# **Examples of Our Value Creation Model**

**Housing Remodeling** 

# Renovation of existing houses to extend useful life by improving functionality



The Shinchiku Sokkurisan remodeling business was launched after the Great Hanshin Awaji Earthquake of 1995 with the desire to renovate existing houses to make them earthquake resistant without the high cost of rebuilding. Based on our concept of safe and secure housing, it boasts the industry's foremost track record for full remodeling featuring earthquake reinforcement work and a clear fixed-price system. It marked its 25th anniversary this year, since its launch in 1996, and the cumulative total of units contracted exceeded 150,000 units (as of June 30, 2021). Today, the Shinchiku Sokkurisan has become so popular across the nation that it is a brand synonymous with full remodeling. By leaving main structural components intact and improving housing functionality without rebuilding, the Shinchiku Sokkurisan remodeling contributes to not only extending the useful lives of existing houses, but also to addressing the social issues concerning houses in Japan by being environmentally friendly, i.e., minimizing industrial waste, CO<sub>2</sub> emissions, and waste of resources.



#### The desire for safe and secure housing

Many houses were destroyed and many precious lives were lost in the Great Hanshin Awaji Earthquake of 1995. Subsequent research revealed that many old houses were left without rebuilding, despite having structural problems, due to various reasons including costs.

The Shinchiku Sokkurisan remodeling was born from the desire to "find a way to make such houses earthquake-resistant at a reasonable price without rebuilding in order to save precious lives." As such, it offers a full lineup from "full remodeling" to "partial reform" to transform a house into a safe and earthquake-resistant one, according to the customers' various needs and budget, at about 50-70% of the cost of rebuilding.



A house destroyed in the Great Hanshir Awaji Earthquake, photographed by Professor Kenji Miyazawa

## Key issues with the housing stock

- Shorter life cycle than houses in Europe and the U.S.
- Insufficient earthquake resistance and insulation
- Mismatches between lifestyles and floor plans
- Environmental impact from waste generated when rebuilding

Through the Shinchiku Sokkurisan remodeling:

#### Extended useful life through improved functionality

Earthquake-proofing and seismic retrofitting Revised floor plans to suit changing lifestyles



#### Reduced environmental impact

Reduced waste by leaving main structural components intact to lower CO<sub>2</sub> emissions and improve energy-saving functionality



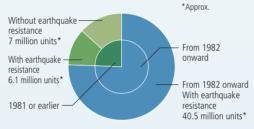
# Renovation of traditional-style houses harmonizes the

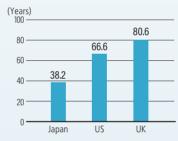
Traditional-style house exteriors left in place, harmonizing with other homes in the community; interiors modernized to match current lifestyles

## Social issues concerning houses in Japan

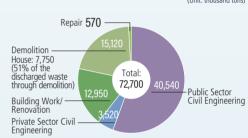
Although the penetration rate of earthquake resistant houses in Japan is increasing every year, there are still many houses with low earthquake resistance. Moreover, the lives of houses in Japan are relatively short compared with those in Europe and U.S. and the short rebuilding cycle has emerged as an issue in contemporary Japan. Waste from the demolition of houses accounts for a large share of waste discharged by the construction industry. It is called for that lives of houses should be extended to facilitate the shift to a stock-type society where houses could be used by successive generations.

#### 1 Earthquake-resistance of housing stock





### 2 International comparison of the average 3 Breakdown of construction waste



Sources: 1 Ministry of Land, Infrastructure, Transport and Tourism "Progress of Earthquake Proofing of Houses" 2 Ministry of Land, Infrastructure, Transport and Tourism "International Comparison of Average Age of Houses Deregistered in 2018" 3 Ministry of Land, Infrastructure, Transport and Tourism "Residential Land Session, Panel on Infrastructure Development (36th)

# Shinchiku Sokkurisan initiatives concerning social issues

## Extending the useful lives of houses through seismic reinforcement

Shinchiku Sokkurisan offers proposals for improving the house's functionality to make it earthquake resistant without rebuilding mainly through seismic reinforcement work based on earthquake resistance diagnosis that meets the government's safety standards.

Moreover, in the Kumamoto Earthquake of 2016, a series of powerful tremors caused the collapse of houses previously considered not to need seismic reinforcement under current laws. In view of such circumstances, we developed a proprietary method to counter such a series of powerful tremors. With the addition of this new method, we now offer seismic reinforcement and damping plans suitable for houses of all ages.

We are promoting houses where people can continue to live in with peace of mind by improving the safety functions through this reinforcement work.

### Contributing to the reduction of the environmental impact

Shinchiku Sokkurisan remodeling contributes to the reduction of the environmental burden by extending the life of the house through earthquake reinforcement while the principal structural elements of the house are retained, thus minimizing industrial waste discharge, CO<sub>2</sub> emission, and waste of resources, compared to the demolition involved in building a new house.

### Revised floor plans to suit changing lifestyles

In addition to seismic reinforcement, Shinchiku Sokkurisan offers remodeling that makes living comfortable, with thermal insulation, waterproofing, barrier-free design, etc. Furthermore, in response to changes in family structures and aging population, we offer solutions customized for the lifestyles without rebuilding, such as layout changes, extensions, downsizing, transformation of a two-story house to a one-story house, or a two-family house.

The high number of disused detached houses has become a social issue in Japan. Through remodeling, turning them into social welfare centers, sharehouses, travelers' inns, etc., we contribute to utilization of existing house stocks and support safe and sustainable city

increasing disused houses

Solution for rapidly





