II. Overview of Business

1. Management policy, business environment and issues to be addressed, etc.

All forward-looking statements hereunder were made at Epson's discretion based on the forecasts and certain assumptions at the end of the fiscal year. These statements may differ from actual results and are not guarantees of the achievement.

(1) Basic management policy

Epson boldly undertakes challenges to create innovations beyond its own conventions and vision with a view to continuously creating game-changing customer value and playing a central role as an indispensable company in building a better society, based on the Company's unique strengths of efficient, compact, and precision technologies since the time of its founding. Based on the Management Philosophy and global tagline, we will make efforts to realize our goal by having all employees share values and act autonomously while demonstrating their comprehensive strengths, for the purpose of creating values that exceed customer expectations.

Epson Management Philosophy

Epson aspires to be an indispensable company,
trusted throughout the world for our commitment to openness,
customer satisfaction and sustainability.
We respect individuality while promoting teamwork,
and are committed to delivering unique value
through innovative and creative solutions.

EXCEED YOUR VISION

As Epson employees,
we always strive to exceed our own vision,
and to produce results that bring surprise and delight
to our customers.

(2) Concept of aspirational goal and "Epson 25 Renewed" Corporate Vision

In March 2021, we revised our Corporate Vision and established "Epson 25 Renewed," with the goal of achieving sustainability and enriching communities, which we have set as our aspirational goal to pursue into the future.

① Our aspirational goal that Epson will pursue into the future

At present, humanity is facing a wide range of social issues, including climate change and the COVID-19 pandemic. We believe that we have entered an era in which people aspire to achieve a variety of enrichment, including not only material and economic wealth, but also spiritual and cultural enrichment. Sustainability is a fundamental requirement for achieving this. With this background, Epson develops its business by always focusing on social issues as a starting point, considering what we can do to solve them, and how we can use our technologies to solve problems and contribute to society. This is how we work to realize our abovementioned aspirational goal that Epson will pursue into the future.

② "Epson 25 Renewed" vision statement

We have established the vision statement for "Epson 25 Renewed," which is "Co-creating sustainability and enriching communities to connect people, things, and information by leveraging our efficient, compact, and precision technologies and digital technologies." We will provide solutions that connect people, things, and information in a smart manner to society as a whole, including people's personal lives, industries, and manufacturing sites, in order to achieve our aspirational goal. The three most important initiatives in doing so are the environment, DX, and co-creation.

Environmental initiatives

- Promote decarbonization and close the resource loop, develop environmental technologies, and provide products and services that reduce environmental impacts.

DX initiatives

- Contribute to customer success by building a robust digital platform, connecting people, things, and information, and co-creating solutions that continue to meet customer needs.

Co-creation initiatives

- Leveraging our technologies and product families, solve societal issues with partners by providing core devices and a place for co-creation and networking, as well as through collaboration and investment.

③ "Epson 25 Renewed" policies

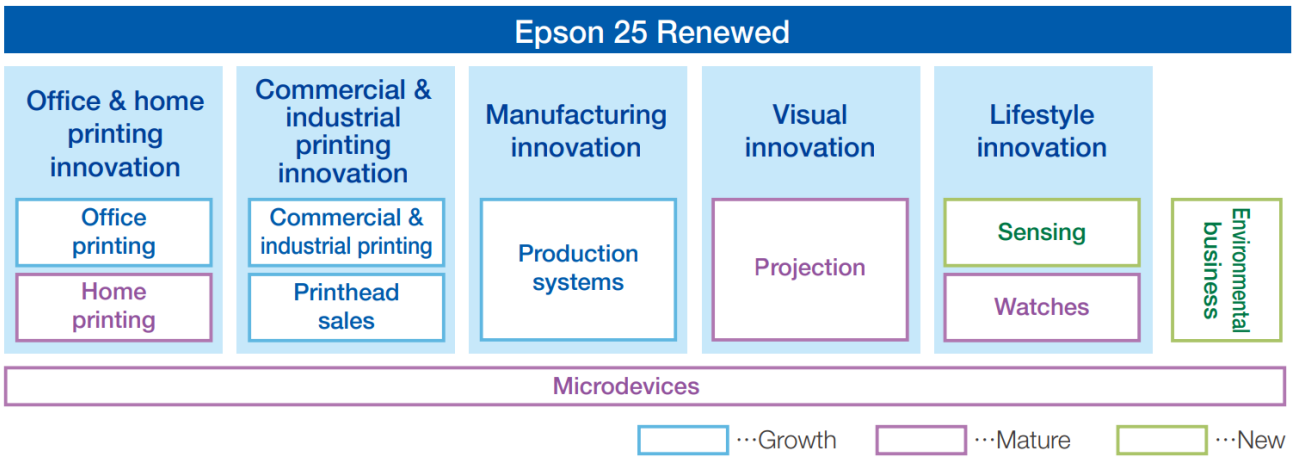
With uncertainty in the social environment expected to continue, we will seek to secure profitability and future growth by focusing on priorities. Furthermore, we will also continue to strengthen our efforts for the environment, DX, and co-creation across business domains.

Category	Applicable businesses	Policy
Growth areas	Office printing, Commercial & industrial printing, Printhead sales, Production systems	See environmental changes as an opportunity and invest management resources
Mature areas	Home printing, Projection, Watches, Microdevices	Emphasize profitability through structural changes and efficiency improvements, etc.
New areas	Sensing, Environmental business	Develop new technologies and businesses

(3) Business and financial issues to be addressed with priority

① Policy and progress of innovation strategies and future initiatives

We have established innovation areas around customer value and societal issues in order to execute the strategy for realizing our goals. In the microdevices business that supports the following five innovation areas, we will contribute to the development of a smart communities with crystal semiconductor solutions enhanced with our efficient, compact, and precision technologies. Furthermore, in order to realize a sustainable society, we will also develop new environmental solutions that integrate materials technologies and contribute to decarbonization and closing the resource loop by giving top priority to our contribution to the environment.



Office & home printing innovation
In this area, we seek to lead the evolution toward distributed printing that reduce environmental impacts and increase work productivity through inkjet technology, paper recycling technology, and open solutions. In office printing, projects acquired continued to increase as a result of coordination of solutions including verification and billing systems. Going forward, we will introduce products in the medium speed zone for which there is substantial demand while making efforts to strengthen sales networks and value promotion activities in each region in order to accelerate growth. In home printing, activities to increase recognition of high-capacity ink tank models for which brand ambassadors have been appointed in North America, Europe, China and Australia have proven effective. In the future, we will expand subscription services while creating a business model that enables long-term use of products for the purpose of contributing also to the reduction of environmental impacts.

Commercial & industrial printing innovation
In this area, we seek to offer inkjet technology and solutions that lead the digitalization of printing and contribute to lower environmental impacts and higher productivity. In the finished products business, we worked on efficient development of products and expanded the lineup through platforming in FY2021. We will continue this initiative in the future while connecting customers to Epson and also increasing the number of contracts of Epson Cloud Solution PORT, which provides total support to printing sites, with a view to multi-layering the sources of income in the future. In the printhead sales business, sales have been expanding steadily in China, a major market. Going forward, we will also make use of our sites in Europe to further expand sales, while developing new usages through open innovation.

Manufacturing innovation
In this area, we seek to innovate manufacturing by co-creating flexible high-throughput production systems that reduce environmental impacts. In FY2021, sales continued to grow as a result of sales expansion efforts focused on SCARA robots. Going forward, we will expand new products, and strengthen the sales structure and expand sales globally. We will also propose new production systems that combine equipment such as 3D printers and compact injection molding machines with robots.

Visual innovation
In this area, we seek to connect people, things, information and services with inspiring video experiences and quality visual communications to support learning, working and lifestyles. The profit structure has improved significantly through the operational restructuring, which we have been pushing forward since FY2020. Going forward, we will continue efficient business operations in existing markets mainly for standard models, while strengthening the business of high-brightness projectors that make the best use of the features of large screens and smart projectors for which the market is expanding.

Lifestyle innovation
In this area, we seek to utilize craftsmanship and co-create solutions that utilize sensing technologies to enrich diverse lifestyles. In the watch business, profitability has improved as a result of operational restructuring efforts, the recovery in demand and increase in the ratio of premium watches. We will continue such restructuring in the future. In addition, in the sensing business, we will develop new businesses through co-creation with an eye on the medium and long term.

② Strengthening business infrastructure
In order to realize each innovation mentioned above, we are strengthening the business infrastructure as follows.

Sales & marketing strategies
● Provide customer focused sales/support utilizing digital technology
We are strengthening CRM (customer relation management) in order to accelerate initiatives in growth areas. We will make a transition from activities designed to maximize sales of products to activities with a strong focus on providing customer value (consulting, value added solutions and maintenance services, etc.) and adoption of subscription services.
● Focused organizational improvements according to region and business segment
We will promote reorganization to strengthen cooperation of sales promotion and service support.

Production strategies

●Leverage changes caused by the spread of COVID-19 to accelerate the existing strategy

With regard to parts procurement, we will continue to respond to the ongoing difficulties in procuring electronic parts and other components by securing parts in advance, changing product designs, and producing at multiple locations. As for securing logistics, we will strengthen relations with shipping lines through load capacity contracts and proceed with the search for alternative transport routes. In the production automation, although there are challenges with strengthening and developing human resources at production sites, we will promote digitalization of production equipment and launch of automated lines by developing hardware and data utilization technologies.

Technology development strategy

●Advance technologies that support innovation

We will focus particularly on strengthening material, AI, and digital technologies. In AI and digital technologies, we will accelerate and strengthen development of algorithms to develop company-wide software platforms to create data utilization business. In material technologies, we will promote development of dry fiber technology[1], metal recycling, and CO2 separation/absorption technologies, among other things, as well as solidify environmental business with co-creation partners.

[1] Epson's technology that converts materials into fibers with mechanical impact without using water (a moderate amount of humidity is required)

HR strategies

●Allocate human resources to priority areas

We will strengthen mid-career recruiting to secure human resources that lead growth areas.

●Strengthen human resource development

We will reorganize the existing education and training system and build a development system in response to changes in roles and duties, in addition to functional and operational axes.

●Organizational activation

In addition to conducting training for women and promoting childcare leave for men, we will create an environment that realizes diverse working styles, including expansion of workplace options, in order to promote diversity.

③ Financial targets

We will shift to profitability-focused management to realize "Epson 25 Renewed" and seek to secure profitability and future growth by focusing on priorities without pursuing excessive sales growth. In accordance with this policy, we have set ROIC, ROE and ROS as financial targets.

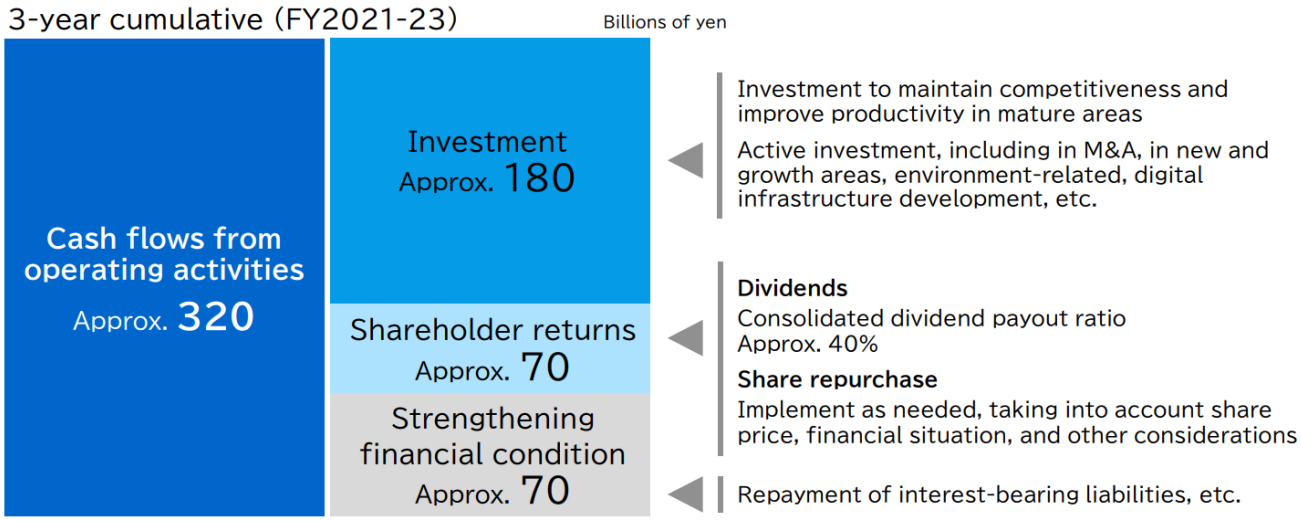
Consolidated financial targets	FY2020 (Result)	FY2021 (Result)	FY2023 (Target)	FY2025 (Target)
ROIC[2]	5.6%	7.3%	8% or more	11% or more
ROE	5.9%	15.2%	10% or more	13% or more
ROS	6.2%	7.9%	8% or more	10% or more

[2] ROIC = Business profit after tax / (equity attributable to owners of the parent company + interest-bearing liabilities)

As a result of setting ROIC as one of the financial targets, we will be required to conduct management with higher capital efficiency. As such, Epson will introduce business portfolio management that clarifies the role of profitability and company growth to achieve efficient capital circulation, thereby enhancing management efficiency. By broadly dividing Epson's business areas into growth areas, mature areas, and new areas, as described above, we will set capital allocations and targets according to how the businesses are positioned and will determine the strategic direction of each business as we go through a regular review cycle.

④ Cash allocation

Allocate cash toward investments in growth and new areas and areas related to the environment, continuously provide stable shareholder returns, and strengthen our financial condition, such as the repayment of interest-bearing liabilities, while comprehensively taking capital demand into consideration.



(4) Initiatives to address sustainability issues

The global sustainability movement has rapidly picked up pace in recent years, as seen in the expansion of ESG investments and the formulation of national and regional sustainability-related policies. Under such circumstances, companies are expected more than ever to demonstrate their approach to addressing the issues society faces through sustainability and growth strategies based on sustainability activities. Epson has been helping to solve various societal issues through its products and services. Going forward, we will continue to work to fulfill our social responsibility and create shared value in order to achieve sustainability and enrich communities together with our customers and partners from a long-term perspective based on our Management Philosophy.

① Materialities and key sustainability topics, KPI

At Epson, we reference the societal issues and megatrends described in international social norms and other such sources, evaluated them from a company perspective and a social perspective, and identified four materialities (“achieve sustainability in a circular economy,” “advance the frontiers of industry,” “improve the quality of life,” and “fulfill our social responsibility”), which are high-priority issues that we should address to solve societal issues. We then selected 12 key sustainability topics, set key performance indicators (KPIs) for initiatives, reflected them in our Mid-Range Business Plan, and steadily took initiatives in order to make materiality initiatives effective. We considered KPIs for all materiality in the initiatives for sustainability issues, but we first focused on corporate stability, and disclosed the KPIs for the two ESG-related materialities (“achieve sustainability in a circular economy” and “fulfill our social responsibility.” We plan to disclose the KPIs for “advance the frontiers of industry” and “improve the quality of life” from FY2023 onward.

■KPI and achievements of key sustainability topics related to ESG

ESG Materiality	Key Sustainability Topics	Initiative Topics	Key Performance Indicators (KPI)	FY2021 (Result)
Environment (E)				
Achieve sustainability in a circular economy	Decarbonization initiatives	Using energy-saving equipment and facilities, removing greenhouse gases, engaging suppliers, and pursuing carbon-free logistics to become carbon negative by 2050	- Scope 1 and 2 GHG emissions reduction ratio - Scope 3 GHG emissions (per unit of business profit) reduction ratio	- Reduced by 41% compared to FY2017 - Reduced by 38% compared to FY2017
		Using renewable electricity to achieve RE100	- Renewable electricity adoption ratio	- Achieved 100% renewables in Japan (since November 2021)
	Closed resource loop initiatives	Becoming underground resource[3] free by 2050: - Using resources efficiently by reducing size and weight, using recycled materials, etc. - Establishing closed-loop production systems that minimize production losses	- Closed-loop materials usage ratio	-[5] - Began using recycled plastics in high-capacity ink tank printers
			- Final landfilled rate[4]	-[5] - Increased metal recycling within the Group
	Customer environmental impact mitigation	Maximizing avoided emissions with products and services that have a lower environmental impacts[6]	- Emissions avoided through products & services	-[5]
	Environmental technology development	Eliminating virgin plastics and closing resource loops by using Dry Fiber Technology to produce recycled materials and natural materials - Packaging materials - Housing materials	- Progress of development process	- Selected material candidates for prototyping
		Establishment of high-added-value recycling technology for scrap metal	- Progress of development process	- Began recycling of waste wafer

ESG Materiality	Key Sustainability Topics	Initiative Topics	Key Performance Indicators (KPI)	FY2021 (Result)
Society (S) / Governance (G)				
Fulfil our Social Responsibility	Increasing stakeholder engagement	Responding to needs and social demands by strengthening dialogue with stakeholders	- Social support activities, monetary value of support	- Determined FY2022-FY2025 targets (0.1% or more of sales revenue)
			- Number of dialogs with shareholders and investors and reflecting opinions on management	- 239 times
			- Evaluation indices of external evaluation agencies	- Acquired high recognition[7]
	Realizing responsible supply chains	Reinforcement of supply chain BCM	- Impact on customers due to disruption and stagnation in supply chain (Aiming to have no impact on sales in FY2024)	- Sales were affected due to difficulties in parts procurement and stagnation of the logistics function caused by COVID-19
		Realizing responsible supply chains	- CSR risk levels of suppliers	- CSR risk rank of main suppliers (direct materials): 0% high risk
		Realization of responsible sourcing of minerals	- Conflict-free (CF) ratio of products - Survey response ratio[8]	- 3TG[9] survey response collection ratio: 99%

ESG Materiality	Key Sustainability Topics	Initiative Topics	Key Performance Indicators (KPI)	FY2021 (Result)
Fulfil our Social Responsibility	Respecting human rights and promoting diversity	Creating a free and open organizational culture	- Organizational climate assessment score for “strength to work in teams”	- 3.68
			- Number of high risk workplaces with “general health risk” in the mental health check	- 2.7% of all workplaces
			- Implementation of harassment prevention measures (education and training, case sharing, appointment process, etc.), ensuring to report cases to the head office	- Performed education and training, case sharing, and appointment process checks as planned - Omission in reporting of material cases to the head office: None
		Respect for human rights through dissemination of the new “Human Rights Policy” within the Group	- Embedding and improving the commitment for respecting human rights, human rights due diligence (DD) and relief mechanism	- Updated the Human Rights Policy as of April 1, 2022
		Utilizing human resources in a way that respects diversity	- Female management position ratio (the Company) - 1 or more female executive officers by FY2025 (in Japan)	- Female management position ratio: 4.1% (as of April 1, 2022) - Diversity management training became compulsory; promoted female participation in screened training

ESG Materiality	Key Sustainability Topics	Initiative Topics	Key Performance Indicators (KPI)	FY2021 (Result)
Fulfil our Social Responsibility	Strengthening governance	Reinforcement of compliance management platform	- Number of serious compliance violations[10]	- No occurrence of serious compliance violations
		Enhancement of Group compliance level	- Implementation ratio of compliance training (e-learning) to all Group employees[11]	- Group-wide implementation ratio: 100%
		Maintenance and strengthening of governance structure to realize transparent, fair, prompt and decisive decision-making	- Ratio of Outside Directors in the Board of Directors - Ratio of Outside Directors in Nomination & Compensation Committees	- Ratio of Outside Directors in the Board of Directors: 50% - Ratio of Outside Directors in Nomination & Compensation Committees: 83%
		strengthening information security	- Number of serious information security incidents	- 0 case

3 Non-renewable resources such as oil and metals
4 Ratio of landfilled amount of production resources against the volume of resources injected
5 Actual quantitative results for FY2021 will be disclosed on the Company website as soon as they are compiled.
6 Quantified the contribution of products and services toward GHG emissions reductions
7 Sustainalytics: Low; FTSE: 4 or higher; Top 50 or higher in “Toyo Keizai CSR ranking”
8 Signifies the ratio of coverage of the survey.
9 Abbreviation for conflict minerals, taking the first letters of Tin, Tantalum, Tungsten and Gold
10 Serious compliance violations: Cases of violation that correspond to timely disclosure matters
11 Target: The Company and domestic and overseas subsidiaries

② Environmental Vision 2050

Epson revised Environmental Vision 2050, the vision related to environmental issues, which are a prerequisite for a sustainable society, as described below. We also set goals to be achieved by 2050 and established initiatives to realize them.

Item	Details
Vision statement	Epson will become carbon negative and underground resource free by 2050 to achieve sustainability and enrich communities
Goals	2030: Reduce total emissions in line with the 1.5℃ scenario[12] 2050: Carbon negative and underground resource free
Actions	● Reduce the environmental impacts of products and services and in supply chains. ● Achieve sustainability in a circular economy and advance the frontiers of industry through creative, open innovation. ● Contribute to international environmental initiatives.

[12] Target for reduction of greenhouse gas emissions that conforms with scientific knowledge based on the criteria of the Science Based Targets initiative (SBTi)

③ Climate change initiatives and TCFD

Climate change is greatly impacting society and Epson sees it as a serious social problem. The goal of the Paris Agreement is to limit the increase in global average temperature to well below 2℃ compared to pre-industrial levels and to pursue efforts to limit it to 1.5℃. Epson has pledged to do its part by achieving its goal of reducing its total emissions in line with the 1.5℃ scenario by 2030. As stated in Environmental Vision 2050, which was announced along with the Epson 25 Renewed corporate vision, Epson seeks to become carbon negative and underground resource[13] free by 2050 by decarbonizing and closing the resource loop. We are also providing products and services that have a smaller carbon footprint and are developing environmental technologies.

Since indicating its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in October 2019, Epson has disclosed information (on governance, strategy, risk management, and metrics and targets) based on the TCFD framework so as to enable good communication with shareholders, investors, and a broad spectrum of other stakeholders. Epson has decided to disclose the level of financial impact in 2021 in a quantitative manner for the first time. Furthermore, in 2022, Epson enhanced its disclosure of specific initiatives and achievements aimed at reducing GHG emissions in response to the update to the TCFD recommendations.

[13] Non-renewable resources such as oil and metals

■ Scenario analysis findings

We analyzed scenarios based on the TCFD framework to quantitatively assess the financial impact of climate-related risks and opportunities on Epson's strategy. In a 1.5℃ scenario in which there is rapid decarbonization of society, we found that there is transitional risk of an increase in operating costs due to market changes, policies, and legislation, but we expect to limit the financial impact by strengthening products and services based on inkjet technology and paper recycling technology.

Epson will spend approximately 100.0 billion yen (approximately 25.0 billion yen from 2021 to 2025 and approximately 75.0 billion yen from 2026 to 2030) over a period of 10 years ending in 2030 to accelerate decarbonization, close the resource loop, and develop environmental technology. The solution to climate-related risks aligns with the materialities we have set of achieving sustainability in a circular economy and advancing the frontiers of industry and will lead to opportunities for business expansion with Epson's low environmental impact products and services that save electricity and reduce waste. These products and services will help to mitigate customers' environmental impact and control climate change.

Based on the results of these analyses, Epson will continue to try to maximize its opportunities while addressing recognized risks in order to achieve decarbonization, which we believe is a rational goal both for society and for Epson.

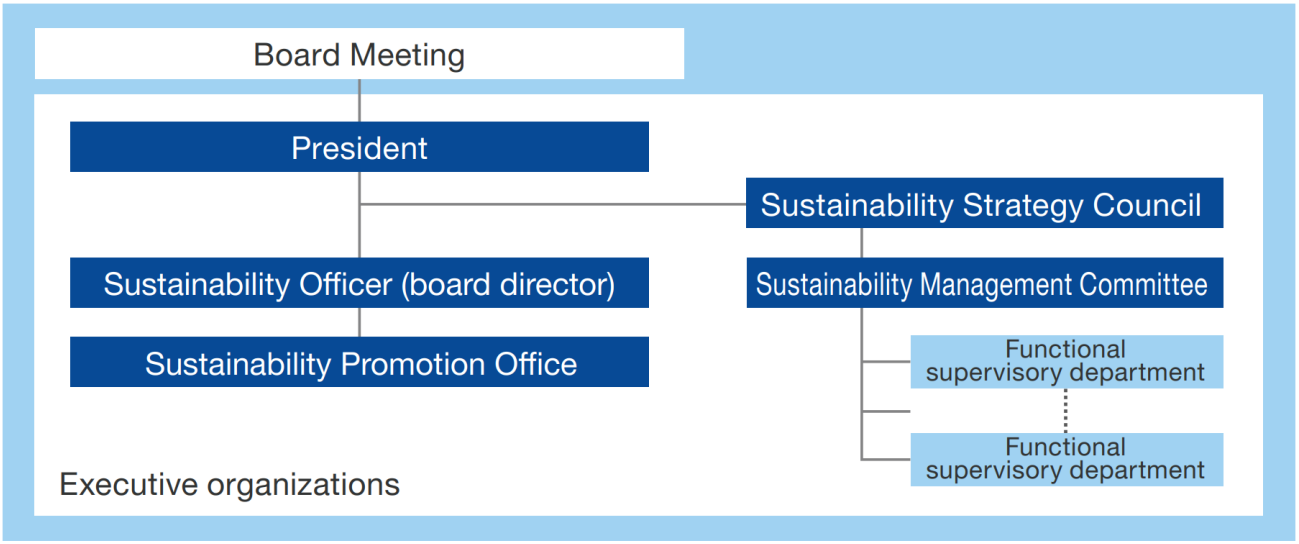
On the other hand, even in a 4℃ scenario in which global warming has advanced because the world failed to take additional measures, we found that the impact of physical risks on our domestic and overseas sites due to the damages arising from weather extremes would be small.

a. Governance

Important matters related to climate change are supervised by the board of directors, which receives reports at least once a year from the Sustainability Strategy Council, an advisory body to the president that plans and reviews strategic sustainability activities for the Epson Group, including matters related to climate change.

In addition, Seiko Epson's president and representative director, who has ultimate responsibility and authority for climate-related issues, delegates responsibility for climate-related issues to the sustainability director, a director and senior managing executive officer. The sustainability director heads the Sustainability Promotion Office and oversees the execution of climate change initiatives, including TCFD.

■ Executive organization



b. Strategy

Epson has determined that achieving sustainability in a circular economy and advancing the frontiers of industry are material matters. To achieve these, we are reducing greenhouse gas (GHG) emissions by leveraging our efficient, compact, and precision technologies to drive innovation. Furthermore, to transform business models, increase resilience against climate change, and drive progress toward Environmental Vision 2050, we established a new Environmental Strategy Council in 2021, under which various subcommittees have been created. The committee meets regularly to discuss and formulate strategic initiatives.

Increasing resilience	FY2021 initiatives & results	
Transforming business models	- Began examining a transition to business models (e.g., expanded subscription services) that deliver environmentally considerate products and services that can be used longer and that generate less waste	
Environmental Strategy Council	- Decarbonization	- Switched to 100% renewable energy at all domestic sites. Examined switching at overseas sites. Upgraded facilities and equipment to save energy.
	- Closed resource loop	- Examined introducing resource loop indicators to become underground resource free. Began sales of products that contain recycled materials and refurbished equipment.
	- Customer environmental impact mitigation	- Increased our contribution to the reduction of environmental impacts by getting customers to replace their current products with environmentally considerate Epson products and services.
	- Environmental technology development	- Developed technology for recycling scrap metal and reusing silicon waste material. Selected packaging material projects that apply dry fiber technology.

■ Scenario analysis of climate-related risks and opportunities

Epson identified and evaluated scenarios in the categories of transition risk, physical risk, and opportunity to evaluate the importance of climate-related risks and opportunities. Seven risks and opportunities were singled out for evaluation. We evaluated the business impact and financial impact of each on the basis of the scenarios corresponding to a temperature increase of 1.5℃ presented by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA) as well as on the basis of internal and external information.

■ Climate-Related Risks and Opportunities in a 1.5℃ Scenario

The results of evaluating climate-related risks and opportunities based on scenario analysis are as follows.

Category		Evaluated risks & opportunities	Actualization	Business impacts	Financial impact
Transition risks	Market changes Policy & laws and regulations	Paper demand	Short-term	**Impact** ・We were unable to detect a strong relationship between climate change and the change in paper demand, but demand for printing and communication paper is assumed to be on a declining trend. Even if the shift to paperless advances further due to changes brought about by COVID-19 (such as the contraction of office printing because of decentralization), we expect only a limited financial impact from the strengthening of products and services based on inkjet technology and paper recycling technology (reduction of printing costs, reduction of environmental impacts, increase of ease of printing, appeal using usefulness of paper information).	Small
		(Initiatives in Environmental Vision 2050) - Decarbonization - Closed resource loop - Environmental technology development	Short-term	**Impact** ・Decarbonization of products, services, and supply chains as well as advanced initiatives in resource recycling are needed to respond to the shared global societal issues of climate change and resource depletion. ・Scientific and specific solutions are necessary to develop environmental technologies linked with the rapid decrease of environmental impacts. **Response to risks** ・Decarbonization - Renewable energy use - Energy-saving facilities & equipment - Greenhouse gas removal - Supplier engagement - Carbon-free logistics ・Closed resource loop - Use resources effectively - Minimize production losses - Extend product service lives ・Environmental technology development - Dry fiber technology applications - Naturally derived (plastic-free) materials - Material recycling (metal, paper) - CO_2 absorption technology	Invest a total of approximately ¥100.0 billion by 2030
Physical risks	Acute	Damage to business sites due to floods	Long-term (End of 21st century)	**Impact** ・Based on the results of the latest FY2022 risk assessment for 36 sites (17 sites in Japan and 19 sites overseas), the changes in future operational risks due to flooding (rivers overflowing), high tides and drought are limited. ・Short-term climate change risks to the supply chain will be addressed in line with our business continuity plans.	Small
	Chronic	Damage to business sites due to rising sea levels			
		Impact on operations due to drought			

Category		Evaluated risks & opportunities	Actualization	Business impacts	Financial impact
Opportunities	Products and services	(Initiatives in "Environment Vision 2050") - Customer environmental impact mitigation	Short-term	**Assumed scenarios** ・The need for environmentally considerate products and services will increase due to the introduction of a carbon tax, soaring electricity prices, rising waste disposal costs, sustainable production volume, and reduced resource use. **Business opportunities** ・In the growth areas defined in Epson 25 Renewed, we expect to grow revenue at a CAGR (compound annual growth rate) of 15% by providing 1) inkjet office printing, commercial & industrial inkjet printing and printheads that reduce environmental impacts, increase work productivity, and reduce printing costs; and 2) production systems with expanded use of new production devices to reduce environmental impacts.	Large CAGR of 15% is expected in growth areas by FY2025
		Environmental business	Short-term	**Assumed scenarios** ・Market growth is expected in the areas of global warming prevention, waste treatment, and effective utilization of resources. ・The shift to a circular economy is expected to drive market growth for recycled plastics, high-performance biomaterials, bioplastics and metal recycling. **Business opportunities** ・Generate revenue by upcycling (enhancing functionality), eliminating plastics (packing and molding materials), creating new high-value-added materials and carrying out other measures through the establishment of technologies, such as applications of dry fiber technology, including paper recycling, development of naturally derived materials (elimination of plastics) and recycling of raw materials (metal and paper recycling) as effective solutions for combatting global warming and shifting to a circular economy.	Medium

Actualization Short term: ≤ 10 years Medium term: 10-50 years Long term: > 50 years
Financial impact Small: ≤ 1 billion yen Medium: 1-10 billion yen Large: > 10 billion yen

Epson implemented the following initiatives in FY2021 to promote decarbonization, close the resource loop, develop environmental technology, and mitigate environmental impacts on the customer's end.

Category		Evaluated risks & opportunities	Initiatives implemented in FY2021	FY2021 quantitative results
Transition risks	Market changes Policy & laws and regulations	Paper demand	In Office & Home Printing, sales of printers increased in terms of both units and revenue. Sales of ink were stabilized and flat year on year. The financial impact of fluctuations in demand for paper in the market targeted by Epson was limited.	–
		Decarbonization	Switched to 100% renewable energy for electricity used at all domestic sites[14].	¥3.32 billion (breakdown) ·Investment: ¥1.06 billion ·Expenses: ¥1.26 billion ·Personnel expenses: ¥1.00 billion
		Closed resource loop	Decided to invest in the construction of a new plant to recycle metal waste as materials for metal powder products (Epson Atmix).	
		Environmental technology development	Invested in a prototyping line for packaging materials using dry fiber technology. Reinforced manpower for environmental related areas and development of materials.	
Physical risks	Acute	Damage to business sites due to floods	Assessed the latest risks based on the IPCC Sixth Assessment Report for 36 sites (17 in Japan, 19 in overseas). - Confirmed that the volatility in Epson's future operation risk caused by floods (river flooding), high tide and drought is limited. Implemented BCP measures against the risk of inundation of facilities on lower floors of Toyoshina Office[15].	–
	Chronic	Damage to business sites due to rising sea levels		
		Impact on operations due to drought		
Opportunities	Products and services	Customer environmental impact mitigation	Promoted initiatives in the growth areas (office printing, commercial & industrial printing, printhead sales, production systems) under "Epson 25 Renewed."	FY2020 →FY2021 Revenue CAGR +22%
		Environmental business	Established environmental business subcommittees and began examining specific steps toward expanding business through environmental technology development.	–

[14] Excluding some housing sales sites and other rental properties.

[15] A major domestic site with a long-term flooding risk (end of 21st century).

c. Risk management

As the environment in which we operate grows more complex and uncertain, effectively dealing with risks that could have a significant impact on corporate activities will be essential in order to carry out business strategies and business objectives.

Epson sees climate-related issues as risks that could significantly impact management and manages them appropriately.

■ Climate-related risk identification, assessment and management process

1. Study	2. Identify & assess	3. Manage
- Considering the changes in the IPCC Sixth Assessment Report, conduct surveys on natural disaster risks caused by climate change at major sites in Japan and overseas. - Research social trends.	- Identify risks and opportunities from the policies and actions in Epson 25 Renewed and Environmental Vision 2050. - Evaluate scenario analysis through the Sustainability Strategy Council and board of directors.	- Effectively manage risks through the Sustainability Strategy Council and the board of directors.

d. Metrics and targets

Epson aims to achieve the medium- and long-term greenhouse gas (GHG) emission reduction targets to realize Environmental Vision 2050. For this reason, we are working to reduce environmental impacts throughout the value

chain by improving the environmental performance of our products, utilizing renewable energy, enhancing our business activities and taking other steps, based on our efficient, compact, and precision technologies.

■ GHG reduction targets (general indication of aggressive total emissions reduction targets in line with the 1.5℃ scenario)

Scopes 1, 2, 3[16]	Reduce GHG emissions by 55% compared to FY2017 by FY2030.

[16] Scope 1: Direct emissions from the use of fuel, etc., by the reporting company
Scope 2: Indirect emissions from purchased energy
Scope 3: Emissions from the reporting company's value chain

④ Human resource initiatives

In order for Epson to achieve sustainability and enriching communities, employees who take on various roles in all parts of the world need to work together with partners around the world to strive to solve societal issues. We at Epson develop global talent and leaders who can make decisions appropriately and promptly at operating sites based on shared values, put in place comfortable working environments where diverse personnel can demonstrate active roles, and proceed to create a free and open organizational culture where workers can maximize team strength.

In human resource development, we provide various types of training so that all our employees understand their roles and what is expected of them as members of the Epson team. Training helps employees to work and communicate more effectively, enhance their ability to solve problems and achieve goals, and experience personal and professional growth. In addition, Epson seeks to put itself in the optimal position by adapting organizations to best serve its business strategies and the ever-changing business environment. At the same time, we acquire specialists and promote priority placement in growth areas while taking a global perspective in developing and training leaders in each organization around the globe to drive business forward. Once a year and in each business, function and company, we evaluate and refine the roles and job requirements needed for important posts and organizations, and we review the human resources who can accomplish those roles. Candidates for future executive management and middle management positions as well as global positions are thereby identified, and a list is created. Succession plans are formulated, and training and education are provided to develop the needed skills. Training opportunities are also provided to prospective leaders and young employees, and a company-wide rotation program ensures that they gain a broader knowledge and experience.

Epson is promoting diversity and inclusion with the goal of being a company where all employees can maximize their abilities regardless of gender or other attributes. In particular, Epson recognizes the advancement of women in the workplace as a priority issue and is working to alleviate the gender gap. Our goal is to achieve gender equality and have women at each level of middle and executive management. The ratio of women in management should be the same as the ratio of women in our workforce. We look forward to achieving this naturally, even without being conscious of gender. To achieve this goal, we are taking a phased approach for improvement by hiring more women, increasing women who take on supervisory and leader positions, and ultimately increasing female managers, while putting in place comfortable working environments for women. In addition, the Board of Directors and corporate management bodies check promotion plans, the status of implementation and relevant indicators while discussing courses of action.

In promoting health management, we at Epson believe that the health of our employees is of the utmost importance to us as a company. Accordingly, we want to see employee health improve and to create a positive, energetic workplace that is conducive to job satisfaction in line with the Management Philosophy and Basic Occupational Health and Safety Policy. We believe this will ultimately result in better financial performance and higher corporate value. To promote health management activities, we established a Health Management Office to drive initiatives under the president, who is responsible for health and productivity management. The Health Management Office director is an executive officer who participates in Corporate Management Meetings. The office director, who concurrently serves as the general administrative manager of the Human Resources Division, the chair of the Health Insurance Association, and overall health and safety controller, is responsible for the general management of health and productivity. Our Health and Productivity Management Committee, which is co-operated by the company and the Health Insurance Association, shoulders responsibility for health and productivity-related information analysis and for the formulation, evaluation and improvement of measures and policies. The Health and Productivity Management Committee coordinates activities of the health promotion committees of various plants and offices. Health promotion committees are chaired by the general managers of the General Affairs Departments at Epson

plants and offices. An officer of the labor union serves as the vice-chair. An occupational physician and a public health nurse serve in an advisory capacity. Epson received recognition for these efforts and was selected as a brand for the 2022 Health & Productivity Stock Selection for the first time in March 2022.

2. Risks related to Epson's business operations

At present, we have identified the following significant risks that could have a materially adverse effect on our future business, financial condition or operating results and that should thus be taken into account by investors. For these risks, although matters that may possibly become risk factors are described, they do not cover all risks, and risks that were not assumed as of the filing date of the Annual Securities Report and risks that are of low significance may also have an effect on our financial position, operating results and cash flows in the future.
Furthermore, while as our policy, we strive to recognize, prevent, and control potential risks and to address risks that materialize, there is no assurance we will succeed in these efforts, and if we are unable to effectively counteract the risks, our financial position, operating results and cash flows could be adversely affected.
All forward-looking statements hereunder were made at Epson's discretion as of the date we submitted our Annual Securities Report.

(1) Risk management system

Overall responsibility for risk management in the Epson Group, including subsidiaries, belongs to the president of Seiko Epson. Group-wide risk management is carried out by Head Office supervisory departments with the cooperation of the operations divisions and subsidiaries. Risks unique to an individual business are managed by the chief operating officer of that business, including at subsidiaries consolidated under them. The Company has also set up the risk management department, monitors overall risk management Group-wide, makes corrections and adjustments thereto, and ensures the effectiveness of risk management programs. The risk management organization is defined in the Epson Group Risk Management Basic Regulations.
Epson identifies serious risks that could materially impact the company. Risks that could have serious adverse effects on Epson Group management are considered "serious Group-wide risks." Risks that could have serious adverse effects on business operations are considered "serious business risks." And risks that could have serious adverse effects on subsidiaries' management are considered "serious Group company risks." Epson drafts and executes plans to control these serious risks and periodically monitors their progress. The company also strives to ensure control plan effectiveness by evaluating "serious Group-wide risks" every quarter, evaluating "serious business risks" and "serious Group company risks" every six months, and revising the plans as needed. The president of Seiko Epson reports important risk management affairs to the Board of Directors quarterly.

(2) Risks related to Epson's business operations

① Our operating results, etc. could be adversely affected by fluctuations in printer sales.

The ¥779.9 billion in revenue in the printing solutions segment in the year ended March 31, 2022 accounted for about 70% of Epson's ¥1,128.9 billion in consolidated revenue. Inkjet printers (including printer consumables) for the office and home and for commercial and industrial applications accounted for a large majority of our revenue and profit. Consequently, a decrease in revenue from printers and printer consumables could have a materially adverse effect on our operating results, etc.

② Our financial performance could be adversely affected by competition.

Adverse effects of competition on sales

All of our products, including our core printer and projector products, are subject to the effects of vigorous competition, which could cause, among other things, prices to fall, demand to shift toward lower-priced products, and unit shipments to decline.
We are taking strategic action to address the risk of declines in prices, a shift of demand toward lower-priced products, and declines in unit shipments. On one hand, we must provide products tailored to customer needs in each market along with high-value products and services. On the other hand, we must reduce manufacturing costs by increasing design and development efficiency and by reducing fixed costs.
However, there is no assurance we will succeed in these efforts, and if we are unable to effectively counteract downward pressure on prices, our operating results, etc. could be adversely affected.

Adverse effects of competition on technology

Some of the products that we sell contain technology that places Epson in competition against other companies. For example:

- The Micro Piezo technology[1] that we use in our inkjet printers competes with the thermal inkjet technologies[2] of other companies;

- The 3LCD technology[3] that we use in our projectors competes with other companies' DLP technologies[4], and Epson's projectors also compete against flat panel displays (FPDs)[5] of other companies.

We believe that the technologies we use in these products have competitive advantage over the alternative technologies of other companies. However, if consumer opinion with respect to our technologies changes, or if other revolutionary technologies appear on the market and compete with our technologies, we could lose our competitive advantage in technology and our operating results could be adversely affected.

[1] Micro Piezo technology is an inkjet technology created by Epson that manipulates piezoelectric elements to fire small droplets of ink from nozzles.

[2] Thermal inkjet technology (also known as bubble-jet technology) is a printer technology in which the ink is heated to create bubbles and the pressure from the bubbles is used to fire the ink.

[3] 3LCD technology uses high-temperature polysilicon TFT liquid-crystal panels as light valves. The light from the light source is divided into the three primary colors (red, green and blue) using special mirrors, the picture is created on separate LCDs for each color, and then the picture is recombined without loss and projected on the screen.

[4] DLP technology uses a digital micro-mirror device (DMD) as a display device. A DMD is a semiconductor on which a large number of micro mirrors are arranged, each mirror directing light onto its own individual pixel. An image is formed by the light from the light source being reflected from the mirrors onto the screen. DLP and DMD are registered trademarks of Texas Instruments Incorporated.

[5] FPD encompasses a variety of thin electronic display technologies.

The emergence of new competitors

We presently face competition from powerful companies that have advanced technological capabilities, abundant financial resources, or strong financial compositions. We also face competition from companies around the world that have market recognition, strong supply capacities, or the ability to compete on price. There is, therefore, a possibility that other companies could use their brand power, technological strength, ability to procure funds, marketing power, sales skills, low-cost production ability, or other advantages to enter business areas where we are active.

③ Sudden changes, etc. in the business environment could affect Epson.

Epson seeks to drive office & home printing innovation, commercial & industrial printing innovation, manufacturing innovation, visual innovation, and lifestyle innovation. We are looking to create value truly sought by customers and achieve our vision for each business by making each innovation happen. Epson is executing plans and strategies based on a long-range corporate vision Epson 25 Renewed and each business strategy that we believe will enable us to establish a competitive advantage in technology, which we believe will be crucial for increasing our competitiveness. We are evolving product technologies, including digital technologies and our original core technologies, such as Micro Piezo inkjet technology, microdisplays, sensing, and robotics, all of which arose from Epson's rich legacy of efficient, compact, and precision technologies, as well as the core technologies that underpin these. In this way, we are developing, manufacturing, and selling products and providing services that match customer needs.

However, in the product markets and businesses where Epson is concentrating its management resources the pace of technological innovation is typically rapid, and product life cycles are short. In addition, demand and investment trends in Epson's major markets could change along with global economic conditions and progress of digitalization, and could affect sales of Epson products. Moreover, there is no guarantee that Epson's current long-range corporate vision, business strategies, and actions specified therein will succeed or be realized.

Under these business circumstances, Epson will also continue to strive to make rapid and smooth transition from existing products to new products by understanding market and customer needs, investing and conducting research and development from a medium- and long-range view based on product market forecasts, and creating development and design platforms.

However, if Epson cannot suitably respond to technological innovations in its main markets, or if competition with other companies intensifies, or if economic downturns or other factors prevent a recovery in demand, or if Epson is unable to adequately meet sudden fluctuations in demand in a major market, its operating results, etc. could be adversely affected.

④ Our revenue and earnings could be adversely impacted by sales of third-party inkjet printer consumables.

Ink cartridges etc., which comprise the bulk of consumables sold for inkjet printers, are an important source of revenue and profit for Epson. However, third parties also supply ink cartridges and other inkjet printer consumables

that can be used in Epson printers. These alternative products are typically sold for less than genuine Epson brand consumables and are more prevalent in emerging markets compared to the markets of developed countries.
To counter sales of third-party consumables for inkjet printers, we must emphasize the quality of genuine Epson products and must look to continuously realize customer value by further enhancing customer convenience with inkjet printers tailored to the needs of customers in each market. Printer models equipped with high-capacity ink tanks are an example of such products. We also take legal measures if any of the patent rights or trademark rights we hold over our ink cartridges are infringed upon.
However, there is no assurance that any of these efforts will be effective, and if we experience revenue and profit declines in businesses such as our ink cartridge business as a result of shrinking unit shipments in response to an expansion of sales of third-party alternative products and drop of the market share of genuine Epson products, or if we must lower the prices of Epson brand products to stay competitive, our operating results, etc. could be adversely affected.

⑤ Expanding businesses overseas entails risks for Epson.

We continue to expand our businesses overseas, and overseas revenue accounted for 75% or more of our consolidated revenue for the year ended March 31, 2022. We have production sites all over Asia, including China, Indonesia, Singapore, Malaysia and the Philippines, as well as in the United States, the United Kingdom, and other countries. We have also established many sales companies all over the world. As of the end of March 2022, our overseas employees accounted for approximately 75% of our total workforce.
We believe that our global presence provides many advantages. For example, it enables us to undertake marketing activities aligned with the market needs of individual regions. It also makes us cost-competitive by reducing manufacturing costs and lead times. There are, however, unavoidable risks associated with overseas manufacturing and sales operations. These include but are not limited to changes in national laws, ordinances, or regulations related to manufacturing and sales; social, political or economic changes; transport delays; damage to infrastructure such as electrical power and communications; currency exchange restrictions; insufficient skilled labor; changes in regional labor environments; changes in tax systems overseas and uncertainty with regard to tax administration by tax authorities; protectionist trade regulations; geopolitical risks; and laws, ordinances, regulations or the like that could affect the import and export of Epson products.

⑥ Procuring parts from certain suppliers entail risks for Epson.

We procure some parts and materials from third parties, but we generally conduct ongoing transactions without entering into long-term purchase agreements. We try to have multi-source relating to parts and materials. However, certain parts and materials are procured from a single source because procuring them from an alternative supplier is not possible. We must have procurement operations that are stable and efficient, so we work with our suppliers to maintain product quality, improve products, and reduce costs. However, if our manufacturing and sales activities were to be disrupted due to things such as supplier's parts shortages or quality problems of supplier's parts, our operating results, etc. could adversely be affected.

⑦ Problems could arise relating to quality issues.

The existence of quality guarantees on Epson products and the details of those guarantees differ from one customer account to another, depending on the agreement we have entered into with them. If an Epson product is defective or does not conform to the required standard, it may have to be replaced or repaired or otherwise reworked at Epson's expense. Or, if the product causes personal injury or property damage, we could bear product liability or hold other liability.
We could also be liable to a customer and could incur expenses for repairs or corrections on the grounds that we did not adequately display or explain an Epson product's features or performance. Furthermore, product quality problems could cause loss of trust in Epson products, and we could lose major accounts or see a drop in demand for our products, any of which might adversely affect our operating results, etc.

⑧ Epson's intellectual property rights activities expose Epson to certain risks.

Patent rights and other intellectual property rights are extremely important for maintaining our competitiveness. We have independently developed many of the technologies we need, and we acquire patent rights, trademark rights, and other forms of intellectual property rights for them both in Japan and overseas. We also license the intellectual property rights for products and technologies by entering into agreements with other companies. We have strengthened our intellectual property portfolio by placing personnel in key positions to manage our intellectual property.

If any of the situations envisioned below relating to intellectual property were to occur, our operating results, etc. could adversely be affected.

- An objection might be raised to, or an application to invalidate might be filed with respect to, an intellectual property right of Epson, and as a result, that right might be recognized as invalid.
- A third party to whom we originally had not granted a license could come to possess a license as a result of a merger with or acquisition by another party, potentially causing us to lose the competitive advantage conferred by that intellectual property.
- New restrictions could be imposed on an Epson business as a result of a buyout or a merger with a third party, and we could be forced to spend money to find a solution to those restrictions.
- Intellectual property rights that we hold might not give us a competitive advantage, or we might not be able to use them effectively.
- We or any of our customers could be accused by a third party of infringing on intellectual property rights, which could force us to spend a large amount of time and money to resolve this and associated issues, or which could interfere with our efforts to focus our management resources.
- If a third-party's claim of intellectual property right infringement were to be upheld, we could incur material damage if required to pay large amounts in compensation or royalties or if forced to stop using the applicable technology.
- A suit could be brought against Epson by an employee or other person seeking remuneration for an invention or the like, potentially forcing us to spend significant time and money to resolve the issue and, depending on the outcome, potentially requiring us to pay a large sum as remuneration.

⑨ Epson is vulnerable to environmental risks.

Epson is subject, both in Japan and overseas, to various environmental regulations concerning industrial waste and emissions into the atmosphere that arise from manufacturing processes. In addition, with heightened concern about the response to global climate change accompanying the Paris Agreement, which was adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, companies increasingly need to set more ambitious goals for emissions reductions and strive to accomplish these goals.

Given this situation, Epson is proactively engaged in environmental conservation efforts on multiple fronts in line with "Environmental Vision 2050," through which we aim to become carbon negative and underground resource[6] free by 2050. For example, we have programs to develop and manufacture products that have a small environmental footprint and programs to develop environmental technologies. We also have programs to reduce energy use, promote the recovery, recycling and reusing of end-of-life products, ensure compliance with international substance regulations (primarily the RoHS Directive and REACH regulations in the EU), and improve environmental management systems. For our goals for GHG emissions reduction, we obtained approval from the Science Based Targets initiative (SBTi), and we are working on activities to reduce GHG emissions over the medium to long term, including activities to drive the use of renewable energy, with the aim of achieving the global RE100 in 2023.

As a result of these efforts, Epson has reduced its GHG emissions (Scope 1 and 2) for the 2021 fiscal year to 350,000 tons. This represents an approximately 41% reduction since the 2017 fiscal year, a base fiscal year. In addition, we have completed the transition to renewable energy for electricity used at sites in Japan, and this has increased our renewable energy ratio to approximately 49% globally (on an electric power basis).

We have not had any serious environmental issues to date. In the future, however, it is possible that an environmental problem could arise that would require us to pay damages and/or fines, bear costs for cleanup, or force a halt of production. Moreover, new regulations could be enacted that would require major expenditures, and, if such a situation should occur, Epson's operating results, etc. could be adversely affected.

On the other hand, Epson is advancing initiatives that take addressing the environment as an opportunity. In particular, we have confirmed that there is an opportunity to expand business through products and services that can contribute to customer environmental impact mitigation, and will continue management that takes maximum advantage of opportunities. Specifically, we expect revenue growth through printing, commercial & industrial printing and printhead sales using inkjet technology that realizes the reduction of environmental impacts, higher productivity and the reduction of printing costs as well as the promotion of production systems through the expansion of new production devices that realize the reduction of environmental impacts. In addition, we expect to develop environmental businesses through the application of dry fiber technology, establishment of raw material recycling, etc. as effective solutions for global warming countermeasures and the shift to a circular economy.

[6] Non-renewable resources such as oil and metals

⑩ Epson faces risks concerning the hiring and retention of personnel.

We must hire and retain talented personnel both in Japan and overseas to develop advanced new technologies and manufacture advanced new products, but the competition for such personnel is becoming increasingly intense. We must foster a corporate culture that enables diverse personnel to demonstrate their abilities, create comfortable working environments, and hire and retain talented personnel by, for example, introducing compensation and benefit packages that are commensurate with roles, nurturing talent, implementing diversity initiatives, promoting work-style reform and health management, and proactively promoting people with the right skills overseas. If we are unable to continue to hire and keep enough of such employees, or if we are unable to pass along technologies and skills, our business plans, etc. could be adversely affected.

⑪ Fluctuations in foreign currency exchanges create risks for Epson.

A significant portion of our revenue is denominated in U.S. dollars or the euro. We expanded our overseas procurement and moved our production sites overseas, so our dollar-denominated expenses currently exceed our dollar-denominated revenue. On the other hand, our euro-denominated revenue is still significantly greater than our euro-denominated expenses. On the whole, our revenues in other foreign currencies also significantly exceed our expenses in those currencies. Also, although we use currency forwards and other means to hedge against the risks inherent in foreign currency exchanges, unfavorable movements in the exchange rates of foreign currencies such as the U.S. dollar, euro, or other foreign currencies against the yen could adversely affect our financial position and operating results, etc.

⑫ There are risks inherent in pension systems.

We have a defined-benefit pension plan and a lump-sum retirement payment plan as defined-benefit plans.
We revised the defined-benefit retirement pension plan in April 2014 in response to a drop in the rate of return on pension assets and an increase in the number of beneficiaries. The revisions are designed to enable us to adapt to future market changes and maintain stable operations into the future. However, if there is a change in the operating results of the pension assets or in the ratio used as the basis for calculating retirement allowance liabilities, our financial position and operating results, etc. could be adversely affected.

⑬ Concerning regulatory investigations and investigations conducted by relevant authorities, etc.

Epson develops its business globally, and it could become the subject of various regulatory investigations or investigations conducted by relevant authorities, etc. in any of its businesses in any country or region. For example, in addition to Epson currently being subject in Japan and overseas to proceedings relating to antitrust laws and regulations, such as those prohibiting private monopolies and those protecting fair trade, Epson will in the future be required even more to respond to various laws and regulations and compliance relating to activities pertaining to its efforts to strengthen its sales activities directed at new customers, which will include public organizations, etc.
Under these circumstances, in Epson, we consider compliance to be one of the most important management policies, and for a long time, we have been conducting appropriate, preventive and controlled activities, including worker protection activities as a member of the RBA (Responsible Business Alliance) and further promotion of environmental conservation efforts. Going forward, overseas agencies related to competition law have been conducting investigations or information gathering that have been targeting specific industries, etc., and as part of such investigation, Epson also is being investigated in relation to the market situation and marketing methods in general. Furthermore, sometimes inconsistencies or potential inconsistencies arise in relation to not only anti-bribery regulations, advertising and labeling regulations, personal information protection and privacy regulations but also security trade control, and stricter laws and regulations may get introduced or a strengthening of the operation of laws and regulations may be carried out by the relevant authorities.
Should violations occur in regard to these related laws and regulations, or should investigations or proceedings be carried out by the relevant authorities, such events could interfere with Epson's sales activities. They could also potentially damage Epson's credibility, result in a large civil fine, or result in constraints being placed on Epson's sales activities. Any of these, as well as the added costs to comply with the relevant regulations could adversely affect Epson's operating results and its future business expansion, etc.
As of the date we submitted our Annual Securities Report, investigations into laws and regulations, etc. targeting Epson are provided below.
Regarding the inkjet printer products sold in France, authorities have initiated investigations following an allegation made by a consumer organization in the country in 2017, pursuant to consumer protection law. The consumer organization alleges that Epson shortens the life of its products, which was never Epson's intention. Giving the highest priority to quality and environment, Epson will continue to offer designs that meet customer needs.

Progress, result and resolution timing of the investigations, and their impact on Epson's operating results and its future business development, etc. are not predictable at this time.

⑭ Epson is at risk of material legal actions being brought against it.

Epson conducts businesses internationally. We are engaged primarily in the development, manufacture and sales of products related to printing solutions, visual communications, and manufacturing-related & wearables, as well as the provision of services related thereto. Given the nature of these businesses, there is a possibility that an action could be brought or legal proceedings could be started against Epson regarding, for example, intellectual property rights, product liability, antitrust laws or environmental regulations.

As of the date we submitted our Annual Securities Report, Epson was contending with the following material actions.

In 2010, Epson Europe B.V. ("EEB"), a consolidated subsidiary of the Company, brought a civil suit against La SCRL Reprobel ("Reprobel"), a Belgium-based group that collects copyright royalties, seeking restitution for copyright royalties for multifunction printers. With Reprobel subsequently filing a suit against EEB, the two lawsuits were adjoined. EEB's claims were rejected at the first trial, but EEB, dissatisfied with the decision, intends to appeal.

It is difficult at this time to predict the outcome of these civil actions and when they may be settled, but our operating results and future business development, etc. could be affected, depending on the outcomes of suits and legal proceedings.

⑮ Epson is vulnerable to certain risks in internal control related to financial reporting.

We are building and using internal controls to ensure the reliability of financial reporting. With the establishment and operation of internal controls for financial reporting high on our list of important management issues, we have been pursuing a Group-wide effort to audit and improve corporate oversight of our Group companies. However, since there is no assurance that we will be able to establish and operate an effective internal control system on a continuous basis, and since there are inherent limitations to internal control systems, if the internal controls that Epson implements fail to function effectively, or if there are deficiencies in internal control related to financial reporting or material weaknesses to be disclosed in the internal controls, it might adversely affect the reliability of our financial reporting.

⑯ Epson is vulnerable to risks inherent in its tie-ups with other companies.

One of our business strategy options is to enter into business tie-ups with other companies. However, the parties may review the arrangements of tie-ups, and there is a possibility that tie-ups could be dissolved or be subject to changes. There is also no assurance that the business strategy of tie-ups will succeed or contribute to our operating results, etc. exactly as expected.

⑰ Epson could be severely affected in the event of a natural disaster or an infectious disease, etc.

We have research and development, procurement, manufacturing, logistics, sales and service sites around the globe, and our operating results and future business development, etc. could be adversely affected by any number of unpredictable events, including but not limited to natural disasters, pandemics involving new infectious diseases such as COVID-19 infection, supply chain disruptions mainly caused by natural disasters on suppliers, and acts of terrorism or war.

The central region of Nagano Prefecture, home to some of our key plants and offices, is an area that is at comparatively high risk of earthquakes due to the presence of an active fault zone along the Itoigawa-Shizuoka geotectonic line. Accordingly, in addition to earthquake-proofing its equipment and facilities, Epson conducts disaster drills, has prepared earthquake disaster management and response plans, and has established business continuity plans to mitigate the effects of disasters to the extent possible.

However, if a major earthquake occurs in the central region of Nagano Prefecture, it is possible that, despite these countermeasures, the effect on Epson could be extreme. Although Epson is insured against losses arising from earthquakes, the scope of indemnification is limited.

In addition, the spread of the COVID-19 infection will affect Epson. If stoppages or long delays in procurement, production, shipping, and logistics due to government imposed measures such as lockdowns and closures; weak consumer spending; a drop in capital expenditure demand; delays in B2B business and tender opportunities; and other factors are prolonged or expanded, Epson's financial position and operating results could be affected.

Under these circumstances, Epson gives the highest priority to safety and health of its employees and their family, and all stakeholders including customers and shareholders, and works to promptly advance measures to normalize production and sales operations to get out of these confusions as early as possible. Moreover, although adequate

financial soundness has been maintained at this stage, Epson makes the best possible efforts for financing by concluding commitment line contracts with financial institutions and other means.
During the period under the influence of the spread of the COVID-19 infection, as well as after the influence settles down, our society will see people's lifestyle drastically shifting to a one where traveling, human contact and face-to-face interaction are no more essential. In response to these major changes to be faced by society, we will further accelerate our initiatives based on the long-range corporate vision Epson 25 Renewed and each business strategy, and proactively work on business opportunities by addressing anticipated social issues in a proactive manner as our policy in order to minimize these risks.

⑱ Epson faces risks concerning the information security

The scope of what Epson's network of information systems are used for and frequency of use continue to grow, and this network is becoming increasingly important. Also, in our global business activities, we handle the personal information of customers and confidential data of business partners. Security threats are increasing year on year and our operating results and future business development, etc. could be adversely affected by occurrences such as computer virus infections, leaks of customer data, failures of key internal systems, cyber-attacks, and reputational damage through social media.
We are responding to this by carrying out information security training for all employees, as well as establishing a grand design that specifies policies concerning cyber security measures, and we are implementing various measures under this. We also plan to engage in initiatives such as establishing a global security incident response structure, planning and implementing cyber security response measures, and strengthening product security.

3. Management analysis of financial position, operating results and cash flows

(1) Operating results overview

① Operating results

Global growth, negative in the prior year, surged during the year under review as demand rebounded with the relaxation of lockdowns in many countries. Even as the world economy continues to recover from the COVID-19 pandemic, however, shortages of semiconductors and other components and disruptions of global supply chains due to logistics delays persist. The turmoil in global supply chains could both expand and persist due to China's zero-COVID policy (and lockdowns) and Russia's invasion of Ukraine. The global economic recovery is expected to decelerate, with many countries tightening their monetary policies in the face of expanding and persistent inflationary pressures.

The average exchange rates of the yen against the U.S. dollar and of the yen against the euro during the year were ¥112.37 and ¥130.55, respectively. This represents a 6% depreciation of the yen against the dollar and a 6% depreciation of the yen against the euro compared to the prior period. The yen also weakened against the currencies of some emerging countries, in places such as China and Latin America.

In this business environment, operating results in the fiscal year under review are as follows.

(Billions of yen)

	Year ended March 31, 2021	Year ended March 31, 2022	Change	Percentage of change	Main reason(s) for change
Revenue	995.9	1,128.9	132.9	13.4%	[Revenue] Printing Solutions Segment 88.7 Visual Communications Segment 17.5 Manufacturing-related and wearables 26.5 [Business profit] Printing Solutions Segment 0.2 Visual Communications Segment 14.0 Manufacturing-related and wearables 17.7
Cost of sales	(643.5)	(710.4)	(66.8)	–	
Gross profit	352.3	418.4	66.0	18.8%	
Selling, general and administrative expenses	(290.7)	(328.8)	(38.0)	–	
Business profit *	61.6	89.6	27.9	45.4%	
Other operating income and Other operating expense	(13.9)	4.8	18.8	–	Increases in foreign exchange gains
Profit from operating activities	47.6	94.4	46.8	98.3%	
Finance income and Finance costs	(2.8)	2.5	5.3	–	Increases in foreign exchange gains
Profit before tax	44.9	97.1	52.2	116.2%	
Income taxes	(13.9)	(4.8)	9.0	–	Decrease mainly due to an increase in deferred tax assets
Profit for the period	30.9	92.3	61.3	197.8%	
Profit for the period attributable to owners of the parent company	30.9	92.2	61.3	198.4%	

* Business profit is calculated after deducting cost of sales and selling, general and administrative expenses from revenue.

A breakdown of operating results in each reporting segment is provided below. The reporting segments were changed at the start of the fiscal year based on the Epson 25 Renewed corporate vision established in March 2021. The three reporting segments are printing solutions, visual communications, and manufacturing-related and wearables. Each

reporting segment is the same as the segments used in "V. Financial Information, 1. Consolidated financial statements, etc., (1) Consolidated financial statements, Notes to Consolidated Financial Statements, 7. Segment Information."

Printing Solutions Segment

Revenue in the office and home printing business increased. High-capacity ink tank printer and ink cartridge printer sales sharply increased. Print demand from people working and learning from home has been settling down compared to last fiscal year but still carried over into the current fiscal year. Revenue also rose because we were able to grow unit sales of high-capacity ink tank printers in North America and elsewhere while also sustaining higher selling prices, though revenue was tempered somewhat by constrained product supply associated with logistics delays and component shortages. Sales of consumables decreased compared to the prior period, when sales sharply increased on extra demand from those working and learning from home.

Revenue in the commercial and industrial printing business sharply increased. Large-format inkjet printer revenue increased owing largely to a rebound in demand in Europe and the Americas and to the launch of new products, though the increase was modulated by product shortages and an economic slowdown in China, which resulted in a deceleration of the signage market. Sales of consumables increased in Europe, the Americas, and China. Small printer sales were hit hard by component shortages, which limited our ability to supply products, but we increased sales by meeting increased demand from the retail and food service industry in Europe, the Americas, and China. Printhead sales increased primarily on continued strong sales in China.

Segment profit in the printing solutions segment was in line with the prior period despite a decrease in sales of ink cartridge printer consumables and soaring transport costs and component prices, which hurt profitability. The increase in segment profit was primarily the result of a combination of increased revenue from sales of high-capacity ink tank printers, large-format inkjet printers, and small printers, pricing measures taken in response to the balance between supply and demand, ongoing reductions of advertising and promotion costs and other fixed costs, and positive foreign exchange effects.

As a result of the foregoing factors, revenue in the printing solutions segment was ¥779.9 billion, up 12.8% compared to the prior period. Segment profit was ¥106.4 billion, up 0.2% compared to the prior period.

Visual Communications Segment

The visual communications business was unable to fully meet the robust demand due to product shortages, yet revenue grew primarily through pricing measures and an improved model mix.

Segment profit in visual communications sharply increased primarily due to a combination of higher revenue, continued cost containment associated with business restructuring, and positive foreign exchange effects.

As a result of the foregoing factors, revenue in the visual communications segment was ¥159.0 billion, up 12.4% compared to the prior period. Segment profit was ¥15.3 billion, up 1,038.4% compared to the prior period.

Manufacturing-Related & Wearables Segment

Revenue in the manufacturing solutions business increased despite a loss of sales associated with the transfer of the IC test handler business. Revenue increased mainly due to an increase in sales to customers in China in the lithium-ion battery manufacturing industry, a recovery in demand for automotive products in Europe, and the capture of medical market demand in the Americas.

Revenue in the wearable products business increased on strong sales of luxury products and on sales of watch movements as demand recovered.

Revenue in the microdevices business as a whole sharply increased. Crystal device revenue sharply increased on a continuing rise in demand for in-vehicle applications and a wider range of other applications. Meanwhile, semiconductor sales also increased on robust demand.

Segment profit in the manufacturing-related and wearables segment sharply increased owing to higher revenue and cost containment associated with business restructuring in the wearable products business.

As a result of the foregoing factors, revenue in the manufacturing-related and wearables segment was ¥191.9 billion, up 16.0% compared to the prior period. Segment profit was ¥23.0 billion, up 336.0% prior period.

Adjustments

Adjustments to the total profit of reporting segments amounted to negative ¥55.2 billion. (Adjustments in the previous fiscal year were negative ¥51.2 billion.) The main components of the adjustment were basic technology research and development expenses that do not correspond to the reporting segments and earnings and expenses associated with things such as new businesses and corporate functions.

② Cash flow performance

Net cash from operating activities during the year totaled ¥110.8 billion. The total for the previous year was ¥133.2 billion. Whereas Epson recorded ¥92.3 billion in profit for the period, there was a ¥28.2 billion increase in inventories and ¥22.4 billion in income taxes paid. Net cash was positively affected by the recording of ¥64.5 billion in depreciation and amortization.

Net cash used in investing activities totaled ¥44.0 billion (compared to ¥57.4 billion in the previous year), mainly because Epson used ¥43.8 billion in the acquisition of property, plant, equipment and purchase of intangible assets.

Net cash used in financing activities totaled ¥51.7 billion (compared to ¥23.1 billion in positive net cash in the previous year), chiefly due to ¥21.4 billion in dividends paid and ¥20.0 billion in redemption of bonds.

As a result, cash and cash equivalents at the end of the fiscal year totaled ¥335.2 billion (compared to ¥304.0 billion at the end of the previous fiscal year).

③ Manufacturing, orders received and sales

a. Actual manufacturing

The following table shows actual manufacturing information by segment in the fiscal year under review.

Business segment	Year ended March 31, 2022 (From April 1, 2021, to March 31, 2022) (Millions of yen)	Change compared to previous fiscal year (%)
Printing solutions	808,200	110.1
Visual communications	160,687	112.1
Manufacturing-related and wearables	184,338	118.3
Total for the reportable segments	1,153,227	111.6
Other	–	–
Total	1,153,227	111.6

(Notes) 1. The above figures are based on sales prices. Intersegment transactions are offset and therefore eliminated.

2. The above figures include outsourced manufacturing.

b. Orders received

Epson’s policy is to manufacture products based on sales forecasts. Accordingly, this section does not apply.

c. Actual sales

The following table shows actual sales information by segment in the fiscal year under review.

Business segment	Year ended March 31, 2022 (From April 1, 2021, to March 31, 2022) (Millions of yen)	Change compared to previous fiscal year (%)
Printing solutions	779,920	112.8
Visual communications	159,034	112.4
Manufacturing-related and wearables	182,586	116.2
Total for the reportable segments	1,121,540	113.3
Other	7,373	120.6
Total	1,128,914	113.4

(Notes) 1. Intersegment transactions are offset and therefore eliminated.

2. No customer accounts for more than 10% of the actual total sales.

(2) Management analysis and discussion on operating results, etc.

Recognition and details of analysis/discussions on Epson's operating results, etc. from the management's perspective are as follows:

All forward-looking statements hereunder were made at Epson's discretion based on the forecasts and certain assumptions at the end of the fiscal year. These statements may differ from actual results and are not guarantees of the achievement.

① Operating results, etc.

Financial position

Total assets at the end of the fiscal year were ¥1,266.4 billion, an increase of ¥105.1 billion from the previous fiscal year end. This increase was mainly due to a ¥52.0 billion increase in inventories, a ¥31.2 billion increase in cash and cash equivalents, and a ¥10.9 billion increase in deferred tax assets.

Total liabilities were ¥600.6 billion, a decrease of ¥7.6 billion compared to the end of the last fiscal year. Although trade and other payables increased by ¥12.0 billion, total liabilities decreased mainly due to a ¥22.7 billion decrease in bonds issued, borrowings and lease liabilities.

The equity attributable to owners of the parent company totaled ¥665.6 billion, a ¥114.7 billion increase compared to the previous fiscal year end. While Epson recorded ¥92.2 billion in profit for the period attributable to owners of the parent company and recorded ¥43.9 billion in other comprehensive income, the primary component of which was exchange differences on translation of foreign operations, there were ¥21.4 billion in dividend payments.

Working capital, defined as current assets less current liabilities, was ¥502.4 billion, an increase of ¥68.3 billion compared to the end of the previous fiscal year.

Operating results

The operating results are provided in "(1) Operating results overview ① Operating results."

Cash flow performance

The cash flow performance is provided in "(1) Operating results overview ② Cash flow performance."

② Capital resources and liquidity

Epson plans to allocate ¥71.0 billion to capital expenditures for the fiscal year ending March 31, 2023, and the required funds will be covered by internal funds.

The amount of planned capital expenditures for each segment is as described in "III. Information About Facilities 3. Plans for new additions or disposals." The above amount of planned capital expenditures includes capital expenditures through leases.

In order to stably secure funds necessary for business activities such as capital expenditures, Epson raises funds through utilization of internal funds as well as borrowings from financial institutions and issuance of bonds.

The balance of interest-bearing debt at the end of the fiscal year under review was ¥243.1 billion, down ¥22.7 billion compared to the previous fiscal year end, due to redemption of bonds. The balance of cash and cash equivalents at the end of the fiscal year under review totaled ¥335.2 billion, up ¥31.2 billion compared to the end of the last fiscal year, giving Epson sufficient liquidity.

In addition, amid an uncertain outlook due to the COVID-19 pandemic, the Company entered into a commitment line contract for an environmentally conscious financing product with a main partner bank in May 2020, as part of its efforts to strengthen the financial foundation in preparation for emergencies. There is no outstanding balance of executed borrowings based on the said commitment line contract as of March 31, 2022.

Epson has earned a credit rating from Rating and Investment Information, Inc. The rating was A (single A) as at the end of the fiscal year under review.

③ Management policy, corporate strategy, objective indices to assess the status of achievement of management goals, etc.

As stated in "II. Overview of Business 1. Management policy, business environment and issues to be addressed, etc.," Epson boldly undertakes challenges and strives to make innovations beyond its own conventions and vision in order to solve social issues, based on the Company's unique strengths of efficient, compact, and precision technologies since the time of its founding. We are making efforts to have all employees share values and act autonomously while demonstrating their comprehensive strengths. By doing so, we will continuously create and provide game-changing customer value in a timely fashion, play a central role as an indispensable company in building a better society, and achieve sustainable growth and improvement of our corporate value over the medium to long term.

In March 2021, we revised our Corporate Vision and established “Epson 25 Renewed,” with the goal of achieving sustainability and enriching communities, which we have set as our aspirational goal to pursue into the future. In response to environmental issues that Epson views as very important, we have revised Environmental Vision 2050 with the aims of becoming carbon negative and underground resource* free by 2050.

* Non-renewable resources such as oil and metals

Additionally, the status of progress on financial targets set with the aim of realizing our Corporate Vision is provided in “II. Overview of Business 1. Management policy, business environment and issues to be addressed, etc.”

④ Significant accounting estimates and assumptions used for those estimates

The consolidated financial statements of Epson are prepared in conformity with IFRS in accordance with the provision of Article 93 of “Ordinance on Terminology, Forms and Preparation Methods of Consolidated Financial Statements.” Estimates that are deemed necessary have been made based on reasonable criteria.

Significant accounting policies applied in the consolidated financial statements of Epson, accounting estimates, and assumptions used for those estimates are provided in “V. Financial Information, 1. Consolidated Financial Statements etc., Notes to Consolidated Financial Statements, 3. Significant Accounting Policies and 4. Significant Accounting Estimates and Judgments.”

4. Major management contracts

Reciprocal technical assistance agreements

Name of contracting company	Name of other party	Country	Type of contract	Contract period
Seiko Epson Corporation	HP Inc.	U.S.A.	License to use patents relating to information-related equipment	March 28, 2018 until the expiry of the patents
Seiko Epson Corporation	International Business Machines Corporation	U.S.A.	License to use patents relating to information-related equipment	April 1, 2006 until the expiry of the patents
Seiko Epson Corporation	Microsoft Corporation	U.S.A.	License to use patents relating to information-related equipment and software used by such equipment	September 29, 2006 until the expiry of the patents
Seiko Epson Corporation	Eastman Kodak Company	U.S.A.	License to use patents relating to information-related equipment	October 1, 2006 until the expiry of the patents
Seiko Epson Corporation	Xerox Corporation	U.S.A.	License to use patents relating to electrophotography and inkjet printers	March 31, 2008 until the expiry of the patents
Seiko Epson Corporation	Canon Incorporated	Japan	License to use patents relating to information-related equipment	August 22, 2008 until the expiry of the patents
Seiko Epson Corporation	BROTHER INDUSTRIES, LTD.	Japan	License to use patents relating to information-related equipment	June 28, 2018 until the expiry of the patents

5. Research and development activities

Epson seeks to co-create sustainability and enrich communities to connect people, things, and information by leveraging efficient, compact, and precision technologies that have been an Epson strength since its founding in addition to digital technologies. To this end, Epson places research and development activities as a part of initiatives to strengthen the business infrastructure, and promotes the evolution of foundational technologies, core technologies and product technologies to realize innovation. Going forward, the corporate R&D division and the R&D units of the operations divisions are teaming up to strengthen materials, AI and digital technologies in particular and strengthen the manufacturing foundation, primarily in growth areas and new areas. Together, they are laying a technological foundation to create new businesses, strengthen existing ones, and increase the competitiveness of all Epson products. Epson considers co-creation is an important factor in technology development. We are pursuing "front-loading of development," with knowledgeable people from all functions participating from the start of development (the trial-and-error stage) and verifying quality at each subsequent stage. By front-loading development to speed up the problem-solving cycle and increase the quality of development, we will speed up productization and commercialization.
Total R&D spending during the fiscal year was ¥46.0 billion. The printing solutions segment accounted for ¥18.3 billion, the visual communications segment for ¥5.5 billion, and the manufacturing-related and wearables segment for ¥5.9 billion. The "other" segment and corporate segment accounted for the remaining ¥16.1 billion.
The main R&D accomplishments in each segment are described below.

Printing solutions segment
In commercial and industrial printing, Epson launched in its SureColor Series, two large ink-jet printers as the first six-color models suitable for poster printing. The SC-T7750D model supports B0+ paper and comes with a vivid red ink suitable for POP applications. The SC-P8550D model supports B0+ paper and comes with a gray ink suitable for high-grade posters that value tonality of colors such as in human skin. Loaded with a PS unit[1] with a new engine as a standard feature, the models enable fast, accurate printing of PDF files with special processing, such as a clear, special color layer and over-printing processing. Both of these printers have a thin box shape and a depth of 500 mm, achieving a reduction of roughly 25%[2] in installation space from the conventional model.
Epson launched the ML-64000 for textile printing as a new product in the Mona Lisa series of inkjet digital textile printers. In the apparel and fashion industries, initiatives toward sustainable fashion that take into account environmental impacts are rapidly expanding. Also in the textile printing market, the shift to digital textile printing is progressing to achieve production processes that reduce environmental impacts and contribute to reducing processing burden in an effort to realize a sustainable society. The ML-64000 model is equipped with 64 of the latest PrecisionCore printheads and realizes high productivity with a fast printing speed of 774 m^2 per hour (600×600 dpi – 2Pass) while using the standard mode. Epson's Dynamic Alignment Stabilizer (DAS) technology ensures stable print quality by controlling waveforms on each printhead chip for higher dot placement accuracy and more uniform dot density on each pass.
Epson launched T3200 printheads for signage applications, easily allowing printers to deliver high print quality at a fast speed. T3200 enables simultaneous, high-quality four-color CMYK printing at high speed from a single printhead. Furthermore, incorporating a heater in the printhead makes printing possible even with highly viscous UV ink, and thus can provide an optimal digital printing environment especially for printing signage and product packages.
Epson also launched the SD-10 spectrophotometer as a product to help solve issues in color matching in a wide range of design-related operations. The product uses nine light sources lined in a ring-shaped manner and measures color quickly and accurately. The time needed for color matching could be reduced since the product does not catch the unevenness of the media surface and produces accurate figures at once. Conventionally, the task of accurately matching colors was dependent on the experience and sensory perception of specified operators in many cases. The use of spectrophotometer enables even persons without special knowledge to measure and match colors based on numerical output, and this helps to standardize operations.

[1] Compatible with Adobe® PostScript®. Can be used with both a PS unit and SSD. If only the PS unit is applied, reprinting is not available.
[2] In comparison with SC-P8050.

Visual communications segment

Epson launched eight models of six laser business projectors that realize high-contrast visual projection. These models enable bright, sharp large-screen projections that provide excellent visuals even when seen from the back of a spacious room such as a medium or large conference room of a company or a school auditorium. The standard models are equipped with a function to shift the lens up-down (50%) and right-left (20%), offering greater freedom in the place of installation. The high-brightness models realize a screen resolution of a 4K level based on our 4K Enhancement Technology that shifts each pixel diagonally by 0.5 pixels, providing high-definition, high-resolution images suitable for large spaces.

Epson also released two new products in the dreamio series of 3LCD home projectors: EH-LS12000 and EH-TW5825. The EH-LS12000 model delivers 2,700 lm of brightness and high-contrast laser images, enabling users to enjoy super-sharp 4K[3] big-screen images. In addition, we newly installed an automatic contrast enhancement feature that automatically adjusts the contrast and makes a certain part of the image sharp and explicit, as well as a scene-based gamma adjustment feature that optimizes the tone projection by scene to deliver explicit images. The EH-TW5825 model delivers 2,700 lm of brightness, enabling full HD image projection and targets users who enjoy video distribution services, etc. on large screens.

[3] Screen resolution that adopts dual-axis shift technology

Manufacturing-related and wearables segment

In the manufacturing solutions business, Epson developed a new industrial 3D printer that can use commonly available materials. The printer employs a unique material extrusion method that is achieved using a flat screw[4] like that found in Epson's compact injection molding machines. This extrusion method enables the printer to be used with a variety of common third-party materials, such as resin or metal pellets, which are generally available at lower cost than other materials, environmentally considerate biomass pellets, and PEEK materials, which can provide high heat resistance. In addition, the amount of material injected is precisely controlled by regulating the pressure within the head and by regulating the action of a valve in concert with the modeling speed. The temperature at the surface of a piece being printed is also controlled to obtain the required strength. Epson employs a unique mechanism to precisely control this temperature and achieve both strength and accuracy. This 3D printer is thus engineered to manufacture strong, accurate objects with commonly available materials, facilitating printer use in the production of industrial parts for final products. It contributes to promoting mass customization, as it can produce small batches of parts tailored to customers' needs with high quality, shorter lead times, and at lower costs.

In the microdevices business, Epson developed M-G370PDS0, an inertial measurement unit (IMU)[5] equipped with a high-performance 6-axis sensor. In recent years, IMU use has expanded into fields such as surveying and aerial and underwater video photography by unmanned systems, creating a growing need for more accurate position and attitude control. Accordingly, demand is rising for IMUs that offer greater precision, which is crucial in attitude control, and especially noise performance. The M-G370PDS0 can more accurately detect very slight changes in the attitude of equipment and systems, since they do not get lost in sensor noise. Furthermore, the small size, light weight and lower power consumption of this IMU will also help customers make their own products smaller and lighter.

[4] An inline screw with a flattened configuration.

[5] Inertial Measurement Unit (IMU) is a device that is used for sensing inertial motion. It is comprised of triaxial angular rate sensors and triaxial accelerometers.