

Innovation Management

Digital Transformation (DX)

Our Basic Approach and Strategy

Unicharm strives to create new value centered on the processing and molding technologies for nonwoven fabric and absorbent materials that it has cultivated since its founding. This new value is certainly intended to improve consumers' quality of life, but to also help them continue to live in their own way and realize their ideal selves. However, as values continue to diversify, fulfilling the specific needs of each customer is no easy task.

In response, we leverage digital technology to visualize the vast array of data accumulated through our research and development activities over the years to develop insights into hidden desires of which customers themselves may be unaware. Even if we focused on a specific type of customer, their needs would change depending on the circumstance. By thoroughly identifying and understanding the precise needs that change according to situation and providing the best possible products and services in the most suitable time and manner, we aim to endear ourselves to customers in such a way that they “could not imagine a world without Unicharm.”

These are the kinds of measures we take to closely connect with people at all stages of life, from newborns to the elderly, and continue to provide incremental value so that they, as well as their pets, who are beloved members of the family, continue to use our products and services throughout their lifetime.

Management Structure

In January 2021, the Company established the DX Promotion Division and developed a system in which DX-related strategies are created and operated in an integrated manner from the perspective of Groupwide optimization. Specifically, the DX Promotion Division plays a central role in the Digital Transformation Alliance, a virtual organization that guides and manages the DX representatives of Group companies. The alliance oversees the promotion of DX throughout the Group by checking the progress of various DX initiatives and monitoring the development of employees into DX specialists.

Moreover, in July 2023 we established the Marketing by DX (MDX) Division. Aiming to maximize lifetime value, the MDX Division will develop a system that draws on digital technology to continue strengthening customer relations over the long term.

Recognized as a DX-Certified Operator

The DX certification system is a national system recognizing companies that meet the basic requirements specified in the Digital Governance Code based on the Act on Facilitation of Information Processing. Certified operators are deemed to be DX-Ready—that is, ready to transform their businesses using digital technology. Unicharm was recognized as a DX-Certified Operator in fiscal 2022.



Initiatives and Results

Providing Apps and Content That Cater to the Needs of Women

At Unicharm, we are dedicated to developing content that help women address changes in their physical condition and concerns about menstruation.

Sofy Be

In fiscal 2024, Unicharm began offering the *Sofy Be* app. In addition to its basic function of tracking menstrual cycles, the app contributes to women's mental and physical well-being by focusing on their hormonal cycles, which can greatly impact both the mind and body. The app helps manage women's mental and physical well-being by using a hormonal graph to visualize the relationship between hormonal changes and physical condition and mood and identify the causes of their conditions. Also, the app features an AI chat function that kindly addresses the concerns of women who feel they do not have a personal support network to talk about their physical and mental problems. In “active pregnancy mode” the app allows users to share various information with their partners. Moreover, users of the app can enroll in *Sofy Omamori Insurance Medical Support for Women*, which covers illnesses and injuries, including fertility treatment, in all stages of life.



* Refers to acquiring knowledge, discussing with family members, monitoring one's physical condition, and receiving fertility treatment, among other activities people often engage in when trying to conceive a child

web **Sofy Be app (in Japanese only)**

<https://www.sofy.jp/ja/app/sofybe.html>

Sofy and Sofy Girl Apps

Unicharm offers two apps specifically for menstrual management: the *Sofy* app for adult women and *Sofy Girl* app for the younger generation. To be easy to use for those with menstrual problems, The *Sofy* app classifies physical characteristics into 24 types according to a diagnosis supervised by a physician, based on which it offers advice on cramping, premenstrual syndrome (PMS),*1 and other menstruation-related concerns. Moreover, in fiscal 2023, a Pregnancy Planning Mode function was added to the *Sofy* app, which provides useful information for those trying to conceive and offers a product-linked function to track the use of *Sofy Ninkatsu Orimono Sheet*. Meanwhile, the *Sofy Girl* app is a menstruation management app for those experiencing their first menstrual cycle and their parents with a function that automatically predicts and displays the next cycle after recording the start of menstruation. The number of users of the *Sofy* and *Sofy Girl* apps combined exceeded two million as of December 31, 2024.

Overseas, our local subsidiaries in India and the Philippines also offer their own versions of the menstruation management app.

*1 Emotional and physical symptoms such as irritation, stomach pains, and headaches that are experienced before a period

web Sofy app (in Japanese only)
<https://www.sofy.jp/ja/app/sofy.html>

web Sofy Girl app (in Japanese only)
<https://www.sofy.jp/ja/app/sofygirl.html>

web SOFY Club app (India)
<https://www.sofy.in/sofy-club-app/>

web SOFY Club app (Philippines)
<https://apps.apple.com/ph/app/sofy-club/id6479239447>

Sofy Sarakeda-so TikTok Account

Unicharm provides various information on menstruation-related topics through its Sofy Sarakeda-so TikTok account, targeting the younger generation. The account has received approximately 48 million views as of December 31, 2024.

web Sofy Sarakeda-so TikTok account (in Japanese only)
https://www.tiktok.com/@sofy_official_7days/

Unicharm Receives TikTok Best Activation Award for Sofy Sarakeda-so

Unicharm received the Best Activation Award in the Creative Category at TikTok for Business Japan Awards 2024. This award is in recognition of its short, trendy video about a problem that is difficult to share with others, creating an interactive dialogue among users.

The Creative Category of the TikTok for Business Japan Awards recognizes highly effective campaigns that embody “entertainment” and have an impact on business and society using a platform based on the creative expressions and new ideas of TikTok advertisements. The Best Activation Award is given to campaigns that demonstrate particularly high levels of programmatic advertising and those for which an appropriate PDCA cycle has been put in place to achieve results.

Launch of Gohan Matching Service

In July 2024, Unicharm launched the *Gohan Matching* service, in which AI provides recommendations on dry cat food matching the user's cat simply by answering questions. Based on responses to 21 questions regarding a cat's age, weight, health, preferred ingredients, and other characteristics, our proprietary AI recommends three types of dry cat food that are ideally suited from among more than one trillion response patterns. In addition, the results page displays product features of the recommended cat food as well as information on retail stores and online stores that carry these products. Going forward, we will continue to analyze machine learning algorithms to recommend products with even greater accuracy.

web Gohan Matching (in Japanese only)
https://jp.unicharmpet.com/ja/food_matching/index.html



Petnote: Online-to-Offline (O2O) Platform for Pet Products

Petnote is an online-to-offline (O2O)*2 platform for pet products operated in China by Onedot Inc. and Shanghai Wanli Network Technology Co., Ltd., affiliated companies of Unicharm Corporation. It offers a speedy O2O commerce service, in which pet food and pet supplies are ordered through the *Petnote* app or various other apps and delivered to their homes in approximately 30 minutes to an hour. The service is available in 12 major cities across China and continues to expand.

In addition, *Petnote's* WeChat mini program allows users to record various aspects of their pet's health. These include daily records of their pet's diet, weight, and incontinence care, irregularities, memories from events, and even grooming activities, such as nail clippings and shampoos. Users can also receive consultation services on their pet's health from a dedicated veterinarian.



Petnote

*2 Online-to-offline (O2O) commerce is a business strategy that attracts customers from online channels to make purchases in physical stores.

DOQAT Pet-Related Q&A Service

DOQAT is an online Q&A service platform where dog and cat owners can share information and advice on any matter related to their beloved pets, with approximately 55,000 registered users as of December 31, 2024. Through the sharing of experiences and ideas between people with dogs and cats of similar breeds and ages, the service enables owners to gain insights from one another and lead happier and more peaceful lives with their pets. We also utilize Q&A data to develop even better products and communications with our customers.



web DOQAT Pet-Related Q&A Service (in Japanese only)
<https://doqat.jp/>

Hands-Free Commute: A Subscription-Based Model for Disposable Diapers

A subscription-based model for disposable diapers to alleviate the burden on both parents and childcare workers, *Hands-Free Commute* is a system that monitors data on the number of disposable diapers and baby wipes in stock at nursery schools and automatically calculates order quantities. Also, Unicharm and business partner BABY JOB Inc. have acquired several business model patents in relation to the *Hands-Free Commute* system. This system has been adopted at approximately 5,230 childcare facilities in Japan as of December 31, 2024.



P.23 ReFF Project Targeting the Realization of a Recycling-Based Society >
Circular Recycling of Used Disposable Diapers

Utilization of UniChat AI Text Generation Service

In August 2023, Unicharm began using UniChat, an AI text generation service that utilizes Large Language Models (LLM) for Unicharm employees. UniChat is provided in a safe and secure environment exclusively for the use of our employees, and is mainly used for summarizing, correcting, and translating text, and generating ideas for copywriting. In fiscal 2024, we linked UniChat to internal information using retrieval-augmented generation (RAG) and applied this mechanism to expand the functionality of information linkage, such as patents and utility model bulletins published externally and the automation of summarization and document creation tasks.

We will continue to use generative AI to expand the functionality of AI assistance services as well as enhance productivity and accelerate business activities.



Selected as Finalist at 2nd Generative AI Innovation Awards

The 2nd Generative AI Innovation Awards, sponsored by Google Cloud Japan, aims to showcase innovative solutions to issues using Google Cloud's generative AI service. Unicharm's "Patent and Utility Model Publications and Generative AI: Efforts to Improve Business Efficiency and Value" was selected as one of the 12 finalists for their success in drawing out the full potential of generative AI and their innovativeness in enabling the use of generative AI by anyone in their daily work.

Development of Smart Factories

The Kyushu Factory, completed in March 2019, is the Group's first smart factory. With the aim of streamlining tasks to be performed by anyone, realizing a safe working environment, and producing safe and reliable products, the Kyushu Factory has introduced IoT technology to provide timely access to on-site information, automated*¹ the movement and supply-related tasks of heavy items through the adoption of driverless vehicles and robots, and implemented AI-based data diagnostics to detect irregularities and predict malfunctions along production lines, thereby reducing labor and increasing efficiency.

In addition, Toyohama Logistics Center, a logistics hub of Unicharm Products Co., Ltd. that commenced operations in May 2024, is equipped with automated equipment developed by Trancom Co., Ltd. We expect these equipment to improve the efficiency of cargo operations by reducing the number of cargo handlers by approximately 50% and increasing storage capacity by approximately 10%, thereby eliminating labor shortages and strengthening and stabilizing the supply system.

We are also steadily proceeding with efforts to develop smart factories at our other locations through the introduction of collaborative robots and SCADA.*²



*1 A form of automation that aims to integrate human craftsmanship and knowledge with digital technology

*2 Supervisory Control and Data Acquisition: A supervisory control system that controls processes and centralizes monitoring in manufacturing and industrial settings

Streamlining Logistics Operations Using Logistics EDI —

In August 2023, Unicharm began distributing Advanced Shipping Notices (ASN)*¹ to wholesalers using the Logistics Electronic Data Interchange (EDI)*² provided by PLANET, INC. to improve productivity by digitalizing logistics operations. The distribution of ASN to wholesalers will simplify inspections at time of delivery and digitalize the invoicing process (reduce paper use), thereby improving productivity by reducing time spend on receiving goods and enhancing the efficiency of logistics resources. In addition, the digitalization of individual logistics transaction information, such as ASN, is expected to optimize transportation and delivery efficiency and inventory throughout the supply chain.

We will continue to improve the efficiency of logistics operations throughout the daily commodity goods industry in cooperation with wholesalers and logistics operators.

► Benefits of Using ASN

1. Digitalization of invoices reduces the use of paper
As Unicharm can distribute delivery statement information to the wholesaler using ASN data and the wholesaler can distribute inspection data to Unicharm via the logistics EDI upon receipt of goods, neither party needs to print, store, or input invoice information, thereby improving operating efficiency.
2. Simplifies inspections at time of delivery between the Company and wholesaler
As Unicharm can distribute ASN via the logistics EDI and the wholesaler can perform warehousing and storage tasks based on delivery statement information obtained in advance, the inspection process for incoming goods is simplified, thereby reducing throughput time*³ for delivery vehicles.

*1 Advance shipment information provided by the shipper to the receiver, consisting of ship-from and ship-to codes, order number, product code, delivery quantity, and other information

*2 EDI for logistics standards between manufacturers and wholesalers in the daily commodity goods industry; allows the manufacturer to distribute ASN to the wholesaler and the wholesaler to distribute in-stock inspection data—which provides information on receipt of goods—to the manufacturer

*3 The time it takes for a product to enter and exit the delivery site

► Workflow Using ASN

