

### Q3 FY2018 (October-December 2017) Financial Announcement

January 30, 2018

#### Agenda:

Q3 FY2018 Consolidated Financial Summary
 Tetsuro Hori, Representative Director, CFO, Executive Vice President





### Forward Looking Statements

- Disclaimer regarding forward-looking statement Forecast of TEL's performance and future prospects and other sort of information published are made based on information available at the time of publication. Actual performance and results may differ significantly from the forecast described here due to changes in various external and internal factors, including the economic situation, semiconductor/FPD market conditions, intensification of sales competition, safety and product quality management, and intellectual property-related risks.
- Processing of numbers For the amount listed, because fractions are rounded down, there may be the cases where the total for certain account titles does not correspond to the sum of the respective figures for account titles. Percentages are calculated using full amounts, before rounding.
- Exchange risk In principle, export sales of Tokyo Electron's mainstay semiconductor and FPD production equipment are denominated in yen. While some settlements are denominated in dollars, exchange risk is hedged as forward exchange contracts are made individually at the time of booking. Accordingly, the effect of exchange rates on profits is negligible.
- Disclaimer regarding Gartner data (Page 18) All statements in this presentation attributable to Gartner represent Tokyo Electron's interpretation of data, research opinion or viewpoints published as part of a syndicated subscription service by Gartner, Inc., and have not been reviewed by Gartner. Each Gartner publication speaks as of its original publication date (and not as of the date of this presentation). The opinions expressed in Gartner publications are not representations of fact, and are subject to change without notice.

FPD: Flat panel display



# Q3 FY2018 Consolidated Financial Summary

January 30, 2018

Tetsuro Hori

Representative Director, CFO, Executive Vice President



# FY2018 Q3 (October-December 2017) Highlights

- Q3 financial results showed good progress in line with plan for H2
  - SPE continued to be driven by investment in memory on higher data center demand
  - In FPD, investment for G10.5 commenced
- FPD segment profit margin of 19.0%, and the medium-term target of 20% is now in sight
- FS business continues to grow as equipment utilization rises across broad range of generations



### **Financial Summary**

(Billion yen)

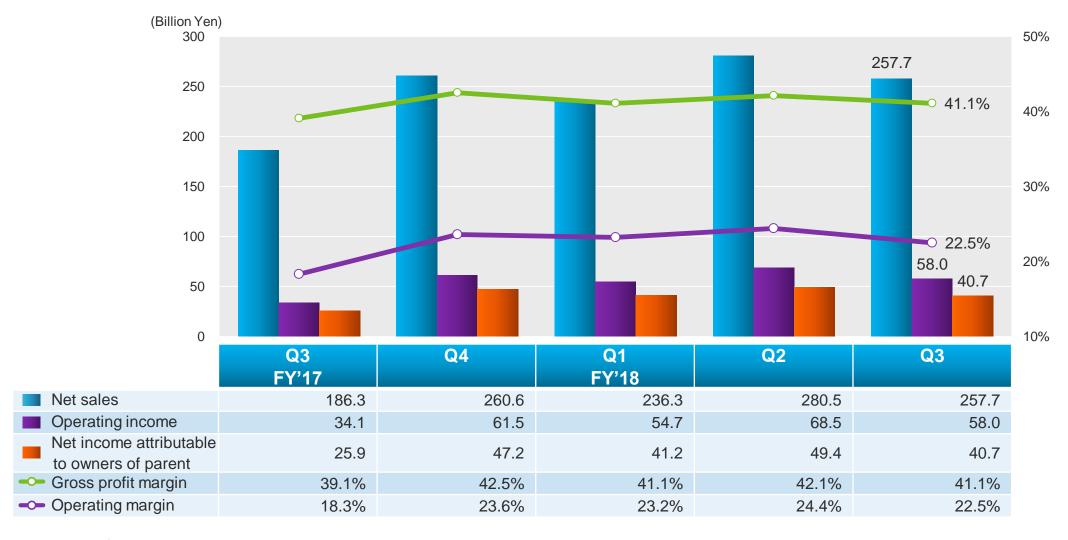
|   | FY2017        |                | FY2018        |                |                |                   |
|---|---------------|----------------|---------------|----------------|----------------|-------------------|
|   | Q3            | Q4             | Q1            | Q2             | Q3             | vs. Q2<br>FY2018  |
| Net sales                                   | 186.3         | 260.6          | 236.3         | 280.5          | 257.7          | -8.1%             |
| Gross profit Gross profit margin            | 72.9<br>39.1% | 110.6<br>42.5% | 97.1<br>41.1% | 118.2<br>42.1% | 106.0<br>41.1% | -10.3%<br>-1.0pts |
| SG&A expenses                               | 38.7          | 49.1           | 42.3          | 49.7           | 47.9           | -3.5%             |
| Operating income Operating margin           | 34.1<br>18.3% | 61.5<br>23.6%  | 54.7<br>23.2% | 68.5<br>24.4%  | 58.0<br>22.5%  | -15.2%<br>-1.9pts |
| Income before income taxes                  | 33.2          | 61.4           | 55.1          | 67.1           | 57.3           | -14.7%            |
| Net income attributable to owners of parent | 25.9          | 47.2           | 41.2          | 49.4           | 40.7           | -17.6%            |
| R&D expenses                                | 19.1          | 24.8           | 21.1          | 24.8           | 23.9           | -3.7%             |
| Capital expenditures                        | 4.1           | 7.1            | 8.1           | 11.7           | 13.7           | +17.5%            |
| Depreciation and amortization               | 4.5           | 5.0            | 4.2           | 4.7            | 5.5            | +15.2%            |

<sup>1.</sup> In principle, export sales of Tokyo Electron's mainstay semiconductor and FPD production equipment are denominated in yen. While some settlements are denominated in dollars, exchange risk is hedged as forward exchange contracts are made individually at the time of booking.



<sup>2.</sup> Profit ratios are calculated using full amounts, before rounding.

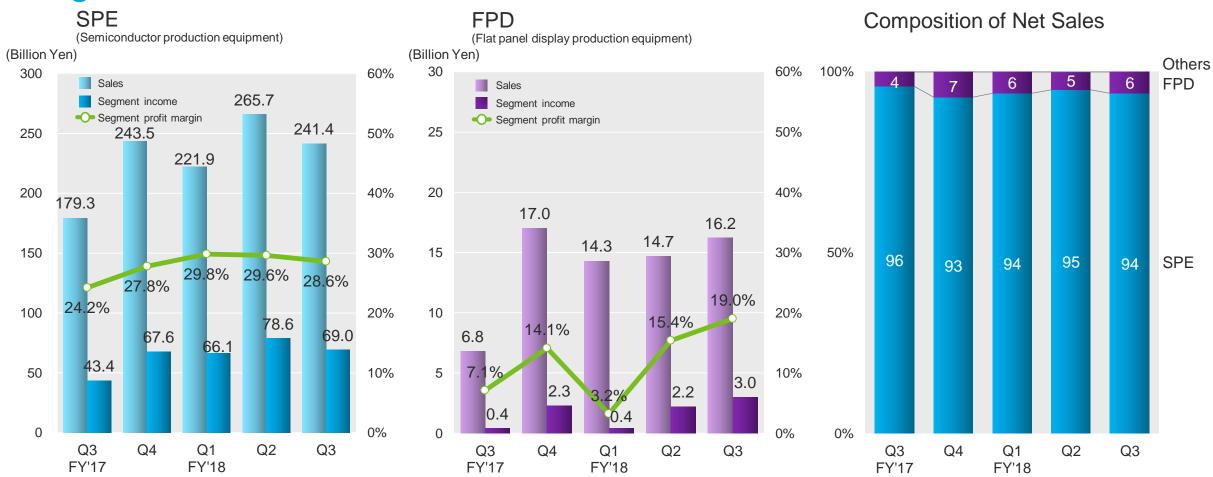
#### **Financial Performance**



Gross profit margin and operating margin levels both in line with plan

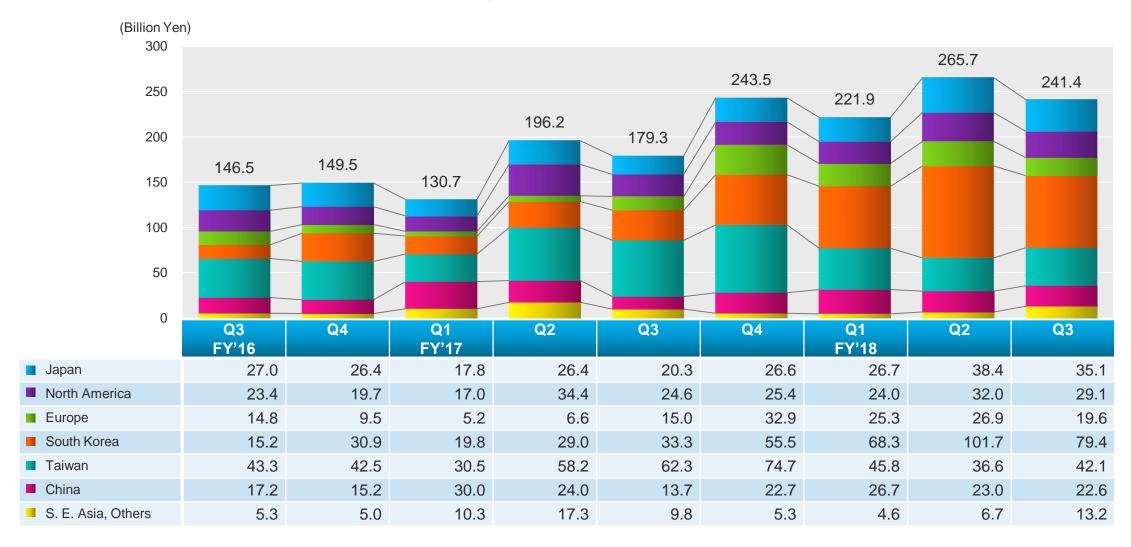
CORP IR / January 30, 2018

#### **Segment Information**



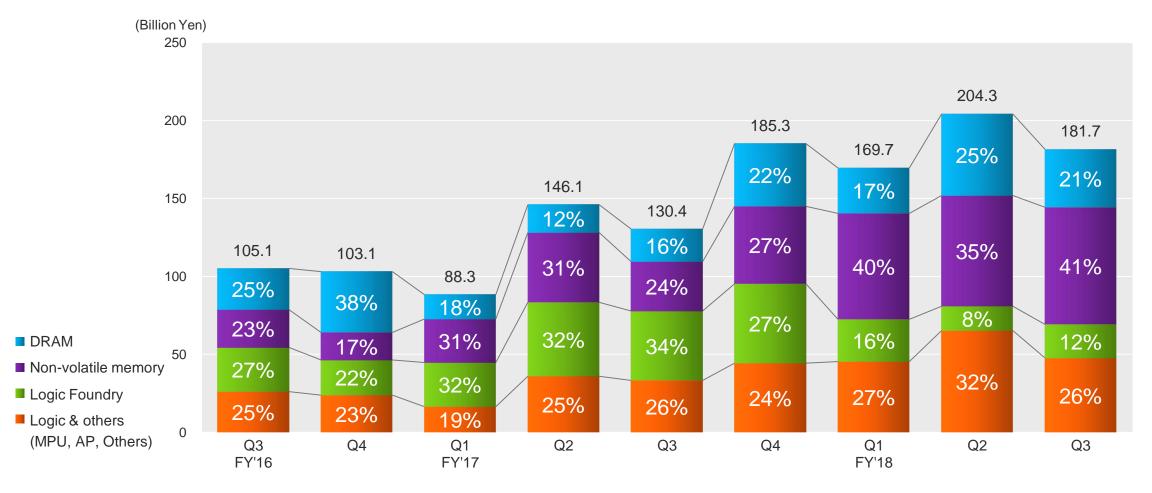
- 1. Segment income is based on income before income taxes.
- 2. R&D expenses such as fundamental research and element research are not included in above reportable segments.
- 3. Composition of net sales figures is based on the sales to customers.

# SPE Division: Sales by Region





### SPE Division: New Equipment Sales by Application



High level of investment in non-volatile memory maintained

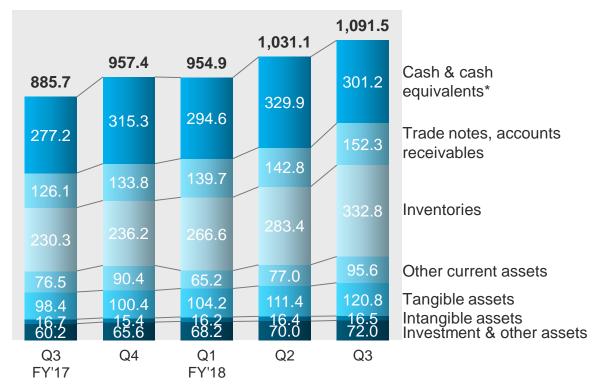
#### Field Solutions Sales



#### **Balance Sheet**



(Billion Yen)



#### Liabilities & Net Assets

(Billion Yen)





<sup>\*</sup> Cash and cash equivalents: Cash and deposits + Short-term investments, etc. (Securities in B/S).

#### Inventory Turnover and Accounts Receivable Turnover



Turnover days = inventory or accounts receivable at the end of each quarter / last 12 months sales x 365



#### Cash Flow



<sup>\*</sup> Cash flow from investing activities excludes changes in deposits with periods to maturity of over 3 months.

TEL

<sup>\*\*</sup> Free cash flow = cash flow from operating activities + cash flow from investing activities excluding changes in deposits with periods to maturity of over 3 months.

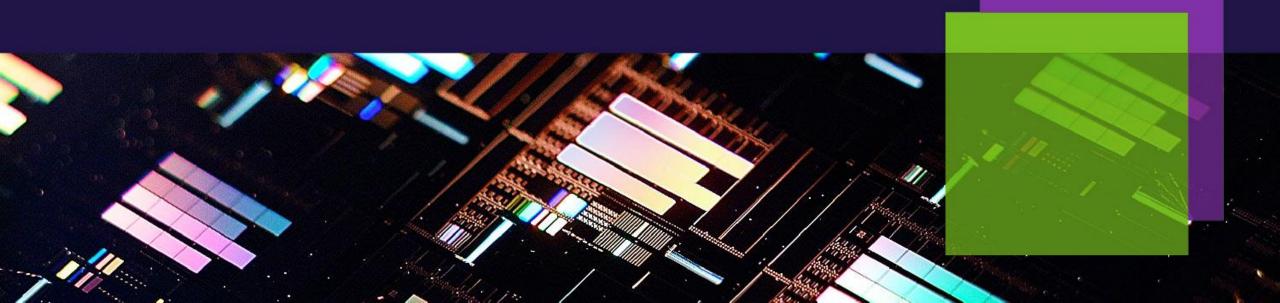
<sup>\*\*\*</sup> Cash on hand includes the total of cash + deposits with periods to maturity of over 3 months.



### Business Environment and Financial Estimates

January 30, 2018

Toshiki Kawai Representative Director, President & CEO



# Wafer Fab Equipment (WFE) Market Outlook

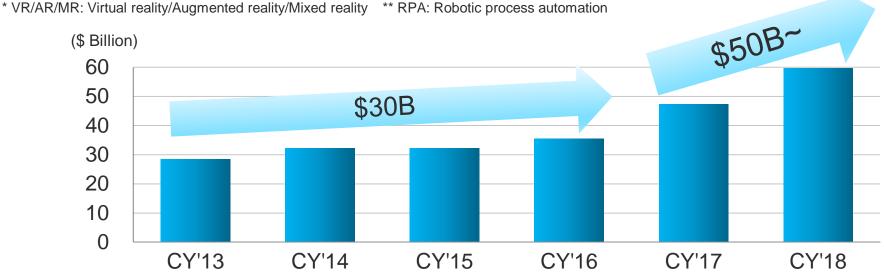
#### **Future growth drivers**

PC, internet, mobile

VR/AR/MR\*, IoT, AI, RPA\*\*, machine learning, big data, autonomous driving, personalized medicine

WFE market growth accelerating.
Investment expanding to

\$50B+



Equipment market is moving to the next phase amid expanding applications for semiconductors

#### Business Environment (Outlook as of January 2018)

# ► WFE\* Capex

CY2018 investment driven by buoyant demand for memory, expect YoY growth of approx. 10%.

► FPD production equipment capex for TFT array process\*\*

We expect CY2018 investment in production equipment increase of approx. 20% YoY with demand driven by continued investment in small/medium panels for mobile and expanded investment in G10.5.

# Accelerating growth in the equipment market on active investment in IoT and next generation technologies

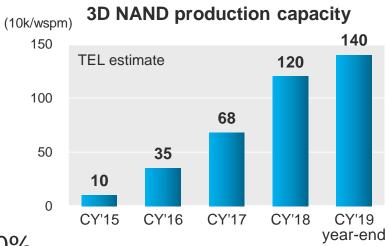
TEL.

<sup>\*</sup> WFE (Wafer fab equipment): The semiconductor production process is divided into front-end production, in which circuits are formed on wafers and inspected, and back-end production, in which wafers are cut into chips, assembled and inspected again. Wafer fab equipment refers to the production equipment used in front-end production and in wafer-level packaging production.

\*\* TFT array process: The processes of manufacturing the substrates with the electric circuit functions that drive displays

# CY'18 WFE Market Growth and Business Opportunities by Application

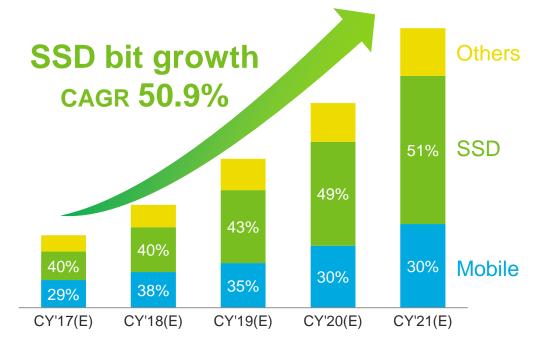
- NAND: Market growth of 5% YoY forecast
  - Capex: 9X generations to comprise 50%
  - Driving force: Growth in SSD demand for data centers
  - Opportunity: Differentiation through high value-added etch
- DRAM: Increase of more than 30%
  - Capex: Capex for 1X/1Ynm generation to comprise 80%
  - Driving force: Average mobile device capacity up 25% YoY, server capacity up 30%
  - Opportunity: Differentiation through combined patterning and our strength in interconnects
- Logic/Foundry: Same level forecast
  - Capex: 10nm and beyond generation to comprise 60%
  - Driving force: Demand for higher performance, lower power consumption
  - Opportunity: Business expansion in more complex patterning processes



#### Drivers of Investment in NAND Flash

#### Breakdown of NAND bit demand by application





Source: Gartner, "Forecast: NAND Flash Supply and Demand, Worldwide, 1Q16-4Q18, 4Q17 Update", 02 January 2018. Charts created by Tokyo Electron based on Gartner research.

Mobile: Ultramobile + Phone, Basic, Smart OS + Phone, Premium, Smart OS + Phone, Utility, Smart OS, CAGR: CY'17-CY'21

- NAND bit growth driven by SSD
  - -SSD CAGR 50.9% (CY'17-21)
  - -Mobile CAGR 32.0% (CY'17-21)
- Rapid increase in demand for server capacity
   \*Capacity is aggregate of SSD and HDD
  - $-\text{CY'}17\ 300\text{EB} \Rightarrow \text{CY'}21\ 1\text{ZB}$  EB: 10<sup>18</sup> byte, ZB: 10<sup>21</sup> byte
- Big potential for growth in SSD usage
- -Only used in 9% of servers in CY'17
- -Usage in PCs also low at 39% in CY'17

Source: Gartner, "Forecast: Hard-Disk Drives, Worldwide, 2014-2021, 3Q17 Update", 13 November 2017.

Server: Total Enterprise HDD/SSD PB, PC: Total Notebook/Ultramobile Premium and Desk-Based/Workstation PCs

Investment driven by rapid increase in storage capacity demand through IoT and increase in SSD usage

### FY2018 SPE Business Progress

- Full year sales for memory expected to double YoY on growth in market and market share
- Grew sales in FS business; nine-month sales of 181.0 billion yen, up 22% YoY\*
- Sales expansion of strategic products proceeding well
- Miyagi plant expansion (etch system)
  - Began operations at logistics building
  - Plan to complete new development building by September
  - Doubling of production capacity by October

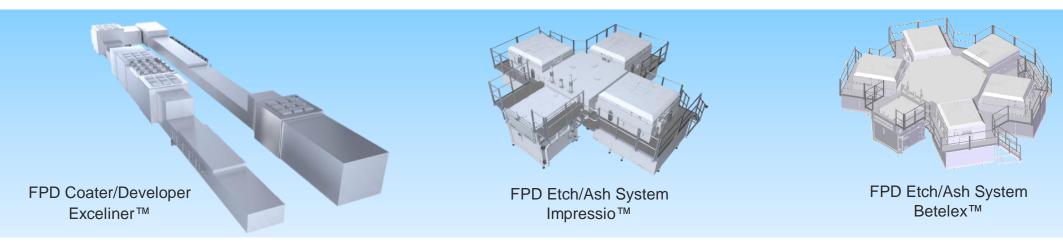


Tokyo Electron Miyagi

SPE business strategy progressing as planned, growing profit from next generation technology

### FY2018 FPD Business Progress

- Establishing our leading position in G10.5
- Introduced new Betelex™ platform etch equipment
- Expansion of PICP™\* etch system going well
  - Full year small/medium panel sales expected to approx. double YoY, captured large panel business too



FPD business strategy is proceeding well, expect profit ratio to increase according to plan

### FY2018 Financial Estimates

#### FY2018 Financial Estimates (no change from Oct. 31, 2017 announcement)

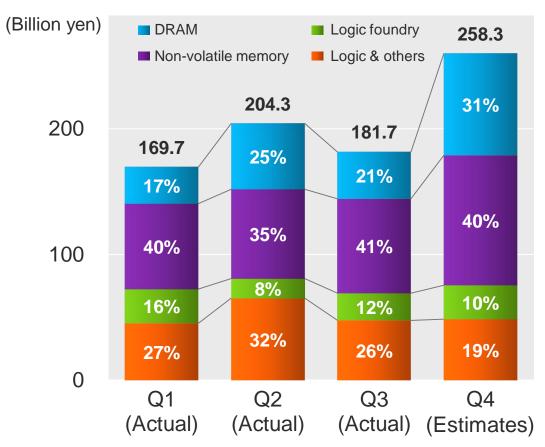
(Billion yen)

|   |                    | FY2018 (Estimates)   |                      |                |                   |  |
|---|--------------------|----------------------|----------------------|----------------|-------------------|--|
|   | FY2017<br>(Actual) | 1 <sup>st</sup> half | 2 <sup>nd</sup> half | Full year      | Full year         |  |
|   |                    | Actual               | Estimates            | Estimates      | YoY change        |  |
| Net sales                                   | 799.7              | 516.9                | 613.0                | 1,130.0        | +41.3%            |  |
| SPE   | 749.8              | 487.7                | 567.0                | 1,054.7        | +40.6%            |  |
| FPD   | 49.3               | 29.0                 | 45.9                 | 75.0           | +51.9%            |  |
| Gross profit Gross profit margin            | 322.2<br>40.3%     | 215.4<br>41.7%       | 251.5<br>41.0%       | 467.0<br>41.3% | +144.7<br>+1.0pts |  |
| SG&A expenses                               | 166.5              | 92.0                 | 103.9                | 196.0          | +29.4             |  |
| Operating income Operating margin           | 155.6<br>19.5%     | 123.3<br>23.9%       | 147.6<br>24.1%       | 271.0<br>24.0% | +115.3<br>+4.5pts |  |
| Income before income taxes                  | 149.1              | 122.3                | 144.7                | 267.0          | +117.8            |  |
| Net income attributable to owners of parent | 115.2              | 90.6                 | 107.3                | 198.0          | +82.7             |  |
| Net income per share (Yen)                  | 702.26             | 552.59               | -                    | 1,206.66       | +504.40           |  |

Expect large increase in sales and profit on increases in investment and market share

#### FY2018 SPE Division New Equipment Sales Forecast

#### FY2018 sales by application



#### DRAM

Sharp increase in investment on tight supply

#### 3D NAND

- Strong demand for SSD
- Begin supplying equipment for next 9X generation

#### Logic/Foundry

- Continue investment in 10/7nm generation
- Firm investment in 28nm and above generation too

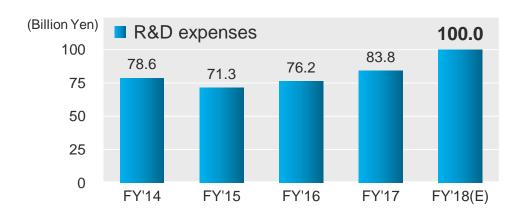
Percentages on the graph show the composition ratio of new equipment sales. Field solutions sales are not included.

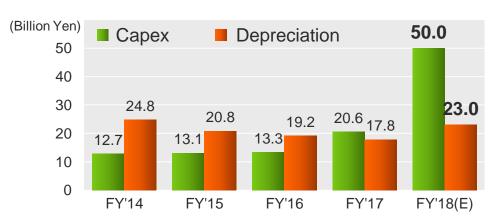
The Q4 forecast of 258.3 billion yen was derived by subtracting the Q3 results from the forecast for the second half announced on October 31.



#### R&D Expenses, Capex Plan (no change from Oct. 31, 2017 announcement)

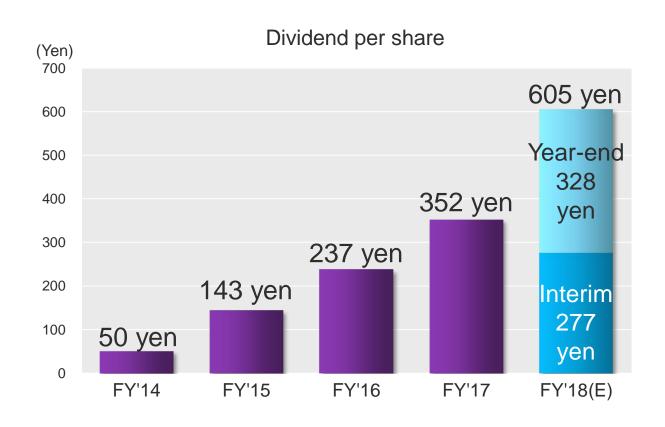
- R&D Expenses ¥100.0B
  - Continue investing based on focus areas and sustainable growth
- Capex ¥50.0B
  - Actively invest in advanced technologies R&D and to meet increasing production
- Depreciation ¥23.0B





Plan to conduct proactive upfront investment towards a new phase in the equipment market

#### FY2018 Dividend Forecast (no change from Oct. 31, 2017 announcement)



#### **TEL** shareholder return policy

Dividend payout ratio: 50%

Annual DPS of not less than 150 yen

We will review our dividend policy if the company does not generate net income for two consecutive fiscal years

We will flexibly consider share buybacks

Expect to raise DPS more than 70% YoY



# Key Messages for FY2019

- Further market growth expected in CY2018 (WFE market +10%, FPD equipment market +20%)
- Outperforming market growth in both the SPE and FPD businesses
- Continue proactive investment in development for expanding equipment market
- Accelerate development of process integration for 5nm generation and beyond
- Expand FS business corresponding to IoT applications

# Appendix



# FY2018 Q1-Q3 (April-December 2017) Highlights

- Record sales of 774.7 billion yen (up 44% YoY) on market growth, higher TEL share
  - SPE new equipment sales for memory more than doubled
  - FS business sales rose too, to 181.0 billion yen (up 22% YoY)
- Significantly improved both gross and operating margins (up 2.2pts and 5.9pts YoY, respectively)
  - Measures for raising profitability of various products are showing results
  - Sales rose, but controlled cost increases
- Planning a record full year dividend of 605 yen per share



# **Financial Summary**

(Billion yen)

|   | FY2017         | FY2018         | (Billion you)     |
|---|----------------|----------------|-------------------|
|   | Q1-Q3          | Q1-Q3          | YoY<br>Change     |
| Net sales                                   | 539.0          | 774.7          | +43.7%            |
| Gross profit Gross profit margin            | 211.6<br>39.3% | 321.4<br>41.5% | +51.9%<br>+2.2pts |
| SG&A expenses                               | 117.4          | 140.0          | +19.3%            |
| Operating income Operating margin           | 94.1<br>17.5%  | 181.4<br>23.4% | +92.7%<br>+5.9pts |
| Income before income taxes                  | 87.6           | 179.6          | +105%             |
| Net income attributable to owners of parent | 67.9           | 131.3          | +93.4%            |
| R&D expenses                                | 58.9           | 70.0           | +18.7%            |
| Capital expenditures                        | 13.5           | 33.5           | +148.1%           |
| Depreciation and amortization               | 12.7           | 14.5           | +13.7%            |

<sup>1.</sup> In principle, export sales of Tokyo Electron's mainstay semiconductor and FPD production equipment are denominated in yen. While some settlements are denominated in dollars, exchange risk is hedged as forward exchange contracts are made individually at the time of booking.



<sup>2.</sup> Profit ratios are calculated using full amounts, before rounding.

