To continuously improve its corporate value, TDK places importance on active information disclosure to and mutual communication with stakeholders. We have changed the title of this report from Annual Report to Integrated Report. The content includes the TDK Value Structure, which outlines our value system, and, centering on our current Medium-Term Plan, value creation stories, sustainability information, and our governance setup. Our aim is to convey our medium- to long-term efforts to enhance corporate value in an easy-to-understand manner.

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## Outlook for the global electric motorcycle market (aggressive forecast)

<table>
<thead>
<tr>
<th>Year</th>
<th>Result</th>
<th>Forecast</th>
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<tbody>
<tr>
<td>2019</td>
<td>2,338</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>2,663</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>3,170</td>
<td>3,880</td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td>5,020</td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td>7,400</td>
</tr>
<tr>
<td>2025</td>
<td></td>
<td>13,050</td>
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<tr>
<td>2030</td>
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(Thousand units)

As countries around the world reinforce restrictions on CO₂ emissions against the backdrop of global environmental issues, the electrification of motorcycles is also progressing rapidly. It is projected that the market for electric motorcycles will expand on a global scale, particularly in China, India, and ASEAN countries, where motorcycles are an important means of day-to-day transportation. TDK is focusing on the electric motorcycle field in parallel with residential energy storage systems as a use for power cells (medium-size rechargeable batteries). TDK is working to develop compact, lightweight, and high-power lithium ion batteries for motorcycles.

## Forecast of global demand for rechargeable batteries

<table>
<thead>
<tr>
<th>Year</th>
<th>Industrial equipment, non-ICT</th>
<th>ICT</th>
<th>Stable markets</th>
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<tr>
<td>2021</td>
<td>2,338</td>
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For electric motorcycles to proliferate on a major scale, development of charging stations and other infrastructure, increasing range, and reducing charging times will be essential. The pouch-type (laminated) lithium ion batteries for electric motorcycles developed by ATL/Poweramp, a TDK Group company, use proprietary Multiple Tabs Winding technology to effectively control the temperature increase when the battery is discharging to prevent a decrease in electrical resistance, a cause of overheating and reduced output, and achieve high-power, stable discharging. In addition, the use of Flash Fast Charging technology makes rapid charging to 80% of capacity in just 25 minutes possible. TDK will seek further advances in efficiency, safety, and convenience to contribute to the widespread adoption of electric motorcycles as next-generation micro-mobility.

## Leading the industry with high-power, long-life, rapid-charging medium-size rechargeable batteries

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## The Challenges to Power Cells

As countries around the world reinforce restrictions on CO₂ emissions against the backdrop of global environmental issues, the electrification of motorcycles is also progressing rapidly. It is projected that the market for electric motorcycles will expand on a global scale, particularly in China, India, and ASEAN countries, where motorcycles are an important means of day-to-day transportation. TDK is focusing on the electric motorcycle field in parallel with residential energy storage systems as a use for power cells (medium-size rechargeable batteries), TDK is working to develop compact, lightweight, and high-power lithium ion batteries for motorcycles.

**Source:** Yano Research Institute Ltd., *Global Motorcycle Market: Key Research Findings 2021*, released June 16, 2021

* Excluding electric bicycles with a maximum speed of 25 kph or less

* The aggressive forecast assumes that problems impeding the introduction of electric motorcycles (such as battery cost and charging infrastructure) will be resolved and that vehicle prices will decrease to levels that are equivalent to and competitive with existing internal combustion engine (ICE) motorcycles as a result of expansion of the scale of production and other factors.
Supporting Autonomous Driving with Passive Components

Advances in technology including advanced driving assistance systems (ADAS) and autonomous driving and the spread of eco-cars including electric vehicles of various types (xEVs) result in a rapid increase in ECUs used in vehicles and substantial growth in demand for automotive passive components such as capacitors and inductors. In conjunction with these developments, there are demands for automotive passive components to be more compact, have higher performance, and to reliably maintain their performance over long periods. TDK is supporting advances in the automotive fields from a variety of directions by meeting these needs and developing high-reliability power inductors for automobiles compatible with the high frequencies of ECUs.

Leading the market with proprietary technologies that use multiple elemental technologies essential for achieving autonomous driving performance

As the safety of automobiles increases as a result of the functions of ADAS, autonomous driving, and so on, demand is also increasing for more reliable automotive ECUs, including redundant designs that can continue to operate even if a defect occurs and for zero defect designs that increase the reliability of the parts themselves. TDK is employing a variety of processes in inductors, including wire winding, multilayering, and thin films to provide compact, high-performance, and high-reliability products. For automotive power inductors in particular, we combine ferrite and metal materials with different elemental technologies, such as wire winding and thin films, to provide the optimal product for each application, and we have an extensive lineup of highly reliable products that are expected to expand to meet a variety of customer applications.
The amount of digital data generated worldwide is increasing explosively as a result of the spread of 5G communications and edge computing, and as a result, the need for storage (recording devices) to record this data is increasingly growing. Storage includes solid state drives (SSDs), which use semiconductor elements, but the mainstream storage used in data centers is the hard disk drive (HDD), which has high capacity and excellent cost per data volume. As a specialized manufacturer of magnetic heads, a key component of HDDs, TDK is tackling the challenges of increasing HDD capacity even further.

The recording density of current HDDs is 1 Tb/in². This requires one trillion magnets lined up in a one-inch square, and with current technology, data writing is approaching its physical limits. To overcome this issue, we are developing two technologies known as microwave assisted magnetic recording (MAMR) and heat assisted magnetic recording (HAMR). We do not yet know which of these two approaches will become the mainstream in the future, so we are conducting technology development in parallel, with the results of research in each area being used in the other, to fulfill our responsibilities as a specialized manufacturer. If we are able to achieve practical application of these next-generation technologies, we can increase HDD recording density to 4 Tb/in², and the capacity of 3.5-inch drives will be increased by about four times the current capacity to the 40 TB to 60 TB range.

Working toward practical application of 60 TB 3.5-inch HDDs

Moris Dovek
CTO
Headway Technologies, Inc.

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Augmented reality (AR) and virtual reality (VR) systems are expanding beyond the entertainment field to industry, education, medical, and various other fields. It is forecast that the AR/VR market will exceed ¥3 trillion as AR and VR are used for simulations of highly complicated work, surgery, and more. Among the sensing technologies that are essential for these systems, ultrasonic sensors that use a technique known as Time-of-Flight (ToF) in particular are attracting attention.

TDK is developing and supplying ultrasonic ToF sensors that are ultracompact—just one-one thousandth the volume of earlier sensors—and achieve low power consumption.

**Ultra-Compact Sensors Drive Advances in AR/VR**

The ultrasonic “ToF” sensor “CH-101” enables realistic interaction with objects and people in virtual space due to its ability to accurately measure the distance between the sensor and nearby objects. The ultrasonic method can detect accurate distances regardless of lighting conditions, object size, and color. There are ToF sensors that use infrared light rather than ultrasonic waves, but these infrared sensors do not work well in sunlight, cannot detect dark-colored objects or transparent objects like windows, and are relatively power-hungry. Earlier ultrasonic sensors, widely used in industrial and automotive range-sensing applications, require complicated signal processing and are too large to be incorporated into consumer electronics.

“CH-101” introduces an ultrasonic transducer on a tiny silicon chip, solving the problems of these earlier sensors and resulting in an ultra-compact sensor that is one-one thousandth the volume of a conventional one. By mass-producing products with a wider maximum detection distance, we will realize adoption in AR/VR headsets, smart homes, drones, robotics, smartphones, wearable devices, automobiles, etc.
I was appointed CEO of TDK in June of 2016. After five years in this position, the TDK Group’s net sales had risen by about 30% and operating income by about 20%. During the three years of Value Creation 2020, our Medium-Term Plan for fiscal 2019 through fiscal 2021, total net sales exceeded ¥4,000 billion and operating income rose above the ¥300 billion mark, better than ¥100 billion per year. These figures confirm my confidence in steadily expanding our Group’s business and scaling new heights worldwide.

Two global trends, Digital Transformation (DX) and Energy Transformation (EX), have been the main external drivers of this growth. They have far outweighed such negative externals as the COVID-19 pandemic and worsening trade friction between the U.S. and China. We have benefited from internal factors as well, including business expansion and management refinements. The battery business in particular has made impressive strides in recent years, becoming a powerful growth driver of Group earnings.

We have, meanwhile, been improving our technologies and manufacturing infrastructure across the Group, thereby honing our competitive edge. Another competitive advantage is our multifaceted diversity, which encompasses our business portfolio, technologies, and human resources. This adds to our corporate resilience and gives us greater flexibility to handle unpredictable changes in the business environment.

Not all has been smooth, however. In some areas, such as the sensor business, growth has not matched our high hopes. For fiscal 2021, TDK’s net sales were up 8.5% year on year to ¥1,479 billion and operating income rose 14.0% year on year to ¥111.5 billion. Still, these figures fell short of our Medium-Term Plan targets of ¥1,650 billion net sales and ¥165 billion operating income. Clearly, we have many issues to address, including these results.

Building a more dynamic organization by harnessing diversity

While some business issues remain, I am encouraged by our progress in Group management over the past three years of the Medium-Term Plan. This can be seen in the way we are increasing the value of our diversity by energizing and aligning worldwide employees while bringing out their potential.

Global HR management is an area of special focus. It is worth
Message from the President and CEO

considering that less than 10% of our approximately 130,000-strong workforce is Japanese. If we were to continue evaluating and managing employees according to Japanese practices, we would utilize only a fraction of individual abilities and potential.

In response, we established the Global Human Resources HQ in Germany in April 2018. With Andreas Keller at the helm, this brings together key personnel from the HR departments of our Group companies. It integrates myriad HR functions, including recruitment, training, compensation, skills development, and goal management. With this new HR headquarters, we are bolstering Group unity and cohesion, while creating an organizational framework where diverse personnel can make full use of their competencies and individual strengths (see page 55).

With our KITEI Project, we are also introducing global governance standards to address risks and opportunities as we grow. Excessive rules and regulations stifle the front-line flexibility that underpins our multinational competitiveness. The solution is an autonomous and decentralized organization based on empowerment and transparency. This supports front-line decision-making by progressively delegating authority to each Group company. Since autonomy is premised on mutual trust, I made a point of visiting Group companies around the world, talking with management and building personal relationships. We now have the structural agility to capitalize on business opportunities at the front lines of each region. We will continue to enhance and update our governance structure to handle dynamic change with a balance of discipline and freedom.

Backcasting to formulate our next Medium-Term Plan

In this context, we launched our new Medium-Term Plan, Value Creation 2023, in fiscal 2022. We formulated the new plan through backcasting. Beginning with a detailed forecast of society, lifestyles, industrial configuration and the business environment 10 years from now, we then backcasted what steps we should take to arrive at our desired future. Backcasting was suggested by one of our outside directors and has become the framework for projections not only in the business divisions but also in the Board of Directors.

Traditionally, component manufacturers such as TDK develop products according to specifications from our customers. Delays in market launch can easily lead to commoditization where price competition dissolves our profit. This is why I keep telling our business units to shorten the time to market. Although you can achieve this by launching quickly on a hunch, you risk misjudging the market and falling behind your rivals. This is where backcasting shows its true value. By drawing a concrete picture of the future, backcasting lets us prepare to launch in sync with our projected changes in society and the market.

In this case, we began by identifying three key technologies—5G, AI, and renewable energy—that will significantly impact TDK’s business over the next decade. Next, we analyzed how these technologies would affect each industry and people’s lifestyles. Then, backcasting from these projections and analysis, we created a strategic scenario that determined how our own technologies, products, and services should evolve.

Nobody can foresee the future with much precision, just as nobody could have completely predicted today’s world 10 years ago. That said, if we project what is likely to happen in detail and as concretely as possible and prepare for that future, we will have the flexibility to adjust as necessary. With enough detail, we have a blueprint of the future that we can check at regular intervals to see how much we have deviated from projections and how we should correct our course, regardless of the unexpected.

Steps toward more effective marketing

The process of backcasting not only showed us what actions to take but also spotlighted our weaknesses. Here we discovered that marketing is one area that requires strengthening. To shorten time to market, we must begin preparations early, based on projections. This involves gathering highly granular, up-to-the-minute market intelligence and exploring unmet needs.

Toward gaining these capabilities, we established the Corporate Marketing & Incubation HQ in April 2021. Its mission is to identify
unmet needs in client industries and to study the potential of integrating emerging technologies from across the TDK Group. Our next step is to link this new headquarters with the R&D departments of business divisions and to corporate management, so that we can develop products that anticipate and respond rapidly to market trends.

In 2019, we established TDK Ventures, a venture capital company for early detection of future technology needs. This CVC contributes to our marketing function by capturing the first signs of trends and coordinating with the Corporate Marketing & Incubation HQ. In this way, we aim to develop marketing strategies that look both at immediate demand and ahead to the future potential of the most cutting-edge innovations.

I tell our tech people that if we are to shorten the time to market, they have to get their innovations out of the lab, even if there’s still work to be done. Engineers tend to be perfectionists, but our R&D people are now showing us early-stage technology and asking how it could be used. Results will take time, but I am confident that such enhanced marketing practices will help us deliver products that meet market demands in a more timely manner, thereby contributing to sustainable growth.

Customized growth strategies toward ¥2,000 billion sales

For fiscal 2024, the final year of our Medium-Term Plan, our targets are ¥2,000 billion net sales (35% increase over fiscal 2021) and a 12% or better operating income ratio. This may look like a stretch, but we can reach it, I believe, if we steadily grow our core businesses and work on improving earnings in our lagging businesses.

The upward momentum of our battery business over the past three years will fuel next-stage growth. In the category of small batteries for smartphones, wearable devices, and wireless earphones, TDK has already gained a solid market share. Developing new markets for further growth is our next task. While continuing to prioritize small batteries, we are expanding our focus to develop medium-size batteries for residential energy storage systems and electric motorcycles, to name two usage cases. I see our alliance with CATL, announced in April 2021, contributing significantly to battery business growth, but the true benefits will become clear, I believe, following the next Medium-Term Plan.

Our passive components business is playing a pivotal role in the adoption and evolution of DX and EX. Demand for capacitors and inductors, just two examples of our passive components, will grow with the expanding market for vehicle electrification and automated driving technologies. Further growth can be projected from ICT demand, driven by 5G and AI developments.

On top of this, we project approximately 12% year on year growth in our magnetic application products business. Our HDD head business is driven by cloud computing and big data, which continue to find new fields of application. We can count on HDDs remaining the mainstream storage device for the foreseeable future, given their high capacity, cost efficiency, and reliability.

The sensor business, in contrast, remains in the red. We are doing everything called for, but I’m not seeing this reflected in the business results. Since becoming president, TDK has acquired several venture companies to expand this business. These ventures have powerful R&D, but their customer base and product range were limited by financial resources and marketing weakness. As members of the TDK Group, they can now put these limitations behind them and get on track to achieving their growth potential.

Results initially lagged expectations, but in the last quarter of fiscal 2021 we began to see the net sales I had projected. Each area of the sensor business has tended to depend on a single client or product. By offering a full product line to diverse customers, we are transforming it into a consistently profitable business area. The sensor business is projected to reach sales of ¥100 billion in fiscal 2022 and return to profitability in the final year of the Medium-Term Plan. We intend to make it a new pillar of the TDK Group by attaining 25% annual growth.

We’re bolstering marketing and innovation to shorten time to launch.”
After diligently laying the groundwork for growth, the sensor business included, we look forward to seeing results during the three years of the current Medium-Term Plan. By accelerating growth in each business area we will secure positive earnings going forward.

**Materiality of our sustainability-oriented management philosophy**

The TDK Group aims to contribute to society by creating Social Value, Commercial Value, and Asset Value. By concentrating on these three concepts, we aim to enhance corporate value in a sustainable manner. The starting point of this value creation cycle is to create Social Value—helping to resolve social issues.

We will focus on addressing social issues by contributing to DX and EX. We also aim to enhance the Customer Experience and Consumer Experience (2CX).

Creating value that contributes to a sustainable society in this manner opens up continuous opportunities for growth. This sustainability-oriented management philosophy is at the heart of our growth strategy that references long-term projections, mentioned above.

The current Medium-Term Plan establishes the materiality of the TDK Group (see page 41). Materiality must be clarified so that staff and management functions can use DX and EX to create value in the form of improved 2CX toward sustainable growth. This was achieved through discussions with staff of each department, including quality control, HR, and supply chain management.

Through this materiality, we will deepen our Group-wide awareness of sustainability-oriented management.

**Management’s mission is to harness the power of diversity through the organization**

Management’s top priority is to harness the firm’s most valuable asset: human resources. Top management’s mission is the same.

No matter how advanced AI becomes, it needs input to deliver output. Creating that input is the job of human beings. Creativity does not appear out of the accumulation and arrangement of data. AI may be good at converting unstructured data into structured information. But that’s not innovation. Taking the next step and creating something new is, I believe, an ability unique to humans. But there are limits to what an individual, working alone, can create.

The role of an organization is to encourage and fully utilize the creative potential of each person. My desire is to nurture organizational leaders around the world who can make this happen.

As I mentioned at the beginning, diversity holds the key to creative solutions. To make diversity work, each member of the Group must listen to opinions that contrast with their own, that they don’t want to listen to, and then must draw conclusions based on those opinions. I learned this firsthand during my 14 years of working in Europe. There, people of different nationalities, cultures, genders, and racial or ethnic groups engaged in heated debates on a daily basis.

Each person expressed his or her views and listened to those of the others. This process revealed perspectives and insights that I could not have come up with on my own. Such is the creative power of human beings.

In this way, our diversity will be a catalyst for further evolution based on our founding corporate motto: Contribute to culture and industry through creativity.

**“Innovation is in our DNA, and TDK’s diversity will make us more creative than ever.”**

Shigenao Ishiguro
President and CEO
Chapter 1
What Kind of Company Is TDK?

Since its foundation in 1935, TDK has conducted business with the aim of solving social problems. As of March 2021, it has grown into a global business enterprise with Group sales of approximately ¥1,500 billion and about 130,000 members worldwide. As a leading manufacturer of electronic components, TDK continuously creates innovative and state-of-the-art technologies and products.

To continue creating value even more than a century after its foundation, we formulated a long-term vision and strategy looking 10 years into the future and established a Medium-Term Plan and the TDK Group materiality. We have also created governance systems to support the realization of these. We refer to this as the TDK Value Structure, have reaffirmed its status as a pillar of all activities by employees, and will hand it down to the future generations who will be responsible for TDK in the future.
The origins of TDK’s founding story go back to 1930, when founder Kenzo Saito encountered ferrite, the world’s first oxide magnetic material, invented by Dr. Yogoro Kato and Dr. Takeshi Takei of the Tokyo Institute of Technology. Saito was born in an isolated village where people survived mainly by farming rice and fishing during the winters, and he had an ambition to create a new industry in his impoverished hometown and enrich people’s lives. However, he faced a series of challenges and failures, and later when looking back on his life, he said he had “two successes and 98 failures.” In the midst of these repeated failures, Saito had a fortuitous encounter with Dr. Kato and Dr. Takei through a connection. Dr. Kato showed him ferrite, a previously unknown magnetic material. Ferrite is a metallic oxide and has strong magnetism, but it was very much a technological invention whose specific uses were not clear. Nonetheless, Saito was deeply impressed by the Dr. Kato’s statement, “Ferrite is an original invention created in Japan and will become a Japanese industry,” and he was determined to commercialize ferrite. Moved by Saito’s passion, Dr. Kato granted a license to him at no cost. Saito asked Shingo Tsuda, president of Kanegafuchi Boseki, Japan’s largest company at the time, whom he had met through the Angora rabbit wool business, one of his 98 failures, to provide the startup capital. Tsuda was unable to use company capital for a purpose outside Kanegafuchi Boseki’s business, so he provided his personal funds to Saito. This was venture capital, and instead of seeking a return on his investment, he entrusted Saito to achieve true industrialization in Japan using an invention created in Japan, Tokyo Denki Kagaku Kogyo (later TDK) was founded in 1935 with the invention of ferrite by two great scientists, the desire of an investor who dreamed on an industrialized Japan, and Saito’s passion. Saito, who witnessed the founding of TDK, was succeeded as president by Teiichi Yamazaki, and later worked to establish the Science and Technology Agency and became its first vice minister in pursuit of his ambition to make Japan a science and technology nation. The two major wins that Saito staked his career on were the founding of TDK and the creation of the Science and Technology Agency.

Yamazaki, the second president of TDK after Saito, was a student of Dr. Kato. Yamazaki used specialized knowledge regarding ferrite and built the foundations of TDK’s manufacturing base in Akita, and in 1961, TDK’s shares were listed on the Tokyo Stock Exchange. With the listing, Yamazaki obtained massive gains, but he used all of the proceeds to make a donation to the Tokyo Institute of Technology and established a number of science and technology foundations with the hope of supporting the advancement of science in Japan, contributing to the development of future generations.

Fukujiro Sono, TDK’s third president, was an exceptional salesperson from Kanegafuchi Boseki, but he joined TDK with the aspiration of contributing to venture business. Sono created new applications using ferrite, such as radios, household appliances, and television sets, and developed new customers, contributing to the advancement of Japanese electronics after the Second World War.

The origins of TDK’s founding story go back to 1930, when founder Kenzo Saito encountered ferrite, the world’s first oxide magnetic material, invented by Dr. Yogoro Kato and Dr. Takeshi Takei of the Tokyo Institute of Technology. Saito was born in an isolated village where people survived mainly by farming rice and fishing during the winters, and he had an ambition to create a new industry in his impoverished hometown and enrich people’s lives. However, he faced a series of challenges and failures, and later when looking back on his life, he said he had “two successes and 98 failures.” In the midst of these repeated failures, Saito had a fortuitous encounter with Dr. Kato and Dr. Takei through a connection. Dr. Kato showed him ferrite, a previously unknown magnetic material. Ferrite is a metallic oxide and has strong magnetism, but it was very much a technological invention whose specific uses were not clear. Nonetheless, Saito was deeply impressed by the Dr. Kato’s statement, “Ferrite is an original invention created in Japan and will become a Japanese industry,” and he was determined to commercialize ferrite. Moved by Saito’s passion, Dr. Kato granted a license to him at no cost. Saito asked Shingo Tsuda, president of Kanegafuchi Boseki, Japan’s largest company at the time, whom he had met through the Angora rabbit wool business, one of his 98 failures, to provide the startup capital. Tsuda was unable to use company capital for a purpose outside Kanegafuchi Boseki’s business, so he provided his personal funds to Saito. This was venture capital, and instead of seeking a return on his investment, he entrusted Saito to achieve true industrialization in Japan using an invention created in Japan, Tokyo Denki Kagaku Kogyo (later TDK) was founded in 1935 with the invention of ferrite by two great scientists, the desire of an investor who dreamed on an industrialized Japan, and Saito’s passion. Saito, who witnessed the founding of TDK, was succeeded as president by Teiichi Yamazaki, and later worked to establish the Science and Technology Agency and became its first vice minister in pursuit of his ambition to make Japan a science and technology nation. The two major wins that Saito staked his career on were the founding of TDK and the creation of the Science and Technology Agency.

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TDK’s Corporate Motto, “Contribute to culture and industry through creativity,” is the vision of founder Kenzo Saito, and the Corporate Principles—“Vision Courage Trust”—are an expression of the venture spirit of the six members who built up TDK in its founding days.
The venture spirit of boldly taking on the challenges of creating new technology and new business will not be sustainable, and social responsibility cannot be fulfilled unless it is based on TDK’s core competence.

**Ferrite Tree**

If asked, “What is TDK’s core competence?” we can respond, the “Ferrite Tree,” which has grown continuously for more than 85 years. TDK’s original electronic materials, which started with ferrite, have expanded to magnetic materials, dielectric materials, piezoelectric materials, and semiconductors. In addition, manufacturing technologies such as powder metallurgy, layering, thin-film, and coating technologies, as well as the accompanying evaluation and simulation technologies, have been combined to create a succession of electronic devices, including magnets, coils, capacitors, transformers, high-frequency components, actuators, HDD magnetic heads, power supplies, lithium ion batteries, and sensors.

**TDK’s Business Growth Trajectory Derived from the Ferrite Tree and Venture Spirit**

When the Ferrite Tree, which is TDK’s core competence, is combined with the venture spirit that is a part of TDK’s corporate culture, new business that is competitive in global markets is steadily created at the TDK campus.

**Grow functional components on top of Ferrite Tree**

- 2 Tri JPY
- 1 Tri JPY

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**Corporate Motto and Corporate Principles**
TDK Value Creation by TDK Venture Spirit

Ferrite, which was invented by Dr. Kato and Dr. Takei of the Tokyo Institute of Technology and commercialized by TDK, has been recognized as an IEEE Milestone, an important historical achievement that contributed to society and industry, by the IEEE, the world’s largest academic research organization for electrical, electronic, and information engineering. After the commercialization of ferrite, TDK combined the Ferrite Tree, which is its core competence, with the venture spirit that is a part of TDK’s corporate culture, and the story of value creation is produced at the TDK campus.

The world’s first music cassette tape was created using an original magnetic material technology based on TDK’s founding business of ferrite. In the background to this development was a needle-like magnetic material developed through open innovation with other companies. TDK’s unique roll-to-roll coating technology, and a global marketing strategy unrestricted by existing limitations. The success of the magnetic tape business, which became the world’s number one, helped the TDK brand penetrate throughout the world. Roll-to-roll coating technology is still used in the manufacture of electronic components today.

The electronic components business has continuously supported TDK since its foundation as a mainstream business. Multilayer ceramic capacitors, created from unique materials and manufacturing technologies, are referred to as the “staple of the digital society” and are currently indispensable in modern society. Using the advanced multilayering and sintering technologies developed in the ferrite business, we have created the world’s first technology for multilayering and co-sintering of different materials. TDK, which had strengths in commodity products for consumer electronics and automotive applications, and EPCOS AG (currently TDK Electronics AG, referred to as “EPCOS” and “TDK Electronics,” respectively), which had strengths in custom products for telecommunications and industrial applications, merged their businesses in 2008 to form a fully complementary relationship in Asia, the United States, and Europe. This integration was made possible by the fact that the corporate culture of “Vision Courage Trust” was shared across national borders.

The sensor business has continuously grown by anticipating customer needs and proposing comprehensive system solutions rather than individual products. A broad portfolio of products and technologies has given rise to unlimited possibilities in markets. This portfolio includes TDK’s unique high-precision magnetic sensors (TMR sensors), temperature and pressure sensors born from the Ferrite Tree, MEMS sensors from Group company InvenSense, Inc. (InvenSense), and Hall elements. Our growth has also been accelerated by the marketability of quickly identifying the needs of industry-leading customers in market such as ICT, automotive, and industrial equipment.

Commercialization of ferrite as the basis for TDK’s establishment

1. Ferrite

2. Electronic components business

3. Magnetic tape business

4. TDK Ventures

5. Lithium ion battery business

6. Sensor business

7. HDD magnetic head business

TDK Ventures Inc. (TDK Ventures), which was established as a corporate venture capital (CVC) firm, identifies and invests in venture companies around the world that are developing unique technologies and marketing. Venture companies with distinctive strengths have outstanding marketing ideas and unique technologies that cannot be found in large companies. In addition to the technologies and marketing assets that TDK has developed internally, TDK Ventures invests in these outstanding companies to create synergies with the Ferrite Tree, which is our core competency, and the venture spirit, our corporate culture.
New designs from material science

At the origin of TDK’s business growth is the shared practice of creating new product designs based on electronic material technologies. Examples include development of the needle-like magnetic material that made music cassette tapes possible, original materials and process technologies for powder control, layering, and thin film to enable high-density surface mounting of electronic components, development of TMR elements that resulted in dramatic advances in HDD recording density, and lithium ion battery development technologies that contributed to the mobility of ICT devices. We contribute to the realization of new customer experiences through the creation of new designs based on the development of original electronic material technologies that directly address market and customer issues.

IPS streamlines Monozukuri practice

The manufacturing model of building a rational IPS as an integrated internal production line that achieves ideal quality, cost, and lead times was achieved by TDK in the 1970s and has become the basis of manufacturing for many Japanese companies. In order to achieve IPS, TDK created overwhelming product competitiveness by incorporating customer needs into precise target values, creating manufacturing equipment based on original ideas, and constructing ideal internal integrated production lines. The success pattern for TDK has been the integration of this IPS with new product designs based on materials technologies.

Sales and marketing to strike at the center of the world

Distinctive new products created from the integration of IPS with design concepts based on materials technologies have been successful by marketing and selling them to the world’s most important customers in the most suitable application markets. Having customers around the world to whom we can offer new solutions and demonstrating outstanding marketing capabilities enable us to expand business on a global scale.

Unique employee culture for value creation

New product designs based on materials technologies, streamlined production lines based on our IPS, and marketing and sales targeting the most important customers for new product applications—the field personnel who sustain these and the staff who support them have maintained TDK’s growth. Even though the Group has expanded to more than 30 countries and regions around the world, this corporate culture remains unchanged. Based on our Corporate Motto, “Contribute to culture and industry through creativity,” employees in various functions around the world collaborate across borders to deliver value to customers, which itself is a part of the unique TDK corporate culture.

Best Practices

Shared best practices run through seven stories (see page 25). In addition to the leader’s vision of solving future social and customer problems, TDK’s best practices are technology capabilities that create new designs from materials; manufacturing capabilities that foster overwhelming internal business competitiveness by achieving an ideal production system (IPS) and ideal quality, cost, and lead times; sales and marketing capabilities to propose applications that are best suited to product concepts and to respond to the world’s most important customers; and an employee attitude of collaborating across borders and functions to provide new value to customers.

TDK will hand down these four best practices as the driving force of new business creation in the future to the next generations.
Value Creation Process

**INPUTS**
- Strategic investment
  - Capex (three years)
    - ¥750.0 billion (Fiscal 2022 to fiscal 2024)
- Financial base
  - Total assets ¥2,401.4 billion (Fiscal 2021)
- Global network
  - More than 30 countries and regions
  - More than 200 sites
  - Overseas sales ratio 92.1%
- Diverse human resources
  - Consolidated number of employees 129,284

**OUTPUTS**
- Development of added value products
- Passive Components
- Sensor Application Products
- Magnetic Application Products
- Energy Application Products

**OUTCOMES**
- Medium-Term Plan (Fiscal 2022 to fiscal 2024)
- Management targets in Value Creation 2023
  - Social Value
    - Contribute to solving social issues
  - Commercial Value
    - Net sales ¥2,000.0 billion
    - CAGR 11%
  - Asset Value
    - OP ratio Over 12%
    - ROE Over 14%
    - Dividend payout ratio Target of 30%
  - Materiality
    - Quality Management
    - HR Management
    - Supply Chain Management
    - Opportunity & Risk Management
    - Pursuing Both Delegation of Authority and Internal Controls
    - Asset Efficiency Improvement

**EX DX Solution**
- Targeting designated focus markets by anticipating customer needs and market changes
- Global supply chain
- TDK's strengths
  - Development capabilities, customer base
  - M&A and PMI strategies
  - Manufacturing capabilities
  - Diverse human resources
- Robust governance
  - Corporate Motto
    - Contribute to culture and industry through creativity

Operating cash flow ¥900.0 billion (Fiscal 2022 to fiscal 2024)
### TDK’s Current Businesses

#### (Fiscal 2021)

<table>
<thead>
<tr>
<th>Net sales</th>
<th>¥1,479.0 billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income</td>
<td>¥111.5 billion</td>
</tr>
</tbody>
</table>

#### Operating Income

<table>
<thead>
<tr>
<th>Data</th>
<th>Capex</th>
<th>Number of companies</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>¥40.2 billion</td>
<td>¥35.1 billion</td>
<td>67</td>
<td>32,805</td>
</tr>
<tr>
<td>¥24.9 billion</td>
<td>¥6.7 billion</td>
<td>20</td>
<td>8,523</td>
</tr>
</tbody>
</table>

#### Capacitors

- **Passive Components**
  - Share of net sales: 27.5%
  - ¥407.1 billion

- **Sensor Application Products**
  - Share of net sales: 5.5%
  - ¥81.3 billion

- **Magnetic Application Products**
  - Share of net sales: 13.5%
  - ¥199.3 billion

- **Energy Application Products**
  - Share of net sales: 50.0%
  - ¥740.2 billion

- **Other**
  - Share of net sales: 3.5%
  - ¥51.1 billion

#### Competitors

- Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Yageo (Taiwan), etc.
- ALPS ALPINE, TAIYO YUDEN, SEMCO (Korea), Cyntec (Taiwan), etc.
- Murata Manufacturing, ALPS ALPINE, Panasonic, AMOTECH (Korea), etc.
- Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Yongjin (Taiwan), etc.
- Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Cymbus (Taiwan), etc.
- Murata Manufacturing, ALPS ALPINE, Panasonic, AMOTECH (Korea), etc.

#### Automotive

- **Capacitors**
  - Soft-termination multilayer ceramic chip capacitors, aluminum electrolytic capacitors, etc.
- **Inductive devices**
  - SMD inductors with guaranteed high-temperature ratings, common mode filters for automotive-use LAN, etc.
- **Other passive components**
  - Piezo actuators, etc.

#### ICT

- **Capacitors**
  - 3-terminal feed-through capacitors, etc.
- **Inductive devices**
  - SMD inductors, thin-film common-mode filters, etc.
- **Other passive components**
  - Ceramic high-frequency components, multilayer chip varistors, etc.

#### Industrial & Energy

- **Capacitors**
  - Film capacitors, aluminum electrolytic capacitors, etc.
- **Inductive devices**
  - Transformers, EMC filters, etc.
- **Other passive components**
  - Varistors, arresters, etc.

#### Recording devices

- **Magnets**
  - HDD magnetic heads, HDD suspensions, etc.
- **Magnets**
  - HDD magnets, etc.

#### Lithium ion batteries (for electric motorcycles)

- **Power supplies**
  - DC-DC converters, onboard chargers, etc.

#### Lithium ion batteries (for smartphones, tablet devices, notebook computers, wearable devices, game consoles, etc.)

- **Power supplies**
  - POL converters, etc.

#### Lithium ion batteries (for drones, residential energy storage systems, etc.)

- **Power supplies**
  - Switching power supplies (AC-DC, DC-DC), bidirectional DC-DC converters, wireless power transfer systems, etc.

#### Load ports, flip chip bonding systems, flash memory application devices, anechoic chambers, etc.

---

*1 “Corporate and eliminations” (¥-32.7 billion) are not included.
*2 “Corporate (common)” (2,432 persons) are not included.
*3 TDK is the world’s only specialized manufacturer of HDD magnetic heads. HDD magnetic head production is currently concentrated at three companies: TDK, Seagate Technology, and Western Digital Technologies.
Chapter 2

How Will TDK Grow?

Technology for the well-being of all people

Sustainability Vision

TDK’s Corporate Motto, “Contribute to culture and industry through creativity,” is the embodiment of our unchanging vision. We will confront trends in social transformation including Digital Transformation (DX) and Energy Transformation (EX) and will carry out value creation activities. We seek to create a sustainable and happy society for all people by working to restore and protect the global environment, respecting human rights, and providing unique core technologies and solutions based on our Sustainability Vision, “Technology for the well-being of all people,” which focuses on social issues from a long-term perspective.
Seven Seas
Seven Seas is a medium- to long-term initiative that embodies our Sustainability Vision, “Technology for the well-being of all people.” With our electronic material and component technologies, we contribute to a world of new life experiences created through the development of next-generation computing and communication technologies, to the realization of a new society by advanced robots and mobility, and to addressing global environmental issues. TDK will implement the Seven Seas initiative through its own will and capabilities as indicated by our communication message, “Attracting Tomorrow.”

Long-term strategy map

Key innovations for the next 10 years

<table>
<thead>
<tr>
<th>5G</th>
<th>Opportunities</th>
<th>Just as mobile phones and smartphones completely transformed lifestyles, high-speed and high-capacity 5G communications will go beyond the frameworks of conventional information and communication systems and lead to the creation of business opportunities in a variety of areas including automobiles, industrial equipment, education, and medical.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5G</td>
<td>Risks</td>
<td>5G communications will require large numbers of small base stations. It will take time and money to expand services to remote regions, and while 5G will provide convenience, it will also require solutions to problems including security and increased battery consumption.</td>
</tr>
<tr>
<td>AI</td>
<td>Opportunities</td>
<td>Business expansion is expected from the identification of new value and trends using deep learning based on big data and other means. In addition, sensing information from the field where data is generated (manufacturing, logistics, sales, and other sites) will play important roles.</td>
</tr>
<tr>
<td>AI</td>
<td>Risks</td>
<td>Determinations, inferences, and decision-making by AI are not perfect, and there is a risk of overlooking errors by AI and allowing runaway operation. To prevent this, it is necessary to focus attention on trends in new technology and legal developments.</td>
</tr>
<tr>
<td>RE</td>
<td>Opportunities</td>
<td>In addition to solar and wind power, use of natural energy that is not affected by the weather including geothermal and ocean currents is expanding. In addition, the use of hydrogen energy with a view to expanding the use of fuel cell vehicles (FCVs) is also expected in the move toward a decarbonized society.</td>
</tr>
<tr>
<td>RE</td>
<td>Risks</td>
<td>Renewable energy alone cannot keep up with the demand for electric power, and therefore, a mix of diverse energy sources is needed. Also, renewable energy is affected by environmental factors, giving rise to the problem of difficulty controlling the balance between supply and demand.</td>
</tr>
</tbody>
</table>
Both sales and operating income registered record high figures in each term. (Operating income was compared excluding a business transfer gain in fiscal 2017.)

The battery business registered an efficient increase in income after accurately anticipating growth of the smartphone market and conducting timely capital investment.

Since part of the high-frequency components business was transferred to Qualcomm, a transfer gain of ¥144.4 billion was registered in fiscal 2017.

Utilizing this transfer gain and other capital, M&A were conducted from fiscal 2016 centering, in accordance with our growth strategy, on the sensor business.

<table>
<thead>
<tr>
<th>Fiscal 2016 to fiscal 2018</th>
<th>Value Creation 2020</th>
<th>Fiscal 2019 to fiscal 2021</th>
</tr>
</thead>
</table>

### Commercial Value
- The management target in the medium term of ¥1,650 billion in sales was not achieved due to such factors as intensified competition in the United States and China, a temporary stoppage of production activities due to the impact of lockdowns caused by the COVID-19 pandemic, and a slump in the automotive market, a priority market for TDK, up to the first half of fiscal 2021.
- The share of rechargeable batteries used in laptops and tablets increased as a result of the shift toward new lifestyles, such as remote work and online lessons.
- Sales of rechargeable batteries, passive components, and sensors increased due to the continued growth of 5G-related demand.
- New business development progressed in the field of power cells for drones, electric motorcycles, residential energy storage systems, etc.

### Operating income ratio

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 10%</td>
<td>7.1%</td>
</tr>
<tr>
<td>ROE</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

### Net sales

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>¥1,650.0 billion</td>
<td>¥1,479.0 billion</td>
</tr>
</tbody>
</table>

### CAGR

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 9%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

### ROE

<table>
<thead>
<tr>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 10%</td>
<td>7.5%</td>
</tr>
<tr>
<td>ROE</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

### Main M&A

- **2000**
  - Acquired Headway Technologies, a magnetic head manufacturer.
- **2005**
  - Acquired ATL, a manufacturer and seller of lithium ion batteries.
- **2008**
  - Acquired EPCOS (currently TDK Electronics), an electronic device manufacturer.
- **2016**
  - Acquired Micronas (currently TDK-Micronas), a developer and manufacturer of magnetic sensors.
  - Acquired Tronics, a MEMS design and manufacturing company.
- **2017**
  - Acquired InvenSense, a company with an extensive portfolio.
- **2018**
  - Acquired Chirp, a manufacturer of ultrasonic sensors.

### Deep cultivation of the smartphone market for energy application products and passive components

- Acquired Micronas (currently TDK-Micronas), a developer and manufacturer of magnetic sensors.
- Acquired Tronics, a MEMS design and manufacturing company.

### Expansion of the sensor application product business during the period of the new Medium-Term Plan

- Established the Sustainability Promotion HQ and commenced full-fledged activities.
- The global human resource management system began full-fledged operations, strengthening activities to promote diversity.
- Introduced Global Common Regulations to further strengthen Group governance.

### Looking Back on Past Medium-Term Plans

- **2000**
  - Acquired Headway Technologies, a magnetic head manufacturer.
- **2005**
  - Acquired ATL, a manufacturer and seller of lithium ion batteries.
- **2008**
  - Acquired EPCOS (currently TDK Electronics), an electronic device manufacturer.
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  - Acquired Tronics, a MEMS design and manufacturing company.
- **2017**
  - Acquired InvenSense, a company with an extensive portfolio.
- **2018**
  - Acquired Chirp, a manufacturer of ultrasonic sensors.
Value Creation 2023

TDK formulated Value Creation 2023, a new three-year Medium-Term Plan beginning in fiscal 2022, in anticipation of changes in customer needs and the social structure to be brought about over the coming decade by the three key innovations of 5G, artificial intelligence (AI), and renewable energy (see page 36). In this plan, the pursuit of Social Value contributing to the solution of social issues and realization of a sustainable society is positioned as the objective of all businesses. As a result, a cycle rotates in which Commercial Value and Asset Value subsequently expand and further Social Value is created. Furthermore, TDK will contribute to Digital Transformation (DX) and Energy Transformation (EX), which are two major social challenges, toward the realization of Customer Experience and Consumer Experience (2CX), which means supplying solutions that satisfy customers and consumers and experiences that go beyond their expectations.

Management targets in medium term

<table>
<thead>
<tr>
<th></th>
<th>Fiscal 2021 result</th>
<th>Fiscal 2024 target</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>¥1,479.0 billion</td>
<td>¥2,000.0 billion</td>
<td>11%</td>
</tr>
</tbody>
</table>

CAGR by segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Fiscal 2024 target</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive Components</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Sensor Application</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Magnetic Application</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Energy Application</td>
<td>11%</td>
<td></td>
</tr>
</tbody>
</table>

New medium-term capital allocation plan

Fiscal 2022 to fiscal 2024 three-year accumulated base (billions of yen)

- Improvement of dividends steadily and sustainably based on medium-term profit growth
- Priority allocation of investment to growth areas
  - Rechargeable batteries
  - xEV, ADAS, 5G
  - HDD head, suspension/applied products

KPI

- Operating income ratio: over 12%
- ROE: over 14%
- Capex: ¥750.0 billion (three years)
- Net sales: ¥2 trillion

KPI

- D/E ratio 40% range
- Target dividend payout ratio of 30%
Accelerate DX and EX in order to realize 2CX and create value for a sustainable society

**EX**

- Contribution to energy and environmental solutions by minimizing waste heat and noise with electronic devices
  - Effective use of energy and expanding use of renewable energy toward the realization of net zero CO2 emissions in 2050
  - Provide products and solutions for creating clean energy to realize a zero-carbon society
  - Provide products and solutions for realizing an efficient energy society by storing, converting, and controlling energy

**DX**

- Promotion of the digitization of society by adding software technology to material science and process technology
  - Provide products and solutions to help build resilient communication network infrastructure
  - Provide products and solutions for supporting robotics and mobility to promote human capability enhancement and complementation
  - Promote digitalization at TDK

### The materiality identification process

**Understanding and organizing the issues**

An internal draft was prepared based on the SDGs, GRI, Responsible Business Alliance (RBA), and survey items of leading ESG rating agencies; issues raised in the Group’s long-term strategy review materials; risks reported in the annual securities report; our key CSR issues and other information.

**Gathering outside opinion**

We gathered opinions on our draft materiality through dialogues and written opinions.

Opinions from external experts are posted on our website.

Dialogue


Written opinion regarding materiality (initial internal draft)


**Internal discussion**

We prepared another internal draft based on the outside opinions. The completed draft was discussed again by the Executive Committee, and once approved was submitted to the Board of Directors. To achieve the goals of our new Medium-Term Plan, we decided to take a full-scale approach to engaging in these key issues, which should be addressed by giving them top priority in investment of the organization’s management resources.

**Internal development**

We began by assigning a division to take responsibility for each materiality theme. Under the leadership of those divisions, we then developed a system within the Company to generate products based on the issues raised in the SDGs.

Quality management, human resource management, supply chain management, opportunity and risk management, pursuing both delegation of authority and internal controls, and asset efficiency improvement are the areas TDK has positioned as the basis for value creation in the fields of EX and DX.

Since FY March 2016, the TDK Group has worked to address four key CSR issues (materiality): contribute to the world through technology; develop human resources; consider the societal and environmental impact of the supply chain; and develop and prosper in harmony with the global environment.

In FY March 2021, we reviewed our materiality in conjunction with preparing our new Medium-Term Plan. In order to both achieve the goals of the Medium-Term Plan and balance sustainable society with sustainable corporate growth, we identified materiality by defining key issues as those which should be addressed by giving them top priority in investment of the organization’s management resources.

For more information on sustainability, please visit our Sustainability Website.

Medium-Term Plan

Strategy by Segment

Passive Components Business Strategy
Achieve growth by firmly grasping DX and EX trends with diverse elemental technologies

Market needs
• Passive components such as capacitors and inductors are essential for ICs and other active components to function, and during the DX and EX era, they will support society from its foundations.
• Markets that have undergone rapid growth since 2000 centered on ICT devices such as smartphones and have recently expanded to industrial equipment and the automotive field. There are also signs of expansion to the IoT and AI fields.

Growth strategy
• TDK provides a diverse range of inductors extending from low to high power that use magnetic material technologies as well as wire winding, layering, and thin-film technologies. We are now focusing on supplying products for automotive applications such as advanced driving assistance systems (ADAS) and autonomous driving, markets that are expected to grow. In addition, with regard to multilayer ceramic chip capacitors (MLCCs), we will focus on areas that require high quality and high reliability such as automotive applications, industrial equipment, base stations, and other devices that need precise and complex sintering conditions and pose high barriers to market entry by competitors.
• We are also developing high-frequency devices, antenna elements, and other components using low temperature co-fired ceramic (LTCC) technologies, which are used to produce components for smartphones and base stations by applying silver paste to a ceramic sheet and simultaneously sintering multiple layers. Growth in this area is expected in conjunction with the rollout of 5G communications.
• Haptic devices that use piezoelectric materials are expected to grow in automotive applications, particularly automobile displays.

Sensor Application Products Business Strategy
Expand customer base and applications and move into the black

Market needs
• As devices become increasingly automated, electrified, and smart, as the IoT and wearable devices become more widespread, and as AI and other technologies are spread, massive numbers of sensor networks will play central roles in social infrastructure. As a result, integration of sensors and the fusion with software and communication technologies will be crucial.
• The widespread adoption of 5G and ADAS will result in the diverse use of temperature, pressure, and magnetic sensors as well as sensors that adopt MEMS technology.

Growth strategy
• Sensors and sensor solutions are areas where we anticipate growth in the future. TDK’s strength is that it possesses software technologies as well as almost all sensor technologies and products with the exception of optical sensors. We will make efforts to expand applications and our product lineup even further.
• TMR sensors, which were developed by using the thin-film and magnetic technologies developed for HDD magnetic heads, are a strategic product that TDK is focusing on. We will pursue unique applications for angle sensors and position sensors used in automotive applications and industrial equipment and for smartphones.
• Demand for Hall sensors, a type of magnetic sensor with excellent versatility, will increase for applications such as position sensors and current sensors in 2D and 3D consumer devices and industrial equipment. We also provide sensor solutions with enhanced reliability and utility by integrating sensors with TMR and other elements.
• TDK has a lineup of various sensors using MEMS technology, including MEMS microphones, motion sensors, and barometric pressure sensors. We are also expanding and enhancing the lineup of temperature and other sensors using ceramics.

Launch distinctive products for strategic growth markets using proprietary elemental technologies

Strategic growth market
- Autonomous driving
- 5G & post-5G
- Medical & healthcare
- Data storage
- Renewable energy
- Robotics, drones
- Internet of Things
- RF filters
- power inductors
- RFID products
- Piezoelectric film capacitors
- MEMS
- Transformer
- Plasma elements for tumor treatment
- Power inductors
- Winding
- Layering
- Thin film
- Pasting
- Precision machining
- Module
- Material

Proprietary elemental technology
- Power inductors
- Winding
- Layering
- Thin film
- Pasting
- Precision machining
- Module
- Material

Measures for sensor business toward positive profit

Customer base
- Expansion of customer base
- Continuous expansion of automotive customer base
- Establishment of major position in expanded customer base (motion sensor)
- Expansion of non-mobile customer base (TWS, AR/VR, drone, wearable, industrial robotics, etc.)
- Expansion of automotive customer base (navigation, etc.)
- Expansion of industrial customer base
- Expansion of xEV applications

Product/application
- Continuous expansion of automotive applications
- Expansion of consumer and industrial customer base
- Expansion of automotive applications
- Development and launch of sensors for consumer applications
- Expansion of microphone business
- Expansion of barometric pressure sensor business
- Expansion of ultrasonic ToF sensor applications
- Temperature and pressure sensors
- MEMS sensors
- Hall sensors
- TMRS sensors
Strategy by Segment

Magnetic Application Products Business Strategy
Supply advanced technologies to meet the needs of the high-capacity storage age

Digital data generated worldwide

Innovations in HDD magnetic heads and suspensions

Energy Application Products Business Strategy
Contribute to the realization of a sustainable society through the battery and power supply businesses

TOPICS
Business alliance with CATL (China) toward entry into the medium-size rechargeable battery market

In April 2021, ATL, which handles the TDK Group’s rechargeable battery business, concluded a business alliance with Contemporary Amperex Technology Co., Ltd. (CATL), which is one of the world’s leading players in the rechargeable battery business for automobiles, including xEVs.

ATL has been strengthening its small-size rechargeable battery business for ICT equipment. In order to grow in the global market, however, ATL decided that it was necessary to strengthen its medium-size rechargeable battery business for residential energy storage systems, electric motorcycles, and other industrial uses. As part of this effort, ATL has concluded a cross-licensing agreement with CATL and also is scheduled to establish and manage two joint ventures with CATL dedicated to the development, manufacture, and sale of medium-size rechargeable batteries. Furthermore, ATL will promote the building of strategic cooperative relations with CATL, such as the supply of TDK’s automotive electronic components and power supply products for automotive power units that include CATL’s rechargeable batteries.

Market needs
- Demand for TDK’s magnets, HDD magnetic heads, and suspensions remains firm as a result of the spread of xEVs, the increase in wind power generation as a form of renewable energy, and the increased use of servers in data centers in conjunction with the expansion of cloud services. As a result, we anticipate stable growth in the future as well.

Growth strategy
- We are commercializing HDD magnetic head products including TMR and PMR heads by consolidating magnetic and thin-film process technologies. As the world’s only specialized manufacturer of HDD magnetic heads, TDK provides advanced technology to meet the needs of the high-volume data storage era and is focusing on development and mass production of new technology products including microwave assisted magnetic recording (MAMR) and heat assisted magnetic recording (HAMR) heads.
- In preparation for the increased demand for new-technology products, we will continuously promote automation and smart factories using AI and big data to optimize production capacity and operational systems.
- We will enter the market of the next-generation actuators for high-capacity nearline HDDs and expand the use of suspension application products that employ high precision processing technologies in ICT markets.
- We will provide optimal solutions using neodymium magnets for the drive motors in xEVs and work to minimize the use of difficult-to-procure rare earths to minimize procurement fluctuation risks.

Energy Application Products Business Strategy
Contribute to the realization of a sustainable society through the battery and power supply businesses

Market needs
- Demand is increasing for power supply devices due to the proliferation of xEVs and for rechargeable batteries due to the proliferation of 5G communications and IoT and wearable devices.
- As the utilization of solar power, wind power, and other renewable energy increases toward the realization of a decarbonized society, demand is increasing significantly for batteries for residential energy storage systems, electric motorcycles, and other uses. In such fields as smart cities and advanced medicine as well, demand is increasing for power supply and energy storage systems for the effective utilization of electricity.

Growth strategy
- Regarding rechargeable batteries, TDK will endeavor to maintain and expand its top position in the ICT market, which is expected to continue growing in the future, by means of advanced technology and improved performance. At the same time, capitalizing on the cell technology that we have nurtured through small batteries, we will pursue business expansion in the field of highly safe, long-life, and high-output medium-size batteries.
- Regarding power supplies, we aim to maintain our top share in the industrial and medical equipment markets through the development and supply of, among other things, bidirectional converters for the highly efficient charging and discharging of storage batteries, which are essential for the utilization of renewable energy, programmable power supplies that are widely used in semiconductor manufacturing equipment and so on; and switching power supplies for various medical equipment requiring a high level of safety, such as MRI machines and PCR test devices.
- Regarding power supplies for xEVs, in addition to the provision of added value enabling it to respond to the increasing demand for electricity due to the multifunctionality of automobiles and the need for rapid charging, TDK will contribute to the compact, low-profile, and light power supplies through the originally designed modularization of DC-DC converters and onboard chargers.

Digital data generated worldwide

Innovations in HDD magnetic heads and suspensions

Source: Data Age 2025, IDC (graph created by TDK)
Medium-Term Plan

Message from the Corporate Officer of Finance & Accounting

Tetsuji Yamanishi
General Manager of Finance & Accounting HQ
Executive Vice President
Representative Director

Aiming for a positive free cash flow and further enhancement of corporate value through steady implementation of the new Medium-Term Plan

The role of the corporate officer of finance & accounting:
To strive for capital allocation contributing to growth strategies while ensuring financial soundness.

TDK has grown through business development in a wide range of areas, including passive components, sensors, HDD magnetic heads, rechargeable batteries, and power supplies for industrial equipment. To continue responding to the extremely fast speed of technological innovation in such industries as automotive, ICT, industrial equipment and energy, which are our priority markets, and to the evolving customer needs, it is necessary for TDK to also actively undertake growth investment with a sense of speed, including capital, R&D, and M&A investment. I recognize that the mission of the Finance & Accounting HQ is to contribute to TDK’s sustained growth by planning an appropriate capital allocation strategy taking account of when, where, and how much to invest and by procuring the necessary capital while ensuring the company’s financial soundness.

The most appropriate investment decisions cannot be made through only the simple analysis of 10% Depending on the domain, sometimes it is necessary to continuously carry out advance investment for several years prior to market expansion. In the case of problematic businesses that are struggling to yield a profit, after ascertaining the potential for market and business growth from a long-term perspective, it is important to decide clearly whether to make additional investment for a business turnaround or to downsize, sell, or even withdraw. In close collaboration with the business division concerned and top management, we endeavor to reach the best investment decisions based on various factors, such as market attractiveness, business risks, TDK’s strengths, and the business’s growth potential.

Looking back on the previous Medium-Term Plan:
Achieved clear resource allocation to the battery business, but improving the earnings of unprofitable businesses remains an issue.

In the three years of the previous Medium-Term Plan, Value Creation 2020, we promoted positive growth investment (capital, R&D, and M&A investment) using proceeds from the carve-out of the high-frequency components business in 2017 as well as the usual operating cash flow. Regarding the energy application products business in particular, judging that the time was ripe for concentrated growth, we implemented capital investment of about ¥270 billion, which was in excess of the initial plan. As a result, the business achieved significant growth over the three years. In fiscal 2021, the energy application products business is generating business income in excess of companywide operating income and, going forward, it is expected that the capital invested so far is going to be fully recovered. I believe that the speedy and timely capital allocation in this business was one significant success of our financial strategy in the period of the previous Medium-Term Plan.

On the other hand, though, a major point of reflection is the fact that not so much progress as expected was made toward achieving a positive free cash flow, which was one of our financial targets. In addition to the increase in capital investment mentioned above, one of the reasons here was the deterioration of the market environment due to such factors as intensified confrontation between the United States and China and the COVID-19 pandemic. The biggest reason, however, was that the earnings of problematic businesses did not improve. In particular, the sensor application products business, which we expect to grow in the future and accordingly are fostering and strengthening, is turning out to be slow in yielding a profit. In three consecutive years it registered an operating loss of more than ¥20 billion every year, which brought down companywide operating income significantly. In addition, regarding the magnet business, although we continued advance investment in anticipation of increased demand for electric vehicles and so on, in the end it continued to register an impairment loss and therefore lower companywide profits. As I stated above, it is a fact that growth investment always necessitates difficult management decisions, and I realize that, going forward, reviewing our thinking about capital allocation and generating a positive free cash flow remain as management issues.

Financial strategy in the new Medium-Term Plan:
Thorough portfolio management for more segmented cash-flow business units will lead to stable creation of free cash flow.

In light of the above points of reflection, we are conducting capital allocation and profitability management on an even more meticulous level than before in Value Creation 2023, TDK’s new Medium-Term Plan that began in April 2021. Previously we drafted and implemented investment plans for targeted businesses within a relatively large framework, but in practice a variety of products and businesses that are quite different in terms of growth potential, market, and so on so forth even in the same business group. From now on, our policy is to scrutinize growth potential and profitability for much more segmented business units and implement thorough capital allocation and profitability management accordingly, thereby creating a stable cash flow.

Specifically, we have divided about 80 cash-flow business units (CBUs; the smallest units of business responsibility and business portfolio management) into six quadrants with the two axes of profitability and growth potential, and we are implementing thorough capital allocation and profitability management in response to the position of each CBU.

Regarding evaluation of the profitability, cash acquisition capability, and so on of each CBU, we will clarify the factors that each CBU should strengthen by operating a logic tree based on TVA*, an original indicator of TDK, and business ROA*, a component element of TVA, and link the results to enhancement of companywide ROE.

The amount of capital investment in the three-year period of the Medium-Term Plan is scheduled to be ¥750 billion, which is equivalent to about 65% of EBITDA over the three years. In the previous Medium-Term Plan, capital investment swelled to 81% of EBITDA. Reflecting on this situation, we have examined and set investment recovery plans for each CBU based on their business portfolios. However, we will endeavor to maintain financial discipline by keeping a watch over actual business conditions and revising plans flexibly. In the long term, as an indicator of TDK’s financial soundness, we aim for a stockholders’ equity ratio of 50% and a debt-equity ratio of around 0.2-0.3.

To shareholders and investors:
TDK will steadily achieve its management targets in the medium term and enhance corporate value.

Regarding the return of profits to shareholders, TDK’s basic policy is to implement stable and sustained shareholder dividends through the increase of profits per share. In the period of the current Medium-Term Plan, we are scheduled to offer shareholder returns in the range of a 30% dividend payout ratio. Regarding shareholder dividends in fiscal 2022, TDK announced in April 2021 that corresponding to the increase of revenue, we are scheduled to pay an annual ¥190 per share, up ¥10 over the previous year. As announced in November, in consideration of our performance projections for the current year, dividend policy, and other factors, we have revised this dividend forecast. The dividend is now scheduled to be practically ¥208 (prior to the stock split), up ¥28 per share over the previous year, as TDK carried out a stock split with the effective date of October 1, 2021.

TDK’s EV/EBITDA multiple at present hovers around 6. Most rival companies in the electronic components industry have attained a multiple of 10 or more, but I believe that this gap with rivals is not necessarily due to the different market positions, but that TDK’s business has much profitability and growth potential, the improvement of earnings in multiple problematic businesses is lagging. We hope to gradually resolve the reasons for the gap by thoroughly implementing profitability management and optimum portfolio management in segmented business units and thereby enhance market appraisal.

The numerical targets in the current Medium-Term Plan are all set at an extremely high level. But if we can accurately grasp the present IX and EX trends, properly channel resource allocation to growth areas, and improve the profitability of problematic business as planned, I think we can definitely achieve them. I look forward to your continued support for the TDK Group.

* TVA: Shown for TVA Value Added. This added-value indicator, an original of the TDK Group, compares the minimum profit required (stockholders’ equity) with earnings after taxes (but without deducting interest expenses) and the business assets of each business.

* Business ROA: This important indicator and component of TVA compares the net income ratio (profit on invested capital) with the business assets of each business.
Global Strategy

Aiming for sustained growth in the global market by displaying TDK’s strength of diversity

In recent years TDK has been promoting the globalization of its business through aggressive M&A. To overcome this age of volatile change, we aim to establish a decentralized and autonomous Group management structure under the policy of “Empowerment and Transparency.” Our objective is to strengthen collaboration in the Group through the sharing of targets and principles and enable swift decision making by delegating authority to frontline business, thereby accelerating the speed of management.

In domains that can achieve short- to medium-term expectations, the Global HQ will take charge of domains involving the development of new technologies that are expected to reach commercialization in five or more years’ time. Regarding the application and conversion of existing technologies in new markets, or our entry into completely new markets, the Global HQ promotes the utilization of M&A, corporate venture capital (CVC), and so on.

RD Roles of HQ and BCs/BGs

New, disruptive, non-possessed technologies

R&D

M&A

Headquarters

CVC

Growth strategy

New markets

Competition strategy

Existing markets

BCs/BGs

Possessed technologies

Developing the CM&I HQ into an organization that can contribute to TDK’s new value creation

TDK possesses many new technologies, and I believe that by skillfully combining them, we can supply even better value to customers. For this purpose, however, it is necessary for us to accurately grasp customer and end user needs and to properly understand how we can provide products and services that satisfy them. I realize that the most important role required of us at the CM&I HQ is to provide highly receptive antennae to sensitive pick up such information.

In grasping technological and sustainability trends in the market, I place importance on collaboration with companies that receive investment from TDK Ventures. These companies are situated on the frontline of trends. By supplying them with TDK products and components, we can obtain useful information that leads to preparations for entry into new markets. Furthermore, I think another important mission of the CM&I HQ is to convert the information and data thus collected into intelligence and incubate it as new information that leads to preparations for entry into new markets. Further-

Another function is to think about the potential of the diverse core technologies possessed by the TDK Group and their combination, create new products and solutions that do not currently exist in our portfolio, and foster them as businesses. Based on a Group-wide perspective, the CM&I HQ will go beyond sectional and organizational frameworks and collaborate with various corporate and business R&D sectors and others, both within and outside TDK, with the aim of creating products and solutions coping quickly with market trends.
Glimpsing the future: Understanding megatrends in deeptech through TDK Ventures

TDK established its Silicon Valley based CVC, TDK Ventures, in July 2019 as way to foster growth and accelerate the development of startups in deep technological fields like fundamental materials science. TDK Ventures is a wholly-owned US subsidiary of TDK, and kicked off with its first-round fund of $50 million. TDK Ventures’ vision is in identifying and nurturing startup companies that generate innovations in the fields of energy, clean tech, health tech, mixed reality, industrial, mobility, and AI. Through these avenues, the company seeks to spread TDK Goodness and bring about the digital and energy transformations necessary to build a better tomorrow for all of society. Through investment and hands-on support every step of the way, TDK Ventures assists entrepreneurs in the evolution and commercialization of their ideas and technologies while supporting their access to markets including those covered by other business units within the TDK Group. Portfolios companies enjoy not just financial backing, but large-scale connection to the entirety of the TDK Group, which engages in business development across a range of industrial sectors. This includes subject matter expertise in advanced technologies, state of the art resources, and even the groups wide base of potential customers and sales channels. Entrepreneurs and their startups can be given access to a global-level ecosystem with deep knowledge of related industrial markets, operations, and so on. By serving as a partner and supporting this select group of entrepreneurs, TDK has the opportunity to witness firsthand the advent of the world’s most advanced technological and market trends and, as a result, draw an even more accurate technological roadmap for the future, learning every step of the way and experiencing opportunities to enter new markets.

Investment focus

- Materials
  - Advanced Materials & Informatics
- Energy
  - Management & Storage
- Cleantech
  - Carbon Reduction & Recycling
- Industrial
  - Robotics & Automation
- Mobility
  - EVs & Autonomy
- Healthtech
  - Robotics & Life Science Tools

Message from an investee company

TDK Ventures is the first-choice CVC for startups

The venture market is bullish, and startups have their pick of investors. TDK is one of only two CVCs we’ve allowed to invest in Groq, and the only CVC we’ve added since gaining an overwhelming surplus of interest. In our latest round our investors included D1 Capital, Tiger Global, & GGM Grovenor, who combined represent $180 billion of AUM and the majority of the $300 million invested, we included TDK Ventures based on the extra value brought by Nicolas.

CVC is synonymous with being slow, arrogant, difficult, and as a backup source of funding if there’s a failure to gain interest on Sand Hill Road. TDK Ventures doesn’t act like a CVC at all, and that’s the appeal. They’re a first-choice funder for startups, and we have included Nicolas as a guest speaker alongside our partners at D1 Capital at marquee public events.

TDK Ventures has the potential of becoming a generational function for TDK, a major reputational boost among the next generation of companies forming, and could become a blueprint for CVC in the future everywhere.

Investment scale expanded threefold in second round

In its first round of funding, two years following launch, TDK Ventures invested in 15 startups globally some of which have already achieved success and steady growth. To name a few, Origin (3D printing) was acquired by Stratasys, GenCell (fuel cells) has IPO’d, and Groq (AI chips) has been identified as a secured unicorn valuation. Encouraged by these results, TDK Ventures launched its second round of funding in April 2021 increasing in scale to threefold to $150 million. So far the second round includes high-potential startups like Analog Inference (AI chips), actnano (electronic coating), and Verdagy (Green Hydrogen Electrolyzer). Over the next three years TDK Ventures is expected to fund around 50 promising ventures.

TDK Ventures’ president, Nicolas Sauvage, was selected successively in 2020 and 2021 for the GCV Powerlist of the top 100 heads of CVC announced annually by Global Corporate Venturing, a CVC media and research company.

Supporting the dreams of entrepreneurs to build a better world

The mission of TDK Ventures is to support TDK’s social contribution by bringing a new perspective and deep insight to TDK’s strategy.

Our company consists of two teams, the investment team and the platform team. On the investment side, members study strategy in each field and concentrate on ascertaining the best investment opportunities. The platform team supplies portfolio members with critical professional knowledge, including marketing and finance, in order to ensure the success of each entrepreneur. As one team reaching for the sky, we collaborate closely and work tirelessly to provide high level support for startup companies such as making preparations for the next financing round, their initial public offering, and the introduction of appropriate professionals or TDK teams around the world.

Our company has set three criteria for selecting a venture. The first is their potential to yield high financial returns; second, their value and synergistic effect connecting to TDK’s long-term strategy and their potential to steer us toward growth; and third, their ability to contribute to a better, more sustainable future through innovation. Among startups that meet all three criteria, we look for companies with the potential to become world leaders in major markets in 5-10 years’ time and the passion we believe necessary to make their vision a reality.

The corporate motto of TDK is “Contribute to culture and industry through creativity.” To realize the dreams of entrepreneurs to build a better world, we work with startups with a shared vision for this better future and work to support their innovative creations.
Pursuing productivity improvement and zero defects

Amid the spreading utilization of electronic components in all aspects of people’s daily lives, including the automotive and medical fields, electronic components manufacturers are required more than ever before to ensure rigorous product quality management. Companies in the TDK Group are tackling production reform on a global scale under the slogan “Industry 4.0 + zero defects.”

As part of its Industry 4.0 activities, for example, TDK Electronics, which is headquartered in Germany, is promoting the introduction of a manufacturing execution system (MES). By unifying all software systems relating to production-related processes, from work scheduling to shipment, and the real-time visualization of work conditions at each stage. At present a pilot project is being carried out at the Szentimre Plant in Hungary. TDK Electronics plans to gradually introduce the MES at other plants too and hopefully bring about a spectacular improvement in production efficiency and quality.

Visualization of the production site through the introduction of MES

Over the past year TDK Electronics has conducted a large-scale communication campaign to help us understand how Industry 4.0 should be tackled and ultimately what significance it has for us. All plants held town-hall meetings, and some plants set up showrooms that could be used for education purposes or to acquire qualifications and introduced examples of digitalization. Furthermore, through collaboration with business groups and personnel sections at plants, the TDK Electronics headquarters organized a training setup too. Unfortunately, due to the COVID-19 pandemic, only online training is being offered at the moment. But when the situation calms down, we plan to implement face-to-face training as well.

In its Industry 4.0 activities so far, TDK Electronics successfully implemented a pilot test of the MES at the Szentimre Plant. If the MES is utilized, the state of work in each department is visualized in mobile terminals and manufacturing equipment panels, and employees are able to access necessary information, check work conditions, and add data at any time. Furthermore, quicker, more transparent, flexible, and efficient decisions can be made in all the main processes, such as production planning, performance analysis, personnel plans, the allocation of materials, energy, and other resources, and product quality management. Going forward, by spreading the MES to all plants, TDK Electronics aims to realize speedier and more meticulous production activities.

Werner Lohwasser

COO & CTO
TDK Electronics AG
From TDK’s Human Resources HQ in Germany, Mr. Keller has been spearheading the drive to utilize the global talents of the entire TDK Group by creating a truly globalized and diversified one TDK. Today, approximately 90% of TDK employees are based in countries other than Japan, with nearly 80% having joined the TDK Group through M&A. With these numerous M&A activities, Mr. Keller has seen a rapid advancement and reform of TDK’s business structure and diversification, which he outlines below.

**Human Resource Strategy**

**Creating a truly globalized and diversified one TDK**

Andreas Keller  
Senior Vice President,  
General Manager of Human Resources HQ

### Accelerating DX and EX by placing the right people in the right place

Our medium-term strategy includes the acceleration of Digital Transformation (DX) and Energy Transformation (EX) through Customer Experience and Consumer Experience (CX). As part of our efforts to achieve this goal, we have focused on placing the right people in the right place at the right time. To digitize our workflow more, we have recently implemented a learning management system—Wecconnect—to enable all TDK members to develop themselves alongside company needs. Along with our face-to-face training workshops, this digital development initiative offers members a unique and invigorating hybrid approach to nurturing their talent.

To fulfill our varied goals, we need highly engaged employees, which is why we are focused on team member engagement. We want our team members to feel connected, their voices heard, and their contributions valued. Many of our Group companies measure engagement in their own way, but we want to have a single AI-driven interactive solution that allows us to evaluate how people think and feel, as well as bring together our different Group companies.

### Global human resource strengths and characteristics

To realize the full scale of our global human resource management, there was a need to end rigid human resource processes that restricted productivity. A flexible and inclusive process that could adjust and cater to our different Group companies was what we strived for. However, with so many of our businesses spread across the globe, we had many different human resource systems and procedures when it came to nurturing talent, which resulted in limited transparency and collaboration. This caused inefficiency and needless overlap.

We needed a common way of managing and developing talent to forge strong bonds between Group companies and employees. That was the purpose of introducing an interactive talent management system, which is geared towards managers and above. This platform has different modules, such as “succession planning” and “performance evaluation,” and these modules can be selected depending on different needs. With this innovative platform now being put in place, we can regularly reach employees on different needs. With this innovative platform now being put in place, we can regularly reach employees anywhere and be proactive in developing global talent.

This empowerment and transparency can make everyone feel trusted in and involved in the day-to-day operations of the Company. For members to feel involved, communication with one another is key. Global human resources train leading members to communicate in English in order to accurately convey the demands and direction of the Company and Groups to the members they manage in their local locations. A good knowledge of English will also help members further their career. For that reason, TDK actively invests in the development of its multinational workforce through programs such as Global Communication & English, which aims to assist employees to improve both their communication and English-language skills.

### Success of next-generation leader candidates

For our company to grow sustainably, it is important to connect and retain the younger generation. Above all, we need to develop the next generation of TDK employees to ensure effective succession planning. To do so, we have recently established four global management development programs. Human Resources HQ discusses potential candidates to participate in these workshops and objectively assess their suitability. Our new global human resources perspective means we are now considering candidates beyond their own business group, in order to match their skills to the best possible role. We have already reaped the benefits of this approach and have successfully fielded candidates for key positions.

### Creating a diverse culture and achieving sustainable growth

A diverse environment is something we actively seek. We are constantly looking for ways to diversify through various initiatives. Furthermore, our desire to diversify worldwide has made Japan a big priority for us, as more can be done to close the gender gap there, which is why we introduced a Diversity Promotion Department. We also hired an outside expert to tackle diversity issues on a global scale. In Japan, we aim to ensure at least 15% of our managers are female by FY March 2036. Ultimately, we believe our cohesive, diverse, and nurturing culture will make us an employer of choice, which will see us continue to flourish and evolve. 

**Ratio of women in managerial positions (TDK Corporation)**

<table>
<thead>
<tr>
<th>2021</th>
<th>2036 Target</th>
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<tr>
<td>2.3%</td>
<td>15.0%</td>
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**Global management development programs**

- **Global Executive Management Program (GEMP)**  
  Approx. 10-15 participants (potential and newly appointed Corporate Officers)  
  - Detecting and managing innovation leading to business development strategies  
  - Leveraging diversity and becoming a top manager of change

- **Global Advanced Management Program (GAMP)**  
  Approx. 20-25 participants (GMs, DGMs and newly appointed GMs or DGMs)  
  - Increase specific general management and leadership competencies  
  - Develop the ability to manage complex and strategic issues

- **Global Management Program (GMP)**  
  Approx. 50 participants (for top talents who graduated TCDP from each territory)  
  - Introduction to the complexity of “general management” and of “corporate functions”  
  - Expand knowledge beyond the scope of members’ own functions

- **Territorial Career Development Program (TCDP)**  
  Approx. 80-100 participants (potential future leaders from entities)  
  - Experience leadership and management skills  
  - Leading yourself and leading a team or project

**Global Executive Management Program (GEMP)**

- **Approx. 10-15 participants (potential and newly appointed Corporate Officers)**  
  - Detecting and managing innovation leading to business development strategies  
  - Leveraging diversity and becoming a top manager of change

**Global Advanced Management Program (GAMP)**

- **Approx. 20-25 participants (GMs, DGMs and newly appointed GMs or DGMs)**  
  - Increase specific general management and leadership competencies  
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**Global Management Program (GMP)**

- **Approx. 50 participants (for top talents who graduated TCDP from each territory)**  
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  - Expand knowledge beyond the scope of members’ own functions

**Territorial Career Development Program (TCDP)**

- **Approx. 80-100 participants (potential future leaders from entities)**  
  - Experience leadership and management skills  
  - Leading yourself and leading a team or project
Climate Change Initiatives

Toward net zero greenhouse gas emissions

**Concept and targets**

Anthropogenic greenhouse gas emissions, which contribute to global warming, are on the rise, and the sense of crisis about climate change is increasing. Above all, CO₂ is a major source of greenhouse gases, and it is necessary to implement relevant CO₂ reduction measures in business activities.

In the TDK Group, the directors responsible for environmental matters serve as the managers of the Group’s environmental activities, including climate change issues, and the Safety & Environment Group of Sustainability Promotion HQ leads efforts to reduce CO₂ emissions. We have formulated the “TDK Environmental Vision 2035” as our target, and have set the goal of “halving the CO₂ emissions by 2050."

Reduction of CO₂ emissions at manufacturing sites and from logistics activities

Partly due to the impact of an increase of new sites, CO₂ emissions at production sites in FY March 2021 amounted to 1.768 million tons, up 13.5% over the previous fiscal year. Going forward, we will promote reduction efforts rooted in production activities across the entire Group based on a policy, as advocated in TDK’s materiality, of realizing the effective use of energy and the expanded use of renewable energy toward the achievement of net zero CO₂ emissions by 2050.

As a result of increased product transportation due to a rise in production volume, CO₂ emissions in logistics in Japan in FY March 2021 amounted to 4,924 tons, up 16.2% over the previous fiscal year. The CO₂ emission basic unit improved by 7.1% year on year. Going forward, we will strive to develop eco-friendly products that contribute toward reducing the environmental load of customers and society and to popularize such products by publicizing their value.

**Response to TCFD (summary)**

**Governance**

The environmental officer carries out a management review more than once a year of the state of progress in environment-related matters, including climate change, as well as plans and risks. Environmental risks, including climate change, are discussed in the ERM (Enterprise Risk Management) Committee, which is chaired by a corporate officer appointed by the CEO. Important matters are reported through the ERM Committee to the Executive Committee Meeting and the Board of Directors.

**Risk management**

Important risks for management are assessed in the ERM Committee as a part of comprehensive risks. At present, we are imagining climate change risks based on various information sources and scenario analysis test results and, in consideration of the scale of impact on business, identifying risks thought to be important.

**Strategy**

In analyzing business risks and opportunities due to climate-change-related problems and considering strategy, TDK has adopted two scenarios as premises for climate change—the International Energy Agency’s Beyond 2°C Scenario (B2DS) and Current Policies Scenario (CPS)—and begun trial scenario analysis.

**Metrics and targets**

Please refer to page 57.

**Potential risks**

- **Transitional risks (examples)**
  - Extra expenses for responding to customer demands to introduce renewable energy and loss of chance to receive orders due to delayed response
  - Extra expenses, production shutdown, or loss of chance to receive orders due to the introduction of carbon taxes and tightening of environmental laws and regulations around the world

- **Physical risks (example)**
  - Occurrence of equipment and production restoration expenses resulting from unexpected flooding due to increased size of typhoons or sudden torrential rain.

Please refer to the Sustainability Website for details.
Empowerment & Transparency

TDK places importance on a policy of “Empowerment and Transparency” to maintain growth and development while contributing to society. We respect the core competence and independent business development cherished by each of our Group companies, which are located in more than 30 countries and regions worldwide, and we encourage them to take on new technologies and businesses. At the same time, though, we demand rigorous transparency in management.

We make sure that all Group employees deal sincerely with customers and follow the four best practices (see page 27), thereby passing on TDK’s corporate culture to the next generation.
History of Governance Reforms

History

2002
- Establishment of Compensation Advisory Committee (chaired by an outside director)
- Number of directors reduced from 12 to 7
- Appointment of first outside director

2004
- Appointment of first non-Japanese corporate officer

2009
- Appointment of two non-Japanese corporate officers
- Appointment of one more outside director for a total of three

2012
- Appointment of an outside director as chair of the Board of Directors

2015
- Decision reached on basic policy that at least one-third of directors should be independent outside directors
- First implementation of effectiveness evaluation of the Board of Directors

2018
- Establishment of the Corporate Governance Committee

2020
- Appointment of first female director

Emphasis on enhancing corporate value

As a company with an Audit & Supervisory Board, TDK strives to ensure the soundness, compliance, and transparency of management through the introduction of various mechanisms to strengthen corporate governance with the aim of enhancing long-term corporate value.

Regarding the Board of Directors, we strive for swift management decision making by having a small number of members, and we actively appoint independent outside directors with no conflicts of interest so as to strengthen monitoring functions. Discussions are conducted from a long-term perspective. In addition, to strengthen supervisory functions over management, four committees have been established as advisory bodies to the Board of Directors (the Nomination Advisory Committee, Compensation Advisory Committee, Corporate Governance Committee, and Business Ethics Committee).

Regarding the execution of business, TDK endeavors to ensure swift decision making and to clarify responsibility and authority in business execution through the adoption of a corporate officer system. In addition, regarding global Group management, TDK trusts people who share the same goals and principles and delegates authority to them. Furthermore, to ensure transparency toward stakeholders, TDK advocates the policy of “Empowerment and Transparency” and is promoting reforms to realize a decentralized autonomous organization.

Corporate governance organization chart

Ordinary General Meeting of Shareholders
- Elects and dismisses Directors
- Elects and submits proposals
- Reports
- Reports
- Reports

Board of Directors (attended by directors and Audit & Supervisory Board members)
- Elects and dismisses
- Reports
- Reports
- Reports
- Reports
- Reports

Board of Audit & Supervisory Board Members Office
- Reports
- Reports
- Reports

Accounting Auditors
- Reports
- Reports
- Reports

Nomination Advisory Committee
- Instructs
- Reports

Compensation Advisory Committee
- Reports

Corporate Governance Committee
- Reports

Business Ethics Committee
- Reports

Executive Committee
- Reports

Management Review & Support Group
- Reports

Corporate Officers
- Reports

Disclosure Committee
- Reports

Enterprise Risk Management Committee
- Reports

Crisis Management Committee
- Reports

Information Security Committee
- Reports

Divisions and Group Companies
A Talk with Outside Directors

Board of Directors engages in lively discussions toward the medium- to long-term enhancement of corporate value

I think TDK has a very advanced governance setup. Outside directors have served as chair of the Board of Directors in the past and at present, and there is a good balance of 4:4 between directors in charge of nonbusiness affairs and directors who are concurrently corporate officers. So the system affords appropriate supervision of the Company.

Nakayama: Because the number of directors is limited, TDK’s Board of Directors engages in lively discussions, and we can make extremely frank statements. In that sense, I think the number of members and composition of the board are really good. In addition, the atmosphere makes it easy for outside directors to speak as well. Even if you ask a simple question, you get a very thoughtful answer. Ever since my very first board meeting, I have been able to take part in discussions quite smoothly.

Ishimura: Generally speaking, the simpler the question, the more complex the answer. In particular, regarding conventional wisdom inside a company, sometimes, looking from outside, it is completely impossible to understand. Insiders have not had occasion to think seriously about the matter, so in many cases they are unable to give a proper reply. That is my impression, anyway.

In the case of TDK’s Board of Directors, however, if you have even the slightest doubt about something, you can ask quite openly, and you get a careful explanation. It is always two-way, and the discussions are lively. So I positively evaluate the board’s role in deepening mutual understanding between internal and outside directors. I think this atmosphere is an important asset that former chairman of the Board have grommed over the years, and as the current chair, I intend to maintain it.

Nakayama: There are not only explanations during meetings of the Board of Directors but also substantial sharing of information beforehand. Everything is explained really well.

Ishimura: As support for outside directors and outside Audit & Supervisory Board members, TDK explains agenda-related information to them beforehand. Questions can be asked to the people in charge on that occasion. And even if you don’t get a reply there and then, information will be prepared and delivered on the day of the board meeting. So discussions in Board of Directors’ meetings can proceed extremely smoothly.

Please tell us about the effectiveness evaluation of the Board of Directors.

Ishimura: Regarding effectiveness evaluation of the board, the Corporate Governance Committee, which is chaired by TDK Chairman Makoto Sumita, takes the lead in conducting hearings with directors every year. In addition, about once every three years TDK requests evaluation by an outside third-party body with the aim of obtaining even more impartial and objective inspection. TDK then rotates the PDCGA [plan, do, check, act] cycle and attempts to make improvements on issues brought to light by these evaluations and analyses.

In my experience, there is definitely feedback in some form or other on issues pointed out at the time of hearings, and things that need to be changed are duly changed. So I feel that improvements are always being made.

Nakayama: I hear that in hearings on the effectiveness evaluation conducted in the year before my appointment as an outside director, there were many opinions pointing to the nonexistence of female directors. I think this again is one example of an improvement being made on the basis of the effectiveness evaluation.

I think the number of women in corporate boards is increasing, and we are hearing reports of improvements being made in the near future. I think TDK needs to make more efforts in the medium to long term.

Ishimura: I think one major role of outside directors is to withdraw or downsizing of businesses in which they have invested. I think it’s very hard to make those kinds of decisions.

What do you focus on when offering advice in the Board of Directors?

Ishimura: When major management decisions are necessary, I always think about what I would do if I were the company president and then to speak accordingly. Looking back on the past six years from this perspective, the most impressive incident remaining in my mind was when TDK transferred part of its high-frequency components business, which targeted smartphones and was doing fine, to Qualcomm. I remember well how extremely troubled I was, wondering what I would do if I were president. In that case, what I emphasized was that, in order to convince shareholders, we should announce not only the large amount of cash that would be obtained from the sale but also our post-sale growth strategy. We discussed this matter many times in the Board of Directors, and eventually it was decided to indicate the post-sale strategy as well. I think that was an extremely good move.

The role of outside directors

Please tell us your understanding of the role of outside directors.

Ishimura: I think one major role of outside directors is to comment on the present business portfolio and so on and to give advice for decision-making. After all, if only internal people think about such matters, I think it is extremely difficult for them to make decisions on the withdrawal or downsizing of businesses in which they themselves are involved. Outside directors have an important role to play here in offering an external viewpoint and deepening discussions in the Board of Directors.

Nakayama: As a general rule, I think executives tend to be rather short-sighted, so outside directors need to offer their opinions and raise issues from a medium- to long-term and multilateral perspective. TDK conducts business globally, and human resources capable of engaging in discussions amid even more diverse values are extremely important. In that sense, I feel that expectations of outside directors are considerable.

Ishimura: TDK is a very aggressive and can change dynamically. The Board of Directors believes that the Company should grow with this corporate stance as a strength. If this strength is squashed because of the risk factor, one wonders what on earth the Board of Directors is for in the first place. Naturally, risk management is one of the important roles of the board, but it is necessary to strike a good balance between brake and accelerator. As chairman of the board, I want us to engage in management that makes maximum use of our strength.

Group Governance

Characteristics of TDK’s governance

Please tell us your objective assessment of governance at TDK.

Nakayama: In 2009, before the Corporate Governance Code was established, already three of the seven directors at TDK were outside directors, and I heard that they were able to display a rigorous supervision function with an outsider’s perspective. I have been participating since last year, and that is just how I feel. At present, the composition of directors at TDK is just right; I don’t think there are many issues regarding the organizational setup.

On the other hand, because of the COVID-19 pandemic, it has become difficult to visit sites in regional Japan and overseas. As an outside director, I think this lack of access ic, it has become difficult to visit sites in regional Japan and there are many issues regarding the organizational setup.

Ishimura: As an outside director, I think this lack of access to sites is a major problem.

Ishimura: I am of the same opinion as Ms. Nakayama.
New Medium-Term Plan formulated after repeated long-term plan discussions in the Board of Directors

Ms. Nakayama, you have been appointed chairwoman of the Nomination Advisory Committee. What do you think are the issues here?

Nakayama: Even if they are only simple doubts, I make an effort to actively ask questions and state my opinion, and quite often my views get reflected in decisions. For example, together with Mr. Ishimura, I suggested that business composition should take account of national and regional risks, and I do feel that little by little the situation is being reviewed.

Ishimura: As chairpersons of Advisory Committees

Please tell us the characteristics of TDK’s remuneration system for directors and Audit & Supervisory Board members.

Ishimura: The ratio of other allowances is larger than the basic remuneration, and that ratio gets higher in proportion to the director’s position. Results-linked bonuses fluctuate in the range of 0%–200% depending on target achievement degrees, so there is a lot of incentive. I think it is an appropriate system from the point of view of shareholders too.

In addition, a post-delivery-type stock remuneration plan was introduced in fiscal 2021 to further raise directors’ awar____

awareness of the shareholder perspective. This incentive is related to long-term results in the enhancement of corporate value.

In the design of the remuneration system for directors and Audit & Supervisory Board members, emphasis should be placed on whether TDK can secure diverse and talented human resources. This objective is stated clearly in TDK’s policy for determining remuneration. In particular, I think remuneration can be a bottleneck when appointing non-Japanese personnel, so the system is designed by constantly checking TDK’s value in the market. I positively evaluate TDK’s remuneration system as being not only highly appropriate at the moment but also a source of pride in the industry as well.

Nakayama: I think targets and evaluation criteria relating to Social Value, which is one of the three values in TDK’s value creation cycle, must be taken into consideration too.

Ishimura: I am aware of that point as an issue as well. Since we are saying that Social Value is the starting point of the three values, going forward I want the Compensation Advisory Committee to discuss including nonfinancial targets relating to ESG and the SDGs in the remuneration system and methods of evaluating achievement too.

Ishimura: Regarding effectiveness evaluation of the Board of Directors?

Nakayama: In the effectiveness evaluation of the Board of Directors a few years ago, the opinion was given that discussions in the Board of Directors should focus on medium- to long-term management strategy and important management matters. After that, the board changed course and moved in that direction. And this time we adopted the approach of formulating the Medium-Term Plan by backcasting from the long-term plan. The board spent quite a long time on discussions.

Ishimura: Forecasting such things as changes in the social structure, customer needs, and technological trends 10 years down the road is difficult in itself, but TDK formulated its long-term plan after detailed analysis of these projections.

For a seminar of the innovation-related foundation where I serve as a director, we invited Seiji Osaka, a TDK director and general manager of the Corporate Strategy HQ, to give a talk. When he spoke about TDK’s long-term plan, the seminar participants gave a very good reaction.

Ishimura: In making forecasts for a decade in the future, if you start from what is generally being talked about, every company is going to be the same, isn’t it? TDK was not like that. I think it was good that we made our own original future predictions.

Nakayama: I think so too. Going forward, we will monitor the progress of the three-year Medium-Term Plan formulated on the basis of the long-term plan. In particular, I want to closely watch the state of implementation of strategies for the sensor application products and other businesses that were issues in the previous Medium-Term Plan and the energy application products business, which is our top earner at present.

Finally, what are your expectations of TDK in the future?

Nakayama: I think an issue going forward is how to boost the engagement of employees around the world. Engagement is enhanced when employees empathize with the company’s principles and vision, so I hope that TDK actively promotes initiatives for that purpose.

Ishimura: To enhance engagement, it is important to increase employees’ work motivation. My assessment is that TDK stands at a high level in terms of work-friendliness and degree of employee satisfaction. But if we can enhance engagement more and further improve the relations of trust between employees and company, I think TDK will become an even better company. I want to make such statements in the Board of Directors’ meetings from now on.
Corporate Governance Structure

Strengthening of the Board of Directors’ monitoring function

Emphasis on external and medium- to long-term perspectives
TDK’s basic policy is to have a small number of members (up to 10 persons) on the Board of Directors so as to expedite speedy management decision making. At present there are eight directors sitting on the board. In addition, in order to strengthen the management supervision function, TDK’s basic policy is that one-third or more of these directors should be independent outside directors with no conflict of interests. Currently three of the eight directors sitting on the board are outside directors. Furthermore, in principle an independent outside director serves as the chairperson of the Board of Directors. Of the five internal directors, while one of them is not concurrently a corporate officer, the other four are responsible for nonbusiness divisions, giving them an overview of the Company as a whole.

Also, the narrowing down of criteria for referral to the Board of Directors to important matters from a medium- to long-term perspective, such as management strategy and Group risk management, leads to deeper discussions and speedy decision making.

Appointment of outside directors
Persons recruited as independent outside directors have a wealth of practical experience relating to corporate management and are able to provide advice from an independent perspective regarding general management for enhancing TDK’s corporate value. To secure the independence of the outside directors and outside Audit & Supervisory Board members recruited to the Board, TDK established “items to be verified regarding independence” by making reference to “Securing Independent Director (s)/Auditor(s)” of the Securities Listing Regulations and “the Guidelines Concerning Listed Company Compliance,” etc., established by the Tokyo Stock Exchange, Inc. The directors’ terms of office are set at one year to give shareholders an opportunity to cast votes of confidence regarding directors’ performance every fiscal year.

Attendance record of Outside Directors (people who were Outside Directors as of the last day of March 2021)

<table>
<thead>
<tr>
<th>Name</th>
<th>Board of Directors</th>
<th>Nomination Advisory Committee</th>
<th>Compensation Advisory Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazuhiko Ishimura</td>
<td>13 out of 14</td>
<td>10 out of 10</td>
<td>7 out of 7</td>
</tr>
<tr>
<td>Kazunori Yagi</td>
<td>14 out of 14</td>
<td>10 out of 10</td>
<td>7 out of 7</td>
</tr>
<tr>
<td>Kōzue Nakayama</td>
<td>10 out of 10</td>
<td>9 out of 9</td>
<td>5 out of 5</td>
</tr>
</tbody>
</table>

* Following appointment in June 2020

Attendance record of Outside Audit & Supervisory Board Members (people who were Outside Audit & Supervisory Board Members as of the last day of March 2021)

<table>
<thead>
<tr>
<th>Name</th>
<th>Audit &amp; Supervisory Board</th>
<th>Board of Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun Ishii</td>
<td>14 out of 14</td>
<td>14 out of 14</td>
</tr>
<tr>
<td>Douglas K. Freeman</td>
<td>14 out of 14</td>
<td>14 out of 14</td>
</tr>
<tr>
<td>Michiko Chiba</td>
<td>14 out of 14</td>
<td>14 out of 14</td>
</tr>
</tbody>
</table>

Members of Advisory Committees

<table>
<thead>
<tr>
<th>Name</th>
<th>Nomination Advisory Committee</th>
<th>Compensation Advisory Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazuhiko Ishimura</td>
<td>Outside Director</td>
<td>Chairman</td>
</tr>
<tr>
<td>Kōzue Nakayama</td>
<td>Outside Director</td>
<td>Chairman</td>
</tr>
<tr>
<td>Mutsumi Iwai</td>
<td>Outside Director</td>
<td></td>
</tr>
<tr>
<td>Makoto Sumita</td>
<td>Chairman &amp; Director</td>
<td></td>
</tr>
<tr>
<td>Shigeno Ishiguro</td>
<td>President and CEO</td>
<td></td>
</tr>
<tr>
<td>Sei Osaka</td>
<td>Director</td>
<td></td>
</tr>
</tbody>
</table>

Empowerment and Transparency in business execution

Bold delegation of authority and ensuring of transparency
TDK promotes reforms toward a decentralized autonomous organization through a basic policy of “Empowerment and Transparency,” by which authority is delegated to reliable people who share our goals and principles, efforts are made toward speedy decision making, and transparency to stakeholders is ensured.

In addition, in HQ functions also, the Global HQ promotes collaboration with Business Companies (BCs) and Business Groups (BGs) around the world by supplying horizontal functions, such as technological development, personnel affairs, and legal affairs, and the Regional HQ in Japan, Europe, Americas, and China actively delegate authority to the frontlines by building systems providing meticulous backup support.

Appointment of non-Japanese corporate officers
TDK began encouraging globalization at an early stage, appointing a non-Japanese person as a corporate officer in 2004 and promoting the globalization of management by increasing the number of non-Japanese corporate officers since then. Today, at a time when both the overseas sales ratio and the overseas employee ratio exceed 90%, 44% of TDK’s corporate officers are non-Japanese.

The TDK Group implemented numerous M&A of overseas companies, and the globalization and diversification of management structures has become an important issue. We are working to recruit outstanding human resources from around the world under the Human Resources HQ established in Germany in 2019.
Nominations and succession plan guaranteeing objectivity and effectiveness

Policy and procedures for the nomination of directors, Audit & Supervisory Board members and corporate officers

TDK has established the Nomination Advisory Committee, which is chaired by an outside director and in which half of the members are outside directors, as an advisory body to the Board of Directors. Regarding the nomination of directors, Audit & Supervisory Board members, and corporate officers, after discussing the expected conditions, the Nomination Advisory Committee recommends candidates, thereby contributing to ensuring the appropriateness of director, Audit & Supervisory Board member, and corporate officer appointments and the transparency of the decision-making process. The committee also discusses the independence of outside directors and outside Audit & Supervisory Board members.

CEO nomination and succession plan

When nominating the CEO, the Nomination Advisory Committee forms an image of the ideal person suitable for the role of top executive and conducts deliberations that also cover such issues as systems and term of office. Efforts are also made to ensure objectivity through the utilization of an outside expert organization.

Under the leadership of the current CEO, TDK is steadily promoting a succession plan with a view to the future, including the launch of a medium- to long-term program to actively foster future leader candidates.

TDK wins 2020 Minister of Economy, Trade, and Industry Award for Corporate Governance of the Year

As a company that conducts the effective supervision of its succession plan and achieves results

In January 2021, TDK won the 2020 Minister of Economy, Trade, and Industry Award for Corporate Governance of the Year, presented by the Japan Association of Corporate Directors. The Corporate Governance of the Year award was launched in fiscal 2016 to provide backup support to companies that achieve sound growth over the medium to long term utilizing corporate governance and thereby to bolster the earnings power of Japanese companies. TDK was selected as the 2020 winner in recognition of the company’s advanced initiatives concerning its appointment and succession planning for its president and CEO, which forms the backbone of governance. Moving forward, TDK will continue working to improve its corporate governance in order to achieve sustained growth and improve its corporate value.

Reasons for selection

1. The company has established a Nomination Advisory Committee with a majority of members being independent outside directors that is chaired by an independent outside director to ensure effective supervision of the appointment of outside directors and succession planning for the president.

2. In addition, the company has applied third-party perspectives to ensure adequate discussion by including this committee in the subject matter evaluation and developed the regular evaluation of the committee. Further, the company’s transparency in its appointment of outside directors and succession planning for its president is high. For example, it discloses the activities of the Nomination Advisory Committee and the results of third-party evaluations in its corporate governance report, integrated report, and other documents.

3. When the current president was appointed in 2016, the members of the Nomination Advisory Committee and an external specialized institution interviewed each candidate multiple times, with the leading role played by the person who was then the chairperson of the committee to select an appropriate candidate capable of achieving sustainable growth. Thus, the aptitude of the candidates was judged objectively, and the performance of the President has been evaluated effectively thereafter. In addition, the creation of succession plan in view of the future has been developed by initiatives such as the creation of a medium- to long-term program for proactively developing executive candidates under the leadership of the president.

4. Since the current president assumed office, he has been engaged in global management of the company from a medium- to long-term perspective while ensuring thorough communication and the sharing of information with independent outside directors. As a result, the company has shown a high level of performance as reflected in the total shareholder return (TSR), which exceeds the industry average.

Continuous improvement based on effectiveness evaluation

TDK conducts an evaluation of the effectiveness of the Board of Directors each year. Also, TDK requests a third-party evaluation institution to evaluate the effectiveness of the Board of Directors periodically (about once every three years, conducted in fiscal 2019 last time) in order to verify it from the neutral and objective standpoint. In the Board of Directors evaluation for fiscal 2021, the Corporate Governance Committee (Chair of the Committee Makoto Sumita, Chairman of TDK & Director who does not concurrently serve as a corporate officer), which is an advisory body to the Board of Directors, took the lead in a neutral position, conducted questionnaires and interviews with the Board of Directors (including the Audit & Supervisory Board members) and its advisory committees (Nomination Advisory Committee and Compensation Advisory Committee), and after discussions by the Board of Directors, the Board of Directors conducted the final evaluation. As a result, it was confirmed that the effectiveness of the Board of Directors and its advisory committees (Nomination Advisory Committee and Compensation Advisory Committee) was sufficiently secured in terms of size and composition, the content of the agenda items and deliberations, the status of discussions, their reflection in management, etc. Also, the Board of Directors verified the progress in addressing the issues identified in the previous fiscal year’s effectiveness evaluation as follows and set out future issues.

Progress in addressing the issues identified in the previous fiscal year’s effectiveness evaluation

1. Continuous verification of long-term management strategies

The Board of Directors continued to verify the progress of the plan based on the long-term management strategies and deliberated on the new (next) medium-term management plan, Fiscal 2021-Fiscal 2023, at the final fiscal year of the three-year medium-term management plan. The Board of Directors reviewed the results of the Medium-Term Plan and discussed about the direction of the next (new) Medium-Term Plan at the Board of Directors meeting in November 2020. After that, the Board of Directors repeatedly deliberated on the business situation of each major business division and the concept of the new Medium-Term Plan in its meetings held during the period between November 2020 and January 2021, and based on these deliberations, revised and formulated a new medium-term plan in its meeting held in March 2021, taking the long-term management strategies into consideration.

2. Strengthening of the Group’s risk management

TDK has established the “Global Common Regulations” that stipulate the roles, responsibilities and authorities of the global Group companies of TDK and the roles that all employees should comply with, and promoted their dissemination and operation. As part of this, TDK has strengthened the reporting routes and strengthened the monitoring. These efforts were reported to and confirmed by the Board of Directors.

3. Enhancement of communication among outside directors, Audit & Supervisory Board members

From the perspective of preventing the spread of the COVID-19 infection, the Board of Directors meetings of the fiscal year ended March 2021 were held via remote conference system in principle. From the same point of view, TDK decided to refrain from having face-to-face meetings and dinners among outside directors and Audit & Supervisory Board members in principle. In remote meetings, there was no problem with the IT systems, and smooth proceedings were maintained. At the same time, however, it was pointed out that it was difficult to convey the atmospheres and feeling of the meetings compared to face-to-face meetings. It was confirmed that, while closely monitoring the situation of COVID-19 and taking measures to prevent infection, TDK will continue to enhance communication.

Future issues

1. Monitoring of the new medium-term management plan based on the long-term management strategies. TDK has formulated a new medium-term management plan (three years from fiscal 2022) which sets forth “Social Value,” “Commercial Value” and “Assist Value” as the base of improving the corporate value. It was confirmed that the Board of Directors should continue to continuously deliberate and verify its steady implementation.

2. Promotion of the efforts to address issues related to sustainability

From the perspective of improving the corporate value over the medium to long term, it was decided that efforts should be further promoted to address issues related to sustainability, including social and environmental issues. Specifically, it was confirmed that the Board of Directors should spread its efforts toward sustainability into the company’s businesses, promote the linkage between such efforts and the businesses, deepen discussions at the Board of Directors meetings, and enhance information on sustainability reporting.

3. Further strengthening of the Group’s risk management

It was confirmed that the risk management should be further strengthened in order to respond to various risks associated with the global business expansion and changes in the situation and environment in the international community. In particular, it was confirmed that the management system of risks, including compliance risks, should be further strengthened and that the Board of Directors should discuss the overall risks more deeply.

4. Succession of Board members and human resource strategies

In order to maintain the Board of Directors effectively, it was confirmed that it is necessary to make smooth successions of the Board members, including internal and outside directors and Audit & Supervisory Board members, and the chair of the Board of Directors. In addition, it was confirmed that the successions of the entire company, including not only the Board members but also corporate officers and executives, should be promoted in conjunction with the global human resources development plan.
Remuneration system linked to medium- to long-term corporate value

**Design of remuneration system for directors and Audit & Supervisory Board members and the decision-making process**

In designing the remuneration system for directors and Audit & Supervisory Board members, TDK emphasizes linkage with short-term and medium- to long-term results. Also, to ensure diverse and talented human resources, TDK aims to fully promote action on the part of directors and Audit & Supervisory Board members geared toward enhancing corporate performance and stock value by pursuing a competitive remuneration system.

Regarding the mechanism and level of remuneration for directors and corporate officers, the Compensation Advisory Committee, which is an advisory body to the Board of Directors, examines the appropriateness of remuneration from the point of view of company performance, individual performance, general levels, and other factors and reports to the Board of Directors. Since half or more of the members of this committee are independent outside directors, and the chairperson also is an outside director, it ensures the transparency of the remuneration decision-making process and the appropriateness of individual remuneration.

**Design of remuneration system to align benefits with those of shareholders**

In fiscal 2021, TDK’s Board of Directors partly revised the remuneration system for directors changing the previous stock-linked compensation stock option plan to a post-delivery type stock remuneration plan toward the medium- to long-term enhancement of corporate value. As a result, directors further share the benefits and risks of stock price fluctuations with shareholders as they pursue the improvement of business growth and corporate value.

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### Structure of remuneration for Directors and Audit & Supervisory Board Members

<table>
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<th>Type of remuneration</th>
<th>Details of remuneration</th>
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<tbody>
<tr>
<td>Basic remuneration</td>
<td>Monetary compensation paid monthly</td>
<td>Fixed</td>
</tr>
<tr>
<td>Results-linked bonus</td>
<td>Monetary compensation which is paid at predetermined times each year with an emphasis on the linkage with short-term performance. The amount of the bonus fluctuates within a range of 0% to 200% of the standard payment amount depending on the degree of attainment of the consolidated results for the fiscal year under review (operating income, ROE) and the targets set for each division, (single fiscal year)</td>
<td>Fluctuating</td>
</tr>
<tr>
<td>Post-delivery type stock remuneration</td>
<td>PSU is a type of stock remuneration which is issued based on continuous service. In case of PSU, subject to continuous service for a period of three years from the first day of the first year to the last day of the last year of the Medium-Term Plan or for a period of three years or more as determined by the Board of Directors of the Company, the “Target Period”, a predetermined amount of the Company’s shares is delivered after the end of the Target Period.</td>
<td>Fixed</td>
</tr>
<tr>
<td>Post-delivery type stock remuneration</td>
<td>PSU is a type of stock remuneration which is issued based on performance. In case of PSU, an amount of the Company’s shares and money calculated in accordance with the degree of achievement of performance targets set by the Medium-Term Plan is delivered after the end of the Target Period. The degree of achievement of performance targets shall vary from 0% to 100% depending on the degree of attainment of consolidated operating income, average consolidated ROE outlined in the Medium-Term Plan.</td>
<td>Fluctuating (medium to long-term)</td>
</tr>
</tbody>
</table>

---

### Breakdown of remuneration for Directors concurrently serving as Corporate Officers (for standard payments)

<table>
<thead>
<tr>
<th></th>
<th>Basic remuneration</th>
<th>Results-linked bonus</th>
<th>Post-delivery type stock remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDK’s Board of Directors concurrently serving as corporate officers</td>
<td>¥10,000 million (target), ¥11,535 million (result)</td>
<td>¥172.5 billion</td>
<td>¥70,900 million (target), ¥111,535 million (result)</td>
</tr>
<tr>
<td>Outside directors</td>
<td>¥72,5 billion*</td>
<td>7.2%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Inside directors</td>
<td>¥93.4 billion</td>
<td>9.2%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Total</td>
<td>¥208.7 billion</td>
<td>19.8%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

**Notes:**

1. In accordance with the introduction of the post-delivery type stock remuneration plan that was approved by the 124th Ordinary General Meeting of Shareholders held on June 23, 2020, the stock-linked compensation stock option plan was abolished, except for those that had already been granted, and is not shown in the above table.
2. The PSU plan came into operation from fiscal 2021. The PSU plan is scheduled to come into operation from fiscal 2021.
3. Directors and Audit & Supervisory Board Members remuneration classification for results-linked compensation, non-monetary compensation and other remuneration is as follows.

---

### Eligible for payment

<table>
<thead>
<tr>
<th>Category</th>
<th>Basic remuneration</th>
<th>Results-linked bonus</th>
<th>Post-delivery type stock remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors concurrently serving as corporate officers</td>
<td>¥10,000 million (target), ¥11,535 million (result)</td>
<td>¥172.5 billion</td>
<td>¥70,900 million (target), ¥111,535 million (result)</td>
</tr>
<tr>
<td>Directors not concurrently serving as corporate officers</td>
<td>¥72,5 billion*</td>
<td>7.2%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Outside directors</td>
<td>¥93.4 billion</td>
<td>9.2%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Audit &amp; Supervisory Board members</td>
<td>¥208.7 billion</td>
<td>19.8%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

**Trends in total amount of remuneration for Directors and Audit & Supervisory Board Members**

<table>
<thead>
<tr>
<th>Year</th>
<th>Basic remuneration</th>
<th>Results-linked bonus</th>
<th>Post-delivery type stock remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>¥58.0 billion</td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>2016</td>
<td>¥51.0 billion</td>
<td>51%</td>
<td>51%</td>
</tr>
<tr>
<td>2017</td>
<td>¥45.0 billion</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>2018</td>
<td>¥42.0 billion</td>
<td>42%</td>
<td>42%</td>
</tr>
<tr>
<td>2019</td>
<td>¥31.4 billion</td>
<td>69%</td>
<td>69%</td>
</tr>
<tr>
<td>2020</td>
<td>¥26.6 billion</td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>2021</td>
<td>¥29.1 billion</td>
<td>97%</td>
<td>97%</td>
</tr>
</tbody>
</table>

**Notes:**

1. Includes ¥144.4 billion in gains from business transfer to Qualcomm.
Audit & Supervisory Board Members

Summary of career

Jun Ishii
Outside Audit & Supervisory Board Member

Summary of career

Douglas K. Freeman
Outside Audit & Supervisory Board Member

Summary of career

Michiko Chiba
Outside Audit & Supervisory Board Member

Summary of career

President and CEO
Shigenao Ishiguro

Executive Vice Presidents

Seiji Osaka
Joachim Zichlarz
Tetsuji Yamanishi

Senior Vice Presidents

Noboru Salto
Mitsuru Nagata
Michael Pocsatko
Andreas Keller

Group Governance

Directors, Audit & Supervisory Board Members, and Corporate Officers

[As of the end of October 2021]

Directors

Shigenao Ishiguro
Representative Director
President and CEO

Tetsuji Yamanishi
Representative Director

Makoto Sumita
Director

Seiji Osaka
Director

Shigeki Sato
Director

Kazuhiko Ishihara
Outside Director

Kazue Nakayama
Outside Director

Mutsumi Iwai
Outside Director

Summary of career

Apr. 1979 Entered Japan Tobacco and Salt Public Corporation
Jan. 2006 Executive Vice President of JT
Jun. 2013 Senior Executive Vice President of JT
Jun. 2016 Director, Managing Executive Officer of said company
Jun. 2017 Director, Managing Executive Officer of said company
Jun. 2019 Outside Audit & Supervisory Board Member of Imperial Hotels, Ltd. (present post)
Jun. 2020 Outside Director of the Company (present post)

Summary of career

Apr. 2007 Executive Vice President and Vice President of Food Business of Panasonic Corporation
Apr. 2008 Director of said company
Jun. 2011 Outside Director of said company
Jun. 2018 President and Representative Director of Pacific Convenio Plaza Yokohama
Jun. 2019 Outside Audit & Supervisory Board Member of Imperial Hotels, Ltd. (present post)
Jun. 2020 Outside Director of the Company (present post)

Summary of career

Apr. 1983 Entered日产玻璃株式会社
Sep. 2010 Chosen Nissan Motor Co., Ltd.
Mar. 2011 Retired from said company
Apr. 2011 Entered Yokohama City
Apr. 2013 Director General of Culture and Tourism Bureau of said city
Jun. 2018 President and Representative Director of Pacific Convenio Plaza Yokohama
Jun. 2019 Outside Audit & Supervisory Board Member of Imperial Hotels, Ltd. (present post)
Jun. 2020 Outside Director of the Company (present post)

Summary of career

Apr. 1989 Entered 東京メトロ株式会社
Apr. 1990 Entered Goldman Sachs
Apr. 1996 Registered as lawyer in Japan
May 1997 Entered Koya, Wani & Waki
Jun. 1997 Entered Hamada Law Offices
Sep. 2002 Registered as lawyer in New York, the United States of America
Sep. 2002 Entered Sullivan & Cromwell LLP
Jun. 2019 Professor of Keio University Law School (present post)
Jun. 2019 Outside Audit & Supervisory Board Member of the Company (present post)

Summary of career

Apr. 1979 Entered Matsushita Electric Industrial Co., Ltd. (currently Panasonic Corporation)
Apr. 2001 Senior Vice President of said company
Apr. 2002 Executive Officer of said company
Jun. 2011 Outside Audit & Supervisory Board Member of said company
Jun. 2014 Managing Director of said company
Jun. 2015 In Charge of Human Resources, Global Affairs, Legal Affairs, Public Relations, Corporate Governance, Risk Management, Facility Management, Corporate Sport Management, Executive Vice President of said company
Jun. 2016 Executive Vice President of CJ
corporate support office;
Jun. 2017 Senior Executive Vice President of JT
Jun. 2019 Outside Audit & Supervisory Board Member of the Company (present post)
Jun. 2020 Outside Director of Suntory Holdings, Inc. (present post)
Jun. 2021 Outside Director of the Company (present post)

Corporate Officers

President and CEO
Shigenao Ishiguro

Executive Vice Presidents

Seiji Osaka
Joachim Zichlarz
Tetsuji Yamanishi

Senior Vice Presidents

Noboru Salto
Mitsuru Nagata
Michael Pocsatko
Andreas Keller

Andreas Keller
Shigeki Sato

Seiji Osaka
Mitsuru Nagata
Michael Pocsatko
Andreas Keller

Mitsuru Nagata
Michael Pocsatko
Andreas Keller

Shigeki Sato

Mitsuru Nagata
Michael Pocsatko
Andreas Keller

Werner Lohwasser
Taro Ikusima
Shuichi Hashiyama

73
74
## Consolidated Business Results Highlights (Fiscal years ended March 31)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>¥802,534</td>
<td>¥841,847</td>
<td>¥984,525</td>
<td>¥1,082,560</td>
<td>¥1,152,255</td>
<td>¥1,178,257</td>
<td>¥1,271,747</td>
<td>¥1,381,806</td>
<td>¥1,363,037</td>
<td>¥1,479,008</td>
</tr>
<tr>
<td>Overseas sales</td>
<td>702,469</td>
<td>747,062</td>
<td>890,520</td>
<td>989,348</td>
<td>1,061,203</td>
<td>1,073,024</td>
<td>1,158,004</td>
<td>1,268,437</td>
<td>1,252,634</td>
<td>1,361,803</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>624,271</td>
<td>668,258</td>
<td>763,572</td>
<td>802,225</td>
<td>831,123</td>
<td>855,948</td>
<td>928,525</td>
<td>985,321</td>
<td>959,714</td>
<td>1,044,690</td>
</tr>
<tr>
<td>Selling, general and administrative expenses</td>
<td>153,951</td>
<td>147,876</td>
<td>179,886</td>
<td>199,795</td>
<td>227,185</td>
<td>239,446</td>
<td>257,630</td>
<td>287,561</td>
<td>289,771</td>
<td>317,302</td>
</tr>
<tr>
<td>Operating income</td>
<td>20,539</td>
<td>22,054</td>
<td>36,616</td>
<td>72,459</td>
<td>93,414</td>
<td>208,660</td>
<td>89,692</td>
<td>107,823</td>
<td>97,870</td>
<td>111,535</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>74,517</td>
<td>81,139</td>
<td>211,717</td>
<td>89,811</td>
<td>115,554</td>
<td>95,876</td>
<td>121,904</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from continuing operations before income taxes</td>
<td>14,668</td>
<td>19,765</td>
<td>39,772</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>99,653</td>
<td>85,606</td>
<td>68,606</td>
<td>102,525</td>
<td>160,674</td>
<td>167,631</td>
<td>178,612</td>
<td>173,592</td>
<td>173,429</td>
<td>212,355</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>80,197</td>
<td>77,908</td>
<td>83,109</td>
<td>80,249</td>
<td>83,224</td>
<td>87,491</td>
<td>92,171</td>
<td>106,631</td>
<td>124,984</td>
<td>140,285</td>
</tr>
<tr>
<td>Research and development</td>
<td>52,551</td>
<td>53,943</td>
<td>63,385</td>
<td>70,644</td>
<td>84,920</td>
<td>91,254</td>
<td>102,641</td>
<td>115,155</td>
<td>117,489</td>
<td>127,046</td>
</tr>
<tr>
<td>Ratio of overseas production to net sales (%)</td>
<td>80,2</td>
<td>81,8</td>
<td>86,7</td>
<td>87,9</td>
<td>86,3</td>
<td>86,1</td>
<td>84,5</td>
<td>84,4</td>
<td>86,2</td>
<td></td>
</tr>
<tr>
<td>Net cash provided by operating activities</td>
<td>55,334</td>
<td>108,942</td>
<td>127,306</td>
<td>142,850</td>
<td>151,563</td>
<td>160,136</td>
<td>91,310</td>
<td>140,274</td>
<td>222,390</td>
<td>222,814</td>
</tr>
<tr>
<td>Net cash used in investing activities</td>
<td>(29,896)</td>
<td>(90,156)</td>
<td>(55,438)</td>
<td>(127,312)</td>
<td>(140,585)</td>
<td>(71,111)</td>
<td>(246,096)</td>
<td>(140,179)</td>
<td>(41,964)</td>
<td>(231,488)</td>
</tr>
<tr>
<td>Net cash provided by (used in) financing activities</td>
<td>12,929</td>
<td>4,395</td>
<td>(56,119)</td>
<td>(35,243)</td>
<td>29,305</td>
<td>(37,763)</td>
<td>110,088</td>
<td>9,435</td>
<td>(121,769)</td>
<td>29,193</td>
</tr>
<tr>
<td>Cash and cash equivalents at end of period</td>
<td>167,015</td>
<td>213,687</td>
<td>250,848</td>
<td>265,104</td>
<td>285,468</td>
<td>330,388</td>
<td>279,624</td>
<td>289,175</td>
<td>332,717</td>
<td>380,387</td>
</tr>
<tr>
<td>Total assets</td>
<td>1,072,829</td>
<td>1,169,575</td>
<td>1,239,553</td>
<td>1,404,253</td>
<td>1,450,564</td>
<td>1,664,333</td>
<td>1,905,209</td>
<td>1,992,480</td>
<td>1,943,379</td>
<td>2,401,433</td>
</tr>
<tr>
<td>TDK stockholders’ equity</td>
<td>498,159</td>
<td>561,169</td>
<td>635,327</td>
<td>738,861</td>
<td>675,361</td>
<td>700,614</td>
<td>824,634</td>
<td>877,290</td>
<td>843,957</td>
<td>1,003,538</td>
</tr>
<tr>
<td>Working capital</td>
<td>219,918</td>
<td>232,693</td>
<td>279,504</td>
<td>352,364</td>
<td>289,760</td>
<td>388,542</td>
<td>296,899</td>
<td>208,165</td>
<td>247,577</td>
<td>221,909</td>
</tr>
<tr>
<td>Number of shares issued (thousands)</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
<td>129,591</td>
</tr>
</tbody>
</table>

### Per-share data

| Net income (loss) attributable to TDK (basic) | ¥19,000 | ¥9,500 | ¥129,47 | ¥392,78 | ¥514,23 | ¥1,150,16 | ¥502,80 | ¥651,02 | ¥457,47 | ¥628,08 |
| Net assets                                   | 3,957 | 4,461 | 5,050 | 5,865 | 5,355 | 6,289 | 6,532 | 6,947 | 6,681 | 7,944 |
| Dividends                                    | 80,00 | 70,00 | 70,00 | 90,00 | 120,00 | 120,00 | 130,00 | 160,00 | 180,00 | 180,00 |
| Payout ratio (%)                             | 23,3 | 54,1 | 54,1 | 22,9 | 23,3 | 10,4 | 25,9 | 24,6 | 39,3 | 28,7 |

### Key financial ratios

| Overseas sales ratio (%)                     | 87,5 | 88,7 | 90,5 | 91,4 | 92,1 | 91,1 | 91,1 | 91,8 | 91,9 | 92,1 |
| SG&A ratio (%)                               | 19,2 | 17,6 | 18,3 | 18,5 | 19,7 | 20,3 | 20,2 | 20,8 | 21,3 | 21,5 |
| Operating income ratio (%)                   | 2,6 | 2,6 | 3,7 | 6,7 | 8,1 | 17,7 | 7,1 | 7,8 | 7,2 | 7,5 |
| Return on equity (ROE) (%)                   | (0,5) | 0,2 | 2,7 | 7,2 | 9,2 | 19,8 | 7,8 | 6,7 | 6,7 | 6,6 |
| Return on assets (ROA) (%)                   | (0,2) | 0,1 | 1,4 | 3,7 | 4,5 | 9,3 | 3,6 | 4,2 | 2,9 | 3,7 |

### Non-financial indicators

| Number of employees                          | 79,175 | 79,863 | 83,581 | 88,076 | 91,648 | 99,693 | 102,883 | 104,781 | 107,138 | 129,284 |
| Overseas employee ratio (%)                  | 87,4 | 88,2 | 89,1 | 89,8 | 90,3 | 90,7 | 90,7 | 90,7 | 90,6 | 92,0 |
| CO2 emissions from production activities (t-CO2) | 1,109,926 | 1,102,989 | 1,190,458 | 1,269,086 | 1,474,119 | 1,463,396 | 1,647,096 | 1,669,733 | 1,557,687 | 1,768,010 |
| CO2 emissions reduction through products (t-CO2) | 321,000 | 498,000 | 886,000 | 1,251,000 | 1,581,000 | 1,675,000 | 2,041,000 | 2,149,000 | 2,267,000 | 2,633,000 |
In fiscal 2021 business was severely impacted by the resurgence of the COVID-19 pandemic, the increasingly serious confrontation between the United States and China, and the strong yen exchange rate, including the value of the yen against the U.S. dollar. From the second quarter, however, and amid the gradual resumption of social and economic activities and production activities in countries around the world, demand began to recover, and TDK net sales reached ¥719.9 billion, up 8.5% over the previous fiscal year, as in fiscal 2021 overseas accounted for 32.1% of total sales.

In fiscal 2017, capital gains of ¥144.4 billion were recorded in conjunction with the business tie-up with Qualcomm and an agreement to establish a joint venture. Operating income in fiscal 2018 fell substantially. In fiscal 2021, although there was a rise in administrative expenses and development expenses owing to the expansion of business for lithium ion batteries, as well as the impact of selling price discounting, operating income reached ¥111.5 billion, which was higher than the initial plan of ¥95.0 billion.

As a result of the impact from recording gains from the transfer of business to Qualcomm in fiscal 2017 and fiscal 2018, free cash flow was negative ¥175.8 billion as a result of active capital expenditures, R&D, and M&A investment. Although free cash flow turned positive in fiscal 2019, it again registered a negative ¥154.8 billion in fiscal 2020, down ¥121.0 billion year on year. In fiscal 2021, the business transfer to Qualcomm in fiscal 2017 resulted in a significant improvement in free cash flow. Funds obtained as compensation for the business transfer were utilized in new M&A in accordance with our growth strategy, and we are further strengthening our earnings structure. In fiscal 2018, free cash flow was negative ¥175.8 billion as a result of active capital expenditures, R&D, and M&A investment. Although free cash flow turned positive in fiscal 2019, it again registered a negative ¥154.8 billion in fiscal 2020, down ¥121.0 billion year on year. In fiscal 2021, our CO2 emissions rose over the previous fiscal year due to the substantial recovery of orders. Complied with fiscal 2012, the overseas production ratio in fiscal 2021 was up by 6.0 percentage points, reaching 86.2%. TDK seeks to establish local independent production systems and is working toward the ability to supply products with the same high quality from any location.

The trend of gradual growth of total assets had continued since fiscal 2011 due to increases in tangible fixed assets and investment. At the end of fiscal 2020, however, total assets amounted to ¥2,401.4 billion, down 2.5% from the end of the previous year, due to the decline of investment by ¥122.1 billion and other factors. At the end of fiscal 2021, trade receivables and tangible fixed assets increased, and total assets rose to ¥2,461.4 billion, up 23.8% year on year.

As of the end of fiscal 2021, stockholders’ equity was ¥1,003.5 billion, up 14.5% year on year. Accumulated other comprehensive income (loss)/income increased by ¥110.7 billion and other related earnings by ¥53.8 billion, and the stockholders’ equity ratio was 41.8%, down 1.6 percentage points year on year.

TDK implemented personnel optimization measures as a part of the structural reforms conducted from fiscal 2012, but since fiscal 2016 it has been increasing the number of employees to raise competitiveness. Due to an increase in personnel to cope with the expected scale of the battery business in fiscal 2021, the number of employees reached 129,284 as of the end of that fiscal year, up 5.0% year on year. The trend of gradual growth of total assets had continued since fiscal 2011 due to increases in tangible fixed assets and investment. At the end of fiscal 2020, however, total assets amounted to ¥2,401.4 billion, down 2.5% from the end of the previous year, due to the decline of investment by ¥122.1 billion and other factors. At the end of fiscal 2021, trade receivables and tangible fixed assets increased, and total assets rose to ¥2,461.4 billion, up 23.8% year on year.
Corporate Information
(As of March 31, 2021)

Corporate name: TDK Corporation

Corporate headquarters:
Nihonbashi Takashimaya Mitsui Building, 2-5-1, Nihonbashi, Chuo-ku, Tokyo 103-6128

Date of establishment: December 7, 1935

Authorized number of shares: 480,000,000 shares

Number of shares issued: 129,590,659 shares

Number of shareholders: 21,762

Common stock:
¥32,641,976,312

Securities traded:
Tokyo Stock Exchange (Listed on the First Section in October 1961)

Securities code: 6762

Number of employees (consolidated): 129,284

Transfer agent:
Sumbomo Mitsui Trust Bank, Limited
1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8233

Independent registered public accounting firm:
KPMG AZSA LLC (the Japan member firm of KPMG International)

ADR information:
Type: Type I with sponsorship
Ticker Symbol: TDK
CUSIP: 87058L108
Depositary Bank: Citibank, N.A. Shareholder Services
P.O. Box 43077
Providence, Rhode Island 02940-3077
U.S.A.
Tel: 1-877-248-4237 CITI-ADR (toll free)
Tel: 1-781-575-4565 (out of U.S.)
Fax: 1-201-324-3284
URL: http://www.citi.com/adr
E-mail: citibank@shareholders-online.com

Principal shareholders (10 largest shareholders)

| Name of shareholder | Number of shares held (thousands of shares) | Percentage of number of shares held in the total number of issued shares* (%)
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>The Master Trust Bank of Japan, Ltd. (Trust account)</td>
<td>28,658</td>
<td>22.69</td>
</tr>
<tr>
<td>Custody Bank of Japan, Ltd. (Trust account)</td>
<td>14,313</td>
<td>11.33</td>
</tr>
<tr>
<td>Custody Bank of Japan, Ltd. (Securities investment trust account)</td>
<td>3,487</td>
<td>2.77</td>
</tr>
<tr>
<td>SSIC TC CAMBRAIN ACCOUNT</td>
<td>3,325</td>
<td>2.63</td>
</tr>
<tr>
<td>Custody Bank of Japan, Ltd. (Trust account 9)</td>
<td>2,751</td>
<td>2.18</td>
</tr>
<tr>
<td>Custody Bank of Japan, Ltd. (Trust account 7)</td>
<td>2,279</td>
<td>1.80</td>
</tr>
<tr>
<td>STATE STREET BANK WEST CLIENT - TREATY 500324</td>
<td>2,161</td>
<td>1.71</td>
</tr>
<tr>
<td>STATE STREET BANK AND TRUST COMPANY 500025</td>
<td>1,647</td>
<td>1.30</td>
</tr>
<tr>
<td>Nippon Life Insurance Company</td>
<td>1,640</td>
<td>1.30</td>
</tr>
<tr>
<td>JP MORGAN CHASE BANK 385632</td>
<td>1,499</td>
<td>1.19</td>
</tr>
</tbody>
</table>
| * Other than the above, the Company holds 3,268 thousand shares of treasury stock.

Status of ownership

Treasury stock 2.52%
Japanese corporations 0.69%
Japanese securities firms 2.50%
Japanese individuals, etc. 5.71%
Foreign institutions and individuals 37.34%
Japanese financial institutions 50.81%

TDK’s stock price and volume

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume in a month (M)</th>
<th>Stock price ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>20,000</td>
<td>16,000</td>
</tr>
<tr>
<td>2020</td>
<td>12,000</td>
<td>10,000</td>
</tr>
</tbody>
</table>