

## **Risks Related to Epson's Business Operations**

At present, we have identified the following significant factors as 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.

We strive to recognize, prevent, and control potential risks and to address risks that materialize.

Also, all forward-looking statements hereunder were made at Epson's discretion as of the date we submitted our Annual Securities Report.

### **1. Our operating results could be adversely affected by fluctuations in printer sales.**

The ¥736.6 billion in revenue in the printing solutions segment in the year ended March 2018 accounted for about two-thirds of Epson's ¥1,102.1 billion in consolidated revenue. Inkjet printers (including printer consumables) for the home, office, 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.

### **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 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 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<sup>1</sup> that we use in our inkjet printers competes with the thermal inkjet technologies<sup>2</sup> of other companies;
- The 3LCD technology<sup>3</sup> that we use in our projectors competes with other companies' DLP technologies<sup>4</sup>, and Epson's projectors also compete against flat panel displays (FPDs)<sup>5</sup> 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.

<sup>1</sup> Micro Piezo technology is an inkjet technology created by Epson that manipulates piezoelectric elements to fire small droplets of ink from nozzles.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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 inkjet innovation, visual innovation, wearables innovation, and robotics innovation. We are looking to achieve our vision for each business by providing value to customers in the form of smart technologies, environmental benefits, and functional performance. Epson is executing plans and strategies based on a long-range corporate vision and a mid-range business plan 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 driving further advances in our original core technologies, including Micro Piezo inkjet technology, microdisplays, sensing, and robotics, all of which arose from Epson's rich legacy of efficient, compact, and precision technologies. By combining these technologies to create platforms, 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 mid-range business plan, 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 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 our ink cartridge revenue and profit declines because unit shipments of Epson brand ink cartridges shrink as sales of third-party alternative products expand and as we lose market share, or if we must lower the prices of Epson brand products to stay competitive, our operating results could be adversely affected.

### **5. Expanding businesses overseas entails risks for Epson.**

We continue to expand our businesses overseas, and overseas revenue accounted for approximately 75% of our consolidated revenue for the business year ended March 2018. 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 2018, 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. 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 products from certain suppliers entails 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 supplier's quality problems, our operating results 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.

#### **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 must strengthen 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 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 engage in environmental conservation efforts on multiple fronts in line with a mid-range action plan and “Environmental Vision 2050,” a document that states our long-term goals for reducing our CO<sub>2</sub> emissions and other environmental impacts. For example, we have programs to develop and manufacture products that have a small environmental footprint. We also have programs to reduce energy use, promote the recovery and recycling 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.

As a result of these efforts, Epson has reduced its CO<sub>2</sub> emissions for the 2017 fiscal year to 590,000 tons. This represents an approximately 40% reduction since the 2006 fiscal year, which is the baseline year in “Environmental Vision 2050.”

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 could be adversely affected.

#### **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 hire and retain talented personnel by, for example, introducing compensation and benefit packages that are commensurate with roles and by 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, we could find it difficult or impossible to execute our business plans.

#### **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 situation and operating results.

#### **12. There are risks inherent in pension systems.**

We have a defined-benefit pension plan and a lump-sum payment on retirement 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 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. 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.

As of the date we submitted our Annual Securities Report, investigations into laws and regulations, etc. targeting Epson are provided below.

Regarding allegations of involvement in a liquid crystal display price-fixing cartel, the Company is currently under investigation by certain anti-monopoly-related authorities.

Furthermore, regarding the inkjet printer products sold in France, authorities have initiated investigations following an allegation made by a consumer organization in the country, 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 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 printing solutions, visual communications equipment, and wearable and industrial products, 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 June 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 could be affected, depending on the outcomes of suits and legal proceedings.

#### **15. Epson is vulnerable to certain risks in internal control over 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 over financial reporting or material weaknesses 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 exactly as expected.

#### **17. Epson could be severely affected in the event of a natural or other disaster.**

We have research and development, procurement, manufacturing, logistics, sales and service sites around the globe, and our operating results could be adversely affected by any number of unpredictable events, including but not limited to natural disasters, pandemics involving new strains of the influenza virus, infection by computer viruses,

leaks or theft of customer data, reputational damage on social networking services (SNS), failures of mission-critical internal IT systems, cyber-attacks, supply chain disruptions, 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.