

Innovation Management

Product Development

Our Basic Approach and Strategy

In November 2024, Unicharm formulated the mission, vision, and value of its Global Development Division. In line with its vision Research Locally, Develop Globally, we will analyze the lifestyles of customers around the world to identify their needs and turn ideas into products by repeatedly developing and verifying hypotheses.

Unicharm's product development consists mainly of the development of personal care products and pet care products. In our development of personal care products, we endeavor to develop unique products by considering all stages of life and evolving and discovering new ideas that turn unpleasant experiences into comfortable ones. In our development of pet care products, we help ensure the well-being of dogs and cats by developing pet foods specifically for each breed and age group as well as toiletry products that cater to different breeding environments and specific pet breeds and physiques.

We continuously work to develop materials and processing technologies for nonwoven fabric, super absorbent polymer, pulp, and paper, in addition to engaging in research and developing processing technologies for pet food ingredients. The marketing, development, and production divisions work closely to shorten the lead time from the start of product development to product release.

► The Global Development Division's Mission, Vision, and Value

Mission: Contribute to the realization of a society in which all pets can live in harmony with people
We will help create a society in which all pets can live peacefully together with people through a virtuous cycle of generating unique value and profits through monozukuri.

Vision: Research locally, develop globally
We will create unparalleled experiences by working closely with each community to resolve their issues and fulfill their dreams.

Value: Confront uncertainty
With our passion for customers at the forefront, we will continue to work closely with them as well as society by learning sincerely and taking on the challenge of responding to our uncertain business environment.

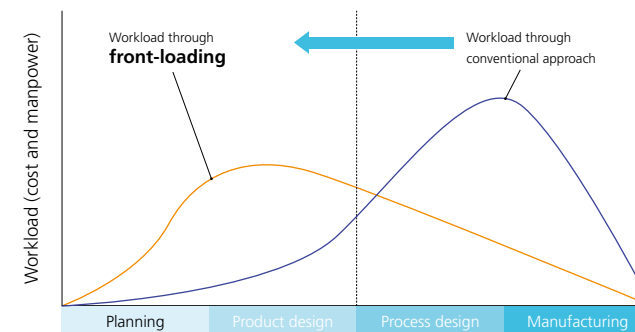
Management Structure

Unicharm holds Management of Technology (MOT) meetings twice a year to formulate road maps for short-, medium-, and long-term product development, production technology development, and materials technology development. In so doing, we work to strengthen our system for planning and implementing development strategies in order to actively respond to issues that may arise in the future. We have also taken a front-loading* approach to product development (R: Research), the development of new materials and technologies essential to provide new value (D: Development), and the development of equipment to ensure stable mass production of these products, materials, and technologies (E: Engineering). These three functions form our R&D&E system, which allows us to accelerate the development of new products and the renewal of existing products.

Furthermore, as a company that continues to expand business globally, it is essential that we develop products based on the characteristics of each country and region. Accordingly, we have established satellite offices of the R&D Division at major overseas subsidiaries and created a structure that facilitates the local development of products tailored to the needs of each country and region.

* An approach in which management resources are allocated to early stages of the product development process to advance tasks previously performed at later stages

► Reducing Workload Through Front-Loading of Tasks



SDGs Theme Guideline: Internal Guideline for Contributing to Sustainability

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The SDGs Theme Guideline was established and is operated to constantly improve the quality of our products and services. We define this improvement as increasing output by reducing input and contributing to the achievement of the SDGs through our products and services, and have formulated the following indicators:

(1) Reducing input

Contribute to reductions in environmental impact through less use of raw materials

(2) Increasing output

Ensure greater customer satisfaction by providing even more additional value through our products and services than in the past

(3) Contributing to the achievement of the SDGs

Play a key role in resolving environmental and social issues toward the achievement of the SDGs, while attaining indicators (1) and (2)

We have adopted these three indicators as “10% minus input, 10% plus output & SDGs theme” and establish development themes that will contribute to the achievement of the SDGs.

A product that complies with this guideline is *MamyPoko Royal Soft Organic Cotton* disposable baby diapers introduced to the Indonesian market in fiscal 2024. These diapers come with an ultra-thin absorbent sheet, reducing the use of raw materials and enhancing comfort. This product will also be launched in Malaysia, Singapore, and the Philippines in fiscal 2025.



Indicators and Targets

► Kyo-sei Life Vision 2030: Safeguarding the Well-Being of Individuals

Indicators	Fiscal 2022 Results	Fiscal 2023 Results	Fiscal 2024 Results	2030 Targets
Percentage of products and services that contribute to the realization of a society where everyone can have a sense of individuality	100%	100%	100%	100%
Percentage of products and services that contribute to a society where people around the world are free from discrimination by gender or sexual orientation (including products and services that contribute to the elimination of sexual discrimination still present in certain countries and regions)	100%	100%	100%	100%
Percentage of products and services that contribute to the realization of a society where pets are welcomed by family members and community residents	100%	100%	100%	100%
Percentage of products and services that contribute to the realization of a society where infants and their families can live healthily and happily	100%	100%	100%	100%
Percentage of products and services that contribute to activities that can reduce the spread of preventable infectious diseases (contact transmission or droplet transmission)	100%	100%	100%	100%

► Kyo-sei Life Vision 2030: Safeguarding the Well-Being of Society

Indicators	Fiscal 2022 Results	Fiscal 2023 Results	Fiscal 2024 Results	2030 Targets
Percentage of products and services that contribute to freedom from various burdens and finding enjoyment in life	100%	100%	100%	100%
Percentage of products and services suitable for the SDGs Theme Guideline, an internal guideline for contributing to sustainability	10.5%	5.9%	15.4%	50%
Percentage of products and services that use raw materials procured from local production for local consumption, thereby contributing to local economies based on the perspectives of the environment, society, and human rights	Development ongoing	Development ongoing	Development ongoing	Double (compared with fiscal 2020)
Percentage of products and services supported by consumers (No. 1 market share)	24.0%	23.6%	23.1%	50%

► Kyo-sei Life Vision 2030: Safeguarding the Well-Being of Our Planet

Indicators	Fiscal 2022 Results	Fiscal 2023 Results	Fiscal 2024 Results	2030 Targets
No. of products and services that implement the “3Rs + 2Rs” based on Unicharm’s unique approach	2	2	5	10 or more

Initiatives and Results

MamyPoko Sweat-Free Comfy Night Pants (South Korea)

Unicharm's local subsidiary in South Korea released *MamyPoko Sweat-Free Comfy Night Pants*, disposable baby diapers with a sheet that absorbs sweat from the baby's back and waist areas, the first of its kind in this market.

As they tend to sweat easily, babies develop skin problems such as rashes more frequently than adults in the summer and during other warm parts of the year. In addition, summer evening heats in South Korea (with nighttime temperatures of 25°C or higher) increases the need for comfortable sleep. To address this issue, we developed a night-use disposable diaper that absorbs sweat to prevent rashes and offers stronger urine absorption capabilities to reduce concerns over leakage. The sweat-absorbing sheet quickly absorbs sweat from the back and waist and reduces discomfort by lowering the body temperature by approximately 3°C*. Moreover, as this diaper has an absorbency capacity of up to five times, a single diaper helps babies sleep comfortably throughout the night.



* Compared to our products

Bobby ANTIMOS Wipes (Vietnam)

In Vietnam, there are growing concerns about the spread of dengue fever transmitted by mosquitos. It is particularly important to take prevention measures against mosquito bites for infants, who are more prone to dengue fever than adults and can become seriously ill. However, ordinary spray-type repellents carry the risk of entering the eyes or mouth. To address this problem, Unicharm's local subsidiary in Vietnam released *Bobby ANTIMOS Wipes*, insect-repellent wet wipes that can be applied evenly on the skin without the risks associated with spray-type repellents. This product is easy to carry and can be used at home and in a variety of other scenes, such as schools and parks.

**MamyPoko Pants Skin Comfort All in 1 Skin Care (Indonesia)**

Unicharm's local subsidiary in Indonesia launched *MamyPoko Pants Skin Comfort All in 1 Skin Care*, a disposable baby diaper with natural coconut oil on the surface of the top sheet, the first of its kind in Indonesia.

Due to the extreme delicateness of babies' skin, moisturizers such as cream and oil are commonly used for skin care treatment in Indonesia. When choosing disposable diapers, people tend to select those that are gentle on the skin. For these reasons, we developed *MamyPoko Pants Skin Comfort All in 1 Skin Care*, in which coconut oil, an extract long used in Indonesia for its gentleness and moisturizing effects, is applied to the surface of the top sheet and comes into direct contact with the skin. The inclusion of coconut oil in these diapers is expected to produce results alleviating skin irritation for up to 12 hours.

**Sofy Chojokusui Oyasumi Premium (Japan)**

During menstruation, women experience stress from lack of quality sleep due to disturbances in their physical performance and uneasiness over menstrual leakage. In view of this, in October 2024, Unicharm Corporation introduced *Sofy Chojokusui Oyasumi Premium*, a sanitary pad with ultra-thick cushions to prevent leakage. These ultra-thick cushions are firmly fitted to the body from the front to back, preventing leakage by eliminating any gaps between the pad and body. This product absorbs fluid twice as fast as conventional pads.

**SOFY Peace-of-Mind Pants-Type Sanitary Pads for Day Use (China)**

Unicharm's local subsidiary in China launched *SOFY Peace-of-Mind Pants-Type Sanitary Pads for Day Use*, a sanitary pad that can be easily changed even outside the home. This product comes with retractable tape on both sides of the waist so that they can be changed without taking off your pants. It offers the reassuring absorption capabilities of pants-type sanitary pads and the ease of being able to change them anytime.

**SOFY Tanom Pew Natural Love (Thailand)**

In Thailand, there are increasing consumer needs for environmentally friendly products, especially among the younger generation. In light of this, Unicharm's local subsidiary in Thailand introduced *SOFY Tanom Pew Natural Love*, a sanitary pad that uses organic cotton on the surface layer, reduces the use of bleach on the tissue by approximately 50%, and features packaging made of around 20% less plastic. In Thai, "tanom pew" means "caring for the skin," and is used in the product name to convey that this sanitary pad is gentle on the skin.

**3D MASK UV MASK (Vietnam)**

In Vietnam, where motorbikes are a common form of transportation, masks are frequently worn in public to prevent inhalation of exhaust emissions. With the younger generation in particular, people are becoming more conscious about their skin and taking measures to prevent suntans when going out. With this in mind, in June 2024, Unicharm's local subsidiary in Vietnam launched *3D MASK UV MASK*, a 3D face mask that offers the basic functions of standard face masks and cuts ultraviolet (UV) rays by approximately 98%. It comes in salmon pink color to blend in easily with the skin and brighten its complexion.



SOFY Charcoal Fresh Pantyliner (Thailand)

Due to Thailand's hot and humid year-round climate, women are concerned over the dampness and odor in their shorts. To address this issue, Unicharm's local subsidiary in Thailand released *SOFY Charcoal Fresh Pantyliner*. For this product, we include charcoal in the top sheet as it is commonly used and familiar to consumers in Thailand for its deodorizing and dehumidifying capabilities.



Caryn Extra Absorbent Pants (Vietnam)

In April 2024, Unicharm's local subsidiary in Vietnam introduced *Caryn Extra Absorbent Pants* disposable adult diapers. In developing this product, we studied the current state of incontinence care in Vietnam and investigated the problems and concerns over the leakage of existing slim-type disposable diapers. We then came up with a product that is approximately twice as absorbent as existing slim-type diapers with a thickness of only 6 mm. Even when worn for long hours or at night when it can be hard to go the bathroom, or when a bathroom cannot be reached in time, these diapers absorb urine quickly and repeatedly so that users do not have to worry about leakage. In addition, the mint fragrance of these diapers helps reduce concerns about smell.



Lifree Sawayaka Peace-of-Mind Pads for Overnight (Japan)

In November 2024, Unicharm Corporation launched *Lifree Sawayaka Peace-of-Mind Pads for Overnight*, a light incontinence sanitary pad that can be used comfortably throughout the night, reducing anxiety over nighttime leakage that tend to occur when adjusting positions or getting up. This product comes with three-dimensional gathers to prevent leakage when a bathroom cannot be reached in time as well as a crease on the frontal area to prevent leakage when getting up. In addition, the uniquely developed fluffy absorbent pad at the center absorbs urine quickly so that users can sleep comfortably throughout the night.



Lifree Anti Bocor Disposable Diapers Made of Breathable Materials (Indonesia)

Unicharm's local subsidiary in Indonesia released *Lifree Anti Bocor*, a disposable adult tape-type diaper that uses breathable material in the waist area. This product offers exceptional breathability, reducing skin moisture in the waist area by approximately 25% and decreasing humidity inside the diaper by around 23% compared with conventional products.



Lifree Peace-of-Mind Pants Absorbs (Japan)

As muscles weaken and legs and surrounding areas of the body get thinner with age, gaps may form between the body and diaper when worn by elderly people.*¹ In response to this issue, Unicharm Corporation introduced *Lifree Peace-of-Mind Pants Absorbs*, disposable adult diapers with absorbent material that fit firmly around the legs to reduce anxiety over nighttime leakage.



*¹ Based on Unicharm research

Deo Sheet Kirei Pad (Japan)

Dogs have a tendency to avoid urinating on in the same areas of pet sheets. Therefore, a sheet may need to be replaced every time a dog urinates on it even though most of it is not covered in urine. In view of this, in September 2024, we introduced *Deo Sheet Kirei Pad*, a mini pet sheet applied over the urine spots of regular size pet sheets so that dogs can urinate on the same sheet over and over again. Since there is no need to change the entire sheet every time, it can be used as many times as possible, reducing waste by around 25%.*² In addition, this product makes use of waste generated in the manufacturing process of nonwoven fabric.



*² Based on Unicharm research for *Deo Sheet Reliable Super-Absorption* Regular size pet sheets. The number of sheets used is based on preliminary product tests.

P.28 Deo Sheet Kirei Pad Pet Sheets (Japan)

Deo-Toilet Deodorizing Fan+ Cat Toilet (Japan)

In March 2024, Unicharm Corporation launched *Deo-Toilet Deodorizing Fan+*, a cat litter box with an activated carbon filter fan that addresses cat owners' needs to eliminate strong odors even from freshly deposited stool.*³ This product continuously absorbs stool odors through its dense activated carbon filter that draws in odor components. It also features a silent mode, providing peace of mind even for cats that are highly sensitive to sound.



*³ Based on Unicharm research. Parameters are for one cat (weighing 8 kg or less) using standard mode. In a consumer test based on daily use, 89.5% of respondents expressed that the product is effective in eliminating stool odors. Deodorizing efficiency is based on gas concentration and odor concentration tests (three-point comparison odor bag method) conducted by external institutions. It may not be completely effective throughout the entire period of use.

Deo Sheet Deodorizing Lab Toilet System (Japan)

To address the need of dog owners to remove odor from pet sheets that have been used for a long time, in March 2024, Unicharm Corporation launched *Deo Sheet Deodorizing Lab Toilet System*, a toilet system for dogs featuring a two-layer structure that eliminates odors from pet sheets for up to three days.*⁴ The bottom layer is an antibacterial dry filter with silver ions that inhibits the growth of odor-causing bacteria*⁵ while the top layer is a highly absorbent deodorizing mat with deodorant microcapsules that absorbs urine and odor for up to three days. The surface of the mat is designed to remain dry by ensuring that the urine seeps through while the uneven board below helps dogs maintain balance when defecating, providing comfort for both dogs and their owners.



*⁴ Based on Unicharm research. Parameters are for one dog (weighing 4 kg or less for the regular type and weighing 10 kg or less for the wide type) when only urine is absorbed (without feces). In a consumer test based on daily use, 87.9% of respondents no odor from the mat for up to three days. This research involved assessing the intensity, pleasantness, and unpleasantness of odors as well as ammonia concentration by odor judges three days after dripping 20 cc of dog urine per day.

*⁵ Based on the results of an antibacterial test conducted by a third-party institution. Does not inhibit the growth of all types of bacteria. Odor-causing bacteria are bacteria that help facilitate the production of ammonia from urine.