

Creating Shared Value (CSV) by Daiken Business

01

Initiatives for materiality “Realization of a Resource-Recycling and Recycle-Oriented Society”

Contribution to carbon neutrality by utilizing wood resources



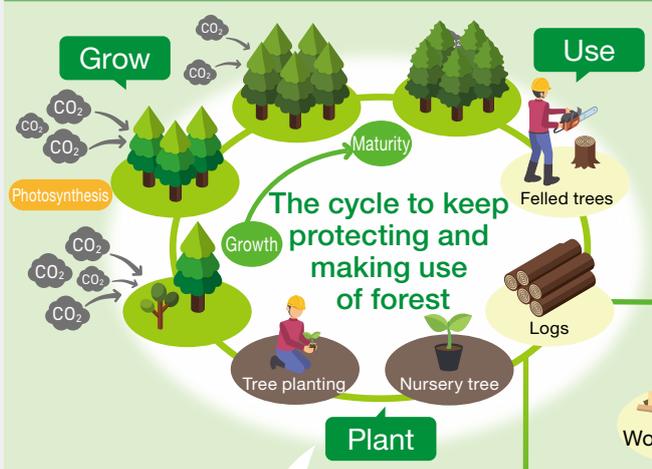
By pursuing the use of wood resources for materials, turn the living space into “The second forest”

Social issues and needs

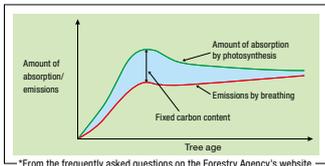
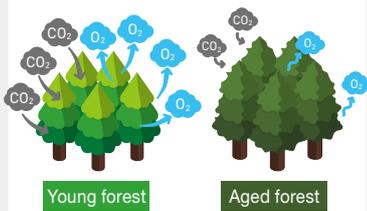
While the countermeasures for climate change have become a pressing global issue, the importance of protecting and growing forests that have the functions to absorb CO₂ and store it as carbon to reduce greenhouse gas emissions and using wood resources as materials, in addition to energy saving and shifting to renewable energy, has been increasing.

CO₂ C Fix and store as carbon

Forests are the carbon storage that absorbs and fixes carbon



Maximize the CO₂ absorptive function by moderately felling trees



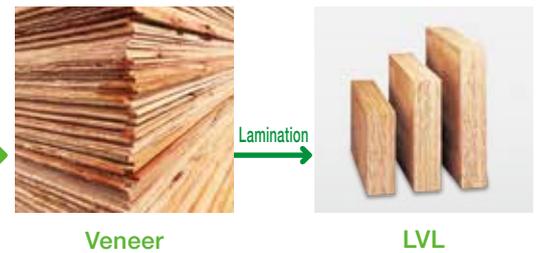
Growing forest has the function to absorb more CO₂ than matured forest. By adequately felling trees according to the forest growth cycle and newly planting trees, it will become possible to maximize the CO₂ absorptive function of a forest.



By keep using timber as materials,

We conduct business activities to maximize the value

Industrial materials business



Daikden's strengths and value creation

Daikden Corporation was founded with an eye toward the effective use of timber as precious resources and contribution to society. Since the foundation of the company, we have refined technologies to overcome the weaknesses of timber and use timber with zero waste and developed industrial and building materials offering a wide variety of functions. Trees function to absorb CO₂ during the growth process, to fix it as carbon, and to keep storing it by continuing to use them as materials. Since timber is a renewable resource, it can contribute to the realization of a sustainable society and carbon neutrality by creating the cycle to appropriately manage and use forests. By pursuing the sustainable use of wood resources from the three perspectives of (1) use of appropriately managed timber, (2) use of timber to protect forests, and (3) use of timber with zero waste, we continue to create social and economic value.

CO₂

it becomes possible to keep storing carbon

of timber and continue to use as materials for a long time.

Form "The second forest" by using timber

Carbon content that forest can store is limited. By expanding the scenes to use timber as various materials, it will become possible to store more carbon while enriching people's living spaces.

Building materials business



Amount of carbon storage*
Approx. **148,000** t-CO₂/year

Flooring



Doors, cabinets, stairs,
and construction materials

Public spaces and living spaces



Emitted CO₂
is absorbed
by forests



Waste
incineration

Demolition



Construction demolition timber



*Fiscal 2023
Calculated in accordance with the method of calculation in the
"Guideline for Labeling of the Amount of Carbon Storage Concerning Timber Used in Buildings"
by the Forestry Agency

Creating Shared Value (CSV) by Daiken Business

02

Initiatives for materiality “Realization of a Resource-Recycling and Recycle-Oriented Society”

Promotion of the use of domestic timber



Social issues and needs

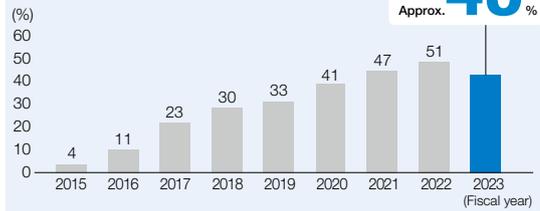
Japan is one of the world’s most forested countries with about two-thirds of the land covered in forest. Therefore, domestic timber should be more actively used in order to foster healthy forests that fulfill various needs, such as absorbing CO₂ and prevention of landslides. The Japanese government is aiming to increase wood self-sufficiency to 50% by 2025.

Promote the use of domestic timber with special MDF that offers excellent water resistance

Daiken’s strengths and value creation ①

The Daiken Group took advantage of the expertise cultivated as the leading flooring manufacturer and Daiken’s unique MDF technology that offers excellent water resistance and surface smoothness, proceeded with the development of flooring substrates combined with domestic timber, and has made many improvements. In fiscal 2023, while the timber procuring environment has become worse globally and as we strived to stably supply products by reviewing the procurement balance of plantation timber and domestic timber, the usage rate of domestic timber decreased to 45%, but we will continuously proceed with product development that will draw out the appeal of domestic timber.

Utilization of domestic timber for flooring substrates



Cross-section image of flooring substrates made from domestic timber



Daiken’s special MDF
Plywood made of domestic timber

Expanding the scenes to utilize domestic timbers with the wood hardening technology

Daiken’s strengths and value creation ②

With Daiken’s unique WPC* technology to harden wood tissues by injecting plastics into and filling the tissues, it has become possible to offer flooring with excellent surface strength that uses domestic natural wood for decorative surface materials. Because many domestic tree species are soft materials, low durability in using them as flooring was an issue, but by taking advantage of this technology, we will expand the use of domestic timber while meeting the needs of using local materials.

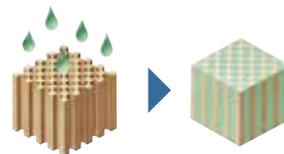
*WPC: The abbreviation for Wood Plastics Combination

Results of the commercialization of local materials with the WPC technology

28 prefectures



WPC flooring



Inject plastic resin into surface wood for flooring and harden it



By filling plastic resin, it demonstrates strength against dents and scratches

New use application development of wood materials

Daiken’s strengths and value creation ③

While exploring new possibilities of domestic timber, we developed the soil improvement additive DW fiber made of fibrillated timber offcuts and to which fulvic acid with plant growth-promoting effects is added and the wood culture medium GLOW EARTH that can create an optimal cultural environment by making factor substances that inhibit the growth of plants harmless under the conceived idea of using such domestic timber as wood fibers. These products realize the resource circulation that wood harvested in a forest becomes the culture medium, helps the growth of the next plants, and returns to the soil again and deployment to the fields of civil engineering and landscaping as well as the fields of agricultural and horticultural materials leads to new use application development of domestic timber.

GLOW EARTH



Wood culture medium GLOW EARTH



Use case in a vegetable garden



GLOW EARTH

DW fiber



Soil improvement additive DW fiber



Case of greening a slope surface by DW fiber

03

Initiatives for materiality “Realization of a Resource-Recycling and Recycle-Oriented Society”

Effective utilization of unused resources



Social issues and needs

While everyday lives becoming more convenient and affluent, limited resources and energy on earth have been heavily consumed and there have been growing concerns about the depletion of natural resources. To respond to these issues, pursuit of sustainable production and consumption, such as effective utilization of renewable resources and unused resources and the reduction of waste, has become crucial.

Expansion of the utilization of unused resources using non-combustible materials that offer excellent durability

Daiken's strengths and value creation

Daiken developed DAILITE, the world's first new industrial material using an unused resource, *shirasu* (volcanic ash) as the major raw material, which has the performance that could not be realized with conventional inorganic materials, such as lightweight, high strength, and fireproof, and started selling it in 1997. In the beginning, DAILITE was mainly used as a bearing surface material to enhance strength of houses but we now propose to use it as the non-combustible and well-designed wall materials and louver materials. By finding value in an unused resource and expanding the use applications, we contribute to the realization of a sustainable society.



A noncombustible wall material with a deep curved design made of DAILITE base material GRAVIO EDGE



A noncombustible construction material made of DAILITE base material GRAVIO LOUVER



Shirasu, an unused resource available in the natural world



04

Initiatives for the fulfillment of materiality, “User Needs in the New Normal Era”

Creating a safe, secure, healthy, and comfortable space



Improvement of the sound environment in living spaces

Social issues and needs

With the changes of the times, issues concerning sound in daily lives have become diversified. Particularly in the COVID-19 crisis, the needs for the prevention of sound leakage and reverberation have been rapidly increasing because of the increase in working at home and online meetings.

Daiken's strengths and value creation ①

In pursuing comfort of the living spaces, Daiken has been engaged in acoustic products since the 1980s and faced various sound issues. Since then, with the accumulation of technologies and know-how for 40 years, we not only develop products having soundproof and sound absorbing functions but also propose spaces to realize the optimal sound environment. In response to the fact that new issues concerning sound have recently become apparent in offices, stores, and medical facilities, we expand the product lineup that corresponds to the needs of each facility. Through the resolution of sound issues that significantly influence comfort, we will realize more comfortable living spaces.



A soundproof room corresponding to playing a musical instrument



A ceiling material for a soundproof room OTOTEN

Creating Shared Value (CSV) by Daiken Business

Creating a safe space to live together with the elderly

Social issues and needs

Japanese society is more rapidly aging than other developed countries and becoming a super aging population with one in four people aged 65 or over. Amid concerns about social problems with elderly people providing care for elderly people, living spaces where people can live with peace of mind even when they get older are required.

Daiken's strengths and value creation ②

Based on our ideas and technologies for living spaces proven through our work, Daiken is committed to manufacturing from the perspective of all users, including elderly people, their families, and caregivers. In recent years, we have improved the mechanism that can finely respond to the needs that vary according to facilities, such as elderly facilities and houses that are considerate of home care, and have been deploying comprehensive product lines that are safe and have functionality.



Cases of adopting the building materials from the OMOYARI SERIES for the living spaces where elderly people live



A wide sliding door that can be easily accessed by a wheelchair

Creating spaces where children can spend the time safely

Social issues and needs

With the increase in women's participation in society and in childcare facilities that increasingly grow in importance, it is imperative to create safer facilities and reduce nursery teachers' burden in addition to the problem of children on the waiting list due to the lack of facilities.

Daiken's strengths and value creation ③

We thoroughly examined the performance required for the area around a door in a childcare facility where the risk of injury is particularly high and developed the door dedicated to kindergartens and childcare facilities, while taking advantage of the expertise in door manufacturing cultivated from past houses and elderly facilities. We will support a wide variety of problem solutions required for childcare facilities, such as improvement of safety and comfort and further reduction in the nursery teachers' burden by using Daiken's unique technologies and diverse products.



OMOYARI KIDS DOOR
A door that is considerate of children's safety

Won the KIDS DESIGN AWARD

*Designs to support comfortable raising of children



Ceiling sound absorbing pane KIN TONE



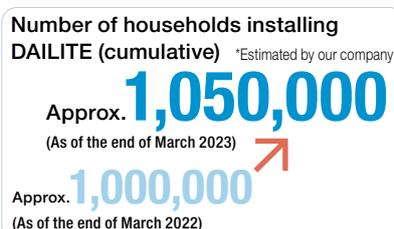
Seismic resistance / Strengthening of disaster prevention

Social issues and needs

Japan has been devastated by earthquakes many times, including the Great East Japan Earthquake. Large earthquakes, such as the Nankai trough earthquake, are predicted with high probability to occur in the future, and the Japanese government has set a goal for seismic resistance ratios and promotes the seismic resistance and the strengthening of disaster prevention for houses and buildings.

Daiken's strengths and value creation ④

Daiken has contributed to improving the aseismic performance of Japanese wooden houses through the development of DAILITE, an inorganic bearing surface using mineral fibers and an unused resource, *shirasu* (volcanic ash) as the major raw materials. By deploying not only bearing surface materials but also a number of product lineups that offer excellent non-combustibility and fireproof property, we have been promoting the strengthening of disaster prevention. With our unique base materials, we will improve safety of various living spaces, such as wooden houses and public and commercial buildings.



DAILITE MS

Expansion of the antiviral products

Social issues and needs

With the pandemic outbreak of infectious disease, awareness of health and clean environments has been rapidly increasing and the needs for sanitary measures for and safety of living spaces and public spaces where people gather have been expanding.

Daikden's strengths and value creation ⑤

We focused on the antiviral function in the wake of the outbreak of the novel influenza in 2009 and started working on its development in 2011. In the following year, we put the function to practical use as the antiviral function BIOTASK* ahead of the industry. We respond to the needs in the COVID-19 crisis, expand the product variations having the antiviral function, and proceed with the initiatives aimed at reviewing the antiviral mechanism and contributing to the reduction of the threat of virus.

*BIOTASK: Our unique name for the antiviral function (our registered trademark)



A product having the antiviral function



Microorganism measurement room in the R&D Center

Creation of communication spaces filled with greenery

Social issues and needs

As lifestyles has been changed due to COVID-19 crisis, people started to pay attention to home vegetable gardening, which can be enjoyed outdoors while avoiding crowds, but problem is that there are shortage of rental farms in urban area. As a solution to this problem, roof vegetable gardens becomes more popular. However, there is another issue that properties suitable for such gardens are limited, since the garden soil is so heavy that it could be over the load capacity of building.

Daikden's strengths and value creation ⑥

We started promoting the new vegetable garden system from April 2023. This system enable people to grow vegetables easily on roof of buildings by using our product, GLOW EARTH. GLOW EARTH is a wood culture medium made in Japan, it is lighter than soil, not easy to get hands dirty, and it can be disposed as combustible waste. We will aim to create open-communication spaces filled with greenery by promoting this system.



Roof vegetable garden (Image)



Wood culture medium GLOW EARTH

05

05 Initiatives for the fulfillment of materiality, "User Needs in the New Normal Era"

Development of labor saving type products and techniques



Contributing to the anti-seismic ceiling by developing the labor-saving construction technique

Social issues and needs

A shortage of workers has become an aggravated problem in the construction industry. On the other hand, while the Building Standards Act revised after the Great East Japan Earthquake requires higher aseismic performance of the ceilings of large public buildings, there was an issue that it requires much time and labor in making existing ceiling anti-seismic.

Daikden's strengths and value creation

To particularly respond to the needs of making the ceilings of large public buildings anti-seismic after the Great East Japan Earthquake, Daikden developed a unique ceiling construction technique that makes it possible to make the ceiling anti-seismic while saving construction time and work. With this construction technique, we reduced the construction time and labor by approx. 25% compared to making the conventional ceiling anti-seismic. We also developed a ceiling system exclusively for hallways, which will become the evacuation route at the time of disaster.

We will aim to further realize the saving construction time and work for not only ceilings but also building materials for renovation from the perspective of a new construction technique.

Rate of reduction of construction time and labor compared to making the conventional ceiling anti-seismic: *Estimated by our company

Approx. 25%



Our own anti-seismic ceiling construction technique