Value Creation Strategy

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

Epson has publicly committed to helping resolve material societal issues that it can address through its business activities. Our value creation strategy, a strategy for realizing sustainable business growth, is at the root of how we manage business. Within this strategy, we have set priority areas (key sustainability topics) and key performance indicators (KPIs) to ensure that we systematically create economic value and solve societal issues. In this section, we present our value propositions and initiatives from the perspective of the key sustainability topics and KPIs.

Epson's Value Creation Strategy

PICK UP

The table below is a representative selection of some of the many initiatives we are pursuing.

Value Creation Initiatives Presented Herein

Topics and KPI

Materiality Key Sustainability Topic	Initiative Topics & KPI	Initiatives in Our Businesses — Examples of Innovations to Achieve KPIs	
Achieve sustainability in a circular economy — Customer environmental impact mitigation	Maximize avoided emissions with products & services that have a lower environmental impact* * Quantified the contribution of products and services toward GHG emissions reductions **KPI** Emissions avoided through products & services	**Office & Home Printing Business** Office & home printing innovation We visualize our avoided emissions to show Epson's contribution to environmental impact mitigation, leading to business growth and additional avoided emissions.	P29-30
Advance the frontiers of industry — Increasing productivity through digitalization and automation	Lead the digitalization of commercial and industrial printing, reduce environmental impact, and raise productivity with inkjet technology and solutions **KPI** Commercial and industrial inkjet printer average sales growth rate (YoY)	**Commercial & Industrial Printing Business** Commercial & industrial printing innovation Epson Cloud Solution PORT solves issues at production sites where large-format printers are used and improves operational efficiency.	P31-32
Advance the frontiers of industry — Improving working environment and improving educational environment	Alleviate labor shortages through automation with robots **KPI** Number of unfilled positions automated (Converted based on the effects of an internal Epson project)	**Manufacturing Solutions Business** Manufacturing innovation We are automating production systems through comprehensive technological and support capabilities	P33-34
	Provide a fair, natural, comfortable communication environment by combining in-person and remote interactions **KPI** Number of companies or partners using systems Create opportunities for quality learning and close the education gap with smart and portable displays **KPI** • Number of co-creation/collaborative programs in field trials • Number of countries where use was demonstrated in general education and societal issue awareness	**Visual Communications Business** Visual innovation We want to provide learning opportunities for all. After detailed proof-of-concept studies in developing countries, we are developing concrete plans for business commercialization through co-creation.	P35-36

| Materiality | Advance sustainability in a circular economy | Key Sustainability Topic | Customer Environmental Impact Mitigation | Office & Home Printing Business |

Initiative Topics

Maximize avoided emissions[1] with products & services that have a lower environmental impact

[1] A quantity that expresses the contribution by products and services to a reduction in society's GHG emissions

KPI (Evaluation Methodology)

FY2023
Target ➡ Commence the calculation based on a new calculation logic and determine target values
Actual ➡ - Started calculating the reduction contribution of A3 color inkjet printers using the new calculation logic
- FY23 Results: 15.1 thousand t-CO$_2$e[2]

FY2024
Target ➡ Exceeding the previous year

[2] See P30 for details.

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 energy, materials, and labor costs increase.
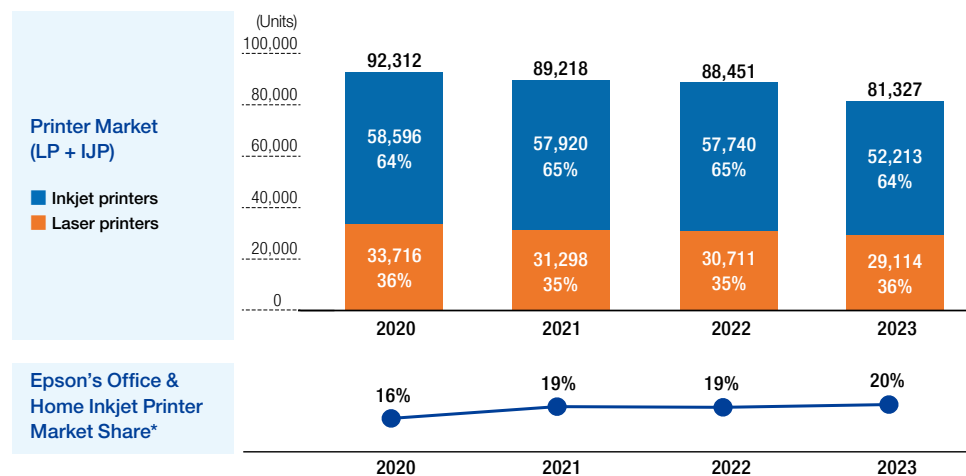
On the other hand, Epson's multifunction inkjet printers have advantages over laser printers in terms of environmental performance and convenience. They consume less power and have fewer replacement parts. They can also be made more compact than laser printers, so they require less space. In FY2019, prior to the COVID-19 pandemic, the global office and consumer print market (inkjet + laser) was estimated to have been a more than 10-trillion-yen market, including both 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, since heat is not used to eject ink. A simple construction means fewer parts to replace and less frequent maintenance. High-capacity ink tanks reduce the frequency of ink replacement. Laser printer toner is largely composed of underground resources, such as petroleum-derived polyester resin. In contrast, the main ingredient of water-based pigment ink is water, a more sustainable material. 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 accelerate a technology shift from laser printers to inkjet printers.

We are driving evolutionary advances in printing. The goal is to improve customer convenience and productivity and to win their loyalty. Toward that end, we strive to understand how and where our customers use our products and the problems they encounter, provide them with tools for operating and managing their printing equipment and consumables, and alleviate the burden and stress of various printing-related tasks.

■ Epson's Global Printer Market Share

Printer Market (LP + IJP)
■ Inkjet printers
■ Laser printers

(Units)

	2020	2021	2022	2023
Total	92,312	89,218	88,451	81,327
Inkjet printers	58,596 (64%)	57,920 (65%)	57,740 (65%)	52,213 (64%)
Laser printers	33,716 (36%)	31,298 (35%)	30,711 (35%)	29,114 (36%)

Epson's Office & Home Inkjet Printer Market Share*

2020	2021	2022	2023
16%	19%	19%	20%

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

Source: IDC Worldwide Quarterly Hardcopy Peripherals Tracker 2024 Q2, share by brand, color laser printers 69 ppm or less, monochrome laser printers 90 ppm or less, including multifunction printers. Reproduction or republication of this data is prohibited
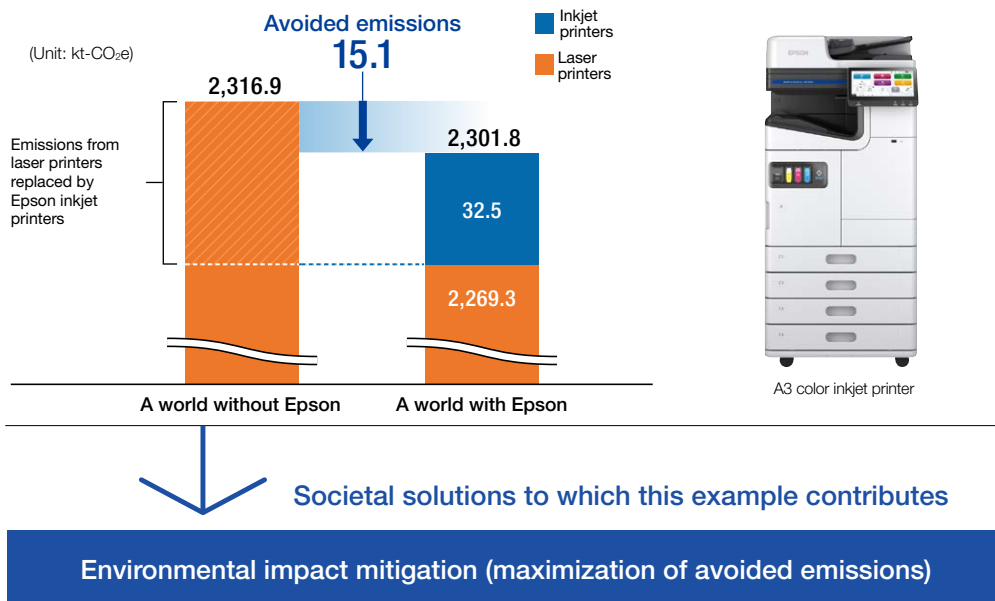
Value Creation Strategy

Achieving the KPI with an Office & Home Printing Innovation

We visualize our avoided emissions to show Epson's contribution to environmental impact mitigation, leading to business growth and additional avoided emissions.

In addition to reducing our own GHG emissions, we aim to mitigate our customers' environmental impact through our products and services. To do so, we need to get consumers to choose us by concretely demonstrating our contribution to environmental impact mitigation. Therefore, we first calculated and disclosed the avoided emissions of our A3 color office inkjet printers in the volume zone. To ensure that the information is fair, we developed the calculation logic based on third-party verification while referring to guidance published by the World Business Council for Sustainable Development. As a result, in fiscal 2023, we were able to show that our printers avoided 15.1 kt-CO_2e of emissions[3], primarily by minimizing power consumption in printing. We hope that showing our products' environmental performance in terms of avoided emissions will encourage more consumers to switch to Epson. These efforts will lead to business growth and more avoided emissions.

[3] The value obtained by multiplying the difference between the weighted average of the published lifetime CO_2 emissions of major laser printers in the global market and the lifetime CO_2 emissions of Epson's A3 color inkjet printers by the number of Epson A3 color inkjet printers sold in the fiscal year, based on the calculation method verified by Mizuho Research & Technologies, Ltd.

■ Avoided emissions for A3 color inkjet printers (FY2023 results)

(Unit: kt-CO_2e)

Avoided emissions 15.1

- Inkjet printers
- Laser printers

Emissions from laser printers replaced by Epson inkjet printers

2,316.9

2,301.8

32.5

2,269.3

A world without Epson · A world with Epson

A3 color inkjet printer

Societal solutions to which this example contributes

Environmental impact mitigation (maximization of avoided emissions)

Social Impact

Reducing Environmental Impact to Achieve RE100 Target

Acer Group

Epson A3 multifunction inkjet printers introduced

A participant in the RE100, the Acer Group is working to transition to 100% renewable electricity by 2035. We introduced Epson's business printers because, with low power requirements and low CO_2 emissions, they can significantly mitigate our environmental impact. When we were examining our options, we asked Epson to provide data on avoided emissions as well as to verify this through a proof of concept.

We were attracted by the simple structure of inkjet MFPs, which, unlike other printing technologies we have used in the past, have few periodic replacement parts. This translates to shorter maintenance time and higher productivity.

We need to manage printing by a large workforce at multiple offices. We use Epson Print Admin to track print log data and ensure information security while keeping printing costs low.

We also find great value in being able to use Epson Remote Services to instantly monitor the status of our equipment and efficiently manage our printers.
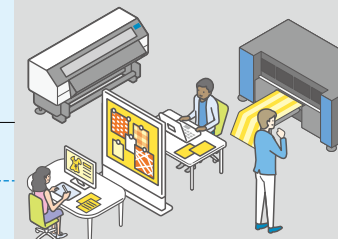
WF-C20600   AM-C4000   WF-C879R   WF-C579R

| Materiality | Advance the frontiers of industry | Key Sustainability Topic | **Increasing Productivity Through Digitalization and Automation** | **Commercial & Industrial Printing Business** |

Initiative Topics

Lead the digitalization of printing, reduce environmental impact, and raise productivity with inkjet technology and solutions

KPI (Evaluation Methodology)

FY2023 — Target ➡ Commercial and industrial inkjet printer average sales growth rate: 10% (YoY)
Actual ➡ 1% vs. previous year

FY2024 — Target ➡ 3% vs. previous year

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 the willingness to purchase large commercial and industrial printing equipment, the susceptibility of investments to economic trends, and the constant need for products and services that keep pace with new and changing customer workflows.
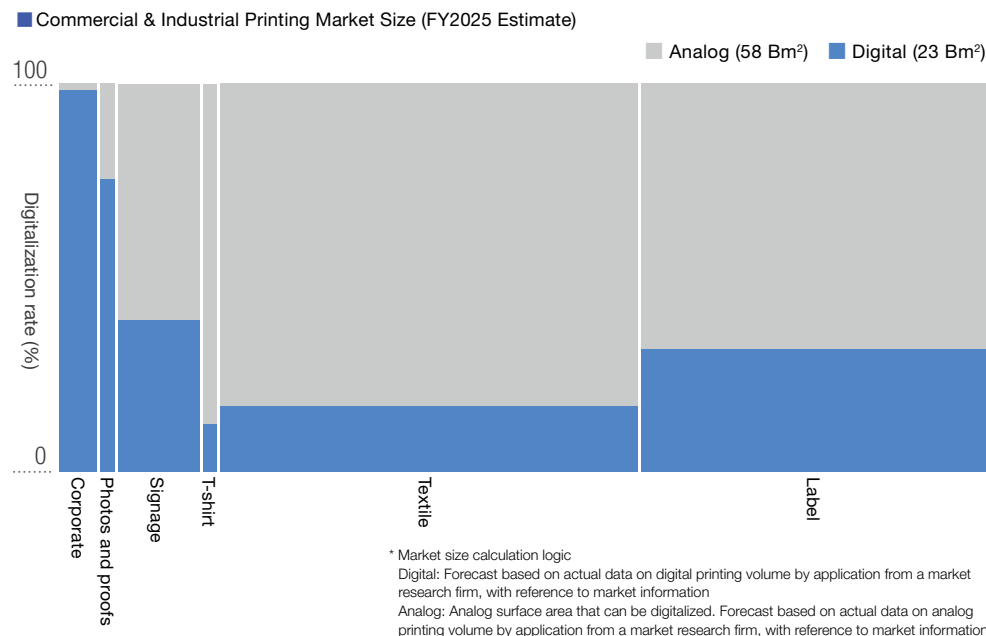
Growth Strategy

Epson's digital inkjet printers use Micro Piezo inkjet technology to produce exquisite gradations and subtle colors, expanding the design horizon. Digital printing is 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 the operation of 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 seek to sustain growth by combining products that reduce users' environmental impact and increase productivity with solutions that make our products easier to use for everyone.

■ Commercial & Industrial Printing Market Size (FY2025 Estimate)

Analog (58 Bm²)   Digital (23 Bm²)

Y-axis: Digitalization rate (%), 0 to 100
X-axis: Corporate, Photos and proofs, Signage, T-shirt, Textile, Label

* Market size calculation logic
  Digital: Forecast based on actual data on digital printing volume by application from a market research firm, with reference to market information
  Analog: Analog surface area that can be digitalized. Forecast based on actual data on analog printing volume by application from a market research firm, with reference to market information

Value Creation Strategy

Achieving the KPI with a Commercial and Industrial Printing Innovation

Epson Cloud Solution PORT solves issues and improves operational efficiency at production sites where large-format printers are used.

Epson Cloud Solution PORT improves production processes by analyzing daily printer operation and error information through Epson printers that are connected to Epson over the IoT. Downtime is reduced via remote monitoring advice and corrective maintenance does not rely on operator skills. In addition, the combination of Epson's proprietary color management technology, Epson Edge Print RIP software, SD-10 colorimeter, and other genuine Epson technologies enables accurate, reliable color matching, bridging color differences among multiple machines to achieve distributed printing. To expand our service offerings and improve usability, we have added a feature that allows customers to view and tally their actual costs for media, ink, and other items, making it easier to estimate the cost of their prints. The Epson Craft Designer store application will continue to help customers improve their productivity by enabling them to easily edit and design photos and images stored on their smart devices and to place orders then and there.

Site A   Site B   Site C

Manage distributed printers on a single screen on a customer's PC or mobile device

SD-10 colorimeter

Societal solutions to which this example contributes

Reduce environmental impact and raise productivity

Social Impact

Operational Efficiency Tripled

Discovery Core Co., Ltd.

SC-R5050L large format printer, SD-10 colorimeter, and Epson Cloud Solution PORT introduced

As an exhibition and event company, our strength lies in providing a one-stop service from planning and proposal to construction and removal. Products such as the SC-R5050L resin ink printer and SD-10 colorimeter were approved for a government subsidy program. We believe that a key factor in the decision was the establishment of a DX system using Epson Cloud Solution PORT, which enables multiple large-format printers to be operated remotely. Previously, we had to check the remaining ink level by installing a camera in front of the monitor, but with Epson Cloud Solution PORT, we can now see the remaining ink on each machine at a glance, making continuous operation more efficient. There is also a simulator that aggregates actual media and ink costs, allowing for on-the-spot estimates to be presented in meetings with customers. The pocket-sized SD-10 colorimeter can be used by anyone almost anywhere, and colorimetric data, which we used to have to enter into Excel each time, can be stored in the cloud. I get the impression that, in part because of this convenience, operational efficiency has tripled.

Kenji Saito
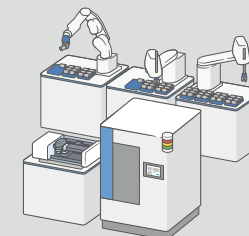Chief Production Director
Sign Division

| Materiality | Advance the frontiers of industry | Key Sustainability Topic | **Improving Working Environment and Improving Educational Environment** | **Manufacturing Solutions Business** |

Initiative Topics — Alleviate labor shortages through automation with robots

KPI (Evaluation Methodology)

FY2023 — Target ➡ Number of unfilled positions automated[1]　28,000
Actual ➡ 25,000

FY2024 — Target ➡ 29,000

[1] Converted based on the effects of an internal Epson project

Opportunities and Risks

Demand for robot-based automation continues to grow due to the decline in the working-age population in developed countries, the aging population in emerging countries, and soaring labor costs worldwide. Advances in surrounding technologies, including AI, are helping to expand the range of robotics technology applications, not only in the automotive and electronics industries but also in the manufacturing and service sectors. Customers from a broad and growing range of sectors consult with us about automation, and we are developing and supporting customers in the medical equipment, food, and logistics fields.

On the other hand, we also perceive risks. As demand for automation increases, competition in the automation equipment industry could intensify and market prices could erode. In addition, securing people with skills in equipment design, manufacturing, and setup is becoming challenging and this is being watched closely as a factor that could hinder growth.

Growth Strategy

Epson has maintained the top share[2] in the global market for SCARA robots for 13 consecutive years thanks to an extensive lineup of robots that combine high speed and precision with adaptable, functional programming software. Responding quickly to customer needs requires a platform that allows us to flexibly expand the product lineup. Epson has been investing in the development of such a next-generation platform and will begin releasing new products based on it this fiscal year. Epson also provides user-friendly program development software called RC+Express Edition to lower the barriers to entry for customers who are new to automation and lack software development experience. Going forward, we will look to strengthen our customer touch points using digital technology and to expand the value we provide by combining our robot technolo-
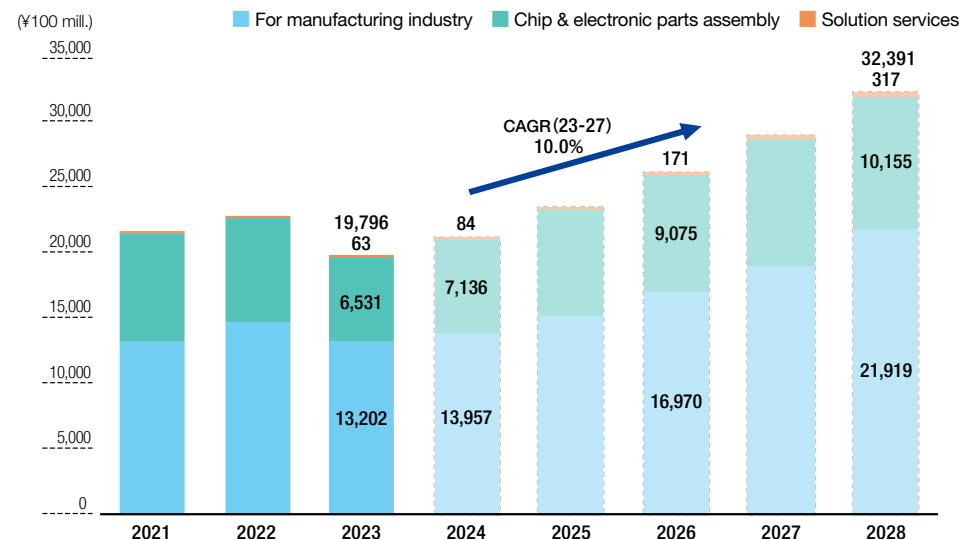
[2] Market share based on unit sales of industrial SCARA robots, 2023.
(Source: Fuji Keizai: "2024 Reality and Future Outlook of Worldwide Robot Market")

gy with various services.

To meet the fast-growing demand for automation, we will identify and directly approach potential customers in key industries and tailor products to their needs. We will also explore possible expansion into new areas with project teams assigned strategic themes.

On the other hand, we expect the competitive environment to intensify as the demand for automation increases. To realize our vision and drive business growth, we will reorganize to create a lean and robust profit structure and enhance business resilience by optimizing the supply chain.

■ Entire automation market

(¥100 mill.)　■ For manufacturing industry　■ Chip & electronic parts assembly　■ Solution services

CAGR (23-27) 10.0%

Year	For manufacturing industry	Chip & electronic parts assembly	Solution services	Total
2021				
2022				
2023	13,202	6,531	63	19,796
2024	13,957	7,136	84	
2025				
2026	16,970	9,075	171	
2027				
2028	21,919	10,155	317	32,391

Source: Fuji Keizai: "2024 Reality and Future Outlook of Worldwide Robot Market"

Value Creation Strategy

Achieving the KPI with Manufacturing Innovation

Automating production systems through comprehensive technological and support capabilities

Epson has developed technologies and devices in diverse businesses. Among them are image processing and sensing technologies. By combining these technologies with the automation expertise we have cultivated at our own production sites, we are able to provide small, light-weight, slim, power-saving robots that boast unrivaled speed and precision yet are easy to use. Automating production involves more than just installing robots. It also requires the design and construction of processes based on manufacturing know-how.

While robots are capable of accurate work, they are not adept at grabbing and plugging in flimsy cables into connectors whose installation position may vary. This is why know-how in designing and building processes is essential. We solved this problem by equipping robots with image processing to detect connector position and an Epson force sensor that can sense minute forces.

We help our customers build their production systems by leveraging the automation know-how we have accumulated in our own precision-assembly factories. We also provide fast, flexible, and consistent services through our global sales and production sites, which have been strategically located in response to geopolitical risks.
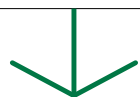
Societal solutions to which this example contributes

Respond to a shrinking labor pool and improves the working environment

Social Impact

Production Was Improved by Seizing an Opportunity to Transform the Company as Production Costs Soared
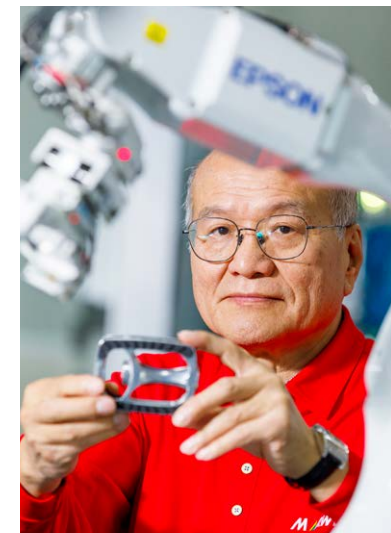
MARWI Taiwan Industrial Co., Ltd.

Six-axis robot C4 series

Taiwan's bicycle industry, which thrived for more than six decades, once faced the threat of hollowing out, but thanks to the efforts of industry, government, and academia, it has maintained world-class manufacturing and sales numbers. Marwi Group is one of the world's largest bicycle pedal manufacturers, with production sites and offices in Taiwan, Indonesia, the Netherlands, the Czech Republic, and Germany, but with support from Taiwan's Ministry of Economic Affairs for smart production sites, Taiwan has been repositioned as the core site. In 2014, we became the first in Taiwan's bicycle industry to automate our production line with robots. Epson's six-axis robots, with their speed and accuracy, are being used to achieve full automation. The combination of robots and vision systems enables us to manufacture multiple models with efficiency and high quality. The ratio of human labor to machinery in production at the Taiwan site is 3:1. In this industry, that is an extremely high ratio of machinery. By proactively utilizing automation solutions, we have been able to improve our operational efficiency by about 20%.

Patrick Pai
Chairman
MARWI Taiwan Industrial Co., Ltd.

Materiality	Advance the frontiers of industry	Key Sustainability Topics	Improving Working Environment and Improving Educational Environment	**Visual Communications Business**

Initiative Topics

(1) Realize a fair, natural, comfortable 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

KPI (Evaluation Methodology)

|		① No. of adopting companies, or number of partners	②-1 No. of co-creation/ collabora-tive programs in field trials	②-2 No. of countries where use was demonstrated in general education and societal issue awareness
FY2023	Target ➡	2	20	—
	Actual ➡	2	29	Selected PoC countries
FY2024	Target ➡	Retained + at least 1 new company	Cumulative total: 40	Countries where PoC will be performed: 2

Opportunities and Risks

Investment in digital art and other immersive art experiences is growing worldwide. Meanwhile, demand for big-screen home viewing continues to be strong, driven by the popularization of video streaming services. Flexible hybrid work environments that allow employees to split their time between remote locations and conventional offices are now 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 demand for a fair, natural, smooth visual communication environment that both feels immersive and delivers the necessary volume of information. At the same time, there is growing anticipation for technological advancements that can enhance productivity and support creativity. We recognize both the enormity of the societal issues and the huge potential of the education market. Worldwide, 263 million people remain out of school, mainly poor people and girls in Africa and South Asia. It is estimated that there are 610 million children and young people who have not been able to acquire basic reading comprehension and calculation skills due to the quality of education even if they go to school[1]. The education challenges are not confined to developing countries. Developed countries also have regions that lack infrastructure, resulting in inequitable learning opportunities. The use of digital technology has become a major theme for creating quality learning opportunities and closing the learning gap. We believe that projectors can play a big part in evening the playing field. On the other hand, we are carefully watching trends in the growing market for remote visual communi-cations, where we foresee competition from non-projector devices such as large-screen displays and tablets intensifying.

[1] Source: JICA - Japan International Cooperation Agency, "JICA Global Agenda: Education"
https://www.jica.go.jp/english/activities/issues/education/index.html

High-brightness business projector model released in May 2024. Create an immersive visual experience.
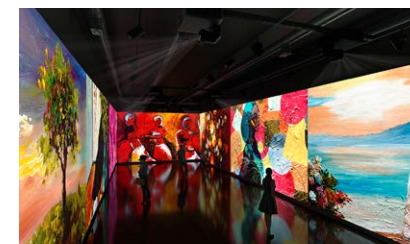
Growth Strategy

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. A projector that combines 4K-equivalent resolution with an ultra-short-throw lens can project sharp, nearly life-sized images of people at a remote locations, creating the illusion that everyone is in the same space. We will develop the market by collaborating with online conference service providers and expanding proof-of-concept studies through co-creation with local governments. We are accelerating our efforts to create learning opportunities and alleviate disparities in the education market by working with the Japan International Cooperation Agency (JICA). We are conducting proof-of-concept (POC) studies to verify the effectiveness of support for touring lessons that take advantage of the portability that projectors offer. We are also raising aware-ness 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 collabora-tively addresses societal issues stemming from disparities in education and information.

Value Creation Strategy

Achieving the KPI with a Visual Innovation

We want to provide learning opportunities for all.
After detailed proof-of-concept studies in developing countries, we are moving towards concrete plans for business commercialization through co-creation.

Epson is leveraging its expertise in projectors and education support to help improve learning environments around the world. We are developing a business model aimed at accelerating societal solutions by responding to the needs in developing regions where JICA operates. The spread of education is an urgent issue that is inseparable from the quality of life in developing countries. However, we hypothesized that various factors may be hindering the spread of education, and that the efficiency and quality of education may not be adequately ensured. To test this hypothesis, we began proof-of-concept studies in the field.
JICA's Smallholder Horticulture Empowerment & Promotion (SHEP) program required outdoor use of a projector. To accommodate this, we provided a portable set that included a projector, a special screen for projecting vivid images even in bright locations, and a battery. The set was used to conduct proof-of-concept studies at 63 sites in 20 countries over a two-year period.
From agricultural education for adults to basic education for children, issues identified through proof-of-concept studies are being addressed through the co-creation of a business model. Epson will continue to devise ways to alleviate learning disparities by providing learning opportunities for all while also growing the visual communications business from a long-term perspective.

A proof-of-concept study using a projector in a SHEP course in Bolivia
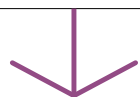
Societal solutions to which this example contributes

Alleviate learning disparities caused by regional and societal differences

Social Impact

Creating Learning Opportunities in Africa to Help Expand Future Employment Opportunities

JICA ABE Initiative[2] Scholarship Student   ▶ See the back cover for footnote [2]

Having been a teacher in my home country of Guinea, I believe that in order to improve the quality of life in Africa, it is essential to create an environment where all people have equal access to educational opportunities.
In Africa, educational opportunities are closely linked to employment opportunities. About 75% of the population is age 25 and under, and about 70% of them are out of school for various reasons. JICA provides learning opportunities for people of all ages, and their partnership with Epson helps to create a more effective educational environment. For teachers and children in developing countries, a projector might be their first encounter with ICT equipment. These opportunities create the added value of gaining skills in the use of digital technology. I came to Japan under JICA's ABE Initiative scholarship program to develop people who can show initiative in business connecting Japan and Africa, and I had the opportunity to do an internship at Epson in 2023. Epson's commitment to creating learning opportunities and alleviating disparities in developing countries resonated with me, and I am now working for Epson. We will steadily develop potential markets from a long-term perspective by leveraging our strength in knowing the realities of the education market in developing countries through first-hand experience.

Koulibaly Abass
Former scholarship student
Seiko Epson VP Business
Development Department