Performance Briefing
Fiscal Year March, 2016

TDK Corporation
April 28, 2016

◆**Consolidated Results for FY March 2016**

Tetsuji Yamanishi, Corporate Officer

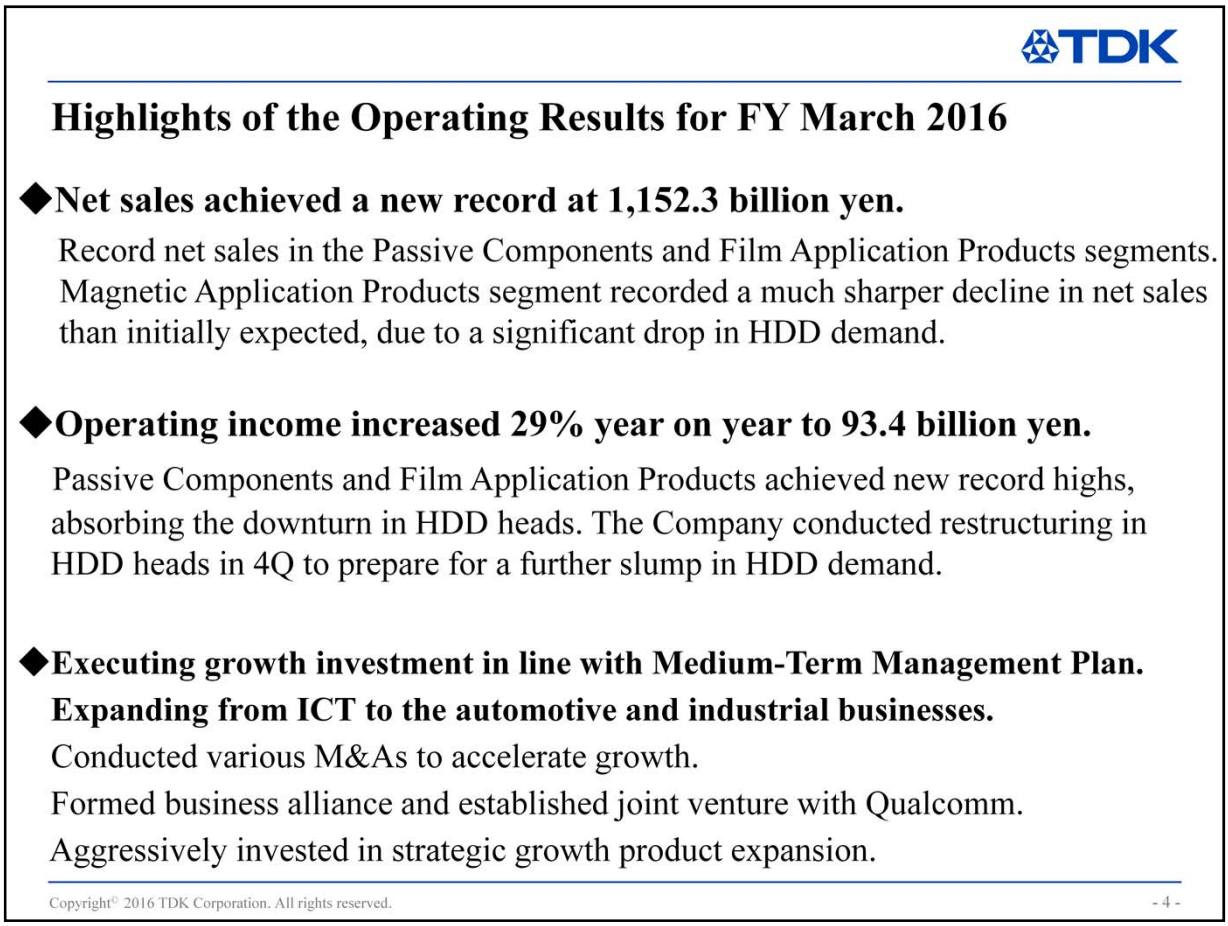
◆**Consolidated Full Year Projections for FY March 2017 and Mid-Term Policy**

Takehiro Kamigama, President and CEO

Consolidated Results for FY March 2016

Tetsuji Yamanishi
Corporate Officer

I'm Tetsuji Yamanishi, Corporate Officer at TDK. Thank you for taking the time to attend TDK's performance briefing for the fiscal year ended March 2016. I will be presenting an overview of our consolidated results.



First, let's take a look at the highlights of operating results for the fiscal year ended March 2016. Following on from the previous fiscal year, we posted record net sales of 1,152.3 billion yen.

We delivered record net sales in the Passive Components and Film Application Products segments owing to steady growth in sales of capacitors and inductors in the automobile market. The automotive market is performing well, particularly in North America. Another factor behind the record net sales performance in both segments was significant sales growth in the smartphone market, despite a stronger deceleration in the growth of this market. Sales growth was driven by TDK's increased share among major customers particularly for high frequency components and rechargeable batteries, and an expanded customer portfolio. The record-high net sales in the Passive Components and Film Application Products segments made a large contribution to Company-wide sales growth. Meanwhile, in the Magnetic Application Products segment, HDD demand dropped sharply to 444 million units, which was far below the initially projected 530 million units. Consequently, net sales of recording devices and magnetic products declined significantly.

Next, operating income increased 29% year on year to 93.4 billion yen. In the Passive Components and Film Application segments, which posted record net sales, operating income also reached new record highs. This result was underpinned by increased productivity, in addition to growth in the sales volume of high-frequency components, piezoelectric materials and rechargeable batteries.

However, in the Magnetic Application Products segment, in which net sales declined significantly, operating income decreased by more than half. In anticipation of further contraction in HDD demand, TDK restructured HDD head operations in the fourth quarter, with a view to improving future earnings. This restructuring primarily involved cutting indirect personnel mainly at Chinese plants.

In the fiscal year ending March 2016, the first year of the new Medium-Term Plan, we executed various M&As that complement our products and technologies. This M&A activity was aimed at accelerating growth in the priority five businesses in our three priority fields, namely ICT, automobiles and industrial equipment / energy. Concurrently, eyeing the IoT market, which offers prospects for substantial growth, we established a joint venture with Qualcomm Incorporated, which has emerged a key player in the global market for smartphones and other applications as well. Through strengthened business collaboration with Qualcomm, TDK is proactively executing development investment and capital expenditures aimed at driving the growth of its three strategic growth products: (1) sensors and actuators, (2) energy units, and (3) next-generation electronic components.

Going forward, we will continue to reallocate business resources and thereby boost the share of automobiles, industrial equipment and energy in our business portfolio, with the aim of spurring well-balanced growth across these three fields as a whole.

Consolidated Full Year Results for FY March 2016

(Yen billions)	FY March 2015 Full Year Results	FY March 2016 Full Year Results	Change	
			Yen billions	%
Net sales	1,082.6	**1,152.3**	69.7	6.4
Operating income	72.5	**93.4**	20.9	28.8
Operating income margin	6.7%	**8.1%**		-
Income before Income Taxes	74.5	**91.8**	17.3	23.2
Net income	49.4	**64.8**	15.4	31.2
Earning per share (JPY)	392.78	**514.23**	-	-
Ex-rate US$ (JPY)	109.84	**120.13**	Depreciated by 9.4%	
Ex-rate EURO (JPY)	138.88	**132.67**	Appreciated by 4.5%	
Ex-rate impact to Net sales & Operating income	Net sales：Increased by about 85.3 billion Yen Operating income：Increased by about 17.3 billion Yen			

Moving along, I would like to present an overview of our results.

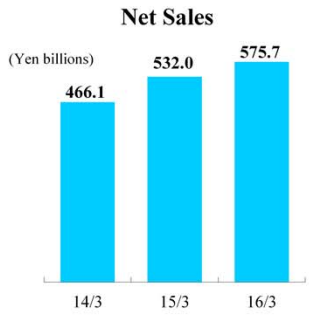
Net sales were 1,152.3 billion yen, an increase of 69.7 billion yen, or 6.4%, year on year. Operating income rose by 20.9 billion yen, or 28.8%, year on year to 93.4 billion yen. The operating income margin was 8.1%.

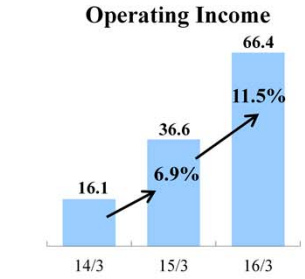
Income before income taxes was 91.8 billion yen, an increase of 17.3 billion yen, or 23.2%, year on year. Net income was 64.8 billion yen, an increase of 15.4 billion yen, or 31.2% year on year.

As a result, earning per share was 514.23 yen. The average exchange rate for the fiscal year ended March 2016 was 120.13 yen against the U.S. dollar, a depreciation of 9.4%, and 132.67 yen against the euro, an appreciation of 4.5%.

In terms of the impact of these exchange rate movements, exchange rates pushed up net sales and operating income by around 85.3 billion yen and 17.3 billion yen, respectively. As for the exchange rate sensitivity, assuming the same relationship between the yen and U.S. dollar as before, we estimate that every change of 1 yen in the exchange rate will have an impact of around 1.4 billion yen on operating income on an annual basis.

FY March 2016 Results - Passive Components Segment





14/3: FY March 2014

Net Sales 575.7 billion yen (up 8.2% year on year)
Operating Income 66.4 billion yen (up 81.4% year on year)

●Ceramic Capacitors
- Both sales and profits increased year on year, particularly due to increased sales for automobile market.

●Inductive Devices
- Both sales and profits increased year on year, particularly due to increased sales for automobile market.

●High-frequency Components
- Both sales and profits increased year on year due to strong sales for the ICT market.
- Profit margins also improved significantly due to increased productivity and improved product mix.

●Piezoelectric Material Products
- Both sales and profits increased year on year due to increased sales of OISs for camera modules.

Next, I would like to explain our business segment performance.

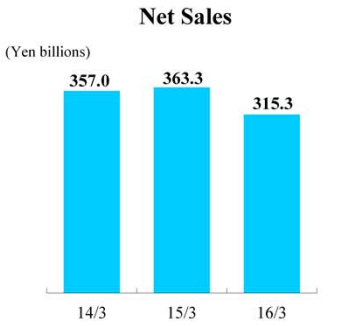
First, in the Passive Components segment, net sales were 575.7 billion yen, up 8.2% year on year, and operating income was 66.4 billion yen, up 81.4% year on year. The operating income margin was 11.5%. Profitability has improved sharply in step with expanding earnings, and the segment is now able to steadily generate a double-digit profit margin.

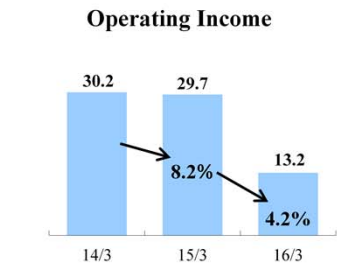
In ceramic capacitors and inductive devices, both sales and profits increased year on year, due to solid sales in the automotive market, particularly in North America. Sales of ceramic capacitors and inductive devices in the automotive market account for around half of the overall sales for both products.

High-frequency components saw favorable sales of discrete products for smartphones to major customers in North America, as well as in China and South Korea. There was also a substantial increase in earnings due to the benefits of increased productivity and an improved product mix, in addition to growth in sales volume. As a result, high-frequency components drove not only the earnings of the Passive Components segment, but also that of the Company as a whole.

In piezoelectric material products, both sales and profits increased year on year due to increased sales of OISs for camera modules to smartphone manufacturers in China.

FY March 2016 Results - Magnetic Application Segment





14/3: FY March 2014

Net sales 315.3 billion yen (down 13.2% year on year)
Operating income 13.2 billion yen (down 55.6% year on year)

●Recording Devices

- HDD head shipment volume declined significantly due to contraction of the HDD market (PC demand slowdown and acceleration of switch to SSDs in PCs). Significant decline in sales and profit year on year.

●Magnets

- Sales for the HDD market declined, and also declined for the automotive (xEV*) and industrial machinery markets due to the decline in oil prices and the economic slowdown in China.

●Power Supplies

- Sales to the industrial equipment market of products such as semiconductor manufacturing equipment and measuring equipment remained strong.

*xEV : EV, HEV, PHEV

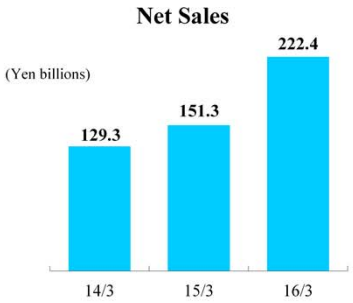
Turning to the Magnetic Application Products segment, net sales were 315.3 billion yen, a decrease of 13.2% year on year. Earnings declined significantly. Operating income decreased more than 50% year on year to 13.2 billion yen, with an operating income margin of 4.2%. Conditions in HDD heads and magnets remained under pressure due to the slowing HDD demand, as well as the accelerated switch to solid state drives (SSDs) in the PC market.

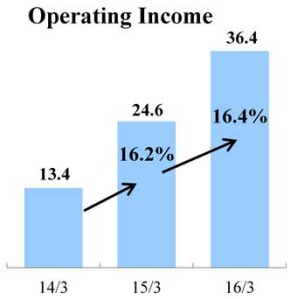
HDD head sales and profits decreased sharply due to the impact of an approximate 25% drop in HDD head shipment volume year on year, which reflected an HDD head shipment index of 70 in the fourth quarter, as initially planned. Based on the assumption that the slowdown in HDD demand will continue, TDK implemented indirect personnel cuts in the China area in conjunction with working to build a system that is able to generate profits even without growth in sales volume.

In magnets, sales of HDD magnets decreased sharply in line with the drop in HDD demand. Conditions remain under pressure due to the impact of slowing growth in sales of electric vehicles, hybrid electric vehicles and plug-in hybrids (xEVs) in North America reflecting falling oil prices, and a decrease in sales of magnets for use in home electronics such as air conditioners reflecting the decelerating Chinese economy.

In power supplies, sales and profits increased due to strong sales of power supplies to the semiconductor manufacturing equipment and measuring equipment markets, particularly in the Americas.

FY March 2016 Results - Film Application Segment





14/3: FY March 2014

Net sales 222.4 billion yen (up 47.0% year on year)
Operating income 36.4 billion yen (up 48.0% year on year)

●Energy Devices (Rechargeable Batteries)

- Sales and profits increased significantly year on year.
- Increased share among major customers and expanded customer portfolio.
- Expanded applications beyond smartphones to include drones, etc.

Next is the Film Application Products segment. In this segment, net sales were 222.4 billion yen and operating income was 36.4 billion yen. Both sales and profits increased significantly by around 50% year on year. The segment has maintained high profitability, with an operating income margin of 16.4%.

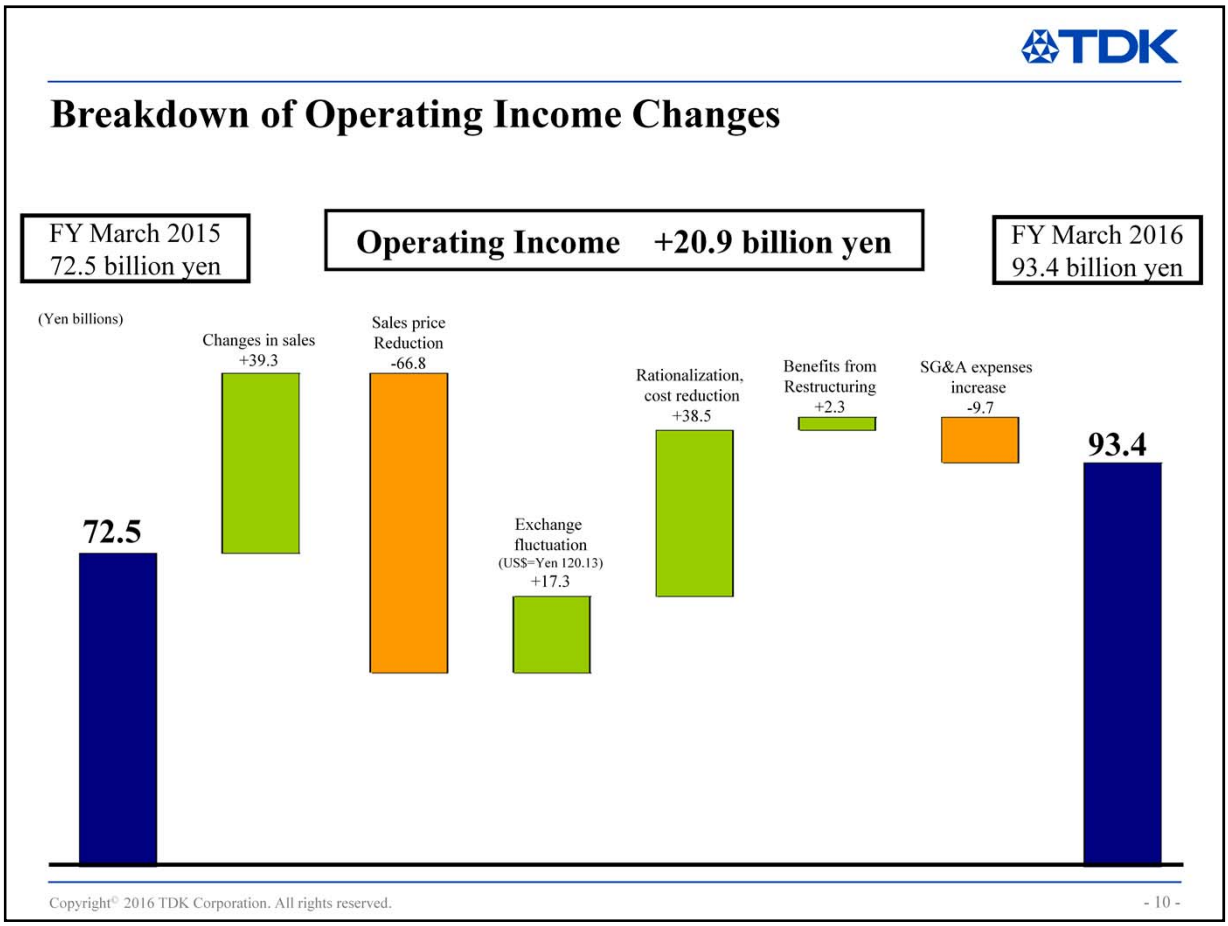
In rechargeable batteries, TDK has sharply increased sales year on year, supported by tailwinds in the form of an increased share of smartphones among major North American customers. Sales are also expanding to customers in South Korea and China, along with increased sales for use in new applications such as drones. In rechargeable batteries, TDK has achieved much higher sales and profits as a result of meeting increased demand by executing timely investments in boosting production capacity in conjunction with increasing productivity.

FY March 2016 results by Segment

		FY March 2015 Full Year Results		FY March 2016 Full Year Results		Change	
		Yen billion	%	Yen billion	%	Yen billion	%
Net Sales	Capacitors	149.0	13.8	**150.4**	13.1	1.4	0.9
	Inductive devices	147.3	13.6	**149.2**	12.9	1.9	1.3
	Other Passive Components	235.8	21.8	**276.1**	24.0	40.3	17.1
	Passive Components	532.0	49.1	**575.7**	50.0	43.7	8.2
	Recording devices	260.5	24.1	**219.8**	19.1	(40.7)	-15.6
	Other Magnetic Application Products	102.8	9.5	**95.5**	8.3	(7.3)	-7.1
	Magnetic Application Products	363.3	33.6	**315.3**	27.4	(48.0)	-13.2
	Film Application Products	151.3	14.0	**222.4**	19.3	71.1	47.0
	Other	35.9	3.3	**38.8**	3.4	2.9	8.1
	Total	1,082.6	100.0	**1,152.3**	100.0	69.7	6.4
Operating Income	Passive Components	36.6	6.9	**66.4**	11.5	29.8	81.4
	Magnetic Application Products	29.7	8.2	**13.2**	4.2	(16.5)	-55.6
	Film Application Products	24.6	16.2	**36.4**	16.4	11.8	48.0
	Other	0.6	1.6	**1.9**	4.8	1.3	-
	Sub total	91.4	8.4	**117.8**	10.2	26.4	28.9
	Corporate and eliminations	(18.9)	-	**(24.4)**	-	(5.5)	-
	Total	72.5	6.7	**93.4**	8.1	20.9	28.8

In the Other segment, net sales were 38.8 billion yen, an increase of 2.9 billion yen, or 8.1%, year on year. Operating income was 1.9 billion yen, an increase of 1.3 billion yen.

The main reasons for these increases were the sale of a major anechoic chamber facility and an increase in sales of semiconductor equipment. The operating loss under corporate and eliminations increased by 5.5 billion yen from 18.9 billion yen in the previous fiscal year to 24.4 billion yen. The main factors behind the larger loss were the inclusion of a gain on sales of land of 0.7 billion yen in the previous fiscal year, along with increased development expenses related to the promotion of the TDK *Monozukuri* revolution and strategic initiative costs related to M&A activity.



Next is the breakdown of changes in operating income. Looking at the factors behind the 20.9 billion yen increase in operating income, one positive impact was changes in sales of approximately 39.3 billion yen, reflecting sales increases attributable to factors including capacity utilization and product mix. The main contributors were sharp increases in sales of high-frequency components and rechargeable batteries for use in smartphones, along with a higher share of high-margin products in the product mix. This was despite negative impacts on earnings from declining sales volumes of HDD heads and magnets.

The next factor, sales price reduction, had a negative impact of approximately 66.8 billion yen on operating income.

Exchange fluctuation, specifically the weaker yen, had a positive impact of approximately 17.3 billion yen on operating income. Rationalization and cost reduction, in combination with progress on improving production yields and discounts on raw materials, had a positive impact of approximately 38.5 billion yen on operating income. Benefits from restructuring lifted operating income by 2.3 billion yen.

Excluding the impact of an impairment loss of 7.4 billion yen and a gain on asset sales of 3.0 billion yen recorded in the previous fiscal year, SG&A expenses rose 14.1 billion yen.

The main contributors to this increase were restructuring costs of approximately 1.8 billion yen for restructuring of HDD head operations, as well as an increase in research and development expenses for new product development and process development in high-frequency components and rechargeable batteries, and for promoting the TDK *Monozukuri* revolution.

FY March 2016 Quarterly Results by Segment

	(Yen billions)	4Q of FY March 2015 (A)	3Q of FY March 2016 (B)	4Q of FY March 2016 (C)	YoY Change (C)-(A) Yen billions	YoY Change (C)-(A) %	QoQ Change (C)-(B) Yen billions	QoQ Change (C)-(B) %
Net Sales	Capacitors	37.6	36.4	**35.4**	(2.2)	-5.9	(1.0)	-2.7
	Inductive Devices	36.4	37.4	**35.4**	(1.0)	-2.7	(2.0)	-5.3
	Other Passive Components	62.8	67.7	**65.5**	2.7	4.3	(2.2)	-3.2
	Passive Components	136.9	141.5	**136.3**	(0.6)	-0.4	(5.2)	-3.7
	Recording Devices	62.6	58.5	**46.0**	(16.6)	-26.5	(12.5)	-21.4
	Other Magnetic Application Products	25.9	23.3	**22.9**	(3.0)	-11.6	(0.4)	-1.7
	Magnetic Application Products	88.5	81.8	**68.9**	(19.6)	-22.1	(12.9)	-15.8
	Film Application Products	44.1	68.5	**46.6**	2.5	5.7	(21.9)	-32.0
	Other	10.3	10.0	**11.1**	0.8	7.8	1.1	11.0
	Total	279.9	301.7	**262.9**	(17.0)	-6.1	(38.8)	-12.9
Operating Income	**Passive Components**	8.0	17.5	**16.5**	8.5	106.3	(1.0)	-5.7
	Magnetic Application Products	6.3	4.7	**0.2**	(6.1)	-96.8	(4.5)	-95.7
	Film Application Products	9.4	14.6	**5.4**	(4.0)	-42.6	(9.2)	-63.0
	Other	0.6	(0.1)	**1.4**	0.8	133.3	1.5	-
	Sub total	24.3	36.7	**23.5**	(0.8)	-3.3	(13.2)	-36.0
	Corporate and Eliminations	(5.0)	(6.4)	**(6.0)**	(1.0)	-	0.4	-
	Total	19.4	30.3	**17.5**	(1.9)	-	(12.8)	-42.2
	Operating Income margin	6.9%	10.0%	**6.7%**	-0.2pt	-	-3.3pt	-

Ex-rate	US$(JPY)	119.21	121.41	**115.46**
	EURO(JPY)	134.74	133.05	**127.37**

I will now present the factors behind changes in segment sales and operating income from the third to fourth quarters. First, as explained in the third quarter, certain products in the Passive Components and Magnetic Application Products segments have been reclassified to the Other segment. The impact of this change was to increase net sales of the Other segment by 2.2 billion yen in the fourth quarter of the fiscal year ended March 2015. The change had virtually no impact on operating income in the Other segment.

Let's now look at the changes in each segment, beginning with the Passive Components segment. In this segment, net sales decreased 3.7% in the fourth quarter, from 5.2 billion yen in the third quarter. Capacitor sales decreased owing to the impact of the yen's appreciation in the fourth quarter, despite strong sales to the automotive market. Aluminum electrolytic capacitors and film capacitors posted mostly flat sales from the third quarter, due to the continuing impact of economic deceleration, particularly in China, and falling crude oil prices. Sales of inductive devices decreased by 2.0 billion yen, or 5.3%, from the third quarter. The decrease in sales was due to the impact of production adjustments by North American smartphone customers from the latter half of the third quarter, although sales to the automotive market remained strong. In other passive components, net sales decreased by 2.2 billion yen, or 3.2%. As with inductive devices, one reason for the decrease was lower sales of high-frequency component discrete products, due to production adjustments by North American smartphone customers. Another reason was lower sales of camera modules reflecting shipment delays due to the impact of delivery problems with respect to purchased materials in OIS production, despite a continuation of surging demand from Chinese customers.

Operating income in the Passive Components segment decreased by 1.0 billion yen, or 5.7%, from the third quarter. In this segment, we maintained an operating income margin of 12.0%, mostly unchanged from 12.3% in the third quarter. This result was underpinned by our rationalization and cost reduction efforts, centered on high-margin high-frequency discrete products, despite the lower sales.

Next is the Magnet Application Products segment. In this segment, net sales decreased by 12.9 billion yen, or 15.8%, from the third quarter. Sales of recording devices were largely in line with the HDD head shipment volume projected for the fourth quarter. However, relative to the third quarter, shipment volumes decreased by around 20%, and net sales were down 12.5 billion yen, or 21.4%. Sales of other magnetic application products declined 0.4 billion yen, or 1.7%, from the third quarter. Magnet sales were sluggish for use in EVs due to the impact of falling oil prices, as well as the impact of declining HDD demand. Magnet sales also decreased for use in industrial equipment, owing to the impact of the decelerating Chinese economy. Power supply products saw an increase in sales for use in measuring equipment and other devices in the Americas. Operating income in the Magnetic Application Products segment declined significantly. In recording devices, earnings dropped sharply due to restructuring costs of around 1.8 billion yen, in addition to declining profits in line with decreasing HDD head volume. In magnets, earnings have also remained under pressure due to the impact of declining sales. In power supplies, profitability has improved in step with increased sales.

Moving on to the Film Application Products segment, net sales decreased 21.9 billion yen, or 32%, from the third quarter. As with the Passive Components segment, net sales decreased due to the impact of production adjustments by North American smartphone customers. Operating income was 5.4 billion yen, a decrease of 9.2 billion yen from 14.6 billion yen in the third quarter. Operating income decreased sharply because of the impact of a decrease in capacity utilization in line with declining production volume, in addition to a decrease in marginal profit due to declining sales volume.

That concludes my presentation. Thank you for your attention.

Consolidated Full Year Projections for FY March 2017 and Mid-Term Policy

Takehiro Kamigama
President and CEO

Hello. I'm Takehiro Kamigama, President and CEO of TDK. Thank you for attending today's meeting. I will present our projections for the fiscal year ending March 2017, and our mid-term policy. Let's get started.

FY March 2017 Full Year / Dividend Projections

(Yen billions)		FY March 2016 Full Year Results	FY March 2017 Full Year Projections	YoY Change	
				Yen billions	%
Net sales		1,152.3	**1,160.0**	7.7	0.7%
Operating income		93.4	**74.0**	(19.4)	-20.8%
Operating income margin		8.1%	**6.4%**	-1.6 pt	-
Income before income taxes		91.8	**73.0**	(18.8)	-20.5%
Net income		64.8	**50.0**	(14.8)	-22.8%
Earning per share (JPY)		514.23	**396.00**	-	-
Dividends (JPY)		1st half : 60 2nd half : 60 Annual: 120	**1st half : 60** **2nd half : 60** **Annual : 120**	-	-
Ex-rate	US$(JPY)	120.13	**110.00**	-	
	EURO(JPY)	132.67	**125.00**	-	
Capital expenditure		160.7	**200.0**	39.3	24.5%
Depreciation and amortization		83.2	**95.0**	11.8	14.2%
Research and development		84.9	**90.0**	5.1	6.0%

For the fiscal year ending March 2017, TDK is projecting net sales of 1,160.0 billion yen, operating income of 74.0 billion yen, and an operating income margin of 6.4%. Income before income taxes is projected at 73.0 billion yen, and net income is projected at 50.0 billion yen. We are projecting earning per share of 396 yen. Looking at our dividend projections, TDK plans to pay an annual dividend of 120 yen per share, comprising an interim dividend of 60 yen and a year-end dividend of 60 yen, the same level of dividends as in the previous fiscal year. We are assuming exchange rates of 110 yen against the U.S. dollar and 125 yen against the euro. Capital expenditure is projected at approximately 200.0 billion yen, higher than in the fiscal year ended March 2016. Finally, we are projecting depreciation and amortization of 95.0 billion yen and research and development (R&D) expenses of 90.0 billion yen, 5.0 billion yen higher than in the previous fiscal year.

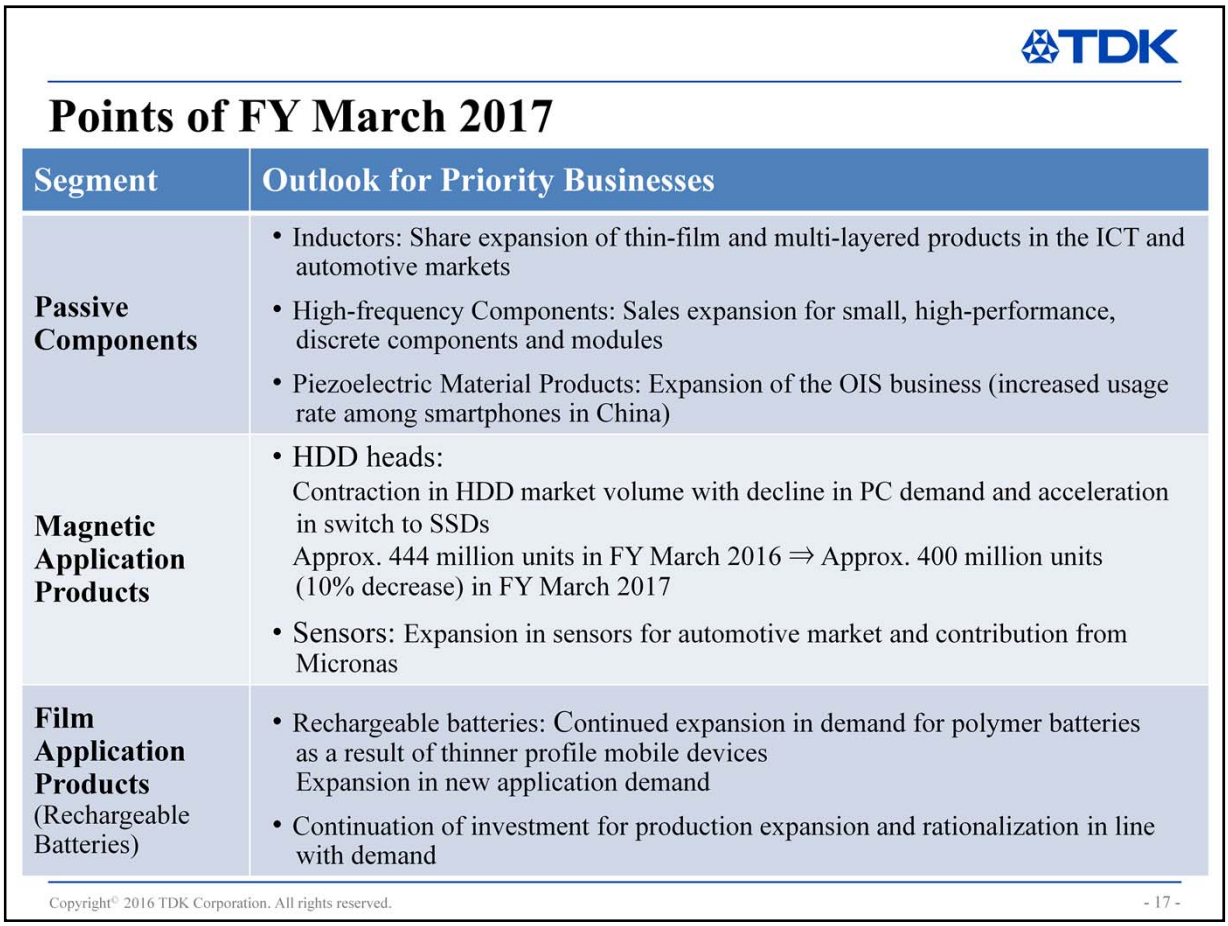
Projections for FY March 2017 -Image of changes in sales

(Yen billions)

Segment	FY March 2016 Full Year Results	FY March 2017 Full Year Projections (YoY Change)
Passive Components	575.7	+3～+6%
Magnetic Application Products	315.3	-11～-14%
Film Application Products	2,22.4	+12～+15%
Other	38.8	-
Total	1,152.3	1,160.0

		Forex assumptions
US$(JPY)	120.13	110.00
EURO(JPY)	132.67	125.00

This slide shows our image of changes in consolidated full-year sales in each segment. The Passive Components segment is expected to perform strongly, with net sales projected to grow 3-6% year on year, even after considering the yen's appreciation. Net sales in the Magnetic Application Products segment is projected to decrease 11-14%. The main factor behind the projected decrease is HDD heads. In the Film Application Products segment, net sales are forecast to increase by 12-15%. For the fiscal year ending March 2017, we are projecting total sales of 1,160.0 billion yen, with an exchange rate assumption of ¥110 to the dollar, largely unchanged from the previous fiscal year. The image of sales we would like you to have calls for passive components and rechargeable batteries to achieve positive growth by outweighing the negative impact of the stronger yen, while HDD heads will decline.

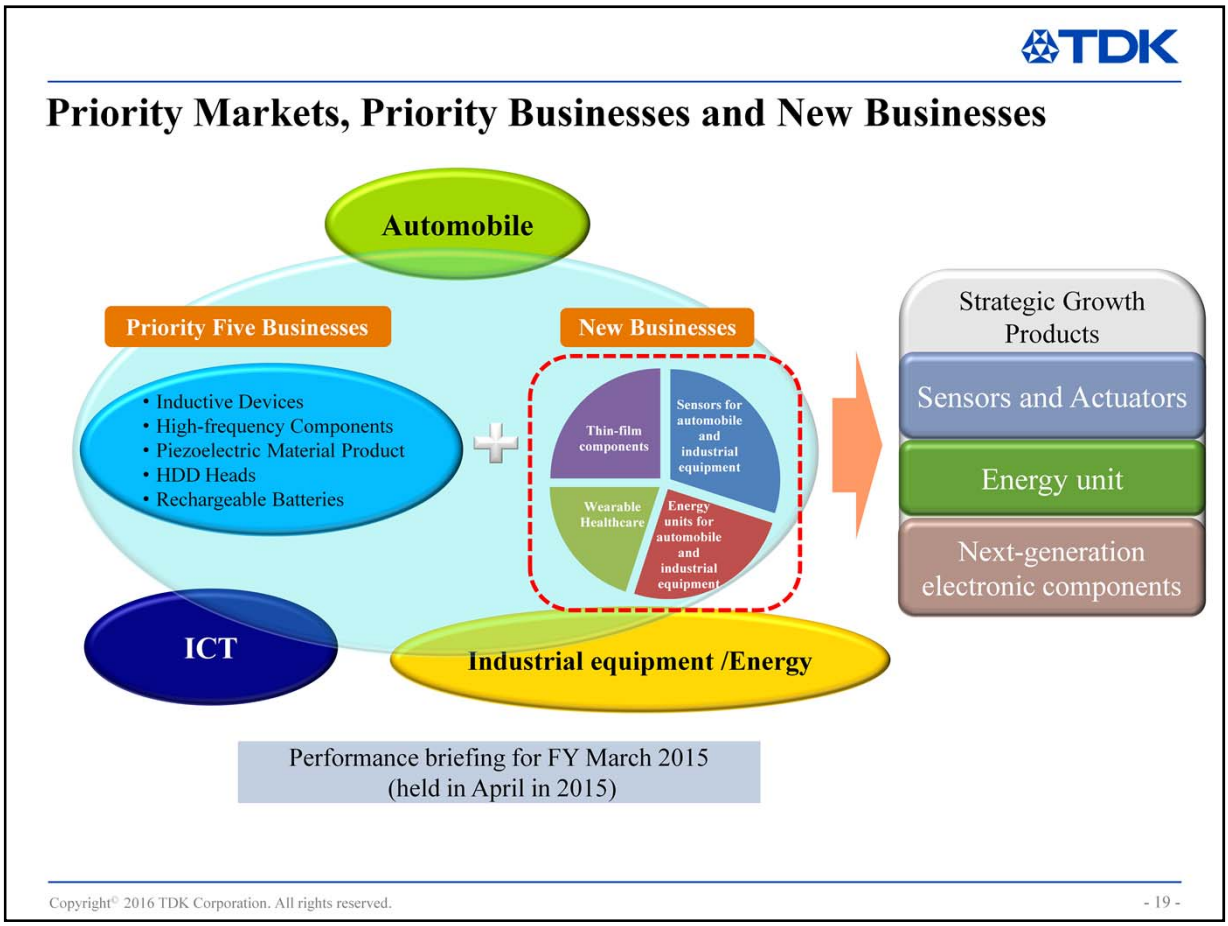


Points of FY March 2017

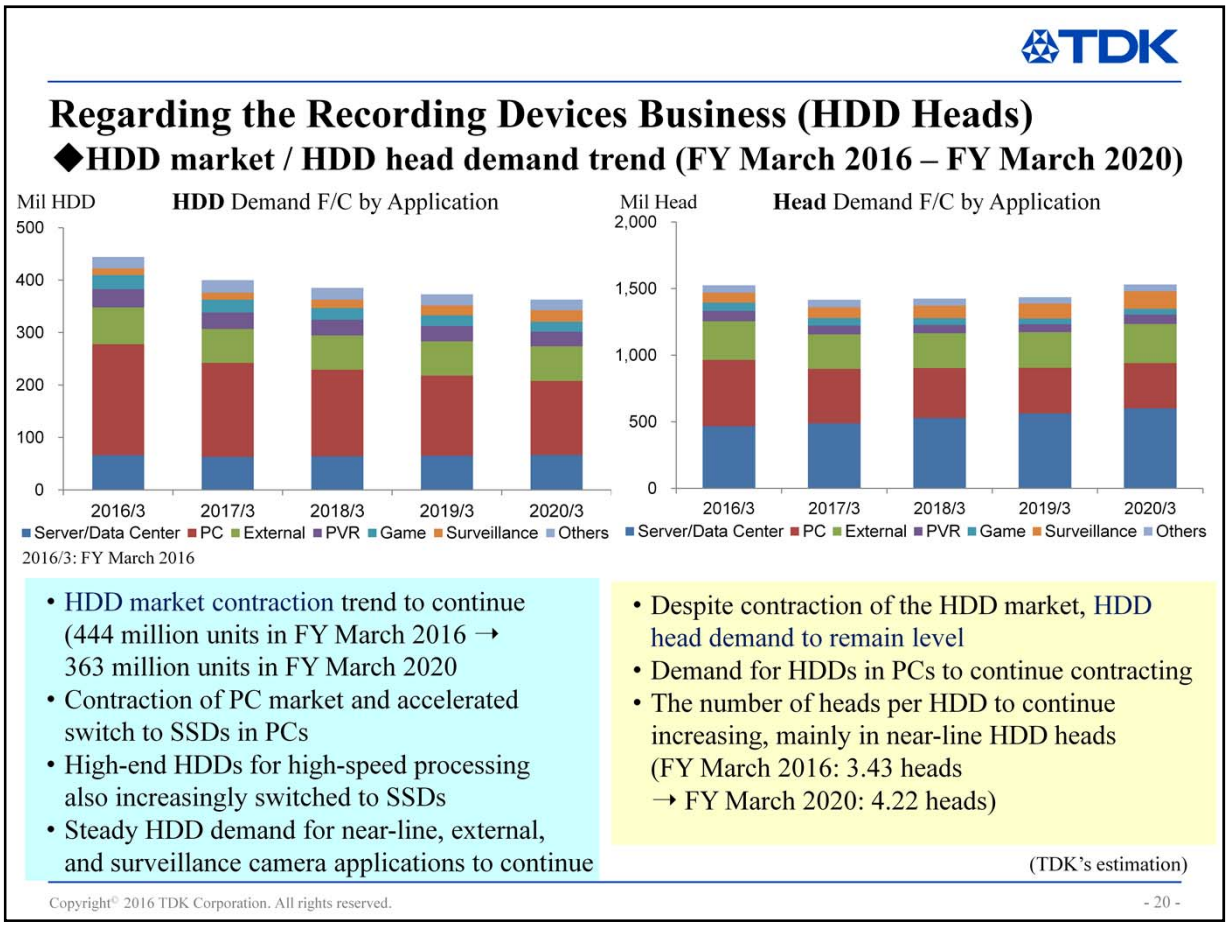
Segment	Outlook for Priority Businesses
Passive Components	• Inductors: Share expansion of thin-film and multi-layered products in the ICT and automotive markets • High-frequency Components: Sales expansion for small, high-performance, discrete components and modules • Piezoelectric Material Products: Expansion of the OIS business (increased usage rate among smartphones in China)
Magnetic Application Products	• HDD heads: Contraction in HDD market volume with decline in PC demand and acceleration in switch to SSDs Approx. 444 million units in FY March 2016 ⇒ Approx. 400 million units (10% decrease) in FY March 2017 • Sensors: Expansion in sensors for automotive market and contribution from Micronas
Film Application Products (Rechargeable Batteries)	• Rechargeable batteries: Continued expansion in demand for polymer batteries as a result of thinner profile mobile devices Expansion in new application demand • Continuation of investment for production expansion and rationalization in line with demand

I will now go over the main points in each segment. Beginning with the Passive Components segment, in inductors, we expect to expand our share of thin-film and multi-layered products in the ICT and automotive markets. In high-frequency components, sales expansion is projected for small discrete components and modules. In piezoelectric material products, we are projecting expanded sales of optical image stabilizers (OISs) for correcting hand-induced camera shake. We anticipate an increased usage rate among smartphones in China. In the Magnetic Application Products segment, we anticipate a contraction in HDD market volume in line with declining PC demand and the accelerated switch to SSDs. In the year ended March 2016, HDD market volume was 444 million units. However, in the year ending March 2017, HDD market volume is expected to decrease by around 10% to approximately 400 million units. In magnetic sensors, we anticipate expansion in sensors for the automotive market. We have completed the acquisition of Micronas, so we expect its earnings to contribute to TDK's full-year earnings in the current fiscal year. In the Film Application Products segment, particularly rechargeable batteries, we foresee continued expansion in demand for polymer batteries as a result of thinner profile mobile devices. Demand for new applications, such as drones and power tools, is also expected to expand. In rechargeable batteries, we plan to continue making investments in production expansion and rationalization in line with business requirements. That, in short, is our outlook for consolidated results for the fiscal year ending March 2017.

Mid-Term Policy



I would now like to discuss our mid-term policy. Until now, we have described our priority businesses for the medium term in terms of our priority five businesses in the three priority fields of automobiles, ICT and industrial equipment / energy. However, at this juncture, HDD conditions have deteriorated and the high-frequency components business will transferred to a joint venture to be established with Qualcomm Incorporated. Against this backdrop, today I would like to explain our policy with particular emphasis on the three strategic growth products shown on the far right of this slide, namely sensors and actuators, energy units, and next-generation electronic components.



But before I begin, let me say a few words about HDD heads, as the situation surrounding the HDD head business may be of concern. As I mentioned earlier, HDD market volume is declining. However, we foresee growth in demand for HDDs for near-line, external and surveillance camera applications. Demand for the market volume of HDD heads is expected to remain mostly level. This outlook is based on the expectation that the number of heads per HDD will increase to 4.22 in the fiscal year ending March 2020, compared with 3.43 in the fiscal year ended March 2016.

Regarding the Recording Devices Business (HDD Heads)

Rightsizing Internal Operations and Contributing to Rightsizing of the Industry

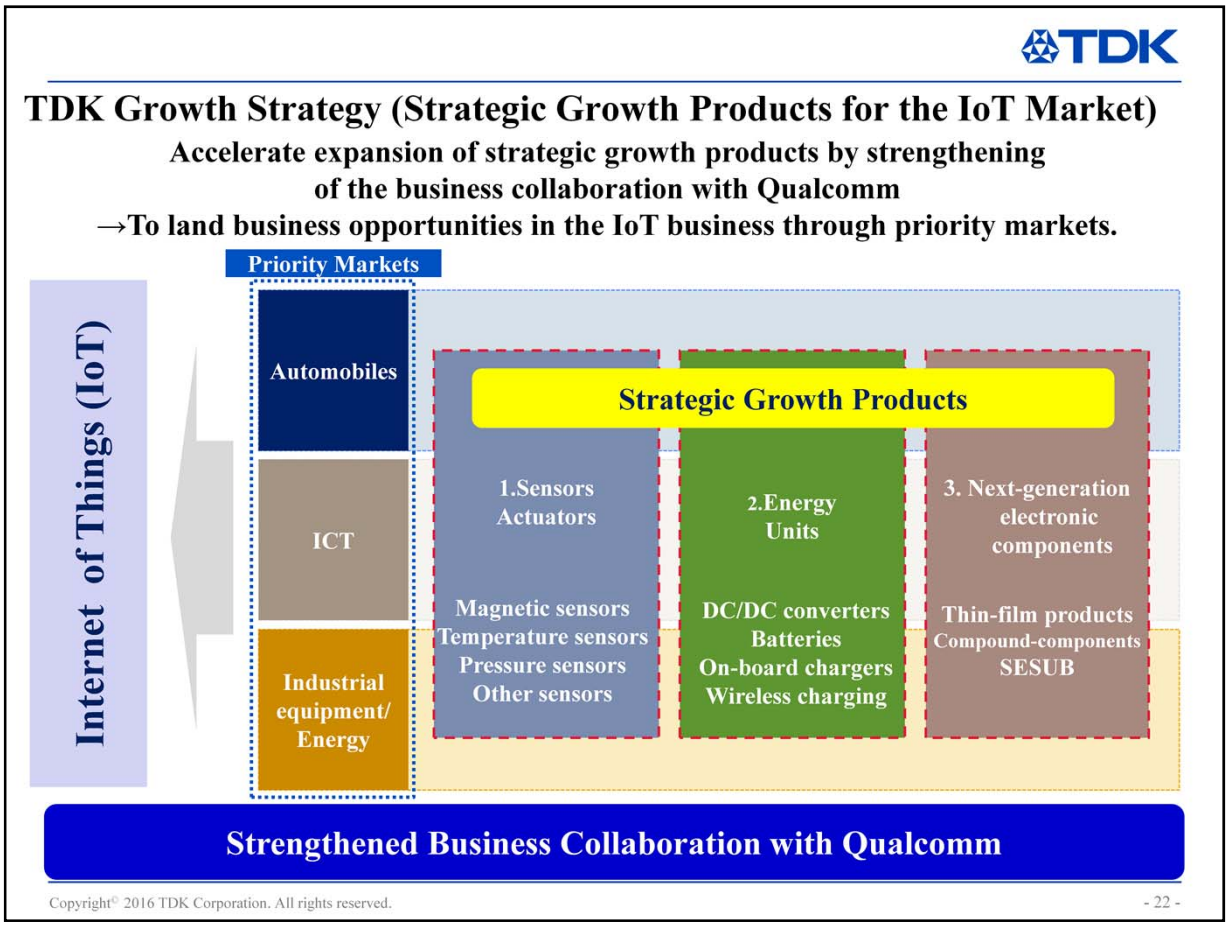
(1) Internal right-sizing
- Front-end processing plants: Consolidated two plants → one plant
- Back-end processing plants: Restructure China operations and start production of passive components in the Philippines

(2) Contribute to industry right-sizing
- Non-captive：Strengthen vertical collaboration in development and manufacturing that transcends conventional frameworks
- Captive ：Horizontal labor division to avoid overlapping investment and cost increases
  Support development of advanced technologies that contribute to Time-To-Market

(3) Provide products and services through advanced technology capabilities
- Realize thermal assist head (TAMR: front- and back-end processes), two-dimension MR (TDMR), micro dual stage actuator (DSA)
- Provide services leveraging back-end processing capability

Continue to be “an entity that is relied upon by market” even in a contracting market

What actions will TDK need to take to address these market conditions going forward? Actually, we have already taken certain actions, while others have yet to be taken. The first action is internal right-sizing. This involves the optimization of production facilities. We have consolidated two front-end processing plants into one plant. As for back-end processing plants, in March we restructured our plants in China, and recorded the related restructuring costs. Furthermore, we have started production of passive components in the Philippines. This means we have already started to convert our HDD head processing facilities into electronic component production facilities. The second action is to contribute to industry right-sizing. This area may be quite difficult to understand. For a non-captive customer who does not internally manufacture HDD heads, we will strengthen vertical collaboration in development and manufacturing that transcends conventional frameworks. For captive customers who internally manufacture HDD heads, we will pursue horizontal labor division to avoid overlapping investment and cost increases. We will also focus on the development of advanced technologies that contribute to Time-To-Market. The third action is to provide products and services through advanced technological capabilities. In this field, we have continuously pursued research to date, and we will continue to step up our research activities in future. Our efforts will be focused on developing new technologies such as thermal assisted magnetic recording (TAMR) head, two-dimensional magnetic recording (TDMR), and micro dual state actuator (DSA) technologies. Regrettably, the HDD market will continue to contract. However, TDK will seek to continue to be “an entity that is relied upon by the market” even in this challenging market environment.



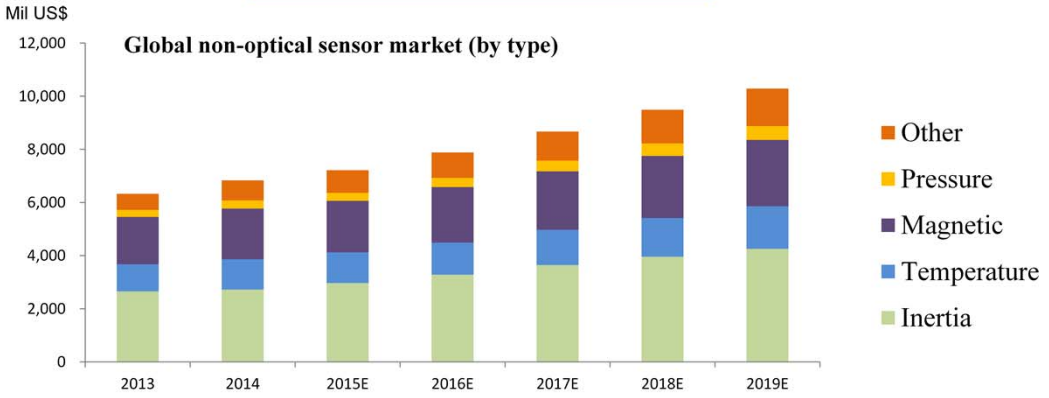
Next, I'd like to discuss our strategic growth products (1. Sensors / Actuators, 2. Energy Units, and 3. Next-generation Electronic Components). As I explained earlier, synergies with Qualcomm are incorporated into our outlook to a considerable extent. In fact, we believe that these synergies will have a bearing on almost all of these products.

Sensors / Actuators

Market forecast

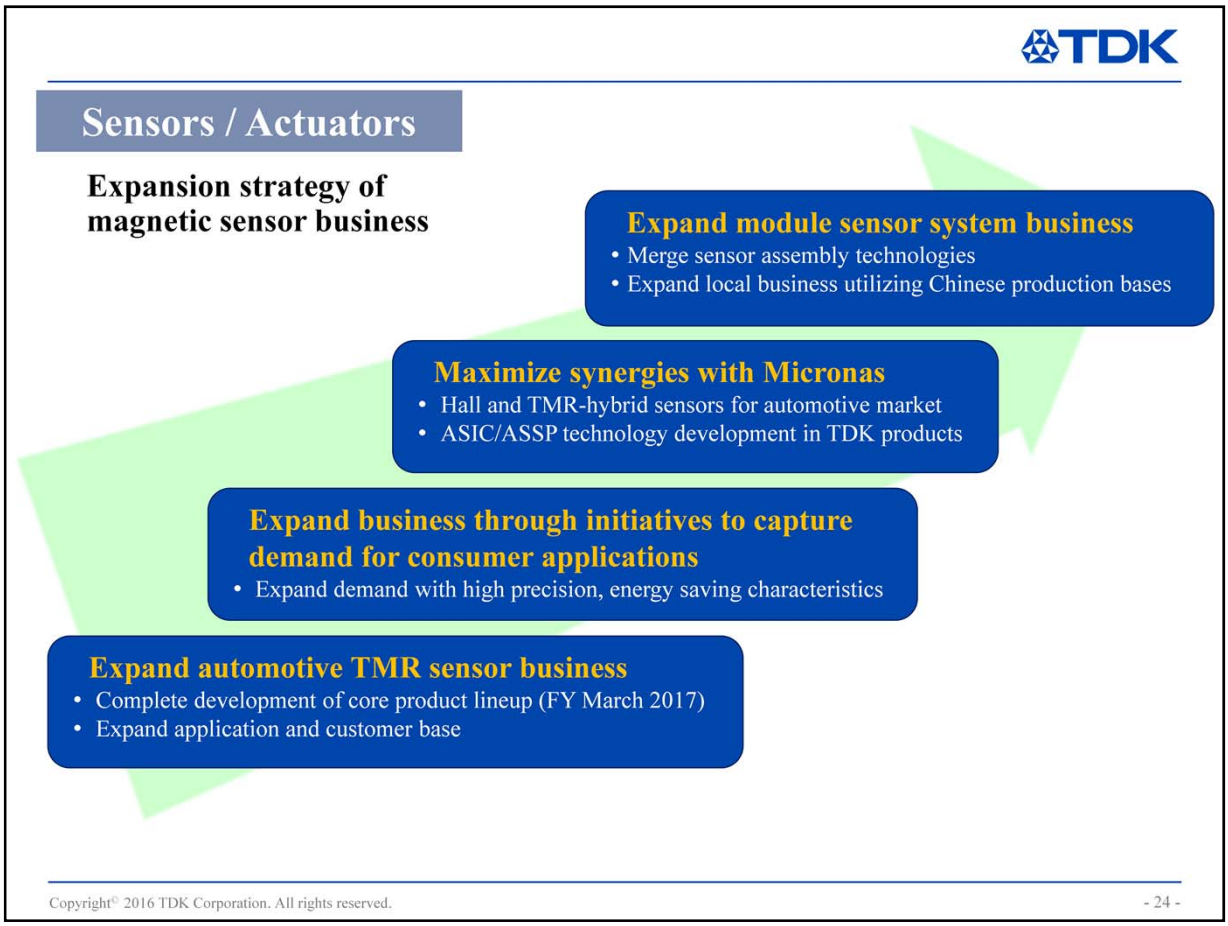
Non-optical sensor market :
US$6.8 billion in 2014 ⇒ US$10.6 billion in 2019

9.1% annual growth



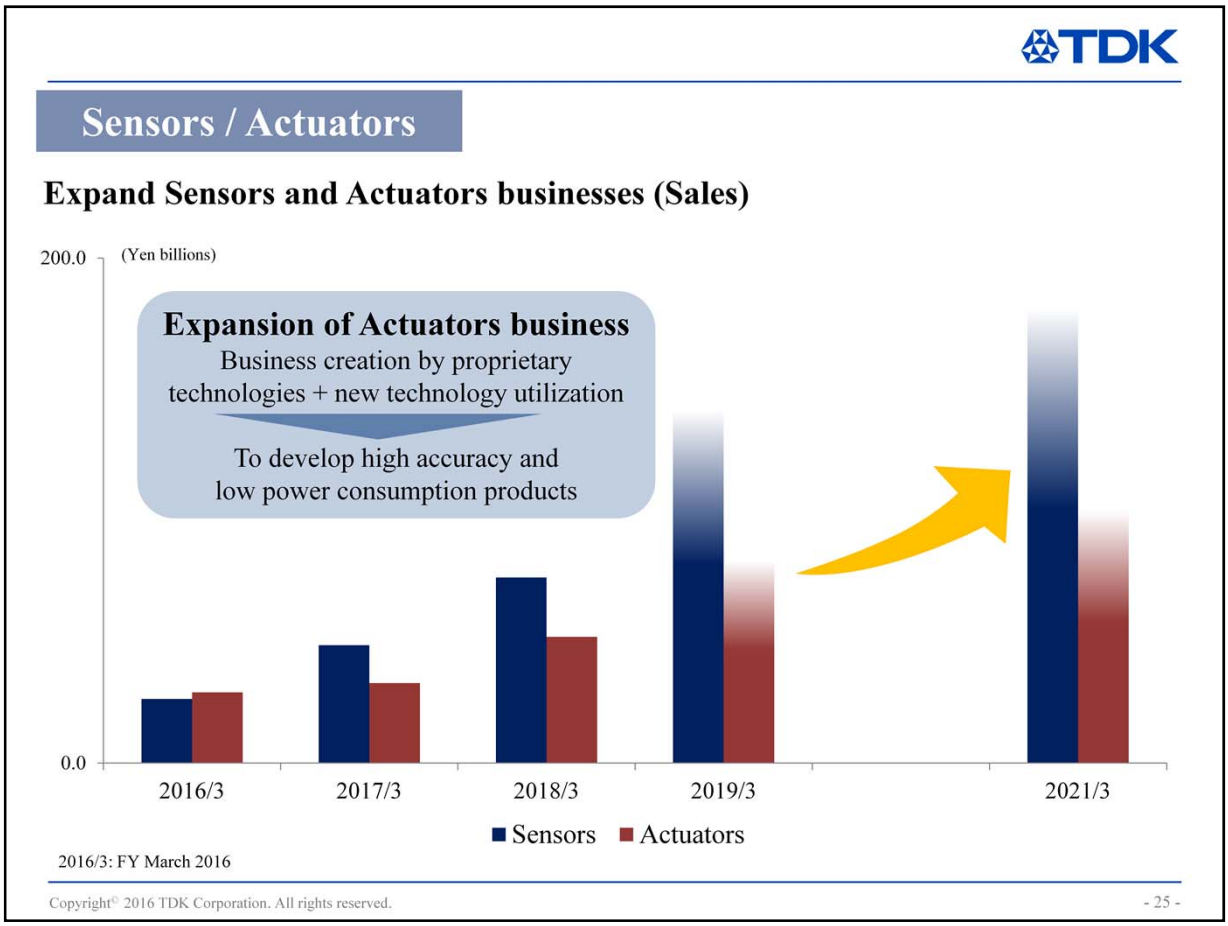
(TDK's estimation)

First, let's take a look at projections for the sensor market in "1. Sensors / Actuators." This slide shows the outlook for the non-optical sensor market. The size of the market was US$6.8 billion in 2014, and it is estimated to grow to US$10.6 billion in 2019. From bottom to top, the bar graph shows Inertia, Temperature, Magnetic and Pressure sensors. TDK intends to be engaged in all of these products. Until now, we have often discussed magnetic sensors. Now that the future course of magnetic sensors has been largely determined, our next step is to expand primarily into temperature and pressure sensors for the automotive market. In addition, we intend to get involved in inertial sensors going forward.

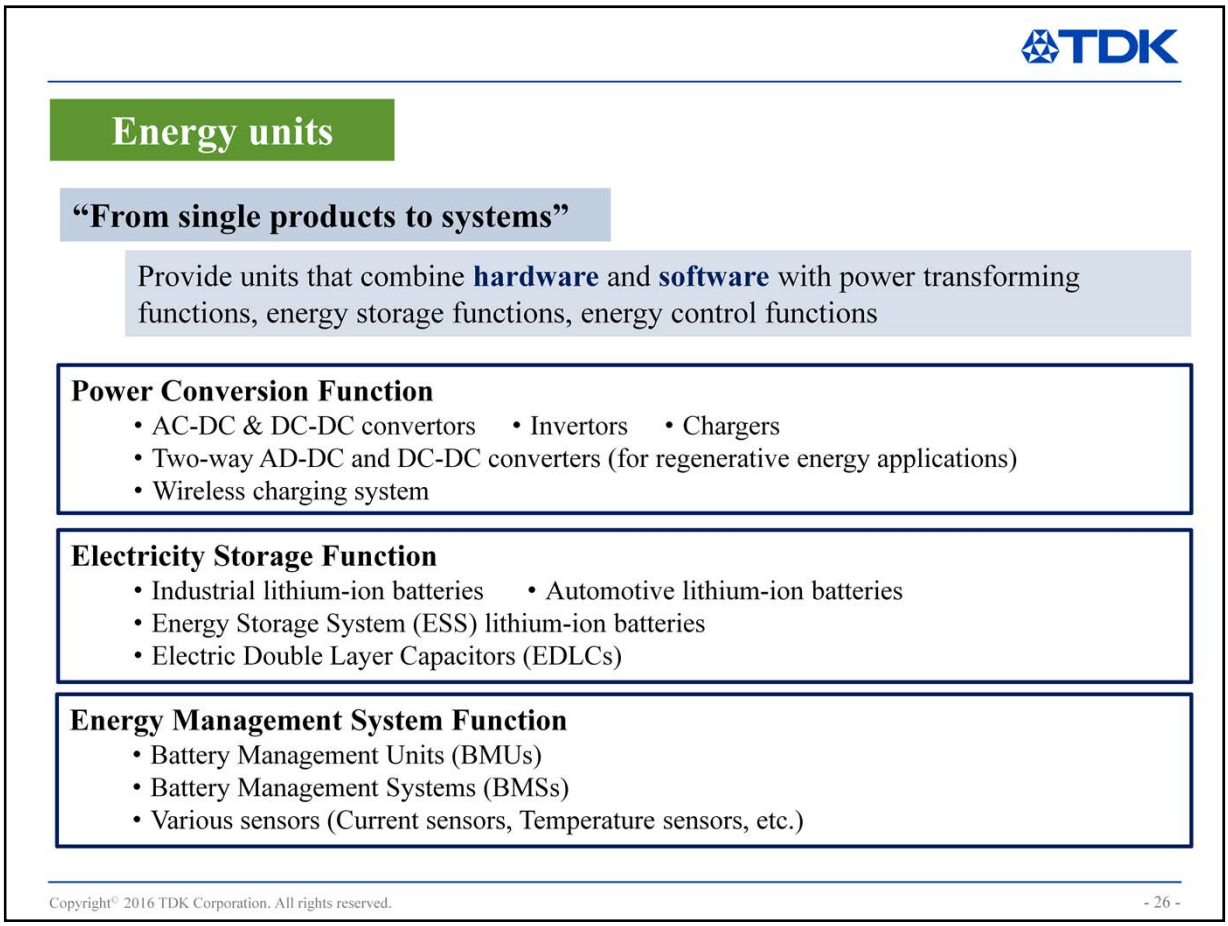


My next topic is our expansion strategy for the magnetic sensor business. We will implement the strategy in four steps. The first step is to expand the automotive TMR sensor business. Development of the core product lineup will be completed in the fiscal year ending March 2017. We also expect qualification now under way at around 40 client companies to be completed.

Efforts will also be made to expand the application and customer base. The next step will be to expand business through initiatives to capture demand for consumer applications. We believe that TMR sensors have extremely strong potential as they are rated strongly in terms of their high precision and outstanding energy saving characteristics. Currently, most of our TMR sensors have been adopted for use as automotive sensors. Once our TMR sensors are adopted for consumer applications, we expect to see considerable growth in volume compared with automotive applications, and the product size will be reduced to around one-tenth that of automotive sensors. That, in turn, will substantially boost our share in terms of the number of components, enabling us to expand business efficiently. The third step is to maximize synergies with Micronas. Micronas specializes in hall sensors. TDK specializes in TMR sensors. Together, we will support a diverse array of needs by developing hall and TMR-hybrid sensors for the automotive market. Moreover, Micronas' ASIC and packaging technology will be developed for use in TDK products. In these and other ways, TDK expects to capture a variety of synergies with Micronas by integrating TDK's technologies with those of Micronas in fields where Micronas is extremely strong. The fourth step is to expand sensor units, modules, and sensor systems. We would like to raise products up to the systems level. Another priority is to expand local business utilizing Chinese production bases. Through these four steps, we will expand the magnetic sensor business.



Let me also say a few words about actuators. This slide says “business creation by proprietary technologies + new technology utilization.” Although there are a variety of actuator products, the actuators included in our strategic growth products are Optical Image Stabilizers (OISs) that are mainly used to prevent hand-induced camera shake in smartphone camera modules. At present, we are mass producing OISs following qualification by Chinese smartphone manufacturers. The graph on the slide shows an image of our sales projections for sensors and actuators going forward. Sensor sales include sales of Micronas, the acquisition of which was recently completed by TDK.



Next, let’s take a look at energy units. Energy units are defined as units that combine hardware and software with power conversion functions, electricity storage functions, and energy management system functions. For example, looking at the types of products related to power conversion functions, TDK has AC-DC and DC-DC convertors, invertors, chargers, bidirectional AC-DC converters for regenerative energy applications, and wireless charging systems. We aim to offer all of these products as units. Until now, TDK has sold these products as standalone products. However, we now believe that it would be better to combine them into systems. Looking at electricity storage functions, TDK has a lineup of products including industrial lithium-ion batteries, automotive lithium-ion batteries, and Electric Double Layer Capacitors (EDLCs), and will supply these products going forward. In terms of energy management system functions, TDK has battery management units and systems, along with various sensors used therein, especially current sensors and temperature sensors. For this function too, we are considering manufacturing all of the items internally, and combining them together and selling them as energy units.

Energy units

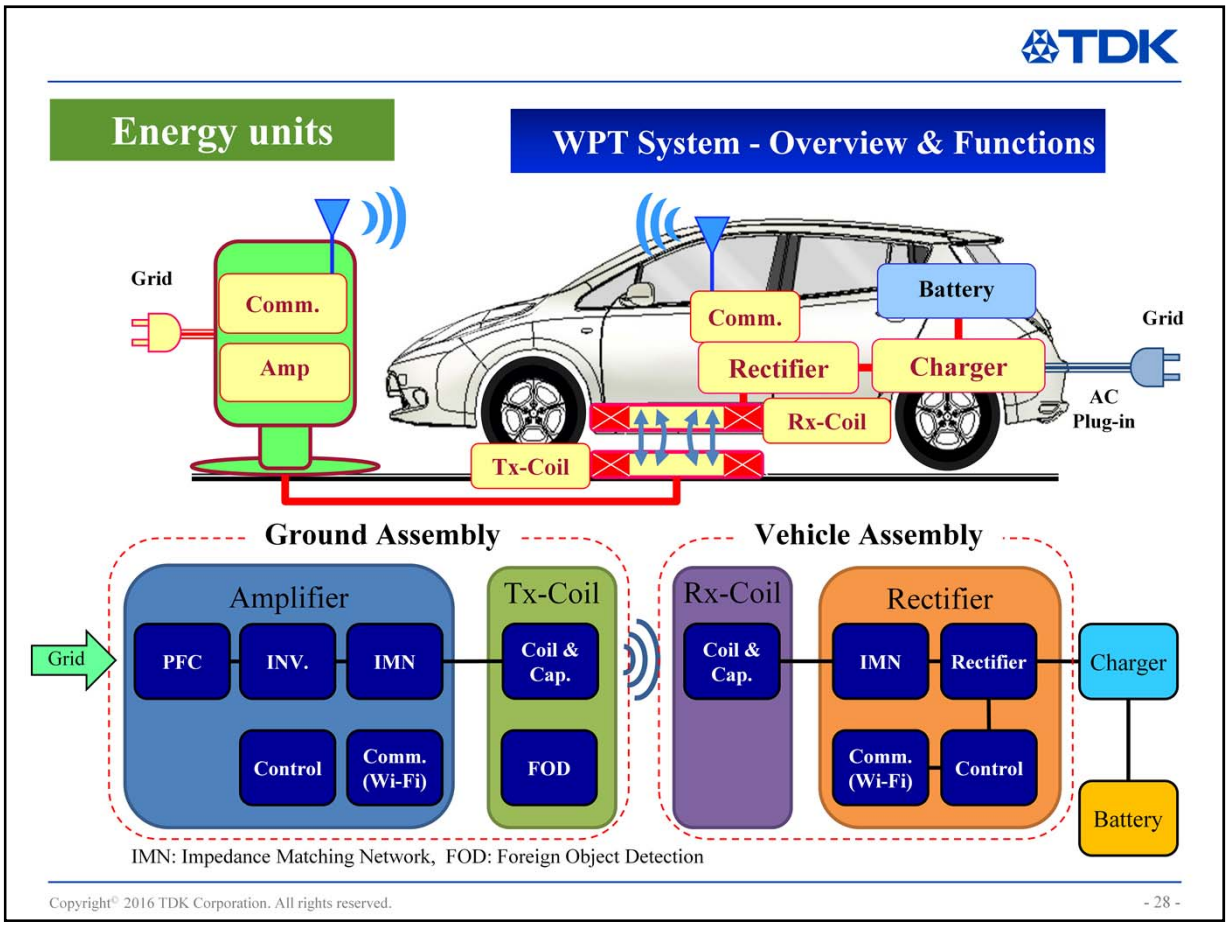
AGV(Auto Guided Vehicle)

Mobile Robot

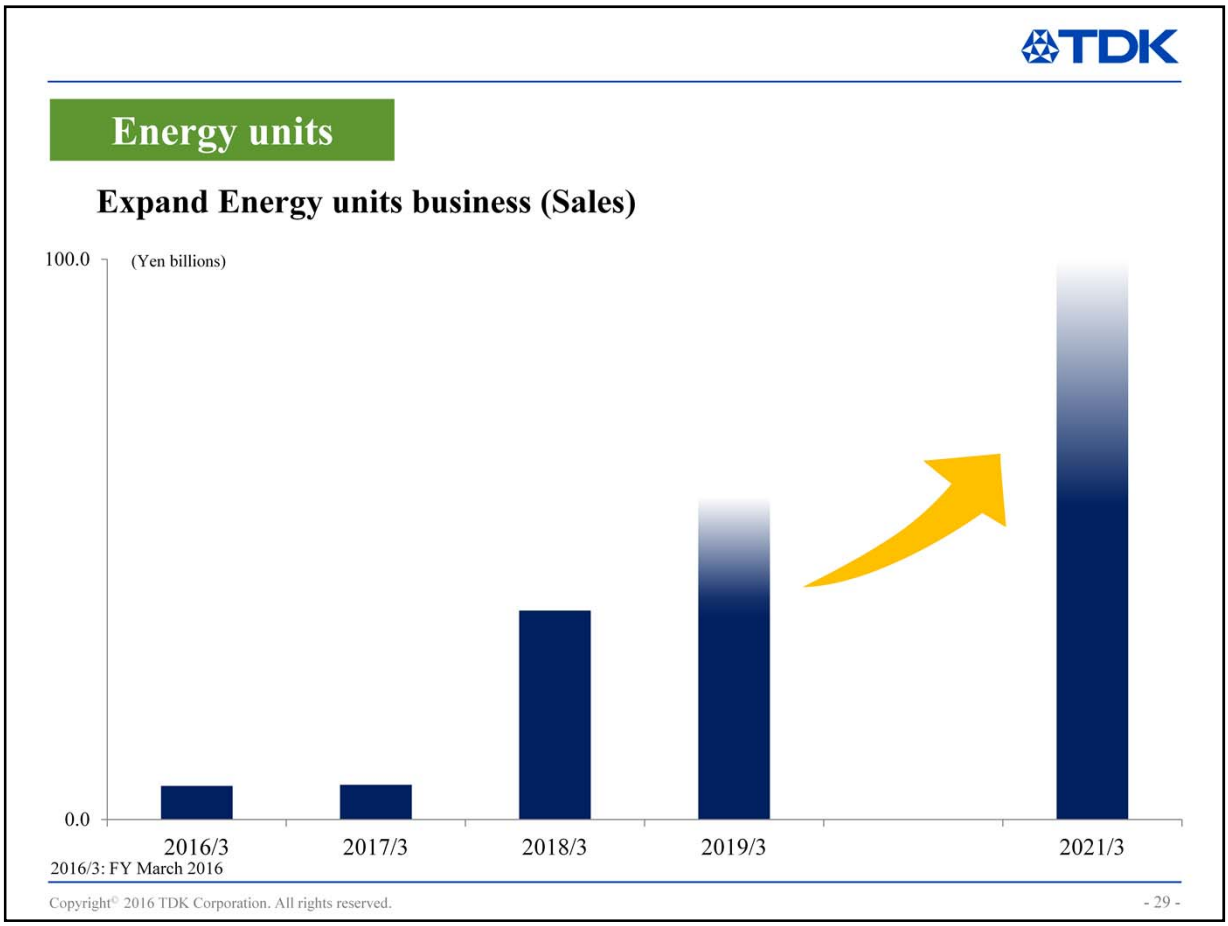
Hand of Robot

Pendant
for CNC

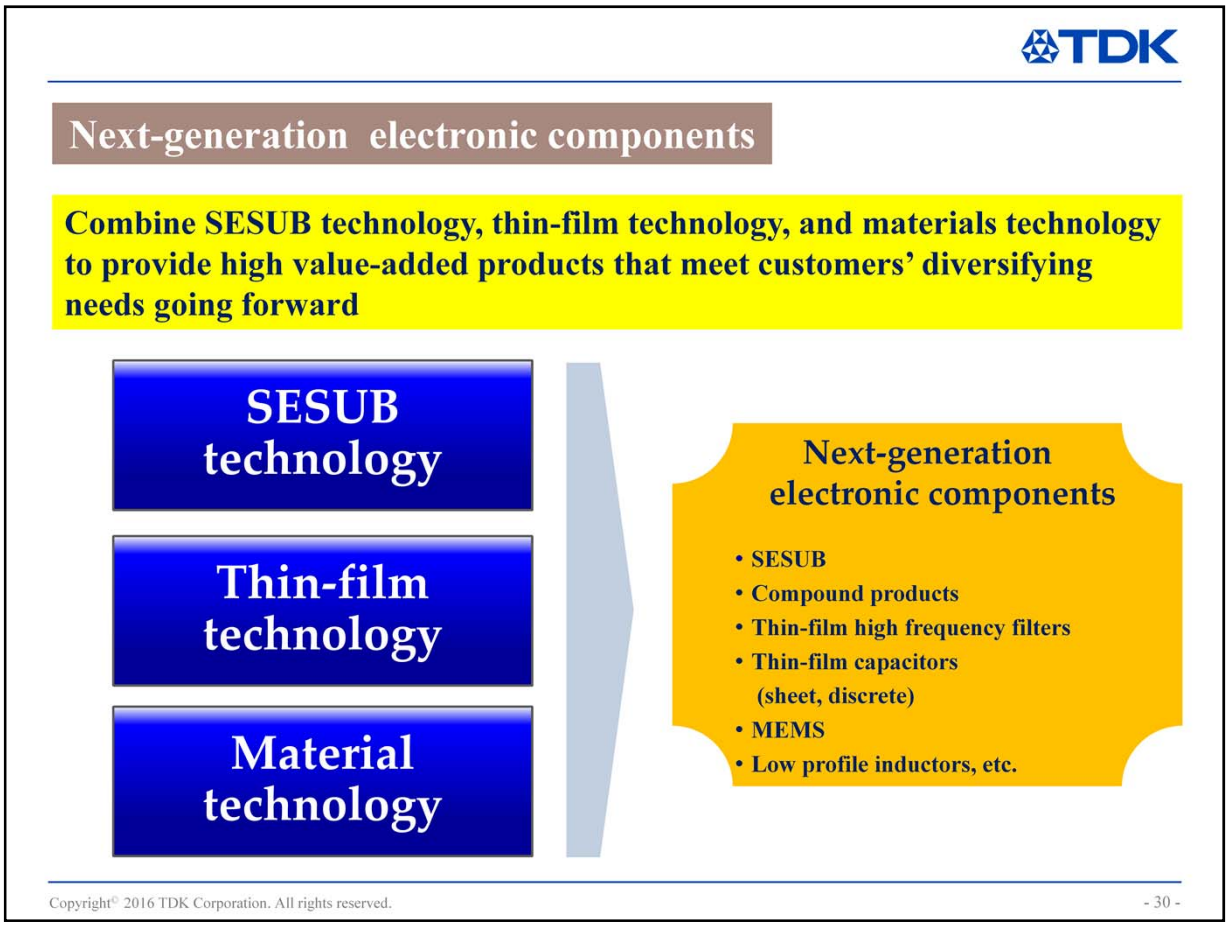
Examples of energy units for industrial equipment include Auto Guided Vehicles (AGVs). Wireless charging systems will also be incorporated into energy units. Other examples include mobile robots and the hands of robots. The energy units will be used in the arm of these robots, essentially in the rotating parts.



This slide shows a schematic diagram of an automotive wireless charging system. As shown in the diagram, we seek to sell systems that combine the main wireless charging system with items ranging from onboard chargers to DC-DC converters and various sensors.



This slide shows our image of sales projections for energy units. Although the scale of business is still small at present, we expect sales to start picking up from the fiscal year ending March 2018. Since these sales are for the automotive market, you may assume that the portion of sales for the fiscal year ending March 2018 has already completed the qualification process. That is why we have not blurred the bar for the March 2018 fiscal year. From the fiscal year ending March 2019 onward, some sales have not yet clearly completed qualification, so we have blurred the bars slightly. However, as this rough image suggests, we expect energy unit sales to steadily increase.

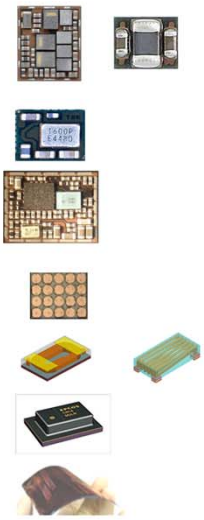


Next, I'd like to discuss next-generation electronic components. This is an area where TDK will generate fairly large synergies with Qualcomm. In essence, we will provide high value-added next-generation electronic components and modules by combining Semiconductor Embedded Substrate (SESUB) technology, thin-film technology, and materials technology. Some of these products are currently under development, while others have already entered mass production.

Next-generation electronic components

Expand product lineup by introducing advanced technologies
Develop further thinner SESUB packages with embedded passive components

SESUB	Power Systems	µDC/DC converter Envelope tracker L-ion battery chargers
	Communication Systems	BLE modules WiFi modules PA/RF modules
Thin-film devices	Power System Communication System Sensor Systems Noise Systems CPUs	Thin-film capacitors Low-profile inductors High-frequency filters Thin-film common mode filters MEMS microphone Embedded capacitors



Full-scale expansion of SESUB business making maximum use of joint venture with Advanced Semiconductor Engineering Co., Ltd.

Our next-generation electronic products will include SESUB, compound products, thin-film high-frequency filters, thin-film capacitors, thin-film common mode filters, embedded capacitors, MEMS microphones, and low-profile inductors.

Next-generation electronic components

Transfer of Renesas Semiconductor Manufacturing's Tsuruoka factory

Background

- Establishment of thin-film passive components production base in Akita district
- Securing of the manufacturing and technical capabilities for thin-film product
- Securing of production space for future demand expansion of thin-film product

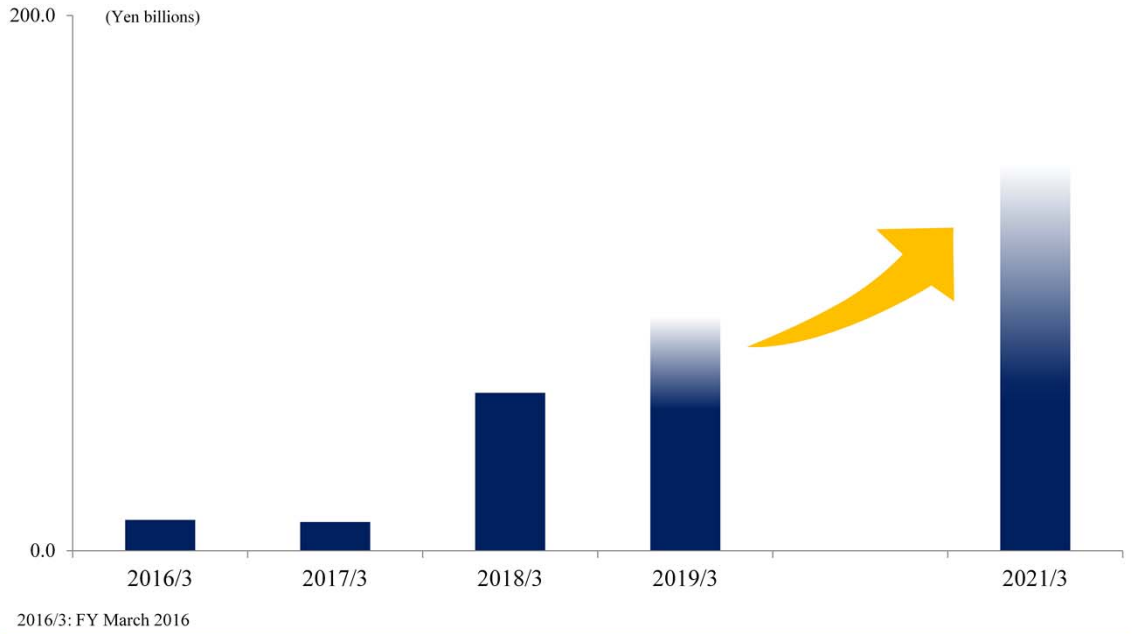
Tsuruoka Factory

※ Renesas Semiconductor Manufacturing Co., Ltd.

To strengthen its next-generation electronic components, particularly thin-film components, TDK will acquire the Tsuruoka Factory of Renesas Semiconductor Manufacturing Co., Ltd. Until now, TDK has been undertaking thin-film component operations ranging from development to mass production through a business unit called the Thin-Film Device Center at the Kofu Plant. However, there was a need for a new plant because the Kofu Plant's capacity had started to become stretched. Although we are building a new plant in Akita, we intend to use the plant for a different purpose. Therefore, we needed a separate production base with an advanced clean room. We decided to acquire the Tsuruoka Factory of Renesas Semiconductor Manufacturing because it has extremely appealing features. Notably, it is a plant that possesses manufacturing experience in automotive products, along with employees with experience and expertise in this field, as well as related resources. Going forward, we aim to further expand thin-film components at the Tsuruoka Factory.

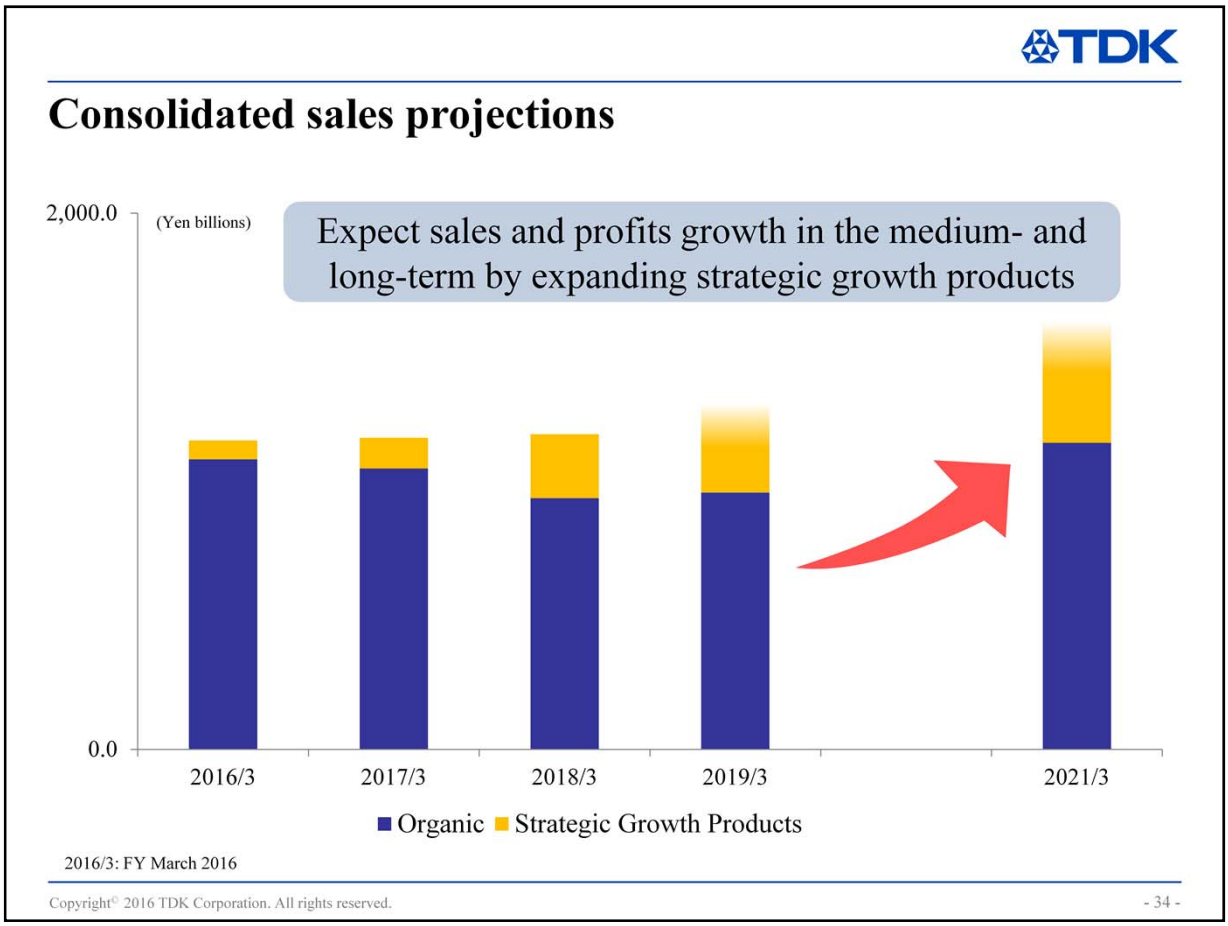
Next-generation electronic components

Expand Next-generation electronic components business (Sales)



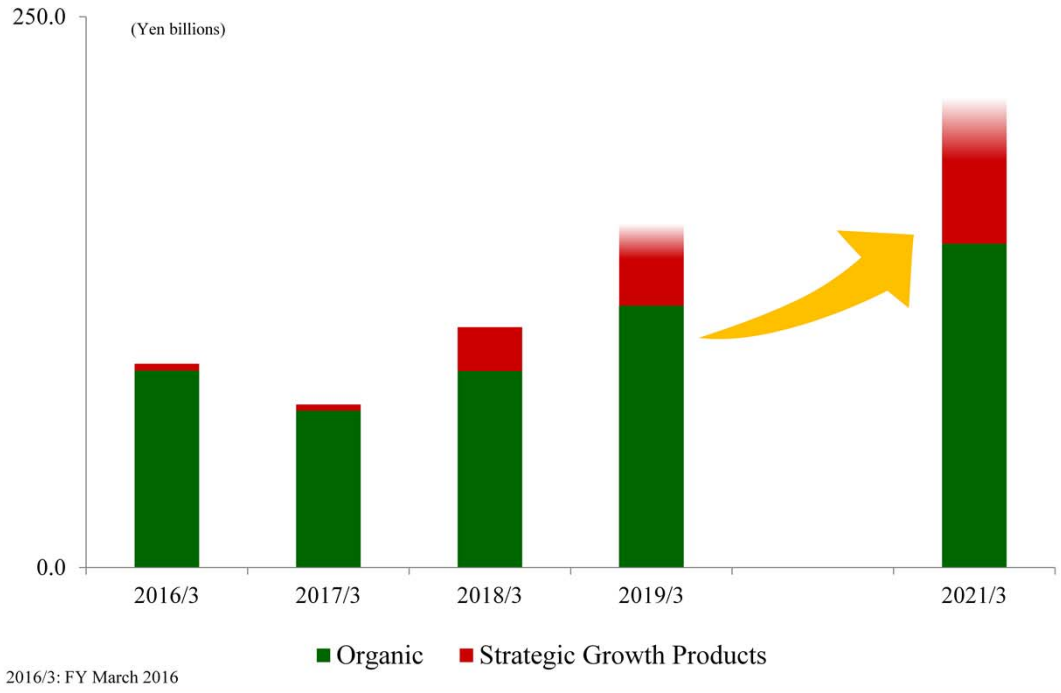
2016/3: FY March 2016

The graph on this slide shows our image of sales projections for next-generation electronic components.



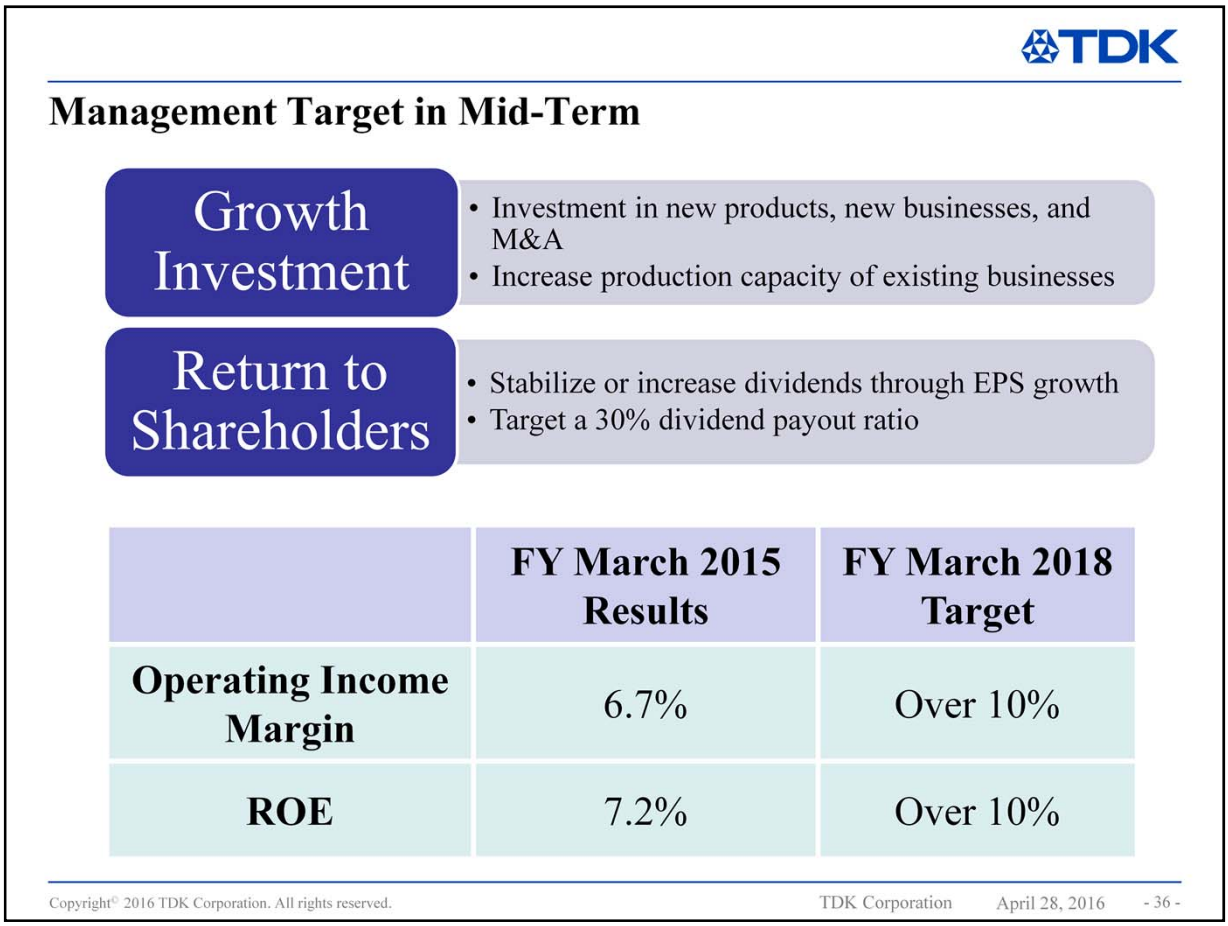
Here are TDK's consolidated sales projections, including sales of the strategic growth products discussed so far. The yellow parts of the bars represent sales of strategic growth products, while the blue parts represent organic sales. Consolidated sales are projected to remain largely flat in the fiscal year ending March 2017. In the fiscal year ending March 2018, organic sales are projected to decrease based on the transfer of the high-frequency components business to a joint venture established with Qualcomm. However, we expect to cover this drop in sales with strategic growth products. From the fiscal year ending March 2019 onward, we will seek to achieve overall sales growth by further expanding sales of strategic growth products.

Consolidated operating income projections

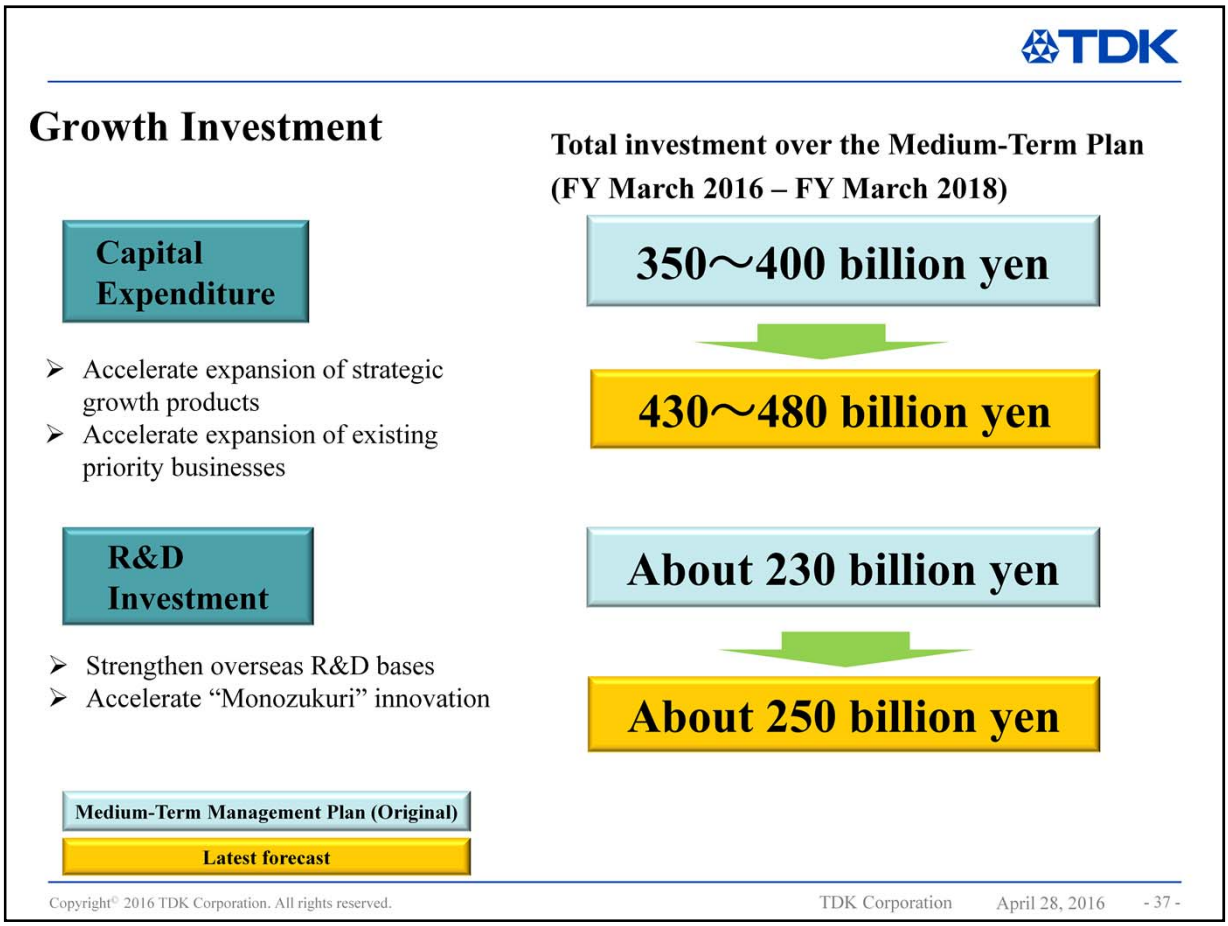


2016/3: FY March 2016

This slide shows our image of consolidated operating income projections. We expect operating income to start growing again from the fiscal year ending March 2018. We aim to deliver a double-digit consolidated operating income margin as early as possible.



These targets are the same as those announced in the Medium-Term Plan. We have not changed our target of an operating income margin of 10% or more for the fiscal year ending March 2018. We are strongly determined to achieve this target.



In closing, I'd like to take a look at capital expenditure and R&D expenses. Under the previous capital expenditure plan, we had announced total investment over the three-year period of the Medium-Term Plan (from the fiscal year ended March 2016 to the fiscal year ending March 2018) of between 350 and 400 billion yen. However, considering the need to invest in strategic growth products and existing priority products, we have increased the total investment by 80.0 billion yen. Therefore, we now plan to invest between 430 and 480 billion yen. Our projection for R&D expenses has also been increased by 20.0 billion yen to 250.0 billion yen. Both investment and development have been increased for the plan's three-year period. We will seek to anticipate various businesses by executing this investment and development ahead of schedule to the maximum extent possible. On that note, I would like to bring my presentation to a close. As I'm sure you are aware from our press releases, I have decided to hand the role of president to a new talented leader. I will take up the position of Chairman and guide TDK in this role. I have attended these investor relations meetings for the past 15 years, but today's meeting will probably be my last opportunity to give presentations to you in this capacity. Starting with the next meeting, our new president is likely to assume this role. I'd like to take this opportunity to express my deepest gratitude to you all for your support to date, and I hope that you will offer even stronger support to TDK in the years to come. Thank you very much.

Cautionary Statements with Respect to Forward-Looking Statements

This material contains forward-looking statements, including projections, plans, policies, management strategies, targets, schedules, understandings, and evaluations about TDK, or its group companies (TDK Group). These forward-looking statements are based on the current forecasts, estimates, assumptions, plans, beliefs, and evaluations of the TDK Group in light of the information currently available to it, and contain known and unknown risks, uncertainties, and other factors. The TDK Group therefore wishes to caution readers that, being subject to risks, uncertainties, and other factors, the TDK Group's actual results, performance, achievements, or financial position could be materially different from any future results, performance, achievements, or financial position expressed or implied by these forward-looking statements, and the TDK Group undertakes no obligation to publicly update or revise any forward-looking statements after the issue of this material except as provided for in laws and ordinances.

The electronics markets in which the TDK Group operates are highly susceptible to rapid changes, risks, uncertainties, and other factors that can have significant effects on the TDK Group including, but not limited to, shifts in technology, fluctuations in demand, prices, interest and foreign exchange rates, and changes in economic environments, conditions of competition, laws and regulations. Also, since the purpose of these materials is only to give readers a general outline of business performance, many numerical values are shown in units of a billion yen. Because original values, which are managed in units of a million yen, are rounded off, the totals, differences, etc. shown in these materials may appear inaccurate. If detailed figures are necessary, please refer to our financial statements and supplementary materials.

Text data including Q&A of performance briefing will be uploaded on following site
http://www.global.tdk.com/ir/ir_events/conference/2016/4q_1.htm