

CSR Policy 6: Innovation

We will contribute to resolving social issues through the flavor and fragrance business.

Basic approach

The Company is working to find unique flavors and fragrances by developing flavors and fragrances and creating new flavor components through technologies for creating fragrance and creating taste, analysis, synthesis, and ingredient development. The Company is also working to streamline and improve the efficiency of manufacturing methods.

With solving social issues as the starting point of our efforts to meet customers' needs and potential demand, we develop new products and search for new businesses from various viewpoints, including "responding to health consciousness," "contributing to foodtech," "providing health and enrichment," and "reducing lifestyle odors (bad smell that comes from daily activities, such as sleeping, walking, and eating)." In this way, we aim to contribute to realizing a rich and healthy life and creating a sustainable society through flavors and fragrances.

–Contribution to society through the flavor and fragrance business–

Responding to health consciousness

Contributing to foodtech

Providing health and enrichment

Reducing lifestyle odors

Relation with stakeholders

Customers

We provide the ideal flavors and fragrances required by customers by providing high-quality and high-value-added products.

Examples of customer success cases

We have visualized customers' issues and established a proposal method to support product development by integrating marketing data and sensory evaluation data. By using our proprietary flavor and fragrance visualization tool, we visualize the quality of scents, flavors, and fragrances. We use these techniques and tools to share issues of customers in order to accurately respond to customer requests.

Natural environment

To develop alternatives and reduce the use of food resources that are consumed in large quantities, we are developing flavors, fragrances, and ingredients that help us reduce the use of such resources in processed foods without sacrificing consumers' preferences. In synthetic chemical studies, we aim to develop environmentally conscious ingredients by continuing to reduce the amount of solvent used and to replace toxic substances while taking into account green chemistry. We contribute to reducing the thickness of PET bottles and saving resources through the development of ingredients that enhance the flavor of natural raw materials and other ingredients that supplement the sensation of carbonation, which will lead to the protection of biodiversity and food resources.

Joint research partners, universities, and research institutes

We endeavor to absorb cutting-edge research and improve technologies by sharing knowledge, exchanging views, etc.

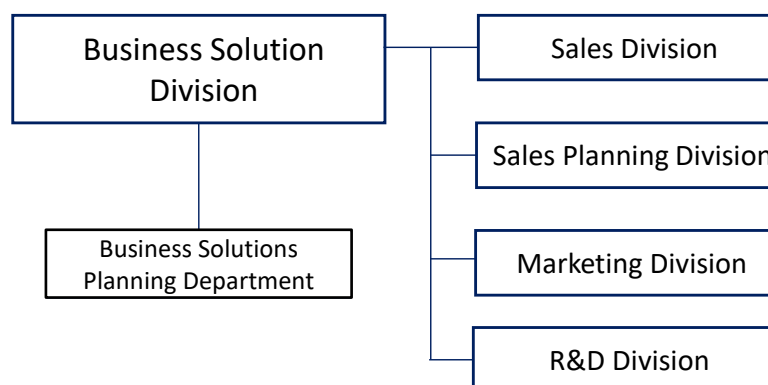
SDGs that we are targeting



Promotion system and governance

The Business Solution Division, which was established in 2020, is strengthening collaboration between the Sales, Sales Planning, Marketing, and R&D Divisions. Based on strategies developed by the Business Solutions Planning Department, we aim to contribute to resolving social challenges and achieve sustainable growth by taking an organized approach to provide high-quality and high-value-added products to customers.

In addition, the R&D Center (Kawasaki city in Kanagawa Prefecture) serves as the backbone of our flavor and fragrance development. The Flavor R&D Center, Fragrance R&D Center, and Technology R&D Center pursue research in their respective specialized fields, and collaborate with each other to combine their achievements, thereby strengthening our research and development capabilities.



Opportunities and strategies

Opportunities

- Social challenges to which the Group can contribute with its technology
- Increasing interest and need for creating a sustainable society
- Potential of flavors and fragrances to create new value

Strategies

- Proposal activities using marketing data and AI
- Speedy development: Accurately understanding the requests and latent demand of customers and responding to them quickly
- Detailed response to customers
- Response to increased demand for alternative raw materials triggered by climate change
- Maintaining investment in research and development

- Absorbing advanced technologies and knowledge through active exchange of views with universities and research institutes

Main FY2022 initiatives

Development of an organizational structure

Collaborations between the Sales, Marketing, and R&D Divisions as the Business Solution Division have advanced and the speed of responding to customers is accelerating. To achieve customer success, we have strengthened information sharing with respect to marketing data, technical materials, and research results, with the aim of further promoting solution sales.

We continue to focus on research and development for increasing sales, and the percentage of research and development expenditures in FY2022 was 8.0% (consolidated basis).

Product development and proposals

We have established a new proposal method that integrates marketing data with sensory evaluation data. By promoting the active use of intellectual properties such as sensory evaluation data and strengthening the linkage between compounding, analysis, applications, and sensory evaluation, we endeavor to develop new unique products.

We continue to promote joint research with universities and research institutes for product development and to strengthen proposals.

Number of joint research projects: 13 (FY2022 result)

Contribution to society

- Responding to health consciousness

—Bringing delicious taste to low-sugar, low-salt, and low-fat foods

We develop ingredients that enhance sweetness, umami, and saltiness in response to the development of products by customers in pursuit of “healthy and good taste” and we propose ingredients that add delicious flavor to food with reduced sugar and salt content. By developing products with an oily texture and a rich flavor, we provide oily texture to low-calorie and non-oil products, which helps to prevent excessive calorie intake.

- Contributing to foodtech

—Solution for the lack of food resources

As part of the development of flavors to replace depleting food resources, we also offer a flavor series that can replace savory natural raw materials and alternative blended flavors for citrus essential oils. In response to the shortage of vanilla beans, we partially replace vanilla extract using blended flavors and materials created by applying heat reaction technology. We also partially replace milk by combining blended flavors that we have developed based on aroma analysis with oil and fat emulsions.

For plant-based food, which is effective in reducing the environmental impact, we have Plant React[®], an ingredient that adds the flavor and taste of animal products without actually using animals and contributes to reproducing the distinct flavor.

Koku Jyuwa[®], which is generated by using the power of enzyme in natural vegetable fats and oils, contributes to reducing the raw materials used and protecting natural resources by expanding the rich flavors in food.

We also re-examined the quality of products used in food to successfully extend its guarantee period, leading to the reduction of food waste.

- Providing health and enrichment

—Bringing fragrance to living spaces and developing new technologies for skin care products

We develop sustainable fragrance ingredients that effectively provide fragrance to living spaces. We are also working to develop original liposome, which can be combined with various products, including milky lotion, cream, skin lotion, and hair care items, at a high level and provides an innovative solution to all kinds of skin problems.

- Reducing lifestyle odors (bad smell that comes from daily activities, such as sleeping, walking, and eating)

—Solution for an aging society

As a solution to various unpleasant odors in our daily lives, we research and investigate unpleasant odors themselves in detail, and use the obtained data to develop fragrances that help reduce or eliminate such unpleasant odors. In addition to developing masking materials for daily odors to improve the hospital and nursing care environment, we use near-infrared spectroscopy (NIRS) and develop Swallowing Map™ as part of our efforts to facilitate eating and add good taste to nursing care food.

T. Hasegawa Group's proprietary technologies

Many of our proprietary technologies are showcased on our website.

Top > Research & Development > Our technology

<https://www.t-hasegawa.co.jp/en/research/technique>

Social action through the flavor and fragrance business

The Company participates in the tree planting and product development programs of the Harumeki Foundation, which was established for the purpose of supporting people with vision impairment. We have also published a book, “An Illustrated Guide to the Mysteries of Fragrance and Flavor” (Publisher: Kodansha), written by our researchers. The book explains scents, flavors, and fragrances in an easy to understand manner. The royalties on the book are donated to food bank activity groups.

Top > Sustainability > Social Contribution

<https://www.t-hasegawa.co.jp/en/sustainability/social>

Plan for the future

We have set out KPIs for maintaining and improving the ratio of research and development expenses to sales and for continuing open innovations. We are working to strengthen product development and proposals by promoting joint research with universities and research institutes for the continued development of new technologies, and will continue to improve our organizational structure.