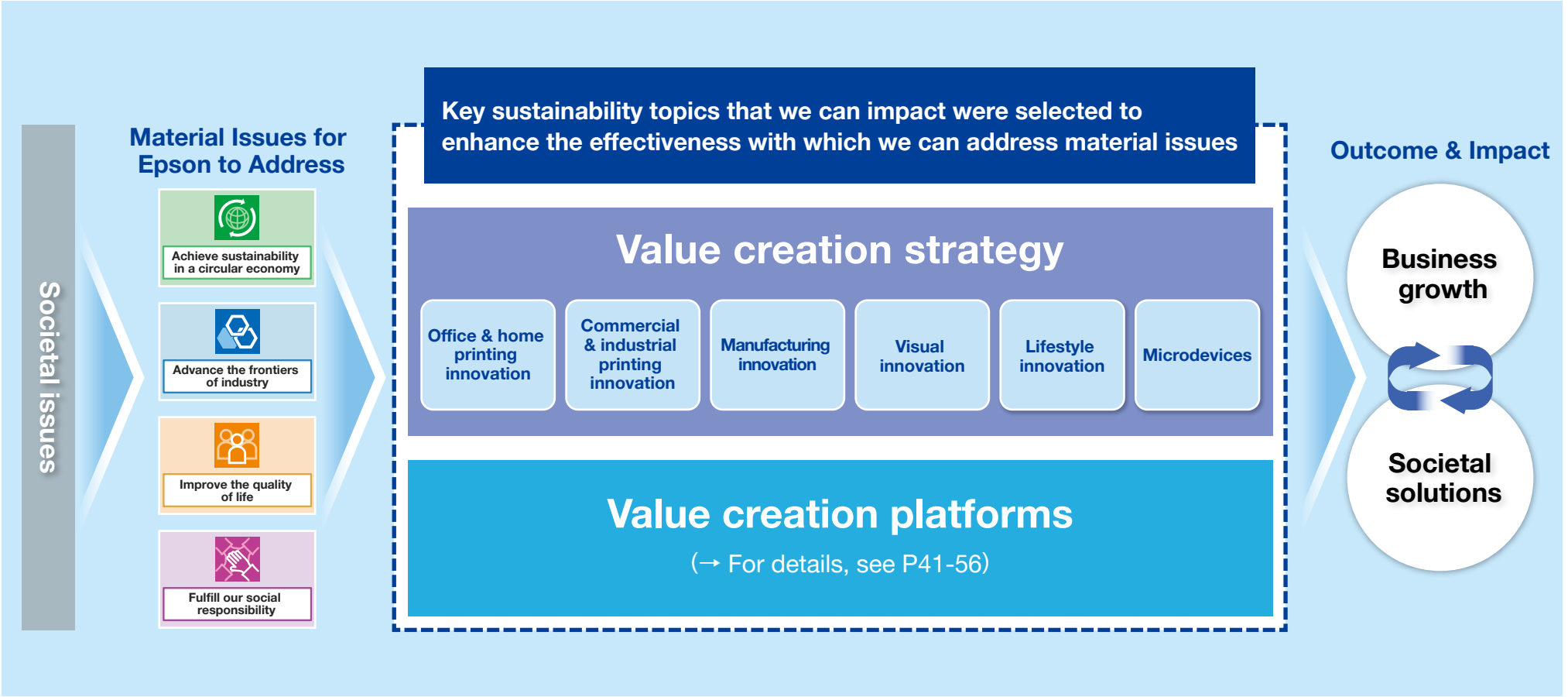
Value Creation Strategy

Growth Story for a Business That Solves Societal Issues While Generating Economic Value

To increase the effectiveness with which it can address the material issues, Epson decided on specific themes (key sustainability topics) that it will tackle and key performance indicators (targets and metrics). This has enabled us to focus on the ultimate outcome and impact of the value creation story: business growth and societal solutions.



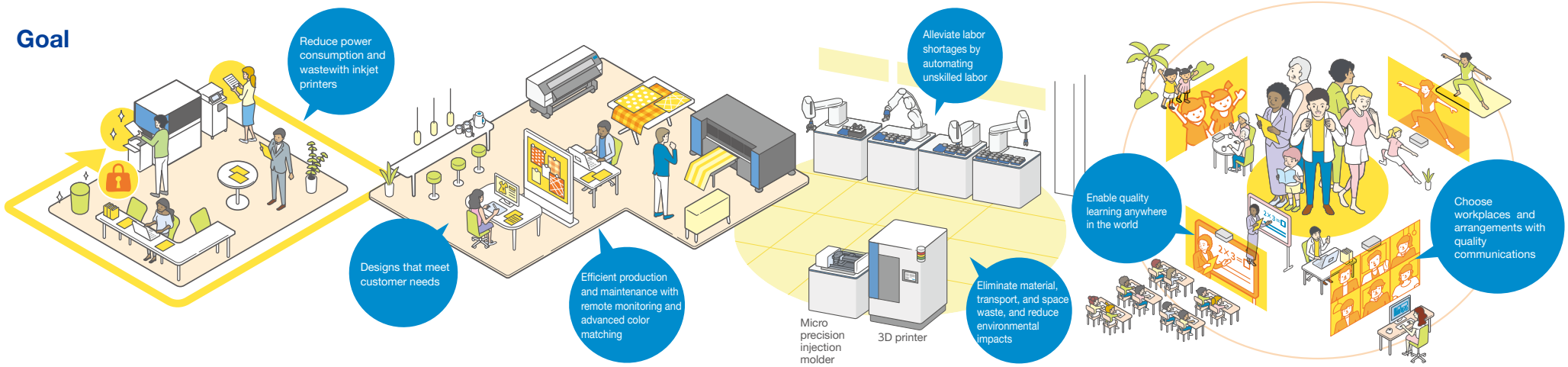
In this section, we present quantitative information that illustrates where we stand with respect to business growth. This information can be found in “Performance Highlights” (P31-32), as well as in the “Value Creation Strategy” (P29-40), which illustrates the future growth story. Within the future growth story, we present opportunities and risks, growth strategies, and examples of specific actions that will lead to KPI achievement.

Innovation Strategy (Epson 25 Renewed)

We are engaged in efforts and business operations aimed at realizing our vision based on an innovation strategy formulated with an eye toward creating customer value and solving societal issues outlined in Epson 25 Renewed (announced in March 2021).

Office & home printing innovation	Lead the evolution toward distributed printing to reduce environmental impacts and increase work productivity by proposing inkjet technology, paper recycling technology, and open solutions
Commercial & industrial printing innovation	Offer inkjet technology and solutions that lead the digitalization of printing and contribute to lower environmental impacts and higher productivity
Manufacturing innovation	Innovate manufacturing by co-creating flexible high-throughput production systems that reduce environmental impacts
Visual innovation	Connect people, things, information, and services with inspiring video experiences and quality visual communications to support learning, working, and lifestyles
Lifestyle innovation	Utilize craftsmanship and co-create solutions that utilize sensing technologies to enrich diverse lifestyles
Microdevices	Contribute to the development of smart communities with crystal and semiconductor solutions enhanced with our efficient, compact and precision technologies

Goal



* The illustration depicts a portion of the vision in our innovation strategy.

Performance Highlights (FY2022)

Consolidated

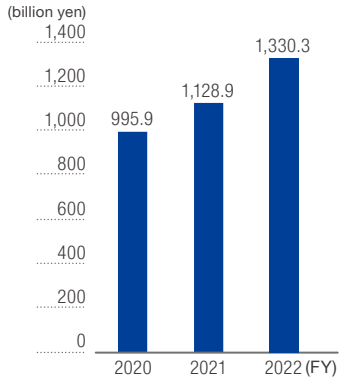
Revenue
¥1,330.3 billion

Business Profit
¥95.1 billion

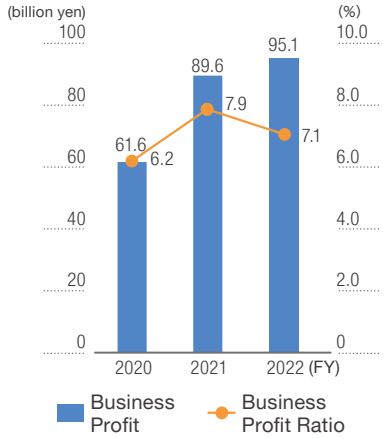
Epson has grouped its business operations into three segments: printing solutions, visual communications, and manufacturing-related and wearables.
We seek to ensure both profitability and sustainable growth by executing the innovation strategy and managing the business portfolio so as to ensure efficient capital circulation.

Financial Results Trend

Revenue



Business Profit & Business Profit Ratio



Management Resources & Business Activities Data (FY2022)

Total Assets:
¥1,341.5 billion

Capital Expenditures:
¥78.3 billion

Research and Development Expense:
¥44.3 billion

Total Employees:
79,906

Printing Solutions

Office & Home Printing
Commercial & Industrial Printing

Revenue
¥902.3 billion

Segment Profit
¥89.3 billion

Overview

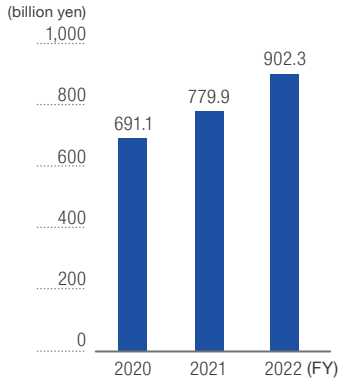
Office & Home Printing
- Supply constraints eased in the second half & high-capacity ink tank printer sales grew.
- Ink cartridge sales decreased as at-home print demand normalized, but sales of high-capacity ink bottles and ink for office shared printers grew along with an increase in the number of machines in the field.
- Costs increased due to skyrocketing parts, materials, and distribution expenses

Commercial & Industrial Printing
- Finished product sales growth was limited by the late launch of some products due to COVID-19.
- Printhead sales grew particularly in the Chinese market.
- Small printer supply constraints eased.

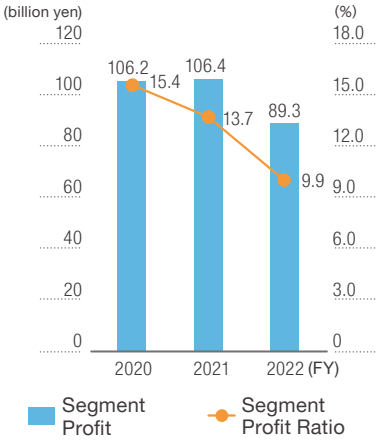
* The business segment was changed from FY2021. The FY2020 amount was recalculated using the measurement method of segment information for FY2021.

Financial Results Trend

Revenue



Segment Profit & Segment Profit Ratio



Management Resources & Business Activities Data (FY2022)

Segment Assets:
¥606.2 billion

Capital Expenditures:
¥47.4 billion

Research and Development Expense:
¥16.1 billion

Total Employees:
54,496

Performance Highlights (FY2022)

Visual Communications

Visual Communications

Revenue
¥216.8 billion

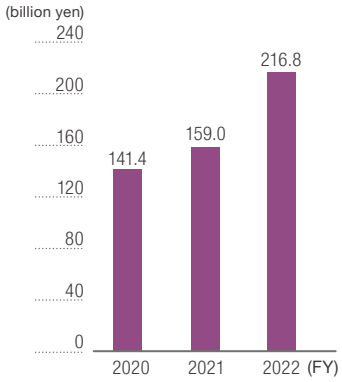
Segment Profit
¥34.8 billion

Overview

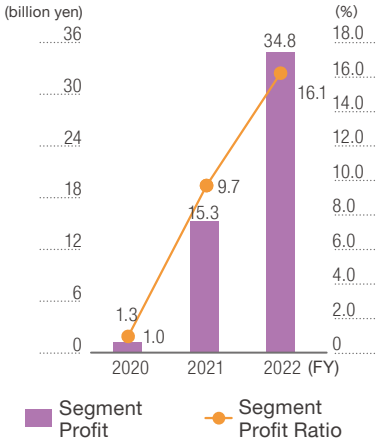
- Demand for education projectors rebounded after the effects of COVID-19.
- Revenue increased on higher unit sales as supply constraints eased, an improved model mix, and higher selling prices.
- Moves to control fixed costs helped to restore high profitability.

Financial Results Trend

Revenue



Segment Profit & Segment Profit Ratio



Management Resources & Business Activities Data (FY2022)

Segment Assets:
¥155.7 billion

Capital Expenditures:
¥7.3 billion

Research and Development Expense:
¥5.7 billion

Total Employees:
10,106

Manufacturing-related & Wearables

Manufacturing Solutions
Wearable Products
Microdevices, Other
PC

Revenue
¥215.4 billion

Segment Profit
¥28.3 billion

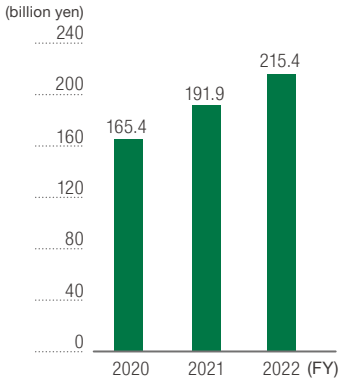
Overview

- Manufacturing solutions: Results were impacted by changes in the Chinese business environment in the second half.
- Wearable products: Demand from inbound visitors to Japan rose, but overseas markets were soft.
- Microdevices, other: Demand from the consumer electronics sector weakened in the second half, but revenue grew on the positive effects of pricing.

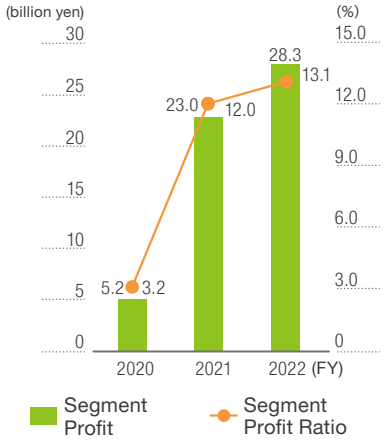
* The business segment was changed from FY2021. The FY2020 amount was recalculated using the measurement method of segment information for FY2021.

Financial Results Trend

Revenue



Segment Profit & Segment Profit Ratio



Management Resources & Business Activities Data (FY2022)

Segment Assets:
¥173.4 billion

Capital Expenditures:
¥14.9 billion

Research and Development Expense:
¥7.0 billion

Total Employees:
11,362

Value Creation Strategy

Materiality:
Achieve sustainability in a circular economy

Key Sustainability Topics:
Customer environmental impact mitigation

Initiative Topics

Maximizing avoided emissions with products and services that have a lower environmental impact

* Quantified the contribution of products and services toward GHG emissions reductions

Key Performance Indicators (KPI)

—

Opportunities and Risks

Print demand will likely decline due to heightened environmental awareness and paperless solutions. There is a risk that customers' printer-related energy and maintenance costs could rise as offices decentralize and the cost of energy, materials, and labor increases.

On the other hand, Epson's multifunction inkjet printers have advantages over laser printers in terms of environmental performance and convenience because they have fewer replacement parts. In FY2019, prior to the COVID-19 pandemic, the global office and consumer print market (inkjet + laser) is estimated to have been a more than 10 trillion yen market in terms of hardware and service purchases. Office laser printers accounted for approximately 80% of this market. Epson still has only about a 1-2% share of the office market on a unit basis, so we believe there are ample untapped market opportunities for us.

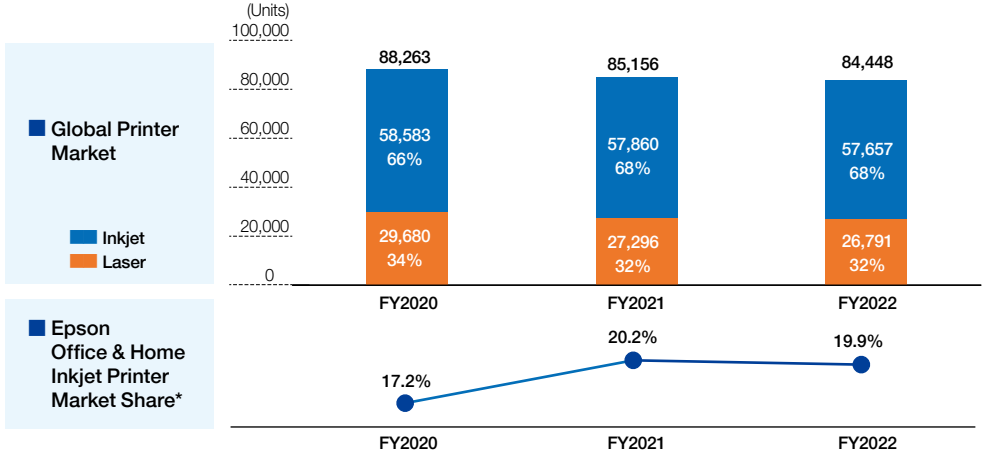
Growth Strategy

Epson inkjet printers have many features that mitigate environmental impact. Heat-free technology minimizes power consumption. A simple construction means fewer parts to replace and less frequent maintenance. High-capacity ink tanks reduce the frequency of ink replacement. These features are the key to our environmental strategy.

To contribute more to environmental solutions, we will further expand our lineup of printers that embody Epson's unique value proposition, communicate the advantages of our inkjet technology in mitigating environmental impact, and drive a technology shift from laser printers to inkjet printers.

We will leverage inkjet technology and open solutions to reduce environmental impact, increase productivity, and lead the evolution toward decentralized printing by understanding individual consumers' needs and meeting them with services like ReadyPrint, a subscription service with low upfront costs. Users pick a plan with a monthly fee based on the number of prints they make per month. ReadyPrint will be made available over an expanded territory in the future.

■ Epson's Global Printer Market Share



* Office & home inkjet units÷ global printer market units (IJP + laser)

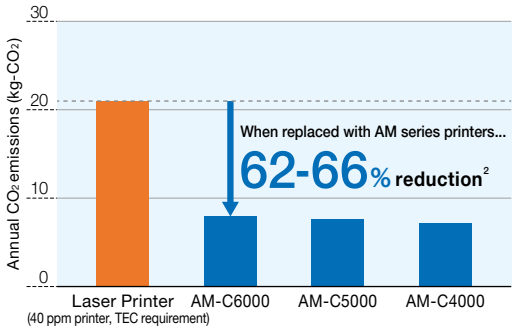
Source:
IDC Worldwide Quarterly Hardcopy Peripherals Tracker 2022Q3
Share by brand, multifunction units are included in color laser printers that print 69 ppm or less and monochrome laser printers that print 90 ppm or less. Reproduction or republication of this data is prohibited.

Achieving the KPI with Office & Home Printing Innovation

Accelerating decarbonization by expanding our lineup of high-speed linehead inkjet multifunction office printers

We expanded our lineup of multifunction office inkjet printers with the addition of the three-model WorkForce Enterprise AM series of medium-speed multiple function A3 printers. Our lineup of office inkjet multifunction and single-function printers now covers the entire spectrum of speeds, from high to low, giving customers a significantly broader range of options.
Users can reduce their power consumption and CO_2 emissions by 62% to 66%[1] by replacing their laser printers with printers in the AM series. These printers are International Energy Star Program compliant, with a low typical electricity consumption (TEC) value, a measure of total power consumption both during operation and in standby. By consuming less power than ordinary office laser printers, these inkjet printers reduce users' environmental footprint and contribute to decarbonization. We aim to achieve sustainability in a circular economy by broadly publicizing our products and services that help to shrink the environmental footprint of our customers.

■ Annual CO_2 Emissions[2]




Linehead inkjet printer

[1] The reduction ratio when comparing the TEC of the AM series printers with the TEC requirement for 40-ppm machines given in the ENERGY STAR® Imaging Equipment Specification Version 3.0. See the link for details (Japanese only): http://www.epson.jp/products/bizprinter/smartcharge/ecology/

[2] CO_2 emissions are calculated using the formula and emission factors published by the Ministry of the Environment. (Formula: electricity consumption × emission factor per unit usage). The emission factor used for this calculation was 0.000470 t-CO_2/kWh as specified in guidance for 2021.

Societal solutions to which this example contributes

Decarbonization & closed resource loops

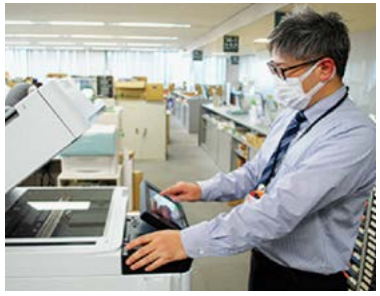
Social Impact

Great Environmental Performance Reduced the Administrative Workload and Power Consumption

Tawaramoto Town Office

Epson Smart Charge
High-speed linehead & A3 multifunction inkjet printers

Epson's inkjet multifunction printers align perfectly with our procurement policy in that they require only infrequent parts and ink tank replacement. We like that consumables are automatically delivered because it eliminates the time and hassle of ordering. We can now save time and money on printers, fax machines, and consumables, all of which used to be sourced by different departments.
The energy savings made possible by heat-free inkjet technology was also a significant factor in our decision. Our laser printers consumed over 1 kW of power, so we were pleasantly surprised to learn that the PX series operates on less than 100 W. As a government office administrator, I was very mindful of saving energy, so the environmental performance of these printers was a crucial point in the selection process. Epson's Smart Charge service has allowed us to significantly reduce our power consumption. This aligns with Tawaramoto Town's policy of giving preference to environmentally friendly procurement.



Yoshinaga Uekaki
Tawaramoto Town Accounting Section

Information current as of 11/2022. He was in General Affairs when Epson Smart Charge was introduced.

Materiality:
Advance the frontiers of industry

Key Sustainability Topics:
Improving productivity through digitalization and automation

Initiative Topics

Offer Inkjet Technology and Solutions that Lead the Digitization of Printing and Contribute to Lower Environmental Impacts and Higher Productivity

Key Performance Indicators (KPI)

Average sales growth rate of commercial and industrial inkjet printers compared to the previous year
【FY2023 target】 10%

Opportunities and Risks

Commercial and industrial printing firms need to respond to the diversification of consumer needs. They also need to respond to environmental considerations, the decentralization of printing facilities, higher energy prices, and higher material and labor costs. Decentralization will change how and where products are used. This will naturally create new issues in terms of cost and security. We believe that there is opportunity in capturing issues across usage scenarios and providing solutions that help customers expand their businesses.

Risks include a loss of willingness to purchase large systems, the impact of an economic slowdown on investment, and a lack of knowledge and understanding of customers' businesses.

Growth Strategy

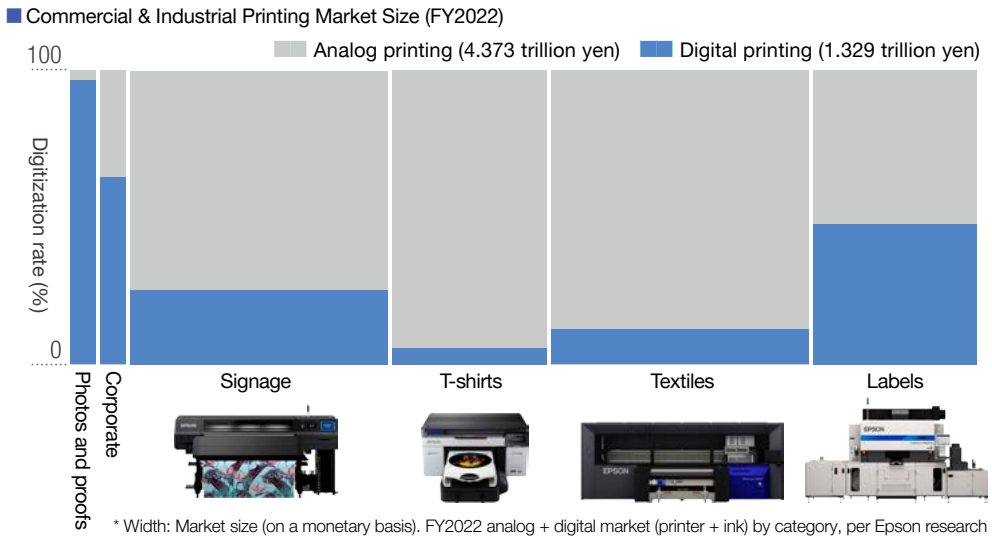
Epson's digital inkjet printers use Micro Piezo inkjet technology to produce exquisite gradations and subtle colors, expanding the design horizon. Digital printing is also a much shorter process than analog printing, so short-run print jobs can be done with faster turnaround and at low cost.

By taking advantage of these strengths and deploying our inkjet technology platform in a broad range of products and services, we will address divergent consumer needs, reduce environmental impact, increase productivity, and solve decentralization issues.

Commercial and industrial printers require accurate color matching and fleet management to eliminate production variations. They also need maintenance service that does not depend on operator skill level. To meet these needs, Epson began offering Epson Cloud Solution PORT, a solution that supports decentralized printing, in 2020. This solution allows users to remotely monitor a printer fleet spread across multiple locations by providing real-time operational and error information, thereby facilitating timely response and management.

To better help our customers expand their businesses, we have been expanding our service offerings and improving product usability with features to manage the production process and Color Control Technology, Epson's own color management solution.

We hope to sustain growth by combining products that reduce users' environmental impact while raising their productivity with solutions that make our products easier to use for everyone.



* Width: Market size (on a monetary basis). FY2022 analog + digital market (printer + ink) by category, per Epson research

Achieving the KPI with Commercial & Industrial Printing Innovation

Partnering with fashion designers to research and develop technology that will accelerate the digitalization of the textile market

Epson has been collaborating with fashion designers and fashion students as part of its efforts to drive the evolution of fashion through innovations in commercial and industrial printing.
In 2022, Epson entered into a co-creation partnership with fashion designer Yuima Nakazato and his eponymous fashion house to transform the fashion industry. We have initiated joint R&D projects aimed at reducing the environmental impact of clothing production, implementing optimal production methods for providing custom rather than mass-produced identical designs, and developing future-oriented technologies that will make these goals a reality.



©Luca Tombolini

We are also co-creating with renowned designers internationally. Since 2022, we have been collaborating with top Korean fashion designer Lie Sang Bong and held a fashion show in which digital textile printing was used to highlight Mr. Lie's imagination and the technology's contribution to environmental impact mitigation.


Societal solutions to which this example contributes

Closed resource loops and decentralization

Social Impact

Getting the Colors One Envisions

Bunka Fashion College

In 2022, Epson and Bunka Fashion College began a digital fashion creation project. This project involves using Epson Monna Lisa digital textile printers and pigment ink in the production of pieces for students' graduation collection. Students who used digital textile printing came away impressed by the technology's ability to accurately reproduce computer graphics and colors. Traditional analog printing is a long process with many steps. Time and cost considerations often do not allow the process to be repeated as many times as needed to get satisfactory results. So, creators find the ability to efficiently get the results they want in a process with a small environmental footprint to be a very welcome change. The hope is that we will continue to provide groundbreaking fashion solutions that are both eco-considerate and satisfying.


Materiality:
Advance the frontiers of industry

Key Sustainability Topics:
Improving the working environment and educational environment

Initiative Topics

Eliminating Labor Shortages Through Automation Using Robots

Key Performance Indicators (KPI)

Number of vacant positions filled[1]
FY2023 target: 28,000 positions

[1] Converted based on the effect of Epson's internal projects

Opportunities and Risks

Automation with robots and AI is marching forward against the backdrop of aging populations and global labor shortages. Many manufacturers recognize the need to innovate their production systems to address fundamental challenges such as a poor working environment and lack of manufacturing resilience. As a result, the automation sector is forecasting steady market growth. (Refer to market data for SCARA and compact six-axis robots.) We are now being consulted about automation by customers from many different industries and are expanding and enhancing the means to solve disparate needs to contribute to societal solutions.

On the other hand, we also perceive risks. As demand for automation increases, competition could lead to customer churn and market price erosion. Securing people with skills in equipment design, manufacturing, and setup is becoming challenging and could be a hindrance to growth.

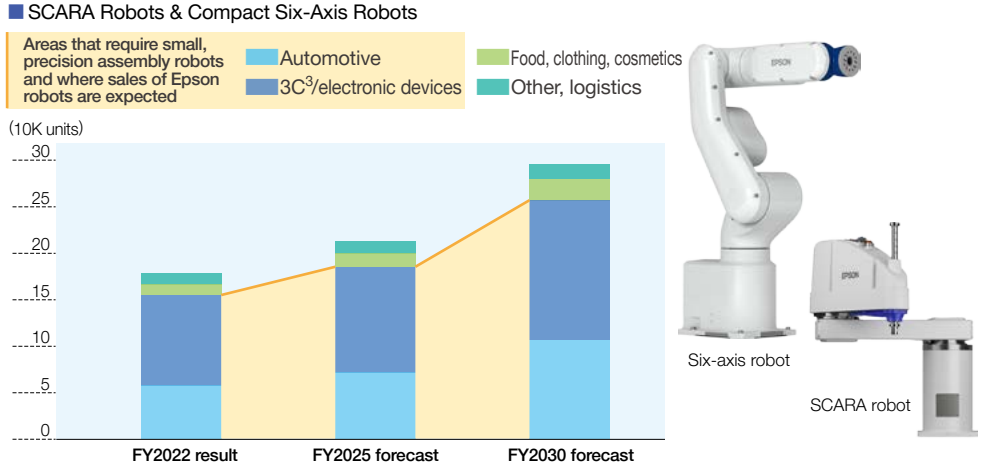
Growth Strategy

Epson owns the top share[2] in the global market for SCARA robots thanks to an extensive lineup of robots that combine high speed and precision with functional programming software that adapts to diverse needs. To quickly respond to customer needs, it is essential to have a next-generation platform that has a large number of standard core components and allows flexible lineup expansion. Epson has been investing in the development of such a platform and will begin releasing new products based on this platform in 2024.

Epson also provides user-friendly program development software called Epson RC+Express Edition to lower the barriers to entry for customers who are new to automation and lack software development experience. On the other hand, customers seeking to automate their factories expect to transform the manufacturing floor, not just install robots.

Epson gained expertise in efficient, high-yield automated production lines by building its own precision assembly processes for watches and printheads. We are leveraging this expertise to support the conceptualization and implementation of automation solutions that solve our customers' problems. Our goal is to capture robust automation demand and grow the business by supporting automation across a wider range of industries. Toward this end, we are reinforcing our team of equipment designers and automation engineers who can develop systems using robots and peripherals, as well as our staff who can propose solutions to customers' problems. These efforts will help to alleviate the societal issue of labor shortages.

[2] Epson was No. 1 in terms of both industrial SCARA robot unit shipments and revenue in 2022. (Source: Fuji Keizai "2023 Reality and Future Outlook of Worldwide Robot Market")



* Epson's estimates based on external data

[3] Computer, communication (smartphones, etc.), consumer electronics

Achieving the KPI with Manufacturing Innovation

Introducing robot systems in food factories

The Japan Readymade Meal Association was selected to participate in government-led projects to develop innovative robot infrastructure and a smart food industry. Epson participated in these projects as a member of a 31-company team, working with the association to create, in 2023, a practical robot for use in the manufacture of meals.
The picking and placing of food items in containers and bento boxes is one of the most labor intensive process in food manufacturing. The automation of this process to deal with labor shortages, increase productivity, and avoid the "three C's" (closed spaces, crowded places, and close-contact) has become a societal issue. Most readymade meal manufacturers are small to medium-sized enterprises that need more affordable systems.
As a leader[2] in the industrial SCARA robot market, Epson collaborated on the development of robot systems that would be within the reach of meal manufacturers. Epson's T3-B SCARA robot was selected for these systems, reducing costs by 30% and system footprint by 70%. Moreover, improvements to end-effectors and their control enabled the robots to be used in a wider range of processes, including the packing of an assortment of food items, high-speed packing of bento boxes, and placing lids on containers, and transporting product trays.

Food packing robot system that employs T3-B robots

Societal solutions to which this example contributes

Shrinking labor pool and work environment improvement

Social Impact

Automating Prepared Food Manufacturing

The Japan Readymade Meal Association

Food manufacturers face chronic labor shortages and have a strong desire to mechanize, but progress has been constrained by financial and technical limitations. To overcome these challenges, the Japanese government and the Japan Readymade Meal Association joined forces to drive the mechanization of readymade meal manufacturing as a national project and succeeded in developing robot systems that can perform previously impossible food handling tasks. All of these robot systems employ Epson SCARA robots. In last year's project, six new robot systems were introduced at 10 food manufacturers, signaling the beginning of real mechanization of the industry. We want to expand the installation of these robot systems at readymade meal companies so that they no longer have to struggle to find workers.

T3-B

Takeshi Ogino
The Japan Readymade Meal Association
AI & Robot Innovation Fellow

Materiality:
Advance the frontiers of industry

Key Sustainability Topics:

Improving the working environment and educational environment

Initiative Topics

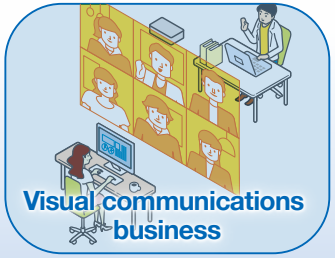
(1) Realize a fair, natural, satisfying communication environment by combining in-person and remote interactions

(2) Create opportunities for quality learning and close the education gap with smart and portable displays.

Key Performance Indicators (KPI)

(1) Number of co-creation and collaboration projects, or number of partners
FY2023 target: One co-creation/collaboration project

(2) Number of local demonstration programs through co-creation and collaboration
FY2023 target: 20 value demonstration programs



Opportunities and Risks

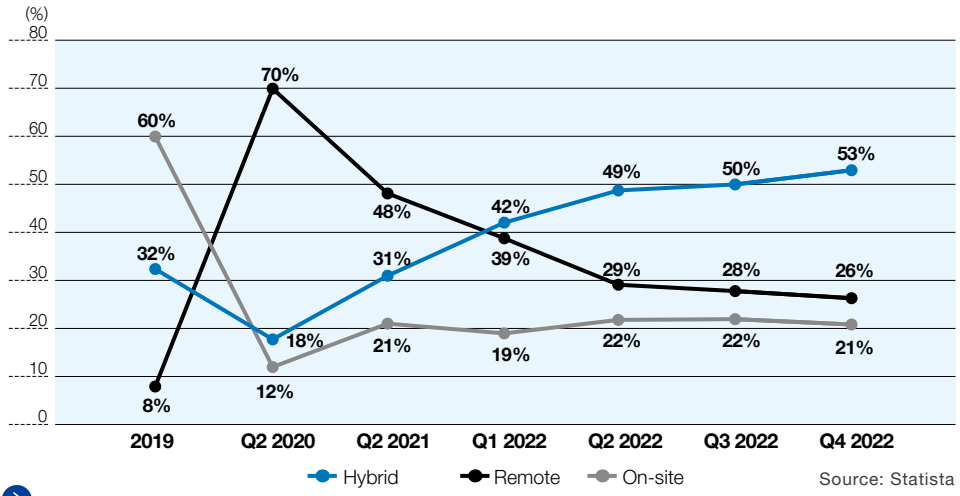
The demand for big-screen images remains solid, driven by investment in tourism and large-scale entertainment and the popularization of video streaming services.
Work arrangements became more flexible during the pandemic as hybrid communication tools that bring people together online became commonplace. On the other hand, issues remain in terms of the amount and quality of information that employees can share when communicating remotely. As a result, there is a real need for visual communication systems that feel natural and deliver all the needed information, as well as a need for technological advancements that enhance productivity and support creative activities. Opportunities to address issues in the realm of education abound. Equitable, quality education can be provided on big screens in countries where ICT devices are prevalent. Digital technology can be used to close the gap in educational opportunities in developing countries where there is a shortage of teachers, educational materials, and infrastructure. On the other hand, in the growing market for remote visual communications, we are prepared for the risk of intensifying competition against non-projector devices such as large-screen displays and tablets.

Growth Strategy

The greatest strength of projectors lies in their portability and ability to deliver big-screen viewing anywhere. We will continue to build on these strengths and maintain market competitiveness by evolving technologies that enable smaller sizes, lighter weights, and greater energy efficiency. In the establishment of visual communication environments, we are combining 4K-equivalent images with ultra-short throw lenses that allow you to display a big picture without taking up space in the room. This combination allows us to project online participants in lifelike sizes with great detail, creating a natural and immersive visual space that makes people feel as if they are sharing the same physical location. Through collaboration with online conferencing service providers and expanded field trials with local governments, we aim to accelerate the formation and expansion of the market.

In the education market, we recognize both the enormity of the societal issues and the huge potential of the market. To identify and address educational issues, we are leveraging the knowledge we have gained through many years of involvement in the education field and accelerating collaborative activities with the Japan International Cooperation Agency (JICA). We are conducting trials to verify the effectiveness of support for touring lessons that take advantage of projector portability. We are also conducting awareness-raising initiatives related to education, health, hygiene, and the environment in areas with limited access to electricity or limited electrical resources. Our goal is to develop a business model that collaboratively addresses societal issues stemming from disparities in education and information.

■ Status of establishment of hybrid work in the U.S.



Source: Statista

Achieving the KPI with Visual Innovation

Smooth hybrid communication is changing the way we work

Epson is capitalizing on projection-based hybrid communication to tackle the challenges of fragmented communication and reduced productivity resulting from remote work. As part of this, we are partnering with Matsumoto City to create a hybrid communication environment that seamlessly connects remote facilities.

A natural communication space is created by setting up a projector next to a wall and projecting 4K-equivalent images[1] of people at nearly life-size so that it feels as if you are in the same room. This communication system is expected not only to improve communication among staff working in different locations but also enhance citizen services.

Epson aims to co-create hybrid communication that eliminates the constraints of space, location, and time and that enables smoother remote work and enhances the quality of education and life.

松本市 | EPSON
ともに つくる まつもとの みらい

Partnership logo

[1] 4K-equivalent resolution achieved using shift technology

Life-sized hybrid communication environment used by Matsumoto City
(The photo shows a similar environment set up in Epson.)

Model used for hybrid communication

Bright, high-quality images for an immersive experience

Can be placed next to a wall to save space

Societal solutions to which this example contributes

Transformation of work arrangements, improved citizen services, and higher quality education

Social Impact

A Visual Communication Environment That Connects Different Buildings

Matsumoto City

Matsumoto is the largest city in terms of area in Nagano Prefecture. With digital transformation advancing, we are exploring ways to decentralize and improve city services by providing them at two main government offices, 35 Community Development Centers, and online. The challenge of decentralization is communication.

Online meetings became more commonplace even in government during the pandemic, reducing travel time and increasing efficiency. However, a staff survey indicated that some challenges remain, such as difficulty in knowing when to speak and limited casual communication.

Therefore, with Epson as our partner, we have created an environment where conversations can be initiated easily at any time, enabling natural communication. Staff members who have experienced this system have reacted positively. They say it feels as if they are talking face to face. They also appreciate the compact design, which makes the projector easy to move and adapt to different layouts depending on the purpose of the meeting.

We expect the use of this system to continue to grow, contributing to the delivery of even higher-quality administrative services in the future.

Before installation

Took time to travel to remote offices
Difficult to communicate online

After installation

Spend time providing services instead of traveling between offices.
Online meetings go smoothly, with natural conversation.

Toshiaki Konishi
Matsumoto City,
Director of Strategic Planning Bureau