

# Promoting Net-Zero-Energy Housing

Providing high-quality, eco-friendly housing without any constraints related to energy issues

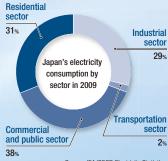
Backdrop

Addressing two important issues through our CSV strategy: combating global warming and finding solutions to the energy supply problem

There is a pressing need to prevent global warming by reducing CO<sub>2</sub> emissions. In Japan, energy consumption in the residential sector has doubled in the last 40 years, which has led to a huge increase in CO<sub>2</sub> emissions. We urgently need to carry out effective measures to reduce emissions, given that the residential sector accounts for about one third of the nation's electricity consumption. While energy-saving efforts are being made in homes, these efforts depend upon the forbearance of residents and their having an energy-saving mindset. As a housing manufacturer, Sekisui House has been studying how we can cope

with these issues and how we can translate them into sustainable business models. The solution we devised is the Green First strategy. This strategy is expected to

help us deliver housing that can simultaneously provide comfortable living and low energy costs for homeowners, while also contributing to a reduction in CO<sub>2</sub> emissions.



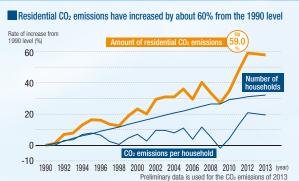
Source: IEA/OECD Electricity Statistics

Our goal

Aiming to expand the market for energy-saving and energy-creating houses and promoting energy self-sufficiency, while providing comfortable living spaces

Contract house construction is a core segment we believe can contribute to the reduction of residential CO<sub>2</sub> emissions in an effective and sustainable manner. With Action Plan 20, which was launched in 2005, we targeted a 6% reduction in CO<sub>2</sub> emissions from 1990 levels (equivalent to a 20% reduction in CO<sub>2</sub> emissions from the projected residential energy consumption rate in 2010). In 2009, Action Plan 20 was subsumed under our Green First initiative, which also incorporated the concept of generating alternative energy through houses equipped with solar and fuel cells. Our Green First Zero initiative was launched in 2013. While reducing the CO<sub>2</sub>

emissions of houses, we aim to expand the market for houses that are both comfortable and economical.



This chart was prepared using data provided by the National GHGs Inventory Report of Japan and the basic registry of residents.



Action policies

#### Leading the government's ZEH initiative by actively promoting our Green First Zero model

The Japanese government formulated a strategic energy plan-approved by the Cabinet in April 2014-that advocates the adoption by 2020 of net-zero-energy house (ZEH) design as standard for newly built homes.

#### Main stakeholders

Customers, partner companies (equipment manufacturers, etc.), energy supply companies

#### Measures

Launching and spreading the Green First Zero model, which provides energy-neutral housing environments in line with the ZEH standards.

#### **Green First Zero features**

1 High insulation

Providing advanced heat-insulation systems, including argon gas-filled double glazing as standard

2 Introducing comprehensive energy-saving solutions

Providing—as standard—high-efficiency air conditioning systems, equipment that uses less hot water, LED lighting equipment, and HEMS (home energy management systems)

3 Utilizing natural energy effectively

Using different types of glass, depending on the direction the window faces, and adapting the design to control solar radiation and optimize ventilation

#### Specific promotion measures

- Developing and operating an in-house program for assessing the implementation rate of net-zero-energy homes
- Actively proposing ZEH subsidies to customers
- · Conducting application of subsidies on behalf of customers
- . Holding study sessions for the application of ZEH subsidies, preparing manuals, etc.

#### Target for FY2015

To have 65% of all new Sekisui House detached homes built to the Green First Zero specification

Greater comfort reen First **Z**EF Conventional Green First model Comfort henefits **Economy Eco-friendly** 

**Greater economic** advantages





Risk management

Reducing the financial burden on homeowners and offering consultation services for achieving comfortable lifestyles

#### Adopting the ZEH model leads to an increase in construction costs

In order to meet the ZEH standards stipulated by the Japanese government, a regular Japanese home must be fitted with additional energy-saving equipment—for example, advanced heat-insulation equipment. In general, Sekisui House homes come standard-equipped with more energy-saving features than homes built by other manufacturers. They therefore require relatively lower additional costs to meet ZEH standards.

ZEH-compliant homes still require higher initial costs compared with conventional homes, and that is why we are working to establish a system to reduce the burden on homeowners. As part of this effort, we are seeking the understanding and cooperation of manufacturers of energy-saving and energy-creating equipment with regard to cost reductions. We have been outlining to them our plans to equip more than half of our newly built homes with Green First Zero features, and we have proposed central purchasing of their products.

The main benefit of a Green First Zero home is that it delivers very low utility costs, thanks to its energy-saving and energy-creating features. We are currently cooperating with energy supply companies to find ways to reduce fuel costs borne by the homeowner.

Changing social conditions leading to a reduction in government subsidies or a decline in the sell-back price of surplus electricity generated by installed solar panels

We train our sales staff to effectively propose to customers the benefits of Green First Zero homes—that is, that they can deliver an economic advantage while providing healthy and comfortable living spaces and contributing to improving inhabitants' lifestyles. Furthermore, we are helping to reduce the financial burden on homeowners by using our designated environmental protection expenses to cover part of the initial costs.



#### Implementing action plans

#### Company-wide promotion of the Green First Zero initiative

Sekisui House began promoting sales of Green First homes in 2009, as the focal point of its CSV strategy. We subsequently launched the Green First Zero model in April 2013, prior to the Japanese government's introduction of a net-zero-energy housing (ZEH) policy that aims to have all new homes built to the net-zero-energy house specification by 2020.

We have been proposing the Green First Zero design to our customers by clearly explaining that this type of housing offers three main benefits: (1) it can deliver a significant reduction in utility costs; (2) it enables the creation of comfortable living spaces; and (3) it embodies future trends in housing

At the same time, we remodeled our showrooms across the country to make them better equipped to demonstrate the advantages of Green First Zero, while also holding

#### **Evaluation**

#### Achieving FY2014 target of 60% for Green First Zero

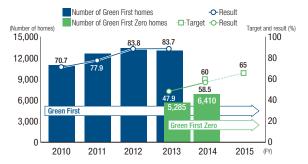
The Green First initiative—the forerunner to Green First Zero was launched in 2009. In FY2012, we were able to achieve that year's target of 85% implementation of Green First designs in new homes. Later, the more sophisticated Green First Zero initiative was launched. We achieved an initial adoption rate of 58.5% of new home builds in FY2014—fractionally short of our 60% target rate. Given that the implementation rate has been rising month by month, we are confident that we are now consistently surpassing our original target rate.

educational seminars for prospective customers at various locations. Compared to houses built in 1990, our detached houses newly built in 2014 emitted 73% less CO2-a reduction of 43,000 t-CO<sub>2</sub>. Note: See page 27 for details on remodeling.

#### Reduction in CO<sub>2</sub> emissions achieved by the Green First strategy\*

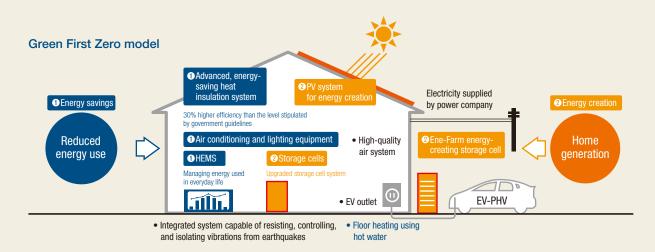


#### Growth in the number of Green First and Green First Zero homes



#### **Advantages**

#### Green First Zero delivers comfort, economy, and environmental performance



Green First Zero aims for energy self-sufficiency without sacrificing the comfort of the living environment. It is designed to offset energy use, even to the point of achieving zero energy consumption. It does this by (1) greatly reducing household energy use compared to conventional levels, through measures such as heat insulation and high-efficiency equipment; and (2) using home generation to create the remaining electricity.

## Action items

For FY2015, we are reviewing the specifications of Green First Zero and enhancing our application system for the Japanese government's ZEH subsidy, so that this type of housing will be more amenable to our customers. Due to a revision of the feed-in tariff system for renewable electric energy, some power companies are placing limits on how much solar-generated power can be sent back to the electrical grid. This revision has necessitated the installation

of additional control functions in our housing, which have been incorporated into our standard nationwide specifications as of April 2015. In the further pursuit of greater energy self-sufficiency, we have developed a new system that automatically charges storage cells when surplus solar energy cannot be sold back to the grid due to output limitations. Energy stored in these cells can then be used in the evening.

#### Green First Zero Receives 2014 Special Jury Award in Energy Conservation Grand Prize Awards

Our Green First Zero housing product, which was launched in 2013 and which embodies a comfortable energy-neutral lifestyle envisaged for 2020, received a 2014 Special Jury Award in the Energy Conservation Grand Prize\* program in Japan. By effectively incorporating energy-saving and energy-creating features that offset energy use while ensuring a comfortable living environment, Green First Zero has proven itself to be a trendsetter for net-zero-energy housing.

\*Organized by the Energy Conservation Center, Japan and sponsored by the Ministry of Economy, Trade, and Industry

#### Comments from a jury member

With this product, Sekisui House aims to boost the proliferation of net-zero-energy houses (ZEH). Sekisui House has developed a tool that allows users to easily calculate energy usage and production levels, so that their homes can meet the ZEH standards outlined in the Japan government's subsidy system (which launched in 2012). Sekisui House has provided a popular model for energy-neutral housing, one that creates added value to offset the increased costs of energy-saving equipment. Harnessing an original and informative standard-equipped HEMS platform, Green First Zero housing offers a highly comfortable living environment coupled with significant reductions in energy costs.

#### Advanced technology of Green First Zero

#### Advanced heat-insulation system for comfortable and healthy lifestyles

Our upgraded heat-insulation system, which is installed as standard equipment, outperforms the level stipulated by the government guidelines by about 30%. Further, we have begun using aluminum-resin composite heat-insulating window sashes and argon gas-filled heat-insulating double-glazed glass in exterior-exposed areas. This



#### Cutting-edge technology: providing our original HEMS service

In collaboration with IBM Japan, Ltd., we have established a HEMS platform that facilitates centralized data management, makes energy consumption more visible to residents, and provides easier access to useful information

(such as gardening tips and security information). Our HEMS platform provides additional value that can improve inhabitants' quality of life.



#### **Energy creation: promoting Ene-Farm fuel cell systems**

With the cooperation of a number of equipment manufacturers and gas suppliers, we conduct customer satisfaction surveys and incorporate the feedback into our operations. In response to customer needs identified through these surveys, we have been providing more thorough explanations of installed equipment and reviewing equipment and fuel costs to minimize the burden on homeowners.



#### Energy creation: improving capacity and reducing costs of solar cells

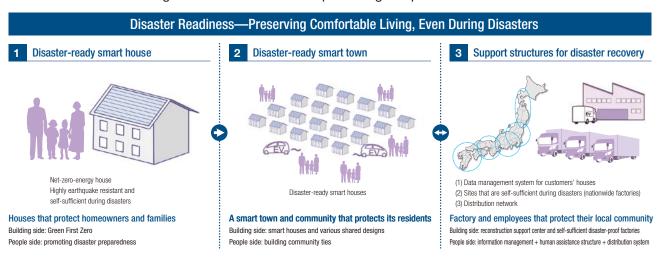
To promote the use of photovoltaic (PV) systems, we have been working with suppliers to improve the performance and reduce the cost of solar cells. As part of our efforts, we have developed a new and economical method of mounting solar cells. We have also been holding seminars and

training sessions to promote customers' understanding of solar power. As a result, the number of solar cells installed on each newly built detached house has increased by 30% on average, contributing to a reduction in CO2 emissions, a lowering of utility costs, and a higher rate of renewable energy use.



## The Sekisui House Group's Housing-Focused Disaster Preparedness Plan

We are strengthening our business continuity plan (BCP) so that it facilitates rapid rebuilding while placing the highest priority on protecting the everyday lives of our customers during times of disaster. At our Tohoku Factory, we have established a Disaster Risk Reduction Factory of the Future plan that turns the facility into a reconstruction site during times of disaster. We are promoting this plan in four other factories nationwide.



#### Learning from the past to develop enhanced disaster-readiness measures

Every three to five years in Japan, there is a major earthquake measuring 6 or higher on the Japan Meteorological Agency's seismic intensity scale. Such major earthquakes are an unavoidable reality that must be factored into the construction and ongoing management of the more than 2.2 million houses that Sekisui House has built in Japan. And given our social responsibility to ensure the safety of homeowners and provide support during emergencies, it is also vital that we continue to strengthen and develop our disaster-readiness measures.

In 2011, an unprecedented number of our customers were affected by the Great East Japan Earthquake. Although none of our buildings collapsed, about 30,000 of them required urgent repairs or restoration work. Meanwhile, the Japanese government had also requested our assistance in the construction of temporary housing. At the time, our workforce of construction personnel in the affected regions was insufficient to meet rebuilding needs on such a tight schedule. We therefore collaborated with building contractor partners nationwide to employ 410,000 workers in reconstruction efforts.

Although we have learned many lessons from other disasters in the past, there are five main points that the Great East Japan Earthquake has highlighted:

- 1) Since natural disasters are inevitable, it is essential that we are mentally and physically prepared for them and that we are ready to work with other organizations and group companies.
- ② Restoration and reconstruction efforts are carried out by people, so it is important to maintain the mental and physical health of our employees, while also securing our facilities and establishing a nationwide support system.
- ③ We can confirm the safety of homeowners as part of our ongoing after-sales services. In addition, we can transport relief supplies and secure necessary fuel and power supplies.
- 4 There is a need to develop a system for rapid restoration and business

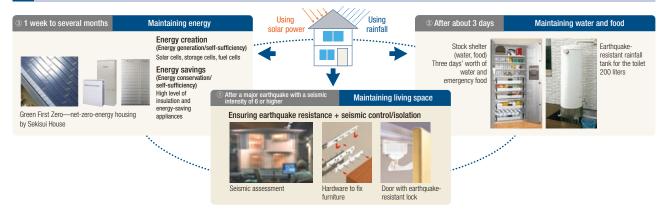
continuity.

⑤ We also need to develop a backup strategy in the event that networks fail or manufacturing and construction systems do not function adequately.

Going forward, the Sekisui House Group will continue to carry out and strengthen activities such as those outlined above. To enable a rapid response during emergencies, we will implement disaster-readiness measures—for example, installing self-sufficient energy-supply equipment—at five factories nationwide that will function as regional recovery support sites. Furthermore, we will promote a Disaster Risk Reduction Factory of the Future plan in which factories can act as shelters for residents during disasters.



#### Disaster-ready smart house: self-sufficient Green First Zero house



Green First Zero smart houses support self-sufficient lifestyles during the three stages of disasters:

- 1) Maintaining living space through advanced earthquake resistance and seismic control technology;
- 2 Ensuring sufficient water and food and using a rainfall tank for toilet water to maintain regular daily lifestyles for at least three days after an
- earthquake strikes, even when distribution channels have been
- ③ Net-zero-energy housing as a foundation for disaster readiness; houses that allow energy to be generated and stored, with energy self-sufficiency supporting daily living until energy infrastructure is restored or stabilized.

#### Disaster-ready smart town operates self-sufficiently even after disaster strikes (Smart Common City Akashidai, located in Tomiya Town, Miyagi Prefecture)

① Spaces are designed to be shared by residents—this includes pedestrian paths, open exteriors, and other free spaces where lights are programmed to turn on in nearby houses during blackouts. Community centers act as disaster relief centers that can be used even during power failures





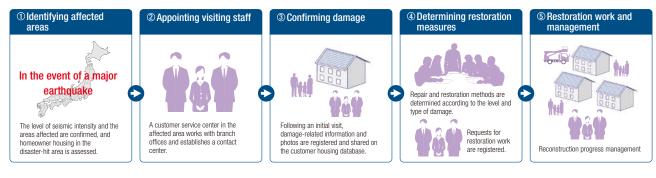
2 Residents and local businesses and organizations jointly plan events such as autumn and harvest festivals. Disaster drills are conducted with the cooperation of the fire department and its squad members. Such activities help residents to appreciate the importance of community,

> while reinforcing concepts of self-help, mutual assistance, and public welfare. Three years after its founding, the Smart

3 Common City Akashidai community officially established its own residents' association. Residents take pride in the community's status as Japan's most disaster-prepared town.



#### Support structure for disaster recovery: establishing a customer data management system and self-sufficient recovery site



- 1 In areas affected by a major earthquake, homeowner information will be obtained from a database (DB). The nearest factory will begin self-sufficient operations as a disaster response site, and stockpiles will be transported from nationwide sites.
- ②Using information obtained from the DB, staff will be appointed to assess the safety of homeowners and the condition of their buildings in affected areas. A hotline and special contact center will be established.
- 3 Damage will be determined and registered in the DB. If required, relief supplies will be provided to the homeowner.
- 4 Restoration methods will be reviewed and finalized. A detailed reconstruction process will be established, using the nationwide
- (5) Restoration work will start. Records of response measures will be stored at branch offices and at the head office.

# Preventing Global Warming through the Collective Power of the Sekisui House Group

#### **Promoting Green First Remodeling projects**

Sekisui House Remodeling makes remodeling proposals to homeowners that help to make their homes more comfortable—now and always. Based on our net-zero-energy housing design, our Green First Remodeling projects achieve energy saving, energy creation, and enhanced comfort. By meeting customer needs for photovoltaic (PV) systems, improved insulation, and high-efficiency water heaters and air conditioners, our remodeling proposals support comfortable, economical, and healthy living. What's more, our proposals help to reduce the amount of  $CO_2$  emitted by a house, making them environmentally friendly. Under our premium specifications, the primary energy used by a house is offset to zero, effectively achieving the kind of net-zero-energy housing stipulated by the Japanese government.

#### VOICE

#### Achieving comfortable and economical living

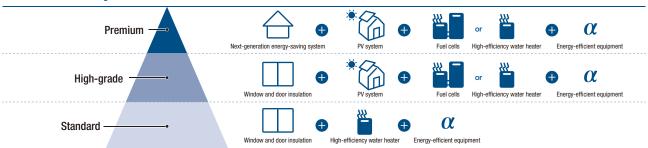
Under the Green First Remodeling initiative, we remodeled our house and installed a PV system, fuel cells, and LED lighting. This drastically reduced our monthly electric bill, showing just how effective the remodeling was in terms of energy savings. Bright LED lighting in the living room has made it a more attractive place for the whole family to get together and chat. And thanks to the meters that make our energy usage visible—even from the bathtub—we all have a better awareness about

energy conservation. It was great that we were able to remodel our house without having to dramatically change our lifestyle.





#### Green First Remodeling



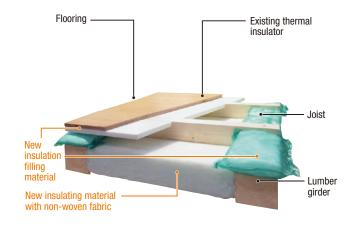
# Development and sales of new underfloor insulation

In July 2014, we released a proprietary method for improving underfloor insulation. This method improves the thermal insulation performance of flooring in houses built in 2000 or earlier, thereby reducing air conditioning costs and lowering energy consumption. An increasing number of our customers are adopting this as a healthy and comfortable lifestyle choice that helps keep heads cool and feet warm. Minimizing the burden on the owner, our patented method enables easy installation without the need to dismantle the floor.

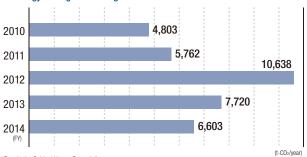
# Energy-creating, energy-saving remodeling achievements\*

Remodeling options for energy savings and energy creation	Results for FY2014
PV system installations	2,990 cases
Energy-efficient bath fixtures	3,956 sets
Window and door insulation	3,842 cases
Ene-Farm fuel cell system	183 units
Eco-Jozu (latent heat recovery gas water heater system)	2,994 units
Eco-Cute (CO <sub>2</sub> heat pump water heater system)	767 units

<sup>\*</sup>Results by Sekisui House Remodeling



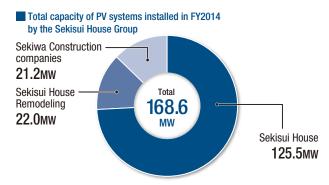
#### CO<sub>2</sub> emission reductions through energy-creating, energy-saving remodeling\*



\*Results by Sekisui House Remodeling

#### Total capacity of Sekisui House Group PV system installations

Sekisui House and 20 group companies, including Sekisui House Remodeling and Sekiwa Construction, cooperate to advance the PV system business, which works to help reduce CO<sub>2</sub> emissions. In FY2014, along with installations on newly built detached homes and Sha Maison low-rise rental apartments, we retrofitted homes with PV systems and installed them on an increasing amount of idle land, often yielding relatively large power outputs of 10 kW or more. We increased our annual PV system installation capacity to 168.6 MW.



#### Japan's first smart, micro-grid-based, disaster-ready eco-town in Higashi-Matsushima

In Higashi-Matsushima City (Miyagi Prefecture), Sekisui House is collaborating in the creation of a "smart town" in which residents can live with peace of mind—a town that is resilient in the face of natural disasters and that contributes to the prevention of global warming by promoting efficient energy usage and lowered CO<sub>2</sub> emissions.

This is the first smart grid\*1 in Japan that incorporates the mutual exchange of energy across properties, including detached houses. Sekisui House constructed 85 public housing units and a micro grid\*2 connected to each facility via a private line. Electricity is supplied through a community energy management system (CEMS) operated by a private-line power producer and supplier (PPS)\*3 that also owns a PV system. Solar power generation has made it possible to achieve an annual reduction in CO2 emissions of 256 t-CO2. Short-term peaks in energy demand are met by a supplemental supply delivered over existing power lines by a low-carbon energy provider located in Higashi-Matsushima. In this way, energy is both produced and consumed locally.

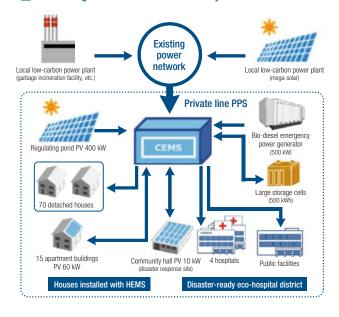
If the main power system is shut down by a natural disaster or for some other reason, the installed PV system, storage cells, and large bio-diesel power generator ensure a normal energy supply for three days. Even during long-term blackouts caused by a major earthquake or the like, PV systems and storage cells can continuously deliver the energy required to run facilities such as hospitals and community

halls. (Tenants are scheduled to move in from August 2015.)

- \*1 Smart grid: a power network utilizing communication and control functions such as smart meters
- \*2 Micro grid: a small-scale energy network
- \*3 Private-line PPS: an electricity operator other than a general electrical utility, which delivers electricity over privately installed power lines



Outline of Higashi-Matsushima Disaster-Ready Smart Eco-Town



#### Key performance indicators (KPIs)

Category	Indicator	Unit	FY2010	FY2011	FY2012	FY2013	FY2014	Definition and remarks	
Global warming prevention	Total energy input*1	TJ	2,872	2,851	2,830	3,542	3,039	Amount of energy input at the various stages of development and design, factory production, transportation, construction, and demolition	
	CO <sub>2</sub> emissions at the various stages of development and design, factory production, construction, and demolition* <sup>1</sup>	t-CO <sub>2</sub>	123,125	119,969	114,780	148,329	126,209	Amount of CO <sub>2</sub> emitted at these stages per fiscal year	
	CO <sub>2</sub> emissions at the transportation stage*2	t-CO <sub>2</sub>	37,886	39,967	38,959	45,815	37,749	Amount of CO <sub>2</sub> emitted at the transportation stage per fiscal year	
	Reduction of CO <sub>2</sub> emissions from the 1990 level (amount)	t-CO <sub>2</sub>	37,468	39,372	42,074	50,256	43,015	Reduction of residential CO <sub>2</sub> emissions from new detached homes in comparison with the 1990 level (amount and %)	
	Reduction of CO <sub>2</sub> emissions from the 1990 level (%)	%	49.4	51.3	55.7	61.5	73.4		
	Proportion of Green First Zero homes	%	_	-	_	47.9	58.5	Proportion among all built-to-order Sekisui House detached homes	
	No. of houses retrofitted with a PV power system		1,634	2,569	7,249	4,155	4,216	No. of existing houses, built by Sekisui House and by other builders, that have been retrofitted with a PV system under our remodeling project	

<sup>\*1</sup> Starting in FY2013, energy input by Sekisui House's consolidated subsidiaries in Japan (40 companies) and Sekisui House Advanced Manufacturing (Shenyang) Co., Ltd. was added to the total energy input



# Preserving Biodiversity

Creating a society where we can live in comfort while preserving ecosystems and natural cycles

Backdrop

#### Material analysis that goes beyond current conditions to assess impacts on stakeholders

When it comes to biodiversity, attention is easily drawn to certain on-site activities aimed at protecting rare species of animals and plants. But if a company is to take social issues seriously, it should strive to maximize its influence on biodiversity preservation through its main business activities. When we analyze our business activities from this perspective, the following two points appear as the backdrop to our biodiversity protection efforts.

## Influence as one of Japan's largest landscape gardeners

Sekisui House is Japan's largest producer of housing. Every year, we plant more than one million trees for homes and streets—more than the total number of trees in the streets of Tokyo. As we are effectively one of Japan's largest landscape gardeners—in terms of both actual trees planted and sales income recorded—our influence is such that our choice of tree species can change trends in the tree production market.

Landscape gardeners typically choose exotic or garden species based on their appearance and ease of maintenance. However, not all of these species are necessarily beneficial to the birds and insects of a given region. That is why it is crucial when selecting tree species to consider the local ecosystem.

#### Influence on an extensive supply chain

The parts and materials used for a single house can number in the tens of thousands. As a leading company in the housing industry—one that procures parts and materials from numerous manufacturers in the supply chain—our supply chain management extends its influence on manufacturers and trading companies even further upstream.

Every year Sekisui House consumes over 300,000 cubic meters of wood, a biological resource indispensible to housing construction. We believe that wood is a material that demands the closest of scrutiny when considering the complexity of its traceability and distribution channels.

Our goal

## Standing apart from other companies by promoting the social and homeowner value of biodiversity

Sekisui House's efforts in biodiversity protection have received much acclaim. We won the highest prize at the Japan Sustainable Management Awards<sup>\*1</sup> for our Wood Procurement Guidelines, an Excellence Award at the Japan Awards for Biodiversity<sup>\*2</sup>, and a Prime Minister's Prize at the Green City Awards<sup>\*3</sup> in recognition of our *Gohon no ki* greenery projects. Our goal is not simply to win awards; rather, we hope that winning these awards will serve as a catalyst for spreading biodiversity protection and deepening its roots in society through our suppliers, and that we can lead the industry and differentiate ourselves from the competition in providing customers with a rich and comfortable lifestyle.

- \*1 Environmental Value Creation Pearl Award, 8th Japan Sustainable Management Awards (sponsored by Japan Sustainable Management Awards Committee and Mie Prefecture)
- \*2 Excellence Award, 1st Japan Awards for Biodiversity (sponsored by the Ministry of the Environment and Aeon Environmental Foundation)
- \*3 Prime Minister's Prize, 34th Green City Awards (sponsored by the Organization for Landscape and Urban Green Infrastructure)

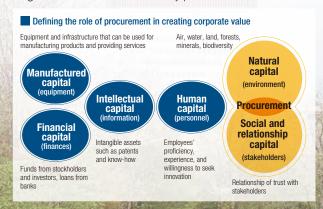
#### Housing as green infrastructure

Recently, the concept of "green infrastructure" is gaining attention as a solution to issues such as risks of natural disasters, deteriorating natural environments, and dwindling communities. The concept involves utilizing the diverse services and multifaceted functions provided by ecosystems to address such problems.

Houses and the surrounding greenery serve as shelters that protect the lives and maintain the happiness of those who live there. But that's not all. By regarding them as a vital part of the urban infrastructure and by redefining them as having the potential to change society, we believe that the value of biodiversity can become more widely appreciated throughout society.

## Procurement as a strategic utilization of "natural capital"

We are acutely aware of our high level of dependence on natural resources, and so we are engaging our suppliers in a long-term scenario for eco-friendly procurement.



Action policies

#### Collaborating with suppliers in protecting biodiversity by quantifying environmental impact of business processes

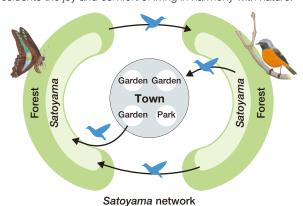
We are focusing on strengthening our suppliers' contribution to biodiversity protection by building relationships of mutual trust with them. This is done through process management and through efforts to enhance our ability to accurately trace biological resources further upstream in the supply chain.

#### Gohon no ki landscaping concept

Promoting tree species that are suited to local ecosystems

The concept of the Gohon no ki landscaping project, which the Sekisui House Group launched in 2001, is to promote gardening and landscaping in a way that can support local ecosystems and foster living creatures. For this reason, we are planting mainly indigenous species as opposed to exotic or garden species.

When starting this project, we sought the cooperation of local tree growers and landscapers. We asked them to grow indigenous species, because at that time few such species were available on the market. Having secured a stable supply of indigenous species, we are now working to communicate to residents the joy and comfort of living in harmony with nature.



Small gardens in urban areas can play an important role in maintaining local ecosystems

#### Promoting the use of FairWood

Each year we conduct procurement surveys on roughly 60 suppliers of wood materials. We ask them to report the place of production and the attribution of procured wood, while also confirming its legality. Based on our guidelines, this information is converted into numerical data, which is then used to manage ongoing progress in this area.

Through these efforts, suppliers can enhance awareness of their own procurement routes. Trading companies further upstream in the supply chain also become ever more aware of fair procurement. As a result, the use of FairWood\* becomes widespread.

\*FairWood is wood sourced with consideration to the natural forest environment and local communities of where it is logged. It is advocated by the Global Environmental Forum and FoE Japan, an international environmental protection NGO





Adopting a cooperative, advisory role



No manufacturer can truly establish relationships of trust with its suppliers if it only makes one-sided demands regarding quality, cost, and delivery time. Recognizing that the role of a manufacturer must change over time, we are promoting efforts to deepen the cooperative relationships we have with our suppliers so that, through our business activities, we can share a common sense of purpose and work together to address social problems such as the loss of biodiversity.

#### Risk management

#### Securing influence based on the premise of a long timeframe for natural capital and for ecosystem services to mature

#### Gohon no ki project

Gohon no ki may lose its distinctive advantage as competitors follow suit



Taking advantage of the longstanding relationship we have maintained with a network of tree growers, we are striving to focus on species that meet market needs. We are also holding study meetings to improve the ability of our employees to persuade customers of the benefits of our recommended designs. Furthermore, we are reinforcing our landscaping construction system to provide a higher level of exterior design for our customers. Through these activities, we endeavor to differentiate ourselves from our competitors.

#### **Expected benefits**



In accordance with our SLOW & SMART brand vision, which we launched in 2012, we have been striving to communicate to our customers the comfort of living close to greenery—a benefit made possible by our large sash frame doors. We define these lifestyles as "slow living," and we have been actively promoting greening as an essential part of such lifestyles. Doing so not only helps us differentiate our homes from those built by our competitors; it also adds value to homes

#### Wood procurement

Tightening regulations threaten our ability to ensure a stable wood supply



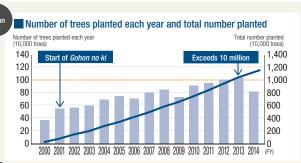
In many cases, local environmental NGOs have the latest information regarding logging restrictions. Since we have ties with a network of globally operating environmental NGOs, we can promptly obtain such information and share it with wood suppliers so that they can make preferential supply arrangements for us as needed.



We can be well prepared for any future tightening of regulations regarding the traceability of traded wood (for example, in the EU's Timber Regulations or in the United States' Lacey Act). By being informed of the status of each supplier ahead of our competitors, we can request them to make preferential supply arrangements for us. These guidelines also help us formulate rules when we begin doing business with new suppliers.

#### Achievements

#### 1 Ecosystem-friendly Gohon no ki landscaping project



The cumulative total of trees we have planted under the *Gohon* no ki project exceeded 10 million in FY2013. In FY2014, the number of trees we planted was 810,000, a figure affected by a decrease in detached housing starts. But as a result of an increase in exterior construction and landscaping for rental housing, annual sales of our landscaping business-which includes tree planting—reached 58.3 billion yen, an increase over the previous fiscal year.

A decrease in the number of detached housing starts affects the number of trees planted—this is an unavoidable fact. But recently, customers have come to appreciate the benefits that greenery provides—such as comfort, a distinctive appearance, and townscapes that grow more attractive over time—even for collective housing and rental housing. Previously, greenery for collective housing and rental housing was considered a disadvantage, due to initial costs and management costs. As we become more adept at recommending greenery-rich designs to customers, we will keep working to propose further value.

#### 2 Implementing the Wood Procurement Guidelines

In 2007, Sekisui House became the first company in the Japanese housing industry to formulate guidelines for wood procurement, and we began by requesting our suppliers to follow these guidelines. Today, when asked in procurement surveys where the logging source is for their wood material, almost no supplier responds "Unknown." We feel a positive change in suppliers' awareness of fair wood procurement. Unfortunately,

there are still cases where it cannot easily be determined whether or not a shipment is in line with the Wood Procurement Guidelines—for example, poplar plantations in China, large-scale tree planting in Oceania, or new logging areas where information is still scarce. We therefore consult closely with specialists and environmental NGOs, and, when necessary, we visit the location to see it for ourselves.

#### Wood Procurement Guidelines: 10 Principles (revised in FY2012)

- O Source wood products from areas with relatively low risk of illegal logging.
- Source wood products from areas without sensitive ecosystems.
- 3 Do not source wood products from areas where local ecosystems are seriously damaged due to large-scale logging of natural forests
- Do not use endangered species for wood products.
- 6 Minimize CO<sub>2</sub> emissions when producing, processing, and transporting wood products.
- 6 When logging wood products, avoid conflict with local communities and refrain from unfair labor practices.
- **7** Source wood products from areas of controlled logging, so as not to exceed the rate of forest regeneration.
- 8 Source wood products from domestic forests where well-planned forest management is in place to conserve ecosystems
- 9 Source wood products from plantation forests that are managed so as to promote conservation and ecosystem development.
- 10 Use recyclable wood building materials.

In FY2014, the combined proportion of Rank S and Rank A wood exceeded 90% for the first time, a figure we had previously set as a management objective. The proportion of the highest-marked Rank S wood increased by 8 points to 71%.

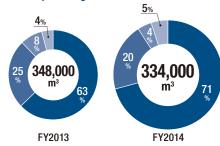


#### Ranking wood products according to their level of compliance with the procurement guidelines

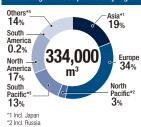
Depending on their total score, procured wood products are classified into four ranks, from high to low: S. A. B. and C. Minimally acceptable scores are set for Guidelines 1 and 3, as we place a high priority on these two items

Total score (maximum 43 points)	Rank
34 and above	■ ····· S
26 to 33	A
17 to 25	■ ····· B
Below 17	C

#### Shift in percentage of each rank



Percentage of wood products by region



- \*3 Incl. Indonesia, Malaysia
- \*4 Incl. Africa (incl. waste wood)

#### Activity report

#### Preserving biodiversity by utilizing the Common's townscape assessment system

Sekisui House formulated the Urban Development Charter in 2005 and began Community Visiting Day events in 2006. Through these efforts, we have always striven to constantly create townscapes that are rich in greenery and that grow more attractive over time—high-quality townscapes throughout Japan that lead to enhanced corporate value. However, we found some cases, located on mid- to small-scale residential lots and on lots for ready-built houses, that could benefit from improved

biodiversity and landscaping.

To ensure that Sekisui House townscapes are maintained at a high level, we formulated the Common's townscape assessment system in 2014. This system comprises objective assessment criteria including those that cover the Gohon no ki project. We assessed 42 of our residential subdivisions during Community Visiting Day events in fall 2014, and those with a three-star ranking or higher accounted for over 80% of the total.

#### 5-rank assessment, with 3 stars or more the norm

#### Assessed items

#### Gohon no ki project

#### **Building and exterior planning**

- Five trees
- Symbolic tree
- Green coverage percentage
- Percentage of greenery visible to one's eye
- Building design
- Exterior design
- · Retaining wall or fence by roadside
- · Floor finish by roadside
- · Boundary finish of adjacent land by roadside

Assessed in 5 ranks, from 1 star to 5 stars

Residential subdivisions with at least 10 lots should aim for at least a 3-star ranking



Common Stage Shikido in Oita Prefecture was given a 5-star ranking

#### Key performance indicators (KPIs)

Category	Indicator	Unit	FY2010	FY2011	FY2012	FY2013	FY2014	Definition and remarks
Biodiversity	No. of trees planted per year	10,000 trees	91	96	101	106	81	No. of trees planted per year under our gardening and greening plan
preservation	Proportion of Rank S and Rank A wood products as defined by the Wood Procurement Guidelines	%	87	85	89	88	91	Based on the results of our survey of about 60 suppliers of wood products

#### VOICE

#### I commend Sekisui House for taking an advisory role as part of its advanced supply chain management

The Gohon no ki project and the promotion of the use of FairWood achieve a balance between the preservation and use of natural resources, and they represent a comprehensive effort to preserve biodiversity. Sekisui House's Wood Procurement Guidelines contribute to the preservation of forests, which are crucial in preventing the decline and deterioration of existing biodiversity. The high level at which Sekisui House aims to implement these quidelines has an influence on the entire housing industry an industry that procures and uses wood-and it contributes greatly to the industry's overall goal of fair procurement.

Of note is how Sekisui House is achieving a high level

of supply chain management by playing an advisory role in the industry. The company sees the various certification systems that are in widespread use in various areas of the industry as tools to enhance quality. Utilizing these tools clarifies the direction the company should take, and because Sekisui House is making full use of these tools, it can act as advisor to other companies in the industry.

I would like to see Sekisui House keep up its sincere efforts in implementing the procurement guidelines and go one step further to achieve true sustainability.



FoE Japan (international environmental protection NGO) Junichi Mishiba, Secretary General



# Improving Production and Construction Quality

Achieving maximum customer satisfaction with the highest levels of quality and technology

#### Backdrop

## Construction workers now fewer and older—a nationwide problem

Of all the countries in the world, Japan is one of the most prone to natural disasters. It is therefore the social responsibility of the housing industry to protect the lives and property of its customers. At Sekisui House, it is our mission to provide quality housing that ensures safety, security, and comfort for successive generations of residents.

Meeting customer needs with the highest levels of quality and technology is the corporate philosophy of the Sekisui House Group. In line with that philosophy, we have been striving to win customer confidence and achieve customer satisfaction by providing the highest level of products and services in every step of our operations: from sales, design, and production to construction and after-sales services. And since we deal in industrialized housing—residential structures constructed from factory-made modular components—it is especially important that we maintain and improve the production and construction quality of our houses.

Before they are delivered to the construction site, our factory-made housing components repeatedly undergo a wide range of inspections according to our strict standards. And since most of the components used in our housing construction are factory-made, we can ensure the quality and precision required for achieving our houses' targeted functionality.

In the end, however, it is people who assemble these components into houses at a construction site. To ensure that our houses will function as designed, according to specifications, we must secure skilled construction workers and we must strictly inspect the quality of factory-made components as well as the quality of on-site construction work. Without an integrated system for ensuring high quality and precision throughout the entire housing process—from performance design and component production to construction—the advantages of industrialized housing cannot be fully utilized.

As houses become more and more functional, the demand for higher-performance housing components is also increasing. At the same time, the workforce in the Japanese construction industry is aging rapidly, with one in three workers now aged 55 or above. As these older workers retire, the decline in the number of construction workers is expected to continue. In light of these trends, it is critically important to recruit and train new employees while also improving the workforce retention rate.

#### Our goal

Creating the highest possible quality for maximum customer satisfaction by leveraging our production and construction capacities



Cooperating with partner companies in establishing a system that allows us to continually secure skilled workers and ensure a stable supply of quality housing

#### • Main stakeholders

Customers, employees, partner companies (for procurement, processing, distribution, and construction), factories, and residents living in the neighborhoods surrounding our construction sites

#### Organization

Our Production Department is responsible for planning and coordination, while our five factories across Japan are responsible for production, procurement, shipment, and quality control. Our Construction Department is in charge of construction-related issues ranging from quality control, R&D, and training to safety, hygiene control, and welfare programs at construction partner companies. Our sales, technology development, production, construction, and system departments join forces with group companies and partner companies to achieve higher levels of production and construction.

Since our foundation, we have maintained close ties with the Sekisui House Association, a voluntary organization comprising 20 Sekiwa Construction companies and around 7,000 building contractor partners. Sekisui House and the Sekisui House Association work together in their respective regions to promote various initiatives, such as enhancing construction quality, addressing the needs of customers, communicating with residents living in the neighborhoods of construction sites, implementing thorough safety measures, keeping construction sites clean and tidy, developing human resources through training, and improving workplace environments.

#### Risk management



#### Sharp increase in cost of materials



- Increasing yields
- Improving production efficiency
- Using new or alternative materials

#### Shortage of workers

- Automating production lines to accommodate a reduced workforce
- Reducing production lead times
- Increasing prefabrication to reduce the workload at construction sites
- Promoting a just-in-time distribution system to improve work efficiency at construction sites
- · Rationalizing construction schedules and promoting effective use of the workforce through efficient allocation of human resources
- Training young technicians at schools to ensure a competent workforce
- Developing multi-skilled technicians capable of working flexibly in various fields of expertise
- Boosting the retention rate of employees by improving the workplace environment, enhancing welfare programs, and providing support for training and qualification tests
- · Accepting foreign trainees

#### Implementing action plans

#### Automating the production of main structural components and exterior walls

Since we build detached houses to specifications tailored to each customer, the components we use also differ from one house to another. By automating our production lines, we strive to ensure a stable supply of components that excel in performance, quality, and precision. That, in turn, enables us to fully utilize the benefits of industrialized housing to accommodate a wide variety of customer-specific design needs.

In 2010, we automated the production line for the NewB System structural component at our Shizuoka Factory (Kakegawa City, Shizuoka Prefecture) by introducing 127 industrial robots. As a result, the rate of automation has increased from 60% to 95%, allowing us to operate the production line around the clock and to establish a build-to-order system for accommodating customer-specific designs. Furthermore, as the new system enables component production to be optimally timed to match the construction schedule, it helps improve efficiency in both shipping and construction. In 2013, we introduced a similar robotized line at our Kanto Factory (Furukawa City, Ibaraki Prefecture). With a system for mass production in place, in March 2014, we unified construction methods for steel-framed two-story houses under the advanced Universal Frame System, which incorporates our NewB System.

We also produce, on a house-specific basis, our original Dyne Concrete exterior-wall component, which is made using unique raw materials and production methods. Thirty years ago, when Dyne Concrete was first



Coating line for Dyne Concrete applies 4 layers of coating to enhance durability and weatherability

#### Shortage of trucks and drivers

- · Centrally controlling delivery schedules
- Establishing a line-haul system centered on distribution bases, along with a local distribution system
- Increasing the operating rate of existing trucks
- Optimizing the distribution system, including deliveries from component
- · Reducing the workload of drivers (implementing labor-saving measures, shortening driving distances)

## 4

#### Quality risks

- Promoting quality risk management
- Boosting the quality of components and construction by cooperating with partner companies
- Operating a group-wide construction quality control system

#### Natural disasters

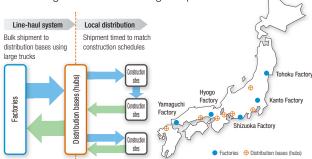


- · Promoting our business continuity plan (BCP) in cooperation with partner companies
- Establishing a post-disaster reconstruction system in cooperation with the Sekisui House Association
- Using factories as makeshift shelters and stocking them with emergency supplies
- · Promoting the Disaster Risk Reduction Factory of the Future plan, a joint public-private project for community-based disaster preparedness

developed, it was manufactured almost completely by hand. Since then, we have upgraded and streamlined the production line. In 2010, we introduced 17 industrial robots at our Hyogo Factory (Kato City, Hyogo Prefecture) for mass production of Dyne Concrete. By continually improving production systems and making effective investments in plant and equipment at other factories as well, we are aiming for further production efficiency and higher quality.

#### **Expanding distribution networks to achieve** higher efficiency

Sekisui House operates distribution bases in seven locations across Japan: Kanagawa, Niigata, Aichi, Shiga, Osaka, Okayama, and Fukuoka. Housing components built at our factories are gathered at these distribution bases, where they are sorted and then shipped to the appropriate construction sites. We are implementing a just-in-time inventory system that allows us to adjust the schedule and quantity of component shipments on an on-demand basis to optimally match construction schedules. Furthermore, trucks dispatched from these distribution bases make rounds to collect waste materials and tools from each construction site and bring them back to the bases. To increase work efficiency at construction sites, the distribution bases are also used for assembling some of the housing components.





#### Developing and implementing an industry-first liquefaction countermeasure for housing

One of the effects of the 2011 Great East Japan Earthquake was soil liquefaction that damaged many homes, including some built



Conceptual diagram of SHEAD

on reclaimed land in the Tokyo Bay area. In response, Sekisui House pushed forward with R&D into a liquefaction countermeasure that could be applied to detached houses and rental housing with four stories or less. By April 2014, we had developed the SHEAD method and established a system

for delivering it in response to customer requests.

SHEAD is a soil reinforcement method that involves injecting a series of stone columns in the ground (using a deep mixing process) to create subterranean walls that enclose and bind the soil into a grid pattern. This method mitigates soil deformation during earthquakes and inhibits liquefaction of the soil in the grid. As well as preventing buildings from sinking and tilting, SHEAD reduces damage from sand boils and water spouts.

The SHEAD method is an application of the grid-pattern soil improvement technique, which has a proven track record of preventing liquefaction in large-scale construction enterprises such as civil engineering projects and large buildings. In adapting SHEAD so that it would be similarly effective for small housing, we established a new design method and a new construction method that uses small-scale soil improvement equipment. With SHEAD, we are now able to provide an affordable full-fledged liquefaction countermeasure for houses.

#### Strengthening on-site competence through prefabrication

To enhance our construction capacity, it is essential to provide environments where personnel can work comfortably and efficiently. To this end, Sekisui House departments are working together to strengthen on-site competencies. We have analyzed and categorized the roughly 700 requests for workplace improvements we have received from construction sites across the country, and we have devised and implemented improvement measures in order of their urgency and importance.

As part of our efforts, we have significantly increased the rate of prefabrication-including precutting, presetting, and partial

assembly of components—to minimize the need for on-site component processing and to ensure consistent construction quality. Minimizing on-site processing not only helps us to save energy, it also serves to minimize the environmental



To reduce the workload at construction sites, metal fittings

impact on neighborhoods—for example, by reducing airborne dust. In addition, we are enhancing construction efficiency through measures that include reorganizing our split delivery system (which involves subdividing delivery routes) and promoting floor-specific delivery and customer-specific labels for interior materials used in the construction of Sha Maison apartments.

#### A work schedule system that maximizes construction competence

We have developed a work schedule system as a tool that enables

us to plan lean, achievable schedules and allocate human resources where and when they are needed, thereby maximizing construction competence. As a mechanism that supports work planning, the work schedule system includes two important functions: one for easily generating schedules for each customer and another for identifying the workload for upcoming projects.

The work schedule system allows us at an early stage to ascertain the required workforce for a given type of project. As work schedule information can be shared across all Sekisui House branches, any branches located near one another can check their respective work volumes and, where necessary, provide mutual personnel support. We are putting this schedule system into practice throughout Japan, with the aim of reducing worker vacancy days and maximizing income.

#### Training young technicians at school

To maintain quality and further improve our construction capabilities into the future, Sekisui House runs the East Japan Sekisui House Training School (which has been approved by the governor of Ibaraki Prefecture) and the West Japan Sekisui House Training School (which has been approved by the governor of Yamaguchi Prefecture). New employees of Sekiwa Construction companies and of our building contractor partners receive training on construction methods, business practices, and etiquette. They are groomed to be technicians ready for active duty on the front lines of the construction business.

What distinguishes our schools from others is the fact that students acquire not only the knowledge and skills required for

housing construction, but also an insight into a corporate philosophy oriented towards delivering greater satisfaction to customers. In FY2014, a total of 91 people completed their education at these schools. Those who have completed the training course are promptly put to work around Japan as skilled construction workers and construction site managers.



On-site training for slinging

In response to the growing number of enrollees, we reopened the Central Japan Sekisui House Training School (which has been approved by the governor of Shiga Prefecture) during FY2015.

#### My Idea-21 - Proposals for improving construction

My Idea-21 is a system we started in 1988 as a way for employees and building contractor partners to submit their suggestions for improvements. Sekisui House gives recognition and support to ideas covering a range of areas, such as improving the competence of construction workers or raising customer satisfaction levels. Once a year, the company solicits ideas for practical improvements in construction methods and new architectural techniques. An impartial panel of judges rates the ideas and awards the best submissions a certificate and a monetary reward.

The 27th edition in 2014 saw 1,185 ideas come in from across Japan. Two Gold, nine Silver, one Environmental Bronze, and 31 Bronze awards were given out. Through this system, we have received a total of 48,463 proposals, many of which have given rise to new tools, equipment, and construction methods. Some have become commercially available, and for some we have obtained

## Improving Production and Construction Quality

patents. Award-winning ideas are introduced in our Tsuchioto newsletter and on our company intranet, so they can be shared by everyone at our construction sites and among our employees and building contractor partners across Japan.





This bracket for fixing scaffold planks won a Gold prize This wall-fixture plate also won Gold

Key performance indicators (KPIs)

	FY2012	FY2013	FY2014
Per-capita productivity (factory shipment value ÷ number of workers)	100.0	110.1	99.8*
Number of construction workers (foundations, construction, carpentering)	10,249	10,899	10,518
Number of technicians who completed training course at school (cumulative total)	2,208	2,294	2,385
Number of certified Sekisui House Senior Technicians (cumulative total)	14,301	14,458	14,607
Number of certified Construction Meisters	205	312	318

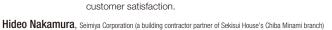
<sup>\*</sup>Reduction due to decrease in shipped houses and surface area

#### VOICE

#### Winning the Gold prize at the 27th My Idea-21 contest (2014)

The bracket I designed for fixing scaffolding planks lets you easily fix a plank to a ladder with a single touch and without the use of a fixing band. It gave me my second consecutive Gold prize, following the one I won in 2013 for an inner-wall-frame mounting jig. I'm honored to receive such high recognition.

I'm constantly trying new things to improve the efficiency and safety of construction work. When I have free time. I visit DIY stores and hardware stores to look for hints. I'll keep up this work so I can contribute in any way to raising the level of quality and boosting customer satisfaction.





#### TOPICS /

#### Is Series - 30 years on and better than ever

The Is Series is a brand of high-quality, high-performance, steel-framed detached housing that incorporates Dyne Concrete, our top-quality originally developed exterior-wall material. Since the debut of the series in 1984, we have built more than 70,000 Is Series houses. The Is Series has become a long-selling brand in the housing industry

In 2014, to mark the 30th anniversary of the Is Series, we boosted

its basic performance and thereby raised its value as housing stock. This was achieved in part by adopting the Tough Clear 30 Hybrid photocatalyst for the exterior coating to improve resistance to grime buildup. The coating's high level of weatherability and durability allows these houses to go



This earthquake-resistant house reflects our "slow living" concept, with spaciousness made possible by wide windows and doors

30 years without the need for exterior maintenance. For the houses' construction, we employed the advanced Universal Frame System, which incorporates our NewB System. This gives houses the highest level of earthquake resistance achievable under Japan's housing performance indication system and also gives architects a degree of design freedom.

Thanks to these improvements, Is Series houses feature attractive exterior designs that homeowners of successive generations can cherish. Is Series houses can also accommodate designs with large, open interior spaces, wide windows and doors, and spacious double-height ceilings. And superb heat insulation gives these houses a higher-than-usual level of comfort. Through the evolution of the Is Series, we are working to spread the adoption of houses that provide customers with high asset value and that are highly valuable as housing stock.

#### New construction method for Shawood wooden-frame houses

After developing a new construction method for wooden-frame houses called Hybrid S-MJ, we began employing it in all of our new wooden-frame houses starting late August 2014. The Twin SP Wall used in Hybrid S-MJ is a bearing wall (brace) boasting the highest strength in the industry; it is twice as strong as our previous S-MJ method and four times stronger than conventional construction methods. It owes its strength to double-layered structural plywood and high-load-bearing connecting metal joints.

Hybrid S-MJ also includes the Shawood Hybrid Structure, which provides the rigidity of a monocogue structure along with the benefits made possible by a rigid-frame construction—that is, wide, spacious openings. Previously, the use of bracing boards and wooden rigid-frame posts in the same building was not permitted, owing to differing levels of deformation in the two components under simultaneous horizontal loads, such as those from a seismic force. But under our new construction method, braces and rigid-frame posts exhibit the same level of rigidity. It is the only method in the industry that has been approved for use in wooden-frame houses, having been officially certified as meeting Japan's Building Standards Act.

We also developed the Hybrid SR Floor Beam, a structural

component that integrates engineered wood and steel and that offers a high level of rigidity under loads applied from above. With the new Hybrid S-MJ system, we are able to build earthquake-resistant houses with a very high degree of design freedom. This includes houses on land with strict architectural demands and in areas prone to heavy snowfall, as well as three-story houses that require greater levels of structural strength.



Wooden rigid-frame construction allows sides and a large built-in garage

# Extending the Lifespan of Houses and Enhancing After-Sales Service

Helping to build a society in which houses support generations of affluent living, based on eco-friendly use of resources

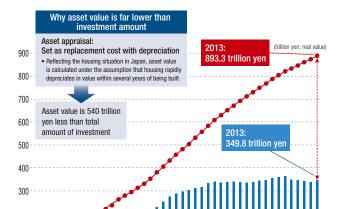
## Backdrop

#### Raising the asset value of houses in Japan and turning them into assets that benefit people and society

As of 2013, the appraisal value of housing stock in Japan was about 350 trillion yen-roughly 540 trillion yen less than the total housing investment figure of 890 trillion yen. What this means is that housing in Japan, unlike that in North America and Europe, is generally not an appreciating asset. Given that housing is typically the bedrock of a household's assets, the low asset value of houses in Japan represents a loss not only in macroeconomic terms, but also in the way it affects people's lives.

As more quality housing stock is brought to market and as housing appraisal values rise, senior citizens will have greater security regarding their retirement living expenses and young adults will be able to reduce their rent payments either by choosing housing that suits their life stage or by living in multigenerational homes.

For the aforementioned reasons, there is growing demand for housing that has excellent functionality, that is well maintained, and that can last for generations.



Total amount of housing investment and housing asset value in Japan

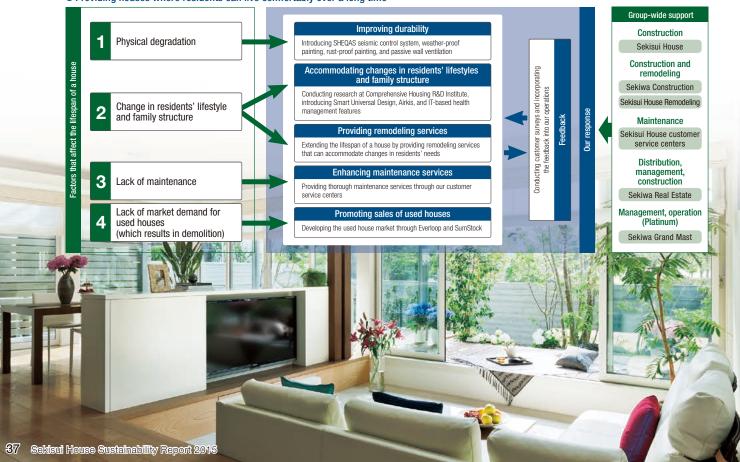
Source: FY2013 "Roundtable on Stimulating the Resale Housing Market" Report, Ministry of Land, Infrastructure, Transport, and Tourism

1985 1989 1989 1993 1995 1997 1997 2003 2007 2009

#### Our goal Enhancing the quality of diverse lifestyles by providing homes that are flexible and durable

We are striving to raise the asset value of houses by turning them into long-lasting social assets. To this end, we are boosting the basic performance of houses—for example, by increasing their resistance to common natural disasterswhile also making them flexible enough to readily respond to changes in residents' lifestyle and family structure.

#### Providing houses where residents can live comfortably over a long time



## policies

#### Leveraging the synergy of our group companies to address customer needs and enhance the asset value of the houses we build

We are making our houses more long-lasting by boosting basic housing performance through cooperative initiatives in the supply chain—this is one of the advantages of industrialized housing. At the same time, we are addressing

customer needs by leveraging the synergy of our group companies to provide meticulous service throughout the life cycle of a house in the form of maintenance, renovation, remodeling, and relocation.

#### 1 Ensuring customer safety and peace of mind through superb housing performance

Believing that housing should serve as a form of shelter to protect residents' lives, health, and property, we uphold voluntary criteria that exceed the stipulations of laws and regulations.

#### SHEQAS seismic control system

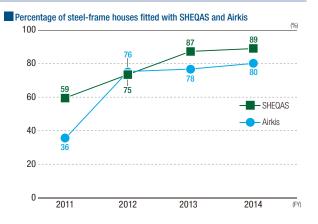
SHEQAS, accredited by the Ministry of Land, Infrastructure, Transport, and Tourism, converts seismic waves into heat energy to absorb building vibrations and reduce building deformation by approximately 50%.

#### · Airkis high-quality indoor air system

Airkis reduces indoor concentrations of five types of chemical substances that are the main causes of sick building syndrome. These substances are reduced to less than 50% of the levels stipulated by the Japanese government guidelines to protect children's health.

#### Dedicated maintenance structure

We believe that the quality of after-sales support is very important, considering that a house can last as long as 100 years. That is why we have assigned 1,400 employees roughly 10% of our entire workforce—to customer service centers to provide support to customers across Japan. Because these customer service centers are operated by Sekisui House, we are able to quickly incorporate customer feedback into product development and management systems.



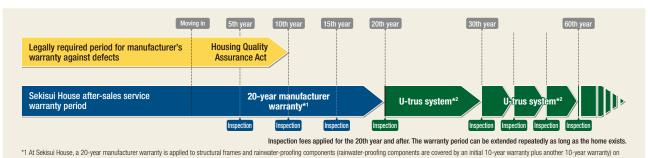
#### 3 Group-wide efforts in offering the best comfort possible

Houses can be used for several generations. As times and lifestyles change, so do residents' demands for comfort and convenience. Sekisui House group companies work closely together to accommodate customers' needs for renovation and remodeling. Our efforts to meet these needs range from adding energy-saving features to performing large-scale renovations.

#### 4 Asset values enhanced by long-term warranty and housing history information system

We operate a long-term warranty system that includes a 20-year warranty applicable to the structural frame, along with other warranties that apply to each housing component for a specified period of time. Owners of houses whose after-sales service warranty period has expired can sign on to our U-trus system. This provides extended warranty at 10-year intervals, on the condition that required inspections, maintenance, and repairs are conducted at the homeowner's expense.

A house is composed of tens of thousands of components. To keep track of them all, the Sekisui House Group operates a housing history information system—which corresponds to the Long-Term Quality Housing Certification Program in Japan-to share across group companies construction information and other information in digital form. To accommodate smart houses, which optimally control a household's energy usage, we are working towards the centralized management of PV systems, fuel cells, storage cells, home appliances, housing equipment, and electric vehicles. We are also working to create a network that will enable homeowners to access registered information on their computers.



ndition that free inspections be conducted and maintenance/repairs be made at the homeowner's expense upon expiration of the first 10 years



#### Risk management

#### Shrinking of the market for new houses due to longer-lasting houses



#### Extending the lifespan of houses may reduce market demand for new houses



Presently, our share of Japan's housing market is 5% strong. However, as more people become aware of the asset value of quality housing, we expect that our ability to produce attractive products and provide effective solutions will enable us to expand our market share. To this end, we are striving to cater to the individual needs of homebuyers with varying lifestyles and family structures.

#### Difficulty in differentiating ourselves from countless other remodeling companies

#### Competition may intensify in the remodeling market



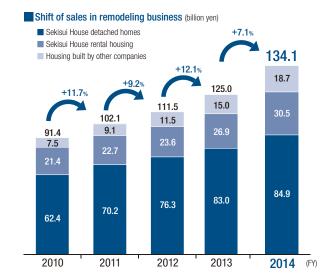
Because we keep customer-specific information in our database, we are able to propose remodeling and maintenance services to homeowners in a timely manner. We also have an advantage over our competition in the sense that homeowners are more likely to trust remodeling and maintenance services provided by the same company that built their home. And by making bulk purchases of the latest home equipment, we are able to incorporate it into our remodeling plans without placing an excessive cost burden on customers.

## Achievements

#### Expected benefits

We are aiming to transform Japanese housing culture with long-lasting homes that become community assets—just like in European countries. At the same time, we are aiming to raise the value of our houses by offering remodeling services with the latest technology to promote comfortable living-now and always.

By establishing solid and ongoing relationships with homeowners, we are able to offer them proposals aimed at accommodating changes in their family structure or stage of life. This also contributes to the stability of our business operations and to the enhancement of our brand value.



#### **Future developments**

Sekisui House has links to its customers through the 750,000 detached houses and the 210,000 rental houses and apartments we have built. We strive to effectively meet the changing needs of these customers by continuously improving synergy among Sekisui House Group companies.

One way we are doing this is by engaging in creative partnerships with state-of-the-art technology companies to accelerate the pace of R&D into the practical application of robotic technologies. The goal is to provide a higher quality of home living for the elderly and the disabled.

But while we want to use technology to lessen the

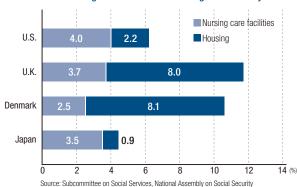
burden on caregivers, it is important that this technology has a warm, human face. That is why in April 2014 we began collaborating with Muscle Corporation, an Osaka company specializing in health care equipment, on joint research and field testing aimed at bringing technologies into homes and nursing care facilities. This joint effort has two goals: (1) introduce in-home nursing care for the elderly with user-friendly robotic technologies; (2) create a comfortable, natural nursing care environment in the home by having robots and humans each perform the tasks they are best at.

## Extending the Lifespan of Houses and Enhancing After-Sales Service

#### Platinum Business

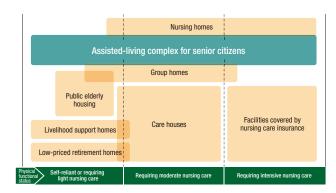
Japan's system of special-care nursing homes and other facilities for the elderly is similar to that of other countries despite the country's rapidly growing elderly population. However, this has not kept pace with the

Allotment of nursing care facilities and housing for the elderly



demand for housing for the elderly. It is up to housing manufacturers to provide society with housing and housing services that ensure the elderly can live in safety and peace of mind.

Positioning of elderly care housing and facilities in Japan



#### Establishment of operation and management company Sekiwa Grand Mast, Ltd.

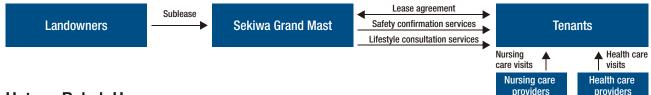
As part of Sekisui House's Platinum Business, in November 2014 we established Sekiwa Grand Mast, Ltd. to provide the elderly with an independent lifestyle they could call their own.

Rental housing buildings called Grand Mast are rented to tenants by the buildings' owners, who Sekiwa Grand Mast provides with total support in the form of building management, subleasing, management consulting, and coordination of various service providers. This allows Grand

Mast building owners to more smoothly take care of the business of running their rental housing.

In the area of special housing products such as assisted-living complexes, we are improving on our operation and solution capabilities so that we can earn the further trust of customers and provide the meticulous services needed by the growing number of senior citizens who use rental housing.





#### **Hatano Rehab Home:** assisted-living complex provides health and nursing care

Sekisui House is now offering assisted-living complexes for the elderly that provides a range of services through a combination of conventional small-scale, multi-purpose nursing care facilities and regular nursing care visits.

Besides lifestyle consultation and safety confirmation, this housing provides tenants with a wide range of services, including day care and health care, in the comfort of their homes and in the region where they want to live, thus meeting all their needs for the remainder of their lives.

This type of housing complex allows landowners to utilize the land the way they want, and it allows nursing care providers to contribute to local society and earn the trust of communities. It also provides landowners with a stable income over the long term. These assisted-living complexes are the culmination of the expertise and solution capabilities that Sekisui House has built up over years of experience in housing for the elderly.

Celeblio assisted-living complex for the elderly (45 units; Hiroshima City, Japan)









## Bringing Quality Housing Stock to Market

#### Making quality housing stock widely available

The Sekisui House Group has long been committed to raising the quality of housing and extending its service life. That is why we actively participate in the Provision of Quality Housing Stock Association, an organization that aims to revitalize the circulation of high-quality housing stock and create a well-organized market for reselling homes. The association includes nine other housing manufacturers and is headed by Sekisui House Chairman Isami Wada.

The association has created a definition for high-quality housing stock, which it terms "SumStock." A house must fulfill three conditions to be designated as SumStock. Under an appraisal method adopted by all member companies and based on the three SumStock conditions, SumStock salespersons certified by the association handle appraisal and sales of used houses. A house's basic structure ("skeleton") and its interior furnishings and facilities ("infill") are assessed separately, and the value of the building and the land are indicated separately. Through this unique system, the association is working to bring a greater number of high-quality SumStock houses to market.

The association's 10 housing manufacturers have so far provided 3.2 million houses. Of these, around 20,000 houses circulate in the used house market each year. Bringing these houses to market as high-quality SumStock houses contributes to solving the social issue of providing longer-lasting houses.

#### **Group-wide efforts to boost customer** satisfaction

The Sekisui House Group employs 469 association-certified SumStock salespersons who work throughout Japan. The Group also supports the SumStock initiative by using our own housing history information system—which corresponds to the Long-Term Quality Housing Certification Program in Japan-and by having customer service centers, Sekisui House Remodeling, and Sekiwa Real Estate companies work together.

Renovating when moving in Sekisui House homeowner Sales consultation SumStock appraisal, intermediary Periodic maintenance and patrol Customer service center, Sekiwa Real Estate Sekisui House Remodeling companies Sales information

In FY2014, we assessed 2,478 houses (5.4 times the amount in the previous year) and made sales contracts for 499 houses (2.8 times more than in the previous year). The Sekisui House Group will continue working as one to provide total housing solutions, including those for remodeling, while offering customers ever higher levels of satisfaction.

#### VOICE

#### Seller and buyer are both satisfied

When it comes to signing conventional contracts for the sale of existing houses, customers can be uncomfortable with the unclear nature of the appraisal criteria in the housing appraisals made by house builders. By contrast, SumStock houses built by Sekisui House have a clear history of maintenance and repairs, with the original blueprints of the houses also remaining intact. This gives peace of mind to both the seller and the buyer when they sign their deal.

In a SumStock appraisal, the value of the land and building are assessed separately and precisely—an advantage over conventional housing appraisals. Another benefit is that the house's warranty is handed over as is to the new owner.

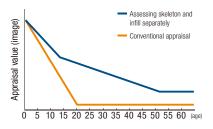
I will keep up my efforts to bring more long-lasting, high-quality SumStock houses to market, so that there can be even more happy and satisfied customers.

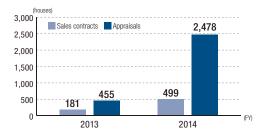


Naofumi Wakamatsu Sekiwa Real Estate Kansai, Ltd

#### Assessment through SumStock appraisal

According to conventional housing appraisals in Japan, the value of a 20-year-old house is virtually zero. By contrast, a SumStock appraisal defines the service life of the skeleton to be 50 years and the infill to be 15 years. Making separate appraisals for each, it allows a fair and accurate assessment of the building's value to be reached.





#### The three conditions for a SumStock house

(Source: Provision of Quality Housing Stock Association well

- 1 House history The blueprint from when the house was built and information on past remodeling and maintenance are properly managed and stored.
- 2 Long-term maintenance program

The house is covered by a long-term inspection and maintenance program of 50 years or more

3 Earthquake resistance

The house features earthquake resistance as specified under the New Seismic Resistance Code of 1981



## **Boosting Homeowner Value**

#### **Ever more houses fitted with SHEQAS** seismic control system

SHEQAS is our innovative seismic control system accredited by the Ministry of Land, Infrastructure, Transport, and Tourism. SHEQAS converts seismic wave energy into heat energy to absorb building movement, and it can reduce building deformation by approximately 50%. It gives houses the strength to withstand repeated earthquakes. In 2013, we released Hybrid SHEQAS, a structural component that combines a steel-frame brace with a SHEQAS Frame (a Sekisui House original seismic-control wall). Hybrid SHEQAS maintains its seismic-control capability while enabling a high degree of flexibility in the design and layout of rooms-for example, in making larger windows and doors. In FY2014, the percentage of our houses fitted with SHEQAS was 89% (up 2 points over the previous year).

#### Hybrid SHEQAS enables larger windows and doors



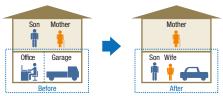
#### **Sekiwa Construction Group focuses on remodeling**

The Sekiwa Construction Group, comprising 20 companies across Japan, is a group of companies whose high level of construction expertise serves to bolster Sekisui House. Its comprehensive business activities include remodeling and construction of wooden-frame housing, remodeling of condominiums, and exterior construction work. With each company being firmly rooted in the local community and with the group having a nationwide presence as part of the Sekisui House Group, the Sekiwa Construction Group provides comprehensive support to its customers. We pay close attention to what customers want, and we work with them in proposing remodeling solutions that give shape to the lifestyle of their dreams. We are dedicated to helping our customers live safely, comfortably, and with peace of mind in their cherished homes for a long period of time.

#### An example of large-scale remodeling



To enable two generations to live under the same roof, the customer remodeled the office space and garage on the first floor. An attractive space was created by integrating the open garage and living space.



#### Participating in the Private-Sector **Housing Safety Net Project**

Sekisui House Remodeling performs remodeling work on rental housing properties to make them safe, secure, and comfortable. The company also took part in the Private-Sector Housing Safety Net Project\*, a government-subsidized initiative that aimed to make full use of unoccupied rental housing. When such housing was remodeled as part of this project, the remodeling costs for common (shared) areas of an apartment building were eligible for subsidies provided that other remodeling work included some form of barrier-free or energy-efficiency remodeling.

We encouraged owners of rental housing to take part in this remodeling project as a way to boost the value of their assets and as a way to contribute to society. Many rental housing owners have used this system when remodeling their property—for example, when installing PV systems. (Note: The project ended on March 31, 2015.)

By prolonging the lifespan of buildings and helping to find tenants for empty rental units, our rental housing remodeling work is a measure that serves to solve social issues. We will continue searching for other new ways that our remodeling work can serve society.



\*Under this program, the Japanese government covers a portion of the costs incurred by owners of private-sector rental housing when they remodel unoccupied housing units (detached houses or apartments), on the condition that people with special housing needs are given priority when renting those units. The program aims to boost the value of existing private-sector rental housing and make effective use of unoccupied units so as to secure a stable supply of housing for people with special housing needs while also establishing an environment in which such rental housing may be used flexibly by the public sector in case of disasters.

#### Enhancing the value of houses through the Everloop home repurchase program

Under the Everloop program, we repurchase existing Sekisui House homes from homeowners, renovate them using our proprietary technologies, and then offer them for resale. To ensure the safety and reliability of homes offered under this program, Sekisui House personnel are in charge of the entire process, from appraisal of the house to relocation of the

A FY2015 taxation reform in Japan reduced the real estate acquisition tax for resellers purchasing old houses, remodeling them to make them earthquake-proof, energy-efficient, or barrier-free, and then reselling them. It is anticipated that this reform will lead to an expansion of the housing resale market.

## Building a Recycling-Oriented Society

#### Making houses last longer and recycling resources

We are promoting our housing stock business—which includes remodeling to prolong the service lives of our houses and address changes in homeowners' lifestyles—so that our homebuilding projects consume a minimum amount of limited resources. We consider it our social responsibility to make

housing materials last as long as possible, to recycle waste generated during construction, and to use that waste effectively as new resources. It is therefore our mission to conduct zero waste activities and have other systems in place for resource recycling.

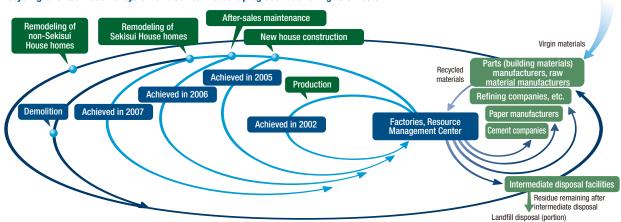
#### **Past activities**

As the industry leader in properly managing waste materials, the Sekisui House Group operates its own waste disposal system. Between 2002 and 2007, with the concerted efforts of the entire Sekisui House Group and our building contractor partners, we achieved zero waste\* during each stage of the

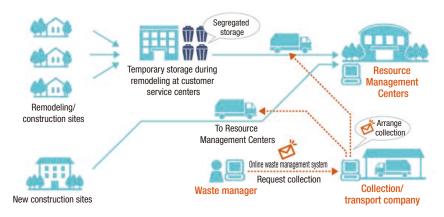
housing process—namely, production, construction, after-sales maintenance, and remodeling. We are keeping up our efforts to achieve and maintain zero waste.

\*A concept whereby all waste materials generated during industrial activities are reused as resources and no waste is emitted on a society-wide basis. Sekisui House defines "zero waste" as eliminating waste sent to landfill disposal as well as eliminating waste incineration that involves no heat recovery.





#### Resource Management Center serves as the core of zero waste activities



Locations of Resource **Management Centers** Total: 13 locations 4 centers built on factory premises 9 other centers

Waste generated at construction sites includes wood, plasterboard, wallpaper, and metal fragments. We sort this waste into 27 types and put it into separate on-site collection sacks. The waste is then efficiently transported to 13 Resource Management Centers located across Japan via trucks used for delivering construction materials to the construction sites.

At the Resource Management Centers, the gathered waste is processed or further separated into as many as 80 different types. It is then delivered to material manufacturers to be used as raw materials or sent to intermediate disposal facilities for further recycling.

Sekisui House is the first company in Japan's construction industry to be certified under the Wide-Area Certification System\*. Under this certification program, we operate our own electronic management system for waste control. This involves attaching IC tags to waste collection sacks to keep track of the volume of waste and managing a variety of information online pertaining to the construction sites. This data is used to streamline the construction process—for example, to reduce waste and surplus materials.

\*A certification system under the Waste Management and Public Cleansing Law, Manufacturers are permitted to conduct waste disposal activities across prefectural boundaries without the need to acquire separate licenses The objective is to ensure waste reduction, proper disposal, and recycling.

## Extending the Lifespan of Houses and Enhancing After-Sales Service

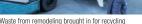
#### Expanding the housing stock business and recycling waste

From one remodeling site to the next, there is great variation in the amount and type of waste generated. Before starting work on a house, Sekisui House Remodeling makes full use of blueprints and spec sheets of a customer's house obtained from the customer service center to gather information about which materials are needed for remodeling. Waste generated on the site is sorted in accordance with designated standards-following the same procedures used on new construction sites-and then delivered to Resource

Management Centers. There the waste is checked for its content and volume and then recycled.

The Resource Management Centers also recycle waste brought in from rental housing managed by Sekiwa Real Estate. When tenants move out of rental housing, we repaper the walls. This waste is recycled. The Sekisui House Group is also focusing on educating employees about resource recycling as we expand our housing stock business.







Sanitation equipment, including toilets, is securely packed



Dismantling window sashes into metal and glass parts

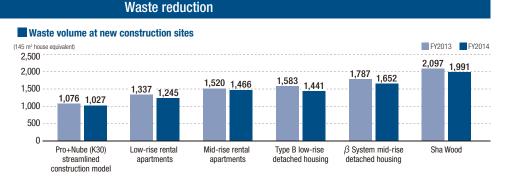


Management Center

## FY2014 Achievements

#### By applying the streamlined construction method used in Pro+Nube models to other house models, we were able

to reduce waste for all models.



#### Reducing surplus materials

Generally, surplus amounts of construction materials are delivered to construction sites to prevent work stoppages and to be used as backup in case materials become damaged during delivery. There are also rare cases where the delivered materials do not meet requirements in terms of color or some other specification. While surplus materials for a single house may not amount to much, the combined total for many

houses becomes considerable. This volume of surplus materials must be dealt with. To this end, we operate our own electronic management system that enables us to precisely gauge the status of surplus materials, and we have set up a project team to implement reduction measures across all group companies.

#### Key performance indicators (KPIs)

Category	Indicator	Unit	FY2010	FY2011	FY2012	FY2013	FY2014	Definition
	Total resource input	1,000t	1,083	1,096	1,112	1,286	1,079	Amount used at our factories
	Volume of waste generated	1,000t	298	309	311	362	728*	Waste from new construction, remodeling, and demolition
Prolonging lifespan of	Volume of waste generated at new construction sites	kg	1,308	1,396	1,441	1,449	1,485	Amount per house (per 145 m²)
housing and enhancing	Proportion of houses with Long-Term Quality Housing Certification	%	88.7	90.9	92.1	92.1	92.1	
after-sales support	Proportion of houses fitted with SHEQAS	%		58.5	75.0	87.0	89.0	
	Proportion of houses fitted with Airkis	%	_	67.4	76.3	77.8	80.0	
	Customer satisfaction survey	%	38.4	39.2	39.6	41.0	41.9	Proportion of responders who answered "Highly satisfied" on a 7-point evaluation scale

\*Including waste from affiliated companies and waste from demolition of buildings



## **Promoting Diversity**

Tapping the capabilities and potential of employees and creating a work environment where people with diverse backgrounds respect one another

Backdrop

#### Responding to diversifying customer needs with a diversity of human resources

In order to achieve sustainable growth despite Japan's declining birth rate and aging population, it has become essential for companies to create a corporate culture where a diversity of human resources—including people with disabilities—can fully demonstrate their competence, regardless of their gender, age, or nationality. Particularly in the housing industry, where customer needs are becoming increasingly diversified, there is a growing imperative to incorporate the perspectives of diverse human resources, including women.

The Sekisui House Group is promoting workplace diversity because we believe that creating a work environment where employees can demonstrate their abilities while respecting each other's working styles enables us to create "comfortable housing and ecologically sound communities" a policy objective we have been pursuing since our founding. We also consider diversity to be an effective solution to Japan's declining workforce population.

In March 2006, we announced the Declaration for Human Resource Sustainability as our basic personnel policy. The declaration comprises three basic policies: encouraging female employees to pursue their career development; promoting a diversity of human resources; and supporting a work-life balance. Since the launch of the Diversity Development Team that same year, we have been striving to advance the careers of female employees by organizing gatherings among female salespersons, technical personnel, and model home staff, and by helping them achieve a work-life balance.

In February 2014, our Corporate Management Planning Department set up the Diversity and Inclusion Promoting Office, so that we could achieve sustainable management that allows for a workplace environment where employees can bring out their full potential while showing respect for one another. Our efforts were recognized in 2013 and 2015, when we made the Nadeshiko list-a women-empowering roster selected by the Tokyo Stock Exchange and the Ministry of Economy, Trade, and Industry.

#### To be indispensible to society as a corporate group that generates high added value

We believe we can bring forth useful innovations by establishing a workplace environment where a variety of personnel can fully demonstrate their abilities in a spirit of creativity and innovation and where employees join forces toward a common goal. As a corporate group that generates high added value and that follows a path of sustainable growth, we strive to be indispensible to society.

## Action

#### Continuously focusing on three policies priority themes

We will continue our diversity efforts under three priority themes: 1) female career development, 2) work-life balance, and 3) employing people with disabilities.

#### Major stakeholders

Employees, job applicants (students, housewives, etc.), investors

#### Measures being implemented

Supporting female employees in their career development

#### **Policy**

When it comes to responding to diversifying customer needs, it is increasingly important to take account of women's perspectives. We actively hire female employees for sales and technical jobs, and we support their career development. By developing them into candidates for management positions, we are expanding and improving our ability as a company to respond to customer needs.

> Employees with diverse career paths and values work together (Hyono Sha Maison Branch)



#### For sales staff

- 1 Every year, we hold a special personnel meeting for female sales staff where employees who have made a distinguished sales contribution are recognized, information on best practices is shared, and discussions are held to inspire and motivate them. In 2014, we began holding information exchange meetings for sales staff aiming to become office managers. At these meetings, seasoned office managers teach participants about diverse working styles and potential future career paths.
- 2 Female sales personnel who have been designated as "role models" are granted benefits such as the ability to adjust holidays and work hours during times of maternity and parental leave or change their workplace location when their spouse has been transferred.

Sekisui House Remodeling has been actively hiring female personnel with parenting experience to work as Remodeling Advisors. Thanks to the variety of working style options we offer—for example, a four-day workweek-our employees are able to strike a good work-life balance. The company employs 657 female sales personnel—fully 62% of our entire sales force. And in March 2014, two female employees became company board members (making up 11.8% of the board of directors).

#### For technical staff

1 When it comes to recruiting female staff, the technical division has been even more active than the sales division. In design, we have one female design chief and 13 female chief architects\*. In R&D, female employees are contributing product development ideas from their unique point of view. In October 2014, we opened the Sekisui House Women's College, where students acquire the abilities fit for manager-level jobs in a two-year program. Twenty selected employees are learning about business skills (first year) and ways to solve workplace issues (second year).

\*In-house qualifications are given to those who have demonstrated excellent skill in housing design and

2 Female construction superintendents are actively at work on construction sites, showing attention to detail and proposing concrete solutions for better living. The number of these superintendents is increasing: in 2014, we assigned female construction superintendents to all nine branch offices operating under the Kanagawa Sales Administration Headquarters, and in December we held the first edition of a special gathering for the women working in these roles.

We set up temporary women's washrooms—jointly developed with

the city of Sendai (see p. 68)—at our construction sites, to make the work environment more comfortable for female construction workers and superintendents.



Administration Headquarters

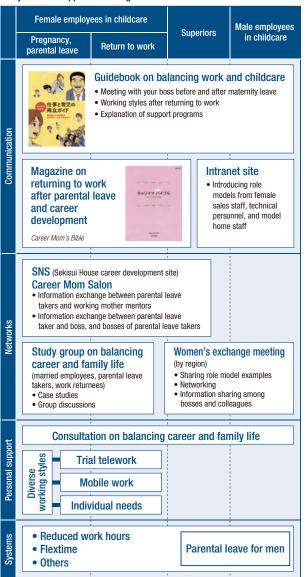
#### Promoting a work-life balance

#### **Policy**

We support diverse working styles that involve balancing work with parental care and nursing care, so that employees can lead a fulfilling life. Measures include reducing overtime and encouraging annual leave and men's parental leave.

We have introduced flexible working styles that encompass reduced work hours or flextime. We also provide measures to support employees in taking care of ill or elderly family members, along with a Retiree Reinstatement Registration Program of preferentially rehiring those who have left work for some unavoidable reason—for example, to give birth, raise children, or provide nursing care.

#### Systems to support balancing work and childcare



#### VOICE

Since returning from parental leave, I've been using the reduced-work-hour system to work while taking care of my twins. I design detached houses and residential complexes, and although my work hours are limited, I find it rewarding to be able to work as a specialist. Recently, more and more customers are choosing me as their design rep, thanks to my experience in taking

care of children and elderly parents.

My goal is to create a work environment where the demands of childcare don't overly impinge on one's work. I hope to contribute to a better workplace for everyone using the reduced-work-hour system, whether for childcare or nursing care.

Naoko Kitazawa, Design Department, Tokyo West Branch





#### **Employing people with disabilities**

#### **Policy**

Working with people with disabilities enables us to deliver new value and influence to our customers and our workplaces, and it enables us to make better proposals for our customers through universal design. Our aim is to hire at least one person with a disability at every business office.

1 In addition to offering internships to people with disabilities, we promote communication with people with disabilities and their support groups. We also participate as a founding member in the Accessibility Consortium of Enterprises (ACE). ACE is a group of companies working to establish a new business model for employing the disabled in a way that benefits corporate growth. In FY2014, we took part in a working session to study how to instill in disabled students a sense of career development at an early stage. After gathering questionnaires filled out by young disabled employees at member companies and conducting interviews of support offices at universities, we held a career development seminar for disabled students.

2 Since FY2006, we have been running a system that provides employees with additional opportunities to further their careers. This system enables employees in clerical work, production, or region-specific work to switch to sales/technical work. Of the 16 personnel who used this system in FY2014, two were disabled employees.

#### VOICE

My work involves giving presentations to customers and teaching young tech employees and model home staff about CAD. After becoming disabled in a car accident, I had to quit my job as a carpenter. Luckily, I was able to join

Sekisui House. Now, in my design work and presentations, I use my experience as a carpenter to give customers something beyond their expectations.



Yasuyuki Miyamoto, Design Department, Tsukuba Branch

#### Target number and time frame

	FY2013	FY2014		- Target	
	Achievement	ievement Achievement		raiyet	
Number of female personnel in managerial positions (group-wide)	65 (1.52%)	101 (2.26%)	0	FY2020 200 (5%; 10% in the future)	
Number of female office managers*	7 (6 out of 16 sales administration headquarters)	12 (8 out of 16 sales administration headquarters)	Δ	Minimum 1 female office manager (or at least office sub-manager) at each of our 16 sales administration headquarters	
Employment rate of people with disabilities*	1.97%	2.08%	0	Minimum 1 person at every business office	
Proportion of male employees who took parental leave	3% (16 people)	19% (119 people)	0	FY2015 30%	

<sup>\*</sup>Sekisui House, Ltd. only

#### Risk management



- Employees on parental or nursing care leave may miss opportunities to expand their abilities, owing to their absence.
- If the proportion of employees on parental or nursing care leave grows too high, the company may not be able to allocate work appropriately.

We are providing employees with the opportunity to establish a vision for their career paths, while taking an inventory of business procedures and establishing systems for flexible working styles. We are also creating a workplace environment that supports both childcare/nursing care and career development, by informing leave-takers about work developments through monthly online newsletters and other informative tools.

In Japan in 2018, the legally mandated employment rate of people with disabilities will be amended to include a proportion of the mentally disabled. The Sekisui House Group's disabled employment rate may fall below that mandated by law.

Our aim is to hire at least one person with a disability at every business office. In order to achieve this goal, members of our personnel division attend job-matching events and contact the job placement divisions of public institutions and universities. We also actively gather information through ACE and strive to create a work environment in which people will want to continue working.

#### Expected benefits

#### Supporting female employees in their career development

By increasing the number of women on staff, we are able to readily respond to diversifying customer needs both in sales and technology.

#### Employing people with disabilities

The perspectives, sensibilities, and experiences of employees with disabilities can give us new insight into proposals and technical R&D. This serves to heighten awareness of issues surrounding universal design and prompt more applications in this area.

#### Promoting a work-life balance

We are establishing a system that provides a forum for employees to demonstrate expertise they have gathered through their experiences of important life events, such as marriage, birth, child-rearing, or caring for the elderly. This system enables us to make a wider range of proposals that better incorporate residents' perspectives and thereby boost customer satisfaction.

#### Key performance indicators (KPIs)

#### **Group achievements**

		FY2012	FY2013	FY2014
Proportion of female managers		1.68%	1.52%	2.26%
Number of female managers		65	65	101
Number of female board memb	ers	0	0	2 (Sekisui House Remodelin
	Male	16.83	16.87	16.88
Average duration of work (years)	Female	9.18	9.41	9.53
( <b>)</b>	Difference between male and female	7.64	7.46	7.35
Number of employees who	Male	19	16	119
took parental leave	Female	131	210	242
Number of employees who tool	nursing care leave	6	11	6
Proportion of employees who	Male	100%	100%	100%
returned from parental leave*	Female	94.1%	93.0%	93.3%
Retention rate of employees	Male	95.5%	100%	100%
12 months after returning from parental leave*	Female	98.8%	100%	94.7%
Proportion of employees who to	ook annual paid holidays	27.3%	27.5%	31.7%
Proportion of employees with a	disability*	1.89%	1.97%	2.08%
Proportion of offices that have employee with a disability*	at least one	<b>54.2</b> % (91 out of 168 offices)	<b>59.4</b> % (101 out of 170 offices)	<b>59.6</b> % (99 out of 166 offices)

\*Sekisui House, Ltd. only

#### Number of employees who returned from parental leave and stayed with the company in FY2014 (Sekisui House, Ltd.)

	Male	Female	Total
Number of employees entitled to parental leave*¹	458	140	598
Number of employees who took parental leave*2	102	157	259
Number of employees who returned from parental leave*3	100	125	225
Number of employees who stayed with the company 12 months after returning from parental leave*4	13	108	121

<sup>\*1</sup> Employees with a family member born in FY2014

<sup>\*2</sup> Employees who started parental leave in FY2014

<sup>\*3</sup> Employees who have returned from parental leave in FY2014

<sup>\*4</sup> Employees who returned from parental leave in FY2013 and are with the company 12 months later



## **Developing Overseas Business**

"Changing the world through living"—Raising housing standards around the world

#### Backdrop

## Expanding beyond domestic industry to encompass global industry as well

Infrastructure building and tourist promotion are sectors that hold promise for economic stimulation in Japan. Growth strategies can be propelled by taking on challenges related to energy and the environment, and by developing technologies for these fields that can be utilized in Japan and around the world. Globalization is moving ahead in all industrial sectors, and in the housing industry as well we must utilize the expertise we have built up in high-quality community building and home building to develop new business in countries where new housing demand is imminent. This comes from our desire to not just move Sekisui House forward but also to protect the global environment. Our overseas business expansion is part of our CSV strategy.

#### Our goal

#### "Changing the world through living"

In our international business expansion, we are acting based on shared goals as identified in our global corporate message.

#### What Home Can Bring to the World

We at SEKISUI HOUSE not only continue to build houses, but create homes and communities that become essential assets to society while constantly considering the global environment and high quality community development.

Needs for homes and communities change over time. Through our advanced technologies that achieve better "health," "safety" and "security," and comprehensive researches to understand the ways of living in each country and region, particularly in "culture," "generation" and "lifestyle" we will continue to make today's comfort even better for tomorrow.

Our creativity to freely design every home differently to fulfill and exceed the desires in living according to each customer. Our ability to build homes with superior standards in performance and quality by developing housing materials that leverage leading edge technologies at our local factories, so the highest level of living comfort can be delivered to our customers around the world. These innovations are integrated into every SEKISUI HOUSE.

For a lasting relationship with and further satisfaction for our customers through homes, we will leverage our proven expertise and knowledge cultivated over half a century in Japan to evolve even further as a leading innovator in home and community development.

We will continue to build on our performance through our conviction that high quality homes will be essential assets to society. We are committed to continually provide higher levels of living comfort for today and tomorrow.

Changing the World through Living One Central Park, a high-rise condominium in the Central Park project in the heart of Sydney, Australia

Action policies

#### Carefully selecting markets around the world where we can offer quality housing in high volumes

- Use the high-quality housing technologies we have built up over the years and our know-how in sustainable community development to develop communities and build homes that match local cultures and customs and that offer safety, comfort, and peace of mind.
- In countries where we do business, besides proceeding steadily with existing business, continue to pursue new leads in order to achieve an overall balance of our business.
- Build cooperative partnerships with outstanding local companies in order to better develop business that meets local needs.

#### Risk management

Building risk management systems together with experts specializing in risk management so that we can reduce risk and strengthen internal control



#### Risk of harm to Sekisui House overseas employees due to things such as political instability and terrorism



Sekisui House chooses to enter the market of countries that are safe and have stable governments; our criteria for entering a new market include population growth and stable economic growth, and the willingness of people in that country to eagerly join us in pursuing environmental protection and energy efficiency in housing.

In times of social stability, the International Business Department gathers risk management information on countries we will enter or have business trips to, and we work with risk management specialty companies to build risk management systems and come up with measures to deal with crises when they occur. We also have a manual for overseas risk management as part of our efforts to reduce risk.

#### Risk to the management and control of overseas subsidiaries

Our International Business Department collaborates with experts in countries where we do business. We also strive to improve our internal control system in other ways; for example, in February 2015 we established the International Internal Control Promotion Office, and we work with internal control consultants whenever necessary.

#### Risk to intellectual property



Although it is difficult to completely prevent intellectual property infringement from, for example, the production of imitation goods, we are securing the rights both in Japan and overseas for key technologies and trademarks so that even if imitation goods do appear on the market they do not interfere with our business.

**Implementing** action plans

Expanding our overseas business positioning the United States, Australia, China, and Singapore as key markets

## **United States**

In the U.S., we are pursuing real estate development for residences (communities) and urban rental apartment development (multi-family housing). By adding to our business the stable profit base provided by the former and the potential capital gains of the latter, we can build a balanced business portfolio and respond flexibly to changes in the economy. In both of these businesses, we are working with outstanding local developers who have proven themselves in the respective markets so that we can have access to rare and valuable business opportunities. In real estate development for residences, Cinco Ranch in Houston, Texas and two other Sekisui House developments made the list of the top-ranked master-planned communities in the U.S. in 2014. And many other Sekisui House developments were highly evaluated and honored for features such as their highly aesthetic design and environmental performance. Urban rental apartment developments in cities such as Seattle and Los Angeles are

proceeding and some will be completed and accepting tenants sometime in 2015.



Summerwood (Houston, Texas)



## Australia

From large-scale condominiums and community developments comprising several thousand lots to Shawood wooden-frame detached houses, we are expanding our housing business in Australia.

In the field of condominiums, Sekisui House and Frasers Centrepoint Limited jointly developed One Central Park in the



A Shawood home in Coolum Beach (north of Brisbane)

Central Park complex in the center of Sydney. Utilizing environmental technologies such as wall greening and trigeneration, One Central Park was named Best Tall Building Worldwide in 2014 and Best Innovative Green Building at MIPIM\* in 2015, the first building by a Japanese company to earn these honors.

In the Shawood business, we provide a high standard of housing by using our Japanese know-how and technologies, which we complement by coming up with house designs and specifications that match climatic, environmental, cultural, market, and social needs.

In six years of business in Australia, we have provided homes to approximately 6,500 families. We will survey these families so that we can reflect their opinions and ideas in future housing construction and community development and thus contribute to Australia's housing culture.

\*MIPIM: Le marché international des professionnels de l'immobilier

#### VOICE

I had been looking for a new home for two to three months before finding a new release of Sekisui House's Shawood homes advertised at The Hermitage. I immediately contacted the sales team to arrange an appointment and couldn't contain my excitement following my initial inspection. The beautiful and relaxing Hermitage estate was the perfect location for my family and was just what we were looking for. The distinctive architectural features and unique design of the Shawood home was nothing that I had ever seen

before. Upon entering, I felt a comforting warmth that I had not experienced in any other home. The extensive open plan living areas and centralized gourmet kitchen just brought it all together. Everything about the Shawood home was impressive, from the revolutionary structural components and integrated wall system through to the onsite workmanship and high standard of quality inclusions. I was pleasantly surprised with so many features and right away I knew that this was the home for me.



Julie Alfonzo Julie (sitting) with Sekisui House sales staff in Aust

## China

In China, we have large-scale projects that match the local atmosphere and culture in Shenyang, Suzhou, Wuxi, and Taicang.

The Yuqin Residence in the Heping district of Shenyang is located in a key area of the city with a high concentration of commercial facilities. It is a high-rise condominium that stands out among other buildings in the district for its modern design. This building offers a diverse range of floor plans, making it easy for customers to find a unit that matches their particular needs. Units were designed with the comfort and

health of residents in mind; for example, there is ample closet space for shoes, the interior building materials contain no harmful chemicals, and a soft-water system provides water that is gentle on residents' skin and hair.



The interior of a condominium in the Yuqin Residence in the Heping district of Shenyang

By offering high-end condominiums for a whole new lifestyle along with the convenience of living in the heart of the city, Sekisui House will continue to sell and service homes

that contribute to increasing diversity in living environments.



Artist's rendering of the completed Yuqin Residence

## Singapore

In Singapore, we have seven projects underway with local major developers. We have been in the Singapore market for over four years now and are establishing a reputation for ourselves through the development of complexes and office buildings.

Since we began business in Singapore in 2010, we have continuously shared opinions with our partners and striven to incorporate the know-how we have built up in creating homes centered on customer needs.

In condominium development, we have incorporated a satoyama design approach of community development to the Hillsta project in the Choa Chu Kang district of Singapore. (Satoyama refers to a natural environment that has been slightly modified by humans.) For the eCO project in Singapore's Bedok district, we have model rooms that show visitors that Sekisui House's

unique designs are created with the resident first and foremost. We believe these projects effectively integrate Sekisui House's know-how in sustainable living environments.

We will continue to use the technologies and experience we have built up in Japan to bring the people of Singapore Sekisui House's unique homes, working with local partners to provide residents with comfortable homes that show an understanding of this island nation's housing culture.



RiverTrees Residences at Fernvale Close (artist's rendering

#### Evaluation

#### Contributing to better living environments through technologies and know-how cultivated in Japan

We contribute to improving living environments by utilizing the housing technologies and know-how we have built up in Japan. This is a crucial element in business strategies in line with the particular conditions of the countries and regions in which we do business. For example, in Australia, we carry out condominium and residential land development



Cinco Ranch (on the outskirts of Houston, Texas, U.S.)

and detached housing construction, while in the U.S. we work as a community developer in cooperation with our partners. These efforts have been going extremely well: we have received high praise and numerous industry awards, and we turned a profit in these businesses as of our second year.



The Waterfront (on the outskirts of Sydney, Australia)

