

R&D Center and Innovation

Migros continues to invest in the future in line with the innovative approaches to which it adheres. Focused on deploying AI-based solutions in retailing and benefitting from the company's information technology strengths, the Migros R&D Center engages in a ceaseless effort to integrate such solutions into business processes. The center also collaborates with other R&D firms. By carrying out R&D activities, developing products scientifically and systematically, establishing academic and technical R&D collaborations, and supporting entrepreneurial ecosystems creates a collaborative environment in which co-innovation thrives. This approach also encourages the

publication and dissemination of scientific and technical knowledge and strengthens the ability to come up with pioneer solutions.

R&D Center has been in operation for eleven years. As of end-2024 the center employed a staff of 290. The ten national patent applications and one brand application filed in 2024 brought the total number currently under formal review to 45. In 2024 one utility model patent was awarded to the center, bringing the number of its patent registrations to 23.

R&D Center's projects focus mainly on creating competitive advantages in retailing by lowering

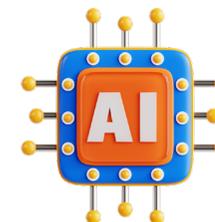
costs, reducing losses, increasing turnover and productivity, saving time and labor, and generating additional revenue streams. The projects do this by improving, optimizing, digitalizing, and innovating business operations and processes and detecting and correcting process anomalies.

R&D Center also develops new processes and solutions capable of creating added value for Migros' stakeholders—customers, suppliers, farmers, entrepreneurs etc. as well.

Migros is constantly increasing its investments and projects aimed at leveraging AI-based solutions. Migros' entire R&D and innovation investment budget amounted to TL 741 million in 2024.

Migros makes active use of digital technologies to deliver better service. These technologies make it possible to monitor service progress in real time and individualize services in line with customer feedback.

Benefitting from the company's information technology strengths, the R&D Center engages in a ceaseless effort to integrate technology solutions into business processes.



Digitalization & innovation practices informed by the principle of stakeholder-value creation

So that customers may do their shopping more conveniently and more quickly	To expand the stakeholder ecosystem	To encourage innovative undertakings	To the shopping experience better and easier	To increase business process productivity
To improve online shopping channels	Retailing-focused new ventures and subsidiaries	Migros Up program entrepreneurial ecosystem support	Customer-focused innovation	Efficient resource use

Digitalization & Innovation Practices



Migros One & Online Channels

In line with Migros' multichannel integration strategy, online channels are constantly being developed and diversified taking customers' demands and expectations into account. The company's **Migros Sanal Market, Migros Hemen, Migros Ekstra, Macroonline, Tazedirekt, and Mion online channels** and **Migros Yemek** operations are all conducted by Migros subsidiary Dijital Platform Gıda Hizmetleri A.Ş. under the Migros One brand. The company's innovative Migros Mobile app has evolved into a Super-app that offers integrated access to all of Migros' online sales channels.

Customers who wish can also continue to use the www.migros.com.tr website for their online shopping needs.

Migros One successfully defended its position as the leader of online shopping services in 2024. Migros Yemek likewise completed the year as the fastest-growing online food-ordering platform and continued its efforts to shorten food delivery times to within minutes. Migros One has installed the infrastructure it needs to be able to fulfil every customer delivery request from immediate to scheduled time and next-day.

The range of online channels' product and delivery options has been expanded through innovative changes and additions taking into account customer expectations, logistical service resources, and supplier collaboration processes. In 2024 Migros continued to introduce AI-based customer-individualized innovations in its online channels, thereby maintaining Migros One's stature as the retailing industry's technology leader. Migros One app module include the **Migros Smart Life Assistant (MAYA)**; "What's Cooking?", which provides users with recipe and product suggestions; and "ReadyCart", which suggests quick picks based on previous orders. Also built into the app are advanced search and suggestion features that use AI-based personalization to make users' shopping experience more convenient and enjoyable.

The range of online channels' product and delivery options has been expanded in 2024.



MIGROS ONE

Product Type

Ready Meals/
Ready to Eat

MIGROS
yemek

Food and Non-Food/
Home Consumption

mion

Taze
Direkt
MIGROS
EKSTRA

MIGROS
sanalmarket

macroonline

MIGROS
Hemen

+Next Day

Same Day

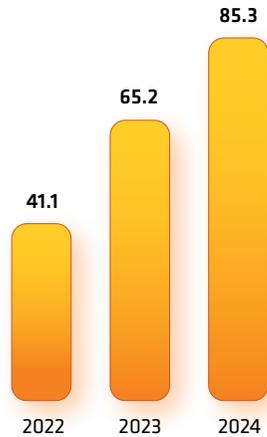
Within 1 Hour
Delivery

Express
Delivery

Delivery Time

Digitalization & Innovation Practices

Number of Orders from Online Channels (million)



In a 2024 survey conducted by Ipsos and MediaCat to identify Türkiye's Lovemarks, Migros Sanal Market and Migros Hemen was honored as Türkiye's **best-loved online shopping venue**. In accordance with the survey, the Migros One Superapp has a user recommendation score that surpasses the sector average.

Migros One delivers a more customer-advantageous shopping experience through its integration of the entire Migros ecosystem. Customers can use their Migros Money Cüzdan (e-wallet) to pay for purchases and also benefit from its "Buy Now Pay Later" feature. User data show that the Migros Money Cüzdan is becoming an increasingly more popular choice among customers: about a quarter of them are using it for payments at present.

Migros Sanal Market

Ever since 1997 when it first transformed the landscape of the online shopping experience in Türkiye, Migros Sanal Market has been delivering secure, reliable, and comprehensive service to customers.

Aiming to provide customers with a fast, reliable, and convenient shopping experience, Migros Sanal Market maintains a huge range of offerings numbering over 20 thousand different items that make it possible for the store to supply shoppers with whatever they may need from food and basic consumables to personal care products, electronic goods, and household necessities. Thanks to advanced digital infrastructure and access to an extensive distribution network, Migros Sanal Market orders can be prepared and delivered quickly.

1,288 Migros stores located all across Türkiye were involved in Migros Sanal Market's operations during 2024. The market's **"Click & Collect"** feature that allows customers to pick up an order themselves from a store was extended to 1,281 locations in in all 81 of Türkiye's provinces in 2024. Migros Sanal Market's delivery fleet included 36 electric bikes in 2024; other EV options are being tested. Customers may opt to have their purchases delivered in reusable shopping bags rather than plastic sacks.

Migros Sanal Market's new AI-supported **Migros Smart Life Assistant (MAYA)** platform was rolled out in 2024. MAYA transforms shopping into a hyper-personalized experience. Its meal-planning feature includes the calorie and nutritional values of meals, portion costs and weekly menu planning according to the number of people. MAYA figures

out what items are needed to achieve this menu so that the user can add them to their shopping cart. Other MAYA features include budget-friendly vegan, vegetarian, gluten-free, and organic options and access to videos and suggested solutions dealing with a host of subjects ranging from recipes to home maintenance and from child development to personal care.

Migros Hemen

Migros Hemen was launched in 2019 to address customers' increasingly greater demand for quick-delivery solutions and to sharpen Migros' competitive edge. Migros Hemen quickly established itself as a major player in the sector. As of end-2024, Migros Hemen was available to customers through 585 stores in 81 provinces. Migros Hemen has a select range of offerings numbering over 2,500 different items from basic

consumables to personal care products. Customers may opt to have their purchases delivered in reusable shopping bags rather than plastic sacks. Robotic process automation is used to ensure that orders are picked and readied quickly and correctly. Such innovative approaches increase operational efficiency while minimizing customer delivery processes and times.



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Migros Ekstra

Migros Ekstra was launched in 2021 and immediately began serving an extensive customer base in all 81 provinces. Migros Hemen gives customers quick and convenient access to a broad range of offerings numbering over 7,000 different non-food items from electronics to toys and from garments and accessories to glassware and cookware. There is also a more limited selection of bags, textile products, sports footwear, and personal electronics. During 2024, Migros Ekstra continued to increase customer satisfaction by deploying an extensive distribution network of cargo service providers that gives the brand access to every part of the country.

Macroonline

Macroonline is the online channel that Macrocenter launched in 2018 to make its outstanding portfolio of products and superior service standards accessible to a broader audience. At end-2024, Macroonline was serving customers in 12 provinces with more than 10,000 offerings. Customers may opt to have their purchases delivered in reusable shopping bags rather than plastic sacks.

Boasting a rich array of offerings and a customer-focused approach to service while aiming to deliver a perfect online shopping experience, Macroonline is accessible through the Migros Mobile app and www.migros.com.tr as well as from its own www.macrocenter.com.tr website.

Tazedirekt

Tazedirekt supports local producers and organic farms by sourcing what it sells directly from them rather than through intermediaries. All products are meticulously selected and painstakingly checked by food engineers, carefully packaged to preserve their freshness, given a final check, then delivered to designated addresses aboard refrigerated vehicles maintained at a constant 4 °C. Tazedirekt offers convenient access to healthy, reliable products while supporting local production and ensuring freshness.

Tazedirekt sources what it sells directly from 74 farms. As of end-2024 it was supplying customers with more than 3,500 different items in five provinces. Tazedirekt is accessible through the Migros Mobile app as well as from the www.migros.com.tr and www.tazedirekt.com.tr websites.

41 Tazedirekt suppliers have availed themselves of **Migros Suppliers Academy's** free online training resources dealing with food safety, ethical behavior, and social responsibility issues. Suppliers who successfully pass an independent audit conducted after completing this training are awarded Tazedirekt Supplier Academy Participation Certificate.

Mion

Mion is Migros' personal care product retailing format. As of end-2024 Mion was serving customers through 100 stores located in 29 provinces. Continuing to expand the broad range of personal care products in its portfolio, Mion is currently offering more than 9,000 items in its stores as

well as through the Migros Mobile online app. The application offers skin analysis feature and provides product recommendations based on needs. In addition, the Mion website was launched in 2024.

Migros Yemek

Launched in 2022 and originally serving only Ankara, İstanbul, and İzmir at the outset, the Migros Yemek food delivery platform has since expanded its service reach to all 81 of Türkiye's provinces. In 2025 Migros intends to further expand the footprint of the "Deliver by Migros Yemek" business model. This model is currently available in 54 provinces. With the addition of well-known chain brands, Migros Yemek is now positioned to accept orders from more than 50,000 restaurants across the country. During 2024 Migros Yemek conducted a series of campaigns and special offers to increase the number of customers making use of its services. Cross-sale opportunities

As of end-2024 Tazedirekt was supplying customers with more than 3,500 different items in five provinces.



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were created by means of checkout aisle scratch-card and cash-register receipt campaigns conducted in Migros stores. Migros Yemek's innovative solutions and customer-focused approaches have earned the brand six prestigious Kristal Elma, Effie, and Felis advertising & marketing awards.

Migros One Kitchen

Launched in 2021, Migros One Kitchen conducts its operations in centrally located "cloud" kitchens to create a range of menus appealing to a variety of audiences. These kitchens prepare and supply food for multiple brands. With a network of over 38 kitchens, Migros One Kitchen focuses on the preparation and production of a range of offerings such as burgers, salads, appetizers, pizzas, desserts, and coffees. During 2024, 13 new brands joined the Migros One Kitchen network, and the kitchens began preparing more than 200 new menu items. Migros One Kitchen aims to increase customer satisfaction and create added value for the food-delivery industry through its innovative approaches.

Migros Toptan

Migros Toptan is Migros' wholesaling format. As of end-2024, Migros Toptan was conducting its operations through stores in 27 stores, 18 of which also offer online sales through the www.toptan.migros.com.tr website. Through its online operations, Migros Toptan supplies about 900 types of products to customers in 11 provinces. Products are delivered to customers aboard vehicles certified compliant with cold-chain standards. Logistical processes are remotely monitored; customers are provided with real-time information about the movement of their orders.

Other Migros Subsidiaries & Affiliates

MoneyPay

MoneyPay (MoneyPay Ödeme ve Elektronik Para Hizmetleri A.Ş.) is Migros' financial technology (fintech) subsidiary. In 2024 MoneyPay continued to supply a wide range of comprehensive financial products and services for retail and corporate customers. Delivering secure and innovative payment solutions through both physical and digital channels, MoneyPay made considerable strategic progress in line with its goal of improving the customer experience and making financial transactions more convenient.

- Money digital and physical prepaid cards supported by Türkiye's TROY national payment system have been introduced.
- QR code payment and digital wallet features using stored credit and debit cards have been added to the Money mobile app.
- Partnering with Colendi, a "Buy Now Pay Later" feature has been introduced that allows payments to be deferred for up to 90 days. Consumer-loan based installment options have been added through agreements with merchant partner banks.

The capabilities of the MoneyPay app were expanded with the addition of new financial services such as wire transfers, EFT, the ability to make 24/7 no-fee mobile phone transfers, and easy cash withdrawals from ATMs and Migros checkouts. In addition, innovations such as Precious Metal Investment, transactions on Borsa



Istanbul, and Prize Draw have been added, allowing users to diversify their financial investments.

The integration of Migros' long-running Money loyalty program into the MoneyPay app means that users can manage all of their financial transactions and Money campaigns via a single platform. They can use the MoneyCüzdan (e-wallet) feature to make and receive payments etc. while also keeping up to date on the latest campaign discounts and offers. MoneyPay has also expanded into e-commerce with MoneyPay Virtual POS and MoneyPay Link solutions that let businesses handle their payment processes quickly, conveniently, and securely. MoneyCüzdan's advantageous payment features are available not

In 2024, MoneyPay made considerable strategic progress in line with its goal of improving the customer experience and making financial transactions more convenient.



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just in Migros stores but also on other Migros-owned platforms such as Migros Sanal Market, Migros Hemen, Migros Yemek, Migros Ekstra, Macroonline, Tazedirekt, and Mion.

Among corporate customers, both employers and employees are attracted by the flexibility and diversity of MoneyPay solutions. **ProFlex** product lets their employees purchase the goods and services of more than 30 brands across a wide range of categories. **Money Business** product provides a one-stop solution for such needs as meals, travel, clothing, fuel, and invoiced expenditures that offer tax and efficiency benefits for companies and convenience for employees.

Mimeda

Mimeda (Mimeda Medya Platform A.Ş.) is Türkiye's first retail media company. Its mission is to supply retailers with precisely-targeted advertising that enhances the shopping experience by integrating their sales data across their physical and online channels. Mimeda has been in operation since 2021. Including members of the Migros Group, it is currently providing service to 13 retailers.

Taking over as the head of the Interactive Advertising Bureau's (IAB) Turkish Retail Media Committee in 2024, Mimeda had a hand in the publication of the finalized version of IAB's

In-Store Retail Media Definitions & Measurement Standards. Prepared jointly by IAB USA and IAB Europe, this set of guidelines makes a significant contribution towards setting and developing standards across the retail media industry.

During 2024, Mimeda worked with 350 brands in the conduct of 4,627 projects and campaigns. Mlink, a self-service retail media adtech platform developed by Mimeda, has grown by 100% and is being used by more than 350 brands.

An AI-based segmentation model that Mimeda developed for L'Oréal earned the company four awards at the 2024 editions of MMA Smarties Türkiye, MMA Smarties MENA, and The Hammers.

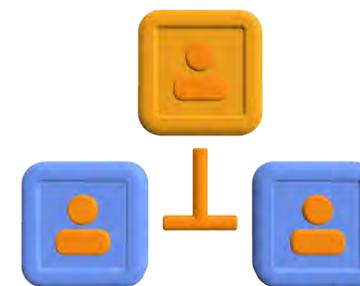
Mimeda supplied a personalized product-recommendation engine and adtech infrastructure for a skin-analysis tool developed in collaboration with PulpoAR as part of a co-innovation project with Migros Up. Migros plans to incorporate this tool into its Migros Sanal Market, Mion, and other retailing platforms in 2025.

Migen Enerji

Migen Enerji (Migen Enerji ve Elektrikli Araç Şarj Hizmetleri A.Ş.) was set up in 2022 with the mission of providing electric vehicle (EV) charging services and playing a role in Türkiye's vehicle-electrification process. Migen Enerji's charging stations installed at Migros store locations provide EV-owning customers with quick and reliable recharging capabilities under its **Miggo** brand. As of end-2024, the company had 65 charging stations in 19 provinces. Migen Enerji plans to increase the number of stations to 150 in 2025 and will also be

conducting special-deal campaigns for customers who use its newly-facelifted Miggo Şarj mobile app. In 2024 Migen Enerji took a step towards expanding its operations as an active electricity market player with the receipt of an Electricity Supplier's License.

Including members of the Migros Group, Mimeda was providing service to 13 retailers as of the end of 2024.



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Paket Taxi

Paket Taxi (Paket Lojistik ve Teknoloji A.Ş.) is a Migros subsidiary and trailblazing e-commerce cargo service provider that supplies end-to-end integrated logistical solutions. As of end-2024, the company was active in all 81 of Türkiye's provinces. Paket Taxi employs 7,000 couriers and 650 vehicles to provide delivery services for 425 brands including those of Migros One. "The Kurye", a project designed to optimize routes and courier deployment, went live in 2024. This project's aim is to reduce operational costs and enhance customer satisfaction by increasing the speed and efficiency of the company's logistical service processes.

GurmePack

GurmePack, a brand co-owned by Migros subsidiary CRC Danışmanlık ve Organizasyon A.Ş., specializes in the creation of menus formulated to promote healthy eating habits and balanced nutrition. GurmePack supplies customers with appetizing prepackaged meals carefully prepared and hygienically delivered in easy-to-use containers.

Migros' Entrepreneurial Ecosystem

Migros Up

Migros Up is an acceleration and innovation program that brings entrepreneurs and Migros specialists together in teams tasked with coming up with creative ideas and solutions to problems.

The Migros Up program is designed to:

- Create opportunities to work with outside entrepreneurs to address the particular needs of various Migros functions;

- Trigger strategic collaborations;
- Promote a culture of innovation across the company.

Migros Up's 2024 call for project submissions solicited 203 responses. Among the projects that were given their start were three that are seen as having a direct impact on achieving Migros' goals of enhancing the customer experience and improving operational productivity:

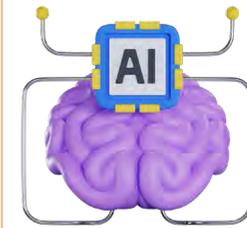
- **Pure Skin Project:** Undertaken jointly with PulpoAR, the Pure Skin project improves the shopping experience by incorporating a feature into the Migros app that allows users to perform skin analyses and then get suggestions about which skincare products might be useful for them.
- **Foresight Project:** Launched jointly with Bomensoft, the Foresight project uses security-process digitalization and AI-assisted systems to detect suspicious activity inside stores so as to prevent customer misconduct.
- **What's in the Box?:** Developed in partnership with Microne, the What's in the Box? project improves operational efficiency by ensuring that goods are moved about securely and safely during distribution and stock-acceptance processes at stores.

During 2024, a total of 15 Migros Up program projects were successfully brought to completion while work continued on the commercialization and expansion of another five that had been begun earlier, thus achieving the programs aim of "developing 15 co-innovation projects by the end of 2024".

Other Project Highlights

- **Dryers project:** Dryers is a project carried out with startup Amanos to develop fruit and vegetable dehydrators that use harvested waste heat to create a marketable product by dehydrating fresh-produce stock that is past its prime. One dehydrator has been installed at the Ataşehir MMM Migros and the dried products are now on sale. This project placed first in the "New Product" category at the Anadolu Group "Bi'fikir" new-ideas festival.

By integrating AI-supported solutions into its operational processes, Migros increases both customer satisfaction and efficiency in business processes.



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- **WaMo project:** Developed in partnership with Hergele Mobility, WaMo uses electric scooter technology to make order-picking operations more efficient and ergonomic.
- **KolajeM:** KolajeM is a co-innovation project developed with Bugamed Biyoteknoloji A.Ş., a biotech firm that transforms organic tissue from MİGET meat processing operations into collagen that is used in the production of atelocollagen-based creams, serums, and sunblocks. These products are now on sale under the “Voop” brand.
- **Energy-Consumption Monitoring System (ETTA):** The Energy-Consumption Monitoring System (ETTA) uses an AI-based algorithm developed in partnership with startup ServisSoft that tracks and predicts electricity use on an hourly basis. These systems are currently in use in 610 stores.

Customer-Focused Innovation

24/7 Self-Service Markets

Self-service all-vending machine stores provided customers with uninterrupted 24/7 access to nearly 200 products at two locations during 2024. Self-service vending machines were also installed at 18 locations in 9 provinces in 2024.

Mkolay Kantin

Mkolay Kantin delivers a **self-service** experience in workplaces, offices, and public spaces. Customers pick items they want and scan the barcodes; payments are automatically charged to their predefined bank or credit card or deducted from their MoneyPay account.

MGo

MGo is another Migros format that delivers a self-service shopping experience in workplaces, offices, and public spaces. In the MGo format, payments for items that customers take off a shelf are automatically charged to their predefined bank or credit card. AI-assisted cameras and sensors incorporated into intelligent shelves notify the operating system and ensure that customers are properly charged for the items they take. **MGo 24/7** vending machines can be installed to deliver a convenient shopping experience in locations that are not spacious enough to accommodate an MKolay Kantin.

Migros Deniz Market

Migros Deniz Market (Sea Store) is a seagoing vessel that is deployed to deliver a uniquely convenient shopping experience to customers yachting through the Göcek and Bozburun coves in Türkiye's Aegean region. Orders for the rich selection of more than 3,500 items that the vessel regularly stocks can be placed through Migros Sanal Market. Prices and discount campaigns are the same as those available in regular Migros stores. In 2024 Migros Deniz Market gave its customers the benefit of next-gen delivery technologies with the addition of an **“autonomous delivery”** option when they place their order.

Business Process Efficiency Enhancement

Highlights of Migros' R&D and innovation projects and activities during 2024 are presented below. Most of them have been already deployed with the

aim of improving the company's in-house business processes. Field trials of others intended to improve customer-focused processes were initiated and are currently in progress. Migros takes a technology-transformation and innovation-focused approach to integrating AI-supported solutions into its operational processes in order both to increase customer satisfaction and to maximize process efficiency.

Within the scope of digital transformation projects in 2024, the following projects were carried out:

Electronic Labels: The installation of electronic labeling systems was completed in 38 stores in 2024 as part of the company's ongoing product price tag digitalization initiative. This project will continue in another 775 stores in 2025 in line with Migros' goal of achieving operational excellence.

Jet Kasa 3.0: The aim of this project is to expand the deployment of express checkouts in stores to reduce checkout waiting times and to improve the customer experience. Next-gen express checkouts were installed in six stores in 2024. This project will continue in another 474 stores in 2025.

Kaptan: New additions to Migros' Kaptan app gateway to the in-house mobile apps used by company employees in the performance of their jobs brought the total number to 42 in 2024. The five most-frequently run apps were used some ten million times in 2023 and 2024.

Agile Transformation: Migros' Agile Transformation initiatives continued in 2024. The number of agile teams consisting of representatives from different in-house

departments and functions that were set up to come up with quick and effective solutions to problems reached 93 in 2024.

Shelf & Aisle Product Recognition: Under this project, an AI-powered image processing system improves operational efficiency by recognizing items from their images and identifying those that are misplaced. The system can also be used to identify items that are in stock but not on display. These systems are currently in operation in five stores. Work is currently in progress to further enhance the user experience and reduce costs by using AI to recognize images captured by means of apps running on mobile devices in the conduct of store planogram verification processes.

A total of TL 83.2 million was invested on sustainability-focused (environmentally and socially-beneficial) R&D and innovation projects in 2024.



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Fresh-Produce Image Processing: This project aims to use AI-powered image processing to keep real-time track of how full fresh produce bins and shelves are so that they can be replenished, making it easier for customers to find the items they want. The project also aims to increase customer satisfaction by preventing out-of-stock situations in online sales. These systems have been deployed in 50 stores. This project has been designated **one of three Microsoft MEA success stories.**

AI-powered Fraud Detection: AI-powered image processing is used to detect both deliberate fraud and unintentional errors in checkout and payment processes in stores by replacing labor-intensive manual controls with a system that uses operational inputs and AI outputs instead.

Robotic Process Automation (RPA): Software robots are used to automate routine, repetitive, high-priority, and high-volume tasks in order to improve operational efficiency, save time, and reduce errors by making it unnecessary for employees to do them. The automation of routine tasks also means that employees can focus their attention on higher added-value tasks instead. As of end-2024, the conversion of business processes to software robots was saving 4,209 employee-hours a month.

R10 Payment Systems Platform: The R10 Payment Systems Platform is a project to transform payment-system infrastructure by deploying a multi-channel software architecture. As of end-2024, the application inventory was 74% complete.

104 stores and 219 cash registers have been converted to R10. All newly opened Macrokiiosk stores are starting out with R10. The installation of One Kitchen and Cafe R10 cash registers has been completed as required by law. R10 infrastructure and intelligent shopping carts have been commissioned in one store. About 15% of Migros' turnover and 8.2% of all transactions are now being processed through the R10 system.

TARO Robot-Supported Product Assistant: TARO is a robotic-assisted product picker developed to improve the speed and efficiency of product picking in online sales operations by integrating innovation and technology into how the company conducts its business. TARO is a user-friendly robot that can handle up to three orders simultaneously and accurately put together online customers' orders five times more quickly. In 2024 TARO was being used at 61 stores in 18 provinces to fill Migros Sanal Market orders and at 62 stores in 13 provinces to fill Migros Hemen orders. The system is currently being incorporated into our Tazedirekt, Mion, and cargo operations.

Sustainability-Focused Product & Service Development

As in previous years, R&D operations in 2024 continued to focus on the development of environmentally and socially-beneficial products and services. Of the eleven R&D projects that were carried out in 2024, one was new and the other ten were ongoing. A total of TL 83.2 million was invested on sustainability-focused (environmentally and socially-beneficial) R&D and innovation projects in 2024. Five of these projects are being carried out with EU Horizon or TÜBİTAK

program support. Some of 2024's projects are highlighted below.

- Project to model investments aimed at sourcing the electricity needed in all distribution centers and stores from renewables from the standpoints of quality, cost, and location and to create a decision-support system.
- Project to minimize food loss and reduce food waste and destruction by deploying sustainable biological preservation technologies to extend fresh produce shelf-life.
- Project to reduce food destruction through effective pricing and optimizing store-based discounting for items that are approaching their expiration date.
- Project to contribute to localized agricultural production continuity by developing financial-sustainability models and practical interfaces beneficial to farmers.
- Project to make deliveries to online customers more ecofriendly through carbon emission-reducing strategies such as micro-consolidation centers in metropolitan areas, electric vehicles, route optimization, intelligent systems etc.
- Project to investigate factors that adversely impact food security such as climate change, natural disasters, biodiversity loss etc. in order to create early-warning systems, formulate resilience strategies, and identify sustainable-agriculture needs.

