



# Integrated Report 2021



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### **Editorial Policy**

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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# The Challenges to Power Cells

As countries around the world reinforce restrictions on CO<sub>2</sub> 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



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

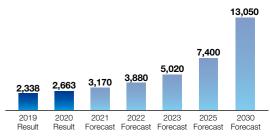


Raymond Ye Sales Lead Poweramp Technology Limited

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 nextgeneration micro-mobility.

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

(Thousand units)

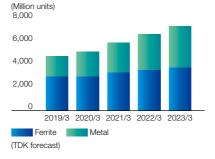


Source: Yano Research Institute Ltd., Global Motorcycle Market: Key Research Findings 2021, released June 16, 2021

\* 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.



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. Forecast of automotive inductor demand



Supporting Autonomous Driving with Passive Components

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



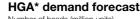
### Hitoshi Sasaki

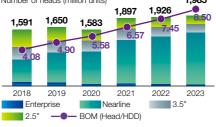
Department Head of Wirewound Inductor BU Magnetics Business Group TDK Corporation

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.

Leading Next-Generation Technologies for Magnetic Heads

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.





\* A head gimbal assembly (HGA) is a component with the HDD head element (slider) attached to the suspension (suspension spring).

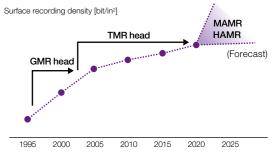
# Working toward practical application of 60 TB 3.5-inch HDDs



Moris Dovek CTO Headway Technologies, Inc.

The recording density of current HDDs is 1 Tb/in<sup>2</sup>. 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/in<sup>2</sup>, 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.

# The evolution of magnetic recording methods and HDD recording densities





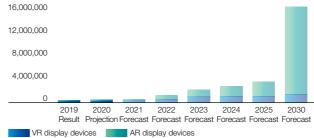
Augmented reality (AR) and virtual reality (VR) systems are expanding beyond the entertainment field to industry, education, medical, and various other fields. It is forecast that the AR/VR market will exceed ¥3 trillion as AR and VR are used for simulations of highly complicated work, surgery, and more. 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.

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Trends and forecast of the global AR/VR display device market scale (shipment value)

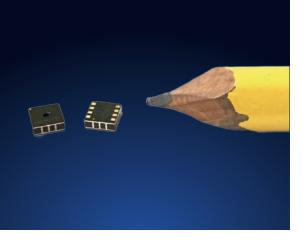
(Millions of yen)

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Source: Fuji Chimera Research Institute, Inc., 2020 Future Perspective of AR/VR Related Market

# Ultra-Compact Sensors Drive Advances in ARAR



# Expanding ultrasonic sensor solutions that integrate TDK Group know-how



David Horsley CTO Chirp Microsystems, Inc

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.

## Message from the President and CEO

Leveraging our diversity in businesses, technologies, and human resources to speed growth.

Shigenao Ishiguro President and CEO

### Scaling new heights as a global group

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 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).

"We are becoming more agile and resilient by giving our organization a balance of autonomy and regulation."

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.

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

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.

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

# "We're bolstering marketing and innovation to shorten time to launch."

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.

### Medium-Term Management Targets

Accele Commercial Value

Execute growth strategy Net sales

¥**2,000.0** billion

adoption and ever inductors, just tw with the expandin driving technolog demand, driven b On top of th growth in our may head business is continue to find n remaining the may given their high ca The sensor

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

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.



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.

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.

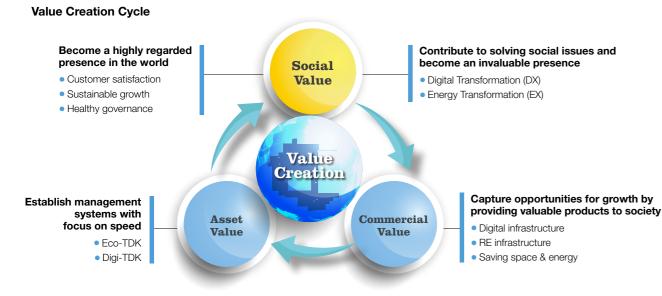
### Materiality of our sustainability-oriented management philosophy

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.



### 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. Al 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.

"Innovation is in our DNA, and TDK's diversity will make us more creative than ever."

> of human beings. industry through creativity.

### 17

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

> 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

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

### Shigenao Ishiguro President and CEO

# Chapter 1 What Kind of Company Is TDK?

# **TDK Value Structure**

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.

ision

Corps	Contribute to Contribute and industry culture and industry culture and industry through creativity through creativity
Corporate Motto	culture areativity through creativity through are Trust
Corporate Principles	Vision Could's Venture Spr
Long-Term & Strategy	Value Creat Ferrite Tree Technology for the Technology of all people well-being of all people Seven Seas
<sup>edium-Term</sup> Plan	Value Creation 20 Value Creation 20 TDK Group's materiality
Group Governance	The . Empowerment & Transparency Transparency

**Corporate Motto and Corporate Principles** 

### **Founding Spirit**

**Corporate Motto** 

# Contribute to culture and industry through creativity

Corporate Principles

# **Vision Courage Trust**

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



Kenzo Saito



Teiichi Yamazaki

Fukujiro Sono



Yogoro Kato



Corporate

Corporate Principles

Motto



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.

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.

Takeshi Takei



Shingo Tsuda

## The Driving Force of Value Creation

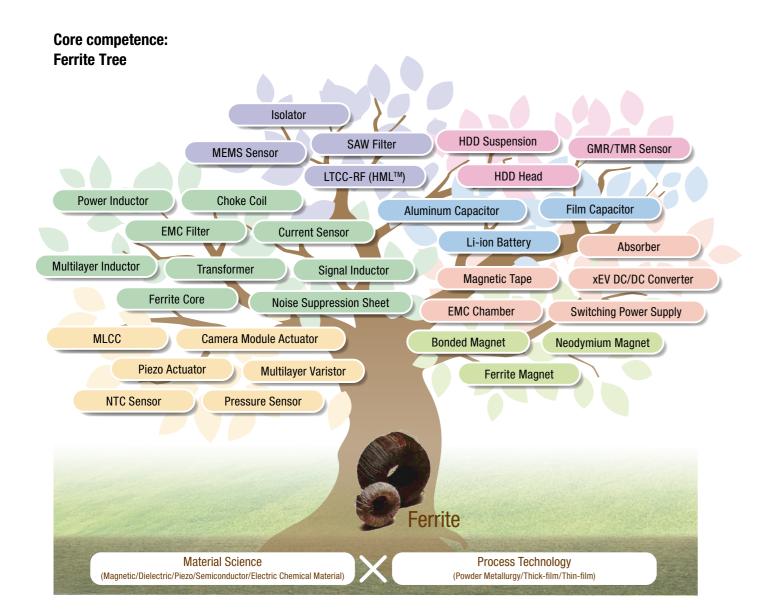
The venture spirit of boldly taking on the challenges of creating new technology and new business will not be sustainable, and social responsibility cannot be fulfilled unless it is based on TDK's core competence.

# **Ferrite Tree**

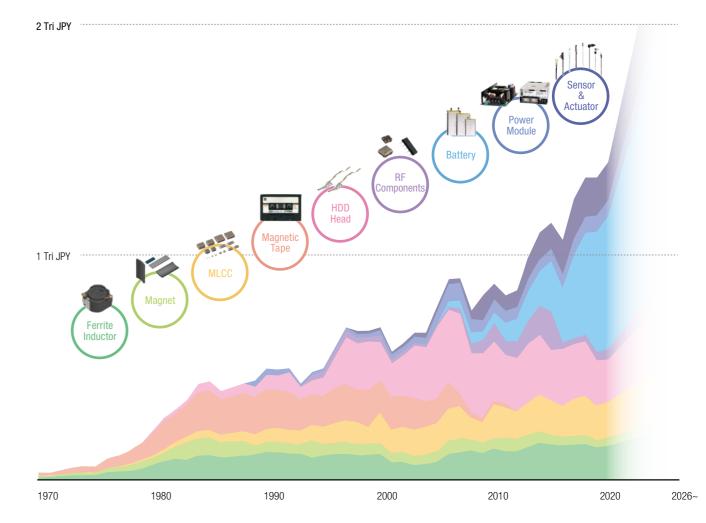
If asked, "What is TDK's core competence?" we can respond, the "Ferrite Tree," which has grown continuously for more than 85 years. TDK's original electronic materials, which started with ferrite, have expanded to magnetic materials, dielectric materials, piezoelectric materials, and semiconductors. 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



# **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.

Commercialization of ferrite as the basis for TDK's establishment TDK was established in 1935 for the purpose of industrializing ferrite, a unique material invented in Japan. TDK's foundations were established by founder Kenzo Saito, who wanted to present Japanese technology to the world and promote true Japanese industry, and five other individuals who shared his aspirations. A small number of elite



professionals played active roles in the development of technology that led to the commercialization of ferrite, an unknown material that had no known uses at the time, and in the marketing that led to the cultivation of uses for ferrite and expanded into new product lines one after another. TDK was a gathering place for people who shared the vision and purpose of Saito.

Electronic components business

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 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.

## HDD magnetic head business

TDK's HDD magnetic heads were created through the application of magnetic material technologies. To date, TDK has successfully competed against more than 20 rivals, and today TDK is the world's only manufacturer specializing in HDD heads. We conduct development, manufacturing, and sales by building a cross-border value chain that includes TDK in Japan and Group companies including Headway Technologies, Inc. (Headway Technologies) in the United States and SAE Magnetics Ltd. in Hong Kong, and achieve the world's highest standards of technology, quality, cost, and delivery times by establishing a unique production system that encourages internal competition.

Lithium ion battery business

Robin Zeng, a TDK Group member, had a vision of solving the energy problem and left TDK to establish Amperex Technology Limited (ATL). Robin founded ATL with funds from a private equity fund, and based on the belief that TDK's venture spirit and business platform are necessary for the development of long-term market such as mobile ICT and EV applications that will be developed in the future, he pursued a merger with TDK, and now, the battery business has grown into a pillar of TDK. The foundations of ATL are its advanced manufacturing and materials technologies as well as TDK's unique corporate culture, and ATL is now a world-leading battery manufacturing and sales company.

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.

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.

Sensor business









### **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.

## 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.



Best practice

### 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 to best meet customer needs and applications 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.



Best practice

# Sales and marketing to strike at the center of the world

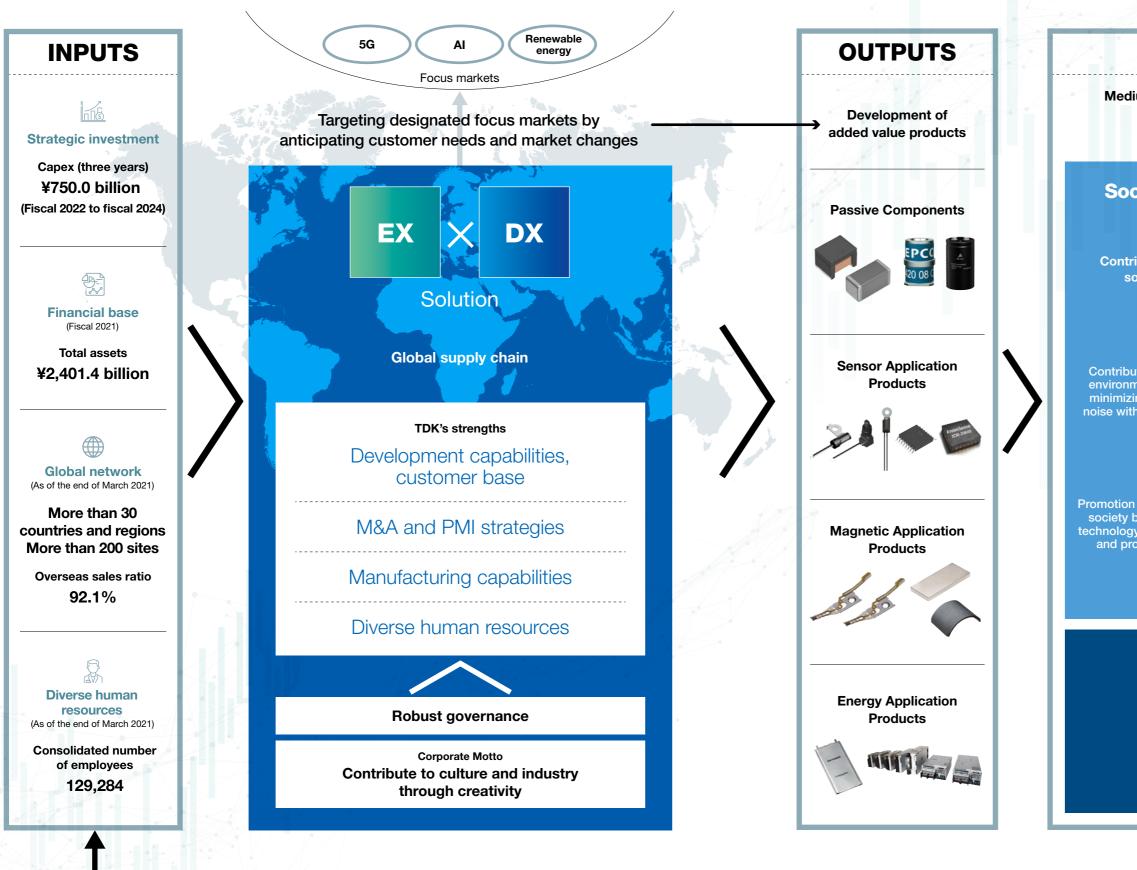
Distinctive new products created from the integration of IPS with design concepts based on materials technologies have been successful by marketing and selling them to the world's most important customers in the most suitable application markets. Having customers around the world to whom we can offer 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 practice our IPS, and marketing and applications—the field personant and regions around the wor Corporate Motto, "Contribution of the second sec

### **Value Creation Process**



# OUTCOMES

### Medium-Term Plan (Fiscal 2022 to fiscal 2024) Management targets in Value Creation 2023

# **Social Value**

Contribute to solving social issues



Contribution to energy and environmental solutions by minimizing waste heat and noise with electronic devices



Promotion of the digitization of society by adding software technology to material science and process technology

### 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

TDK's Current Businesses

Soft-termination multilayer ceramic chip capacitors, etc.       Sensors (gear tooth, pressure, angle, current, temperature, etc.)       Magnets for motors (cooling fan, door look, etc.), magnets for XEV drive motors, etc.       Dower support         Inductive devices       SMD inductors with guaranteed high-temperature attrings, common mode filters for automotive-use LAN, etc.       Sensors       Recording devices       Hold Revision       Energy devices       Energy devices       Energy devices       Energy devices       Hold Revision       Liftuit mon induct devices         Soft-temperature attrings, common mode filters, etc.       Cher passive components, etc.       Sensors       Sensors       Sensors       Energy devices       Energy devices       Energy devices       HDD magnetic heads, HDD suspension, etc.       Liftuit mon induct device         Sho inductors, etc.       Cher passive components, mutilayer one ponents, etc.       Sensors (pressure, gyroscope, acceleration, MEMS microphones, etc.)       Magnets       Magnets       Energy devices         Inductive devices       Soften passive components, mutilayer one ponents, etc.       Sensors (pressure, gyroscope, acceleration, current, etc.)       Magnets for industrial equipment motors, etc.       Liftium in one conceleration, current, etc.)       Magnets for industrial equipment motors, et	Net sales <b>¥1,479.0</b> billion Operating income <b>¥111.5</b> billion	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 Applica Product Share of net 50.0 ¥740.2 bit
Data         Number of companies         67         20         17           Number of employees*7         32,805         8,523         13,726         Image: State of the	Operating income*1	¥40.2 billion	(¥24.9 billion)	(¥2.4 billion)	¥147.4 billi
Number of companies         67         20         17           Number of complayees*         32,805         8,523         13,726         1           Image: Stand of Companies         Sensors         Bezo detudes, HDD suspensions, etc.         Initiario det detudes weatures, etc.         Not postors, etc.         Entry detudes         HDD magnets for nuclosed, HDD suspensions, etc.         Entry detudes         Entry detudes         Entry detudesSensors         Entry detudes         Entry detudes         Entry detudes         Sensors         Sensors         Sensors         Sensors         Sensor	Capex	¥35.1 billion	¥6.7 billion	¥29.7 billion	¥128.0 billi
Capacitors Generating devices (LAU, etc.)         Sensors Sensors (gen toth, presure, angle, current, temperature, etc.)         Magnets Magnets for motors (cooling fan, door lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion lock, etc.), magnets for xEV drive motors, etc.         Energy de librium ion libric devices Sensors (barometric pressure, groscope, acceleration, MEMS microphones, etc.)         Magnets Magnets for industrial equipment motors, etc.         Energy de librium ion libric devices Sensors (pressure, groscope, acceleration, current, etc.)           Inductive devices Irradiometer, etc.         Sensors Sensors (pressure, groscope, acceleration, current, etc.)         Sensors Sensors (pressure, groscope, acceleration, current, etc.)         Magnets for industrial equipment motors, etc.         Energy de librium		67	20	17	26
Soft-termination multilayer ceramic chip capacitors, etc.       Sensors (gear tooth, pressure, angle, current, temperature, etc.)       Magnets for motors (cooling fan, door lock, etc.), magnets for XEV drive motors, etc.       Lithuim on i lock, etc.), magnets for XEV drive motors, etc.       Lithuim on i lock, etc.), magnets for XEV drive motors, etc.       Lithuim on i lock, etc.), magnets for XEV drive motors, etc.       Lithuim on lock, etc.), magnets, etc.         Film classtripe etcm	Number of employees*2	32,805	8,523	13,726	67,694
3-terminal feed-through capacitors, etc.       Sensors (barometric pressure, gyroscope, acceleration, MEMS microphones, etc.)       HDD magnetic heads, HDD suspensions, etc.       Lithium ion acceleration, MEMS microphones, etc.)         Magnets       SMD magnets, etc.       Magnets, etc.       Magnets, etc.       Now acatable devices         Cher passive components, mutilayer chip varistors, etc.       Cher passive components, mutilayer chip varistors, etc.       Sensors (pressure, gyroscope, acceleration, MEMS microphones, etc.)       Magnets       POL converting Po	Automotive	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	Sensors (gear tooth, pressure, angle,	Magnets for motors (cooling fan, door lock, etc.), magnets for xEV drive motors,	Energy devices Lithium ion batteries (for ele Power supplies DC-DC converters, onboa
Film capacitors, aluminum electrolytic capacitors, etc.       Sensors (pressure, gyroscope, acceleration, current, etc.)       Magnets for industrial equipment motors, etc.       Lithium ion energy stor         Inductive devices Transformers, EMC filters, etc.       Inductive devices       Switching point         Other passive components       Other passive components       Inductive devices	ICT	3-terminal feed-through capacitors, etc. Inductive devices SMD inductors, thin-film common-mode filters, etc. Other passive components Ceramic high-frequency components,	Sensors (barometric pressure, gyroscope,	HDD magnetic heads, HDD suspensions, etc. Magnets	Energy devices Lithium ion batteries (for sr tablet devices, notebook c wearable devices, game c Power supplies POL converters, etc.
	Industrial & Energy	Film capacitors, aluminum electrolytic capacitors, etc. Inductive devices Transformers, EMC filters, etc. Other passive components	Sensors (pressure, gyroscope,	Magnets for industrial equipment motors,	Energy devices Lithium ion batteries (for du energy storage systems, e Power supplies Switching power supplies ( bidirectional DC-DC conve power transfer systems, et
CompetitorsMurata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Yageo (Taiwan), etc. Inductive devices Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Yageo (Taiwan), etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, Bosch Sensortec (Germany), STMicroelectronics (Switzerland), Infineon (Germany), Asahi Kasei Microdevices, Allegro (USA), StMicrodevices, Allegro (USA), STMicroelectronics, etc.Seagate Technology (USA), Western Digital Technologies (USA)Samsung St (Korea), Mu BYD (China BYD (China Delta Electro Asahi Kasei Microdevices, Allegro (USA), Shin-Etsu Chemical, Hitachi Metals, Shin-Etsu Chemical, Hitachi Metals, Shin-Etsu Chemical, Hitachi Metals, Shin-Etsu Chemical, Hitachi Metals, Shinaura Electronics, etc.Murata Manufacturing, ALPS AL PINE Murata Manufacturing, ALPS AL PINESamsung St (Korea), Mu BYD (China BYD (China Asahi Kasei Microdevices, Allegro (USA), Shibaura Electronics, etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, BYD (China Asahi Kasei Microdevices, Allegro (USA), Shibaura Electronics, etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, BYD (China Asahi Kasei Microdevices, Allegro (USA), Shibaura Electronics, etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, BYD (China Asahi Kasei Microdevices, Allegro (USA), Shibaura Electronics, etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, BYD (China) Asahi Kasei Microdevices, Allegro (USA), Shibaura Electronics, etc.Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, BYD (China) Asahi Kasei Microdevices, etc.	Competitors	Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Yageo (Taiwan), etc. Inductive devices Murata Manufacturing, TAIYO YUDEN, SEMCO (Korea), Cyntec (Taiwan), etc. Other passive components Murata Manufacturing, ALPS ALPINE,	Murata Manufacturing, ALPS ALPINE, TAIYO YUDEN, Bosch Sensortec (Germany), STMicroelectronics (Switzerland), Infineon (Germany), Asahi Kasei Microdevices, Allegro (USA),	Seagate Technology (USA), Western Digital Technologies (USA) HDD suspensions NHK SPRING, etc. Magnets Shin-Etsu Chemical, Hitachi Metals,	Energy devices Samsung SDI (Korea), LG (Korea), Murata Manufactu BYD (China), etc. Power supplies Delta Electronics (Taiwan), Artesyn Embedded Power MEAN WELL (Taiwan), XP Power (Singapore), Co

\*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.

gy ication ucts <sup>net sales</sup> 0% billion	Other Share of net sales 3.5% ¥51.1 billion	
illion	(¥16.1 billion)	
illion	¥3.6 billion	
)4	20	
14	4,104	
electric motorcycles) oard chargers, etc.		
r smartphones, k computers, e consoles, etc.)	Camera module micro actuators (VCM/OIS) for smartphones, etc.	
r drones, residential s, etc.) es (AC-DC, DC-DC), nverters, wireless , etc.	Load ports, flip chip bonding systems, flash memory application devices, anechoic chambers, etc.	
G Chemical cturing, Panasonic, n), ver (USA), Cosel, etc.		
d avaduation is surrantly soo	control of these	

# Chapter 2 How Will TDK Grow?

Long-Term Vision & Strategy

# 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.

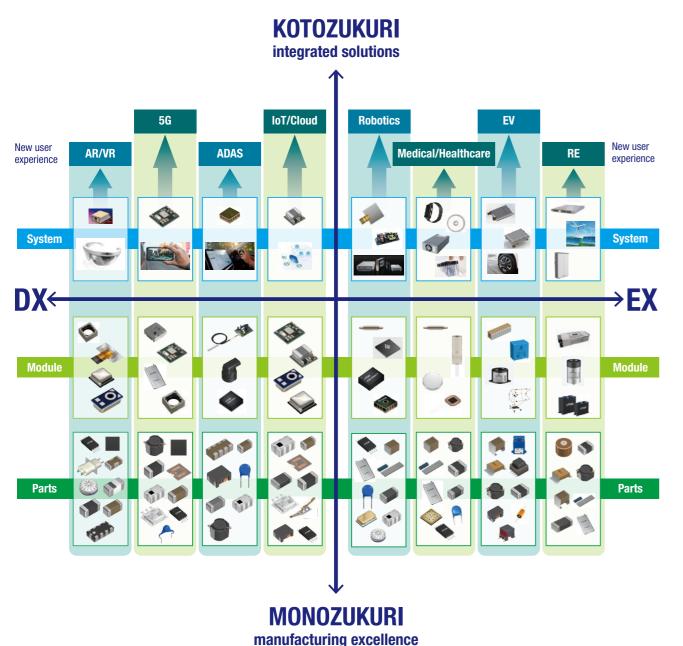


# **Long-Term Vision & Strategy**

### **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

5G	Opportunities	Just as mobile phot high-speed and hig conventional inform business opportuni equipment, educati
Fifth-generation mobile communication systems	Risks	5G communications and money to expa nience, it will also re battery consumptio
AI	Opportunities	Business expansion deep learning based from the field where will play important r
Artificial intelligence	Risks	Determinations, inf there is a risk of ov prevent this, it is no legal developments
RE	Opportunities	In addition to solar a weather including g hydrogen energy wi expected in the mo
Renewable energy	Risks	Renewable energy therefore, a best mi affected by environ balance between su

ones and smartphones completely transformed lifestyles, igh-capacity 5G communications will go beyond the frameworks of mation and communication systems and lead to the creation of nities in a variety of areas including automobiles, industrial tion, and medical.

ns will require large numbers of small base stations. It will take time and services to remote regions, and while 5G will provide converequire solutions to problems including security and increased ion.

on is expected from the identification of new value and trends using ed on big data and other means. In addition, sensing information re data is generated (manufacturing, logistics, sales, and other sites) roles.

nferences, and decision-making by AI are not perfect, and overlooking errors by AI and allowing runaway operation. To necessary to focus attention on trends in new technology and its.

and wind power, use of natural energy that is not affected by the geothermal and ocean currents is expanding. In addition, the use of with a view to expanding the use of fuel cell vehicles (FCVs) is also ove toward a decarbonized society.

alone cannot keep up with the demand for electric power, and nix of diverse energy sources is needed. Also, renewable energy is nmental factors, giving rise to the problem of difficulty controlling the supply and demand.

### Looking Back on Past Medium-Term Plans

### Fiscal 2016 to fiscal 2018

Fostering collaboration within the Group to realize further growth

•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.

### **Commercial Value**

**>>>** 

•The management target in the medium term of ¥1,650 billion in sales was not achieved due to such factors as intensified confrontation between 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.

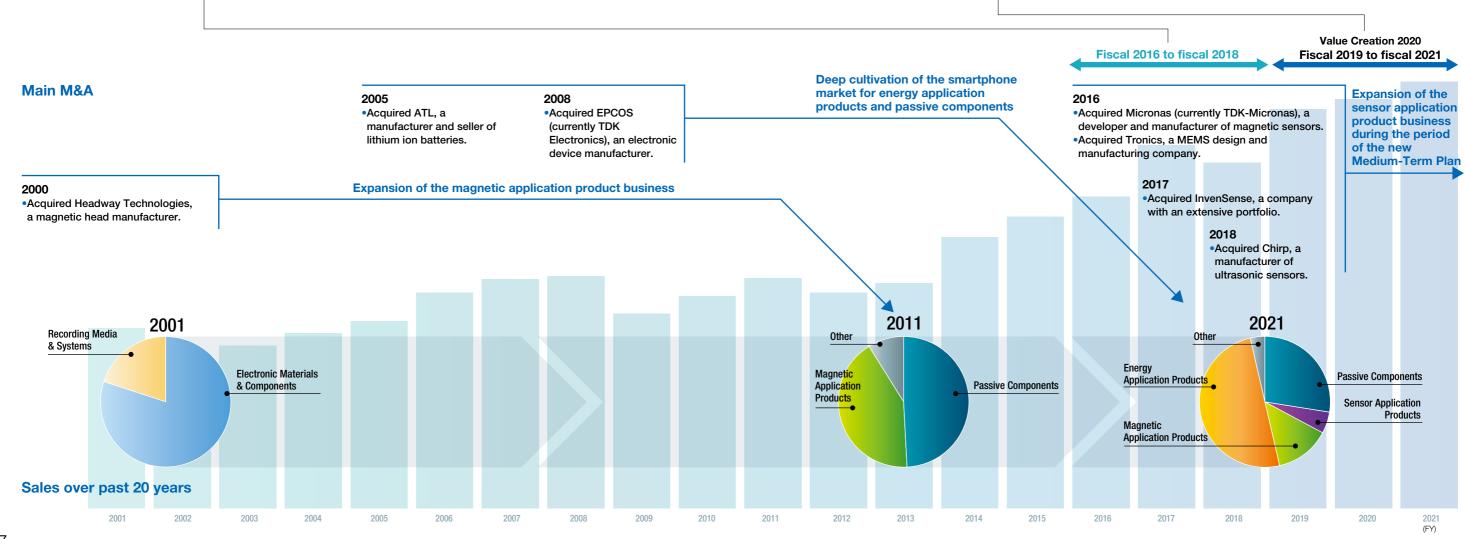
### Value Creation 2020 Fiscal 2019 to fiscal 2021

# Leap to new heights by providing market-needed solutions based on our electronic components business

### **Asset Value**

- •The targets for operating income ratio and ROE were not achieved due to such factors as changes in the business environment, the impact of impairment, and structural reform expenses.
- •Excluding income from the sale of shares of RF360 Holdings, a joint venture with Qualcomm, the free cash flow after share-holder return was negative, so our financial condition did not improve significantly.

	Targets	Results	_		Targets	Results		Targets	Results
Operating income ratio	Over 10%	7.1%		Net sales	¥1,650.0 billion	¥1,479.0 billion	Operating income ratio	Over 10%	7.5%
ROE	Over 10%	7.8%	-	CAGR	Over 9%	5.2%	ROE	Over 14%	8.6%



### **Social Value**

- •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.

# **Medium-Term Plan**

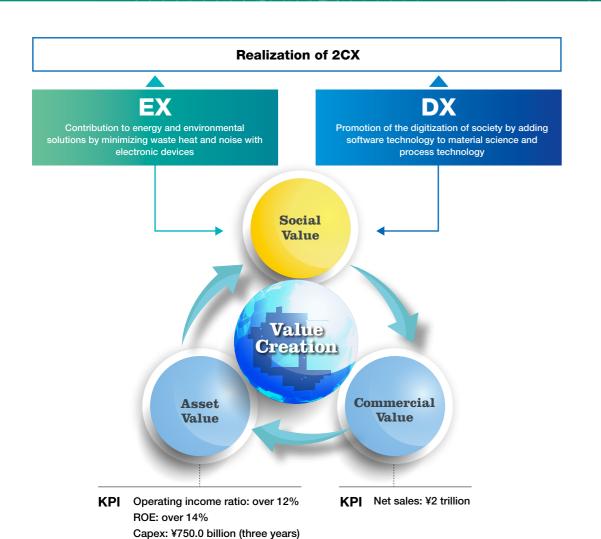
# Value Creation 2023

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.



Ision & Strategy

Medium-Term Plan



Management targets in medium term

	Fiscal 2021 result	Fiscal 2024 target	CAGR
Net sales	¥1,479.0 billion	¥2,000.0 billion	11%

CAGR by segment

Passive Components	Sensor Application	Magnetic Application	Energy Application
	Products	Products	Products
7%	25%	12%	11%

## New medium-term capital allocation plan

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

Cash In	Cash Out		
	Strengthened financial position	•	D/E ratio 40% range
	Shareholder returns	•	Target dividend payout ratio of 30%
Operating		•	Energy 60%
cash flow 900.0	Capex 750.0	•	Passive 20%
	EBITDA ratio 65%	•	Magnetic 16%
		•	Other 4%



 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

40

## **TDK Group's Materiality**

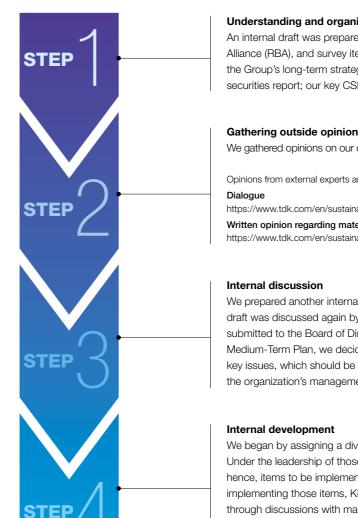
Accelerate DX and EX in order to realize 2CX and create value for a sustainable society

		,	
Contribution to ena solutions by minin noise with e •Effective use of ena of renewable energy of net zero CO <sub>2</sub> ena •Provide products a creating clean energy end products a realizing an efficier	and solutions for rgy to realize a zero-	<text><list-item><list-item><list-item></list-item></list-item></list-item></text>	
Quality Management	<ul> <li>Pursue zero-defect proc</li> <li>Reduce quality costs</li> <li>Maximize customer sati</li> </ul>	duct quality sfaction with product and service quality	
HR Management	•Foster greater diversity	es to lead the TDK Group and inclusion gement and job satisfaction to attract and retain	
Supply Chain Management	•Ensure responsible proc	ment capabilities and mechanisms curement ironmental consideration in the supply chain	
Opportunity & Risk Management	capability with full use c	siness opportunities effectively by strengthening marketing f digital technology risk management capabilities	
Pursuing Both Delegatior Authority and Internal Co	authorities and respons •Make management sys aligned with the Group's	sparency in operations, based on the clearly defined roles, bilities of each organization tems of each group company more effective and efficient, s unified policy post-merger integration (PMI) for acquired companies	
Asset Efficiency Improver	•Rebuild business portfo •Optimize facilities and n		

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.

### The materiality identification process



For more information on sustainability, please visit our Sustainability Website. https://www.tdk.com/en/sustainability/index.html

EX and DX, set forth in our materiality, are the business areas that TDK focuses on for social value creation and corporate growth, areas in which we can create value for society through the Group's technology and products. We are striving to maximize Social Value primarily in these two areas by developing 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.

### 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.

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

Opinions from external experts are posted on our website.

https://www.tdk.com/en/sustainability2021/tdk\_sustainability/tdk-materiality/dialogue

Written opinion regarding materiality (initial internal draft)

https://www.tdk.com/en/sustainability2021/tdk\_sustainability/tdk-materiality/opinion

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

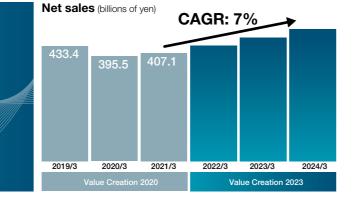
Medium-Term Plan, we decided to take a full-scale approach to engaging in these key issues, which should be addressed by giving them top priority in investment of the organization's management resources.

We began by assigning a division to take responsibility for each materiality theme. Under the leadership of those divisions, we then developed a vision for three years hence, items to be implemented to achieve that vision, divisions responsible for implementing those items, KPIs, and target numbers. These were finalized through discussions with management. Each division reports to management monthly on its progress and works to continually improve their efforts through implementation of a PDCA cycle.

## **Strategy by Segment**

# **Passive Components Business Strategy**

Achieve growth by firmly grasping DX and EX trends with diverse elemental technologies



### Market needs

### Growth strategy

 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 Al fields. In conjunction with the increased density of circuit boards due to advanced functions and multi-functionality, modularization that integrates ICs and multiple passive components is advancing. It is necessary that power electronic components become even more efficient so that a decarbonized society can be achieved.

• 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 communications technologies will be crucial.

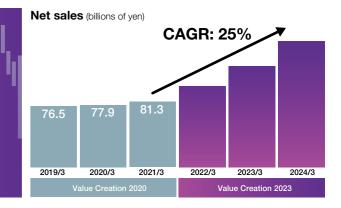
 The widespread adoption of xEV and ADAS will result in the diverse use of temperature, pressure, and magnetic sensors as well as sensors that adopt MEMS technology.

# Growth strategy

### Proprietary elemental technology Strategic growth market Main products Power inductors xFV Winding -1 Resin electrode MLCCs Hybrid polymer capacitors Autonomous driving Film capacitors Pattern coils Layering 5G & post-5G M2M/V2X Thin film EMC filters AR/VR, wearable RF filters RF inductors Haptics TVS diodes Plating Data storage Precision machining Aluminum & Renewable energy Thin-film Circuit **µPOLs** products film capacitors protection devices Module Transformers Robotics, drones Material Dielectric barrier discharge Medical & healthcare Piezo elements for tumor treatment (DBD) plasma

### Launch distinctive products for strategic growth markets using proprietary elemental technologies

	Expansion of customer base	Enrichment of product/application
TMR sensors	<ul> <li>Continuous expansion of automotive customer base</li> <li>Expansion of consumer and industrial customer base</li> </ul>	<ul> <li>Continuous expansion of automotive applications</li> <li>Launch and expansion of compass business</li> <li>Launch of digital products</li> </ul>
Hall sensors	*Expansion of consumer customer base	<ul> <li>Continuous expansion of 2D/3D sensor business</li> <li>Development and launch of sensors for consumer application</li> </ul>
		<ul> <li>Expansion of microphone business (digital products, noise-cancellation, etc.)</li> <li>Establishment of motion sensor line-up</li> <li>Expansion of barometric pressure sensor business</li> <li>Expansion of ultrasonic ToF sensor applications (loT, robotics, etc.)</li> </ul>
Temperature and pressure sensors	•Expansion of industrial customer base	•Expansion of xEV applications



• 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.

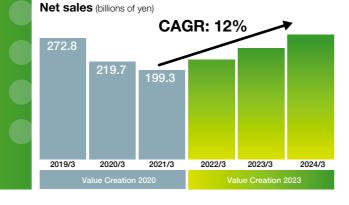
• TMR sensors, which were developed by using the thin-film and magnetic technologies developed for HDD magnetic heads, are a strategic product that TDK is focusing on. We will pursue unique applications for angle sensors and position sensors used in automotive applications and industrial equipment and 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.

# **Magnetic Application Products Business Strategy**

Supply advanced technologies to meet the needs of the high-capacity storage age



### Market needs

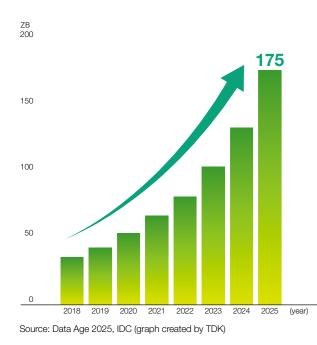
### Growth strategy

• Demand for TDK's magnets, HDD magnetic heads, and suspensions remains firm as a result of the spread of xEV, 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.

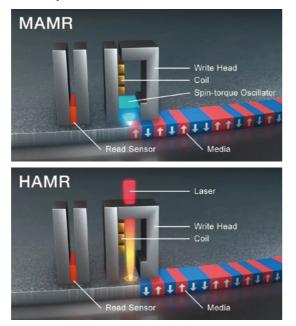
• We are commercializing HDD magnetic head products including TMR and PMR heads by consolidating magnetic and thin-film process technologies. As the world's only specialized manufacturer of HDD magnetic heads, TDK provides advanced technology to meet the needs of the high-volume data storage era and 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 xEV and work to minimize the use of difficult-to-procure rare earths to minimize procurement fluctuation risks.

### 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

### 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 expanding for power supply and energy storage systems for the effective utilization of electricity.

### Growth strategy

- medium-size batteries.

### TOPICS

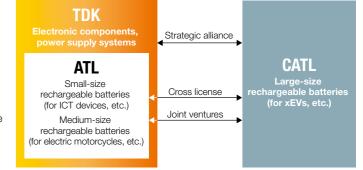
### Business alliance with CATL (China) toward entry into the medium-size rechargeable battery market

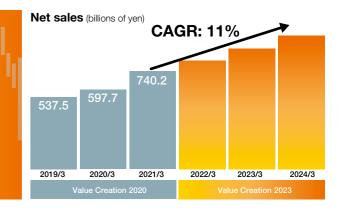
In April 2021, ATL which handles the TDK Group's rechargeable battery business, concluded a business alliance with Contemporary Amperex Technology Co., Ltd. (CATL), which is one of the world's leading players in the rechargeable battery business for automobiles, including xEVs.

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, ALT 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.





• 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

• 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.

### **Medium-Term Plan**

Message from the Corporate Officer of Finance & Accounting

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

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

### 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 also to 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 KPIs. 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 aiming 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.

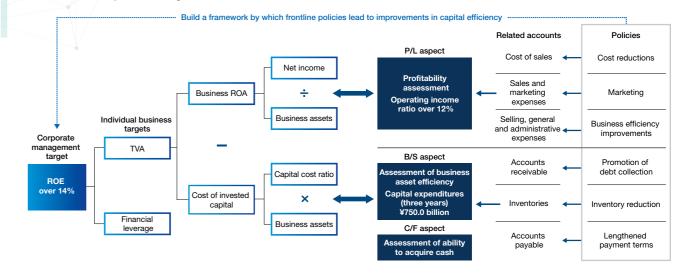
### Looking back on the previous Medium-Term Plan: Achieved clear resource allocation to the battery business, but improving the earnings of unprofitable businesses remains an issue.

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. For 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 and operation logic tree



### 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 exist 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 the equivalent of 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.

- \* TVA: Stands for TDK Value Added. This added-value indicator, an original of the TDK Group, compares the minimum profit required (stockholders' equity cost) 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 (return on invested capital) with the business assets of each business.

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

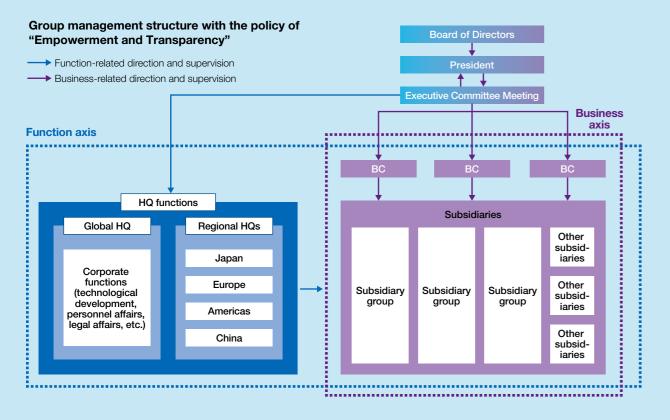
Regarding the return of profits to shareholders, TDK's basic policy is to implement stable and sustained shareholder dividends through the increase of profits per share. In the period of the current Medium-Term Plan, we are scheduled to offer shareholder returns in the range of a 30% dividend payout 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. I believe that this gap with rival companies exists because although our battery 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 DX 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.

### **Global Strategy**

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



### Group management structure enhancing our capability to respond to change

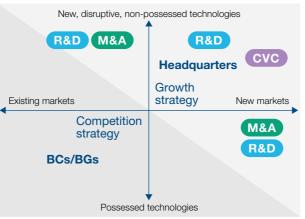
In recent years TDK has been promoting the globalization of its business through aggressive M&A. To overcome this age of volatile change, we aim to establish a decentralized and autonomous Group management structure under a policy of "Empowerment and Transparency." Our objective is to strengthen collaboration 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 business development in existing markets through technologies possessed by TDK, we will delegate decision-making authority to Business Companies (BCs) and Business Groups (BGs), which are the main actors, and execute strategy in a timely manner so as to better market competition. Our Global HQ and Regional HQs (see the management structure chart above) will provide lateral functions to promote global collaboration in such areas as technological development, personnel affairs, and legal affairs and offer well-planned rearguard support.

Meanwhile, 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.

### R&D Roles of HQ and BCs/BGs



### Global strengthening of the marketing function

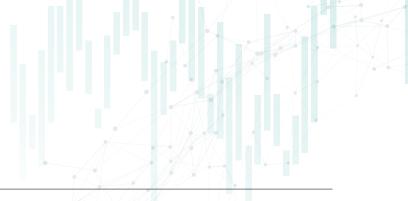
In April 2021, TDK established the Corporate Marketing & Incubation (CM&I) HQ with the purpose of strengthening our marketing function in global business development. One of the important functions of the CM&I HQ is to receive and transmit wide-ranging information relating to markets and customers as an antenna for the Group as a whole. The CM&I HQ will overview the wide range of TDK's customer industries, sensitively grasp what is happening and what is going to happen next in each market, and spot potential needs as quickly as possible.

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

TDK possesses many marvelous 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 sensitively 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 products and solutions that currently do not exist at TDK.

This work requires a completely new approach that has not been seen at TDK so far, but I feel a lot of attraction in it. I want to point my antenna constantly toward the future and challenge new value creation so that TDK can supply solutions to even more markets and become a company that contributes to society.



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.



Michael Pocsatko

General Manager, Corporate Marketing & Incubation HQ Senior Vice President TDK Corporation

### 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, cleantech, healthtech, 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

### Investment focus





Advanced Materials & Informatics

Management & Storage & Recycling





business units within the TDK Group.

Portfolio companies enjoy not just financial backing,

Group, which engages in business development across a

range of industrial sectors. This includes subject matter

resources, and even the groups wide base of potential

customers and sales channels. Entrepreneurs and their

supporting this select group of entrepreneurs, TDK has

world's most advanced technological and market trends

and, as a result, draw an even more accurate technologi-

cal roadmap for the future, learning every step of the way

the opportunity to witness firsthand the advent of the

and experiencing opportunities to enter new markets.

startups can be given access to a global-level ecosystem

expertise in advanced technologies, state of the art

with deep knowledge of related industrial markets,

operations, and so on. By serving as a partner and

but large-scale connection to the entirety of the TDK





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, & GCM Grosvenor, 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 firstchoice 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.



Mr. Jonathan Ross CEO Grog, Inc.

### 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 (Al chips) has been identified as a secured unicorn valuation.

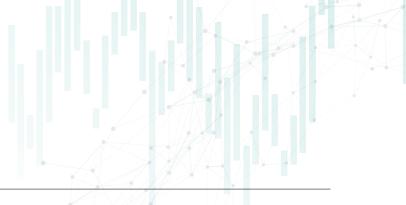
Encouraged by these results, TDK Ventures launched its second round of funding in April 2021 increasing in scale to threefold to \$150 million. So far the second round includes high-potential startups like Analog Inference

### 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.



(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.



Nicolas Sauvage

President TDK Ventures Inc.

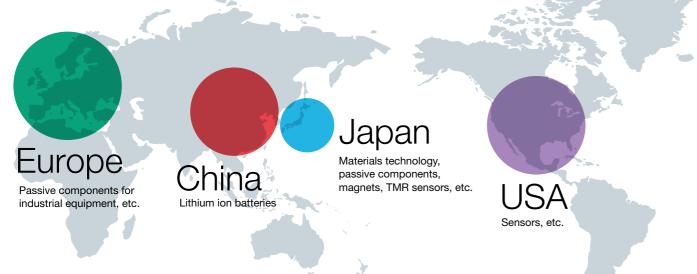
### **Medium-Term Plan**

### Capitalizing on their respective strengths, four world hubs developing epoch-making products

To meet the needs of customers in the respective areas, the R&D activities of the TDK Group are organized in a structure encompassing four geographically different locations. The Technical Center in Japan is the core base of global research and development, working on such core technologies as materials technology, passive components, and magnets. R&D facilities in the United States, Europe, and China are targeting areas related to products that are strong in their respective regions. These facilities are also working on applications and system development. In addition, some regional headquarters, which were newly established in the Group governance reform, and the Technology and Intellectual Property HQ at the headquar-

ters in Japan, are collaborating globally to advance R&D beyond the framework of businesses and subsidiaries.

Based on our corporate motto of "contribute to culture and industry through creativity," TDK adopts a companywide policy of respecting intellectual property rights and endeavors to protect intellectual property rights and promote their utilization. Regarding intellectual property activities, we promote three-pronged intellectual property management throughout the entire TDK Group. Business and development sites in Japan and overseas have personnel in charge of intellectual property, and the Intellectual Property Rights Center, technological R&D sector, and business sector engage in close collaboration.

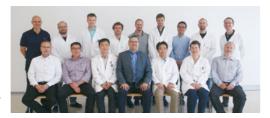


### Example of global collaborative development

### Challenging development of the CeraCharge<sup>®</sup> next-generation battery

TDK developed CeraCharge®, the world's first rechargeable, surface-mount-device-type (SMD-type), all-ceramic solid-state battery. (It was announced in 2017.) This epoch-making product was realized through close collabo-

ration between engineers at R&D Center Europe at the Deutschlandsberg Plant in Austria, which is one of TDK's global R&D facilities, and Japanese engineers skilled in advanced multilayer ceramic technology. Mass-production technology was also established, and in 2020 CeraCharge® was commercialized as a built-in battery for cooking thermometers. The special features of the battery are its smallness, safety, and high reliability. It is expected to be widely carried in IoT and other devices.



### Pursuing productivity improvement and zero defects

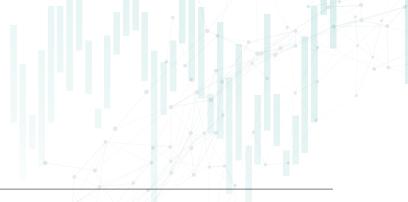
Amid the spreading utilization of electronic components in all aspects of people's daily lives, including the automotive and medical fields, electronic components manufacturers are required more than ever before to ensure rigorous product quality management. Companies in the TDK Group are tackling production 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

### 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 Szombathely 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.



system (MES). By unifying all software systems relating to production facilities, the MES realizes the uniform management of all 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 Szombathely 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.



Werner Lohwasser COO & CTO TDK Electronics AG

### Human Resource Strategy

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

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



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.

### 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 (2CX). 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-Weconnect—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 Al-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 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.

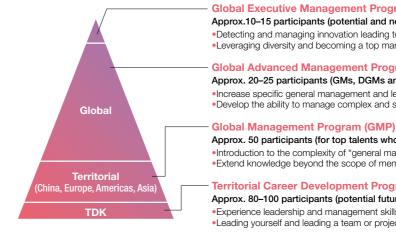
For members to feel involved, communication with one another is key. Global human resources train leading members to communicate in English in order to accurately convey the demands and direction of the Company and

### 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

### Global management development programs



### 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

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.

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.

### 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

Approx. 50 participants (for top talents who graduated TCDP from each territory +  $\alpha$ ) Introduction to the complexity of "general management" and of "corporate functions" •Extend knowledge beyond the scope of members' own functions

### **Territorial Career Development Program (TCDP)**

 $2.3^{\circ}$ 

FY March 2021

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

> make us an employer of choice, which will see us continue to flourish and evolve.

Ratio of women in managerial positions (TDK Corporation)

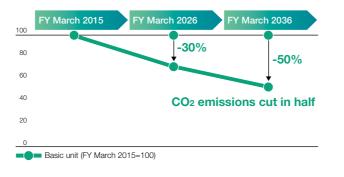


### **Concept and targets**

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 reliable 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 CO<sub>2</sub> emissions. We have formulated the "TDK Environmental Vision 2035" as our target, and have set the goal of "halving the CO2

emission basic-unit by FY March 2036 in comparison with FY March 2015 in a life-cycle perspective" from the use of raw materials to the use and disposal of products.

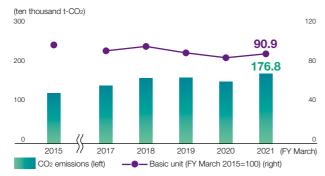


### Reduction of CO<sub>2</sub> emissions at manufacturing sites and from logistics activities

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 CO<sub>2</sub> emissions by 2050.

As a result of increased product transportation due to a rise in production volume, CO<sub>2</sub> emissions in logistics in Japan in FY March 2021 amounted to 4,924 tons, up 18.0% over the previous fiscal year. Going forward, the entire TDK Group will endeavor to promote reduction activities, such as by starting efforts to reduce CO2 emissions in logistics at overseas sites.

Changes in CO<sub>2</sub> emissions at manufacturing sites (global)



\* Basic-unit data have been amended to take account of the increase in the number of sites due to M&As. The measurement and calculation method and the numerical results for FY March 2020 and beyond have undergone third-party verification

### Reduction of CO<sub>2</sub> emissions from products

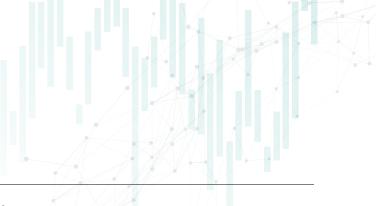
TDK has established guidelines for assessing the contribution of products, which summarize the calculation standards for quantifying the reduction of CO<sub>2</sub> emissions from products and know-how as the amount of environmental contribution, and is promoting activities to reduce CO<sub>2</sub> emissions from products through operation using product assessment.

Product-based CO<sub>2</sub> reduction contributions in FY March 2021 amounted to 2.633 million 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)**

The environmental officer carries of
state of progress in environment-r and risks. Environmental risks, inc (Enterprise Risk Management) Co by the CEO. Important matters are Committee Meeting and the Boar
Important risks for management comprehensive risks. At present, various information sources and the scale of impact on business,
In analyzing business risks and c and considering strategy, TDK ha change—the International Energ Policies Scenario (CPS)—and be
Please refer to page 57.
<ul> <li>Extra expenses for responding to cus chance to receive orders due to delay</li> <li>Extra expenses, production shutdown of carbon taxes and tightening of env</li> </ul>
Occurrence of equipment and produ flooding due to increased size of type

Please refer to the Sustainability Website for details https://www.tdk.com/en/sustainability2021/environmental\_responsibility/climate-action







### Changes in CO<sub>2</sub> emissions from products

out a management review more than once a year of the related matters, including climate change, as well as plans cluding climate change, are discussed in the ERM ommittee, which is chaired by a corporate officer appointed are reported through the ERM Committee to the Executive ard of Directors.

t are assessed in the ERM Committee as a part of t, we are imagining climate-change risks based on scenario analysis test results and, in consideration of identifying risks thought to be important.

opportunities due to climate-change-related problems has adopted two scenarios as premises for climate gy Agency's Beyond 2°C Scenario (B2DS) and Current egun trial scenario analysis.

stomer demands to introduce renewable energy and loss of aved response

vn, or loss of chance to receive orders due to the introduction vironmental laws and regulations around the world

uction restoration expenses resulting from unexpected hoons or sudden torrential rain.

# Chapter 3

# What Are the Characteristics of TDK's Governance?

**Group Governance** 

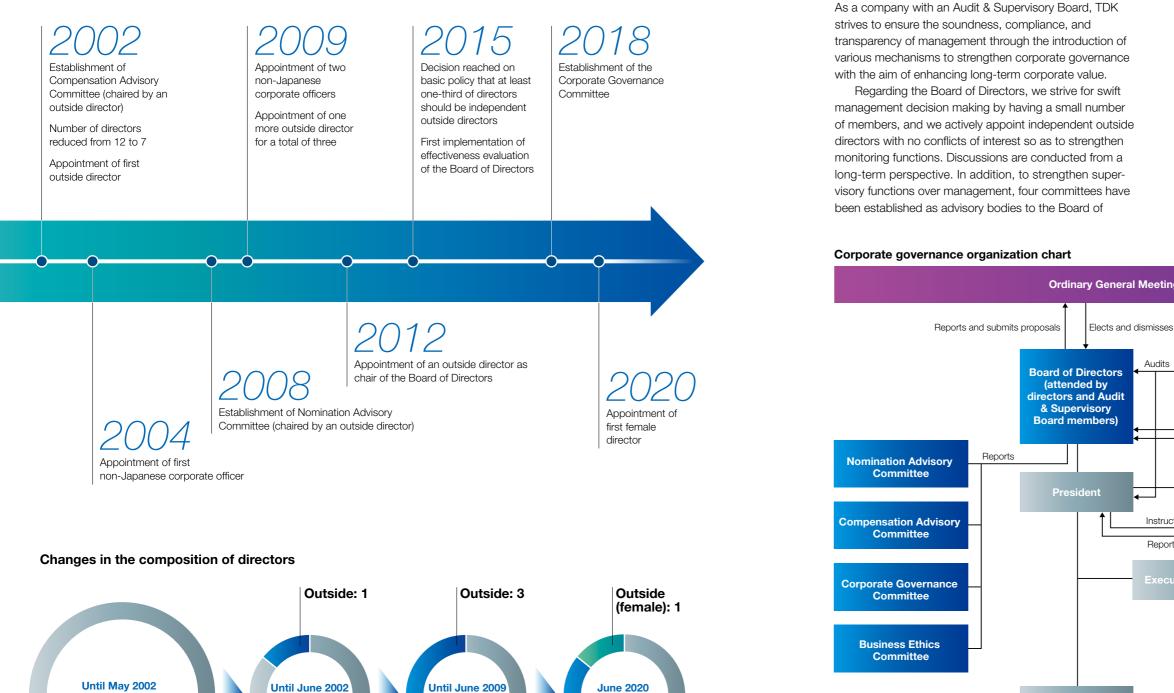
# **Empowerment & Transparency**

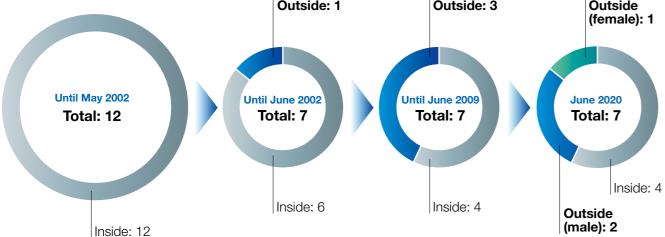
TDK places importance on a policy of "Empowerment and Transparency" to maintain growth and development while contributing to society. We respect the core competence and independent business development cherished by each of our Group companies, which are located in more than 30 countries and regions worldwide, 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





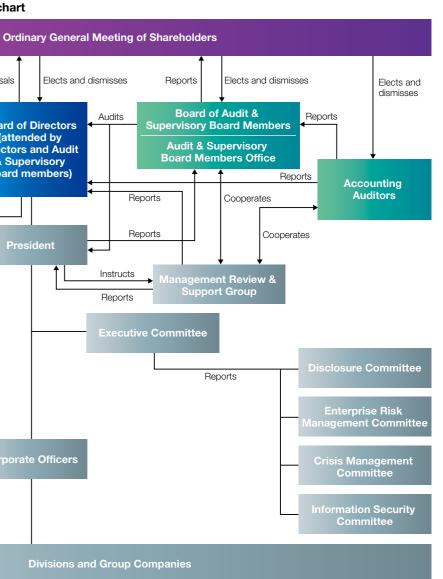


orporate Officers

Emphasis on enhancing corporate value

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.



### A Talk with Outside Directors

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

### 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 to sites is a major problem.

Ishimura: I am of the same opinion as Ms. Nakayama.



### Kazuhiko Ishimura

### Outside Director Chair of the Board Chairman of Compensation Advisory Committee Member of Nomination Advisory Committee

After serving as President & CEO & Representative Director, and then as Chairman & Representative Director, of Asahi Glass Co., Ltd. (currently AGC Inc.), was appointed President of the National Institute of Advanced Industrial Science and Technology (present post). Has been an outside director of TDK since June 2015. Has been chairman of the Compensation Advisory Committee since June 2020 and chair of the Board of Directors since June 2021. 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 guite 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 chairmen of the Board have groomed 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 PDCA [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.

### The role of outside directors

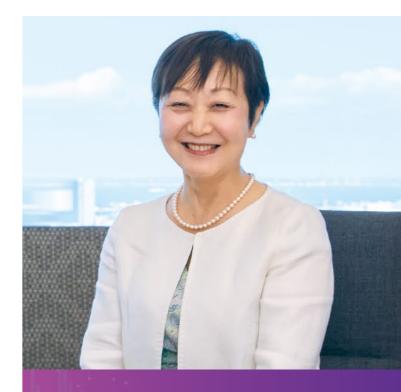
# Please tell us your understanding of the role of outside directors.

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 deciding direction. 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.

# 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 try 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.



### Kozue Nakayama

Outside Director Chairwoman of Nomination Advisory Committee Member of Compensation Advisory Committee

After working at Nissan Motor Co., Ltd. and Yokohama City and as President and Representative Director of Pacific Convention Plaza Yokohama, became an outside director of TDK in June 2020. Became chairwoman of the Nomination Advisory Committee in June 2021.



New Medium-Term Plan formulated after repeated long-term plan discussions in the Board of Directors

**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.

### 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' 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.

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

Nakayama: I think TDK's efforts toward Diversity and Inclusion are still insufficient. I want us to aim to keep and acquire talented human resources regardless of nationality and gender. But the fact is that there are few women in Japan's manufacturing industry, so we have to look overseas as well. We cannot survive unless we tap wide-ranging talent without the drawing of borderlines. Ishimura: At present there are female directors and Audit & Supervisory Board members at TDK, but all the corporate officers are men, aren't they? I also see that as an issue for us going forward.

**Nakayama:** Also, following revision of the Corporate Governance Code, we are considering the disclosure of a skill matrix relating to the diverse knowledge, experience, and abilities of each director.

### Medium-Term Plan

# How does the Board of Directors evaluate the results of the previous Medium-Term Plan?

**Nakayama:** Regarding management targets, in the end there were many goals that we could not achieve. But I think we could have achieved a lot of them if it had not

been for the impact of the confrontation between the United States and China and the COVID-19 pandemic. In particular, the sensor application products business was a major reason why we failed to achieve our targets. **Ishimura:** In the plan, it was forecast that the sensor application products business would grow substantially, but it was unexpectedly sluggish. Accordingly, in the period of the new Medium-Term Plan it will be necessary to closely monitor the progress of this business.

On the other hand, I feel that a lot of progress was made in the evolution of the corporate section responding globally. Actually, at the time when I was appointed as an outside director, the Board of Directors was discussing strengthening of the corporate function. It was said that improvements should be made to build a corporate function befitting a global company. The corporate officers took these opinions from the Board of Directors seriously and gradually promoted expansion and strengthening. I think that was extremely good. In the field of human resources especially, TDK's human resource strategy has made enormous strides globally since the appointment of Andreas Keller as general manager of the Human Resources HQ.

### What discussions did you have when formulating the new Medium-Term Plan?

**Ishimura:** 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.

**Nakayama:** 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



# Enhancing the engagement of employees around the world will lead to sustained growth.

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)

	Board of Directors	Nomination Advisory Committee	Compensation Advisory Committee		
Kazuhiko Ishimura	13 out of 14	10 out of 10	7 out of 7		
Kazunori Yagi	14 out of 14	10 out of 10	7 out of 7		
Kozue Nakayama	10 out of 10*	9 out of 9*	5 out of 5*		

\* 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)

	Audit & Supervisory Board	Board of Directors
Jun Ishii	14 out of 14	14 out of 14
Douglas K. Freeman	14 out of 14	14 out of 14
Michiko Chiba	14 out of 14	14 out of 14

### Members of Advisory Committees

		Nomination Advisory Committee	Compensation Advisory Committee
Kazuhiko Ishimura	Outside Director	•	Chairman
Kozue Nakayama	Outside Director	Chairman	٠
Mutsuo Iwai	Outside Director	٠	٠
Makoto Sumita	Chairman & Director	٠	٠
Shigenao Ishiguro	President and CEO	٠	_
Seiji Osaka	Director	_	•

### **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.





Joachim Zichlarz Executive Vice President

Senior Vice President

Chief Financial Officer of Electronic Components Business Company, and General Manager of Europe HQ

General Manager, Corporate Marketing & Incubation HQ





Hong Tian Corporate Officer

General Manager of Micro-actuator Solutions Business Group Chief Executive Officer of Magnetic Heads Business Company, and General Manager of HDD Components Business Group of Magnetic Heads Business Company

Corporate Officer



### 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 2018.



Andreas Keller Senior Vice President

General Manager of Human Resources HQ



Joachim Thiele Corporate Officer

Deputy General Manager, Sales & Marketing Group, Electronic Components Business Company



Ji Bin Geng Corporate Officer

General Manager of Energy Devices Business Group of Energy Solutions Business Company



Werner Lohwasser Corporate Officer

Chief Operating Officer of Electronic Components Business Company

### 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 or more 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 and succession planning for the president. In addition, the company has applied third-party perspectives to ensure fulfilling discussion by initiatives such as including this committee in the subjects for the evaluation by third parties and has conducted the regular evaluation of the committee. Further, the company's transparency in its appointment of 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.
- 2. 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.
- 3. 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.

### Ceaseless efforts to enhance effectiveness

# 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

# 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 deliberate on the next (new) medium-term management plan. Fiscal 2021 is 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 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, resolved 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 rules that all employees should comply with, and promoted their dissemination and operation. As part of this, TDK clarified risk owners and risk 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 atmosphere 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.

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 their 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.

### **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 "Asset Value" as the base of improving the corporate value. It was confirmed that the Board of Directors should 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 dissemination regarding sustainability.

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 realize 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.

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

Type of remuneration		Details of remuneration	Fixed/Fluctuating	
Basic remunerati	on	Monetary compensation paid monthly	Fixed	
Results-linked bc	onus	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.	Fluctuating (single fiscal year)	
Restricted stock unit (RSU) Post-delivery		RSU is a type of stock remuneration which is issued based on continuous service. In case of RSU, 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 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 and money is delivered after the end of the Target Period.	Fixed	
type stock remuneration Performance share unit (PSU)		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 achievement of consolidated performance targets (operating income, ROE) outlined in the Medium-Term Plan.	Fluctuating (medium- to long-term)	

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.

The RSU plan came into operation from fiscal 2021. The PSU plan is scheduled to come into operation from fiscal 2022.
 Directors and Audit & Supervisory Board Members remuneration classification for results-linked compensation, nonmonetary compensation and other remuneration is as follows

Results-linked Stock-linked compensation Basic RSU<sup>∗2</sup> PSU<sup>\*3</sup> remuneration bonus stock options\* Results-linked compensation Non-monetary compensation \_ Compensation other than the above \_ \_

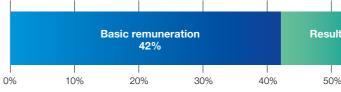
\*1 Stock-linked compensation stock options are classified as "non-monetary compensation" and the portion with the results achievement condition attached is also classified as "results-linked compensation."

\*2 Under RSU, the stock remuneration portion is classified as "non-monetary compensation" and the monetary compensation portion is classified under "compensation other than the above." \*3 PSU is classified as "results-linked compensation" and the stock remuneration portion is also classified as "non-monetary compensation."

### Eligible for payment

	Basic remuneration	Results-linked bonus	Post-delivery type RSU	stock remuneration PSU
Directors concurrently serving as corporate officers	•	•	٠	•
Directors not concurrently serving as corporate officers	٠	-	٠	-
Outside directors	•	-	_	_
Audit & Supervisory Board mem	nbers	_	_	_

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



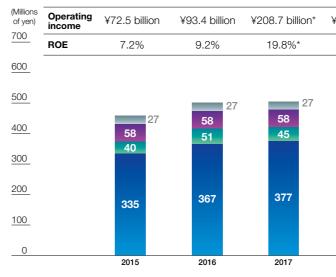
Indicators related to performance-linked remuneration, reasons for selecting the indicators, and methods for determining the amount of performance-linked remuneration

In calculating results-linked bonuses, the amount is designed to fluctuate within a range of 0% to 200% of the standard payment amount depending on the degree of attainment of targets, using the consolidated results for fiscal 2021 (operating income, ROE) and the indicators set for each division in charge. The reason for selecting these indicators is to use the same indicators as management targets with an emphasis on the linkage with short-term performance. The targets and results for the main indicators that relate to results-linked bonuses in fiscal 2021 under review are as follows.

Consolidated operating income	¥70,900 million (target), ¥111,535 n
Consolidated ROE	5.6% (target), 8.6% (result)

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

Outside Audit & Supervisory Board Members
 Inside Audit & Supervisory Board Members
 Outside Directors
 Inside Directors



\* Includes ¥144.4 billion in gains from business transfer to Qualcomm

lts-linke 25%	d bonus	Ро	st-delivery ty remunera 33%		
%	60%	 70%	 80%	 90%	100%

million (result)

### ¥89.7 billion ¥107.8 billion ¥97.9 billion ¥111.5 billion 7.8% 9.7% 6.7% 8.6% 35 61 58 48 42 30 58 58 2018 2019 2020 2021 (FY)

### **Group Governance**

### **Directors, Audit & Supervisory Board Members, and Corporate Officers**

Makoto Sumita

Director

(As of the end of October 2021)

### Directors



Representative Director

President and CEO



Representative Director







Seiji Osaka

Director



Shigeki Sato Director









Satoru Sueki Full-time Audit & Supervisory Board Member





Summary of career

Industrial Co., Ltd. (currently

Apr. 2007 Executive Officer of said

Apr. 2012 Managing Executive Officer of

company

Apr. 2015 In charge of Human Fair Business, Corporate Governance, Risk Promotion and Executive Risk & Governance Management Division of said

Jun. 2017 Director, Managing Executive Officer, Chief Risk Management Officer (CRO), and Chief Compliance Officer (CCO); in charge of Corporate Governance; Director, Risk & Governance Management Division; and in charge of General Affairs, Social Relations, Facility Management and Executive



Apr. 2018 Director of said company (Retired in Jun. 2018)

Jun. 2019 Outside Audit & Supervisory Board Member of the





Apr. 1979 Entered Matsushita Electric

Panasonic Corporation)

company

said company Jun. 2014 Managing Director of said

> Resources, General Affairs, Social Relations, Legal Affairs, Management, Facility Management, Corporate Sport Support Office; and Director,

company

Company (present post)



### Kazuhiko Ishimura Outside Director

- Summary of caree Apr. 1979 Entered Asahi Glass Co., Ltd. (currently AGC Inc.)
- Jan. 2006 Executive Officer and GM of Kansai Plant of said company Jan. 2007 Senior Executive Officer and GM of Electronics & Energy
- General Division of said company Mar. 2008 President & COO &
- Representative Director of said company Jan. 2010 President & CEO &
- Representative Director of said company
- Jan. 2015 Chairman & Representative Director of said company Jun. 2015 Outside Director of the
- Company (present post) Jun. 2017 Outside Director of IHI
- Corporation (present post) Jan. 2018 Chairman & Director of Asahi Glass Co., Ltd. (currently AGC
- Inc.) Jun. 2018 Outside Director of Nomura Holdings, Inc. (present post)
- Mar. 2020 Director of AGC Inc.
- Apr. 2020 President of the National Institute of Advanced Industrial Science and Technology (present post)



Kozue Nakayama Outside Director

- Summary of career Apr. 1982 Entered Nissan Motor Co., I td.
- Sep. 2010 Deputy General Manager of Global Branding Division of said company
- Mar. 2011 Retired from said company Apr. 2011 Entered Yokohama City
- Apr. 2012 Director General of Culture and Tourism Bureau of said
- city Jun. 2018 President and Representative Director of Pacific Convention Plaza Yokohama
- Jun. 2019 Outside Audit & Supervisory Board Member of Imperial Hotel, Ltd. (present post)
- Jun. 2020 Outside Director of the Company (present post) Outside Director of Isuzu Motors Limited (present post)

- Mutsuo Iwai Outside Director
  - Summary of career Apr. 1983 Entered Japan Tobacco and
  - Salt Public Corporation Jun. 2005 Senior Vice President and Vice President of Food Business Division of Food Business of Japan Tobacco Inc. ("JT") Jun. 2006 Member of the Board and Executive Vice President;
  - President of Food Business of
  - Jun. 2008 Executive Vice President; Chief Strategy Officer of JT Jun. 2010 Member of the Board and Senior Vice President; Chief Strategy Officer and Assistant to CEO in Food Business of JT Jun. 2011 Member of the Board of JT
  - Executive Vice President of JT International S.A. Jun. 2013 Senior Executive Vice President; Chief Strategy
  - Officer of JT Jan. 2016 Executive Vice President; President of Tobacco Business of JT Mar. 2016 Representative Director and
  - Executive Vice President; President of Tobacco Business of JT Jan. 2020 Member of the Board of JT Mar. 2020 Member and Deputy
  - Chairperson of the Board of JT (present post) Jun. 2020 Outside Director of Benesse Holdings, Inc. (present post)
  - Jun. 2021 Outside Director of the Company (present post)











Sep. 2002 Joined Sullivan & Cromwell LLP

Sep. 2007 Principal of Law Offices of Douglas K. Freeman (present post)

Feb. 2016 Outside Director of U-Shin Ltd.

Apr. 2019 Professor of Keio University Law School (present post)

Jun. 2019 Outside Audit & Supervisory Board Member of the Company (present post)



### Michiko Chiba Outside Audit & Supervisory

Board Me	Board Member					
Summary of career Apr. 1984 Entered Tokyo Metropolitan						
Арі. 1904	Government					
Oct. 1989	Joined Showa Ota & Co. (currently Ernst & Young ShinNihon LLC)					
Mar. 1993	Registered as certified public accountant in Japan					
Jul. 2010	Senior Partner, Ernst & Young ShinNihon LLC					
Sep. 2016	Principal of Chiba Certified Public Accountant Office (present post)					
Jun. 2018	Outside Audit & Supervisory Board Member of CASIO COMPUTER CO., LTD.					
Mar. 2019	Outside Audit & Supervisory Board Member of DIC Corporation (present post)					
Jun. 2019	Outside Director, Audit & Supervisory Committee Member of CASIO COMPUTER CO., LTD. (present post)					
	Outside Audit & Supervisory Board Member 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 Saito Mitsuru Nagata Michael Pocsatko Andreas Keller Shigeki Sato

### **Corporate Officers**

**Joachim Thiele** Hong Tian Albert Ong Dai Matsuoka Fumio Sashida Ji Bin Geng Werner Lohwasser Taro Ikushima Shuichi Hashiyama

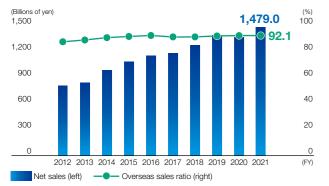
# Consolidated Business Results Highlights (Fiscal years ended March 31)

Consolidated business highlights*	2012	2013	2014	2015	2016	2017	2018	2019	2020	Millions of yer 202
Net sales	¥ 802,534	¥ 841,847	¥ 984,525	¥1,082,560	¥1,152,255	¥1,178,257	¥1,271,747	¥1,381,806	¥1,363,037	¥1,479,00
(Overseas sales)	702,469	747,062	890,520	989,348	1,061,203	1,073,024	1,158,004	1,268,437	1,252,634	1,361,80
Cost of sales	624,271	668,258	763,572	802,225	831,123	855,948	928,525	985,321	959,714	1,044,69
Selling, general and administrative expenses	153,951	147,876	179,896	199,795	227,185	239,446	257,630	287,561	289,771	317,302
Operating income	20,539	22,054	36,616	72,459	93,414	208,660	89,692	107,823	97,870	111,53
Income before income taxes				74,517	91,839	211,717	89,811	115,554	95,876	121,904
Income from continuing operations before income taxe	es 14,668	19,765	39,772							
Net income (loss) attributable to TDK	(2,454)	1,195	16,288	49,440	64,828	145,099	63,463	82,205	57,780	79,340
Capital expenditures	99,653	85,606	68,606	102,525	160,674	167,631	178,612	173,592	173,429	212,355
Depreciation and amortization	80,197	77,938	83,109	80,249	83,224	87,491	92,171	106,631	124,984	140,28
Research and development	52,551	53,943	63,385	70,644	84,920	91,254	102,641	115,155	117,489	127,046
Ratio of overseas production to net sales (%)	80.2	81.8	86.7	87.9	86.3	86.1	84.5	85.4	84.4	86.2
Net cash provided by operating activities	55,334	108,942	127,308	142,850	151,563	160,136	91,310	140,274	222,390	222,814
Net cash used in investing activities	(29,898)	(90,156)	(55,438)	(127,312)	(140,585)	(71,111)	(246,099)	(140,179)	(41,964)	(231,488
Net cash provided by (used in) financing activities	12,929	4,395	(56,118)	(35,243)	29,305	(37,753)	110,088	9,435	(121,769)	29,193
Cash and cash equivalents at end of period	167,015	213,687	250,848	265,104	285,468	330,388	279,624	289,175	332,717	380,387
Total assets	1,072,829	1,169,575	1,239,553	1,404,253	1,450,564	1,664,333	1,905,209	1,992,480	1,943,379	2,401,433
TDK stockholders' equity	498,159	561,169	635,327	738,861	675,361	793,614	824,634	877,290	843,957	1,003,538
Working capital	219,918	232,693	279,504	352,364	289,760	388,542	296,899	208,165	247,577	221,909
Number of shares issued (thousands)	129,591	129,591	129,591	129,591	129,591	129,591	129,591	129,591	129,591	129,591
Per-share data	V(10.06)	X 0 50	V100.47	¥392.78	¥514.23	V1 150 16	¥502.80	¥651.02	¥457.47	Yer ¥628.08
Net income (loss) attributable to TDK (basic)	¥(19.06)	¥ 9.50	¥129.47			¥1,150.16				7,944
Net assets	3,957	4,461	5,050	5,865	5,355	6,289	6,532	6,947	6,681	
Dividends	80.00	70.00	70.00	90.00	120.00	120.00	130.00	160.00	180.00	180.00
Payout ratio (%)	_	736.8	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	20.3	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.
Return on equity (ROE) (%)	(0.5)	0.2	2.7	7.2	9.2	19.8	7.8	9.7	6.7	8.6
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
CO <sub>2</sub> emissions from production activities (t-CO <sub>2</sub> )	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
	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

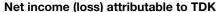
In accordance with the provisions of ASC No. 205-20, "Presentation of Financial Statements-Discontinued Operations," operating results related to the data tape business and the Blu-ray business are separately presented as discontinued operations in the consolidated statements of operations for fiscal 2014. Also, reclassifications have been made to the consolidated statements of operations of fiscal 2012 and fiscal 2013, to conform to the presentation used for fiscal 2014. However, overseas sales, depreciation and amortization, research and development expenses, and ratio of overseas production to net sales include the amounts of discontinued operations.

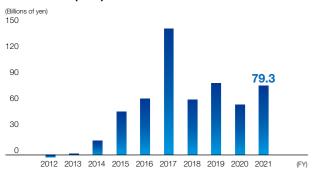
### Consolidated Business Results Highlights (Year ended March 31, 2021, and as of March 31)

### Net sales / Overseas sales ratio



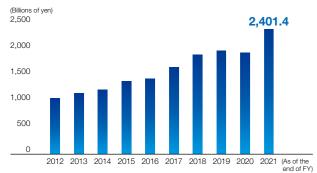
In fiscal 2021 business was severely impacted by the resurgence of the COVID-19 pandemic, the increasingly serious confrontation between the United States and China, and the strong yen exchange rate, including the value of the yen against the U.S. dollar. From the second quarter, however, amid the gradual resumption of social and economic activities and production activities in countries around the world, electronics demand continued to recover, and TDK's net sales reached ¥1,479 billion, up 8.5% over the previous fiscal year. Sales in China increased, so in fiscal 2021 overseas sales accounted for 92.1% of total sales.





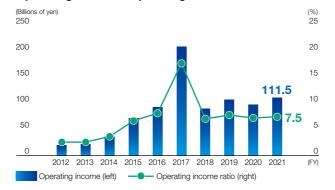
Performance was sluggish from fiscal 2009 due in part to reduced demand for electronic components resulting from the global economic slowdown and the impact of the Great East Japan Earthquake. After structural reforms were implemented beginning in fiscal 2012, however, results gradually improved. As a result of the impact from recording gains from the transfer of business to Qualcomm in fiscal 2017, net income in fiscal 2018 fell 56.3% year on year to ¥63.5 billion. In fiscal 2020 business was impacted by the deterioration of U.S.–China relations and spread of the COVID-19 pandemic, as a result of which net income dropped to ¥57.8 billion, down 29.7% from the previous term. In fiscal 2021, however, electronics demand recovered, and net income rose to ¥79.3 billion, up 37.3% year on year.

### **Total assets**



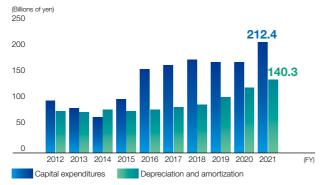
The trend of gradual growth of total assets had continued since fiscal 2011 due to increases in tangible fixed assets and investment. At the end of fiscal 2020, however, total assets amounted to  $\pm$ 1,943.4 billion, down 2.5% form the end of the previous year, due to the decline of investment by  $\pm$ 122.1 billion and other factors. At the end of fiscal 2021, trade receivables and tangible fixed assets increased, and total assets rose to  $\pm$ 2,401.4 billion, up 23.6% year on year.

### Operating income / Operating income ratio

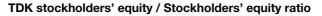


In fiscal 2017, capital gains of ¥144.4 billion were recorded in conjunction with the business tie-up with Qualcomm and an agreement to establish a joint venture. Operating income in fiscal 2018 fell substantially. In fiscal 2021, although there was a rise in administrative expenses and development expenses 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, up 14% year on year, as a result of the expansion of sales centered on lithium ion batteries and cost reduction through rationalization. The operating income ratio also rose by 0.3 percentage points.

Capital expenditures / Depreciation and amortization



In the previous three-year Medium-Term Plan period, from fiscal 2019 to fiscal 2021, TDK carried out aggressive capital expenditures toward accelerating the expansion of priority businesses, strengthening overseas R&D sites, and speeding up manufacturing reforms. In fiscal 2021 investment reached ¥212.4 billion, and cumulative investment over the three years amounted to ¥559.4 billion, which was higher than the initial plan of ¥500 billion.



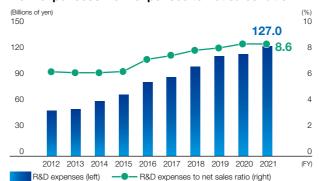


As of the end of fiscal 2021, stockholders' equity was ¥1,003.5 billion, up 18.9% year on year. Accumulated other comprehensive income (loss) increased by ¥107.3 billion and other retained earnings by ¥52.9 billion, and the stockholders' equity ratio was 41.8%, down 1.6 percentage points year on year.



ROE and ROA were at low levels following the global economic downturn, but both improved after structural reforms implemented from fiscal 2012. Both indicators were up substantially as a result of special factors that resulted in recording gains on the transfer of business to Qualcomm in fiscal 2017 and fell again in fiscal 2018 due to the counteraction to those factors. In fiscal 2021, as a result of the increase in net income, ROE rose by 1.9 percentage points and ROA by 0.8 percentage point year on year.

R&D expenses / R&D expenses to net sales ratio



R&D expenses have continuously increased since fiscal 2012, and TDK invested ¥127.0 billion, up 8.1% year on year, in R&D in fiscal 2021, a record high, so that we can respond to rapid technological innovation in the electronics market and maintain high competitiveness. Going forward, we will continue to actively invest in the development of new technologies and further reinforce our R&D structures.

Number of employees / Overseas employee ratio

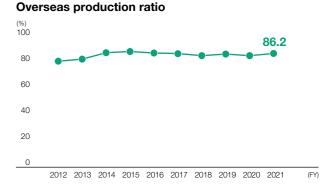


TDK implemented personnel optimization measures as a part of the structural reforms conducted from fiscal 2012, but since fiscal 2016 it has been increasing the number of employees to raise competitiveness. Due to an increase of personnel to cope with the expanded scale of the battery business in fiscal 2021, the number of employees reached 129,284 as of the end of that fiscal year. In addition, the overseas employee ratio has been trending upwards, reaching 92.0% as of the end of fiscal 2021.

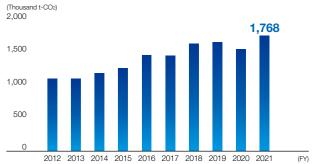
Cash flows



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&As in accordance with our growth strategy, and we are working to further strengthen our earnings structure. In fiscal 2018, free cash flow was negative ¥154.8 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 ¥8.7 billion in fiscal 2021 as a result of orowth investment centered on the battery business.



Compared with fiscal 2012, the overseas production ratio in fiscal 2021 was up by 6.0 percentage points, reaching 86.2%. TDK seeks to establish location-independent production systems and is working toward the ability to supply products with the same high quality from any location.



### CO<sub>2</sub> emissions from production activities

TDK has established TDK Environmental Vision 2035 and is working to reduce environmental load from a life-cycle perspective covering all phases from the use of raw materials to the use and disposal of final products. We are aware that CO<sub>2</sub> emissions from energy consumption at production sites has a major environmental impact within TDK, and we are reducing energy use by implementing energy-saving measures through assessment at the time of capital expenditures and creating energy management structures. In fiscal 2021, our CO<sub>2</sub> emissions rose over the previous fiscal year due to the resumption of production activities that had been temporarily halted due to the COVID-19 pandemic and the substantial recovery of orders.

# Corporate Information (As of March 31, 2021)

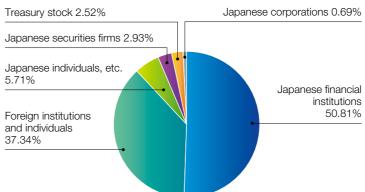
Corporate name	TDK Corporation			
Corporate headquarters	Nihonbashi Takashi	imaya Mitsui Building, 2-5-1, Nihonbashi, Chuo-ku, Tokyo 103-6128		
Date of establishment	December 7,1935			
Authorized number of shares	480,000,000 share:	S		
Number of shares issued	129,590,659 shares	S		
Number of shareholders	21,782			
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	Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8233			
Independent registered public accounting firm	KPMG AZSA LLC (1	the Japan member firm of KPMG International)		
	Туре	Level 1 with sponsorship		
ADR information	ADR Ratio	1 common stock=1 ADR		
	Ticker Symbol	TTDKY		
	CUSIP	872351408		
	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: 1-781-575-4555 (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* (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	28,658	22.69
Custody Bank of Japan, Ltd. (Trust account)	14,313	11.33
Custody Bank of Japan, Ltd. (Securities investment trust account)	3,497	2.77
SSBTC CLIENT OMNIBUS ACCOUNT	3,325	2.63
Custody Bank of Japan, Ltd. (Trust account 9)	2,751	2.18
Custody Bank of Japan, Ltd. (Trust account 7)	2,279	1.80
STATE STREET BANK WEST CLIENT - TREATY 505234	2,161	1.71
STATE STREET BANK AND TRUST COMPANY 505025	1,647	1.30
Nippon Life Insurance Company	1,640	1.30
JP MORGAN CHASE BANK 385632	1,499	1.19

 $^{\star}$  Other than the above, the Company holds 3,268 thousand shares of treasury stock.

### Status of ownership



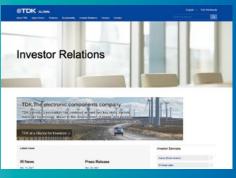
### TDK's stock price and volume



# **About Our Website**

# **Investor Relations (IR)**





- Securities reports
- Quarterly financial statements
- Management policy

### Sustainability

https://www.tdk.com/en/sustainability/index.html



- Sustainability reports
- CSR activities

### **Product Center** https://product.tdk.com/en/products/index.html

TDK Product Card Product Application Cont Product	ar Tarina kaoni Tarikon	n Britemet Galad	Denter of	CK Bryan - TCK MAN
		0000000 00 M 11 0 2 Jun Eli Conjunes	s e Tr Congression	Usinge i Curver i Isogorour Protocor Devices
	Corpus Sectors Heavy Rain Corpus Sectors Heavy Rain Corpus Sectors	<ul> <li>♦<sup>1</sup> (\$) \$ \$</li> <li>♦ ♦ ♦</li> <li>♥ = A</li> <li>Instance</li> </ul>	AN A	View Charles
		1%	-mill 3	

20,000 16,000 12,000 8,000 4,000

(Yen)



# **TDK** Corporation

Nihonbashi Takashimaya Mitsui Building, 2-5-1, Nihonbashi, Chuo-ku, Tokyo 103-6128 https://www.tdk.com/en/index.html