



Sustainability Report 2024

2 This is Takasago

- 2 Corporate Vision
- 3 Our Business
- 4 Financial Highlights
- 5 Global Network
- 6 Takasago's Value Chain
- 7 Where our products are used

8 Takasago's Value Creation Story



- 9 Message from President and CEO
- 13 Message from Senior Vice President,
General Manager of GIHQ
(Sustainability, Global)
- 15 Business Strategy—New Global Plan-2
- 16 Policy and Plans for Sustainability
- 17 Sustainability Governance
- 18 Materiality Assessment
- 19 Material Issues and Our Vision:
Contributing to Society
- 20 Stakeholder Engagement
- 21 Initiatives Related to the SDGs
- 22 Progress Highlights regarding
our Sustainability Plan, Sustainability2030
- 23 Material Issue
 - Climate Change
 - Safety First
 - Human Rights
 - Responsible Procurement
 - Digitalization
 - Green Chemistry

31 Environment, Occupational Health & Safety



- 32 Global EHS Management
- 33 Biodiversity Conservation Initiatives
- 34 Approach to Climate Change
- 35 Environment
- 38 Occupational Health & Safety (OHS)

40 Social Aspects



- 41 Our People
- 46 Procurement
- 51 TaSuKI update
- 56 Production
- 58 Logistics
- 59 Research & Development
- 63 Quality Assurance
- 67 Stakeholders and Investors
- 67 Local Communities

70 Governance



- 71 Corporate Governance
- 74 Risk Management
- 76 IT Security
- 77 Compliance
- 79 Tax Strategy

80 Data

- 80 External Partnerships and Initiatives
- 81 Corporate Profile
- 81 About this report

CORPORATE COMMUNICATION TOOLS



Sustainability Report 2024
(Japanese Edition)



Sustainability Report 2024



Corporate website



LinkedIn Takasago site

Cover Picture



We are delighted to present our exhibition at the Takasago Collection® Gallery, "Paris and Perfume - The World of Perfume Bottles Exhibition." The cover is this exhibition poster. (Exhibition period: June 15, 2024 - December 20, 2024)

Corporate Vision

● Create New Value

Through Innovation Rooted in *Kaori*

In 2020, the Takasago Group celebrated its 100th anniversary. With the corporate philosophy “Contributing to Society through Technology” in mind, we have added the corporate mission, “Create new value through innovation rooted in *kaori* (aroma in Japanese).” The corporate mission is incorporated in the essence of Takasago, which our predecessors have cultivated over the past 100 years. Currently, we maintain offices, production sites and R&D centers in 28 countries and regions. Through our network of global research, production, creativity and marketing, we develop products tailored to the needs of individual markets. By utilizing our

technologies and our global network, we will continue to develop high-quality and innovative products that contribute to cultural and social progress.

We have established Vision 2040 as a vision of ourselves in 2040. With Vision 2040's slogan, “Care for People, Respect the Environment,” we have been pursuing advanced technologies to enrich and bring well-being to daily life. We will work in harmony with nature and apply its blessings to contribute to the sustainability of the natural environment. Through those activities, we aim to remain an indispensable company.

Corporate Philosophy

**Contributing to Society
through Technology**

Corporate Mission

**Our mission is to create new value
through innovation rooted in *kaori***

(*kaori*: aroma in Japanese)

Vision 2040

**Care for People,
Respect the Environment**

Our vision is to be:

- 1** Proud of our culture of respect,
diversity and inclusion
- 2** In harmony with nature,
enriching and bringing well-being to daily life
- 3** Full of hope and ambition,
confidently taking on new challenges
- 4** Eager to continue to innovate and
remain an indispensable company

Our Business

Flavors

We provide flavors that impart highly desirable aromas and tastes to beverages, desserts, confectioneries, dairy products and prepared foods, as well as food ingredients such as fruit juices, coffee and tea.



Our customers → Food companies, beverage companies

Aroma Ingredients

We develop optically active, innovative and unique aromatic materials and use them in the creation of the highest quality flavors and fragrances.



Our customers → Fragrance companies, internal use

Fragrances

We create and supply fragrances for use in products such as perfumes, cosmetics, shampoos, detergents, air fresheners and bath salts that have excellent residual fragrance, diffusion and stability.



Our customers → Cosmetics companies, household goods companies

Fine Chemicals

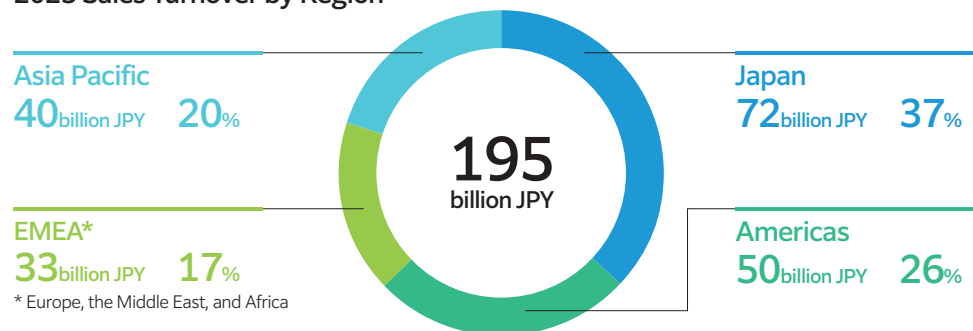
We provide pharmaceutical intermediates manufactured using asymmetric synthesis technology, original catalysts and functional materials such as Organic Photoconductors that support the electronics industry.



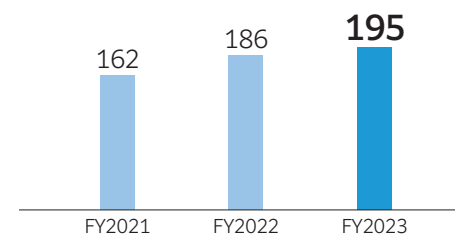
Our customers → Pharmaceutical companies, electronics companies

Financial Highlights

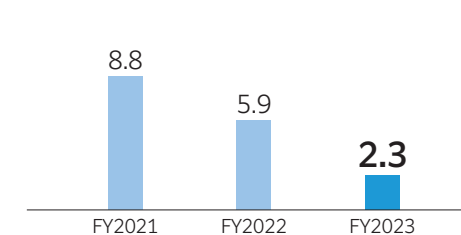
2023 Sales Turnover by Region



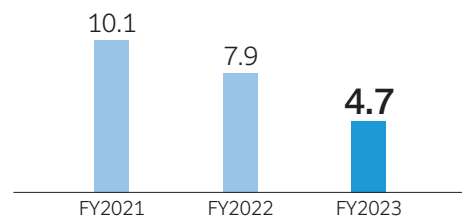
Sales Turnover (billion JPY)



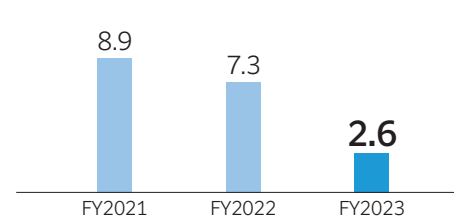
Operating Income (billion JPY)



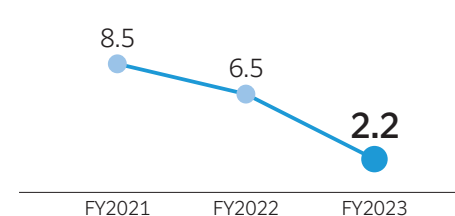
Ordinary Income (billion JPY)



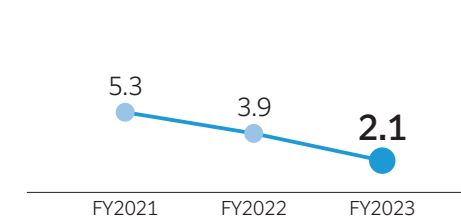
Net Income (billion JPY)



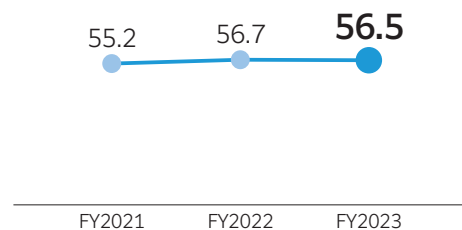
ROE (%)



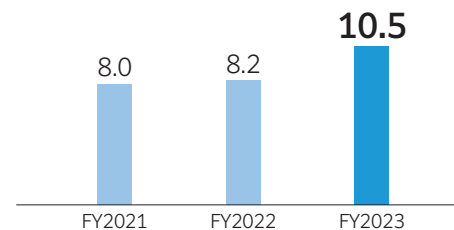
ROA (%)



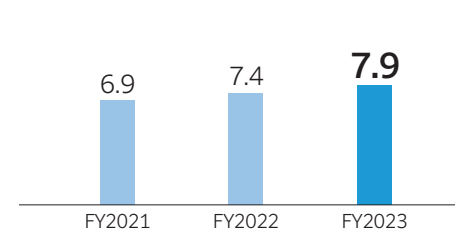
Equity Ratio (%)



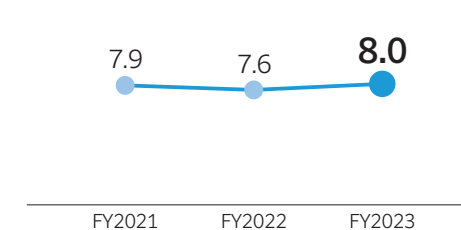
Capital Investment (billion JPY)



Depreciation Expense (billion JPY)



R&D Expense to Sales Turnover (%)



Global Network

Asia/Pacific

Japan	Takasago International Corporation          
Singapore	Takasago International (Singapore) Pte. Ltd.      
Philippines	Takasago International (Philippines), Inc. 
Thailand	Takasago Import and Export (Thailand) Ltd. 
Indonesia	PT. Takasago International Indonesia       PT. Takasago Indonesia 
India	Takasago International (India) Pvt. Ltd.       
Pakistan	Takasago International (Pakistan) Pvt. Ltd. 
China	Takasago International (Shanghai) Co., Ltd.   Shanghai Takasago-Union Fragrances & Flavors Co., Ltd.       Xiamen Hua Ri Foods Industrial Co., Ltd.  Takasago International (Guangzhou) Co., Ltd.       
Korea	Takasago International Corporation (Korea) 
Malaysia	Takasago International (Malaysia) Sdn.Bhd. 



Europe/Middle East/Africa

France	Takasago Europe Perfumery Laboratory S.A.R.L.     
Germany	Takasago Europe G.m.b.H.      Takasago International (Deutschland) G.m.b.H. 
Italy	Takasago International (Italia) S.R.L. 
Spain	Takasago International Chemicals (Europe), S.A.       Takasago International (España) S.L.U. 
United Kingdom	Takasago (U.K.) Ltd. 
Turkey	Takasago International Turkey Esans Ve Aroma San. TIC. A.S. 
South Africa	Takasago International Corporation South Africa (Pty) Ltd. 
Madagascar	Takasago Madagascar S.A. 

The Americas

U.S.A.	Takasago International Corporation (U.S.A.)         Centre Ingredient Technology, Inc.  
Mexico	Takasago De Mexico S.A. De C.V.       
Brazil	Takasago Fragrâncias E Aromas Ltda.       

Office

-  Headquarters
-  Sales Office
-  Representative Office

Laboratory

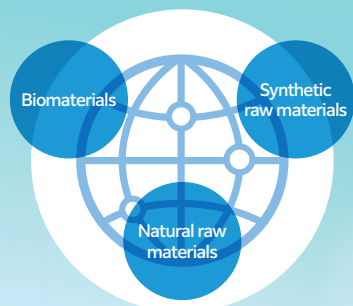
-  Flavors
-  Fragrances
-  R&D

Factory

-  Flavors
-  Fragrances
-  Arma Ingredients
-  Fine Chemicals
-  Food
-  Natural Resources

Takasago's Value Chain

Raw Materials Procurement



We optimize and manage global supply chains. We aim to build a stronger and more sophisticated global supply chain while responding to changes in global conditions and sustainability issues.

Quality Assurance



We have a total of 23 manufacturing sites in Japan and overseas. We have achieved a globally coordinated manufacturing system at each of our bases, and we have established business continuity plans (BCPs). To provide our customers with globally consistent quality, we have established the One Takasago Quality Assurance Concept in which the quality assurance departments in each country are integrated into one organization.

Strength Research and Development Capabilities

The Takasago Group has developed diverse technologies and a broad portfolio based on its experience accumulated over the 100 years since its founding. We design and develop aroma ingredients as well as flavors and fragrances to provide value to our customers. We also apply our technologies in the manufacturing of pharmaceutical intermediates and other products. Our diverse technologies and broad portfolio create unlimited synergy and further strengthen our core competencies. We promote the unification of R&D strategies through functional collaboration between our organizations conducting basic research in Japan and the US and the organizations conducting applied research at each site to create promising global R&D results.

R&D and Marketing



Our R&D headquarters in Japan is the core of our domestic and international R&D activities, providing basic research data to our research centers in various countries. We also collaborate globally in marketing activities, with research centers in each country conducting research tailored to the needs and trends in their specific region.



Flavors



Fragrances



Aroma ingredients



Fine chemicals

Customers

Food/
Beverages
ManufacturersDaily Goods
ManufacturersPharmaceutical
manufacturers

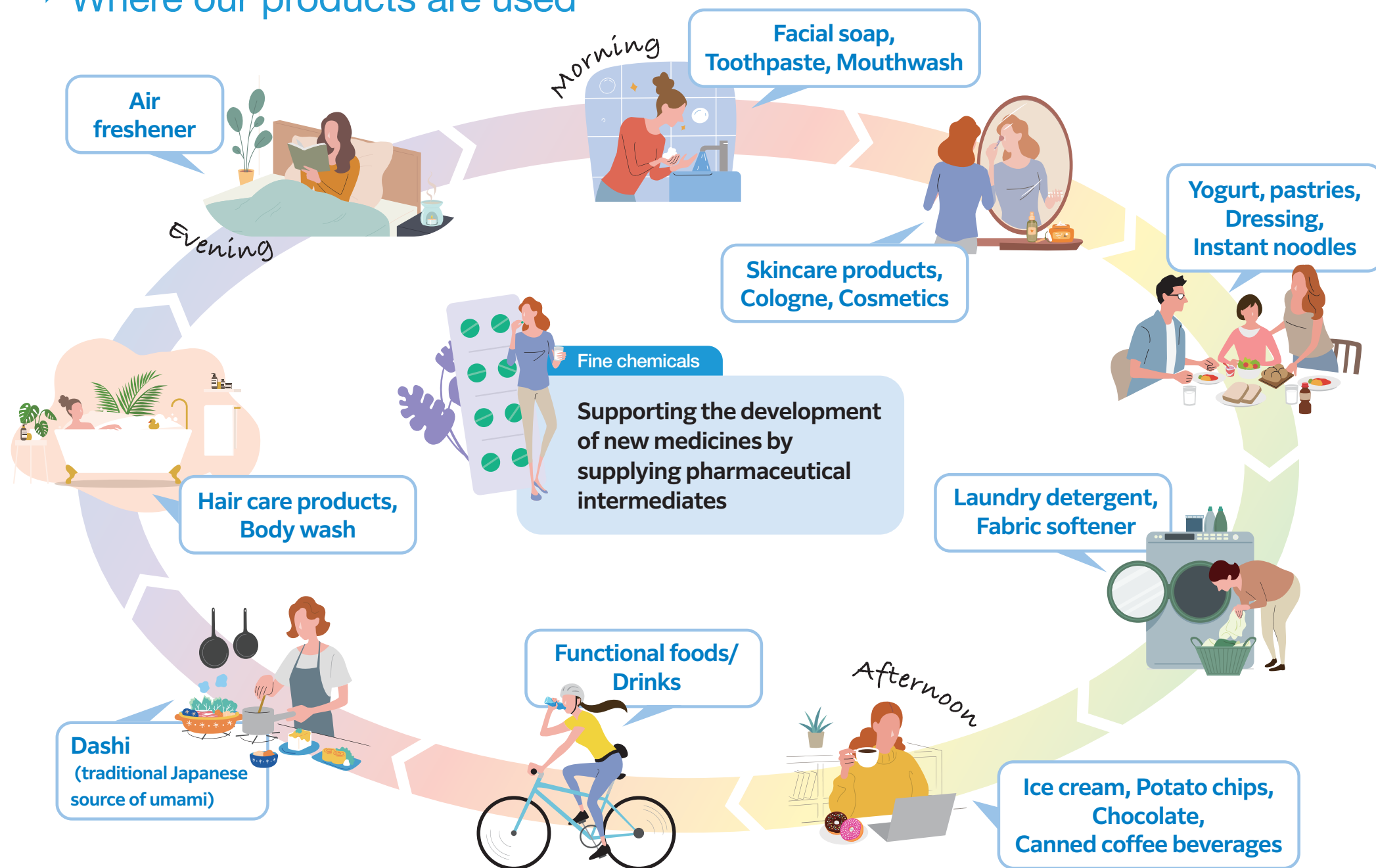
Consumers



Strength Global Value Chain

Our headquarters are in Japan and we have laboratories, manufacturing sites and sales offices in 27 countries and regions. We collaborate globally on basic and applied research and marketing activities, not just on processes such as raw materials procurement, manufacturing and delivery. We provide value to our customers as a global business partner.

Where our products are used



Takasago's Value Creation Story

- 9 Message from President and CEO
- 13 Message from Senior Vice President,
General Manager of GIHQ (Sustainability, Global)
- 15 Business Strategy—New Global Plan-2
- 16 Policy and Plans for Sustainability
- 17 Sustainability Governance
- 18 Materiality Assessment
- 19 Material Issues and Our Vision: Contributing to Society
- 20 Stakeholder Engagement
- 21 Initiatives Related to the SDGs
- 22 Progress Highlights regarding
our Sustainability Plan, Sustainability2030
- 23 Material Issue
 - Climate Change
 - Safety First
 - Human Rights
 - Responsible Procurement
 - Digitalization
 - Green Chemistry

Message from President and CEO

Q What were the business conditions in the fiscal Year ended March 31, 2024, and what is the earnings forecast for the fiscal year ending March 31, 2025?

In the fiscal year ending March 31, 2024, the economy became independent from the COVID-19 pandemic, and there was further progress in the normalization of socioeconomic activity, leading to a widespread economic recovery. The global economy remained stable, although there were some differences between countries and regions. Regarding the outlook for the global economy going forward, the gradual trend toward a recovery is expected to continue. However, the uncertainty in the global economy continued due to increasing geopolitical risks, including the situation in Ukraine and the Middle East, global inflation, and concerns about a global economic recession.

In this situation, the Takasago Group's net sales increased 4.9% from the previous fiscal year, reaching a record high of 195.9 billion yen. By business segment, net sales in Flavors increased 3.4% increase due to the strong sales of beverages in Japan and Asia. Net sales increased 11.2% in Fragrances due in part to strong sales of products for cosmetics, especially in Singapore and Indonesia. Regarding Aroma Ingredients, although sales of menthol-related products stagnated, net sales of high-value specialty products were strong, resulting in a 9.1% increase in net sales. On the other hand, in Fine Chemicals, net sales of pharmaceutical intermediates fell below the level in the previous year.

By area segment, in Japan, the hot summer heat led to the steady growth of net sales with strong sales of flavors for beverages and fragrances for laundry products. In the Americas, we achieved an increase in net sales due to the strong performance of the fragrance division, but excluding the effect of foreign exchange rates, net sales would have decreased. Similarly, in Europe, although we achieved an increase in



Satoshi Masumura

President and
Chief Executive Officer



net sales by expanding business with our African customers, net sales would have decreased excluding the effect of foreign exchange rates. In Asia, net sales of flavors for beverages and savory products, which are focus categories in the flavor division, were strong, and net sales in the fragrance division were also strong, because we concentrated management resources on multi-national and major local customers, targeting the air care, personal care, and fabric care categories. Both divisions also achieved strong sales in emerging markets in Asia.

In terms of profit, we focused on expanding sales of mainstay products and new products both in Japan and overseas, and also made efforts to adjust the selling prices to an appropriate level to address the increased prices of raw materials and other factors. However, operating profit decreased 61.1% from the previous year due to an increase in SG&A expenses, including labor expenses.

In the fiscal year ending March 31, 2025, we need to pay close attention to uncertain factors such as prolonged geopolitical risks, rising prices of resources and raw materials, global monetary tightening, and unstable exchange rate fluctuations. In the flavor and fragrance industry, the competitive environment remains severe, but the market is expected to continue to grow in Southeast Asia, and solid growth is also expected in the mature markets of Europe and the United States.

Q Please explain your previous medium-term management plan, which was in its final year.

The fiscal year ending March 31, 2024 was the final year of our New Global Plan-1 (NGP-1) medium-term management plan, which was based on three basic policies, growth expansion overseas, profit improvement in Japan, and sustainability promotion. The plan included five pillars and priority tasks.

Regarding growth expansion overseas, the first of the basic policies, we worked to enhance and revitalize the organization at each of our sites to further expand our overseas business, which has grown steadily in terms of both sales and operating income. In NGP-1, our group focused on standardizing a flavor and fragrance production, especially in Indonesia. To continue to capture opportunities in growth markets, mainly in emerging countries, we need to continue to strengthen our global business foundation.

Regarding the second basic policy, profit improvement in Japan, our group has been working to improve the profitability of our domestic business in Japan, which has been in a difficult situation in terms of profit in recent years, to be a foundation for the generation of stable earnings.

During NGP-1, despite the lack of significant market growth, we were able to increase sales and generate business in new areas by proposing flavors and fragrances that meet the needs of the times, such as needs related to the growing awareness of health. In the fine chemical business, we also made decisions regarding capital investments to expand the number of products in line with our growth strategy. On the other hand, profitability is not yet at a sufficient level, and we need to take further steps to improve our product mix and cost competitiveness. Although the domestic market is not expected to expand, we will continue to improve profitability as domestic sales are still approximately 40% of total sales.

To address the third basic policy sustainability promotion, our group has been promoting the Sustainability2030 medium- to long-term sustainability plan launched in 2021 from the perspective of the realization of Vision 2040, which includes the slogan. "Care for People, Respect the Environment."

For example, our group successfully promoted its core sustainability activities, such

as obtaining the SBT certification of our greenhouse gas emission reduction targets and starting human rights due diligence. We will continue to promote sustainability initiatives in accordance with Sustainability2030 medium- to long-term plan.

During NGP-1, net sales exceeded the plan each year, and in the fiscal year ending March 31, 2024, net sales were the largest they have ever been. The basic strategy will be carried over to the new medium-term management plan, and the Group will continue to work as one to address the remaining issues.

Q Please explain your new medium-term management plan.

In formulating the new medium-term management plan, we first reviewed the quantitative targets of our long-term vision, Vision 2040. Our group named the new FY2024-FY2026 medium-term management plan New Global Plan-2 (NGP-2) and its quantitative targets are net sales of 220 billion yen, an operating profit margin of 5% and an ROE of 8% in FY2026, the final year of the plan. In NGP-2, our group set three basic policies, growth expansion overseas, profitability improvement in Japan, and sustainable management. We also set out the key success factors for each basic policy. The key success factors clarify and communicate to stakeholders what we are focusing our efforts on based on the policies.

Regarding the growth expansion overseas, the Takasago Group will steadily expand and grow our business through growth strategies based on our business axis and competitive technologies. Regarding the profitability improvement in Japan, for the group as a whole, Japan is the largest region in terms of overall sales, but the group continues to struggle in terms of the profitability of the Japanese market. We will improve profitability by optimizing our product portfolio, developing new business areas and reforming our cost structure. Regarding sustainable management, we will contribute to solving social issues through the implementation of Sustainability2030 and strengthen our management foundation to promote sustainable management.

Under Vision 2040, we aim to become an indispensable company that constantly pursues advanced technologies by respecting people's diverse values, living in harmony with nature and confidently taking on new challenges. The Takasago

group recognize NGP-2 as an important step in its promotion of its transformation toward the achievement of our vision, so we will steadily implement the policies and strategies that we have established and accelerate our efforts.

Q Sustainable management is one of the basic policies of NGP-2. Can you tell us about the purpose and activities of this policy?

One of the Key Success Factors in our third policy, sustainable Management, is Sustainability2030 execution. Here, I will explain the details of the progress of our initiatives for sustainability.

One of the themes we are currently addressing is the issue of climate change. In April 2020 the Group announced its establishment of policies in line with TCFD recommendations.

In May 2021, our greenhouse gas (GHG) emissions reduction targets were certified by the international Science Based Targets initiative, setting clear numerical targets to be achieved by 2030. These reduction targets are KPI targets in the management of the progress of Sustainability2030, and GHG emissions are monitored on a regular basis.

Regarding Scope 1 and 2 emissions, we actively engaged in discussions on renewable energy with the manufacturing sites within our Group. We increased our use of electricity derived from renewable sources of energy at our synthesis manufacturing site (the Iwata factory), which in our group is a large energy user, and we expect this will result in a significant reduction of GHG emissions. In addition, as a product-level initiative, the Takasago Group has long been working on product life cycle assessments. Currently, we are working with external consultants to further refine the carbon footprints of some aroma ingredients products. In the future, we plan to disclose carbon footprint information that has been third-party certified and promote emissions reduction activities.

Regarding Scope 3 emissions, we participated in the Ministry of the Environment-supported Supply Chain Decarbonization Support Project in 2022 and, based on the knowledge gained from the project, we are working to decarbonize the entire supply

chain through the global supplier engagement activities implemented by task forces that have been formed for each raw material category.

Maintaining biodiversity is also a very important topic. Our group uses many natural raw materials such as citrus, mint, vanilla, coffee and myrcene, which is the starting material for synthetic menthol.

We will continue our efforts to conserve biodiversity. Our procurement division promotes the Takasago Global Procurement Sustainability Key Initiatives (TaSuKI), and one of the objectives of TaSuKI is to consider and support environmental conservation at the source. One of the TaSuKI activities is the planting of grapefruit trees in Florida, USA, which began in 2019. Florida is one of the world's leading citrus growing regions, and our group has been purchasing grapefruit and orange essential oils there for many years. We started a tree planting project in cooperation with a local essential oil processor and a neighboring citrus farm. In 2023, some grapefruit was harvested from trees planted in the initial phase of the project, and we expect to obtain essential oil starting next year.

To reduce environmental impact, the Takasago Group is also working to reduce water consumption and the wastewater discharged. In addition to reducing the amount of wastewater discharged, we strive to ensure that it is discharged in a manner that complies with legal regulations. To us, compliance is one of the most important management issues, and the Takasago Group manages it with its globally certified ISO 14001 environmental management system with clear standards and requirements for application.

The Takasago Group is also working on the SDG-conscious development of new products and materials. As environmental issues such as climate change and deforestation have become more serious in recent years, our group believes that our low-environmental-impact products and technologies will contribute to solving the SDG issues and enable us to capture many business opportunities.

We will continue to increase our efforts to develop nature-derived ingredients with low environmental impact by utilizing our unique continuous flow and catalyst technologies and biotechnologies, which save energy and resources, and to develop biodegradable and renewable aroma ingredients. In addition, to effectively use limited natural resources, our group actively searches for and uses renewable

resources, reduces the use of natural aroma ingredients through the development of alternative materials, and utilizes unused resources.

Currently, the Takasago Group is working with the New Energy and Industrial Technology Development Organization (NEDO) to advance a number of technology development themes that will contribute to energy conservation. We will continue to develop more unique and superior products and technologies and contribute to the SDGs, to increasing quality of life (QOL) and to well-being.

Our sustainability initiatives consist of ESG activities in various areas, but here I have focused on the environmental issues in describing our progress. There are many issues in ESG areas, and we will continue to carefully address them one by one to resolve them.

Q Lastly, what are your ambitions for the first year of NGP-2?

For the current fiscal year (ending March 31, 2025), we are targeting a 7% year-on-year increase in sales to 205 billion yen. The operating income target is 4 billion yen, up about 72% from the previous year.

In terms of future capital investment, our Group is implementing many projects this year, including the construction of a facility for pharmaceutical intermediates at the Iwata factory and QA1, a new building at the Takasago Group's German subsidiary. We will also execute the Global SAP Project (a core system integration project). I would like to ask for the continued support and understanding of our shareholders for the long-term, which enables us to expand the business and establish a strong presence in the market.



Message from Senior Vice President, General Manager of GIHQ (Sustainability, Global) Sustainability Promotion

The Takasago Group has set “Sustainability Promotion” as the Basic Policy of its medium-term management plan NGP-1, which ended in March 2024. As a member of society, the group is sincerely addressing the challenges faced by society and actively engaging in activities aimed at solving these issues. The group is also aims to enhance non-financial corporate value through sustainable management. In the below, We would like to share the progress of our sustainability activities in the period of NGP-1 (FY2021-2023), focusing on climate change, human rights, DE&I (Diversity, Equity and Inclusion) and safety activities.

Climate change caused by global warming has various impacts, such as an increase in the frequency and intensity of extreme weather (hurricanes, floods, droughts, etc.), coastal flooding due to sea level rise, impacts on ecosystems, and negative effects on agriculture. Takasago is addressing “adaptation to and mitigation of” climate change through an international framework. In April 2020, we disclosed information in line with the TFCF recommendations, publicly announcing the Group's policy and strategy. In May 2021, we made the Group's GHG emissions reduction targets, certified by the SBTi.

The related activities progressed during the NGP-1. In 2022, we were selected to participate in a support program hosted by the Ministry of the Environment of Japan to reduce Scope 3 GHG emissions and given an opportunity to work closely with BCG for five months on how to reduce Scope 3 GHG emissions. Through the collaboration, we looked into a more systematic approach toward reducing the GHG emissions of procurement activities, which accounts for 90% of Scope 3 emissions, such as replacing synthetic raw materials with sustainable raw materials and began requesting LCA disclosure and collaborating with major suppliers on emissions targets. As for our efforts to reduce Scope 1 & 2 emissions in addition to day-to-day energy-saving efforts, we are introducing renewable energy to our synthesis plant



Tatsuya Yamagata

Senior Vice President
General Manager of GIHQ
(Sustainability, Global)

in Japan, which is the greatest energy consumed plant across the group, and also focusing on technological innovation to develop environmentally friendly products utilizing biochemistry and processes with continuous flow reaction.

Next, human rights are guaranteed by international law, but in reality, there are problems around the world where people's basic rights and dignity are violated. The Takasago Group conducts corporate activities with respect for human rights. In 2019, we formulated the Takasago International Group Human Rights Policy and established a process for human rights due diligence with reference to a guidebook published by the Japan Federation of Bar Associations. Subsequently, we organized a wide range of human rights issues and summarized them as "Key Human Rights Issues," which were also appended to the Policy. We conduct human rights due diligence every year. During NGP-1, we were trying to upgrade the due diligence, referring to the "Practical Reference Materials for Respecting Human Rights in Responsible Supply Chains, etc." published by the Ministry of Economy, Trade and Industry and the "U.S. Department of Labor Item List" in order to confirm whether human rights violations exist in our supply chains and to properly identify risks. In term of raw material procurement, we share the Takasago International Group Supplier Code of Conduct with our suppliers and request their compliance with the code of conduct. We have more than 1,000 suppliers which are spread all over the world. It is indeed difficult for us to conduct on-site audits for all of our suppliers. Therefore, we effectively utilize SEDEX, an ethical audit platform, to conduct ethical audits. In this way, the Takasago Group ensures responsible procurement.

We would also like to talk about diversity and inclusion. The Takasago Group has been working on diversity and inclusion as one of our important management issues these years. We are aiming to build a sustainable management that will enable us to last for the next 100 years by the creating new added value through the diversity of human resources and the flexibility of working environment. During the NGP-1 period, in 2022 we formulated the Corporate Diversity & Inclusion Policy (Diversity, Equity & Inclusion in the English version) and set a global target for each item (workplace environment, women's activities, persons with disabilities, seniors, non-Japanese

employees, and LGBT) with reference to the guidelines of the Ministry of Economy, Trade, and Industry (METI). In developing the action plan, it is difficult to develop a common global action plan because laws and conventions differ from country to country. However, since utilizing diverse human resources is a common direction, we would like to deepen the discussion at the Global Human Resources Meeting.

Finally, we would like to add our activity regarding occupational health and safety. In 2013, A fire broke out at the Takasago Hiratsuka factory. It caused a lot of troubles to various stakeholders, and neighbors were temporarily forced to evacuate. We faced a situation that supply responsibility was not fully fulfilled. We took it very seriously, and we have been working hard to develop a culture of safety. One of the key activities implemented is the safety council meeting, which is held monthly with the participation of the president and other relevant corporate officers, where incidents and investigated root causes are reported, and discussions are held to formulate policies and rules as well. We name April 10, the date of the fire accident, as "Takasago Safety Day" and conduct safety-related programs every year across the headquarters and all affiliates on a global basis. With the motto of "each and every one of us returns home with smile", we continue to emphasize the importance of occupational safety and health and develop a culture of safety incorporating into each one of us.

"Sustainable Management", one of the basic policies for the new medium-term NGP-2 plan (Began in April 2024), will be achieved not only by financial growth but also by the afore-mentioned.

All of the eight items indicated in the materiality are important elements for the objective. We will continue to deepen our sustainability activities (as per the plan "Sustainability2030") and aim at "Sustainable Management".



Business Strategy

The Takasago Group has formulated a new Mid-Term Management Plan, New Global Plan-2 (NGP-2) from FY2024 to FY2026, aiming to get closer to our vision stated in Vision 2040.

There are three basic policies in NGP-2.

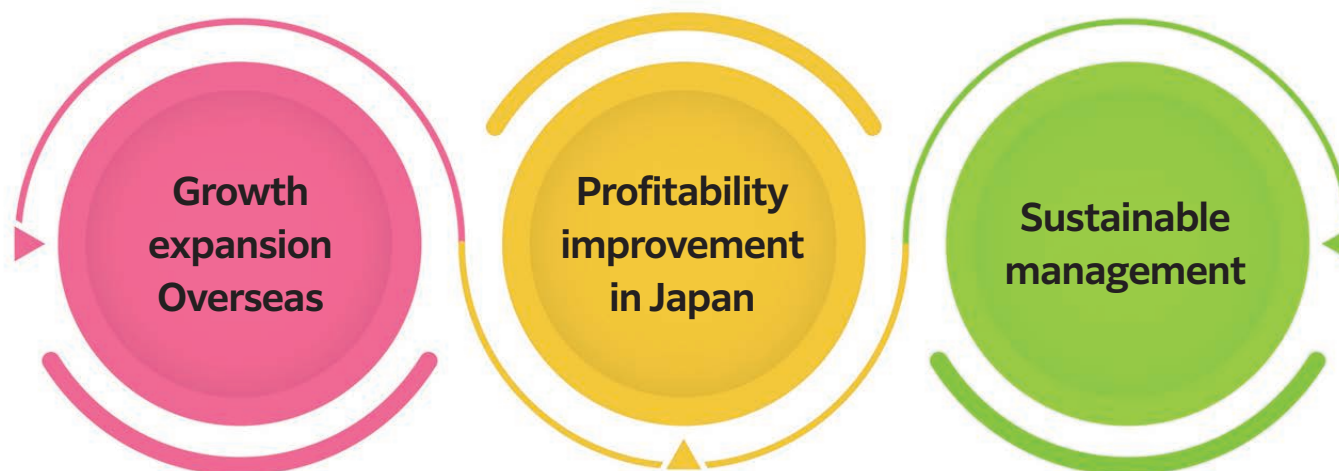
- 1) Growth expansion Overseas
- 2) Profitability improvement in Japan
- 3) Sustainable management

To achieve the NGP-2 targets, we have set key success factors for each policy.

To enable the entire Group to share goals and pursue them as One Takasago, we will have leaders provide stronger leadership and enhance global communication, and this will increase employee motivation.

NGP-2 New Global Plan-2

Basic Policies



Key Success Factors

- Business segment development strategy
- Developing new customers
- Expansion of Gross Profit
- Optimization of supply chain
- Creating competitive technologies leveraged by state-of-the-art science
- Optimization of Gross Profit
- Cost structural reform
- Developing new business opportunities
- Pursuing efficiencies in flavor and fragrance manufacturing
- Creating a future vision of chemical business, and restructuring the chemical production system
- Optimization of supply chain
- Creating competitive technologies leveraged by state-of-the-art science
- Sustainability2030 execution
- Enhance corporate functions
- Maximizing human capital value
- Operational excellence
- SDGs-conscious development of new products and materials

Policy and Plans for Sustainability

Sustainability is a vital element for our growth

The Takasago Group set sustainable management as one of the three basic policies in the new mid-term management plan, NGP-2. Following the Sustainability Basic Policy developed in 2021, we will strive to accelerate related activities.

Vision 2040

Care for People, Respect the Environment

NGP-2 Three Basic Policies

**Growth
expansion
overseas**

**Profitability
improvement
in Japan**

**Sustainable
management**



Our business activities have been aligned with many aspects of the United Nations Sustainable Development Goals (SDGs). We will continue to enhance our business operations to help achieve the SDGs with a strong commitment to addressing global challenges

Sustainability Basic Policy

The policy has been developed as basic principles for our actions regarding sustainability. Based on the Care for People, Respect the Environment statement in our Vision 2040, The Takasago Group respects all kinds of values and aims to live in coexistence with nature. Through fair and transparent corporate activities, we will continue to address social issues and contribute to sustainability in all forms.

Material Issues

Our material issues are designed to describe relevant priority issues that we need to tackle. They are reviewed and discussed every year.

Sustainability2030

Sustainability2030 includes concrete plans to achieve each objective regarding our material issues.

■ Sustainability Governance

● Board of Directors

The Board of Directors is the highest governance body of the Takasago Group. It is chaired by our president and CEO. At its meetings, the Board of Directors discuss and make decisions on key management issues and strategies, but sustainability matters are also included on its agenda. As part of our Group's approach to sustainability, we identify material issues every year, which are discussed and approved by the Board of Directors. In addition, the Sustainability 2030 medium-to-long-term sustainability action plan and information about individual sustainability issues (climate change, human rights, etc.) are reported to the Board of Directors for discussion and decision-making. In 2023, the Board of Directors deliberated two matters related to sustainability and received eight reports related to sustainability.

● Executive Management Committee

The corporate officers (senior vice presidents and vice presidents) are assigned by the board of directors to lead the divisions. Most of them are the general manager of a division reporting directly to the CEO and president. Following internal regulations, the corporate officers discuss and approve issues brought to them. Sustainability related matters are also discussed by the corporate officers and discussed at meetings of the Board of Directors as necessary.

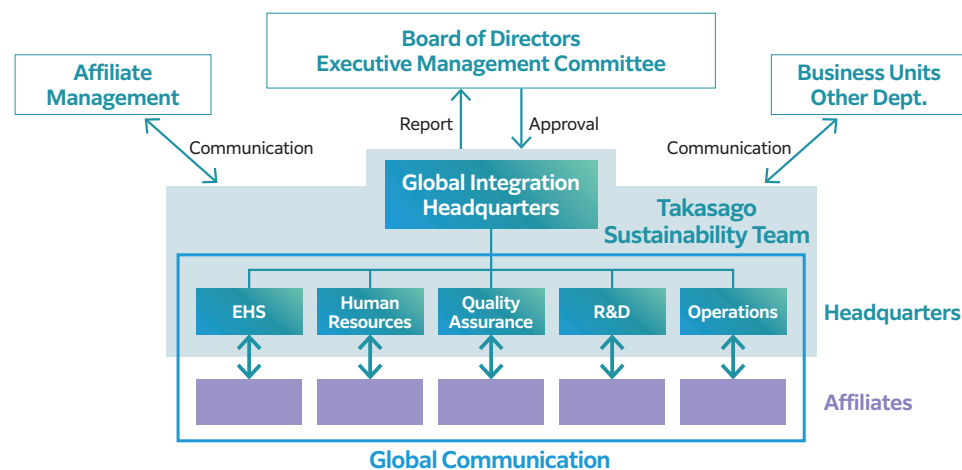
● Global Integration Headquarters

The Global Integration Headquarters is the division responsible for sustainability (strategy and planning) and is leading the Sustainability Promoting Committee. The general manager of the division is responsible for taking up sustainability-related matters at the meetings of both the Board of Directors and the Executive Management Committee.

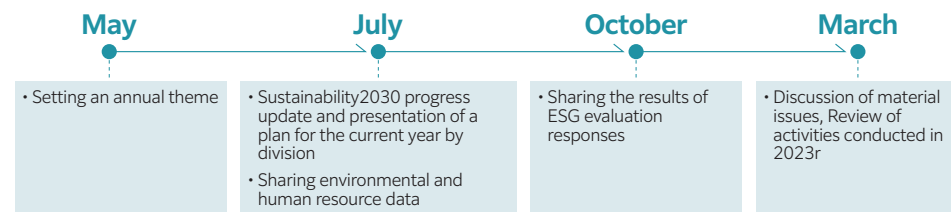
● Takasago Sustainability Team and Sustainability Promoting Committee

The Takasago Sustainability Team was formed in 2017 to ensure that all our activities

are globally aligned with the vision and strategy and action plans are executed in a timely and appropriate manner. The team performs five key corporate functions: EHS, Human Resources, Quality Assurance, Operations and R&D. The general manager of the Global Integration Headquarters leads the team and communicates information about key sustainability matters to the Board of Directors. Corporate officers and representatives involved in each function participate in the activities of the Sustainability Promoting Committee, which meets around once every three months at Headquarters to exchange information and their concerns and monitor the progress of our activities. Individual teams are responsible for communicating information about their functional areas across the globe and developing their own action plans following the corporate strategy.



The Main agenda of the Sustainability Promoting Committee in 2023.



Materiality Assessment

The Takasago Group conducted the assessment of its material issues taking external opinions into consideration. The material issues, which are reviewed every year, are identified based on global trends, sustainability indexes and standards such as the Global Reporting Initiative (GRI), the Dow Jones Sustainability Index (DJSI) and Sustainability Accounting Standards Board (SASB) Standards and trends in our industry. Identified issues are discussed by the sustainability team and thoughts and opinions are exchanged with stakeholders. In defining the current material issues, we exchanged thoughts and opinions with women and labor unions. The draft material issues are then brought to the corporate officers and the Board of Directors for further discussion and decision-making. Through these actions, we address global issues and fulfill our corporate responsibilities as a member of society. This also helps enhance the corporate value of the Group over the long term.

Process for Defining Materiality



Assessment Method

The Takasago Group assesses the materiality of issues based on the double materiality principle, considering the issue's internal impact on the business as well as its external impact on society and the environment. Through this assessment, we identify key issues for long-term value creation.

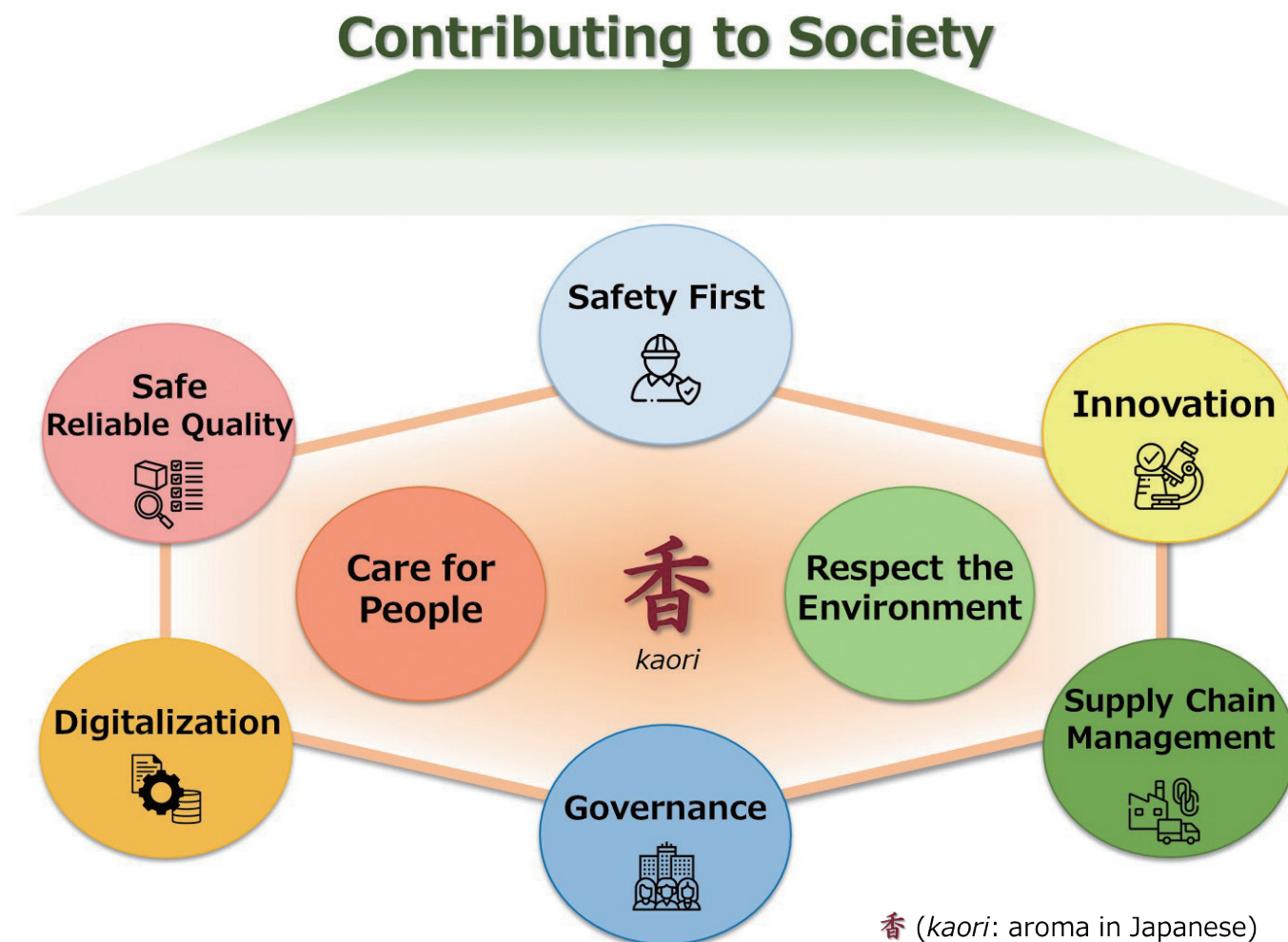
Material Issues 2024-2025

Internally, material issues are prioritized in a materiality matrix. For disclosure, the Takasago Group has simplified our outlook on our material issues to ensure that the message is easily conveyed to all stakeholders.

Materiality Item	Details
Care for People	Improving employee engagement (e.g., supporting employee growth, promoting health management), diversity and inclusion, respect for human rights
Respect the Environment	Climate change mitigation and adaptation, reduction of environmental impact, efforts for biodiversity conservation
<i>kaori</i> : aroma in Japanese	Contribution to QOL/well-being through <i>kaori</i>
Safety First	Compliance with EHS laws and regulations, risk assessment, chemical management
Supply Chain Management	Pursuit of resilience in raw material sourcing, implementation of responsible sourcing, safe/secure/stable and highly efficient production activities following Vision2040 "Care for People, Respect Environment", promotion of sustainable logistics
Governance	Compliance with laws and regulations, fair and transparent management, risk management, enhancement of medium- to long-term corporate value
Digitalization	Strengthen IT security, global integration of ERP and satellite systems, the automation of manufacturing/the use artificial intelligence (AI) & IoT, Going Paperless
Innovation	Open innovation, Development of Bio Production Technology, t continuous flow technology/catalysts, Artificial Intelligence(AI), Receptor Assays
Safe Reliable Quality	Legal compliance and appropriate quality assurance, traceability, quality control

Material Issues and Our Vision: Contributing to Society

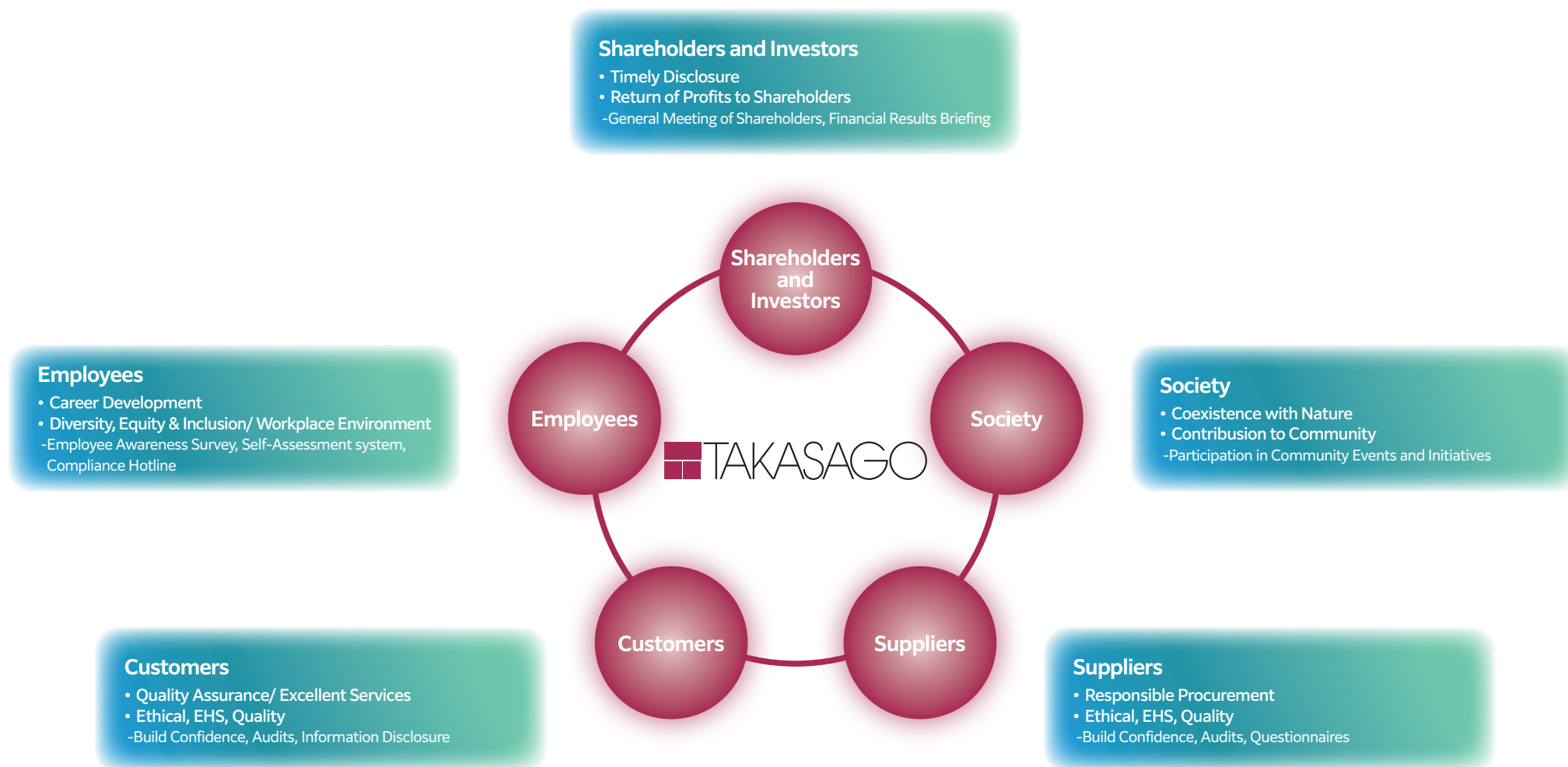
The Takasago Group has simplified the relationship between our material issues and vision and presented it in the diagram below to ensure that the message is easily conveyed to all stakeholders. Material issues are essential factors for our achievement our vision, Contributing to Society.



Stakeholder Engagement

Takasago identified shareholders, society, suppliers, customers and employees as our key stakeholders.

We believe that seeking mutually beneficial solutions and continuous engagement will enable us to develop good relationship with stakeholders.



Initiatives Related to the SDGs

The SDGs provide an opportunity for companies to create value for both their business and society. We have considered how our key initiatives contribute to achieving the 17 goals of the SDGs. By steadily moving forward with each initiative, we strive to contribute a sustainable society.

Initiatives Related to the SDGs Highlights

	Contributing to well-being through <i>Kaori</i> , occupational health and safety		Reducing energy consumption, utilizing renewable energy
	Developing new products and materials with the SDGs in mind		Human rights, diversity and inclusion
	Disclosing information in line with the TCFD recommendations, SBTi emissions reduction targets		Responsible sourcing activities

Relation to the SDGs Overview

																		
EHS	Climate Change						●	●				●		●				
	Reduction of Environmental Impact						●	●		●		●	●		●			
	Occupational Health and Safety			●			●		●		●							
Social Aspects	Raw Materials												●					●
	Responsible Procurement												●					●
	Customer Health and Safety			●									●				●	
	Innovation	●	●							●					●		●	
	Green Chemistry						●	●					●	●				
	Local Communities								●								●	
	Human Resources Development					●			●									
	Diversity and Inclusion					●					●						●	
	Contributing to Well-being through <i>Kaori</i>			●									●					
Governance	Digitalization									●								
	Human Rights					●			●		●						●	●
	Economic Performance								●									
Disclosure	Risk management								●									
	Transparency												●					●

2023 Progress Highlights regarding our Sustainability Plan, Sustainability2030

To achieve our targets related to our material issues, we have formulated Sustainability2030, a mid-long term sustainability action plan which was launched in April 2021. The status of the activities in line with this action plan is regularly reported at Board of Directors meetings.

The following is a summary of the progress of major activities in 2023. In the next phase, we will increase our promotion of Sustainability2030 initiatives.

Please see the related pages for detailed information about activities and future initiatives. The full text of Sustainability2030 is available [here](#)

	Item		Phase 1 (2021-2023) Targets	Actions taken in 2023	Progress in Phase 1	Related pages
1	Climate Change		Obtain SBTi certification and establish an approach to the reduction of GHG emissions	Scope 1 and 2 emissions reduction Takasago Group globally promotes energy saving activities and the introduction of renewable energy. Scope 3 emissions reduction The Procurement Division has established a supplier engagement program. This was followed by the establishment of our Scope 3 GHG emissions reduction program. Through these engagement activities, we collect LCA (CFP) information about raw materials and engage in dialogue to enable the decarbonization of the supply chain.		P23, 34, 35, 37
2	Reduction of Environmental Impact	Reduction of GHG emissions	27.5% reduction of GHG emissions by 2030 vs. 2019	4.7% decrease compared with the previous year 12.0% decrease compared with the base year (FY2019)		P23, 34, 35, 37
		Reduction of water usage	1% reduction of water usage by 2022 (10% reduction by 2030 vs 2020)	4.0% decrease compared with base year(FY2020)		P37
		Reduction of waste generation	0.5% reduction of waste generation by 2022 (5% reduction by 2030 vs 2020)	The waste generation intensity decreased 6.1% compared with the base year(FY2020). 1.34% of the waste generated by the group as a whole was disposed to landfills (0.98% in the previous year).		P37
3	Occupational Health and Safety	Compliance	- Develop EHS compliance management - Implement an EHS compliance check	The Takasago Group is promoting many initiatives such as compliance education, improvement initiatives supervised by external OHS experts, and the implementation of the PDCA cycle within an ISO 45001 system.		P38
		Incident response	Risk assessment	The Takasago Group is promoting many initiatives such as risk assessment workshops, risk assessment trainer education programs and incident diagnosis initiatives.		P38
		Improve work-life balance	Provide training	EHS education programs, risk assessment workshops, various e-learning programs for OHS, etc.		P43, 44
4	Local Communities		Develop an annual plan for social contribution activities at each individual site	Developed an annual plan at each individual site.	-	P67, 68, 69
5	Green Chemistry		Development of eco-friendly technologies and products	Promoted projects including projects improving products' biodegradability	-	P62
6	Responsible Procurement	Raw Material Procurement	Implementation of the Responsible Sourcing Policy	Takasago Responsible Sourcing Policy (TRSP) 73.7% of all of our suppliers have agreed to the TRSP. Sedex Takasago Group has linked with 300 corporation/400 sites via the Sedex platform.		P46
7	Human Rights		Establish improvement scheme on human rights and working environment, utilizing the knowledge of third-party organizations	This year, SMETAs (Sedex audits) were conducted at 10 manufacturing sites. Most sites have received a SMETA every three years.		P26
			Conduct Human Rights Due Diligence regularly	Conducted group-wide human rights due diligence in 2023. No human rights violations were reported at Group companies.		P26
8	Transparency	Disclosures of non-financial information	Enhance the content of the information disclosed	Sustainability report The Takasago Group publishes the Sustainability Report every year, and we disclose information about our activities through our website and LinkedIn. Disclosure requirements The Takasago Group responds to the CDP, EcoVadis, Sedex, and other ESG index SAQs.		P1, 67, 80
		Disclosure of information such as the environmental impact of products	Implement LCA and Sustainability ID Score	LCA project to enable external authentication by a third party We have started a project through which LCA processes are authorized by a third party.		P35

1 Climate Change

Basic Approach

The Takasago Group understands that climate change is an important issue that must be addressed from a long-term global perspective and has identified it as an item of very high importance among its material issues. We will continue to work on climate-related issues in order to minimize their impact in the future.



Our reduction targets have been approved by the SBT initiative as science-based targets.

[tCO ₂]	2019 (Base year)	2030 (Target year)	Ratio
Scope 1+2	67,089	48,639	27.5%
Scope 3	781,321	675,842	13.5%

Strategy

To conduct business activities in line with the Paris Agreement, the Takasago Group has formulated a strategy to address climate change based on the TCFD recommendations. Contributing to the establishment of a carbon-neutral society, we will strive to reduce greenhouse gas (GHG) emissions by more efficiently using energy and introducing renewable energy.

Takasago Group is also focusing on disclosing climate-related information. Our group has responded to CDP surveys through its supply chain program since 2010. The group's score in the CDP's Climate Change program in 2023 was B. The group's score in other CDP programs was B in Water Security and B in Forests (commodity: palm oil).

We believe that these results were because we were highly evaluated for our environmental stewardship.



2023 Progress and Results

Scope 1 and Scope 2 emissions (from our operations)

Scope 1 emissions
in FY2023

-11.8%

GHG emissions scope 1
since FY2019

Scope 2 emissions
in FY2023

-12.3%

GHG emissions scope 2
since FY2019

% of renewable
energy-derived electricity

24.6%

Our target is 30% by 2030

The Takasago Group have been achieving GHG emissions reductions in line with our SBT reduction targets. Our group is focusing on energy saving activities, process innovation and the renovation of equipment to improve energy efficiency. Best practices are shared globally through EHS management. Our group is also utilizing electricity derived from renewable energy sources, which has contributed to the reduction of our Scope 2 emissions.

Scope 3 emissions (from our supply chain)

In 2023, our procurement division started supplier engagement activities which includes the collection of LCA information. Through engagement activities with our suppliers, we will implement emissions reduction measures for the decarbonization of the supply chain.

Future Efforts

The Takasago Group also plans to strengthen engagement with our customers through the promotion of the LCA calculation of the environmental impact our products. In addition, to address climate-related opportunities and risks, we will continue to promote green chemistry and enhance the resilience of our supply chain. The Takasago Group is accelerating its efforts to address climate change and it is taking concrete steps to implement various actions to contribute to a carbon neutral society.

Material
Issue

2

Safety First

Basic Approach

The Takasago Group (“Takasago”) believes that ensuring the safety and health of our employees is the foundation of the Takasago’s sustainable growth. Takasago will continue our efforts to create a safe and secure workplace so that all employees can concentrate on their work without anxiety. Takasago also recognizes the importance of safe operations in light of incidents and occupational hazards that have occurred in the past and it is determined to put “safety first” into practice.

Strategy

Promotion of Occupational Health and Safety

Takasago has established the Global EHS Committee (“GEC”) to promote the standardization of EHS activities and appropriately implement the plan globally by utilizing its ISO 45001 occupational health and safety management system. The GEC aims to create a safe, healthy and comfortable workplace environment by promoting preventive activities through risk assessment, compliance with laws and regulations, appropriate chemical substance management and work management, implementing highly effective recurrence prevention measures through analysis of the causes of incidents and prioritizing safety activities through the analysis of trends based on the results of various verifications.

Progress and Results

In FY2023, there were 5 incidents (lost-time injuries)*1 at domestic sites and 33 incidents (lost-time injuries)*2 occurred at overseas sites. In the event of an occupational accident, Takasago systematically identifies the underlying factors, particularly from the perspectives of the employees and the organizations, eliminates dangerous operations and work and implements machinery and management safety measures. The results of cause analyses and countermeasures are reviewed by the EHS Headquarters (“EHS HQ”), and example countermeasures are shared throughout Takasago to prevent similar occupational accidents.

*1 Incidents based on common reporting rules for domestic bases (work-related injuries)
*2 Incidents based on common reporting rules for overseas bases (work-related injuries)

ISO management system

In FY2020, Takasago acquired both the ISO 14001 certification of its environmental management system and ISO 45001 certification of its domestic production sites. In FY2021, Takasago domestic R&D headquarters and eight overseas production sites became ISO 45001 certified. An additional three overseas production sites became certified in FY2022. Takasago will continue to strive to eliminate accidents and occupational injuries through the appropriate operation of its globally integrated environmental, health and safety management system.

Recent efforts

2018	Takasago created global guidelines regarding the environment and health and safety called the Minimum EHS Requirements.
2019	EHS HQ began EHS Inspections to check the implementation of the Minimum EHS Requirements at overseas production sites.
2021	Since the COVID-19 pandemic made travel to overseas sites impossible, EHS HQ established a Remote EHS Inspection method using a web conferencing system and conducted an EHS inspection of the Mexico site in March 2021.
2022	For the first time in three years, EHS HQ went on a business trip and conducted EHS inspections at a site in Mexico.
2023	EHS HQ conducted an EHS Inspection remotely with a location in France.

Takasago believes that the leadership and commitment of top management at each site, including but not limited to awareness, response, active support and feedback, are very important in the promotion of occupational health and safety activities. The EHS HQ has provided education to the top management at each site in Japan to reaffirm their role in ensuring safety and managing the necessary resources.

● Future Efforts

Takasago's ultimate goal is to achieve zero serious incidents. We are working to achieve this goal by sharing the lessons learned from incidents (occupational accidents) that occurred within the Group and the good practices implemented at each site within the company. Takasago will review lockout/tagout (LOTO) rules and static electricity control rules based on the results of risk assessments to prevent accidents that could lead to serious incidents (industrial accidents).

Takasago assigns EHS managers to major production sites globally and promotes safety and health activities in accordance with the conditions of each country and production site. Takasago has set up EHS managers at each production site in Japan and overseas and promotes safety and health activities according to the conditions of each country and each production base.

Takasago will continue to improve the occupational safety and health system and promote risk reduction initiatives by regularly understanding the occupational safety and health activities at each site and the status of occupational accidents.

● Takasago Safety Day 2023

On April 10, 2023, the 10th Takasago Safety Day was held with the pledge to "Never again allow an incident like the one that occurred in 2013." The theme this year was "Reflect on past incidents to take a step forward." Education and training were conducted while considering how to achieve zero accidents and occupational injuries in the future. At each site, the core time program consisted of a message from the CEO, a message from the EHS executive, and a core time video, followed by education and training sessions designed to review past incidents. The training was very useful. For example, by creating a database of past incidents, training was conducted based on the classification of accident types and trends, and multiple simulations were discussed in groups to confirm the effectiveness of the methods for responding to past incidents.

Since the fire incident in 2013, the Takasago Group has fortunately experienced no serious incidents or occupational injuries. However, as the number of employees who do not know about the fire incident in 2013 has increased, the significance of the Takasago Safety Day event has become even more significant as each employee strongly believes in "safety first" and implements daily safety initiatives to "Never again allow an incident like the one that occurred in 2013."

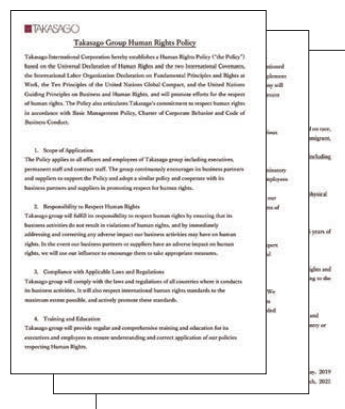


3 Human Rights

Basic Approach

The Takasago Group is committed to respecting human rights in its business activities. To further clarify our stance in this area, we developed The Takasago Group Human Rights Policy in 2019. In addition, we established a procedure for human rights due diligence* referencing guidance published by the Japan Business Federation. In 2021, we summarized a wide range of human rights issues as Priority Human Rights Issues and added them to the Policy. We also incorporated them into The Takasago Group Supplier Code of Conduct to strengthen human rights initiatives throughout our supply chain. We explain the Code of Conduct to our suppliers from whom we procure not only raw materials but also goods and services and ask them to comply with the Code of Conduct to promote human rights protection throughout the entire supply chain.

*Human rights due diligence is the process starting with the identification of human rights risks and including the responses to issues and the disclosure of information.



Takasago Group Human Rights Policy

Strategy

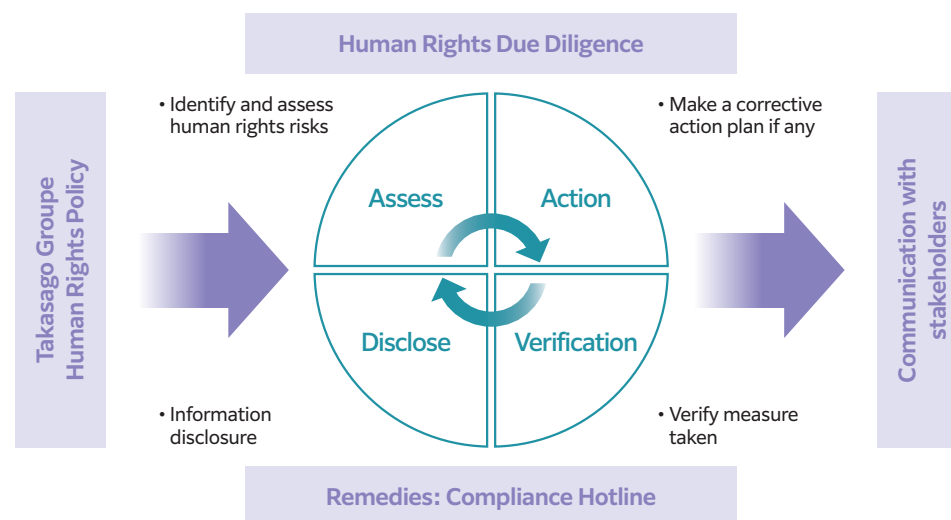
Regularly Conducting Human Rights Due Diligence

In 2019, we established a procedure for conducting human rights due diligence referencing guidelines published by the Japan Business Federation. We made a checklist following the guidelines, and it is updated annually in consideration of our business activities and global trends. In fiscal year 2023, no human rights violations were reported at Group companies.

In 2023, we continued to work on procurement, EHS and human resources and general affairs. We conducted SMETAs at 10 manufacturing sites. Additionally, we prepared CSR audits of suppliers. We will start CSR audits in 2024.

Training

In Japan, we have a human rights training program for employees. We implemented a diversity and inclusion human rights e-learning program in 2023. We continue to provide training to promote respect for human rights.



4 Responsible Procurement

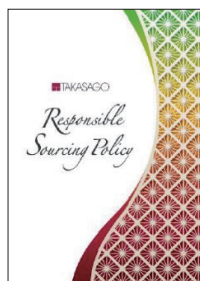
Basic Approach

As you are aware, the diverse challenges that we face globally, which include environmental concerns such as the exhaustion of resources and global warming and social issues including the prevention of workplace accidents and human-rights issues, are increasing and becoming more serious. This requires that companies act with agility in their Responsible procurement activities to ensure the sustainability of their procurement is based on strong and reciprocal relationships with partners and on transparent transactions. It is only when we cooperate with our business partners throughout the supply chain that we can implement the necessary action plans to optimize sustainable supply chains via the assessment of risks and implement kaizen or continuous improvement.

Strategy Implementation of the Takasago Responsible Sourcing Policy

We have established the Takasago Responsible Sourcing Policy and are requesting that our business partners and their sub-contractors share and understand this policy and the underlying concept by distributing and submitting agreement forms.

In addition, in order to confirm compliance and investigate the risks and the potential impact of procurement activities in the fields of human rights, labor, the environment and anti-corruption, we ask our suppliers to respond to the Takasago Responsible Sourcing Policy self-assessment questionnaire or the Sedex questionnaire. If the possibility of an adverse effect on the supply chain is confirmed, we will immediately make an improvement plan and take corrective measures in cooperation with our stakeholders such as suppliers. We visit suppliers who are exposed to risks related to ESG and assess them with third party auditors based on global standards such as the ISO 26000 and SMETA standards.



Progress and Results

After distribution of the Takasago Responsible Sourcing Policy to all Takasago group raw materials suppliers in 2021, we obtained agreement forms from approximately 850 (75%) of the about 1,100 suppliers in 2023.

We also asked the suppliers who have submitted the agreement form to join Sedex or respond to the self-assessment questionnaire established by our policy to check their compliance. Approximately 300 suppliers have linked with the Takasago Group on the Sedex platform. Feedback was provided to around 300 suppliers who have responded to Takasago Responsible Sourcing Policy Self-Assessment Questionnaire to ask them to improve their activities related to sustainability.

Sedex | **Member**

We have moved forward with a project with a third-party organization to conduct human rights due diligence in the supply chain to proactively manage any potential or actual adverse human rights impact that our supply chains may have. We established guidance on how to focus on high risk suppliers and criteria for checking them on site. In April 2024, we conducted a pilot on-site assessment of a supplier together with a third party auditor using the criteria.

Future Efforts

In 2024, we will continue to obtain Takasago Responsible Sourcing Policy agreement forms from our suppliers. We request that the suppliers who have submitted the agreement form join Sedex or respond to the self-assessment questionnaire established by our policy. We will continue to provide feedback to the suppliers who respond, and if there is a need for improvement, we will work together with the supplier to improve. Based on the guidance for identifying high risk suppliers established with a third party organization in 2023, we plan the on-site assessment of suppliers with high risks and ask them to improve.

5 Digitalization

Basic Approach

The Takasago Group is focusing on the continued development and utilization of IT as corporate infrastructure for sustainable growth. In addition to the global integration of ERP and satellite systems, the automation of manufacturing, and the use of artificial intelligence (AI), we are also promoting a paperless work environment that can flexibly accommodate remote work.

Strategy

We consider digitalization to be an indispensable strategy for realizing the standardization of our operational flows as well as to improve the productivity of the Takasago Group under the One Takasago concept. Furthermore, the continuous enhancement of IT security is an urgent issue in responding to increasingly diverse and sophisticated cyber-attacks. We continue to implement measures to prevent attackers from entering our network by using vulnerability assessment tools for example.

We have compiled these issues into Takasago GIT Strategy — 4 Platforms,* a blueprint for the period up to 2030. In line with this blueprint, we will steadily improve and utilize IT, which supports the foundation of our group's corporate activities, and strengthen security in a step-by-step manner.

*4 Platforms: IT Security Enhancement, GSAP/Integration of Satellite Systems, Digitalization of Corporate Divisions and Other Management

1 IT Security Enhancement

The improvement of digital security measures is positioned as one of the most important initiatives. Technical measures that we are planning include the global implementation of multi-factor authentication and vulnerability assessment tools and the establishment of a dedicated global security team. On the software side, The Takasago Group is strengthening its awareness-raising activities by regularly reviewing internal rules and making ongoing e-learning programs available to employees.

2 GSAP/Integration of Satellite Systems

Our group started the deployment of the Global SAP system at each site after the development of the Global Template. In 2022, SAP S4/Hana went live at Takasago Singapore, the first site where it was implemented. Last year, the SAP system was implemented at Takasago USA sites.

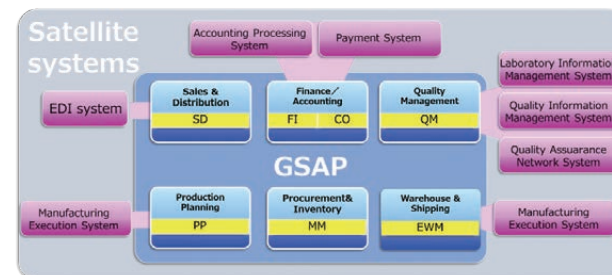
Scope for the Modules



In addition to integrating our ERP systems with SAP globally, the main focus of this project is to align business processes with the Takasago Best Practices, starting with overseas sites and working toward implementation at the headquarters in Japan. After 2025, the scope of implementation will be expanded to include R&D and Safety & Regulatory Affairs.

Satellite Systems

This will also be a long-term project, but creating a global design now is quite important for the future and will enable us to design all of the global Takasago systems according to its architecture.



3 Digitalization of Corporate Divisions

Global IT supports digital transformation designed by each corporate function. Recognizing that digitalization as an indispensable strategy to improve the productivity of the entire group, we are looking into many ways to utilize AI in the development of flavors and fragrances, as well as in production planning, on top of the current automation systems implemented at manufacturing sites. We also believe that the combination of AI-based automatic recognition technology, industrial robots and conveyors has the potential to transform the traditional human-dependent production process of compounding flavors and fragrances. Furthermore, by linking these automated facilities with a globally integrated ERP system, we aim to achieve a high level of safety, productivity and product quality.

4 Other Managements

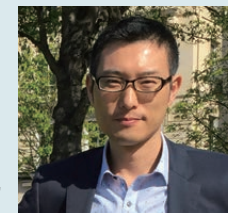
Global IT is trying to build an efficiently managed (virtual) global organization. The functions of Global IT are to control the global budget (based on local IT budgets), carefully observe local projects and avoid any duplication of work or inefficiency.

In response to the shortage of human resources due to the enhancement of digitalization globally, we have been working hard to recruit fresh graduates and mid-career workers who are interested in ICT, and also to best utilize and train the human resources we already have internally.

For example, we try to optimize local talent globally for global projects, and this has become an opportunity for the human resource development of the entire group. The GSAP project consists of teams with diverse members, ranging from employees in senior positions to employees engaged in day-to-day business operations. We also actively support the participation of younger people, including for training purposes, and are systematically developing human resources with an eye toward the future.

Voice

One Takasago, global template approach using SAP



Daisuke Sugimoto,
Global SAP Operations Module Leader

After being involved in the Takasago Raw Materials Standardization Project, I became engaged in the Global SAP project.

The vision of this project is to use SAP S4/ HANA to enable business process management across geographical locations through Takasago's global templates for best practices.

To achieve this, global members from each of the sites built global templates and are collaborating with affiliate members to deploy them.

Each affiliate has its own local elements, including factories with different designs, methods and practices that it has been using. Considering this, it was difficult for the Global team and the affiliates to coordinate, and it was important that everyone cooperate with each other based on trust and teamwork. Although it is a challenging task, we at the Global team are proud to be involved in building the foundation of Takasago's business through this project.

Moreover, I believe that by realizing this, the standardization of raw materials and processes throughout Takasago will be able to provide customers with our reliable quality products and services using the best practice manufacturing processes.

Currently, implementation has been completed at the sites in Singapore and the US, and this journey will continue in France, Germany and Japan.

Experiencing the process of collaborating with members from different countries to create something is also an opportunity for personal growth for me.

It may be challenging at times, but once operations at the newly implemented affiliate are running smoothly and I can see the operators working as they always have, I feel that all the hard work has been rewarded.

6 Green Chemistry

Basic Approach

Based on our corporate mission, "Create new value through innovation rooted in *kaori* (*kaori*: aroma in Japanese)," we have set two key success factors, creating competitive technologies leveraged by state-of-the-art science and SDG-conscious development of new products and materials, for R&D in the NGP-2 period, and green chemistry plays a vital role in solving these issues.

We are working to design new processes that take environmental load reduction and energy efficiency into consideration and are working to develop unique materials and products utilizing renewable raw materials or unused resources in line with the SDGs. Through these eco-friendly R&D activities, we are advancing green chemistry aiming to achieve Vision 2040, Care for People, Respect the Environment.

Strategy

Promote eco-friendly R&D guided by the twelve principles of green chemistry

We facilitate the efficient use of water and the reduction of greenhouse gas emission to reduce environmental load by utilizing our unique catalytic technology, introducing white biotechnology and designing eco-friendly processes. At the same time, to efficiently use limited natural resources, we are also actively working to explore and utilize renewable raw materials, reduce the use of natural raw materials by developing and switching to alternative materials and utilize unused resources. We contribute to the realization of a sustainable society through these eco-friendly R&D activities.



2023 Progress & Results

In the development of aroma ingredients, we have been promoting a conversion from petroleum-derived raw materials to renewable raw materials such as BIOSWITCH®. We focus on bio-based and biodegradable flavor and fragrance materials developed from renewable raw materials, and we also believe the introduction and utilization of biotechnology is one of the important methods for practicing green chemistry. We are pushing forward with the introduction of leading-edge technology through open innovation. In 2023, NEDO (New Energy and Industrial Technology Development Organization) selected us to participate in their new Research and Development of Technologies to Promote Biomanufacturing project. We will implement an R&D project advancing a bio-upcycling technology for the efficient conversion of unused organic residues into valuable aroma ingredients.

In the field of organic synthesis, the process development department works closely with aroma ingredients and fine chemicals research groups. A wider green chemical viewpoint can be incorporated from the very early stages of research. The catalysts used in our key technologies for asymmetric hydrogenation and coupling reactions use precious metals such as rhodium, ruthenium and palladium. For the sustainable use of natural resources, we have strengthened our efforts to optimize the catalyst manufacturing process and recover precious metals after using those catalysts. As a result of these efforts, we have reduced the waste loss of ruthenium by improving the ruthenium catalyst manufacturing process. We will continue to promote initiatives to reduce our environmental impact.

Future Efforts

Along with our strategy based on Vision 2040, Care for People, Respect the Environment, we will continue to push forward with eco-friendly R&D activities with a focus on green chemistry to address the key success factors during the NGP-2 period.

Environment, Occupational Health & Safety

- 32 Global EHS Management
- 33 Biodiversity Conservation Initiatives
- 34 Approach to Climate Change
 - TCFD Recommendations
- 35 Environment
 - Energy and Emissions
 - Water and Effluents
 - Waste
- 38 Occupational Health & Safety (OHS)



Global EHS Management

EHS Headquarters ("EHS HQ") defines the Takasago Group ("Takasago") EHS Mission as follows:

"EHS Mission"

To build a sustainable EHS culture, Takasago will:

- Fulfill the legal, stakeholder, and other requirements applicable to our operations.
- Identify and control the risks inherent to our activities, to avoid incidents, illnesses and a negative environment.
- Imagine and realize initiatives for the conservation of natural resources, prevention of pollution and reduction of our carbon footprint.
- Incorporate environmental protection, safety and occupational health in our business plan and decision-making.

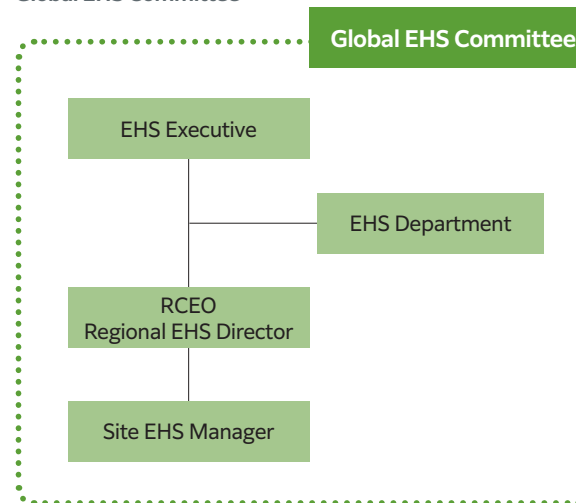
Sustainability2030, a 10-year plan for sustainability promotion activities from FY2021 to FY2030, has also been launched alongside the EHS Mission.

In Sustainability2030, EHS HQ set goals related to its EHS activities, including, but not limited to, climate change (reduction of greenhouse gas ("GHG") emissions), reduction of environmental impact (sustainable use of resources and prevention of pollution) and occupational health and safety.

At the end of the first 10-year plan, the goals of the EHS activities had been successfully achieved.

To promote the standardization of EHS activities and implement the plan globally through the operation of the above management system, Takasago has organized the Global EHS Committee ("GEC"). The GEC, chaired by the EHS Executive, Tatsuya Yamagata, is composed of officers in charge of EHS at our production sites.

Global EHS Committee



EHS Statement

Takasago has established the EHS Statement as one part of the foundation of the management of the entire group.

This EHS Statement is written in 11 languages to share the Takasago Group's vision and values for its EHS activities with all of Takasago's employees in the 28 countries in which it operates.

The EHS Statement states that in all its business activities, EHS is the highest priority.



▀ Biodiversity Conservation Initiatives

The flavors and fragrances industry has been supported by the various benefits of biodiversity. The Takasago Group uses hundreds of natural ingredients from around the world, and these diverse natural resources are used in the production of flavors, fragrances and aroma-ingredient products. Biodiversity underpins Takasago's product portfolio, enabling a wide variety of flavor & fragrance expressions. As a well-regarded company that respects the global environment and local communities, we understand that our corporate activities depend upon the ecosystem and that they impact biodiversity. Therefore, our group promotes the conservation of biodiversity to strive to establish a sustainable society.

● Policy and Commitment

We have established the Takasago Group Biodiversity Guidelines. Based on these guidelines, we promote various biodiversity-related policies.

Takasago Group Biodiversity Guidelines

1. Incorporate concern for biodiversity into all of the Group's activities by ensuring management that is engaged in recognizing the impact of our corporate activities on biodiversity and the potential impact that the decrease of biodiversity can have on our existence.
2. Continuously work to improve raw materials procurement for the conservation and regeneration of the ecosystem and the sustainable use of raw materials.
3. Promote the development and improvement of technology, products and processes that will contribute to the conservation of ecosystem and biodiversity.
4. Collaborate with internal and external stakeholders to advance biodiversity conservation.

In 2024, the Takasago Group committed to the Keidanren Initiative for Biodiversity Conservation. Referencing the TNFD's* globally endorsed biodiversity framework, we understand how our value chain uses natural resources, assess biodiversity-related risks, threats and opportunities and formulate countermeasures.

*The Taskforce on Nature-related Financial Disclosures aims to establish a framework for companies and organizations to assess the impact of their economic activities on the natural environment and biodiversity and disclose this information.



● Risks and Opportunities

There are risks and threats related to the loss of biodiversity, which has become increasingly serious in recent years, including the loss or reduced availability of natural raw materials and the accompanying sharp rise in the price of these materials, and we recognize this as the greatest risk we face. The Takasago Group is taking various measures to contribute to the biodiversity conservation through our business activities.

Countermeasures	Management of wastewater and waste
	Involvement in the nature conservation activities of local communities
	Integrated activities upstream in the supply chain (TaSuKI program)
	Commitment to zero deforestation
	Use of certification programs (use of the RSPO certification for palm derivative raw materials)
	Appropriate use of genetic resources and compliance with the Nagoya Protocol on Access and Benefit Sharing (ABS)

The Takasago Group will take advantage of various opportunities through these actions and integrate them into our business strategy. Regarding certifications such as RSPO, the market is expanding, and the handling of certified products can contribute to the expansion of sales. Currently, the Takasago Group has four manufacturing sites that have acquired Mass Balance certification, one of the RSPO supply chain certifications, and we plan to further promote the acquisition of certifications.

Approach to Climate Change

TCFD Recommendations



Takasago International Corporation expressed our support for the TCFD recommendations in November 2019, and we disclose our principles and strategy for addressing climate change based on the recommendations. The TCFD recommendations set four pillars of disclosure (governance, strategy, risk management and metrics and targets), and they require companies to disclose policies and measures for each pillar, especially climate-related risks and opportunities. We will continue to contribute to the realization of a more sustainable society by expanding information disclosure in line with the TCFD recommendations.

Governance	To establish management that earns high appraisals from and the trust of all our stakeholders, the Takasago Group strives to reinforce its corporate governance. We recognize that climate change is the most important issue in our materiality assessment and discusses policies and measures regularly at the meetings of the Board of Directors. Regarding the specific issues of energy consumption and GHG emissions, the Global EHS Committee discusses detailed countermeasures.	
Strategy	Our sustainability team conducted scenario analyses, including a 2 °C or lower scenario and identified risks and opportunities beyond 2030. This has enabled the Takasago Group to understand important strategic business perspectives on the various climate-related risks and opportunities. Climate-related risks The Takasago Group recognizes the impact that disasters such as heavy rain and floods can have on direct operations and the supply chain. As our operations have previously been affected by these disasters, we are working hard to reduce their impact by formulating business continuity plans (BCPs) and strengthening business continuity management. Climate-related opportunities The Takasago Group believes that we can use business opportunities related to the mitigation of climate change, such as the improvement of energy efficiency and profits by reducing energy costs, strengthening the resilience of our energy supply and expanding the sales of low-carbon products and technologies. Our low-carbon products and technologies in particular are integrated into our R&D strategies. We will continue to promote green chemistry to maximize these opportunities.	
Risk Management	The Takasago Group regularly assesses important business risks and strives to avoid or mitigate their impact to conduct stable business activities. The impact of climate-related risks on business are discussed, analyzed and evaluated by the Risk Management Committee so that the board of directors can evaluate and decide countermeasures for them.	
Metrics and Targets	Takasago International Corporation monitors and discloses GHG emissions and reduction rates as KPIs to address climate change issues. We also have GHG emissions, a key metric, verified by a third party. For details, please refer to the environmental data section of this sustainability report.	

Our initiatives to achieve our science-based emissions targets

The Takasago Group sets GHG emissions reduction targets in accordance with the guidance of the Science Based Targets Initiative (SBTi). Regarding Scope 1 and Scope 2 emissions reduction, we are promoting the following facility investment plans.

- Renovation of equipment such as boilers, refrigerators, HVAC systems, etc. to increase energy efficiency
- Renovation of buildings to increase energy efficiency, such as replacing older lights with LED lights
- Promoting the switch to more efficient fuels (e.g., from heavy oil to LNG)
- Process innovation considering production efficiency
- Promoting the implementation of energy management system
- Reducing energy consumption and GHG emissions by automating facility operations, reviewing operation methods and changing production processes
- Appropriately maintaining and inspecting facilities
- Providing environmental education, including training programs specific to energy and climate change

Regarding Scope 3 emissions reduction, we recognize that the largest amount of emissions is in Category 1 (procurement activities). We have started supplier engagement activities in line with climate change measures

- Expanding collection of LCA information from suppliers
- Promoting dialogue and partnerships with suppliers and other stakeholders
- Evaluating and selecting suppliers based on their climate change initiatives

Voice

Masafumi Nakamura,
Takasago International Corporation
(Japan)



Takasago Japan established an internal energy management committee consisting of energy management experts which plays a central role in energy saving activities. As a member of the committee, I attend energy saving inspections, which is an internal energy saving diagnostic tool for sharing best practices and knowledge.

Environment

Energy and Emissions

Takasago does not have a target for energy intensity (the amount of energy required per ton of product manufactured), but since 2019 this indicator has decreased by 15.8%, which is an indication of the improvement of the efficiency of energy use in production.

Takasago continues to make progress regarding electricity supply from renewable energy sources (Scope 2 GHG emissions), and it plans to convert 30% of its total electricity use to renewable energy sources by 2030.

In 2023, 24.6% of electricity will come from renewable energy sources, with three production sites using 100% electricity derived from renewable energy sources. In addition, four production sites have solar power generation facilities in operation.

Our Target

We set targets in accordance with the guidance of the Science Based Targets Initiative (SBTi) to reduce direct Scope 1 and Scope 2 emissions to 27.5% of the 2019 level by 2030, and to reduce Scope 3 supply chain emissions to 13.5% of the 2019 level by 2030.

2023 Progress Scope 1 and 2 emissions

Scope 1 and 2 emissions

We made good progress towards our Scope 1 and Scope 2 SBTs in 2023 with emissions decreasing 8,558 metric tons since 2019. Absolute total Scope 1 and 2 emissions in 2023 were 12% compared with the 2019 baseline. Our Scope 1 and 2 emissions intensity (GHG emissions/metric ton production) decreased 0.3% in 2023 vs. 2022.

Scope 3 emissions

GHG emissions are verified by a third party. We are aware that the characteristics of our business cause the greatest emissions to be in Category 1 (procurement activities). After considering reduction measures with the support of Japan's Ministry of the Environment, we decided to further promote supplier engagement.

Energy consumption within the organization

	2022 (restated)	2023	Changes in %
Fuel consumption within the organization from non-renewable sources (GJ)			
Town Gas	384,675	322,955	-16.0%
LP Gas	8,706	9,539	9.6%
LNG	54,519	52,192	-4.3%
Natural gas	35,517	29,661	-16.5%
Residual Fuel Oil	31,847	35,474	11.4%
Gas/Diesel Oil	6,536	6,508	-0.4%
Kerosene	193	179	-7.3%
Gasoline	7,892	9,236	17.0%
Waste Oil	29,267	56,492	93.0%
Fuel consumption within the organization from renewable sources (GJ)			
Bioethanol	0	228	
Biomass incinerated	30,361	32,910	8.4%
Electricity and steam purchased for consumption from non-renewable sources (GJ)			
Electricity purchased	646,724	558,684	-13.6%
Steam purchased	50,498	44,878	-11.1%
Electricity from renewable sources (GJ)			
Purchased	49,241	178,199	261.9%
Self-generated	442	1,562	253.2%
Total Energy	1,421,698	1,338,696	-5.8%

Energy intensity

	2022 (Restated)	2023
Energy intensity (GJ per tonne finished products)	18.53	18.26

Greenhouse gas (GHG) Emissions (scope 1 + 2)

*Gases included in the calculation of Scope 1; CO₂, CH₄, N₂O, HFCs, and SF₆, NF₃, or all.

	2022 (Restated)	2023	Changes in %
Direct and energy indirect GHG emissions in metric tons of CO ₂ e			
Scope 1*	29,676	28,866	-2.7%
Scope 2	32,269	30,144	-6.6%
Total (Scope 1 + 2)	61,945	59,009	-4.7%

GHG Emissions Intensity (scope 1 + 2)

	2022 (Restated)	2023	Changes in %
Total (Scope 1 + 2)	0.81	0.80	-0.3%

Other Indirect Greenhouse Gas (GHG) Emissions (scope 3)

	CO ₂ emission (MT)	Ratio to GHG total Ratio to the gross volumes
Cat 1 Purchased goods and services	899,184	86.38%
Cat 2 Capital goods	29,807	2.86%
Cat 3 Fuel- and energy-related activities	10,802	1.04%
Cat 4 Upstream transportation and distribution	30,948	2.97%
Cat 5 Waste generated in operations	4,467	0.43%
Cat 6 Business travel	525	0.05%
Cat 7 Employee commuting	5,365	0.52%
Cat 8 Upstream leased assets	N/A	N/A
Cat 9 Downstream transportation and distribution	N/A	N/A
Cat 10 Processing of sold products	N/A	N/A
Cat 11 Use of sold products	N/A	N/A
Cat 12 End-of-life treatment of sold products	778	0.07%
Cat 13 Downstream leased assets	61	0.01%
Cat 14 Franchises	N/A	N/A
Cat 15 Investments	N/A	N/A
Scope 3	981,938	94.33%
Scope 1	28,866	2.77%
Scope 2	30,144	2.90%
GHG total amount	1,040,947	-

*Concerns period is for 01 April 2023 to 31 March 2024

[See the Statement](#)

Column

Takasago Europe GmbH has been using fuel cards when refueling company cars since 2022.

We participate in Fleetcor's Clean Advantage program to reduce CO₂ emissions. Through the monthly fees paid in 2023, we have reduced total CO₂ emissions by 12677.36832 kg of CO₂. We will continue our environmental efforts.



Water and Effluents

Sufficient water quantity and stable water quality are essential to our operations. Therefore, we are aware of the importance of ensuring that the quantity and quality of water are adequate for the business operations of the Takasago Group.

Currently, each of Takasago's production sites has sufficient water quantity and quality, but we must assume that climate change, extreme weather events and other factors may reduce the amount and quality of the available water. For this reason, we are working to properly manage water resources, set Group-wide water consumption reduction targets, and promote activities aimed at achieving these targets.

The EHS HQ continuously collects and monitors data on total water withdrawal for the entire Group using the T-ReCS® data management system.

Total Water Withdrawal by Source

Water withdrawal (ML)	2022 (Restated)		2023	
	All areas	Areas with water stress	All areas	Areas with water stress
Third-party				
Municipal Water	695	82	619	79
Industrial Water	422	0	383	0
Rain Water	0	0	0	0
Groundwater	2,086	0	2,036	0
Total Water Withdrawal	3,203	83	3,038	80

We are reducing water withdrawal by implementing more efficient equipment or technology and by redesigning production processes.

Some production sites in areas with abundant resources withdraw a licensed amount of groundwater for production purposes and EHS HQ monitors their impact on the environment.

Water Discharge by Destination

Water discharge (ML)	2022 (Restated)		2023	
	All areas	Areas with water stress	All areas	Areas with water stress
Surface Water	2,495		2,397	
Groundwater	0		0	
Third-party	517		449	
Total Water Discharge	3,012		2,847	

Regarding wastewater generated in production activities, we discharge wastewater in compliance with local laws and regulations. At sites where wastewater has a high pollution load, biological treatment is performed and wastewater is discharged after meeting effluent standards or treatment is outsourced to a specialized third party. Some sites discharge wastewater into rivers but only after biological treatment.

Water discharge by level of treatment

Water discharge (ML)	2022 (Restated)		2023	
	All areas	Areas with water stress	All areas	Areas with water stress
No treatment	145		114	
Primary treatment	38		37	
Secondary treatment	2,839		2,696	
Total Water Discharge	3,012		2,847	

Water Consumption

Water Consumption (ML)	2022 (Restated)		2023	
	All areas	Areas with water stress	All areas	Areas with water stress
Total Water Consumption	191	10	192	8

Waste

Takasago continually challenges itself to reduce the total amount of waste it generates by promoting the entire group's proper sorting of waste to recover valuable resources, recycling some waste to avoid disposal in landfills, and improving product designs and production processes. In addition, Takasago properly manages contracted waste disposal companies to prevent the inappropriate disposal of waste, such as illegal dumping.

Waste by Type and Disposal Method

Hazardous waste (tonnes)	Onsite	Offsite	Total
Recycling	0	1,981	1,981
Incineration	0	442	442
Landfilling	0	37	37
Total hazardous waste	0	2,459	2,459
Non-hazardous waste (tonnes)	Onsite	Offsite	Total
Recycling	2,597	12,998	15,595
Dehydration	7,823	0	7,823
Incineration	0	1,625	1,625
Landfilling	0	194	194
Total non-hazardous waste	10,420	14,817	25,237

In 2023, 1.3% of the waste generated by the entire group was disposed in landfills.

Environmental Compliance

Compliance is one of the most important management issues.

Environmental compliance is managed based on the processes of the ISO 14001 environmental management system ("EMS"), which clearly defines applicable items, applicable standards, measurement standards and application requirements.

Takasago has established a process for obtaining the latest information about EHS, safety, disaster response, legal and regulatory requirements, the needs of society and other trends.

Occupational Health and Safety (OHS)

Takasago is globally advancing its acquisition of the ISO 45001 certification of its occupational health and safety management system ("OHSMS"), in addition to the ISO 14001 certification. In 2020, Takasago production sites in Japan acquired ISO 45001 certification and the Corporate Research & Development Division in Japan and 8 overseas production sites acquired the certification in 2021. In addition, in 2022, 3 overseas production sites acquired the certification. To date, a total of 21 sites globally have acquired the certification.

Takasago will continue to strive to eliminate accidents and occupational injuries through the appropriate operation of its globally integrated environmental, health and safety management system.

Incident Reporting Rule and Incident Investigation

EHS HQ established reporting rules for incidents (including occupational accidents) in 2020. This has enabled the entire group to receive and share incident information in a timely manner in accordance with these rules.

Investigating the cause of incidents is very important from the perspective of preventing incidents that are the same or similar. Once EHS HQ receives an incident report from the site where an incident occurred, EHS HQ reviews the incident's description, causes and corrective actions to ensure the accuracy of the investigation conducted at the site.

Hazard Identification, Risk Assessment

Takasago's Occupational Health and Safety Risk Assessment ("OHS RA") Rules apply at all of its production sites unless there are relevant local legal requirements that are more stringent. Takasago evaluates the occupational health and safety risks impacting all employees, including workplace hazards, based on these rules. EHS HQ is currently working to strengthen OHS RA globally by conducting RA training and developing supplemental procedures to the OHS Rules.

OHS Communication and Inspection

Global EHS Meetings are held at least four times a year to share information related to EHS.

EHS HQ conducts EHS inspections at several production sites every year. To date, EHS HQ has inspected sites in the US, India and Singapore. During these inspections, EHS HQ introduced information about the EHS requirements, checked progress, discussed EHS issues and shared best practices. Due to COVID-19, these site inspections have been suspended since early 2020, but in their place EHS HQ has developed a remote EHS inspection method and inspected production sites in Mexico successfully.

In FY2022, EHS HQ went on a business trip for the first time in three years and conducted EHS inspections again at a site in Mexico.

In FY2023, EHS HQ remotely conducted EHS inspections of a location in France.



Employee Occupational Health and Safety Training

To promote OHS improvement activities, it is necessary for all workers to correctly understand and be aware of their roles and responsibilities.

To this end, we are working to improve our capabilities through a variety of education and training programs, including the training of officially certified OHS personnel and education for workers who require specialized knowledge and skills for hazardous work.

EHS HQ held an OHS RA workshop to learn the information and practical awareness that is needed to promote OHS RA.

● Occupational Injuries (Work-related Injuries)

EHS HQ is preparing to aggregate its OHS data, including information about occupational injuries and illnesses using T-ReCS®. Moreover, EHS HQ plans to build a more efficient system to aggregate data globally.

In FY2023, there was 5 incidents (lost-time injuries) in Japan, 20 in EMEA, 10 in Asia Pacific, and 3 in the Americas. 33 incidents (lost-time injuries) occurred at overseas sites. The occupational injury frequency rate was 4.39.

The main types of work-related injuries were contact with hazardous materials and "injuries caused by unnatural postures or movements". There were no fatal work-related injuries in the same period.



Social Aspects

- 41 Our People
- 46 Procurement
 - TaSuKI Update
- 56 Production
- 58 Logistics
- 59 Research & Development
 - Innovation
 - Green Chemistry
- 63 Quality Assurance
- 67 Stakeholders and Investors
- 67 Local Communities



Our People



Message from General Manager, Human Resources and General Affairs Div.

Hirokazu Isono

The management of the Takasago Group aims to create a company where each employee can experience a sense of fulfillment and happiness at a high level.

Specifically, we strive to establish an environment where people from diverse backgrounds can work with joy and a sense of purpose, create a system that supports individual growth, and above all, implement management practices that enable employees to achieve a healthy work-life balance.

The management of the Group will continue to work to make this a company with high employee satisfaction and to contribute to society by achieving sustainable business activities.

Basic Approach

— Reform of Work Practices and Enhancement of Workplace Environments —
Realize work practices that improve the capabilities of employees and that respect their diversity, character and background. Also, provide safe and healthy working environments.

- Establish a human resources development program in which individuals can fully exercise their capabilities.
- Promote equal employment opportunities within the workplace and prohibit any discrimination due to nationality, religion, sex, age, race, creed or other related social status as it relates to employment decisions.
- Promote the reform of work practices including breaks and leave, ensuring a healthy work-life balance.
- Respect each employee's individuality and support their efforts to develop their skills and career.

- Develop and maintain an appropriate working environment to ensure employee safety and enable them to maintain and improve their health

*Extracted from The Takasago Group Charter of Corporate Behavior and Code of Conduct

Labor Practices in line with the Principles of the UN Global Compact

The Takasago Group signed the United Nation Global Compact in 2017 and has managed its businesses following the ten principles of the compact. Regarding labor practices, we improve workplace environments following the four principles below.

- Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining
- The elimination of all forms of forced and compulsory labor
- The effective abolition of child labor
- The elimination of discrimination in respect of employment and occupation

Employment Status

Takasago's workforce in 28 countries and regions around the world is engaged in a variety of contracts and types of work. Our group is monitoring our workforce appropriately.

Employees including temporary staff

Region	Employees	Male	Female	%Male	%Female
Japan	1,812	1,411	401	78%	22%
Asia Pacific	852	434	418	51%	49%
Europe	818	436	382	53%	47%
Americas	810	458	352	57%	43%
Total	4,292	2,739	1,553	64%	36%

Permanent Employees by Age Group

Region	<30		30-50		>50		Total
	Male	Female	Male	Female	Male	Female	
Japan	224	69	728	199	437	123	1,780
Asia Pacific	94	76	249	268	67	48	802
Europe	39	70	261	183	127	74	754
Americas	47	74	241	175	169	102	808
Total	404	289	1,479	825	800	347	4,144

Human Resources Development Statement

Takasago recognizes that our employees are a critical component for success. The organization supports an environment that empowers employees and challenges them to reach their full potential. We focus on the combination of employees' aspirations for the growth of their careers and opportunities to enhance skills by offering on-the-job and external training opportunities. We earn the trust of our customers by providing pioneering technology and exceptional service resulting from the solid teamwork of The Takasago Group's employees. To maintain this trust, we continually invest in educational development and enrichment opportunities, resulting in confident employees that embrace challenges, learn from failures as an avenue for growth and successful and innovative improvement. Lastly, the organization inspires teamwork by engaging in a diverse array of professional skills, fully equipped to meet a range of challenges. Roles and responsibilities are aligned across affiliates, ensuring skills sets and requirements are comprehensive, utilizing local talent in a global manner.

*Quoted from The Takasago Group Human Resources Development Statement

Training and Education

The global business environment has been changing over the years. The landscape surrounding businesses now is increasingly competitive and complex. The digital revolution is reshaping the employee mix. The changes have unavoidably contributed to persistent uncertainty, the establishment of a multigenerational workforce and the shortening of the shelf life of knowledge, and they have placed a premium on reskilling and upskilling.

The Takasago Group are companies that are built upon capable people whose learning is fueled by their foresight and innovation. We have developed the Educational Programs concept to contribute to the upskilling of our employees, increase our employees' creativity and elevate our employees to new heights.

One of the site-specific programs that has been established is Takasago International Corporation (TIC)'s Takasago College, an in-house institution that has been operating since 2009 to provide our employees with an environment that enables them to acquire experience and increase their skills in a broad range of areas.

Educational Programs



Takasago Educational Program consists of above 5 pillars

Basic Course

Participants are junior employees. To deeply understand each other's business operations, they make a presentation about the flow of their own operations. This activity is expected to strengthen their performance and communication capabilities.

Advanced Course

Takasago provides a program to enhance participants' knowledge and skills. To increase their flexibility to enable them to take on new challenges, participants learn about communication skills, logical thinking and other skills. The program is not just about learning skills. It is also focused on ways to utilize these skills on the job.

Current learning & development programs at Singapore

eLearning Platform		Takasago International Singapore (TIS) has made available a platform with more than 15,000 online learning programs developed by industry experts. These courses are made available in many languages including English, Spanish, German, French and Japanese. We leverage the eLearning platform to enable self-directed online learning and development. It has been especially critical for thriving through knowledge during the pandemic. HR constantly creates new learning paths on the eLearning platform, uploading company specific training content (i.e., safety videos) and recommends courses via email to all employees and to specific departments to encourage a culture of self-directed learning within the company.
Present with Impact		TIS has created an extra ordinary presentation skill training program designed to enable: - Meetings with managers for pre-training analysis - 1-on-1 coaching for each trainee - Employees taking the course to meet with trainers regarding presentation preparation for one year following the end of the training program
Critical Thinking		Creative problem solving and decision making is important for people in all divisions, from managers to executives. Takasago has designed a training program that focuses on enabling employees to think critically in every situation and on methodologies for identifying creative solutions to every problem.
Key Account Management		Understanding effective ways of managing key accounts is a fundamental part of enabling businesses to grow stronger. TIS has created a key account management training program with the intent of improving our teams' skills in these areas: - Effective account business planning - General business and the development of businesses - Measuring the effectiveness of your relationships with customers - Fine tuning strategy

Diversity, Equity and Inclusion

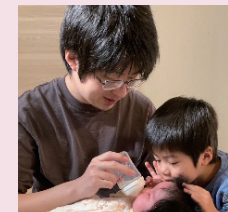
Diversity is a core value of The Takasago Group. We are committed to cultivating a globally diverse, equitable and inclusive culture. We value the contributions of all its employees and believe that the broad perspective provided by a diverse workforce adds value to all our products and operations on a global scale.

With the great contributions of the Global HR team, we established the Takasago Group Diversity Equity & Inclusion Policy in 2022.

To embody the policy, we identified six pillars for our targets: diverse working styles, women, disabilities, senior employees, people from other countries and LGBT issues. Recognizing that situations are different in each country, we are developing targets per site per pillar.

Voice

Takuya Yoda,
Takasago International Corporation
(Japan)



In Japan, the percentage of male employees taking childcare leave is still low. Now, Takasago International Corporation (Japan) is promoting the use of childcare leave by male employees to build a more comfortable work environment. I took childcare leave upon the birth of my second child in 2023. The experience of being with my baby will certainly be an asset for the rest of my life. I would like to express my appreciation for the corporate support system and my colleagues.

● Discrimination and Harassment

The Takasago Group has a group-wide non-discrimination and anti-harassment policy. In 2023, our group focused on employee training and conducted multiple training programs on discrimination or harassment in the workplace for all employees. For management employee, practical training programs focused on harassment were offered.

To provide access to an escalation process, Takasago Group has a global compliance hotline. If there are specific incidents of discrimination or harassment, we take corrective or disciplinary actions.

● Work-Life Balance

Takasago strives to create a good working environment as we believe it helps improve our productivity and make our employees' lives more fulfilling. One of the targets in our new medium- to long-term sustainability plan, Sustainability2030, is the improvement of our employees' work-life balance. Enormous efforts have been made at each site and we will continue to care for employees working in many different situations. Local efforts also provide customized initiatives. In Brazil, for example, they have the following programs:

- Training for managers to support employees using specific tools and to look for problems such as burnout or overwork. Additionally, training to improve their coaching skills and to enable managers to offer specific benefits to employees who are struggling, such as therapy or coaching from external professionals.
- The creation of a family-friendly work environment, where children and family can visit the company during special events like Mother's Day and also participate in specific races. This is incentivized and sponsored by Takasago Fragancias E Aromas Ltda. (TBR)
- The encouragement of employees to join our sponsorship of a local organizations that supports children in vulnerable situations, especially during holidays like Easter, Christmas, Children's Day, etc. Participating in these events provide employees time away from the office and an ability to volunteer which provides a sense of purpose and gives back to the community.

● Good Health and Well-being

We believe that supporting the mental and physical health of employees is an important part of reinforcing our human resources and achieving sustainable corporate growth.

Well-being is a state of calm, stability, connection and satisfaction achieved by a worker who is part of a company. It is reflected in the physical, social and economic well-being of employees.

Each affiliate of Takasago Group has unique program for well-being. In addition to the social insurance system, we offer many welfare programs, such as childcare services and subsidies, employee stock ownership plans, cafeteria plans and rent subsidy systems.

● Labor-Management Relations

The Takasago Group respects the freedom of association and the right to collective bargaining. Businesses face many uncertainties in this rapidly changing global market. Establishing a genuine dialogue with the representatives that the workers have freely chosen enables both workers and employers to understand each other's problems better and find ways to resolve them. The freedom of association and collective bargaining provide opportunities for constructive rather than confrontational dialogue. There are many examples of activities in this area, but here is a small selection from Japan and Germany.

In Japan, TIC works with a workers' union council under a union shop agreement. TIC has endeavored to build upon the amiable labor-management relations, in which employees and management proactively conduct activities such as the reporting of business conditions and the exchange of opinions about working environments at labor-management meetings. Generally, TIC is involved in labor management meetings twice a year. TIC's health and safety committee meets once a year and its welfare committee meets once a year.

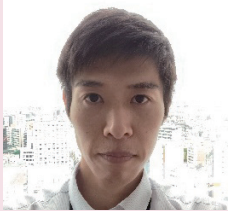
Furthermore, to listen its employees' voices, TIC has implemented the Window for Tomorrow (local compliance hotline) reporting system which all employees can use. By improving systems and benefits through discussions between labor and

management, we continue to reform work practices and improve workplace environments.

Regarding the works council of Takasago Europe GmbH (TEG), nine colleagues have been elected to the works council by the employees. One member of the works council is released from their work while the other eight perform their works council duties on a voluntary basis in addition to their work at TEG. The term of office is 4 years, after which new elections take place. In addition to many duties, the works council has a variety of rights, ranging from the right to be provided information by the employer to genuine co-determination. For example, issues relating to working hours can only be implemented by the employer if the works council has agreed to these measures. Furthermore, the works council has an important say in matters such as the equality of men and women in the company, the promotion of the integration of people with severe disabilities and the integration of foreign employees.

Voice

Tomoharu Sato
Chairman of the Takasago Workers Union
Central Committee (FY 2023)
Takasago International Corporation
(Japan)



In Japan, there are meetings where labor and management work to cooperate on various issues and ensure business operations are appropriate, such as the meetings of the Labor-Management Council (twice a year) where management and employees share and discuss management information, the meetings of the Central Safety and Health Committee (once a year) where occupational safety is discussed, and meetings of the Central Benefits Committee (once a year) where the benefits system for workers is discussed. At each site, we also attend meetings of the Operations Committee and the Health and Safety Committee to discuss issues and problems with management. The union strives to create a workplace where employees can work comfortably by improving systems and benefits through discussions with management.

Column

Takasago Fragrâncias E Aromas Ltda. flew the rainbow flag to supporting LGBTQIA+ people during Pride Month. The rainbow flag symbolizes diversity and respect, and it reaffirms our commitment to discrimination against people who identify as a member of a sexual or gender minority and promoting equal rights. We recognize the importance of creating a safe, welcoming and equal environment for all employees, regardless of their sexual orientation or gender identify.



Procurement



Message from Supervisor of Procurement Division and General Manager of Corporate Supply Chain Management Division Naoki Mizuno

Phase 1 of Sustainability2030 ended in 2023. During this period, in order to achieve sustainability and the resilience required in the SCM 5.0 era, we have focused on acquiring new capabilities and building our infrastructure by rebuilding a system that can respond swiftly and flexibly through the visualization, reassessment and redesign of the supply chain network. In phase 2, which started in 2024, we will strengthen the global network structure supporting the engineering chain and the supply chain, including sales, research, procurement, purchasing, production and logistics. On the top of this, we will enhance our establishment of new relationships and mutually beneficial collaborations with our customers and business partners. Through these efforts, we will implement dynamic and sustainable supply chain management that is befitting of the new unique era of the Takasago Group.

Responsible Procurement

Takasago values sustainability in its business activities. It is essential that we source the raw materials used by our business units in a responsible way and in alignment with the need and aspirations of customers and society. We use approximately 12,000 different raw materials sourced from more than 1,000 suppliers all over the world. Of these, about 4,000 raw materials are natural ingredients derived from natural sources such as fruits, vegetables, plant roots, leaves and flowers. The other 8,000 raw materials are aroma ingredients produced using sophisticated chemical technologies. Some of them are derived from natural gas or naphtha while others are derived from natural sources such as pine trees. They can provide a unique

sensory profile that does not exist in nature and can be alternatives to precious ingredients derived from animals such as musk or ambergris. To supply appropriately priced high-quality raw materials on time to our facilities around the world, our global procurement team communicates through our global network to enhance our procurement activities.

In June 2017, Takasago signed the UN Global Compact (UNGC) and we continue our efforts to align with the UN Global Compact's Ten Principles in the areas of human rights, labor, the environment and anti-corruption. We are also striving to achieve procurement that is as sustainable as possible while also focusing on compliance with the laws in each country, respect for human rights, environmental conservation, fair business practices and involvement and development in local communities.

In order to build fair and trusting relationships with worldwide business partners to enable responsible procurement, we have established the Corporate Procurement Policy, the Corporate Procurement Guidelines, the Takasago Group Supplier Code of Conduct and the Takasago Responsible Sourcing Policy.

● Corporate Procurement Policy

Takasago is working towards improving its responsible procurement of raw materials, packages and all services for sustainable economic growth and the mitigation of social issues. Our corporate sourcing policy concisely shows our position on responsible procurement. The full statement is available at

<https://www.takasago.com/en/sustainability/visitor/procurement.html>

● Corporate Procurement Guidelines

The Corporate Procurement Guidelines embody the Corporate Procurement Policy. The Guidelines, which procurement staff comply with, cover fundamental subjects such as compliance, fair trade, anti-corruption, human rights and environmental protection that must be aligned with the concept of responsible procurement. We periodically review and update the Guidelines to align them with changing global trends, including the increased importance of sustainability. In 2023, the Ikigai-no-Kai (生きがいの会) working group consist of young procurement staff reviewed the guidelines. To ensure their implementation, the Group's global procurement training program includes sessions on the Corporate Procurement Guidelines as well as other basic corporate policies.

● Takasago Group Supplier Code of Conduct and Takasago Responsible Sourcing Policy

To ensure that we maintain the high level of trust that society has in us, we respect and value our business partners who are focused on environmental and social responsibility. We are continuously sharing the Takasago Group Supplier Code of Conduct, as well as the Takasago Responsible Sourcing Policy with our business partners to encourage them to understand our policies and expectations. The Takasago Responsible Sourcing Policy has been verified and recognized by Ecocert Expert Consulting (the Ecocert Group) as being in line with the global standards such as ISO 26000 practices and the Sedex Members Ethical Trade Audit (SMETA) principles.* By collecting an agreement form from our business partners and implementing the Takasago Responsible Sourcing Self-Assessment Questionnaire (TRSP SAQ), we are actively ensuring our business partners understand and are aligned with the policy.



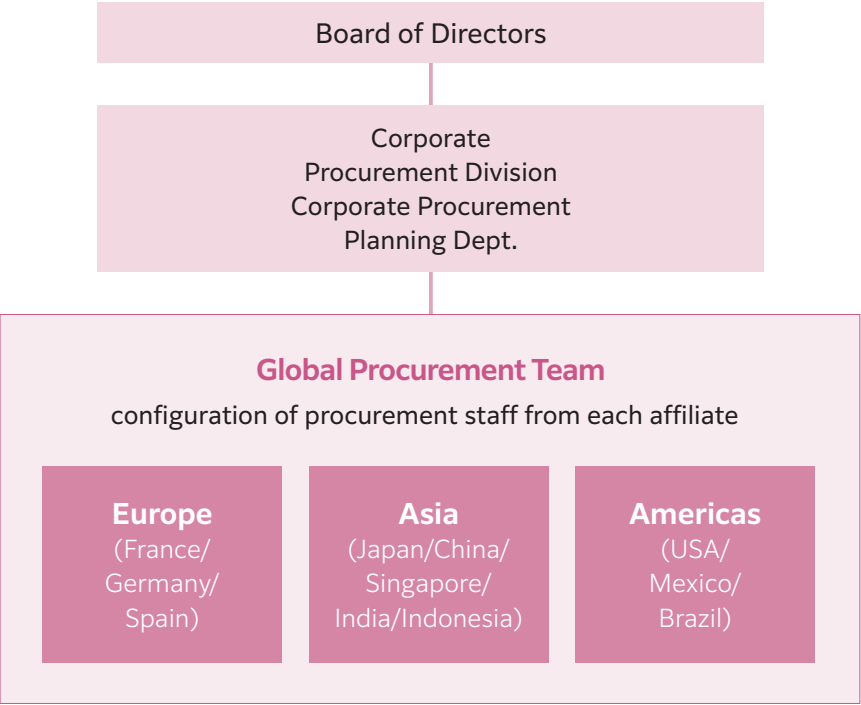
*An auditing methodology providing a compilation of best practices for ethical auditing techniques

● Global Procurement Team

We have established our Corporate Procurement Policy, which clearly states our basic understanding and requirements for procurement activities in accordance with our corporate vision and mission. Also, to ensure the appropriateness of business procedures in accordance with the Corporate Procurement Policy, we have established the Corporate Procurement Guidelines. In addition to this policy and these guidelines, to promote sustainable procurement activities that take into consideration human rights, labor, health and safety and the environment, we have established the Takasago Responsible Sourcing Policy, which is aligned with the ISO 26000 standard as well as the SMETA principles and which supports the UN's 17 Sustainable Development Goals. Our sustainability promotion division, business divisions, other related divisions and overseas affiliates communicate to ensure that all employees are aware of and thoroughly adhere to these policies.

Teamwork is one of the things most valued by Takasago, alongside technology and trust. This is particularly the case in procurement. We established the Global Procurement Team, which includes delegates from 12 global production sites, to align with the concept described in the Corporate Procurement Policy and to optimize operational processes. We schedule an annual meeting at the headquarters, various workshops, regional meetings, on-site visits and training via a matrix-like structure by region, global ingredient category management and other global strategic corporate initiatives.

The Organization of Takasago Global Procurement



● The Role of Procurement in the Future

Takasago Global Procurement ensures the timely supply of quality raw materials while ensuring security, safety and economic appropriateness to effectively operate our global production sites around the world. To achieve this mission, it is crucial for us to fairly and reliably develop and maintain business partnerships for the long term for the procurement of raw materials and also other services. We believe we should share values such as respect for the global environment with our partners, including every upstream stakeholder in our supply chains, to ensure that we are a well-regarded and trustworthy company.

As we all are aware, our global challenges, which vary from environmental concerns such as the exhaustion of resources and global warming to social issues including workplace accidents and human-rights issues, are increasing and becoming more serious. We promote responsible procurement and pursue the resilience of our raw materials procurement so that our sustainable procurement is based on strong reciprocal relationships with partners featuring transparent transactions.

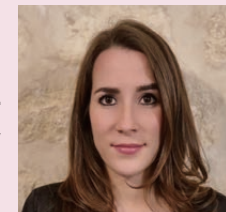
Toward a brighter future for society, we will design an innovative supply chain model in which every stakeholder shares values such as coexistence, co-prosperity and *kyousei* (共存、共栄、共生) to realize an environment of empathy, sympathy and collaboration (共感、共鳴、共働).

● Global Procurement Training

In 2023 we continue to provide training for procurement staff through the Procurement Academy e-training program. Due to COVID-19, In 2020, we began holding the Procurement Academy twice a year not only for new employees being on-boarded but also for mid-level to expert staff. The programs cover fundamental and advanced topics such as policies, guidelines, IT literacy, sustainability, knowledge of ingredients and packages, sourcing techniques and other areas. The aim is to share valuable knowledge regarding procurement, intergroup networking and teambuilding, as well as to increase the capabilities of the global procurement staff. We are planning face-to-face training in 2024 to increase our mutual understanding.

Voice

Clara NOËL
Takasago Europe Perfumery Laboratory
S.A.R.L.

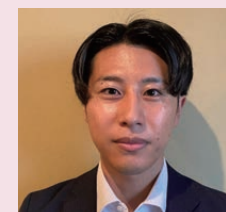


We are currently living in a world that is constantly evolving and in which we must adapt and reinvent ourselves. We are lucky to work for a company open to the world that constantly wants to improve to meet the challenges of our time. We must remain competitive in the market and this requires sharing and transmitting knowledge from all those involved in our purchasing departments and our affiliates. Every six months, our Global Procurement Department offers us the opportunity to participate in training sessions on current issues and business topics, enabling us to enrich our skills in purchasing but also our general knowledge and personal development.

I thank Takasago for offering us these sessions with enriching and new content every year. They are always very interesting.

Voice

Hiroki Ishikawa
Takasago International Corporation
(Japan)



In today's fast-paced and ever-changing circumstances, a variety of factors exist in procurement.

Through the Procurement Academy, I was able to learn about renewable raw materials and sustainability initiatives that have been gaining attention in recent years. It was very helpful to expand my horizons. I also felt that sharing our global goals and information about the systems we plan to introduce in the future made me feel strongly that we are one global team. Sometimes it is challenging for me to understand some of the content, but I would like to apply what I learned at Procurement Academy in my work.

● Collaboration with a Third Party

To further respond regarding its responsible procurement aspirations, the Takasago group has joined social organizations promoting sustainable and ethical sourcing.

In early 2016, we joined the Supplier Ethical Data Exchange (Sedex)¹ (AB membership), facilitating the assessment of suppliers in the areas of work environment, health and safety, environmental management and ethical business practices. Using the world's largest collaborative platform for sharing supply chain data globally along with a separate supplier questionnaire, we ensure an ethical supply chain. We have asked suppliers to become Sedex members or respond to our self-assessment questionnaire so that we can monitor their compliance with the Takasago Responsible Sourcing Policy. As a result, around 300 supplier members of Sedex had established links with the Takasago group as of fiscal 2023.

In 2023, we have proceeded with a project with a third-party organization to conduct human rights due diligence in the supply chain to proactively manage any potential or actual adverse human rights impact that our supply chains may have. We established guidance on how to focus on high risk suppliers and criteria for checking them on site. In April 2024, we conducted a pilot on-site assessment of a supplier together with a 3rd party auditor using the criteria. We will review the results and improve the next on-site assessment plan.

Soon after signing the Global Compact in 2017, Takasago Japan attended Global Compact Network Japan (GCNJ)² to study ESG trends and contribute to the promotion of sustainable supply chains in Japan. Discussion with the staff in charge of CSR procurement on the supply chain teams of GCNJ companies deeply increased our understanding of human rights due diligence and related issues.

The Takasago Group is also a member of the Roundtable on Sustainable Palm Oil (RSPO)³ and the Japan Sustainable Palm Oil Network (JaSPON)⁴ for the promotion of a sustainable palm supply chain. We have acquired RSPO certifications as shown in the table below to supply RSPO certified products according to our customers' needs. We also would like to respond with the shared responsibility defined by the RSPO to increase the consumption of certified palm products.

Affiliate	Scope	Year
Takasago International Corp. (U.S.A.)	Fragrances	2021
Takasago Europe Perfumery Laboratory S.A.R.L.	Fragrances	2019
Takasago International (Singapore) Pte. Ltd.	Fragrances	2022
	Flavors	2022
Shanghai Takasago-Union Fragrances & Flavors Co., Ltd.	Fragrances	2022

1 An online platform for sharing information on ethical and responsible practices.

2 An organization who supports the voluntary strategic actions of Japanese member companies and organizations toward the achievement of the ten principles of the Global Compact and the SDGs.

3 A social organization trying to transform the palm oil industry to ensure its sustainability and reduce its impact on the environment.

4 A platform for the sustainable procurement and consumption of palm oil in Japan.

TaSuKI Update

TaSuKI (Takasago global procurement Sustainability Key Initiatives) is a dedicated organization within procurement established to restore full sourcing control on selected key ingredients while addressing core CSR expectations.



1. Overview

2023-2024 period has again been a year with customers strongly requesting that the F&F industry in general and Takasago in particular provide raw materials that are traceable and sustainable. This trend is well established in Europe and growing sharply in the Americas and Asia.

In full alignment with these growing aspirations of society and our customers, TaSuKI has therefore accelerated its implementation of its initiatives.

2. Ongoing Projects

Patchouli Indonesia

Upcountry sourcing and local value creation – TasuKI Originals, Care and Comply

As per the master plan and despite the very challenging situation with reduced supply and skyrocketing prices, TaSuKI made major progress in 2023 in its patchouli sourcing in Indonesia.

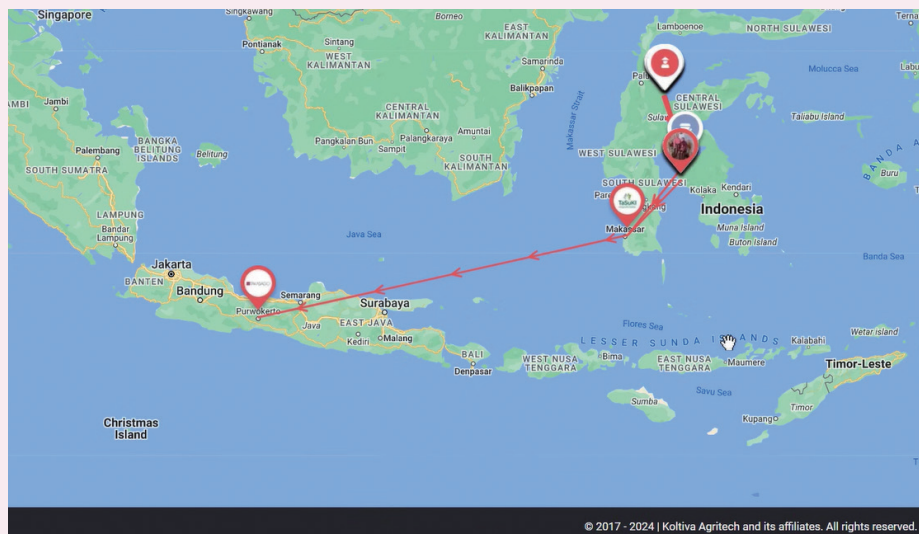
- Dedicated resources for sourcing upcountry were hired in the first quarter. These additional staff members and subject matter experts were localized on the island of Sulawesi, where most Indonesian patchouli is farmed.
- Takasago opened its Upcountry Buying Station (UBS) on Sulawesi Island. TaSuKI UBS is fully operational. Key procure to pay, quality assurance, quality control processes, systems and controls have been established. The warehouse was equipped with quality control and goods receiving and shipping equipment and staff was accordingly trained.



- The TaSuKI Indonesia Sourcing Manager deepened the relationships with farmers and distillers, enabling access to invaluable market and traceability insights.



- Ultimately, all of the Takasago affiliates worldwide were supplied with patchouli sourced and processed by dedicated Takasago and TaSuKI Teams in Indonesia, enabling significant BCP and market intelligence benefits.



France Lavandin Grosso

Pioneering for 10 Years – Farm to Fragrance – Lavandin Agreement – TaSuKI Originals, Care and Comply



2023 was an important milestone for TaSuKI lavandin grosso in Provence, France. We are particularly proud to confirm that the long-term mutual commitment with SCA3P met all expectations.

- Consistently in line with our TaSuKI principles, we flawlessly executed our 10-year contract with the SCA3P farmers' cooperative and sourced most of our global lavandin grosso requirements based on a cost-plus model.
- Despite the negative impact of a global slowdown which reduced demand and prices falling below cost for the second consecutive year, Takasago walked the walk of its sustainability talk and maintained all of its cost-plus price and volume commitments made with the 206 Farmers of the SCA3P cooperative.
- It was challenging, but 2023 was a perfect opportunity to not waste a good crisis and test our responsible procurement model. For the second year in a row, Takasago supported the SCA3P farmers with fair prices during exceptionally tough times, which in turn allowed them to maintain profitability and business continuity and reinvest in strategic initiatives such as certifications. For instance, this enabled SCA3P to obtain UEBT certification for all of the Lavandin grosso supplied to Takasago and confirm its Ecovadis platinum status.
- This virtuous model triggered strong interest from Takasago customers as it aligns with their own sustainability aspirations.
- Ultimately, the 2023 crisis confirmed that our daring to transform our procurement model to a stable cost-plus model and breaking the traditional high price volatility cycle/model is beneficial to all parties and is the way to go long term.

Florida Grapefruit

Sustainable Grapefruit: Planting of New Groves – TaSuKI Originals, Care and Comply

Takasago is making waves in the flavor and fragrance market with the introduction of sustainable grapefruit essential oil. This unique initiative, a result of a collaboration based on a tree funding agreement, marks a significant milestone in the production of environmentally conscious essential oils.



Through close partnerships with The Scott Family Companies and Peace River Citrus Products (PRCP), Takasago has fostered a sense of shared responsibility by establishing this agreement. This exemplifies how our sustainability initiatives can secure raw material availability for future generations and be integrated seamlessly into the production of quality essential oils.

The remarkable resilience demonstrated by our valued partners, The Scott's and PRCP, proved instrumental in successfully navigating and overcoming the mounting challenges posed by citrus greening (also called Huanglongbing or HLB) and the devastating hurricanes in recent years. By consciously choosing products derived from sustainable sources, consumers can actively contribute to a healthier environment while experiencing the sensory delights of Grapefruit Essential Oil. This long-term commitment is one of the many strategic supply chains which Takasago has vertically integrated under TaSuKI (Takasago global procurement Sustainability Key Initiatives). It sets a precedent for the industry, encouraging responsible sourcing practices and forging a path towards a greener, more harmonious future.

Y2023 VANILLA SUSTAINABLE REPORT

News from Takasago Madagascar – TaSuKI Originals, Care and Comply

Background behind the Madagascar market environment:

Recent overproduction has created historic vanilla bean carryovers and the low prices for vanilla have already discouraged some vanilla growers, leading them to abandon their vanilla plantations or convert them to other crops. As revenues decrease and pressure increases due to the weakening economy, vanilla-producing

communities are frequently faced with the challenge of securing food. Rice prices have surged, motivating growers to switch to cultivating rice because of its shorter production cycle. Unfortunately, a recent cyclone in Madagascar has exacerbated this trend, increasing the need for humanitarian aid. The situation in vanilla-producing regions is dire. Over a hundred thousand people have been displaced, rice crops and storage areas have been flooded, water wells have been contaminated and infrastructure has been damaged. It is urgently necessary to support vanilla growers and their families and efforts to establish good practices in the vanilla supply chain are more critical than ever.



Photo 1 and 2 - Vanilla growers contributing to Takasago's sustainable vanilla vision

Takasago's history of sustainable activities with Vanilla growers in southern Madagascar:

Since 2020, Takasago Madagascar has been directly working with vanilla growers and building together with them in southern Madagascar. A third year of engagement was achieved under the framework of organic and Fair For Life compliance. In July 2023 the network successfully obtained Rainforest Alliance UEBT certification. Our commitment has created an environment that has helped growers overcome the various adverse situations that have become normal in recent years. The support provided through medium- to long-term programs and Takasago's vision has maintained the attractiveness of the vanilla product. The motivation of the vanilla growers and Takasago's sustainability teams have enabled the network to make steady progress leading to a continuous increase in vanilla production expertise.

Summary of the project:

As of this year, members of the vanilla growers' network are located in 11 villages (Ambodimampay, Ambodimanga Tolongoina, Ambodisambalahy, Makadabo, Sandrakatsy, Tanibe, Analanampotsy, Fasina, Mananara, Antananivo and Antsirabe) and 20.71% of them are women.

In 2023, it was possible to maintain the project due to an increasing number of Takasago initiatives and training programs provided by the Takasago sustainability network supervisors.

This year, 100% of the member growers participated in the programs on the nine training themes below.

Topics of training sessions and activities: waste management (sorting, composting), protecting biodiversity, FFL-bio and RA-UEBT standards, drinking water treatment, combating child labor and forced labor, promoting women's rights, good agricultural practice, cooperative management, household budget management



Photo 3: Takasago Sustainable network supervisors during one of the vanilla growers' community training sessions

Some achievements: In the third year of Takasago's activities, we are finally able to see the increase in the expertise of the network members. Noticeably, the vanilla yield per hectare of plantation increased steeply in year two of the project, compared to year one. In year three, the yield increased continuously compared to year one. Beyond the initiative to improve vanilla production expertise, it was



Photo 4: Sign indicating a Takasago Madagascar sustainable development area.



possible to achieve initiatives to improve living conditions and maintain and respect the environment (the reduction of waste disposal in villages, the protection of water resources, the elimination of poaching, respecting protected fauna and flora, respecting laws, etc.). However, this timing of the network project reveals the necessity of facilitating the training of non-members or sharing information with them to increase synergy.

This year again, all of the members of the vanilla network fully agreed to inspections and to participate to internal and external audits. It was possible to fully monitor and control all of the households right down to the vanilla plots and no compliance issues were identified.

Conclusions:

Despite the challenges in the vanilla market over the last three years, efforts to establish a sustainable network together with the vanilla growing communities of southern Madagascar have made significant progress. Regardless of the tremendous



Photo 5: Takasago Madagascar SA team in 2023, during Takasago sustainability network internal control activities with Takasago Global Procurement

market fluctuations, Takasago's commitment to the region has enabled it to provide crucial support that is needed by the local vanilla communities. Achievements include the enhancement of traceability, compliance, the protection of the environment, production, quality and risk management. Long-term projects that have been established will enable Takasago to assess the effectiveness of these initiatives with a renewed focus on agricultural best practices over the next three years.

Sustainable Turpentine

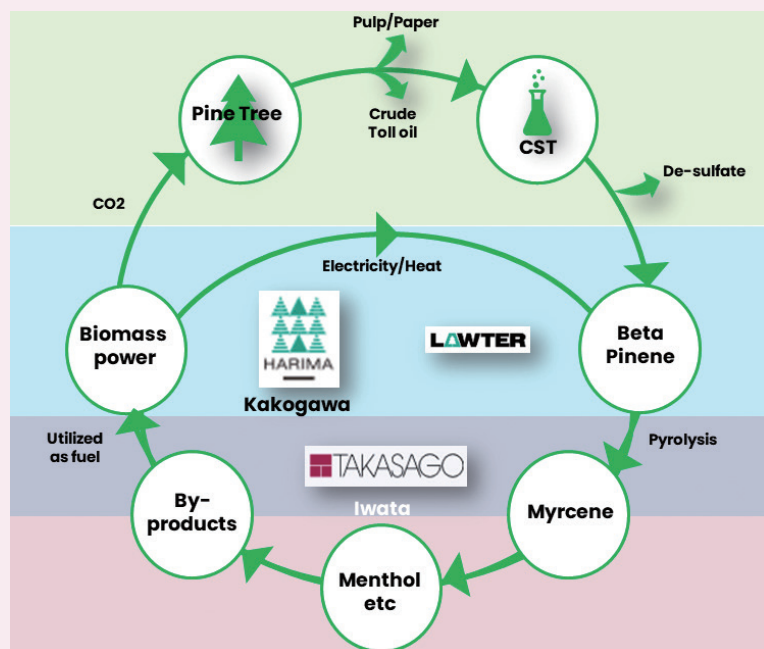
Strengthen Procurement for Green Chemistry – TaSuKI Originals, Comply and Share

In March 2020, Takasago International Corporation announced the acquisition of a stake in Lawter B.V. and accordingly signed an agreement with shareholders of Harima Chemicals Group, the parent company of Lawter B.V. This agreement will strengthen Takasago's procurement activities, specifically for the production of *l*-menthol which uses Takasago's core green chemistry technology. Pine chemicals, chemicals derived from pine trees, are utilized in various products including resin, electronics components and chemicals. Crude sulfate turpentine (CST) and gum

turpentine are important raw materials for aroma chemical. However, demand for gum rosin, one of the co-products of gum turpentine, has been decreasing in recent years, causing the availability of gum turpentine to be unstable and prices to fluctuate. Additionally, consumers today are paying more attention to responsible procurement and supply chain transparency, which is increasing the importance of backward integration.

Lawter B.V. provides Takasago with CST and its related ed materials, the primary raw material for many strategic aroma chemicals, from paper mill companies, which is considered to be a source that is less susceptible to supply and price fluctuations and that has better traceability. Takasago aims to secure a more stable supply of this key raw material by strengthening this upstream partnership.

In April 2023, Harima Chemicals Group opened a facility for the production of myrcene on the premises of its manufacturing hub in Japan, the Kakogawa Plant. The energy required in the operation of the plant will be primarily self-generated from renewable energy sources and carbon-neutral fuels, making it a truly sustainable facility. Furthermore, we are establishing a recycling-oriented business model in which by-products derived from process of *l*-menthol production at our Iwata Plant are utilized as fuel for biomass boiler at their Kakogawa Plant. Through partnerships like this, we ensure sustainable procurement as well as enhanced traceability and promote initiatives to reduce GHG emissions throughout the supply chain.



Production

Our Production Model at a Glance

The main objectives of production are: (1) to manufacture products with consistently excellent Takasago Quality at all affiliates around the world with zero incompatibilities, (2) to align CSR activities globally to actively contribute to the creation of a sustainable society, and (3) to cooperate with QA/QC and EHS to establish Takasago's best practices.

Development of Standardization Based on the Corporate Production Policy

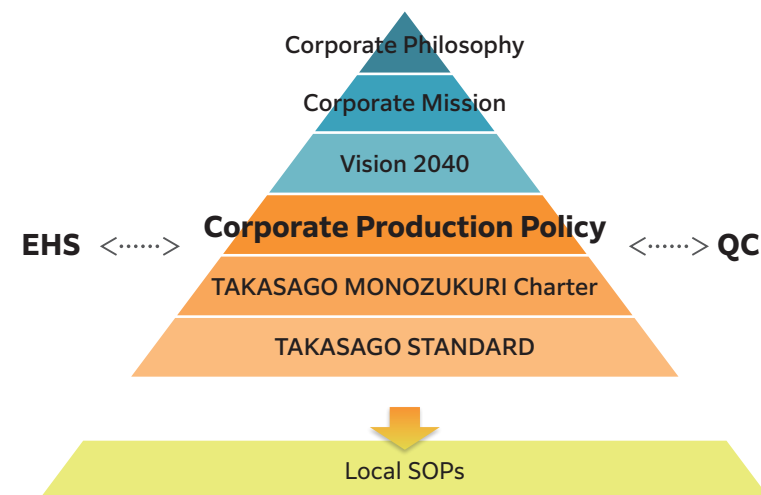
The Takasago Group developed its Corporate Production Policy (below) to implement activities for production and sustainability with a clearly defined purpose in the global functional area. By utilizing the characteristics of each affiliate and promoting a sense of unity in global production practices, Takasago aims to create a product supply system that is trusted by customers around the globe.

Corporate Production Policy

We practice the following in our production activities:

- Continuously striving to provide the highest level of customer service while maintaining safety in the workplace, the stability of supply and quality assurance in all of our production activities.
- Constantly pursuing excellence in our production practices and manufacturing systems.
- Vigilantly observing all relevant laws and regulations, respecting human rights, being fair, and preserving the environment.

Furthermore, with the aim of creating an effective document system, we developed the TAKASAGO MONOZUKURI Charter in January 2022 and are working to establish the TAKASAGO STANDARD standardizing operating procedures (SOPs) to link the Corporate Production Policy to local SOPs.



Global Meetings and Workshops

Takasago holds a variety of international meetings such as Global Operations Directors meetings, Global Supply Chain Management Committee meetings and Global Plant Managers meetings on a regular basis.

In 2023, the Takasago Group held the 5S¹ Kaizen² Global Workshop.

Our colleagues from domestic and overseas production divisions were invited to participate in the Production Division's first initiatives with global production sites. The project provided significant benefits for the future in terms of production efficiency and human resource exchanges.

**5S Kaizen
Global
Workshop
2023**

1 5S is a workplace organization method using five Japanese words: seiri, seiton, seisō, seiketsu, and shitsuke. These are translated as 'sort', 'set in order', 'shine', 'standardize', and 'sustain'.

2 Kaizen (Japanese: 改善, "improvement") is a concept referring to business activities to continuously improve all of the business's functions that involve all of the business's employees from the CEO to assembly line workers.

Environmental Risk Initiatives

Takasago understands the potential impact of risks such as climate change and natural disasters on production activities and believes that an approach that considers environmental risks is an essential part of sustainable growth. As a result, Takasago has promoted water risk initiatives in parallel with its reduction of environmental impact. The Takasago Group evaluated the water risks faced by each of our affiliates using the WWF-DEG's Water Risk Filter.

Zero-Accident Activities

Zero-Accident Activities are programs where all employees practice precautionary measures relating to industrial safety and health with a "safety first" philosophy. They are implemented at all factories in Japan. On top of the activities prescribed by EHS, Takasago aims to promote activities that encourage employees to take ownership of workplace safety, ideas for handling situations that are not clearly covered by rules, and the continuous improvement of safer production practices. Specifically, Japanese affiliates have held hazard prediction workshops where employees examine potential real-life scenarios for ways to improve safety. Also, they have established the practice of "pointing and calling" to build a culture of safe habits. These practices promote the development of leaders who support future health and safety initiatives and embody the "safety first" spirit while considering the safety of their colleagues.



Left: Hazard prediction workshops / Right: Pointing and calling

Capital Investment

In 2023, in addition to investments for maintenance and renovation, we plan to expand the fine chemical facilities at Iwata Plant and build a QA building at Takasago Europe GmbH (TEG).

We plan to invest approximately eight billion yen in the Iwata Plant on the site of one former plant and complete the pharmaceutical intermediate manufacturing facilities for the fine chemical business in 2025. The goal of this investment is meeting the strong demand from overseas, especially from major US pharmaceutical companies, and we will build a sustainable production system and manufacturing plant that is environmentally friendly with the concept of reducing energy and water usage.

Our subsidiary TEG invested approximately 2.2 billion yen and opened a new building, QA1, in May 2024. QA1 mainly houses the offices and laboratory facilities of the quality assurance and research departments of the flavor business. By strengthening both departments, it will be possible to deliver products that are safer and more reliable than ever before to Europe, the Middle East and Africa.

Logistics

Corporate Logistics Policy

The Takasago Group has established the Corporate Logistics Policy as its principles for logistics in accordance with the Charter of Corporate Behavior which includes consideration of the environment and local communities.

We practice the following in our logistics activities:

- Continuously striving to provide the highest level of customer service while providing a safe and stable source of supply.
- Constantly pursuing excellence in our logistics operations, systems and processes.
- Persisting in the observance of all relevant laws and regulations, respect for human rights, being fair and considering environmental preservation.

Quick and Efficient Logistics Processes

Currently, the world situation is in turmoil due to global labor shortages, inflation, unstable energy prices and political instability, and Russia's protracted invasion of Ukraine. The impact on trade logistics is varied, including shortage of truck drivers and port workers worldwide, air transport route and costs due to the Russian airspace flight ban, and the Sues Canal issue.

In addition, environmental concerns and regulations are becoming more important, and logistics costs are expected to continue to rise in the future. These challenges cannot be addressed by one company, and cooperation throughout the supply chain is essential. The Takasago Group is working to improve inbound and outbound logistics efficiency where we can control it. This minimizes the time and costs involved in transporting production materials and products and establishes a quick and efficient logistics process. Specific initiatives include the following*:

(*including plans)

1. Data analysis and forecasting: Some sites use data analysis and demand forecasting to accurately predict logistics needs and allocate appropriate resources to optimize inventory and ensure smooth logistics operations.
2. Technology: We use the latest technology to automate and streamline its logistics processes. For example, we utilize automated warehouse systems and track shipping processes in real time.

Partnerships for Operational Improvement

Logistics costs are currently rising worldwide due to factors such as labor shortages, inflation and rising oil prices. The shortage of truck drivers is particularly important social issue, and it is expected that laws and regulations regarding working conditions and driving time will increase the cost of freight transportation in the future.

To ensure a resilient and stable logistics network, it is necessary to improve the operational efficiency of all of the processes in the supply chain, including the processes done by shippers. Our logistics team works to build successful relationships with logistics partners through opportunities such as meetings with them to exchange information and learn about their situation and what can be improved. To address concerns that we identified, we changed a workflow to palletize shipments before pick-up to reduce wait time and the time necessary for loading cargo. In addition, we are sharing shipping information with our transport partners in advance through data transfer systems.

Reducing Environmental Impact

We are transitioning to paperless business processes utilizing digital technologies and tools. The warehouse management system at the Hiratsuka Distribution Center in Japan has been renovated. This renovated system can connect with transport companies to share shipment data to reduce the amount of paper used and facilitate the tracking of shipments.

In transportation and distribution, environmental concerns are also important issues. As a part of our commitment to sustainability, we work to optimize our logistics network, including the adjustment of distribution bases to shorten transportation and distribution distances, and accordingly, to push forward with the reduction of emissions during logistics activities.

In addition, in some transporting operations from factories to product warehouses, our logistics team is improving load efficiency and allocating fewer trucks to reduce CO₂ emissions.

Management of Waste Disposal and Recycling

When consigning waste transportation and disposal, we contract with companies that are certified as excellent by local governments and visit their facilities and confirm their operations are appropriate to reduce the risk of compliance violations. To ensure waste management traceability, we can track and confirm the collection, transportation and disposal of waste in the e-manifest system of a public interest incorporated foundation.

Some of our food waste is processed using methane fermentation technology that is able to generate biogas from the organic substances in food waste, enabling the reuse of this waste as electricity.

Recycled/Renewable Materials and Packages

In 2023, 45.1 percent of the raw materials used by the Takasago Group were renewable (50.0 % in 2022, 45.4% in 2021)*. The Takasago Group has developed ingredients with the added benefit of being derived from renewable resources. We promote the utilization of bio-based material and the upcycling of materials to minimize waste and protect natural resources. The Group will increase the percentage of recycled/renewable materials it uses.

We do not use recycled materials for containers that contact our products due to safety regulations. Due to this, recycled pallets are only used in some storage areas. We use recycled materials (wastepaper and steel materials) for cardboard packaging and steel drums. We are also reusing intermediate bulk containers (IBC), steel drums and pallets as long as there are no potential safety risks.

*Renewable raw material: A renewable resource is a natural resource which can replenish itself by an amount exceeding human consumption through biological reproduction, naturally recurring processes or other positive actions. We calculated the percentage of raw materials used that are renewable based on the guidelines in the GRI Standards.

Research & Development



Message from General Manager, Corporate Research and Development Div.

Fumihiro Yanaka

Based on our corporate philosophy, "Contributing to Society through Technology," our corporate mission, "Create new value through innovation rooted in *kaori* (*kaori*: aroma in Japanese)," and Vision 2040, "Care for People, Respect the Environment," which is a vision for a period that includes the milestone of our

100th anniversary, R&D plays an important role in the improvement of quality of life (QoL) by developing unique and superior technologies and products through the organic and functional integration of three types of innovation (concept innovation, product innovation and process innovation) and open innovation through active collaboration with external partners.

To solve issues globally recognized by the SDGs, we promote eco-friendly R&D with green chemistry always in mind, and to reduce environmental load, we utilize our unique catalytic technology, introduce white biotechnology and design eco-friendly processes so that we can facilitate the efficient use of water and the reduction of energy usage and greenhouse gas emissions. In addition, to efficiently use limited natural resources, we are also actively working to explore and utilize renewable raw materials and reduce the use of natural raw materials by developing and switching to alternative materials and utilizing unused resources.

R&D Framework

Our basic R&D division is working closely with overseas flavor and fragrance R&D centers and actively advancing R&D activities to meet global needs. We continue to work together with overseas R&D centers and steadily proceed with the overseas expansion of our technologies and products to, for example, modify the flavor profile of low salt/sugar/fat consumer products and plant-based food and to respond to demand for natural and environmentally friendly flavor and fragrance materials.

INNOVATION

● Development of stable citrus flavor that reduces dependence on natural citrus oils

Among a variety of flavors, citrus fruits are universally popular and used in countless products, from soft drinks and confectioneries to ice cream and desserts. However, there are a number of environmental challenges in the production of citrus flavors. Essential oils extracted from citrus fruits are one of the most important raw materials for flavors, but there are concerns not only about the impact of abnormal weather and disease on agricultural products, but also the impact of the changing logistics environment on procurement. As such, citrus oil has always been threatened by price fluctuations and supply shortages.



Therefore, we analyze citrus oils in detail and reconstruct them using the latest formulation technology to reduce the use of imported natural ingredients and reduce these risks.

For example, in our production of a stable citrus flavor, we have applied the latest technology to maximize the stability of the flavor. To be specific, using advanced receptor assay technology, we sought out the antagonists that block receptor responses to off-notes, and formulated them as masking agents in citrus flavors. Even though off-notes are generated in citrus drinks, the agents will mask the negative off-notes and maintain the original fresh note of citrus drinks.

Adding to this, we are leveraging our innovative processing technologies to remove unstable components from natural flavor materials and replace them with stable aroma compounds, so that our flavor will be able to remain closer to its original profile over a longer period of time. By providing more stable citrus flavors to the market as sustainable flavors, we reduce our dependence on natural citrus fruits, improve the stability of natural citrus raw materials, and contribute to the stable supply of citrus flavors.

The technology used in this initiative has been applied to solve similar problems with other natural raw materials.

● Developing New Fragrance Delivery Technology

- TAKAPS® 5G Biodegradable Fragrance Capsule

In addition to the original roles of fabric softeners, softening fabrics and preventing static electricity, since the 2000s, customers in Japan have increasingly needed them to reduce unpleasant odors' and have an enjoyable scent.

Today, fragrance has become a very important criterion for consumers when selecting fabric softeners. Fragrance capsules, one fragrance delivery technology, have been utilized in fabric softeners to fulfill the consumer need to enjoy fragrance all day long.

Fragrance capsules have a spherical structure around 10 microns in diameter that encapsulates a fragrance in a thin polymerized membrane. The capsules remaining on fabrics can retain the encapsulated volatile fragrance for long period and help consumers enjoy the fragrance which is released from capsules every time one is popped by physical stimuli such as friction.

However, to date, fragrance capsules have mainly used unbiodegradable plastic materials such as polymerized melamine or urethane to encapsulate fragrances. Especially in Europe, regulatory legislation to reduce microplastic emissions led by the European Chemicals Agency (ECHA) was passed in 2023, and it is accelerating regulatory actions all over the world. It has been decided that fragrance capsules made using unbiodegradable plastics in the detergent and fabric softener category will also be regulated by the ECHA's microplastics restriction law.

Against this background, we have conducted intensive research to address environmental issues. Ultimately, we succeeded in developing TAKAPS® 5G, one of the world's first biodegradable fragrance capsules. It is now being used commercially in Europe. TAKAPS® 5G is highly sustainable because it is made mainly from a biosourced starting material with low environmental impact. In addition, it can be stated that it is extremely safe for both people and the environment since it does not use harmful ingredients such as formaldehyde or isocyanates in its production, which are materials used in the production of certain conventional melamine and urethane capsules which have been cited as materials of concern.

TAKAPS® 5G meets the ECHA guideline criteria for biodegradability in its designated biodegradability tests, enabling it to be recognized as a biodegradable

solid polymer (not a microplastic). Therefore, TAKAPS® 5G can be positioned as an environmentally friendly biodegradable fragrance capsule that is not restricted by the law. In other words, the TAKAPS® 5G material is gradually decomposed by microorganisms and returns to nature, which is a unique feature not found in conventional capsule fragrances. Furthermore, we've also been developing encapsulated fragrances with reduced environmental impact by utilizing environmentally friendly fragrance creation technologies such as the utilization of biodegradable and upcycle materials, the consideration of our carbon footprint and other efforts.

Furthermore, the performance of TAKAPS® 5G is equal to or better than conventional fragrance capsules in terms of the preservation of the encapsulated fragrance and ease of breakability by physical stimuli, which are necessary performance features of fragrance capsules, ensuring the capsules fully meet consumers' needs.

As consumers' environmental awareness increases, the need for and importance of biodegradable fragrance capsules is expected to increase. We will continue our research and development to further improve capsule performance and reduce environmental impact under our philosophy in Vision 2040, "Care for People, Respect the Environment."

● BIOSWITCH® Aroma Ingredients

- Development of bio-based and biodegradable aroma ingredients

Takasago's history with aroma ingredients began in 1920 and "Symbiosis with nature" is a part of Takasago's heritage. In 1983, we established the asymmetric synthetic method and applied it in the industrial production of *l*-menthol.

From the 1990's, our main focus was expanding this asymmetric technology to manufacture optically active aroma ingredients using CHIRAL SWITCH to provide Takasago's CHIRAROMA® products. Now we have a diverse CHIRAROMA® ingredients palette.

Recently, we have been investigating R&D utilizing renewable/bio-based materials to displace the need for non-renewable petroleum-based chemicals under the BIOSWITCH® branding.

In 2014, Takasago became the first in the industry to disclose the bio-based percentage of its aroma ingredients, and now it discloses the status of CHIRAROMA®, such as biodegradability, ISO 16128 and nature identical. In 2021, several ingredients were additionally certified under the United States Department of Agriculture's BioPreferred Program.



We are currently developing environmentally benign biodegradable aroma ingredients and energy-efficient manufacturing processes involving catalysis.

● Development of bubbling sensation enhancing/imparting agent using TRP channels

Recently, carbonated drinks with strong bubbling stimulation have become a trend. However, we have reached the limit of increasing the gas pressure due to manufacturing equipment and containers. Therefore, the enhancement of the bubbling sensation is in demand.

We have recreated human sensory sensors to evaluate the complex bubbling sensation and discovered that a group of flavor ingredients has an enhancing/imparting effect on the bubbling sensation. First, we considered the bubbling sensation to be a combination of tingling and burning sensations and focused on sensory receptors TRPA1 and TRPV1 associated with each sensation. Next, we evaluated the TRPA1 and TRPV1 activity of flavor ingredients, followed by a sensory evaluation. As a result, we discovered several new bubbling sensation enhancers. Furthermore, some ingredients imparted a bubbling-like sensation even under conditions that do not contain carbonic acid.

This project was presented at the 2024 Annual Meeting of Japan Society for Bioscience, Biotechnology, and Agrochemistry and received the Hot Topics Award.

The bubbling sensation enhancing/imparting agent enables carbonated drinks to provide a refreshing feeling with a stronger bubbling sensation, and even after a carbonated drink has gone flat, the agent supplements the sensation, making it possible for a beverage to be delicious until the end. It is expected to contribute to enriching people's lives and reducing food loss.

GREEN CHEMISTRY

● Process Innovation

- Approach promoting energy saving and waste reduction

Our R&D activities and manufacturing are oriented toward Green Chemistry, based on the well-known 12 principles. We are working to reduce environmental impact in all processes, from the selection of raw materials to their manufacture and use and to their disposal. We are focused on using more sustainable or renewable feedstocks, waste reduction and energy conservation. The process development department works closely with the aroma ingredients and fine chemicals research groups. A wider green chemical perspective can be incorporated from the very early stages of research. In addition, the manufacturing and process development departments work together to improve processes for existing products and launch new manufacturing items in pursuit of ensuring safety and achieving energy-efficient operations. The catalysts used in our key technologies for asymmetric hydrogenation and coupling reactions use precious metals such as rhodium, ruthenium and palladium. For the sustainable use of natural resources, we have strengthened our efforts to optimize the catalyst manufacturing process and recover precious metals after using those catalysts. As a result of these efforts, we have reduced the waste loss of ruthenium metal by improving the ruthenium catalyst manufacturing process. We will continue to promote initiatives to reduce our environmental impact.

● Development of Special Catalysts

- Efforts to reduce environmental impact

Catalysis, which is one of the embodiments of the 12 principles of Green Chemistry, enables the reduction of the raw materials used, the waste generated and the energy consumed and enables the use of safer and even harmless reagents. Since the establishment of the *l*-menthol process in 1983, we have worked to develop catalysts for various transformations and leveraged them in commercial manufacturing.

We recently developed a new ruthenium complex (RUCY®-BH₄) that can be used as a catalyst for the asymmetric hydrogenation of simple ketones under base-free

conditions. By using this complex, it became possible to use base-labile substrates. We applied this complex in the synthesis of optically active γ -amino alcohols which are used in the synthesis of biologically active substances such as pharmaceuticals. This complex provided optically active γ -amino alcohols with high enantioselectivity in a formal asymmetric hydroamination reaction of racemic allyl alcohols. This protocol could be used for substrates with various functional groups with low catalyst loading (*Tetrahedron* **2023**, 149, 133705-133712).

● Aroma Ingredient R&D by White Biotechnology

Takasago has been studying the production of aroma through biotransformation for over 50 years. Centre Ingredient Technology Inc., which joined the Takasago Group in 2016, manufactures natural aroma ingredients using a highly efficient fermentation and downstream processes, such as aroma recovery technology. It is a major Takasago manufacturing base.

In addition, Takasago is enhancing its technology by participating in Japanese government projects, collaborating with universities and utilizing the latest biotechnology. Since 2022, we have been working on a bio-production project led by NEDO (New Energy and Industrial Technology Development Organization). In 2023, NEDO selected us to participate in a new Research and Development of Technologies to Promote Biomanufacturing project. We will promote R&D in the area of advancing bio-upcycling technologies for the efficient conversion of unused organic residues into valuable aroma ingredients.

Additionally, guided by our Vision 2040, "Care for People, Respect the Environment," our new mid-term management Plan and our New Global Plan-2 (NGP-2), from FY2024, we will accelerate upcycling and bioproduction R&D to contribute to the bioeconomy and a circular society guided by our slogan, "Symbiosis with Nature."

Voice

Laura Zenner

Takasago International Corporation



Research and development of the bioproduction of aroma ingredients that contribute to the achievement of the SDGs

In June 2023, I joined the Takasago International Corporation R&D team in Hiratsuka (TIC) from Takasago Europe GmbH (TEG). The SDGs are very important to both Takasago's German affiliate and Corporate R&D. I am very thrilled to have been able to work on sustainable projects both during my time at TEG and currently at TIC. I would like to share the following example of a current project that I am involved in.

TIC's business includes research and the production of aroma ingredients. In addition to Takasago's proprietary chemical manufacturing processes, biological processes using microorganisms are also carried out in research and the production of aroma ingredients. Microorganisms have great variability, which makes it possible to bypass chemical processes and leave energy-intensive processing to yeast or bacteria. Our current project is focused on gaining a better understanding of these biological process. From this we can learn how to establish an optimized process that uses fewer resources and increases the yield at the same time. It is great to work on a team that cares about the world behind the lab doors. I look forward to being a part of exciting projects in the future that will improve our impact on the environment to contribute to the bioeconomy and the circular economy.

Quality Assurance

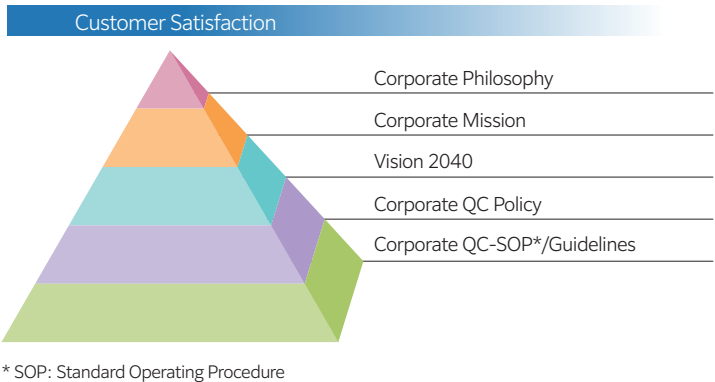
Takasago is a committed valuable partner of our customers, meeting all their product quality, regulatory and safety requirements. The mission of the Corporate Quality Assurance Headquarters (QAHQ) is to ensure that Takasago supplies safe, wholesome and reliable fragrances, flavors, aroma ingredients and fine chemicals that comply with the safety and regulatory requirements of local government, customers and trade associations. To achieve this mission, we promise to pursue "no complaints, no non-conformities" and "no defects, no errors."

Quality Assurance Organization

Takasago QAHQ strives to ensure that Takasago consistently delivers high-quality products and ensures that our customers' needs are met. QAHQ is an independent organization within Takasago composed of quality assurance departments around the world that operate under the One Takasago Quality Assurance Concept. QAHQ includes four centers: the Global Flavor QC Center (FLQC), the Global Fragrance QC Center (GFQC), the Global Flavor Regulatory Center (GFRC) and the Global Fragrance Safety and Regulatory Affairs (GFSARA) Center which operate globally and closely with local affiliates. These four centers are responsible for the development and implementation of global policies and guidelines under a globally standardized operation process. Both Flavor and Fragrance QC Centers strive to standardize, maintain and enhance the QC testing skills of the local QC team by conducting sensory evaluation, physicochemical testing and microbiological testing proficiency tests. Both QC Centers supports the quality standardization of raw materials which are used globally to provide the same quality products in collaboration with the procurement department. We believe these activities will contribute to not only the quality aspect of all products that we manufacture, but also to ensure that a continuous supply of products can be provided to our customers in the event when the business continuity plan (BCP) must be implemented. Aside from the globally recognized regulations, both GFRC and

GFSARA actively participate in national trade associations and working groups to stay up to date on the latest regulatory information and changes globally. This information is shared and updated with the members of global affiliates. The latest information alerts enable all team members at all affiliates to use the latest regulatory information for product labeling, customer support and informative purposes. This has allowed the local affiliates to consistently provide the support that our customers need.

The global regulatory teams have been also very effective in developing new functionality to prepare for new regulatory requirements. This includes the development of new auto-generated forms to address new regulatory requirements and support new customer requirements. In addition, the global regulatory teams have an error tracking system to document and share issues between affiliates to correct and avoid similar issues in the future. This allows the global teams to be more effective in developing proactive policies and procedures to reduce non-conformity across the globe. Thus, we are able to provide the highest quality products to meet or exceed all of our customers' expectations worldwide.



QC Policy, SOP and Guidelines

Takasago's Corporate QC Policy was developed based on our Corporate Philosophy, Corporate Mission and Charter of Corporate Behavior. The policies promotes a globally consistent quality mindset and systems that not only meet our customer's expectations, but also ensure appropriate and timely improvement to our day-to-day activities in line with the Corporate QC Policy, global QC Standard Operating Procedures (SOPs) and guidelines were established to standardize detailed QC procedures across all business units and affiliates. These guidelines are also incorporated in the local quality management procedures and practices to ensure the global alignment of QC management.

Training Programs

To enhance and maintain the highest level of quality and service, all Takasago Flavor and Fragrance QC teams participate annually in global training sessions provided by the Global QC Centers. The Global QC Centers are technical support groups within Takasago QAHQ that build globally aligned QC systems and train the local QC teams of all Takasago affiliates. The technical supervisors of the Global QC Centers coordinate regular training programs to ensure up to date competencies and skillsets. This globally coordinated and operated system is the key to ensuring that the same high-quality service is being offered and that our products consistently meet or exceed all of our customer's requirements. Recent flavor QC training conducted by flavor technical supervisors has included training on organoleptic evaluation, gas chromatography methods, maintenance procedures, technical laboratory best practices and quality systems designed to provide the same high-quality services to all customers around the world. These training programs are also designed to respond to local needs to improve and enhance specific analytical areas.

Our proactive activities will help align and streamline QC best practices, and in turn encourage the identification of issues and improvement of the efficiency of procedures, resulting in less waste and greater consistency across all our affiliates. Additionally, we conduct proficiency testing globally based on Takasago's ISO/IEC 17025 accreditation certification. This helps to confirm and standardize QC testing skills and maintain the highest level of proficiency as well as motivating the QC staff

members. As for Takasago fragrance affiliates, representatives of the QC teams attended olfactive intensive training at the Fragrance QC Center. The training consists of smelling natural raw ingredients and finished products to understand their complex nature and characteristics. The training also includes discussions sharing the expected raw material and finished product quality. After the training, attendees who were technical representatives support certified leads with daily olfactive training at their site and serve as sensory contact for the key site Global Fragrance QC center. All training results are shared with global and local management to ensure that the lessons and skills learned are effectively reflected and utilized as part of all local QC teams' daily activities as well as continuous improvement plans. This is a crucial part of Takasago's efforts to continuously supply the highest quality products to our customers anywhere in the world. These global training programs contribute to the standardization of the quality of Takasago products and improve the teamwork of all the QC teams as One Takasago.

● Compliance with Laws and Regulations Related to Chemical Substances

It is Takasago's global policy to comply with the latest laws and regulations. Takasago fully supports the objective of the chemical legislation around the world to improve the safe and sustainable use of chemicals and improve the quality of life of all citizens of the world and the environment. To conduct our business globally, The Takasago Group complies with laws, regulations, and relevant standards on product quality and safety, the environment and chemical substances as well as on accounting, taxes, labor and transactions in each country and region. This includes compliance with laws and regulation related to chemical substances, and The Takasago Group considers this to be a top priority. We continuously monitor and complete regulatory activities to ensure that we meet local regulatory requirements around the globe. This applies to the four business pillars of The Takasago Group, the Fragrance, Flavor, Aroma Ingredients and Fine Chemicals divisions. To comply with the regulations of various regulatory bodies, The Takasago Group works as a global team to ensure that registration activities around the globe are conducted efficiently, minimizing redundancy in testing and expediting registration. As we look towards

2023 and beyond, there are number of new chemical laws that are currently being written and may require The Takasago Group to conduct additional registration activities. These laws include UK REACH, potential updates to the EU REACH requirements, Turkey-REACH and other chemical legislation. As new chemical legislation are enacted, The Takasago Group will be ready to work proactively to meet new compliance requirements. The GFSARA continuously monitors ever-changing global regulations, customer requirements, standards and guidelines by communicating with trade organizations such as the IFRA,¹ IOFI,² FEMA,³ EFFA,⁴ ACI,⁵ PCPC⁶ and many other trade associations. Information is shared promptly with each affiliate around the world, guaranteeing that Takasago can provide safe and reliable products all over the world in a consistent manner.

1 IFRA: International Fragrance Association

2 IOFI: International Organization of the Flavor Industry

3 FEMA: Flavor and Extract Manufacturers Association

4 EFFA: European Flavour Association

5 ACI: American Cleaning Institute

6 PCPC: Personal Care Products Council

Voice

Yoichi Suzuki,
Takasago International Corporation (Japan)



The Quality Assurance Department issues various certificates and other documents, such as specifications, certificates of analysis and warranties, based on customers' requests.

We provide customers with information on not only products but also the raw materials used as necessary to assure quality.

In addition, we collect and share the most up to date information about domestic and international regulations and revise the ERP system as necessary.

Some systems are becoming more global, and there are many opportunities to exchange information with other affiliates in our group.

In the ongoing GSAP project, I am involved in a part of the construction of the EHS module and will contribute to the establishment of a system for globally managing product safety information.

○ Certifications

Takasago promotes the acquisition of quality management system certifications such as ISO 9001, FSSC 22000/ISO 22000, the GFSI and other internationally recognized quality and safety standards that are appropriate for the products we manufacture. A new flavor and fragrance facility was built in Indonesia and obtained ISO 9001 and FSSC 22000 food safety certifications specifically for flavor facilities in March of 2020. The introduction of these international standard systems is a key element for globalization rather than a part of local activities across all of Takasago. We are confident that these internal standards drive us to promote better quality services and increase customer satisfaction. To continue moving forward, Takasago is in the process of implementing a program designed to integrate systems from the FSSC 22000 viewpoint of hazard analysis.

○ On-Site Audits

To further strengthen the group's quality management, global QC centers routinely conduct on-site audits of all manufacturing sites to ensure their systems are consistently improving as well as meeting or exceeding all established requirements and standards, and that they are aligned with Takasago's business plan, objectives and quality control policy. Customer Health and Safety Takasago develops and manufactures a wide range of products across four of its business pillars: Fragrances, Flavors, Aroma Ingredients and Fine Chemicals. As an integral part of the creation and production processes, Takasago continually evaluates all products for their health and safety compliance. This approach is applied from the research and development stages up to the manufacturing and delivery stages of our products. During the reporting period, Takasago has not identified any instances of non-compliance with regulations or voluntarily adopted rules.

○ Marketing and Labeling

All of Takasago's sales are through business-to-business channels. None of its products are sold directly to end-consumers. Our fragrances and flavors are sold to companies manufacturing consumer goods, who incorporate them into their products that are sold to the general public. Our aroma ingredients are sold to other

flavor and fragrance companies for use in the creation and manufacture of their own compounds. Takasago fine chemicals are generally used as intermediates for the manufacturing of pharmaceuticals and chemicals. When supplying our products to our customers, Takasago provides the product information of all of the products we manufacture as required by regulations and/or the customer. This typically includes one or more of the following:

- Sourcing of the raw materials used in the manufacturing of our products
- Composition of our products (dependent on disclosures)
- Safety data sheets (which highlight components that may have a health or environmental impact)
- Information on the safe use of our products

During the reporting period, Takasago has not identified any incidences of noncompliance regarding product information or labeling.

○ Response to Kosher and Halal Needs

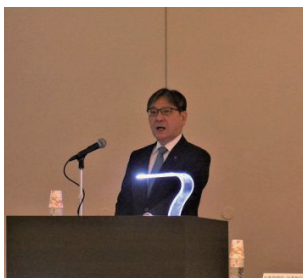
Takasago respects local cultures and customs, and actively creates products that reflect our values. Some local cultures and customs require strict adherence to religious precepts, and we have worked to expand our products that comply with these precepts, so they can be consumed with peace of mind. Well-known religious precepts include the Jewish kosher dietary regulations and the Islamic halal regulations. Both have the meaning of "forgiveness" and are strictly adhered to as a fundamental part of each religious person's life based on their religious beliefs. Takasago's kosher certified products are primarily supplied from factories in the United States. Our halal products are primarily supplied from our factories in Singapore and Malaysia. Our factories in Japan supply products and manufacture intermediate products for customers in the United States and Southeast Asia and have traditionally supplied synthetic flavors and food flavors that meet kosher requirements. In addition, our flagship product, *l*-menthol, is also halal certified. Moving forward, Takasago will continue to increase the number of products that are kosher and halal certified and will further enhance the manufacturing and supply of products that are friendly to the global environment and compatible with local cultures and customs.

Stakeholders and Investors

The Takasago Group strives to appropriately return profits to shareholders by realizing sustainable growth through sound and transparent corporate management. At the same time, we work hard to further strengthen communication with shareholders and investors both in and outside Japan. Takasago discloses corporate information to shareholders and investors in a timely and adequate manner.

As part of our efforts to improve our IR activities, we publish the Newsletter to Shareholders twice a year while also disclosing related documents and press releases on the IR section of our website to expand the investor community and enable shareholders and investors to deepen their understanding of our business activities.

In addition, we hold financial result briefings twice a year (May and November), and our president and officers directly communicate with investors and analysts. The details of the briefings are also disclosed on our IR site. The Investor Relations/Public Relations Department handles reporting related to IR and visits investors.



When it comes to shareholder returns, Takasago embraces shareholder-favoring business operations and aims to establish a corporate foundation which enables rising profits and continuous, stable dividends while considering the performance of the business.

The Takasago Group recognizes that our efforts for the environment, society and corporate governance can increase our corporate value. Now, all shareholders pay attention to ESG indexes, and we are working to improve the ratings we receive from rating agencies. Takasago International Corporation has been included in the FTSE Blossom Japan Sector Relative Index. The Group is working to achieve high ratings by promoting ESG initiatives.



**FTSE Blossom
Japan Sector
Relative Index**

Local Communities

Basic Approach

As stated in the Takasago Group Charter of Corporate Behavior and Code of Conduct, the Takasago Group respects the global environment and local communities and believes its relationships with local communities are a fundamental part of its business. For a long time, we have been engaged in a variety of activities, such as the holding of cultural events, the provision of educational programs, donations and other activities supporting communities. We will continue these activities and strive to be a partner that is trusted by local communities.



Spain

On November 16, 2023, the University of Murcia's Faculty of Chemistry which is partly supported by group company Takasago International Chemicals (Europe), S.A. (TICSA), held a St. Albert Memorial Event and presented awards to the people who wrote outstanding research papers. We have been collaborating with the University of Murcia since around 2011 and will continue to contribute to the development of regional universities.



Singapore

In Southeast Asia, Takasago held its Annual Strategy Meeting in Hua Hin, Thailand. We engaged in fruitful discussions about business and learned about environmental sustainability and the conservation of blue crabs in Hua Hin. We gave back to the Pak Nam Pran community and the marine ecosystem by releasing over 100 young crabs into the ocean.





Brazil

Takasago Fragrâncias E Aromas Ltda. (TBR) is involved in donation activities. We donated the following in 2023.

January 2023

School Supply Donation

Takasago, through the Back to School campaign, donated 150 sets of school supplies to the AFETO Association. This institution works in the field of basic social protection, with the aim of developing the potential of at-risk students as well as strengthening family and community relationships. It has become a strong pillar in the protection and development of children with different levels of vulnerability and their interactions with society.



April 2023

Easter

All of our employees (From the flavors, fragrances and corporate divisions) donated to the Santa Dulce dos Pobres Institution, which welcomes homeless people, providing food, clothing and shelter, including Colomba Pascal made by Casa da Criança a non-governmental organization that has been operating in the region for almost 30 years.



May 2023

Mother's month

All of our employees (From the flavors, fragrances and corporate divisions) provided personal hygiene items for mothers and children in socially vulnerable situations to the CAVI institution. The institution was founded in 1979. Casa de

PICK UP

Apoio à Vida – CAVI is an assistance department of the Allan Kardec Spiritist Center, CEAK. The goal of this institution is to help at-risk people and families, the socially vulnerable, pregnant teenagers and adult women in the municipality of Campinas in the State of São Paulo. They serve around 200 vulnerable people per year. Since its founding, CAVI has welcomed more than five thousand women of different ages. Today, CAVI is supported by donations from individuals and corporations.

July 2023

Food donation - Brazilian Festa Junina

The the flavors, fragrances and corporate divisions competed to collect food to be donated. They collected almost one ton of food to be donated. We donate to AFETO and LarCAB, a non-profit civil society organization (CSO) whose purpose is to serve children, adolescents and adults of all genders with intellectual disabilities, whether or not they have other disabilities or autism spectrum disorder (ASD) and their families, in the areas of health, education and social assistance, with the goals of habilitation, rehabilitation and the development of individuals' potential, autonomy and inclusion in community life and the improvement of their quality of life and the quality of life of their family members.



October 2023

Children's Day

At TBR, we happily welcome children and teenagers from the AFETO association to celebrate Children's Day in a special way. On that day, we shared experiences about the job market and presented our company, encouraging them to dream and believe in a bright future. Our aroma and fragrance laboratories prepared fun activities to welcome them. We also provide a delicious afternoon coffee. The event ended with the presentation of gifts made with great care.



Japan

Sponsored by Takasago International Corporation, the Ryoji Noyori Prize was established in 2002 by the Society of Synthetic Organic Chemistry, Japan (SSOCJ) in commemoration of Professor Ryoji Noyori's winning of the 2001 Nobel Prize in Chemistry and the 60th anniversary of the SSOCJ. The purpose of the prize is to recognize outstanding contributions to research in asymmetric synthetic chemistry defined in its broadest sense. The winner of the prize in 2023 is Kenso Soai, a professor emeritus of Tokyo University of Science, Japan.



We sponsored Kainosho Tadaoto: Crossing Boundaries in Nihonga, Theater and Film in August 2023. Kainosho Tadaoto is the brother of Kainosho Tadoka, the founder of Takasago. Tadaoto is a renowned and talented painter of Nihonga, a traditional Japanese painting style. He was also active in the film industry as a historical researcher and a verifier of costumes.



Takasago Collection® Gallery

The history of fragrance stretches back over 5,000 years, and we have formed a unique fragrance culture over that long history. Takasago has a large collection it uses to increase awareness of fragrance culture. This Takasago Collection® is open to the public. In the gallery at our Headquarter in Tokyo, we always display over 120 items from our collection over 1,000 items including traditional Japanese incense tools, containers and burners, Chinese incense burners, and incense tools from the ancient Egyptian period, ancient Greece and ancient Rome. This museum holds special exhibitions.

In 2023, we held an ambergris special exhibition. Ambergris is fragrance made from solids from the digestive tracts of sperm whales. In the modern era, commercial whaling has been banned so it is valuable.



Governance

71 Corporate Governance

Our Approach to Corporate Governance

Evaluations of Board of Director Effectiveness

Evaluations of the Effectiveness of the Board of Directors

74 Risk Management

76 IT Security

77 Compliance

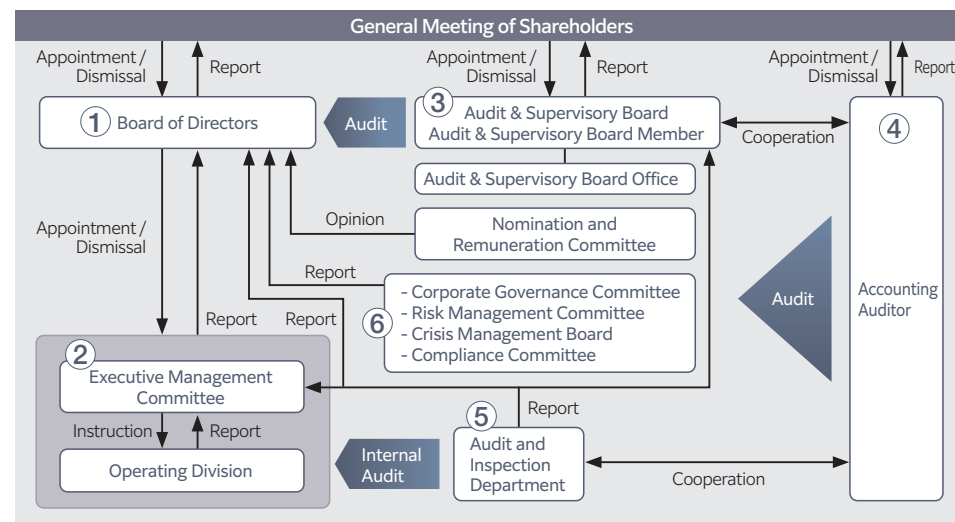
79 Tax Strategy



Corporate Governance

Our Approach to Corporate Governance

The Takasago Group strives to enhance the appropriateness of its management decisions, its checks on the management process and the transparency of its management through the disclosure of information to ensure the appropriateness of corporate governance. Aiming to achieve sustainable growth and enhance corporate value over the medium and long term, we have established the Basic Corporate Governance Policy by resolution of the Board of Directors. It is available on the Group's website.



① ② Board of Directors and Executive Officers System

In principle, the Board of Directors meets once a month, and extraordinary meetings are held as necessary. Directors ensure the fairness and transparency of management by supervising management and make the best possible decisions through the development of management strategies and plans and decisions regarding important investment projects and other business operations. At the same time, by setting the term of office of directors to be one year, we ensure sufficient opportunities for earning the confidence of the general meeting of shareholders, clarifying management responsibilities and strengthening functions for sustainable management. We have introduced an executive officer system to ensure the efficiency of management decision-making by the directors and the speedy execution of business operations and are working to differentiate the corporate governance function of the Board of Directors from the executive officers' execution of business operations. In general, the Executive Management Committee meets once a month to discuss important management issues. Executive officers from the overseas offices attend once a quarter. The Group positions the committee as a place for sharing information and discussing global matters.

③ ④ ⑤ Board of Auditors, Corporate Auditors, Internal Audits

In principle, the Board of Corporate Auditors meets once a month, and extraordinary meetings are held as necessary. The corporate auditors cooperate closely with the accounting auditor and exchange opinions and information. The Internal Audit Department reports the results of internal audits to the Corporate Auditors, and the Corporate Auditors may utilize the Internal Audit Department as necessary. In addition, the Corporate Auditors' Office has been established to assist the Corporate Auditors in their duties. The Board of Corporate Auditors functions more effectively by ensuring that the Corporate Auditors utilize their experience to audit management from a fair and neutral standpoint, working closely with the Internal Auditing Department and the Accounting Auditors.

⑥ Authorized Committees

Corporate Governance Committee	The committee is chaired by the President and is composed of seven directors, executive officers and other members. The committee deliberates important matters related to corporate governance with the aim of continuously enhancing corporate value.
Risk Management Committee	The committee is chaired by the President and is composed of the general managers of each division. To enable the Board of Directors to comprehensively identify and assess risks that could impact the Group we have strengthened our management system and are continuously deliberating and formulating measures to prevent these risks from impacting the group or mitigate their impact.
Crisis Management Board	We have established a system that enables headquarters and affiliates to respond promptly to emergencies, should one occur. We regularly review the reporting and instruction routes linking the Crisis Management Board (located at headquarters) and affiliates to ensure the smooth transmission of important orders and guidance. In addition, to prepare for large-scale disasters and emergencies, The Takasago Group has developed and formulated standardized business continuity plan (BCP) procedures.
Compliance Committee	The committee is chaired by the President and composed of nine directors and full-time corporate auditors. The committee deliberates and promotes important matters for the establishment and thorough implementation of a compliance system.

● Evaluations of the Effectiveness of the Board of Directors

The Takasago Group conducts periodic evaluations of the effectiveness of its Board of Directors with the aim of enhancing its effectiveness and enhancing corporate value.

A summary of the results of these evaluations is disclosed on our website.

Evaluation Method

A questionnaire is distributed to all directors and corporate auditors regarding the effectiveness of the Board of Directors, in which they are asked to rate the effectiveness of the Board of Directors on a step-by-step basis and to provide comments. The Board of Directors deliberated on the results of the questionnaire, which are analyzed and discussed at the Board of Directors meeting. The major items in the questionnaire are as follows.

- Composition of the Board of Directors
- Operation of the Board of Directors
- Roles and Responsibilities of the Board of Directors
- Performance of the Directors and Corporate Auditors as Individuals
- Structure supporting the Board of Directors
- Relationships with stakeholders

Summary of FY2023 Evaluation Results

As a whole, the Board of Directors is effective and functioning properly, primarily for the following reasons

- The Board of Directors performs its required functions as a Board of Directors in a timely and appropriate manner, such as addressing sustainability issues and developing risk management systems.
- With the aim of achieving sustainable growth and increasing corporate value over the medium to long term, the company formulated its capital policy, including capital investment, R&D investment, and investment in human capital, through careful consideration of the cost of capital and deliberation, and announced specific initiatives to improve capital profitability and market valuation.

On the other hand, the Board of Directors shared its recognition of the following points as issues to be considered in the future, as they are still not sufficient at present, although improvements are being made.

- The Board of Directors is working to enhance discussions on corporate strategy and other major directions and on the progress of the medium-term management plan, and will further enhance these discussions.
- The Board of Directors will proactively work to provide information to contribute to constructive dialogue with shareholders.

Efforts to Improve Effectiveness

Based on the results of this evaluation, the Board of Directors will continue to engage in thorough discussions and resolve the above-mentioned issues to further enhance the effectiveness of the Board of Directors and further improve corporate value.

Remuneration System

Basic Policy

- (i) Remuneration, etc. for executive directors shall be appropriate, fair and balanced to motivate the executive directors to contribute to the Takasago Group's sustainable growth and the enhancement of corporate value over the medium to long term.
- (ii) Remuneration, etc. for executive directors shall be determined by the Board of Directors in accordance with the policy described in the preceding paragraph, within the amount resolved at the General Meeting of Shareholders, reflecting some performance-linked elements and linked to medium- to long-term business performance, respecting the report from the Nomination and Remuneration Committee.
- (iii) Remuneration, etc. for Outside Directors shall be fixed remuneration only, reflecting their responsibilities as Outside Directors, and shall not include stock-related remuneration or variable bonus.

Fixed Remuneration

Fixed remuneration is remuneration paid monthly to each director in accordance with their position and responsibilities, and the level of individual remuneration shall be determined in consideration of business performance, past results, the level of employee salaries and the level of remuneration paid by other companies.

Variable Bonuses

The amount of variable bonuses shall be determined based on performance indicators such as consolidated net sales, consolidated operating income and net income attributable to shareholders of the headquarters for each fiscal year, as well as by taking everything including the degree of achievement of the priority measures set by each director into consideration.

Remuneration Structure for Executive Directors

Remuneration for executive directors consists of fixed remuneration, variable bonuses that mainly reflect short-term performance, and stock-based remuneration that contributes to the medium- to long-term improvement of corporate value through the continued promotion of sharing value with shareholders.

In principle, the composition ratio of each type of remuneration (in the case that the bonus is paid in full) shall be set so that, in general, fixed remuneration is approximately 60%, variable bonuses are approximately 20% and stock-based remuneration is approximately 20%.

Determination of Details of Individual Remuneration of Directors

The Board of Directors shall pass a resolution to mandate the President determine the amounts of the fixed remuneration and variable bonuses to be paid to each individual director and shall mandate specific details for the President.

In determining the amount of compensation, the President shall respect the reports of the Nomination and Compensation Committee.

Risk Management

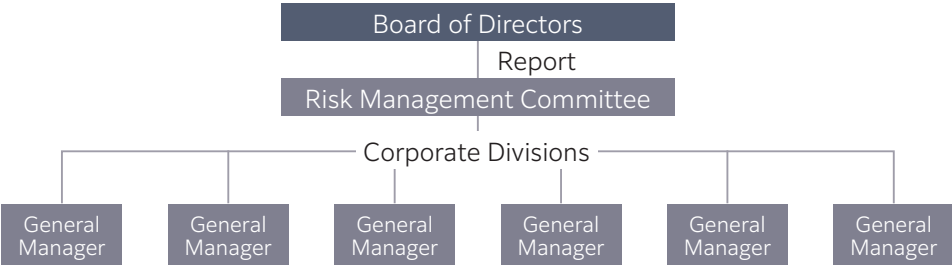
Approach to Risk Management

The Takasago Group values the environment, society and the sustainability of its business. To fulfill our responsibilities to every stakeholder, we regularly monitor and identify risks that could potentially affect the stability of our business while striving to maximize stakeholder value. Our Risk Management Committee, consisting of general managers, identifies potential risks that may hinder business continuity and formulates and reviews preventive measures for those risks. The identified risks are reported at Board of Directors Meetings for further review. We will continually develop and implement measures to mitigate each of the risks listed below in the best possible way.

Promoting Risk Assessment and Management

We identify and evaluate the risks that could affect our financial position and operations and the Risk Management Committee weighs their impact. Since our products are used in many final products as raw materials and our production stopping would impact the supply of many final products, we consider the issues that may affect the continuity of production to be major risks. Therefore, we consider countermeasures for each identified risk and review them periodically. For example, we have been managing our inventories for several months to maintain a safe zone where supply will not be stopped, using production management items such as inventory volume and delivery lead-time as indicators.

Risk Management Structure



Identified Risks

Climate Change

The Takasago Group's financial performance could be significantly impacted by climate change caused by greenhouse gas emissions, such as unexpected fluctuations in the weather, extreme weather events or irregular, unseasonable weather. For example, as the group sources and uses a variety of natural raw materials, shortages and price increases of these natural raw materials caused by climate change could restrict our operations.

Procurement

The Takasago Group sources raw materials and supplies its products around the world. Natural disasters, changes in consumer preferences, changes in international and local regulations and other significant changes are factors that influence our procurement and sales activities. Supply chain disruptions due to geopolitical risks, accidents at suppliers, etc. may affect our business performance if we are unable to fulfill our responsibility to continually supplying products. These factors can significantly affect our business performance and financial condition.

Globalization

The Takasago Group conducts business globally. The disruption of politics, the economy or society and many other factors caused by emergent situations such as terrorism, war, pandemic, etc. could significantly affect the group's business performance and financial condition.

Economic Conditions/Exchange Rate

A future recession or economic downturn of our main markets, both in and outside Japan, could affect our sales performance. They could also lead to changes in consumer demand, causing consumers to hold off on purchases of household products, foods and other products in a stagnant economic situation.

The Takasago Group transacts business in foreign currencies. Large fluctuations of exchange rates could impact the group's business results and financial condition.

New Products Research and Development

The Takasago Group continues to research and develop new products well ahead of the potential needs of the market. However, delayed development or unforeseen changes in consumer’s preferences could negatively affect the results of its research and development investments.

Sales

Industry reorganization due to the acquisition of competitors or other factors may reduce our relative advantage. In addition, new competitors entering the market may reduce our market share for existing products, which may affect our business performance.

Product Quality

The Takasago Group is expanding its business around the world. As we manufacture and sell a variety of products, there is the risk that we may incur financial losses due to customer complaints, recalls or the loss of the trust of our stakeholders due to the willful contamination of products, products being damaged during transportation, or other incidents. We have established countermeasures for various issues and strengthened our management system.

Accidents/Disaster

Natural disasters or accidents that occur in areas where our production sites are located could damage production facilities and disrupt procurement, distribution and sales. Accidents and disasters can negatively affect Takasago’s business performance and financial condition.

Information Security

The Takasago Group handles confidential information related to research and development, production, marketing and sales, as well as the personal information of many customers. The Takasago Group’s business performance and financial condition could be affected by a leak of confidential or personal information held by the group caused by an attack on its servers, the illegal access of its systems, a computer virus or other factors that are out of our control.

Compliance

To conduct our business globally, the group complies with laws, regulations and relevant standards on product quality and safety, the environment, chemical substances, accounting, tax, labor, anti-competitive practices and transactions in each country and region. When new laws, regulations, or relevant standards are enacted, it is possible that they could significantly impact our business performance, hindering the group’s business activities or force additional investments to address the situation.

Human Resources

The Takasago Group is expanding its business all over the world. There is the risk that the group could fail to sufficiently secure and develop human resources, and this could affect our business performance and financial condition.

● Crisis Management

Takasago has established a crisis management system, including a business continuity plan (BCP) which enables the group to take necessary precautions to address possible disasters and emergency situations.

All of the procedures are to help effectively minimize the impact of a crisis when it occurs and immediately restore normal operations. The Crisis Management Board has been established within the Corporate Headquarters in Tokyo. In the event of a crisis, no matter where it arises, the Crisis Management Board organizes meetings to manage the situation and provide instructions.

IT Security

Amid the frequently occurring cyber-attacks, our group is strengthening its IT security across the globe. The Takasago Group formulated a ten-year IT security initiative for ensuring cyber security until 2030. Following this plan, we implemented various measures to defend our IT devices from attacks.

Global IT Organization

The Takasago Group established its Global IT Organization, which reports to the Board of Directors and is led by the manager of our headquarters IT department. The organization includes a team of IT security experts, and Takasago Group has established a monitoring system that operates 24 hours/365 days a year.

Measures

In terms of physical measures, we have introduced tools and device authentication with the goal of preventing attacker intrusions. In 2023, we improved our security monitoring tools and vulnerability assessment tools. The Takasago Group continues to strengthen its IT security system.



We are also monitoring the number of IT incidents. In 2023, Takasago Group identified one IT incident that was the result of external attacks. From this experience we have further improved and strengthened our IT security. There were no severe IT incidents in the same period.

Takasago established the IT help desk team, its support staff and contact people regarding IT issues. The help desk is the starting point for employees who have noticed something suspicious, and there is an escalation process that follows the initial report.

Education and Training

We are continually increasing employee awareness through training and notifications. In 2023, the Takasago IT team increased the number of opportunities to participate in IT e-training. Security training and phishing email training for our employees are conducted quarterly. 3,300 employees (82% of all employees) have received training. Next year, we will review the results of the training programs and improve the training programs to make them more effective.

The Takasago Group has strict rules regarding employees responses to security events. Information security/cybersecurity is part of the employee performance evaluation.

Collaboration with External Stakeholders

It is difficult to maintain a high level of security governance by ourselves. The Takasago Group is working to enhance IT security by collaboration with IT infrastructure companies, experts, consultants and auditors. We also hire third-parties to conduct vulnerability analyses to correct our IT vulnerabilities.

Work-from-Home Environment

Additionally, the following necessary digital tools and systems for connecting to the company's systems are in place for our employees working from home:

- Secure connection through a cloud system when accessing the company systems from home via the Internet.
- Security patches and an automatically updating anti-virus system that protects employees working from home.
- Updated detailed rules for using applications and digital tools that consider the work-from-home environment.

Compliance

The Takasago Group believes that compliance is one of its top priority management issues and strives to continuously improve its compliance system while ensuring fair and proper business activities and effective corporate governance.

Compliance Committee

The Compliance Committee deliberates and promotes important matters for the establishment and thorough implementation of a compliance system for ensuring legal compliance in line with the Takasago Group Corporate Charter and Code of Conduct and other matters. The committee is chaired by the President and composed of nine directors and full-time corporate auditors.

Approach to Business

Takasago International Corporation officially endorsed the Council for the Promotion of Partnership Building for the Future in Japan, aligned itself with the council's objectives and published its Declaration of Partnership Building. This council includes influential figures like the Chairman of the Nippon Keidanren, the President of the Japan Chamber of Commerce and Industry, the Chairman of the Japanese Trade Union Confederation and relevant government ministers. We aim to enhance value across the supply chain in alignment with our Vision 2040, Care for People, Respect the Environment.

The Takasago Group sets guidelines regarding conflicts of interest. All of our employees must deal objectively, professionally and fairly with all of the Group's stakeholders, including its suppliers and customers.



Approach to Competition Law

To ethically engage in business, Takasago International Corporation complies with competition laws and regulations.

The Takasago Group has implemented training programs for our employees on fair competition practices. In 2023, we implemented a competition law e-learning training program for manager-level employees.

Approach to Anti-Bribery

The Takasago Group understands that corporate bribery is an impediment to fair competition and a serious threat to corporate credibility. Based on this, we have established the Takasago Group Anti-Bribery Policy to ensure fair and ethical business activities by preventing bribery involving the employees or officers of the Takasago Group companies, ensuring compliance with the bribery laws and regulations of the countries and regions where we do business and prohibiting bribery without exception.

Following this policy, we do not engage in any corrupt practices (bribery, fraud, embezzlement, extortion, bid rigging, insider trading, money laundering, abuse of authority, obstruction of justice, facilitation payments, etc.) prohibited by applicable laws and regulations.

The Takasago Group Anti-Bribery Policy stipulates that education and training be implemented and that a consultation and reporting system be established.

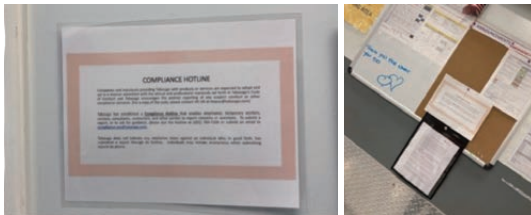
The Takasago Group established standards for the disciplinary actions to be taken in the event of a violation of this policy, i.e., warnings or dismissal, and a zero-tolerance policy is included in our employment regulations at each site.

Approach to Eliminating Organized Crime

Our position against organized crime is clearly stated in our Charter of Corporate Behavior and Code of Conduct as well as The Takasago Group Supplier Code of Conduct. We encourage the entire group and also our supply chain to work together to eliminate organized crime. Furthermore, in response to the Tokyo Metropolitan Government's policy of eliminating organized crime groups, we have included a clause regarding the elimination of organized crime into our basic transaction contracts. The Takasago Group will continue our efforts to establish a company-wide system to ensure corporate ethics and increase its effectiveness.

Compliance Hotline

The Takasago Group has a compliance hotline that enables all employees and other stakeholders such as suppliers and customers to report any compliance issues through the hotline and all of the information submitted to the hotline will be handled in the strictest confidence. Posters advertising the hotline have been displayed at offices and factories to ensure that our stakeholders know how to report any issues they discover. In FY2023, the number of consultations was 4 for the entire Group.

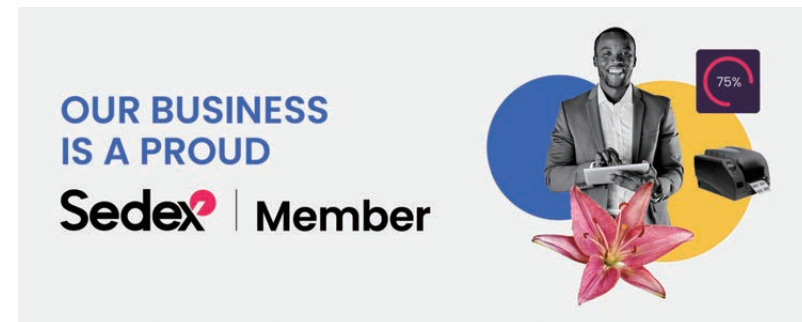


Collaboration with External Experts

The Takasago Group ensures that it has a compliance system that involves external legal experts. A member of the Compliance Committee is a lawyer and our compliance hotline includes an external contact person that is a member of a law firm. External legal experts advise us on the improvement of compliance issues and the promotion of compliance.

Ethics Audits

To operate our business sustainably, we need to understand our own business practices, enhance our business ethics and ensure that we comply with the principles of social responsibility. Our group utilizes SMETA to conduct the third-party ethics auditing of our own manufacturing sites. Through SMETA, we properly confirm that the compliance systems of our sites are functioning and strive to improve them in accordance with the results of audits.



In FY2023, Takasago Group conducted SMETAs* at 10 manufacturing sites. We have created a plan for regularly implementing SMETAs across the globe and have conducted them at 100% of our main manufacturing sites over the five-year period from FY2018 to FY2023. SMETA check the following items in line with the ETI Base Code established by the International Labour Organization.

All issues found in these audits have been corrected and addressed. We will continue to implement SMETAs to reinforce our ethical corporate culture.

*Sedex Members Ethical Trade Audit (SMETA) are audits using Sedex's social auditing methodology, the most widely used social audit in the world. A SMETA assesses a site based on 4 pillars: labour, health and safety, the environment and business ethics.

Major SMETA issues

- Appropriate working and employment conditions
- No discrimination and harassment
- Freedom of association and the right to collective bargaining are respected
- Safe and hygienic working environment
- Environmental standards meet local and national laws and requirements
- Compliance (regarding bribery, corruption and any improper business practices) with local and national laws and requirements.

Tax Strategy

The Takasago Group recognizes that the payment of taxes is one of the most basic and important social responsibilities that companies must fulfill, and we believe that the proper payment of taxes plays an important role in the development of the countries and regions in which we do business.

Policy on Tax Strategy

The Takasago Group has a group-wide tax policy that includes the principles below.

- We do not engage in tax planning or use tax havens to avoid taxes, and we comply with the laws and regulations of each country and region and the guidelines established by the Organization for Economic Cooperation and Development (OECD), including transfer pricing using the arm's length principle.
- We build and maintain good relationships with tax authorities in each country and region and respond to their requests in good faith. In addition, we strive to ensure transparency and trust in the tax authorities of each country and region by appropriately disclosing the information required by applicable laws and regulations.
- We do not to transfer value created to low tax jurisdictions or use tax structures without commercial substance.

Tax Risk Initiatives

The Takasago Group has established a scheme for enhancing tax compliance. The Accounting and Finance Division is responsible for taxation, and the tax staff at each site share information quarterly and understand tax risks.

Our group has reduced tax risks by securing and training appropriate human resources while strengthening cooperation with external experts and other departments. In addition, we comply with laws and regulations and strengthen risk management by sharing information about legal judgements and lawsuits provided by the tax authorities of various countries and regions.

Amount of Taxes Paid and Effective Tax Rate

In the fiscal year 2023, the Takasago Group paid taxes of 4,911 million yen. Accrued corporate taxes were 374 million yen.

The effective tax rate for fiscal year 2023 was 42.5%. This is 11.9 percentage points more than the statutory tax rate of 30.6%. The difference was attributable to the impact of the valuation allowance and other factors.

[Million Yen]

Financial Reporting	FY2022	FY2023
Earnings before tax	8,556	4,911
Reported Taxes	1,011	2,088
Effective Tax Rate (%)	11.8	42.5
Taxes Paid in Cash	2,735	1,510
Cash Tax Rate (%)	32.0	30.7

External Partnerships and Initiatives

Takasago engages with several organizations, supports initiatives and interacts with sustainability-related organizations, including those listed below.

- American Chemical Society
- CDP
- EcoVadis
- European Flavour Association (Executive Board)
- Flavor and Extract Manufacturers Association (Board of Governors)
- International Fragrance Association (Board of Directors)
- International Organization of the Flavor Industry (Board of Directors)
- Japan Business Federation
- Japan Chemical Industry Association
- Japan Climate Initiative
- Japan Flavor & Fragrance Materials Association
- Japan Food Additives Association
- Japan Sustainable Palm Oil Network (JaSPON)
- Keidanren Initiative for Biodiversity Conservation
- Mint Industry Research Council
- Monell Chemical Senses Center
- Natural Renewable Stewardship Circle
- Rainforest Alliance
- Research Institute for Fragrance Materials (Board of Directors)
- Roundtable on Sustainable Palm Oil
- Science Based Targets Initiative (SBTi)
- Sedex
- Syndicat National des Fabricants de Produits Aromatiques
- The Global Alliance for Sustainable Supply Chain
- The Sustainable Vanilla Initiative
- UN Global Compact



Member



**FTSE Blossom
Japan Sector
Relative Index**



Corporate Profile

Company Name:	TAKASAGO INTERNATIONAL CORPORATION
Headquarters:	Nissay Aroma Square 17F 5-37-1, Kamata, Ota-ku, Tokyo 144-8721, Japan Tel:81-3-5744-0511 Fax:81-3-5744-0512
Founded:	February 9, 1920
Representative Corporate Executive Officer:	Satoshi Masumura
Description of Business:	Manufacturing and sales of flavors, fragrances, aroma ingredients and fine chemicals.
Capital:	9,248 million yen
Consolidated Sales:	195,940 million yen (Fiscal year ended March, 2024)
Numbers of Employees:	4,041
Numbers of Countries with Subsidiaries:	28
Numbers of Global Creation Centers:	13
Numbers of Production Sites:	23
Stock Listing:	Tokyo

About This Report

Issue date
08, 2024

Scope and Boundaries
The scope of this report is the Takasago group.
This includes consolidated subsidiaries as well as non-consolidated subsidiaries defined by the equity-method.

Period Covered
Fiscal 2023: In this report, the term “Fiscal” is as follows:
From April 1, 2023 to March 31, 2024 for Japan/
From January 1, 2023 to December 31, 2023 for the others
- If any data covers a different period, the period is described.
- Some of the latest information is included.
- The EHS data covers the period from April 1, 2023 to March 31, 2024, regardless of the country.

External Assurance
GHG emissions* and Water withdrawal were verified by a third party based on the results of activities, except category 6 and category 13 in Scope 3.

Guideline referenced
GRI Standards [See the GRI Index](#)