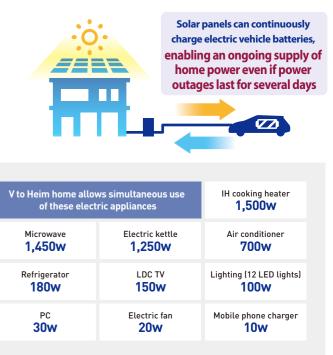
## Living normally even after a disaster

The continuous flow of electricity is essential to everyday life. The power reserves stored by electric vehicles helps to prevent interruptions in people's lives even during power outages as a result of a disaster.

#### Maintaining normal power levels

We expect customers to rely on the V to H system to meet their daily power needs during blackouts lasting several days following a major natural disaster. To this end, we have developed a new Sekisui Heim system that is able to use electricity generated from rooftop solar panels to charge electric vehicles, which can then be used to provide power to homes during blackouts. As a result, solar panels can under certain weather conditions continuously charge electric vehicle batteries, enabling an ongoing supply of home power even if power outages last for several days.

In addition, we have developed a new system that can be used as a home-use storage battery to supply power even when electric vehicles are being used.





Initiatives of the Urban Infrastructure & Environmental Products (UIEP) Company

## Fiber-Reinforced Foamed Urethane (FFU) Materials Contribute to Safe and Reliable Transportation

Fifty years have passed since Japan went through a phase of advanced economic growth. The aging of social infrastructure that was quickly constructed back then has become a social problem. At Sekisui Chemical, we contribute to safe and reliable railway transportation through the development and sale of railway sleepers made from FFU synthetic wood materials.

## INTERVIEW

#### Takashi Oguchi Performance Materials Division

Vertormance Materials Division Urban Infrastructure & Environmental Products Company Sekisui Chemical Co., Ltd

# Development

#### Alternative materials for wood

Our FFU synthetic wood materials are stronger than wood but are just as light, and do not corrode. They are also easier to fabricate to precise dimensions. Our FFU synthetic wood materials are a perfect alternative for wooden railway sleepers, providing the same benefits as wood, plus more.

Railway sleepers are used to fix rails in place, and any expansion, contraction or warping in them can make the rails unstable. Wood expands and warps when absorbing water, but FFU does not.

#### Easier maintenance reduces onsite work

Another major advantage of FFU is that they are easy to maintain. For bullet trains in particular, the space between rails and their height are fine-tuned on a daily basis. Since FFU can be fabricated with a high degree of dimensional accuracy, it helps increase work efficiency. FFU also has excellent workability, making it possible to conduct repairs at the worksite, such as making holes to match worksite conditions.

## Delivering Japan-grade safety and reliability in transportation to the world

Preparing for the complete prohibition of creosote oil for industrial use in European countries in 2018, railway companies have been searching for an alternative material to make railway sleepers instead of wood. Certifying a material for use in railway sleepers requires 5-10 years of strenuous testing. We have set our sights on developing the business globally in order to deliver to the world Japan's renowned safety and reliability in transportation systems.

\* Creosote oil for industrial use : A type of anti-corrosive agent made by distilling coal tar. In recent years, it has been designated as a carcinogen.

#### As an industrial product, uniform performance helps ensure safe and reliable railway transportation

Since wood is a natural material, it is usually not included in strength calculations for structural engineering, owing to the wide variance in performance characteristics of wood.

FFU synthetic wood materials are a manufactured product, not a natural material like wood, so variations in strength and quality cannot be tolerated. It must have the same performance characteristics all the time. I believe this is vital within the context of safe and reliable railway transportation. FFU is light and strong, thanks to its foamed urethane resin structure uniformly reinforced with long glass fibers. It is challenging to impregnate resins uniformly with glass fibers, and products with large cross sections are bonded, a process that we pay particular attention to.

We engage in production activities with the awareness that our products provide value to society, by assuming that our products used in railways, a form of public infrastructure, are constantly fulfilling an important social need.

passengers on the

Social Background

Annual number of

Tokaido bullet train

About<sup>7</sup>

Railways are used by people to

well as to take business and

service interruptions or

causes severe economic

spectrum of

55million

commute to work and school, as leisure trips. Any accidents, delays in railway service losses over a broad society.

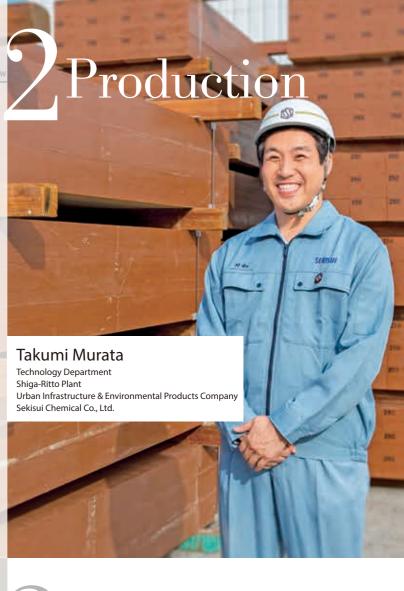
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INTERVI

INTERV

#### Minoru Satou

Business Promotion Department Chubu Sales Headquarters Urban Infrastructure & Environmental Products Company Sekisui Chemical Co., Ltd.





## Synthetic railway sleepers support the main arteries of Japan's economy

It would not be an exaggeration to say that we supply synthetic railway sleepers to almost all of the major railway operators in Japan, including Japan Railway (JR) companies and private railway companies. On the Tokaido bullet train, in accordance with a project to increase the speed of rolling stock in 1992, wood railway sleepers were replaced with synthetic railway sleepers that combine light weight with strength and excellent workability. The Tokaido bullet train is a main transportation artery that supports the Japanese economy by connecting the two major metropolitan areas of Tokyo and Osaka. Any service interruptions or delays, even a few minutes long, can have a major impact on the economy. Railway maintenance work for the bullet train can only be conducted during the hours between the last and first trains every day. Sekisui Chemical's synthetic railway sleepers can be efficiently replaced and repaired in a limited amount of time. I thus believe this material can help make railway transportation safer and more reliable. Since it is also a product that helps protect people's lives on trains, I take care to accurately answer any technical questions about the material from customers.

SPECIAL ISSUE | Solving Social Issues through Products and Services



## Our lightweight, strong synthetic railway sleepers excel in durability

Our synthetic railway sleepers made from FFU synthetic wood materials are just as light as natural wood materials, are stronger than concrete sleepers, and resist corrosion. They contribute to safe and reliable railway transportation systems.

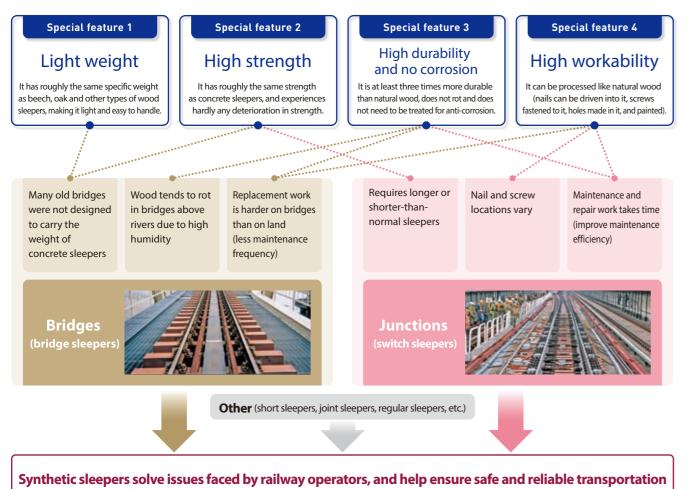
What are FFU synthetic wood materials? FFU stands for Fiber-reinforced Foamed Urethane (foamed urethane resin reinforced with glass fibers). Made from rigid urethane resin reinforced with glass fibers, it was mainly developed as an alternative to natural wood materials



## FFU's features a perfect match for railway sleepers

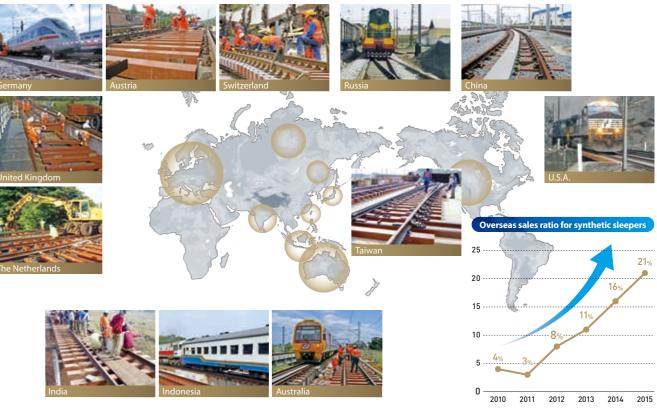
FFU is a material that combines the advantages of natural wood and plastic, namely light weight, strength, resistance to corrosion, and workability. Railways recognize FFU as an ideal material for

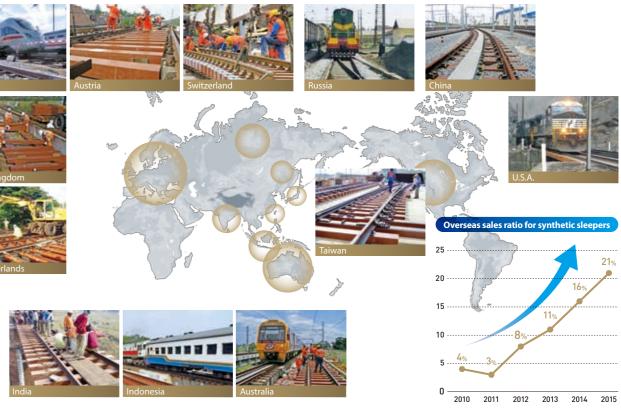
railway sleepers, and it has also been deployed in other areas, centering on bridge and junction sections of railway.



#### Use of synthetic sleepers **overseas**

Around the world, amid growing awareness of environmental conservation, countries are reconsidering the use of natural wood sleepers due to their consumption of natural forest resources and health risks associated with anti-corrosion agents. Synthetic





## Sekisui Chemical's involvement in the Tokaido Shinkansen(Bullet Train)

The first full-fledged use of synthetic railway sleepers on a Tokaido Shinkansen track was more than 25 years ago in 1989. Synthetic railway sleepers were deployed extensively on bridges and junctions in particular, as well as on regular tracks, in accordance with an initiative to increase the maximum speed of the Tokaido Shinkansen to 270km/h in 1992. Synthetic railway sleepers were highly regarded for their light weight, strength, and workability, in addition to their stable performance and excellent durability as a manufactured product, on top of their contribution to steeply reducing the frequency of replacements. Thereafter, Sekisui Chemical developed special railway sleepers more able to withstand earthquake damage on railway tracks. Central Japan Railway Company (JR Central) uses reflective sound absorbing panels in large-scale preventive maintenance\* projects for repairing and maintaining civil engineering structures. We continue to work together on such projects with the aim of ensuring safe and reliable transportation.

## TOPICS

#### Letter of Appreciation from JR Central

In commemoration of the 50th anniversary of the Tokaido Shinkansen, Sekisui Chemical has received a Letter of Appreciation from JR Central in recognition of its many years of contributions to safe and reliable transportation on bullet train lines.



sleeper technologies created in Japan, highly regarded for their environmental friendliness and contributions to safe and reliable transportation, are starting to be used overseas.



Track built on synthetic railway sleepers for Line No. 27 at Shin-Osaka Station

\* Preventive maintenance: Maintaining the performance of a structure before it requires repairs in the future.

#### **Reflective sound absorbing panels**

In large-scale maintenance projects for Tokaido Shinkansen civil engineering structures underway since 2013, reflective sound absorbing panels jointly developed by JR Central and Sekisui Chemical have been used to replace existing sound-proof walls as a solution with better



noise-suppressing performance that puts less weight on concrete bridges.



## **Diagnostic Reagents Contribute to People's Health**

Hiroaki Inoue

EIDIA Co., Ltd.

Research Lab. R&D Division

In Japan, where the proportion of the elderly is rising, health becomes more important as people age, raising interest in preventive medicine. The Sekisui Chemical Group contributes to healthy social lifestyles by providing diagnostic reagents and analyzers used in health exams.

> Social background Difference in average and

**9**.13 years

Males

The difference between average expectancy implies the period in healthy. Many people, both years of their lives with daily livelihoods Source: Health Sciences Council's

Promoting Health Japan

#### Diagnostic reagents aid in the early detection of disease

For example, people with liver cancer express a special protein in their bodies called a marker. We conduct research into reagents that detect this marker. The purpose of these reagents is to discover the disease at an early stage, thereby giving patients more opportunities to receive better treatments.

EIDIA has developed diagnostic reagents that utilize original antibodies, and specializes in the production of reagents that can be also used with analyzers made by other companies. By partnering with makers of diagnostic reagents, Sekisui Chemical gains the advantage of being able to supply diagnostic reagents to a larger number of hospitals.

#### R&D that emphasizes relationships of trust with medical institutions

EIDIA has built relationships based on trust with specialists in liver

treatments through academic and research

conferences, and enlisted their cooperation in evaluating the clinical efficacy of diagnostic reagents. This close-knit cooperation with medical institutions has led to the development of original antibodies with proven efficacy and highly sensitive measurement methods. By combining these excellent antibodies and measurement methods, we are able to develop diagnostic reagents that can detect extremely minute markers.

#### Contributing to preventative medicine through early detection

Having become a rapidly aging society, Japanese citizens are increasingly interested in preventive medicine and ways of detecting possible ailments as early as possible. Through my daily work in research and development, I aim to bring diagnostic reagents into the world that are easier to use and help people fight disease.

#### Providing products that fit local needs while speeding up diagnostics

Sekisui Medical sells diagnostic reagents that measure blood-sugar levels and cholesterol, which offer a strong reading on lifestyle-related diseases, such as blood clots, diabetes and high lipid. High readings indicate something may be wrong with a person's health, and the test results are a basis for providing health advice, such as exercising more and leading healthier lifestyles.

At medical institutions seeing a steady increase in patients as society ages, it has become imperative to guickly deliver testing results with the aim of increasing the efficiency of health examinations. Our customers have firmly requested faster processing with our diagnostic reagents and analyzers. It is our mission to figure out how to shorten turnaround times. For example, it used to take about an hour to get blood test results. On its own accord, Sekisui Medical developed a blood collection tube with an agent that hardens blood samples, thereby shortening the amount of time before it can be put in the testing equipment. In this way, we aim to provide healthy life expectancies products that meet the needs of medical practitioners.

**Z**.68 years

life expectancy and healthy life people's lives when they are not

men and women, spend ten

conditions that impair their

Reference Materials for

21 (the second term)

Females

INTERVIEW

Guan Xiaoyan Sales Department Sekisui Medical Technology (China) Ltd.



# Coverseas development

#### Promoting the spread of diagnostic reagents helps solve the problem of patient concentration

In China, the market for diagnostic reagents has expanded considerably amid growing interest in health as lifestyles improve. As this interest in health grows, however, patients have congregated at general hospitals in droves, causing problems. Since most people want to go to general hospitals with the latest technologies and systems, patients are forced to wait several hours before they can be seen by a doctor, even if they arrive at the hospital in the early morning.

At Sekisui Medical Technology (China), we are working to solve this problem by spreading the use of diagnostic reagents and analyzers at mid-scale hospitals in outlying regions.

As the sales manager and marketing chief for six provinces in the Hedong area, I take the initiative to foster opportunities to communicate with hospital staff by actively participating in and sponsoring academic conferences and exhibitions. We aim to help solve medical problems by providing hospital staff with knowledge and experience in our products.



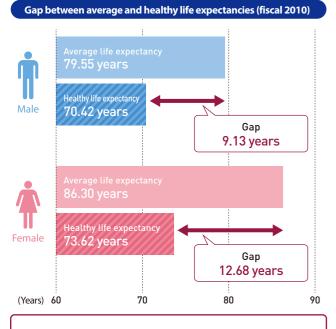
Initiatives of the High Performance Plastics REPORT (HPP) Compan

## Early detection of disease helps prolong healthy life expectancies

In order to extend the period of time that the elderly are healthy (healthy life expectancy), it is important to detect disease at an early stage when the risk is still low, and to work to prevent the disease from occurring.

## Realizing **healthy lives** via the early detection of disease

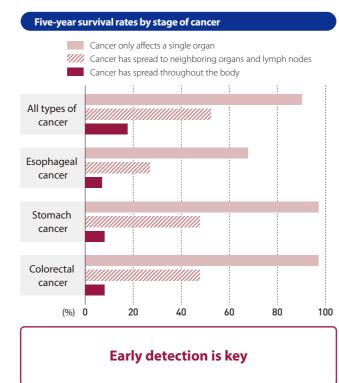
A healthy life expectancy\* that is shorter than average life expectancy means that people are unable to live a normal lifestyle, and spend time instead in nursing care facilities or hospitals. This is an issue that affects the individual, such as their health and quality of life. Any widening in the gap between average and healthy life expectancies implies an increase in medical expenditures and nursing care benefits, a social issue that must be addressed. \* Healthy life expectancy: Period in people's lives when they are not healthy



#### Gap between average and healthy life expectancies a cause of social problems

Source: Reference materials for the promotion of Health Japan 21 (the second term) issued by the Health Science Council of Japan's Ministry of Health, Labour and Welfar

The mortality rates for serious diseases, such as cancer, heart disease and vascular brain disease, can be reduced the earlier the disease is detected. It also gives patients more options for treatment, which may improve their prognosis and shorten recovery times. Early detection requires people to go to annual physical examinations that take advantage of diagnostic reagents and analyzers.



Source: Foundation for Promotion of Cancer Research's Cancer Statistics 2013 (five-year relative survival rates by clinical stage of cancer

The Sekisui Chemical Group **Business domains of the life sciences** field in the High Performance Plastics Company (As of June 2016. These two operating companies plan to merge together in April 2017.)

#### Sekisui Medical Co., Ltd.

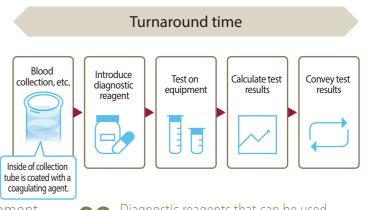
solutions

Pharmaceuticals & Fine chemicals Drug development Diagnostic reagents

#### Specific initiatives

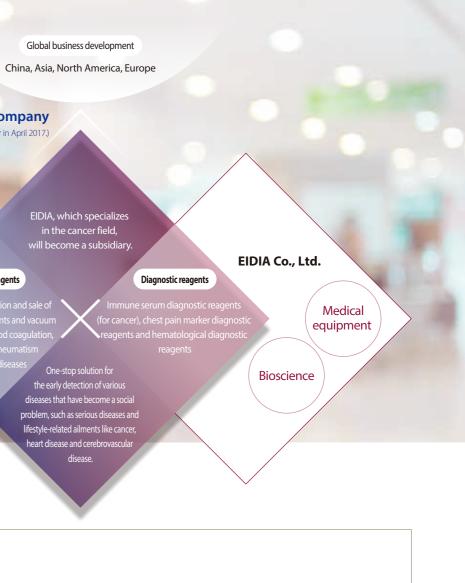
## Shorten testing times

A major issue at medical institutions is being able to convey to patients the test results as quickly as possible. The quickness of this response is called turnaround time. Fast turnaround times are desired for diagnostic reagents and analyzers. The Sekisui Chemical Group has shortened turnaround times by about 75%, less than the one-hour time that had been considered impossible for some testing, by improving reagents and coating collection tubes with a coagulating agent.



## **02** Completely internalize development, production and sales

By being involved in the development, production and sale of diagnostic reagents, Sekisui Medical is able to precisely address the requirements and needs of its customers via marketing activities and feed this information back to R&D. By sharing the raw opinions of customers throughout the value chain, the Company has put in place a system that can provide products that helps solve actual issues at medical institutions.



## **03** Diagnostic reagents that can be used with equipment model. with equipment made by other companies

Even if it becomes possible to improve diagnostic reagents and rapidly produce results from smaller amounts of samples, the latest in diagnostic technology is not adopted if it requires replacing equipment with costlier diagnostic equipment. Many companies sell diagnostic reagents that only work with the equipment that they sell. EIDIA has partnered with many diagnostic equipment makers to develop diagnostic reagents for their measurement methodologies and diagnostic procedures. We are able to supply diagnostic reagents to a wide range of hospitals and testing centers without regard to the type of testing equipment they use. **CSR Management in Practice Management** 

Prominence Environment Continuing to provide prominent value toward the realization of the Earth with maintained biodiversity

Long-Term Environmental Management Vision  $\rightarrow$  Web

## Sekisui Environment Sustainability Vision 2030

#### Toward the realization of "the Earth with maintained biodiversity"

The Sekisui Chemical Group is aware that its business activities depend on resources (natural capital). Each and every executive and employee is working to evolve into a pool of talented personnel with excellent

environmental activity promotional skills and will promote environmental management based on contributions in three areas in order to "give back more to the Earth than is taken" in 2030:

Expand and create markets for **Environment-Contributing Products** Reduce environmental impact Conserve the natural environment

utilize Natural Capital Earth with ad biodiver notional chill In addition, the Group is generating prominent Contribute to return of Natural Capital (Sekisui Chemical Group)

value toward the realization of "the Earth with maintained biodiversity" by contributing to the return of natural capital.

We are undertaking initiatives aimed at resiliently and sustainably solving climate change and energy issues raised as Sustainable Development Goals (SDGs) by the UN's 2030 Agenda for Sustainable Development

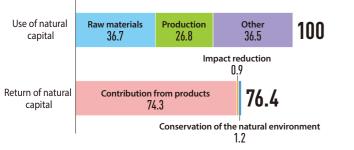
Integrated index →Web →Data Book P8

## Sekisui Environment Sustainability Index

The Sekisui Chemical Group has been using the Sekisui Environment Sustainability Index since fiscal 2014 as a single indicator of the level of environmental impact by its corporate activities (i.e. use of natural capital) and contributions back to the environment (i.e. return of natural capital).

#### Results of calculation

Based on fiscal 2015 performance, the Sekisui Environmental Sustainability Index was calculated as follows. With environmental impact equal to 100 representing the use of natural capital, the return of natural capital as contributions back to the environment came to 76.4 (+11.9% vs. FY2014)



 Quantify environmental impact and outcomes of activities by category Volume of raw materials used, greenhouse gas emissions, waste volume, water usage, emissions of chemical substances, area of land used, environmental contribution of each product,<sup>1</sup> participation rate in activities to conserve the natural environment, etc. 2)Apply a coefficient<sup>2</sup> calculated using environmental impact and contributions in each category, and calculate environmental impact in each category Add environmental impacts and contributions (integration

1. Environmental contribution of each product: Included contribution levels for products equivalent to an Environment-Contributing Products sales ratio of 84% in fiscal 2015. 2. Coefficient: Calculated using a customized version of LIME2, an environmental impact assessment method developed by Professor Norihiro Itsubo at Tokyo City University. The coefficients use a database based on the research and knowledge of experts that developed Mil CA. (See website for details.)

#### **Environment-Contributing Products**

## Create and expand markets for products that display significant environmental contribution effectiveness during customer use

#### 

The internal certification screening committee undertakes certifications based on criteria established in cooperation with internal committee members as well as receives opinions and advice on the validity of results from the External Advisory Board.

## External promotion using pamphlets and exhibitions

Details of the significance behind and degree of contribution by products listed in the Environment-Contributing Products pamphlet (updated in fiscal 2015) are as follows. Solving both environmental and social issues using Environment-Contributing

- Products
- Types and scope of contributions in a virtual community based on each product's contribution level

Moreover, we again held the Eco-Products Exhibition, an initiative that began in 2006, under the theme "V to H future lifestyle criteria to be realized by Sekisui Chemical," displaying 14 products and technologies that utilize V (vehicles), T (towns), and H (homes).

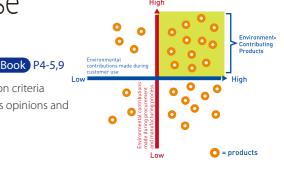
## Environment-Contributing Products, from intermediate materials to products, services, and construction

In fiscal 2015, 15 products were registered. Particularly overseas, we identified approaches for area contributions that take into account the circumstances of each area. The products that play a leading role in promoting environmental contributions in various areas of the Sekisui Chemical Group are registered, such as houses in Thailand and plastic rain gutters in Europe.

#### Environmental contributions through SCG-HEIM

SCG-HEIM homes are highly insulated and airtight and feature heat-exchange ventilation systems to provide residences in Thailand that are very durable and comfortable based on technologies and leading quality control systems developed in Japan. SCG-HEIM has garnered a high level of customer satisfaction

exterior durability. sustainable lifestyles that are healthy,





Sekisui Chemical Group booth



nvironment-Contribut Products pamphlet

#### **Other Environment-Contributing Products**

Smart Towns that assist in the creation of communities consisting of homes installed with home energy management systems (HEMS) featuring solar power generation systems and storage batteries Fireproof materials that reduce fire damage

Decorative plastic laminate sheets

- for reducing cooling costs and has received positive evaluation for air cleanliness and
- We will work to spread SCG-HEIM to satisfy customers in our pursuit of value found in
- comfortable, and environmentally friendly.



Takahiro Ariga ness Promotion Department Housing Company Sekisui Chemical Co., Lto

# Human Resources

CS & Quality

Three Prominences

**Basis of CSR** 

**Environmental Impact Reduction CSR Management in Practice** 

Environment

## Working to return to the planet natural capital used in business activities

Combating climate change →Web →Data Book P4-5,10-11

## Steadily reducing greenhouse gases in all business activities

Aiming to keep the overall volume of greenhouse gas emitted during manufacturing pegged to the fiscal 2013 level and reducing by 1% every year the amount of energy consumed per unit of output, we focus on energy conservation activities particularly at our business sites

overseas, where energy consumption has increased in recent years. As a result, we reduced total emissions by 4.5% in fiscal 2015. Looking ahead, we will continue reducing greenhouse gases at every stage of our business activities with the aim of reaching COP 21 objectives.

#### Business site initiative case studies

We are taking thorough steps to ensure not to waste or leak steam, which accounts for a large portion of the Shiga-Minakuchi Plant's energy sources. We have significantly reduced energy use at our plant by inspecting steam traps installed at 497 locations and improving bypass valves and pipes at 42 locations.

#### Resource efficiency →Web →Data Book P4-5,12-13

## New waste reduction initiatives

The Sekisui Chemical Group sets the ambitious target of reducing the amount of waste generated per unit of output by 4% every year compared with the fiscal 2013 level. Changing our perspective on reducing waste by improving production efficiency, we are taking on the challenge of shifting our emphasis from simply selling waste materials as valuable materials to generating additional value using resin processing technologies developed to date.

The Sekisui Chemical Group is promoting zero emissions at

overseas production sites. While domestic Group facilities have been certified under standards calling for zero direct landfill waste and no incineration without heat recovery in Japan, many sites overseas still

bury or incinerate waste. Under these circumstances, five business sites including our SPI Bloomsburg plant in America were certified in fiscal 2015.

#### Preservation of water resources

#### →Data Book P4-5,13-14

## Identifying water resource risks and reducing consumption

→Web

Water resources are a form of natural capital that is vital for maintaining sustainable business activities. Accordingly, we are not only reducing the amount of water extracted, but also identifying risks posed to biodiversity and business sustainability by water discharge. In fiscal 2015, we reduced water usage at our production sites by 5.8% compared with

fiscal 2013 and conducted additional Whole Effluent Toxicity (WET) assessments regarding water discharge at four business sites. As for water risk surveys, we confirmed that no business sites require emergency measures after follow-up surveys were conducted mainly at overseas facilities.

#### **Natural Environment Conservation**

## Our employees undertake activities to conserve the natural environment at Sekisui Chemical business sites worldwide

SEKISUI Environment Week → Web

## Developing personnel with excellent environmental activity promotional skills

The Sekisui Chemical Group holds the SEKISUI Environment Week annually during the week starting on August 1 as an opportunity for all employees to participate in environmental contribution activities.

SEKISUI Environment Week was held for the third time in fiscal 2015, with 19,677 employees taking part. This event comprised a wide array of activities, such as local cleanup drives, energy conservation initiatives in offices, tree planting, and providing environmental

Improvement of business site green space quality  $\rightarrow$  Web

## Initiatives to improve green space quality at all domestic production sites and laboratories

We are moving forward with efforts to improve green space quality with the aim of maintaining flora and fauna habitats, building ecosystem networks that connect regions and business sites, and invigorate regional partnerships. In the current fiscal year, we aim to improve our

Activities in partnership with regions  $\rightarrow$  Web

## Providing synthetic wood remnants for Shiga Prefecture's Sakana No Yurikago Suiden project

Shiga-Ritto Plant provides synthetic wood remnants produced at its facilities as materials to make fish chutes that allow fish to access rice paddies as part of Shiga Prefecture's Sakana No Yurikago Suiden Project. In so doing, we are undertaking activities to preserve biodiversity in Lake Biwa in cooperation with local governments.

#### Deepening interactions with members of the local community

We have deepened our interactions with local residents through our CSR activities, which include providing materials for fish chutes that are built and installed together with local government officials as well as Shiga-Ritto Plant employees and their families



education at elementary schools. In



addition, the European Children's Eco Summit 2015 held in Germany was an event that symbolized the Group's efforts. Executives led by the chairman and president along with about 80 employees and their families took part in tree planting and environmental training during SEKISUI Environment Week.

## →Data Book



score on the Land-Use Report

Card® by 10 points compared with fiscal 2013. As a result of removing nonnative plants and installing bird nesting boxes, we improved our

average score by 8.0 points (compared with fiscal 2013) in fiscal 2015.



Recognized for these activities, we received the Nature Conservation Society of Japan's Nature Conservation Award (corporate/leader category) and a special award (environment, corporate category) in the Ministry of the Environment's Good Life Awards in fiscal 2015.

participating in rice planting and harvesting. Receiving numerous awards has heightened expectations that we will expand our environmental initiatives in order to preserve biodiversity through local-based activities.



Koji Fujimoto fety & Environment Divisio

Three Prominences

Resource

**Basis of CSF** 

#### **CS & Quality Management Initiatives**

Prominence CS & Quality

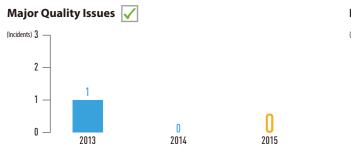
**CSR Management in Practice** 

Pursuing the quality always specified by customers, through maximizing the quality of human resources, products, and systems

The Medium-Term Plan (FY2014-2016) progress →Web →Data Book P17

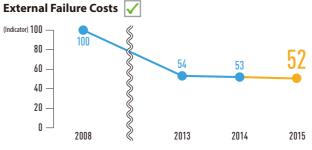
## External failure costs essentially unchanged compared with fiscal 2014

In fiscal 2015, the second year of the medium-term plan, we achieved zero major quality issues.<sup>1</sup> External failure costs<sup>2</sup> were roughly the same level as in fiscal 2014. To maintain zero major guality issues, we aim to improve Basic Qualities by ensuring thorough adherence to the Development Guidelines and Everyday Management Guidelines throughout the entire Group.



We aim to further cut external failure costs by continuing to enhance Group-wide quality assurance systems and to deploy activities to reduce quality-related risks.

1 Major quality issues: Problems related to product and service quality that could cause significant damage to customers, society, or the Sekisui Chemical Group if not thoroughly resolved on an urgent basis. 2 External failure costs: Costs arising from responding to product-related complaints



Manufacturing education  $\rightarrow$  Web

## Rebuilding our manufacturing education system

Since fiscal 2013, the Sekisui Chemical Group has been rebuilding its employee grade-based training system for managers in production departments in order to spread knowledge of manufacturing throughout all levels, from back-office staff to the plant floor. We offer 12 courses in the three fields of technical skills (policy management, quality management, facility management, safety management, etc.), human skills and conceptual skills, further dividing classes into plant leaders, line managers, and front line supervisors.

In fiscal 2015, 714 employees took classes thanks to our efforts to expand opportunities to participate, including

proactively sending instructors to provide on-site training. In addition, we improved the program in such areas as updating existing training courses and adding case study-method training for highly specialized areas including quality control and safety management.

The Sekisui Chemical Group also employs QC Certification\* effectively to measure levels of quality knowledge, and as of the end of fiscal 2015, over 3,500 members of the Company had attained QC Certification

\*QC Certification: A certification system conducted by the Japanese Standards Association and certified by the Japanese Society for Quality Control

#### Product safety $\rightarrow$ Web

## Compliance with laws and internal rules for product safety

When a legal violation related to product safety becomes known internally or is pointed out from external sources, the Sekisui Chemical Group rapidly discloses information about the incident and moves guickly to discover the cause

and prevent a reoccurrence. This is also true if internal rules and standards for product safety have not been followed. In fiscal 2015, there were no cases where we violated laws or internal rules related to product safety.

#### **Attractive Products, Technologies, and Services**

## Advancing Development of Systems, Human Resources, and a Culture Enabling Creation of Attractive Qualities

Systems that evaluate and improve Attractive Qualities from the viewpoint of society  $\rightarrow$  Web Attractive Qualities screening system for evaluations by outside experts

The Sekisui Chemical Group has set up the Attractive Qualities Screening System for evaluating its Attractive Quality products from an external third-party viewpoint, in order to accelerate the creation of attractive gualities. Beyond amounts of sales and profits, the Attractive Qualities Screening System evaluates products to determine whether or not they provide value to customers and society at large. Under this system, 11 products have received awards.

In order to notify Sekisui Chemical Group employees about what concepts and perspectives were used to commercialize award-winning products, the Company intranet features The Story of Attractive Qualities, which reveals the secrets behind the development of these products through interviews with those involved. This

Systems to confirm the degree of penetration of CS & Quality management initiatives  $\rightarrow$  Web

## Expanding employee CS & Quality assessments to overseas business sites

The Sekisui Chemical Group has been conducting customer satisfaction (CS) and quality assessments for domestic employees once every two years since fiscal 2012. These assessments are intended to determine the degree of CS & Quality management penetration by gauging CS & Quality-related awareness and actions among employees as well as stipulate action guidelines based on a consideration of related issues. The Sekisui Chemical

## Systems that use customer feedback to increase CS & Quality $\rightarrow$ Web $\rightarrow$ Data Book P18 Publishing VOICE that summarizes customer feedback

Sekisui Chemical Group Customer Information & Consulting Services receive over 10,000 inquiries and feedback each year. Beyond sincerely responding to customer inquiries, the Group identifies the hidden needs of customers by using unique methods to analyze customer motivations based on these inquiries.

As a new initiative starting in fiscal 2015, the Group published VOICE, which is a summary of the inquiries received

initiative has made Sekisui Chemical Group employees more motivated to take on the challenge of developing new products despite the various hurdles they may face while providing helpful hints and raising awareness of development initiatives.

In fiscal 2015, the Attractive Qualities Screening System conducted award evaluations for the third time, with three

products receiving awards. Interviews with those involved in the development of these products are listed on the intranet.



The story of attractive qualities interview

Group's culture is gradually being cultivated by identifying issues concerning the spread of CS & Quality management, subsequently taking opportunities to review these issues at each department based on results reports, and then using these to set action goals for the next fiscal year

In fiscal 2015, we conducted CS & Quality assessments at overseas business sites, expanding this system to an even greater number of facilities.

by its Customer Information & Consulting Services. This booklet is published with the aim of reflecting customer feedback in management activities, cultivate and instill a culture of CS and quality in all employees, and promote understanding of these issues in Group-wide businesses in a manner that transcends particular operational areas.



Environment

Three Prominences

Human Resources

Basis of CSR

**Quality Improvement CSR Management in Practice** 

## Pursuing the "three zeros" in accidents, waste, and complaints

Quality management →Web →Data Book P17-18

Prominence

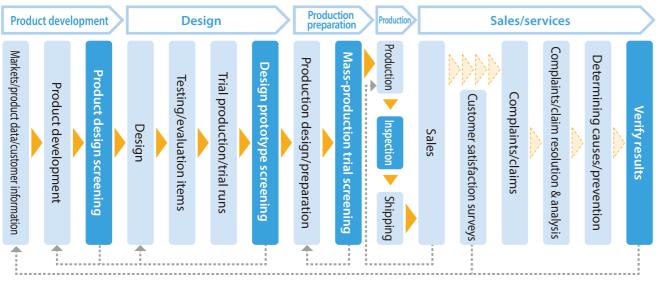
CS & Quality

## Systems in each section reflect business characteristics

The Sekisui Chemical Group has developed quality control systems covering every process from production through product use by customers. Each section has developed a quality assurance system, and in each process we promote controls on a daily basis following the PDCA\* management cycle. In developing products and making improvements to quality, we conduct screening from a variety of perspectives, such as those of quality assurance and safety.

\*PDCA: P = Plan (planning), D = Do (implementation, operation), C = Check (checkup, corrective action), A = Action (improvement, review)





## Formulating three quality guidelines $\rightarrow$ Web Maintaining uniform quality control from development to sales

Undertaking uniform quality control throughout the value chain—from development, manufacturing, and sales the Sekisui Chemical Group is working to improve the level of its quality control by formulating and issuing three



guidelines: Development Guidelines for Strengthening Quality Assurance, Guidelines for Daily Management Activities, and Contract/Specification Guidelines. Development Guidelines are aimed at preventing Basic Qualityrelated problems from occurring

by predicting quality risks that can arise after commercialization.

Guidelines for Daily Management Activities are a collection of basic guides to management on a daily basis that must be undertaken in manufacturing and post-development processes.

Contract/Specification Guidelines were added in fiscal 2015 with the aim of reducing expanded compensation\* risks related to product sales.

\* Expanded compensation: Customers compensation in the case of product defects that extend beyond returns and exchanges to include compensation for processing/construction/items made with these products, and other related damage.

## Design/development seminars $\rightarrow$ Web

## Development prevention seminar and DR\* reviewer training seminar

Continuing from fiscal 2013, we held the Development Prevention Seminar aimed at acquiring effective prevention methods as well as the DR Reviewer Training Seminar to improve DR skills. Both seminars are based on the topic of preventing quality problems before they arise.

In fiscal 2015, we held the Prevention Case Study Consultation Meeting once again in cooperation with Yamanashi Sekisui Co., Ltd. As part of the hands-on section of the Development Prevention Seminar, participants learned and discussed methods for predicting/identifying hidden risks by comparing new products under

#### CS & Quality seminar $\rightarrow$ Web

## CS & Quality seminar: Basic Qualities edition held during quality month

Since fiscal 2011 the CS & Quality Seminar: Basic Qualities Edition has been held during Quality Month every November with the goal of raising the level of Basic Qualities throughout the entire Sekisui Chemical Group.

In fiscal 2015, the fifth time this seminar has been held, outside auditor Kazuyuki Suzuki, professor at the University of Electro-Communications gave a lecture on quality assurance to maintain trustworthy, safe, and reliable products as well as preventing quality-related problems.

Participants' impressions included: "I gained a renewed awareness of the three concepts of assurance, verification, and evidence, and particularly the importance of processes," and "I believe that it is my mission to put into practice the specific ideas that were introduced, including error proofing concepts accumulated through research."We plan to hold seminars in fiscal 2016.

## Group KAIZEN activities on a global scale $\rightarrow$ Web Holding the Group KAIZEN Activities\* Award/Presentations Meetings

Group KAIZEN Activities are an initiative in which employees in each workplace form small groups to address various topics such as improvements in quality and productivity and increasing operational efficiency, and to take on various subjects through policy management. These activities have a track record of more than 40 years. They are under way at numerous business sites in Japan and around the world, centered on production companies. Once a year in January, presentations are made by the representative group in each area—Japan, North America/Mexico, China, Europe, and Asia/Oceania-to share information and help each other improve.

In the 50th Sekisui Chemical Group KAIZEN Activities Presentation Meeting held in January 2016, a total of 21 representative groups (16 from Japan and five from other countries) made presentations. The proceedings were broadcast Environmen

development with existing ones to verify changes in measurements and shapes.

We plan to hold these seminars again in fiscal 2016.

\* DR = Design Review





DR Reviewer Training Serr



Kazuvuki Suzuki professor at the University of Electro-Communications giving a lecture

in real time to 17 business sites that notified us of their interest in advance. This meeting has become a valuable opportunity to deepen employees' understanding of improvement activities, which was underscored by participants who stated "I was able to gain more details on announcement content," and "I had a chance to exchange information and opinions with those working at other business sites and companies."

\* Group KAIZEN Activities: Activities that began in 1966 as Quality Control (QC) groups and later evolved into small group activities before taking the form they have today.

	Group	Site
Gold Prize	SAP3-Advance	Tokuyama Sekisui Co., Ltd.
	Partying Wall Revolutionary Army	Tokyo Sekisui Heim Industry Co., Ltd.
Silver Prize	FS109	Shiga-Ritto Plant
	Foam A	Musashi Plant

Human Resources

**CS & Quality** 

**Basis of CSR** 

**Diversity Management CSR Management in Practice** 

Prominence Human Resources

Fostering a corporate culture where diverse human resources can work with enthusiasm and make unique contributions

Diversity management →Web →Data Book P28

## The Sekisui Chemical Group's diversity management

The Sekisui Chemical Group started diversity management in fiscal 2015 and established a new Diversity Management Policy. The Group also held a study meeting for about 200

management-level employees of the domestic Sekisui Chemical Group and another study meeting for nearly 1,900 managers of groups and sections.

#### **Diversity management policy**

Based on the realization that diversity is essential to becoming a sustainable company that can maintain its strong corporate value for a century, we understand and recognize that each and every employee's orientation to work and life and their distinctive characteristics are different and thus we actively take advantage of that. To create an organizational culture, we will continue, through employee dialogue, to provide employment and participation opportunities and a variety of environmental improvements that support growth.

As a specific initiative, we conduct diversity management with a focus on promoting women's empowerment, the most familiar form of diversity

#### Women's empowerment $\rightarrow$ Web →Data Book P19-20 A first step in diversity

management The Sekisui Chemical Group continues a variety of efforts to enable women employees to continue to work vigorously. As a result, we have achieved a substantial improvement in the ratio of women employees and retention rates and the number of women in management positions has increased.

In fiscal 2015, we sought to become an organization where women can truly thrive throughout the entire Group and established specific numerical targets for the ratio of women employees including mid-career employment, and women in management positions.

We also implemented educational programs for female assistant managers and their managers. Women employee participants developed awareness about management positions and learned skills, shared growth challenges and experiences with each other, and deepened their understanding by sharing ideas. The managers of the women employee participants learned new methods to effectively develop female managers.

## Support for young female employees $\rightarrow$ Web Seminar held for managers

Pre-assignment training of new female staff, provided for staff responsible for training and support of new female employees, and management training for female subordinates provided for their superiors, are intended as a means of raising the retention rate of young female employees and helping them to thrive in the workplace. Already a total of 526 people have undergone these training programs. The management training for female subordinates had participants perform role playing to bring home the importance of having managers provide guidance to young female employees. After the seminars ended, the participants applied the takeaways they learned to their actual work, and reported to the training center any issues or ideas that came up during their implementation. With this feedback, we continue to provide effective training.

#### **Improving Group Human Resource Capabilities**

## Securing and training human resources in aiming for sustainable growth

#### Main career track feels rewarding every day

Five years ago, I moved from a general to a more career-oriented track. Since then I have taken on the responsibility of recruiting operations generally.

I thought that preparing a recruitment plan and presenting a recruitment seminar was men's work, but I discovered that the work is unrelated to gender and now I feel that every day is rewarding.

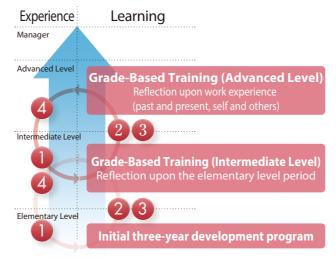
Developed training system that supports business →Web →Data Book P19-20

## Training business leaders at an early stage

We have developed a consistent training system covering all stages from new hires to management positions, in order to systematically train business leaders to power the Sekisui Chemical Group into the future.

Based on the concept that the foundations of growth are the experience gained through everyday business activities and learning

#### **Diagram of Grade-Based Training Programs**



System aimed at strengthening abilities in the workplace  $\rightarrow$  Web

## Training human resources to support the workplace

The human resources who will support the foundations of management in practical terms in the workplace must undergo self-growth as highly capable practitioners by accumulating experience over the long term and acquiring highly specialized knowledge and skills. Based on this concept, the Sekisui Chemical Group hires human resources who will support the workplace as full-time, permanent employees, creates an environment in which they can demonstrate their abilities with peace of mind over the long term, and deploys the Meister\* System to strengthen their abilities in the workplace.

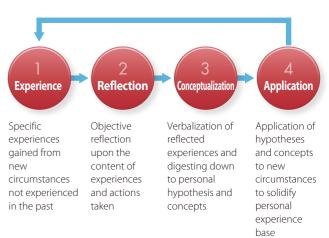
Outside activities are increasing and there are many situations where I feel inspired by meeting women who are active in other companies. In the future, I will not limit myself to recruiting, but perform activities that contribute to promoting diversity from an environment that fosters women in management positions and accepts a broad range of differences.



Fumiko Nagayama General Affairs Department HINOMARU CORPORATION

from such experience, we have developed a training system that links these two elements together. Through this system we will enhance each individual's mastery of the skills required of business leaders, by running through the cycle of growth through experience (see illustration below).

#### Cycle to Encourage Growth through Experience



#### Areas of Specialization that are Meister\* Certified (FY2015)

Company	Specialization
Housing	Welding skills
Urban Infrastructure & Environmental Products	<ul> <li>Product design skills/CAE analysis skills/ Structural analysis skills</li> <li>Pipe rehabilitation skills/Pipe rehabilitation installation skills</li> <li>Pipe research and diagnosis/Business value chain design skills</li> </ul>
High Performance Plastics	Fabrication skills/Extrusion molding skills
Headquarters	Chemical plant safety technology

Environment

Three Prominences

CS & Quality

Resour

**Basis of CSF** 

\*Meister: A person able to play a leading role in Companywide activities as a preeminent human resource in a technical area deemed key by the Company.

**CSR Management in Practice** Prominence Human Resources **Improving Group Human Resource Capabilities** 

## Securing and training human resources while aiming for sustainable growth

Developing personnel who can succeed on the global stage  $\rightarrow$  Web  $\rightarrow$  Data Book P19-20

## Fostering personnel with international experience to ensure sustainable growth

In fiscal 2015, 25.8% of consolidated sales were generated overseas, and this ratio has been increasing every year. We have over 90 production and marketing sites in approximately 27 countries. We believe that all the businesses of the Sekisui Chemical Group depend on each and every employee working around the world growing through their work and providing excellent

products and services in tune with local needs. Based on this belief, we train our employees so that each and every one of them has the skills to succeed in their jobs. We have training and personnel systems in place tailored to local conditions in North America/ Mexico, Europe, China, and the ASEAN region.

#### The global trainee program →Web →Data Book P19

## Aggressively providing opportunities to succeed overseas

The Sekisui Chemical Group has established the Global Trainee Program to enable participants to build up real-world experience overseas. This program sends applicants with sufficient levels of experience in specific positions such as sales, accounting, and development to actual positions at

overseas affiliates.

In fiscal 2015, four employees enlisted in this program and were newly assigned overseas. In the future, we will strive to enhance these systems so that greater numbers of employees can build up work experience around the world.

#### Global Saijuku School → Web

## Created new systems to foster global management personnel

With the rapid expansion of business globalization, overseas human resource development has become an urgent task. Therefore, in fiscal 2015, we implemented the Global Saijuku School to develop the next generation of management personnel who will play an active role in global markets. Twelve executives from Group companies

in North America/Mexico, Europe, Asia, and Japan, as well as from our laboratories, took part in a program to enhance the management skills required for personnel to play an active role on the global stage by teaching them about Sekisui's values while reinforcing management and business creation capabilities.

#### Gained valuable experience that will become an asset

At the Global Saijuku School, I gained an appreciation of Sekisui's innovative history and corporate philosophy of 3S Principles. In addition to strengthening my business skills and strategic thinking, I was able to work

with other Saijuku members and explore co-creation opportunities across Sekisui Chemical Group companies. I am very grateful to Sekisui for helping me become a strong leader.



Global Sales and Marketing Sekisui Diagnostics, LLC

#### **Safety and Security**

## Targeting zero occupational accidents through risk reduction by all personnel, from top management to individual workplaces

Fiscal 2015 results and outlook  $\rightarrow$  Web Implemented educational programs for key persons in charge of safety activities

We develop human resources who put business activities into practice with a high awareness of safety and who can demonstrate this to their subordinates. In fiscal 2015, we planned and implemented an educational program with the aim of fostering a sense of ownership among supervisors, managers, and assistant managers, and providing them with the skills to revitalize business.

## Measures to prevent fires and explosions $\rightarrow$ Web Initiated emergency audits inviting outside experts

To prevent fires and explosions that, once they occur, have a major impact on the surrounding environment and on business continuity, in addition to the safety audit performed thus far, we began an Emergency Audit to which we invite outside disaster experts. We verify the storage of hazardous materials and handling status and the recovery system at the time of disaster including natural disaster, thereby detecting the risk of natural disaster at an early stage and making improvements.



Safety audits at overseas business sites → Web Visualizing safety management conditions at overseas business sites

At our overseas production sites, which operate under the varying laws and regulations and awareness of safety issues in each country, since fiscal 2013, Sekisui Chemical has developed safety management rules as global standards and strictly follows these rules in order to achieve the same level of safety at all business sites. The OHSMS evaluation chart establishes a framework for the safety audit. In fiscal 2014, 21 offices were audited, and in fiscal 2015, 18

As a disaster should focus particularly on prevention, we implemented emergency response training in the core processes for the following scenarios: getting caught or entangled at a production facility, tumbling or falling down at a worksite, and a fire or explosion in the chemical process. We also promoted rigorous compliance with scaffolding work rules at construction sites.

Emergency response measures  $\rightarrow$  Web

## Ways to pass down accumulated knowledge of emergency preparedness

At the Sekisui Chemical Group, we conduct training to fortify the decision-making abilities of all our employees in emergency situations. More specifically, emergency crews are given scenarios where equipment designed to prevent danger fails and challenges the trainees to ask questions to solve the problem on the spot. This training has been applied on various occasions including to handle problems, and in evacuation and emergency drills.

In fiscal 2015, training has been held a total of 91 times at six business sites including Sekisui Board Co., Ltd.,

Okayama Sekisui Co., Ltd., and the Musashi Plant, 681 people have participated.





4RKV practice evercise (China)



4RKY practice exercise (South Korea

offices were audited. We have verified the compliance status with the safety management rules at each office. In addition, we have supported 4RKY (4-Round Risk Assessment) practice exercises for the safety management activities of overseas business sites.

**Three Prominences** 

**Basis of CSR** 

#### **Corporate Governance**

Sekisui Chemical Group has put in place its own corporate governance system that reflects its division company structure

#### Strengthening the business execution function $\rightarrow$ Web

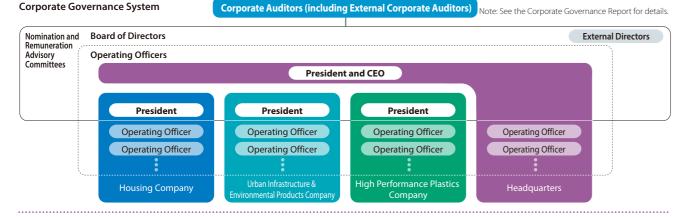
## Executive Committee established to serve as the top decision-making body in each division company

Together with assigning to each division company operating officers specializing in business execution, an Executive Committee has been established to serve as the top decision-making body in each division company. As such, a broad range of authority has been transferred from the Board of Directors to the Executive Committee.

policies of the Sekisui Chemical Group's management as well as high-level management decision-making and supervision of business execution.

In establishing a set of rules that pertain to outside directors, the Company has identified that it will not select candidates for the position of outside director from such stakeholders as major shareholders and business partners. This is to ensure the independence of outside directors.

The Board of Directors strives to achieve continual improvements in corporate value as an organization responsible for decisions on basic



## Compliance with the Corporate Governance Code → Web Putting in place the SEKISUI Corporate Governance Principles

The Tokyo Stock Exchange set out and incorporated its version of a corporate governance code into its Securities Listing Regulations from June 2015. In response, the Sekisui Chemical Group put in place the SEKISUI Corporate Governance Principles in an effort to lay out its stance and provide details of the Group's corporate governance activities in a systematic manner. Guided by these principles, the Sekisui Chemical Group will work to raise the level of its management foundation while promoting increasingly transparent and fair business operations.

\* Corporate Governance Code:

A set of codified principles that layout specific policies toward corporate governance and a code of conduct that publicly listed companies should be expected to observe. Major nations outside Japan began adopting a corporate governance code from the 1990s. A corporate governance code was first introduced in Japan by the Financial Services Agency and the Tokyo Stock Exchange in March 2015 and took effect from June 2015.

## Respect for international norms $\rightarrow$ Web Declaration of support for the United Nations Global Compact

The Sekisui Chemical Group respects international norms and standards regarding CSR, including the Universal Declaration of Human Rights, ISO 26000, the OECD's Guidelines for Multinational Enterprises, the ILO's International Labor Standards, and the United Nations' Guiding Principles on Business and Human Rights (Ruggie Framework). In March 2009, Sekisui Chemical signed the United Nations Global Compact\*.

In compiling and issuing its CSR Report, Sekisui Chemicals has also referred to the Global Reporting Initiative's (GRI's) internationally recognized Sustainability Reporting Guidelines. The CSR Report 2016 is in fact presented in accordance with the "Core" standards of the latest GRI Sustainability Reporting Guidelines ver. 4.



Network Japan WE SUPPORT

Nations Global Compact: A voluntary program in which top management of firms around the world pledge to comply with 10 principles on subjects such as human rights, labor tandards the environment and anti-corruntion efforts within the scopes of influence of their firms and participate in building a global framework for realizing sustainable growth

## Procurement policy →Web →Data Book P29 The Sekisui Chemical Group's procurement policy

The Sekisui Chemical Group procures materials based on the five fundamental concepts of openness; fairness and equity; legal compliance; mutual trust; and consideration for the environment. In addition to quality and delivery

## Conducting CSR procurement surveys

Guided by its procurement policy, Sekisui Chemical began conducting surveys as a part of the process to select new suppliers in Japan from 2007. Through these surveys, the Company works to ascertain the stance of each supplier toward human rights and environmental protection as well as the status of each supplier's CSR activities.

## Respect for human rights →Web →Data Book P34 Caring about human rights issues across the entire supply chain

Along with its suppliers, the Sekisui Chemical Group engages in business activities that respect human rights as part of its obligation to all stakeholders.

All Group employees are provided with a copy of the Company's Compliance Manual. We have set strict standards for respecting human rights, prohibiting discrimination, preventing harassment, and protecting personal information. We conduct training and e-learning sessions for employees about the prevention of all forms of harassment. We work diligently to raise the understanding and awareness of such

## Open and fair transactions across the supply chain $\rightarrow$ Web (Japanese) Addressing the issue of conflict minerals

Sekisui Chemical is concerned about the conflict mineral problem, namely the mineral resources controlled by armed forces in the Republic of Congo and neighboring countries that commit human rights violations and destroy the environment. Since fiscal 2014, we have conducted surveys on the use of conflict minerals at companies throughout our supply chain.

## R&D →Web

## Assigning a fair value to valuable inventions

The Company's Headquarters and each business have R&D sections that work to increase the speed of technological development and create outstanding technologies. The Invention Grand Prize has been established as one part of

# Three Prominences

Environment

companies.

further evaluation.

issues among all of our employees.

Through CSR procurement with our suppliers, we make sure our business partners respect human rights. In the event that a supplier does not meet the prescribed standards, a request is made to ensure that the necessary steps are taken to resolve any issues. Sekisui Chemical works together with suppliers in the implementation of appropriate measures. Through surveys conducted up to fiscal 2015, the Company has confirmed that there were no incidences of a human rights violation by any of its major suppliers.

times, suppliers are requested to give consideration to the

environment, comply with laws, regulations, and societal

In fiscal 2015, nine Group companies in the United

States took steps to initiate surveys of 68 major suppliers by

the end of March 2016. 11 of the 68 suppliers surveyed fell

below the required standards and are currently undergoing

norms, and ensure health and safety in their own

At the Company's Headquarters, the Purchasing Group at the Total Manufacturing Management Center is in charge of Companywide procurement, and the procurement sections of each division company have managers in charge of procurement. Through this structure, we are focusing the entire company on surveys to discover any use of conflict minerals.

efforts to ensure researchers and engineers receive the evaluations and treatment they deserve. The Invention Grand Prize establishes monetary rewards for inventors recognized as having made major contributions to profits. CS & Quality

#### Compliance

## Aiming to remain a company trusted by society by strengthening compliance on a global basis

#### Principal initiatives in FY2015 →Web →Data Book P23

## Principal initiatives toward reinforcing accounting compliance

In fiscal 2014, we decided that October of each year would be Compliance Reinforcement Month for all employees, as an opportunity for them to reflect on their compliance awareness and actions.

Improper accounting practices were uncovered at Group companies in the previous fiscal year. In fiscal 2015, we focused

- 1 Transmitted Top Message
- 2 Implemented Compliance Implementation Program 2015
- 3 Conducted e-Learning
- 4 Used of compliance awareness surveys

#### Main accounting compliance educational programs implemented in FY2015

- Compliance education programs for full-time directors and corporate auditors at affiliated companies
- Compliance education programs for Group companies
- Accounting compliance education programs for executive officers
- Compliance education programs and e-learning during Compliance
- Reinforcement Month
- Compliance education programs at meetings of overseas company presidents

#### S.C.A.N. intra-company whistle-blowing system →Data Book P23

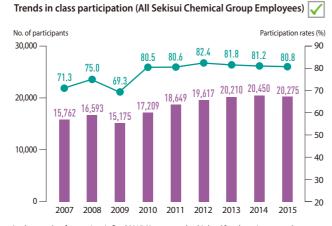
## System further enhanced, such as by making the reporting of violations mandatory

In 2002, the Sekisui Chemical Group developed the S.C.A.N. (Sekisui Compliance Assist Network) intra-company whistle-blowing system, which is the mechanism that has been made available for use by all Group employees.

The Group having set up a special intranet site and a dedicated telephone line as well as having defined the protection of whistle-blowers in its internal reporting rules, employees can feel assured that they are able to make active use of the system.

In fiscal 2015, the Group made revisions to part of its S.C.A.N. system with the aim of creating an environment in which the required information is more easily provided.

mainly on implementing educational programs designed to prevent any recurrence. Among other measures, we implemented training sessions that specialized in accounting compliance based on cooperation with division companies. Targeting business sites inside and outside Japan, the training aimed to change director and employee ways of thinking with regard to compliance awareness.



Implemented on four sessions in fiscal 2015. However, as the third and fourth sessions are under way, the abovementioned figures are averages of the results from the first and second session

#### Principal Revisions to Intra-Company Whistle-Blowing System

Reporting of compliance violations made mandatory 2 Enhanced protection for whistle-blowers who report compliance violations 3 Scope of whistle-blowers extended to principal domestic suppliers

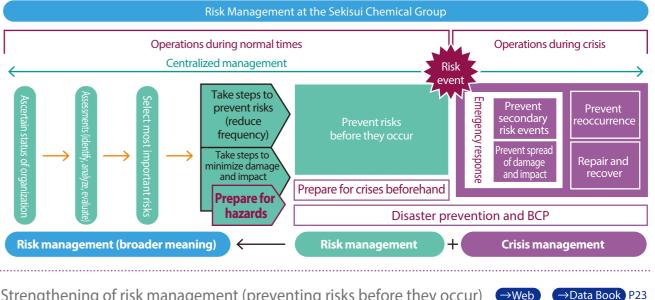
#### FY2015 Whistle-Blowing Reports and Consultations

r izers mistic bioming heports and con		
Reports/consultations	Number of cases	
Power harassment	19	
Working conditions	13	
Sexual harassment	3	
Misuse of expenses	2	
Workplace environment	2	
Improper accounting practices	2	
Other	8	
Total	49	

#### **Risk Management**

## Aiming to further strengthen the risk management system to increase sensitivity to risks and improve the quality of risk management activities

A structure able to adapt to constantly changing risks and crises



## Strengthening of risk management (preventing risks before they occur) Enhancing risk awareness via a PDCA cycle

Considering increasing employees' sensitivity to risk to be essential in addressing risks that are constantly changing, the Sekisui Chemical Group continues to run through the plan-do-check-act (PDCA) cycle of risk management in accordance with ISO 31000, the international standard on risk management.

## Strengthening of the risk management system $\rightarrow$ Web A new crisis management system

Having revised its crisis management system in light of the experience gained from the Great East Japan Earthquake in fiscal 2011, the Group has continued to implement and enhance the system in Japan. Other revisions were made based on emergency task force training, and the Group implemented employee training

#### Fostering a sensitivity to risk by activity visualization

As I firmly believe in what senior management has said, namely that risk management will be essential in new business development in the years ahead, at Sekisui Fuller we are sharing each division's risk management progress charts with all

These activities began in fiscal 2011 at 27 organizations. The number of organizations employing these activities has increased from year to year. By the end of fiscal 2016, we expect a total of 150 participating organizations, consisting of affiliates in Japan and around the world. We forecast that these companies will account for about 93% of consolidated net sales.

and emergency system upgrades at all its sites. Overseas, the Group updated and revised the relevant manuals at every site. In addition, with the rise in the number of business trips to frontier regions, the Group is publishing and distributing crisis management handbooks specific to each region.

areas throughout the company and working on the visualization of our activities. As a result, I feel that employees' sensitivity is certain to increase by, for example, raising new risk management themes at the monthly sales and production meetings.

→Data Book P23



Hiroshi Nakanishi HR & Administration Division Sekisui Fuller Company, Ltd.

# Environmen:

Three Prominences

CS & Quality

#### Communication

# Improving corporate value by strengthening dialogue with stakeholders

#### Dialogue with stakeholders $\rightarrow$ Web

# Reflecting stakeholder opinions in corporate activities via various methods of communication

We are working to reflect appropriately in our business the evaluations and comments we receive through dialogue with stakeholders. We are doing so through efforts including Customer And Top (CAT) Meetings, at which top management in housing sales companies meet customers to receive feedback directly (3,613 persons took part in fiscal 2015), Dialogue with Top Management where the president and top management talk directly with employees, the Employee CS & Quality Assessment, by which employees are surveyed on their awareness of CS & Quality and the results fed back, the Heim Mutual Prosperity Group and other venues of communication with suppliers, and through contact with investors and research organizations.

# Dialogue with socially responsible investment (SRI) agencies (SRI)

Interest in undertaking socially responsible investment in companies that actively engage in CSR activities continues to mount in Europe and the United States. At the same time, ratings agencies are increasingly undertaking surveys. Every year, the Sekisui Chemical Group communicates directly with SRI ratings agencies in Europe and other regions. We believe it is important to take the time to explain to each agency our wide-ranging businesses and CSR initiatives in order to convey a sufficient and accurate understanding of our operations. In fiscal 2015, we talked directly with four SRI ratings agencies in Japan and abroad.

With the concerns of investors and SRI ratings agencies very much in mind, Sekisui Chemical posts detailed information on its website.

## Direct dialogue between management and employees $\rightarrow$ Web Providing opportunities for top management to meet with employees

Since fiscal 2002, the Sekisui Chemical Group has provided opportunities for employees to communicate directly with top management, based on its belief that it is essential to resolve problems faced by the Company as well as work-related issues through direct communication between top management and employees.

In fiscal 2015, the Company's president visited Group companies in Japan to provide an explanation of progress under the Medium-Term Plan that began in fiscal 2014 and to address any questions. Through each visit, employees were provided with the opportunity to express their opinions and to engage in lively debate. Among a host of topics, employees commented on their ideal image of the Company 10 years hence and where they saw themselves a decade from now.



## External Evaluations Main evaluations from society during fiscal 2015

#### CSR in general

- Earned selection to the Dow Jones Sustainability Indices (DJSI) Industry Leader, World, and Asia Pacific
- Earned RobecoSAM sustainability ratings Industry Leader and Gold Class
- Earned selection to the FTSE4Good Index
- Earned selection to the MSCI Global Sustainability Indexes
- Earned selection to the Ethibel PIONEER and Ethibel EXCELLENCE Investment Registers
- Earned selection to the Morningstar Socially Responsible Investment Index
- Ranked 56th in the Nikkei NICES ranking system
- Ranked 64th in the Toyo Keizai CSR Ranking

#### Environment

- Ranked 68th in the Nikkei Environmental Management Ranking
- Earned selection to the CDP Japan 500 Climate Disclosure Leadership Index (CDLI)

#### CS & Quality

Ranked 16th in the Nikkei Quality CS and Quality Management Ranking

#### Human Resources

- Ranked 63rd in the Nikkei Ranking of Companies that Fully Utilize Human Resources
- Earned selection to the Ministry of Economy, Trade and Industry's Diversity Management Selection 100



**Environmental and Social Contribution Activities** 

Proactively working to contribute to the environment and society as a company in tune with local communities

## Main environmental and social contribution activities implemented in FY2015

Note: More details are given on our website →Web HOME>CSR Management>Environmental and Social Contributions →Data Book P24

## Environment -

The Sekisui Chemical Group advances three approaches toward the realization of its Long-Term Environmental Management Vision, the Sekisui Environment Sustainability Vision 2030 (please refer to page 20). Regarding specific initiatives toward the conservation of the natural environment as one of those approaches, its employees are developing activities to conserve the natural environment in various regions around the world.



#### Main activities

Forest conservation activities/ Biodiversity conservation through the removal of non-native species/ Environmental training on garbage segregation

## Next generation → Web

Targeting communities where the children who will form the next generation can develop and healthily grow into adulthood, we provide educational programs for middle and high school students that leverage our business activities. Including field trip lessons, for example science classes, given by Company employees as well as support and assistance for research based on innovations inspired by nature, the Company conducts a wide range of activities.



#### Main activities

Houses and the environment learning program/ Science class/Science classroom/Science lesson

## Local communities 🛶

As a member of the local communities in which it operates, the Sekisui Chemical Group proactively deploys social contribution activities and thereby hopes to contribute to the creation of a sustainable society. The Group encourages activities that bring joy to local communities, such as creating safe and secure cities in collaboration with local communities and support programs that assist developing countries.



Main activities

Activities to improve civic order in regions/ TABLE FOR TWO/BOOK MAGIC/ Heart+Action/ Assistance in providing meals to schools

## **Continuing Report: Response to the Great East Japan Earthquake**

The Sekisui Chemical Group's business is to provide housing and the infrastructure essential to support living. Utilizing the characteristics of these businesses, we are carrying out a variety of activities to support recovery from the Great East Japan Earthquake.

#### Handover of disaster-affected area public housing to evacuees

In March 2016, Sekisui Heim Tohoku completed construction of disaster-affected area public housing for evacuees from the Great East Japan Earthquake built in the city of Higashi-Matsushima and held a ceremony to mark the handing over of the keys to the residents.

Initially people were to have taken up residence in April 2016. However, having taken it as their responsibility as local businesses to construct the homes in a way that would give consideration to the providing of safe and comfortable homes for all who had been affected even one day sooner, onsite labor-saving was achieved by collaboration between the Miyagi branch construction groups and Tohoku Sekisui Heim Industry. They were able to hand over the keys before marking the fifth anniversary of the disaster. Designed to embody features that take into account the needs of the elderly and safety, such as wide modular baths and sensor-equipped porch lights, the public housing succeeded in bringing delight to all from its

occupancy schedule.

Through our business activities, we will continue to contribute to the reconstruction and revitalization of regions affected by the Great East Japan Earthquake.

#### New energy joint research leading to the creation of post-reconstruction towns

In the city of Sendai, Miyagi Prefecture, which was an area affected by the Great East Japan Earthquake, advances are being made in the creation of sustainable cities as well as in research into energy savings and new energy that are leading to reconstruction and beyond. As part of that research, the Urban Infrastructure & Environmental Products (UIEP) Company has been conducting experimental studies jointly with the city of Sendai to

effectively utilize heat energy taken from sewage conduits since 2013. Utilizing Sekisui Chemical's underground water helix-type Esloheat sewage heat recovery system, the research improves the ability of the sewage conduits to withstand earthquakes, making them more resilient, at the same time as adding heat recovery functions. Utilized for the research is the first private commercial facility in Japan to have recovered heat. The research up to March 2015 verified energy efficiency, cost and

other aspects, as a result of which it was found that savings of more than 30% a year could be made on electricity bills.

Continuing in fiscal 2015, UIEP engaged in efforts toward the wider adoption of the system and conducted verifications related to the management of sewage conduit maintenance after installation.





Kev handover cere



ewage conduit after Esloheat sewage heat construction work



A briefing given to all the employees of a private commercial facility that utilizes hot water heated by sewage.

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(TRANSLATION)
Independent Practitioner's Assurance Report
June 10, 2010
Mr. Teiji Koge, President and Representative Director, Sekisui Chemical Co., Ltd.
Hiroshi Inanag
Chief Executive Office
Deloitte Tohmatsu Evaluation and Certification Organization Co., Ltc 3-3-1, Marunouchi, Chiyoda-ku, Toky
5-5-1, імаціюція, Спурца-ки, Току
We have undertaken a limited assurance engagement of the material sustainability information (the "sustainabilit nformation") indicated with 📝 for the year ended March 31, 2016 included in the "CSR Report 2016" (including the "CSI Report 2016 Data Book(PDF)") (the "Report") of Sekisui Chemical Co., Ltd. (the "Company").
The Company's Responsibility The Company is responsible for the preparation of the sustainability information in accordance with the calculation an reporting standard adopted by the Company (CSR Report 2016 Data Book(PDF): Calculation Standards of Ke Performance Indicators) and "Appendix: Sustainability Reporting Assurance and Registration Criteria" issued by th Japanese Association of Assurance Organizations for Sustainability Information (the "J-sus"). Greenhouse ga quantification is subject to inherent uncertainty for reasons such as incomplete scientific knowledge used to determin emissions factors and numerical data needed to combine emissions of different gases.
Dur Independence and Quality Control We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountant issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity objectivity, professional competence and due care, confidentiality and professional behavior. We apply International Standard on Quality Control 1, <i>Quality Control for Firms that Perform Audits and Reviews of Financial Statements, an</i> <i>Other Assurance and Related Services Engagements</i> , and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards an applicable legal and regulatory requirements.
Dur Responsibility Our Responsibility is to express a limited assurance conclusion on the sustainability information based on the procedures w have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements ("ISAE") 3000, Assurance Engagements Other than Audits on Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Boan ("IAASB"), and ISAE 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the IAASB, and the Practical Guideline for the Assurance of Sustainability Information, issued by the J-sus. The procedures we performed were based on our professional judgment and included inquiries, observation of processe performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods an reporting policies, and agreeing or reconciling with underlying records. These procedures also included the following: -Evaluating whether the Company's methods for estimates are appropriate and ab been consistently applied. Howeve our procedures did not include testing the data on which the estimates are based or reperforming the estimates. - Undertaking site visits to assess the completeness of the data, data collection methods, source data and relevar assumptions applicable to the sites.
The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.
imited Assurance Conclusion Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention the causes us to believe that the Company's sustainability information is not prepared, in all material respects, in accordanc with the calculation and reporting standard adopted by the Company and "Appendix: Sustainability Reporting Assuranc and Registration Criteria" (sisued by the J-sus).

The above represents a translation, for convenience only, of the original Independent Practitioner's Assurance report issued in the

Member of Deloitte Touche Tohmatsu Limited

#### Summary of Independent Practitioner's Assurance Procedures



### Third-Party Opinion

## The Sekisui Chemical Group CSR Report: Linking CSR activities to the Group's ongoing evolution (SHINKA)

Why must companies engage in CSR activities? Quite simply, because the corporate sector forms an integral part of society. As a member of society, it is vital that companies maintain a valuable presence. Recognizing that CSR is an essential component of a company's business activities, it is by association therefore important that efforts aimed at contributing to society and the environment help to generate corporate value. With this in mind, maintaining a balance between social and corporate value is the wellspring for sustainable growth. In his top message, Teiji Koge, president and representative director of Sekisui Chemical Co., Ltd., outlined his thoughts toward this balanced approach. From his perspective, creating value for society through business activities lies at the heart of the Group's "3S Principle" Corporate Philosophy. In positioning the environment as an important business pillar, he also explained the critical need to balance ecological concerns with economic development. Achieving both of these objectives is then the ultimate goal of the Sekisui Chemical Group's CSR activities

On page 7 of the report, Sekisui Chemical outlines its process for identifying key CSR issues (materiality) as well as details of its CSR Medium-Term Plan. In doing so, the Company has introduced a unique, but easy-to-understand framework that comprises "Three Prominences" and "Three Attitudes of Sincerity." This effort to announce key performance indicators while disclosing numerical targets is indicative of the Company's earnest and sincere stance toward fulfilling its corporate social responsibility and is most impressive. The external evaluations listed toward the end of the report are also a measure of the positive manner in which Sekisui Chemical undertakes its CSR activities. Looking ahead, I would hope that the Company continues its vigorous approach toward the disclosure of information.

Meanwhile, how Sekisui Chemical flows through the objectives set out under its CSR Medium-Term Plan to its Medium-Term Management Plan, SHINKAI-Advance 2016, is likely to become an important issue in the future. As previously mentioned, the Company must work to fulfill its corporate social responsibility in order to carry out its Medium-Term Management Plan, and in turn help to generate corporate value, for as long as CSR is an integral component of its corporate activities. Given the Company's horizontal structure and its organization into numerous operating companies, the potential exists for difficulties to arise in the roll out of measures that cut across each company. In order to resolve this issue, it may be helpful to look at other industries and

## In Response to the Third-Party Opinion

I would like to thank Mr. Ogawa for his valuable input.

At Sekisui Chemical Group, we strongly believe that in fulfilling our corporate social responsibility we are better placed to enhance our corporate value. This is in turn the very essence of our efforts to help ensure a sustainable society. With this in mind, we will very much take to heart the advice of Mr. Ogawa. While taking into consideration the endeavors of companies that engage in a broad range of activities including general trading companies, we will lend an ear to the comments of external as well as global stakeholders. By reflecting these features and input in our efforts going forward, we will work to enhance the level of the Group's CSR activities. Fiscal 2017 marks a critical juncture in the Company's



## Mitsuo Ogawa President Craig Consulting Co., Ltd.

Mr. Ogawa graduated from Waseda University and gained experience at a major manufacturer of automotive-related products before earning a Master of Business Administration at the University of Pittsburgh. He then worked at Sanwa Research Institute and PwC Consulting before striking out on his own in 2004. Engaged in the field of consulting through to the present day. Mr. Ogawa's fields of expertise include organizational theory and the revitalization of human resources. Among a host of publications, he has authored such articles as "How ISO 26000 Will Change Management" and "How to Raise CSR Corporate Value" both issued by Nihon Keizai himbun, Inc. Mr. Ogawa is a visiting professor of the Commerce and isiness Graduate School of Management at Nagoya University.

for example the model set by general trading companies. In specific terms, I would like Sekisui Chemical to examine the benefits of adopting a two-story approach toward the setting of objectives. One story would entail overarching objectives that apply to all companies and the Group as a whole. A second story would comprise objectives that are unique to each company.

A second issue with respect to Sekisui Chemical's approach toward CSR is stakeholder engagement. The Company could and should adopt a more aggressive stance toward stakeholder engagement. Sekisui Chemical does actively engage in CAT Meetings as a conduit to garner the opinions and comments of customers while working through the Heim Mutual Prosperity Group and other venues of communication with suppliers. With the ratio of overseas sales to total sales now surpassing 25%, however, it is vital that the Company examines how best to communicate with a growing number of new overseas stakeholders and to undertake appropriate risk management. I am confident that the Company would gain invaluable insight into the shape of its CSR activities as it enters a new stage by seeking the candid opinions and comments of external stakeholders.

A third issue is internal penetration and the degree to which employees are aware of and understand CSR. No matter how hard the CSR Promotion Department tries, the Group's success in fulfilling its corporate social responsibility will depend on the ability of each division to take the initiative. Given the focus placed on environmental management, the potential exists for divisions to mistakenly equate CSR with the environment. Broad-ranging measures are vital in increasing internal penetration. It may, for example, prove fruitful to allow more and more employees to freely participate in and observe the aforementioned stakeholder engagement. The same can be said for the active disclosure of information. Unfortunately, the report has not provided a full disclosure of the Group's activities in detail. As an integral part of its CSR activities, the Company is encouraged to disclose details of its Story of Attractive Qualities, identified on page 25, to external parties. I am sure that this story is one in which employees can take great pride.

In closing, I would like directors to become more involved in creating CSR learning opportunities. Attitudes toward and understanding of CSR are changing at a rapid pace. Taking into consideration the Company's ongoing globalization, Sekisui Chemical can be expected to confront new management issues as it learns more about global CSR. .....

> history. As well as our 70th anniversary, this particular fiscal year represents the start of our next medium-term management plan. Making the most of this milestone, we will ramp up efforts to carry forward those attributes and initiatives that have held us in good stead and further increase in-house awareness toward the Group's CSR activities. With every level of management working in unison, we will channel our energies toward completing all appropriate initiatives. With our sights set firmly to the future, we will endeavor to achieve SDGs, COP21, and other key targets. Both management and all employees will think long and hard, and work in unison to build a robust structure that is capable of enhancing corporate value.



Director Executive Officer Responsible for CSR Promotion Department Head of Business Strategy Departmen Sekisui Chemical Co., Ltd.

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- binding process.



The CSR Report 2016 (including the Data Book (PDF)) has been reviewed for assurance by an independent third party and as a result has been granted the sustainability report review and registration logo. This demonstrates that this report satisfies the necessary criteria established by the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS; http://www.j-sus.org/) for the use of this logo, intended to assure the reliability of sustainability information.

