

# Financial Results For FY2019

(Ending December 31, 2019)

Investor Meeting  
February 6, 2020

Nippon Electric Glass Co., Ltd.

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2. Review of Medium-term Business Plan “EGP2021”
3. Forecasts of FY2020

# Financial Results for FY2019

# Summary of Financial Results

- Economic trends

(Global)

Remained unclear mainly due to the impact of the trade dispute between the US and China, and economic slowdowns in Europe and China

(Japan)

Improved employment environment, while some weakness being seen in certain areas of export and production against the background of slowing external demand

- Business performance

Sales : Decreased shipments in glass for Flat Panel Displays (FPDs), glass fiber and glass for optical and electronic devices

Profit/loss : Affected by decreased sales and increased costs for raw materials and fuels, declined price in glass for FPDs, and stagnating profitability and impairment loss in US and Europe glass fiber business subsidiaries

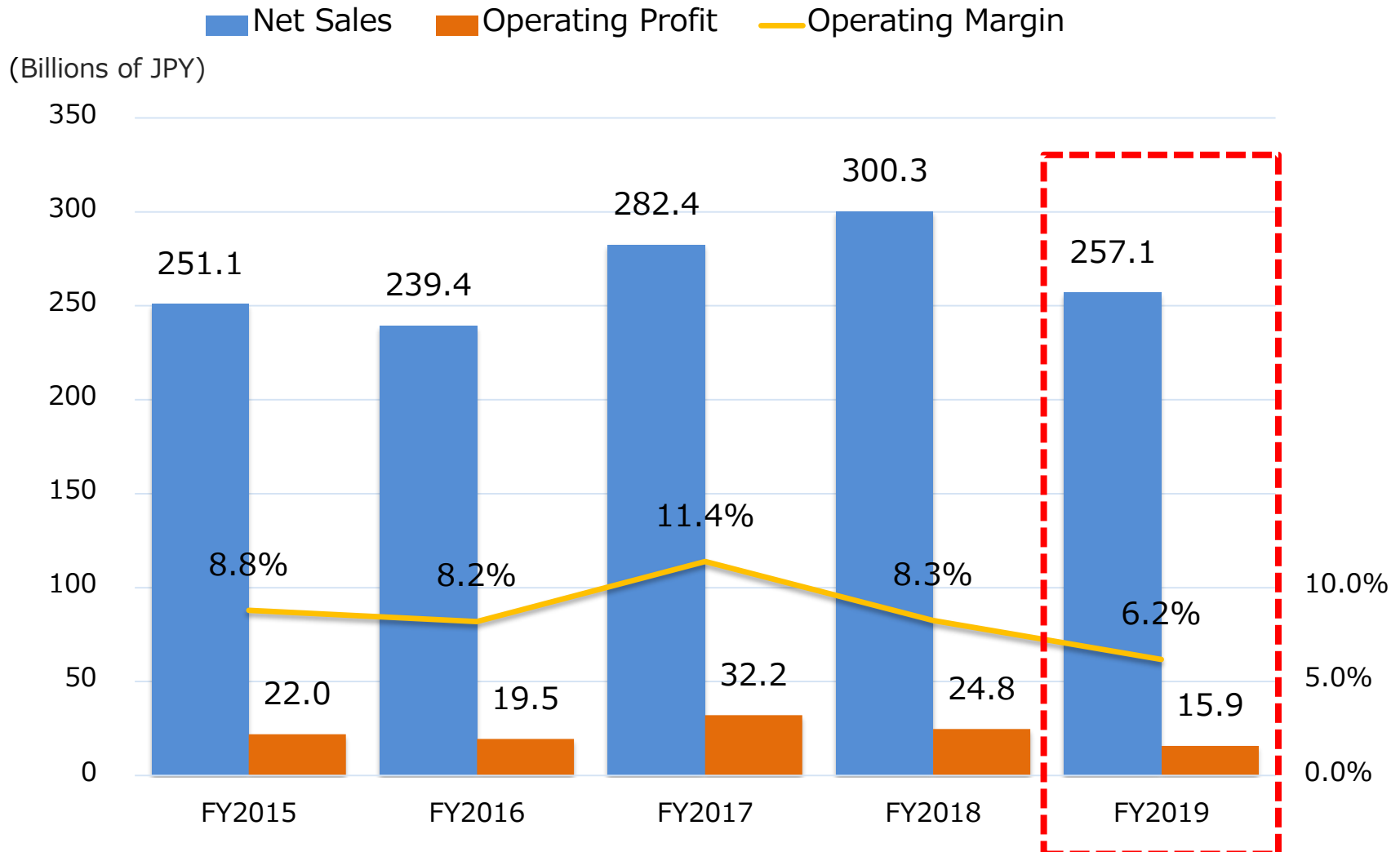
# Summary of Financial Results

(Billions of JPY)

	FY2018	FY2019	Change(%)
Net sales	300.3	257.1	(14.4)
Operating profit	24.8	15.9	(35.9)
<i>Operating margin</i>	8.3%	6.2%	
Ordinary profit	19.8	15.3	(22.5)
Extraordinary income/loss	5.5	(34.6)	-
Income/loss before income taxes and minority interests	25.4	(19.2)	-
Income taxes	9.7	13.9	(43.4)
Profit attributable to owners of parent	15.1	(33.6)	-
Earnings per share (JPY)	¥154.26	(¥348.50)	-
Net assets	521.5	477.1	(8.5)
Equity ratio	71.2%	71.0%	-
Dividend per share (JPY)	¥100	¥100	-

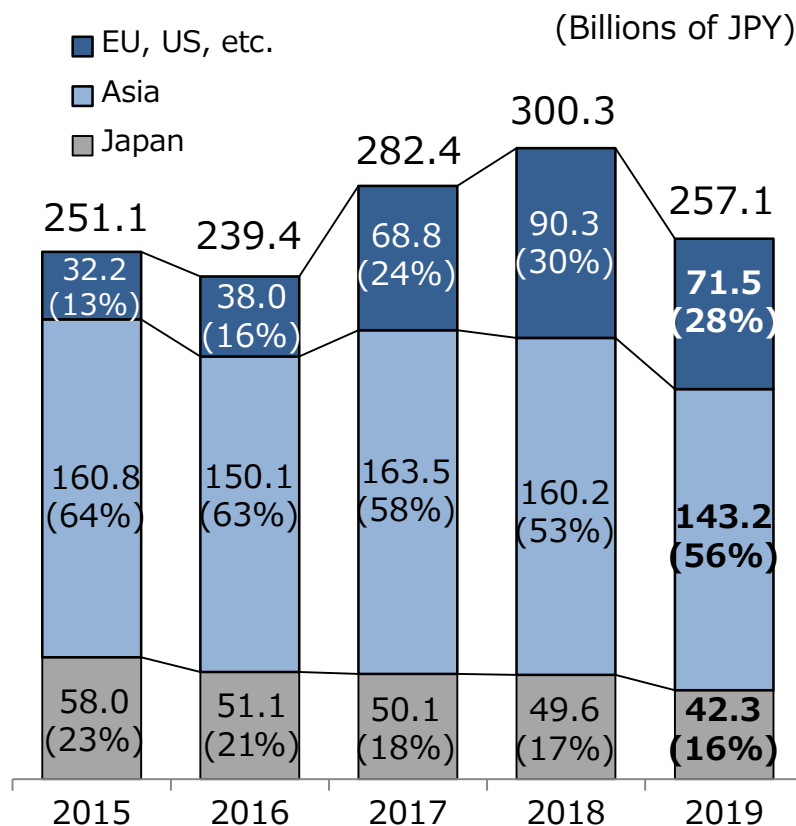
- Reversal of provision for special repairs  
The cancellation of plans to repair some glass melting furnaces
- Impairment loss  
Mainly on tangible fixed assets and goodwill in US and Europe glass fiber business subsidiaries
- Loss on accident  
Expenses related to partial damage to certain manufacturing facilities caused by power outages and temporary suspension of operations at an overseas subsidiary and expenses related to partial damage to domestic production facilities caused by typhoons
- Income taxes  
Reversed deferred tax assets

# Financial Results Trends

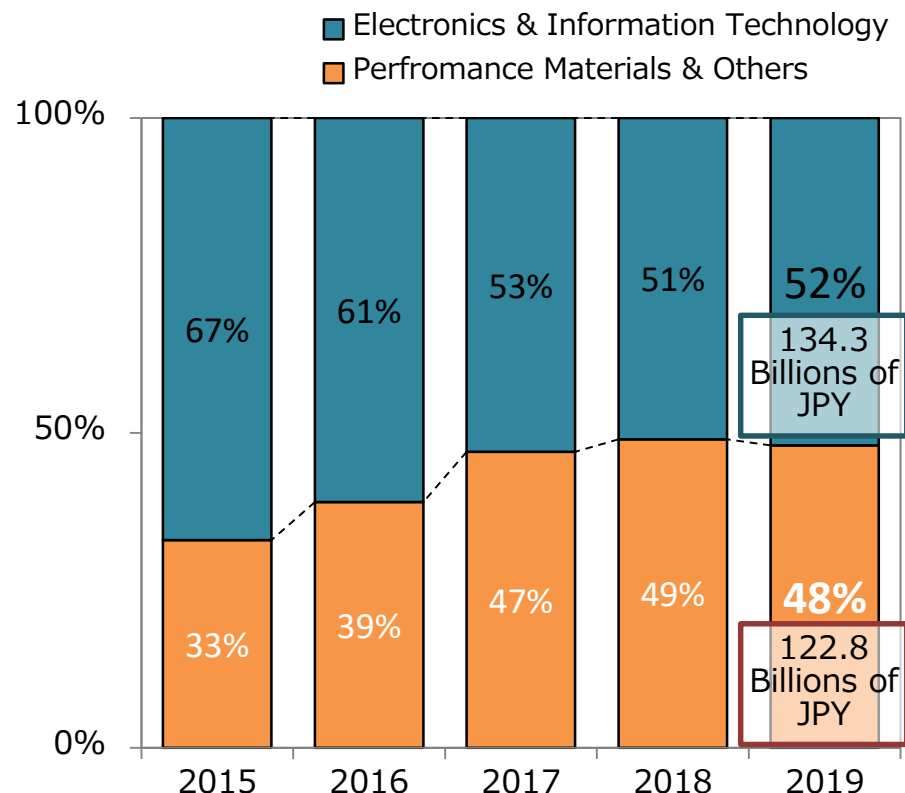


# Sales by Region / Business

Trend of sales by region



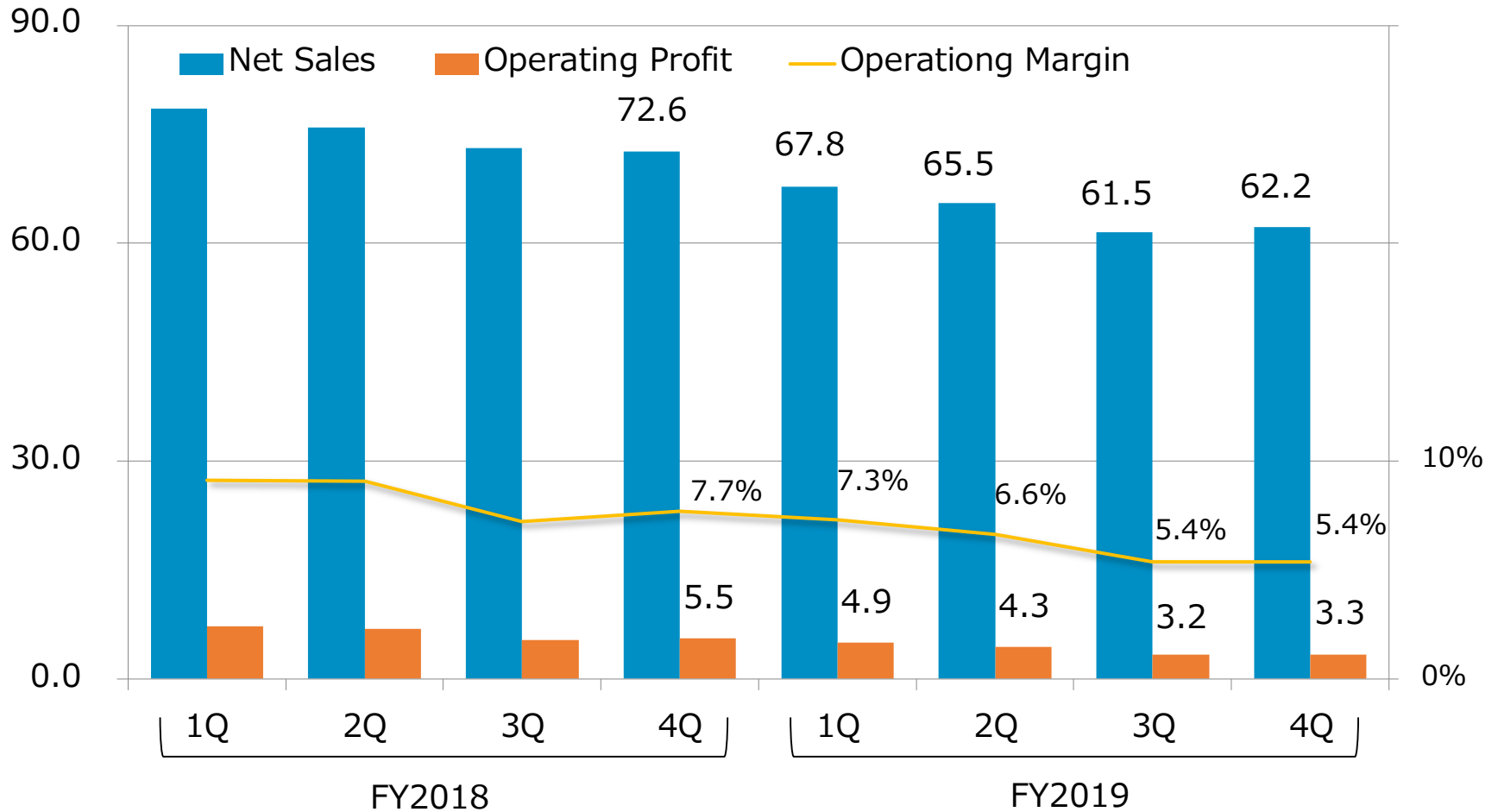
Trend of sales by business



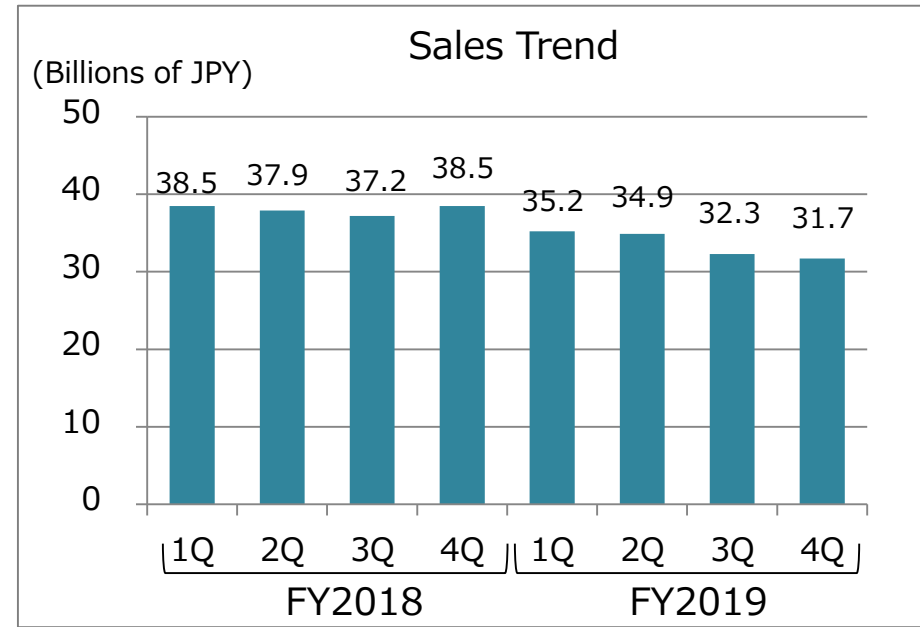


# Quarterly Trends

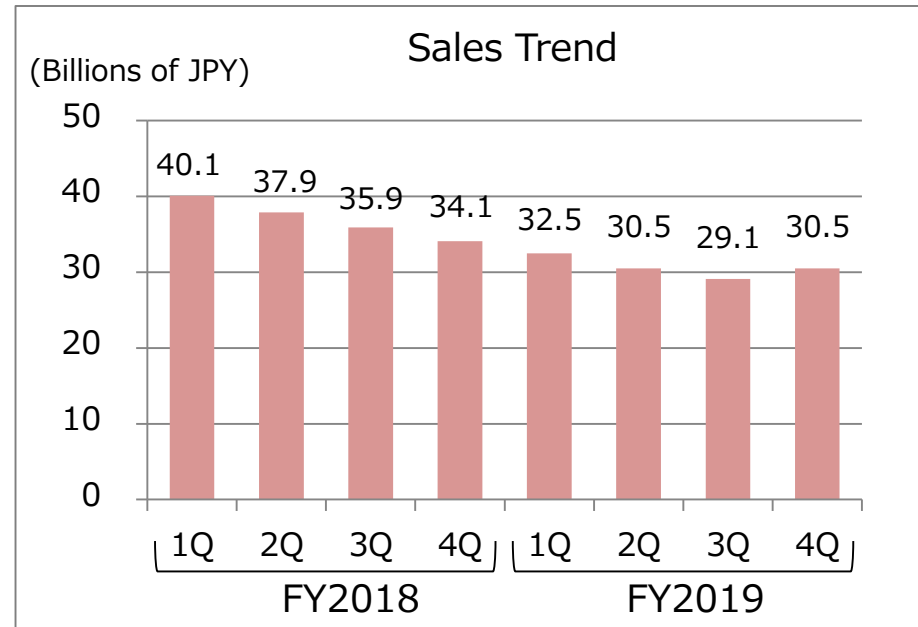
(Billions of JPY)



- Glass for FPDs : Slightly decreased sales due to weak demands from 3Q
- Cover glass <Dinorex®> : Weak
- Glass for solar cells : Decreased
- Glass for electronic devices :  
Declined compared to FY2018 especially in automobiles  
The LTCC joint venture business contributes to sales
- Glass for optical devices :  
Demands for telecommunications infrastructure were weaker than forecasts

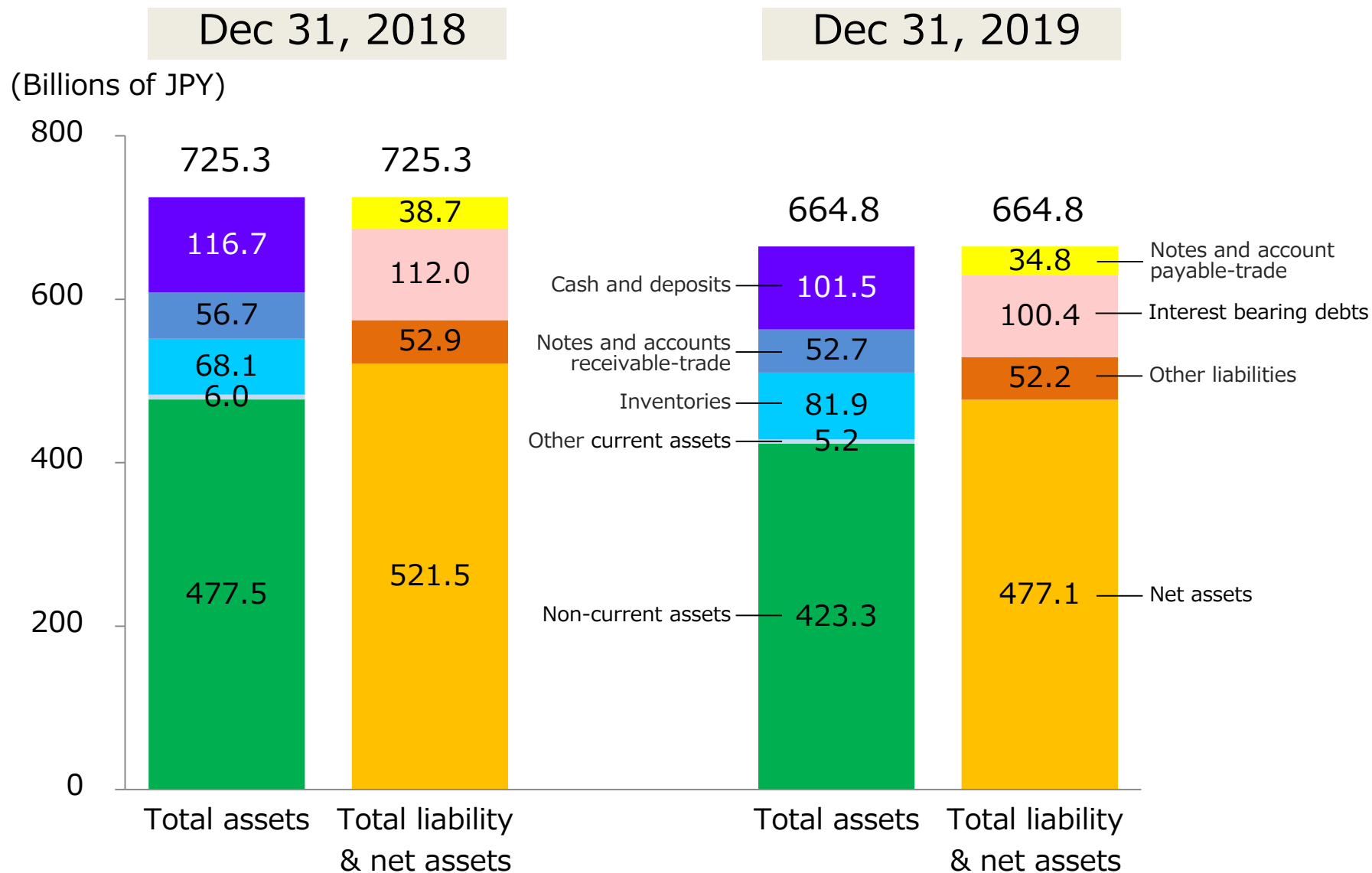


- Glass fiber :
  - Prolonged slowdown in related markets for high-performance resin used in auto parts and for wind turbine blades used in wind power generation
  - Shipments of housing equipment application fell below expectations

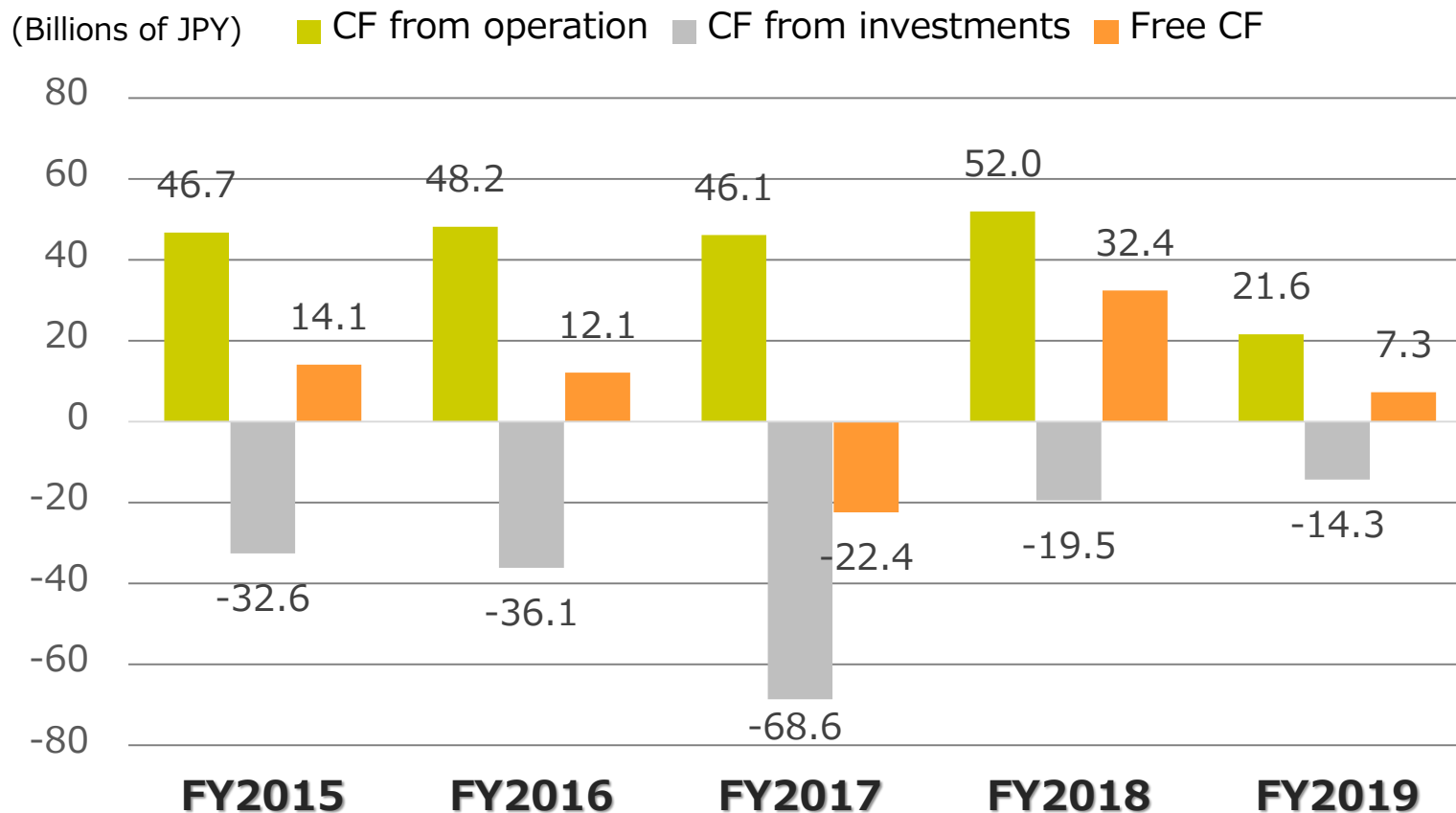


- Others :
  - Building materials : flat from FY2018
  - Heat resistant glass : weak
  - Glass tubing for medical use : increased due to strong demand in overseas markets

# Consolidated Balance Sheet



# Cash Flows

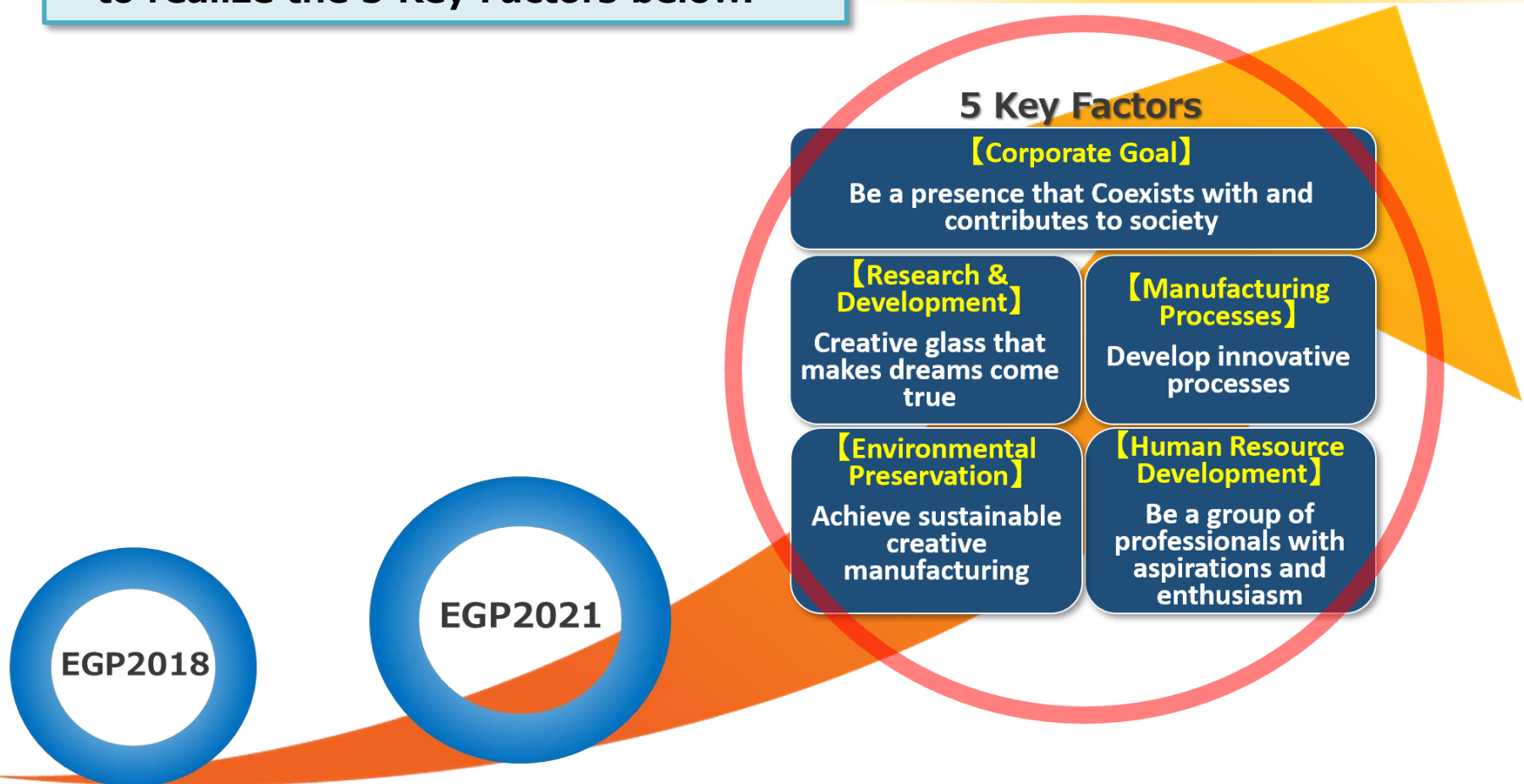


# Progress on Medium-term Business Plan “EGP2021”

# Outline of “EGP2021”

- EGP2021 is positioned as an initiative to realize the 5 Key Factors below.

*Our Vision*  
**“The World’s Leading Manufacturer of Special Glass”**





# Outline of “EGP2021”

## ■ Basic Policy

Pursue further growth toward becoming “the world’s leading manufacturer of special glass”

## ■ Our Slogan

**Strong Growth - Raise Aspirations and Break Through Walls**

※ Emphasis is placed on achieving strong growth in financial results as well as in human resources, core technologies and R&D capabilities, and as a result, making our corporate character even stronger.

## ■ Priorities

① **Research and Development**

② **Business Strategies**

③ **Strategic investment**

④ **CSR**

## ■ Financial Policies

- Emphasis on cash flow
- Emphasis on efficient use of assets (reduction in financial assets and inventory assets, consolidation of manufacturing equipment through productivity improvement)
- Financial soundness

## ■ Profit Distribution Policies

- Continued and stable payment of dividends over the long term
- Dividends on equity ratio (DOE): 2% and upwards
- Implementation of flexible shareholder return measures according to the status of achievement of the medium-term business plan



# Progress on “EGP2021”

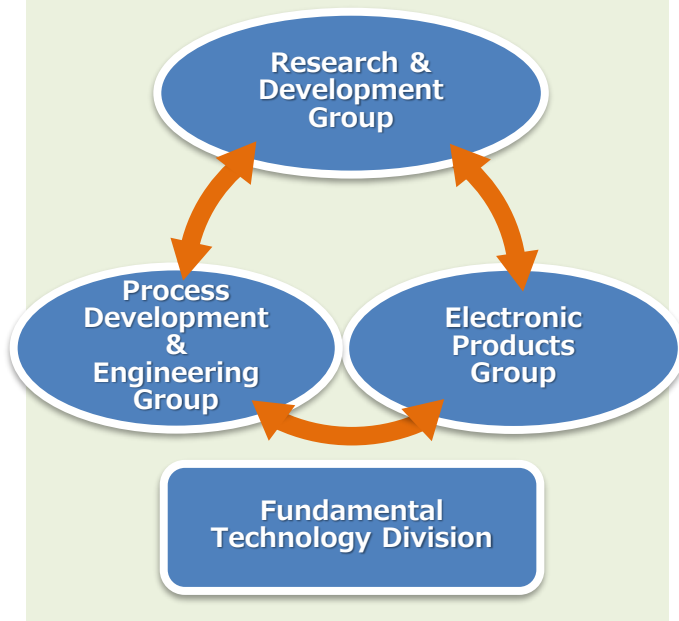
## ■ Priorities

### ① Research and Development

- Developed multiple new products under the integrated development structures for products, glass technologies, and manufacturing processes
- Established a new independent marketing organization to promote commercialization
- Developed and advanced innovative manufacturing process technologies that achieve higher productivity and lower energy consumption

#### Integrated management

#### New system※2019.1.1~



#### Developments in 2019

Date	Products	Applications
Jul 18	Infrared transmitting glass and infrared lenses	Security cameras, thermography etc.
Oct 10	High refractive index substrate glass	AR and MR <b>smart glasses</b>
Nov 21	Paste for high-precision ceramic modeling	<b>3D printer</b>
Nov 28	Micro-ball lenses with AR coating	<b>5G, optical communication</b>
Dec 3	Lead-free low-melting-point glass frit	Sealing of IC packages such as crystal oscillators



# Progress on “EGP2021”

## ■ Priorities

### ② Business Strategies . . . Display glass business

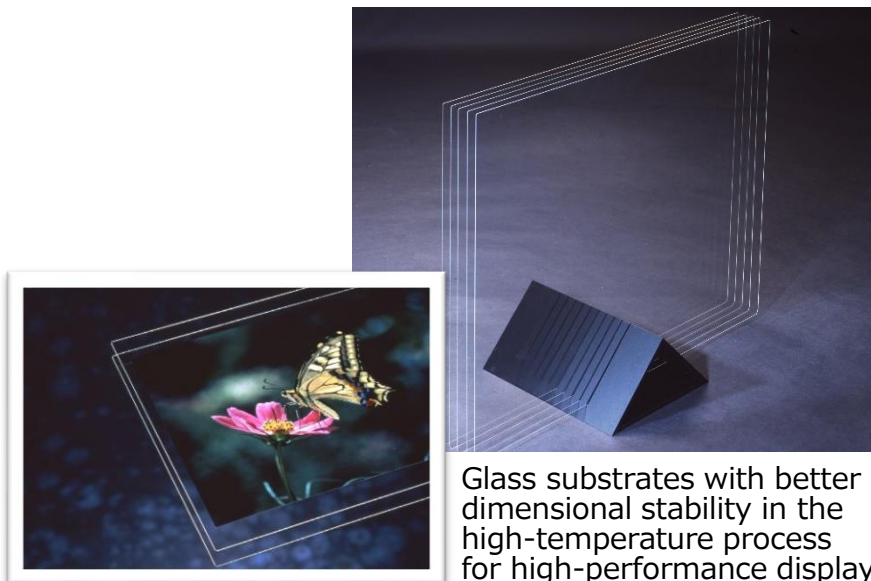
#### Progress

- Improved productivity and quality
- Developed high-performance display glass substrates
- Developed new cover glass and increased sales for auto displays

#### Future actions

- Strengthen the presence in growth areas
- Optimize the global production structure

#### Development based on customers' needs



#### Expansion of Dinorex® in auto displays



(Photo: Toyota Motor Corporation)





# Progress on “EGP2021”

## ■ Priorities

### ② Business Strategies · · · Glass fiber business

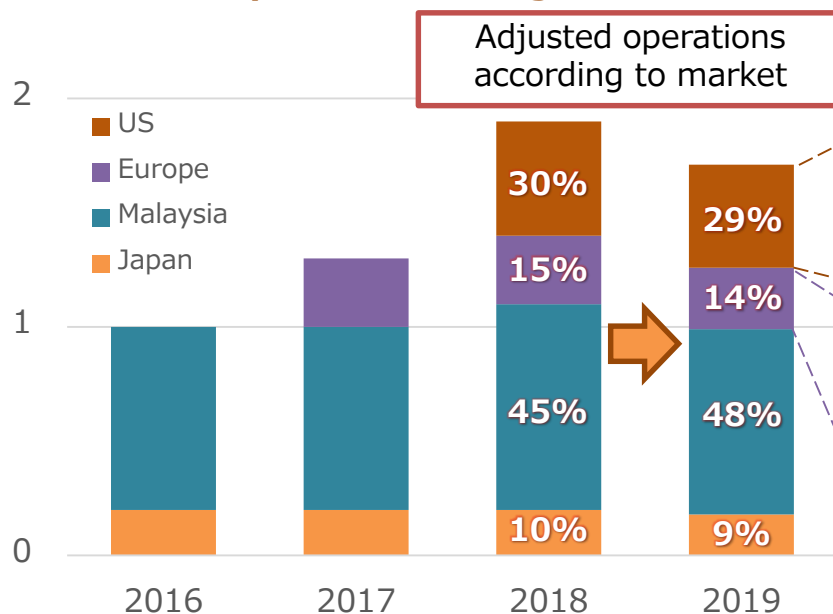
#### Progress

- Adjusted the level of operations according to changes in market conditions
- Developed new products and manufacturing processes

#### Future actions

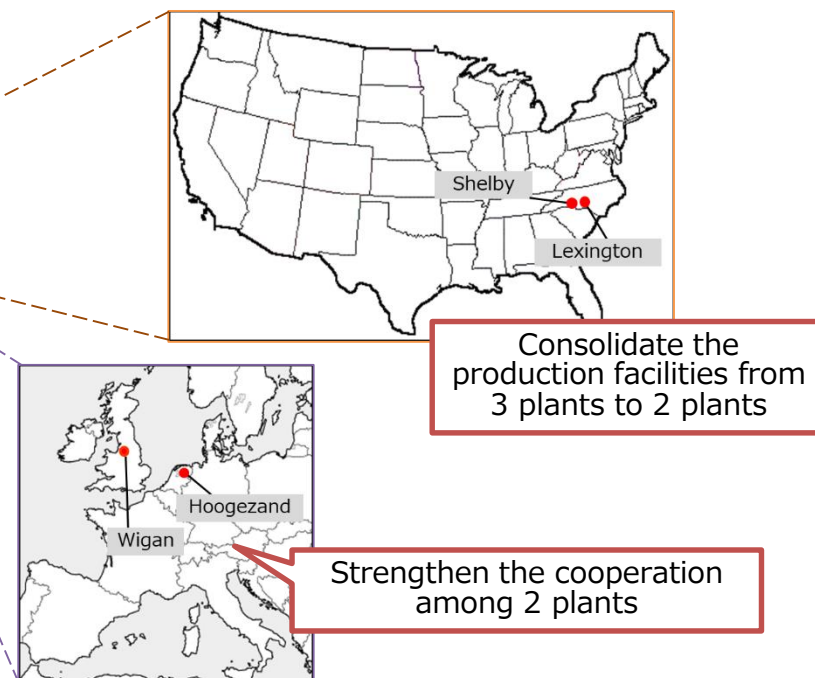
- Improve productivity in US and Europe subsidiaries and recover profitability through the streamlining of organization
- Conform market competition and increase sales

#### Global production of glass fiber



\*Production capacity of FY2016 as index 1

#### Enhance the efficiency of management



# Review and actions for “EGP2021”



# Review of “EGP2021”

## ■ Management Targets (billion yen)

● <b>Net sales</b>	<b>3 0 0</b>
• Electronics and information technology	150
• Performance materials and others	150
● <b>Operating profit</b>	<b>2 5</b>
● <b>Operating margin</b>	<b>8%</b>

### ■ Before revision

Net sales	3 5 0
• Electronics and information technology	175
• Performance materials and others	175
Operating profit	3 5
Operating margin	1 0 %

## ■ Reasons for the review

### ● Net sales :

Business results in FY2019 and future forecasts fell below the initial projections due to the changes in core market conditions

- Market growth in glass fiber business is slow due to the slowdown of automobiles demands
- Market for FPDs grows gradually after FY2019
- Recovery of the other businesses is expected

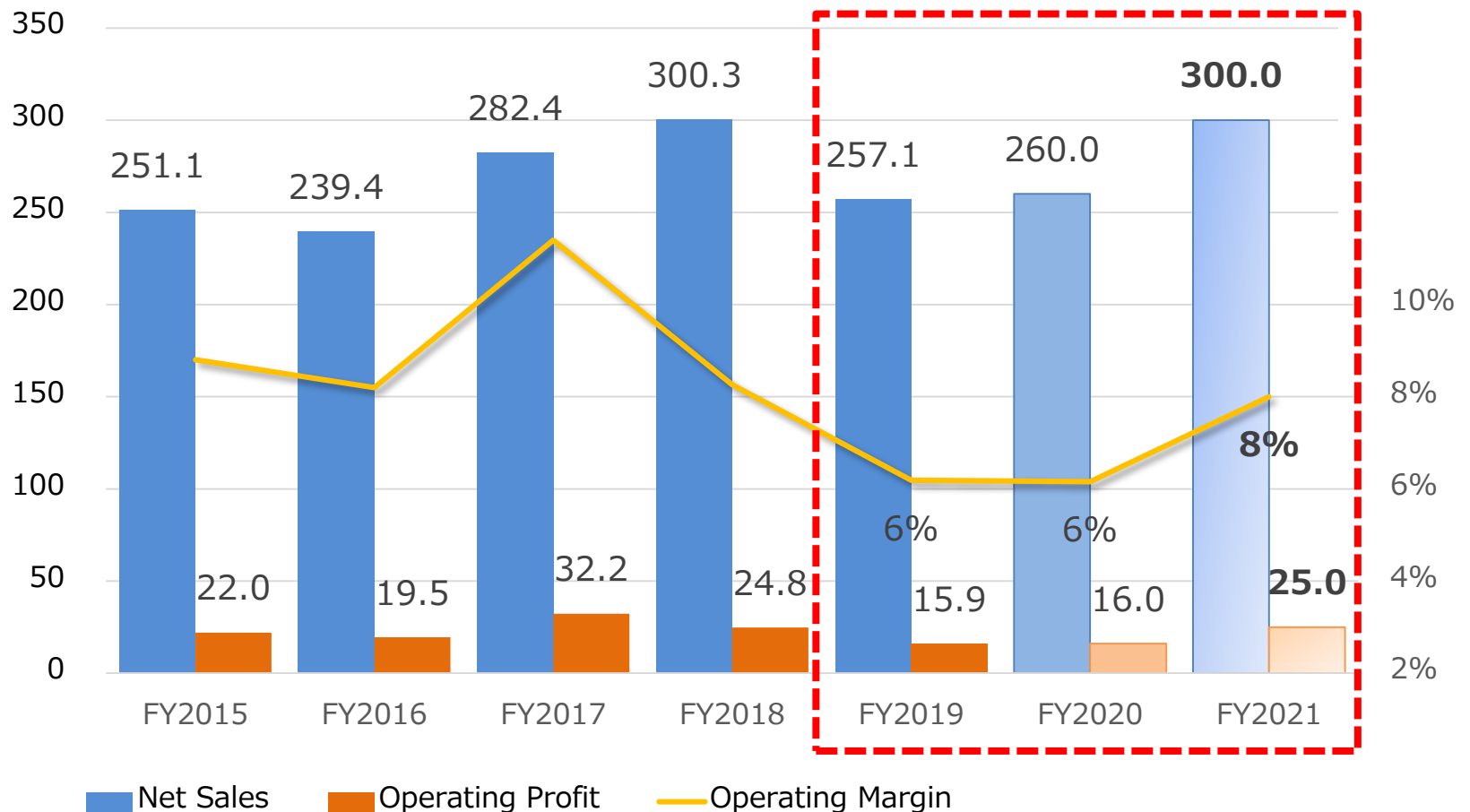
### ● Operating profit :

- Decreased net sales
- Advance investment for increasing capacity and innovative manufacturing process technologies

# Review of “EGP2021”

By taking the changes of business environment as an opportunity, we will recover and stabilize operating results during “EGP2021”, and prepare for sustainable growth

(Billions of JPY)





# Review of “EGP2021”

## ■ Basic Policy

Pursue further growth toward becoming “the world’s leading manufacturer of special glass”

## ■ Our Slogan

**Strong Growth - Raise Aspirations and Break Through Walls**

※ Emphasis is placed on achieving strong growth in financial results as well as in human resources, core technologies and R&D capabilities, and as a result, making our corporate character even stronger.

## ■ Priorities

Embody and enhance each priorities

① **Research and Development**

② **Business Strategies**

③ **Strategic investment**

④ **CSR**

## ■ Financial Policies

- Emphasis on cash flow
- Emphasis on efficient use of assets (reduction in financial assets and inventory assets, consolidation of manufacturing equipment through productivity improvement)
- Financial soundness

## ■ Profit Distribution Policies

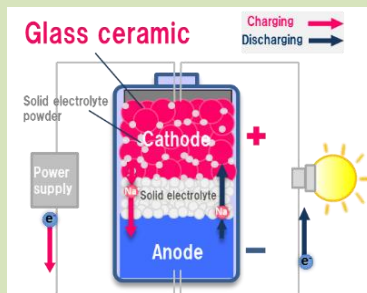
- Continued and stable payment of dividends over the long term
- Dividends on equity ratio (DOE): 2% and upwards
- Implementation of flexible shareholder return measures according to the status of achievement of the medium-term business plan

# Review of “EGP2021”

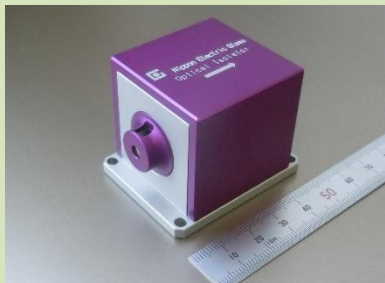
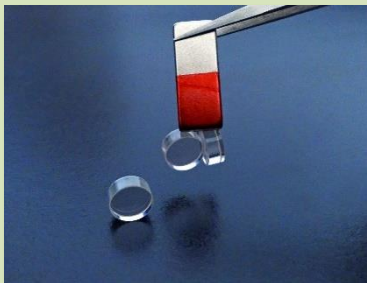
## ■ Priorities

### ① Research and Development

- Develop new products (strengthen development of not only materials but also device areas)
- Establish innovative manufacturing process technologies for core products
- Strengthen prototype/evaluation structures



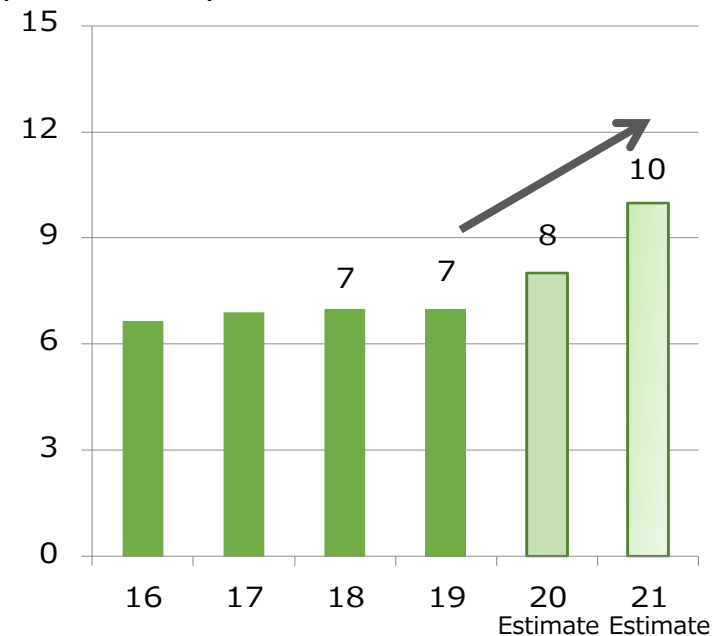
Commercialization of laminate cells of all solid state Na-ion secondary battery



Optical isolator for fiber lasers using magneto-optical glass

## R&D expenses

(Billions of JPY)





# Review of “EGP2021”

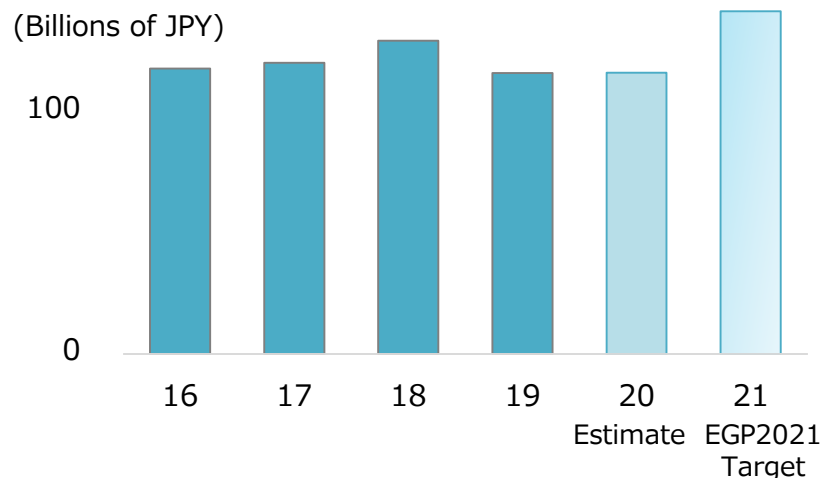
## ■ Priorities

### ② Business Strategies . . . Display glass business

- Increase productivity and raise profitability through horizontally roll out innovative manufacturing process
- Develop new products and increase sales
- Correspond to growth of Chinese market through increasing capacity in Electric Glass (Xiamen) (production start in the first half of 2021)

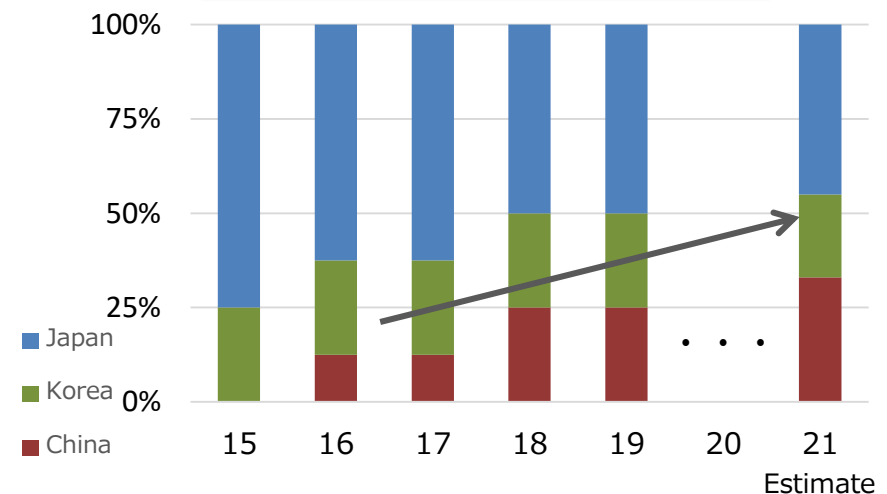
Net sales in glass for FPDs

Share expansion in FPD market through increasing capacity, and profitability enhancement



Forming capacity of glass for FPDs

Shift of forming equipment to China according to customers' demands



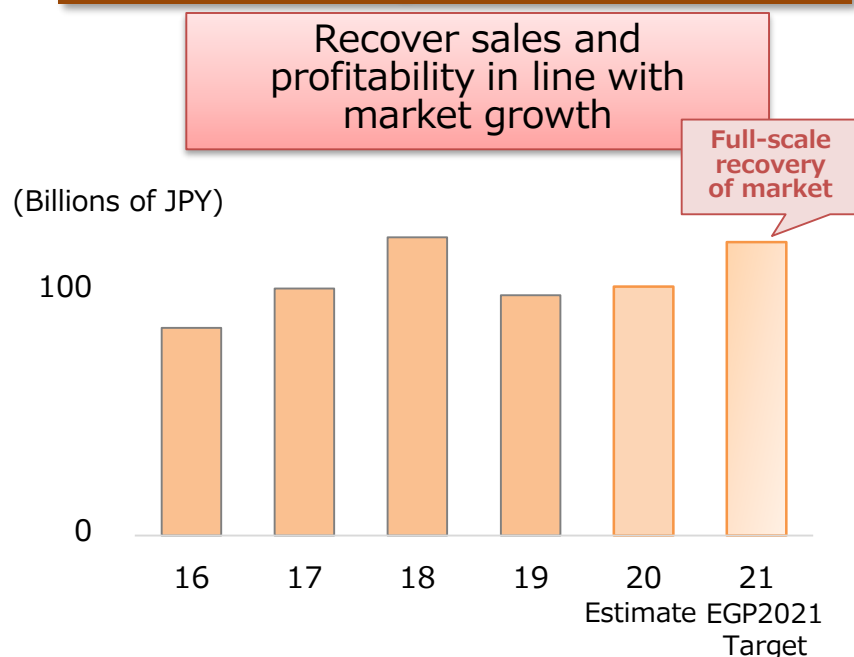
# Review of “EGP2021”

## ■ Priorities

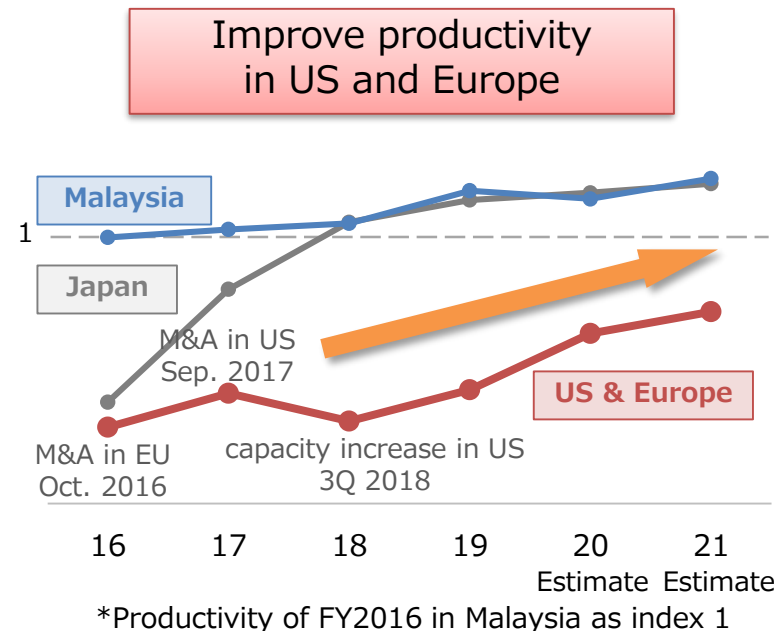
### ② Business Strategies . . . Glass fiber business

- Fundamentally review production structure, manufacturing processes and product lineups globally to improve productivity and cost competitiveness
- Improve productivity and achieve profitability in US and Europe
- Enlarge the customer base for high-value-added products such as glass fiber highly resistant to deformation and flat glass fiber
- Enhance new product development based on market needs

#### Net sales in glass fiber business



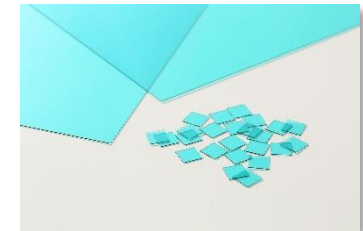
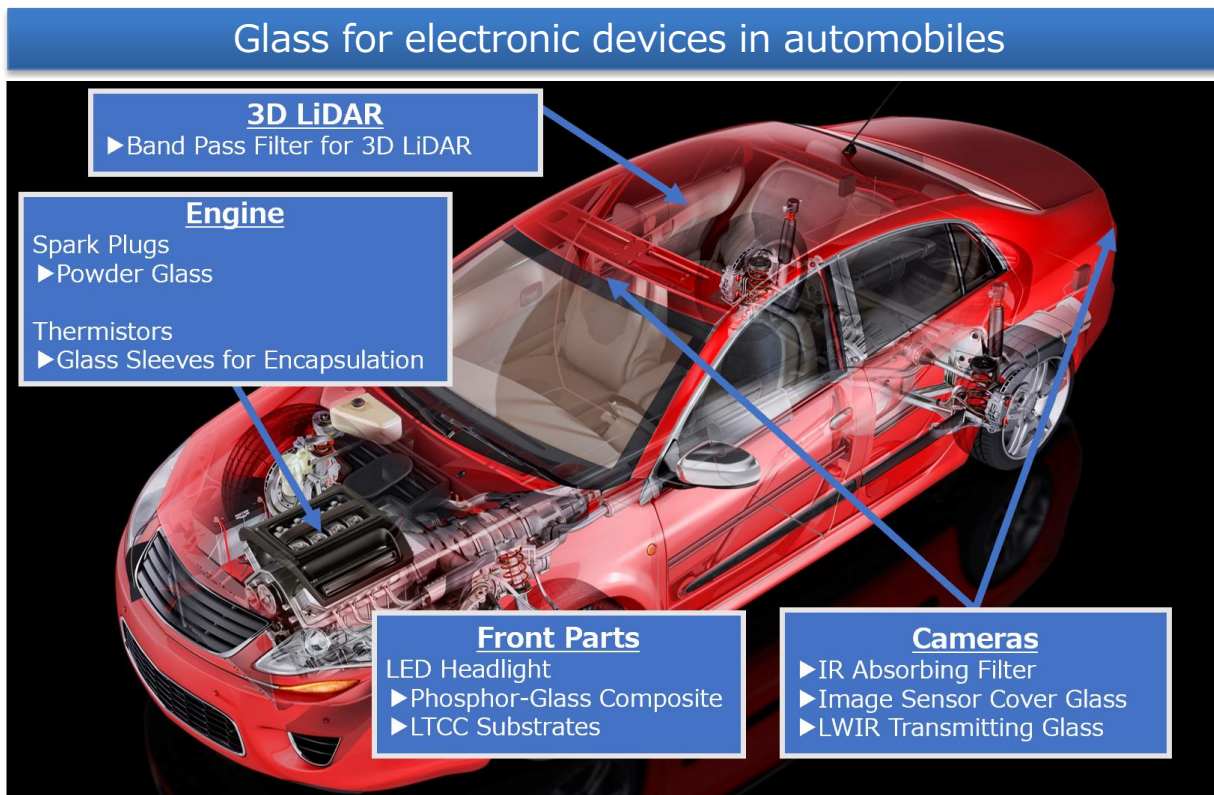
#### Productivity improvement



# Review of “EGP2021”

## ■ Priorities

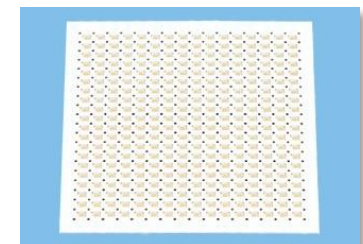
- ② **Business Strategies** . . . Glass for optical and electronic devices
- Increase sales of existing products and speed up commercialization of products
  - Enhance approach for 5G and CASE areas



IR Absorbing Filter



Image Sensor Cover Glass



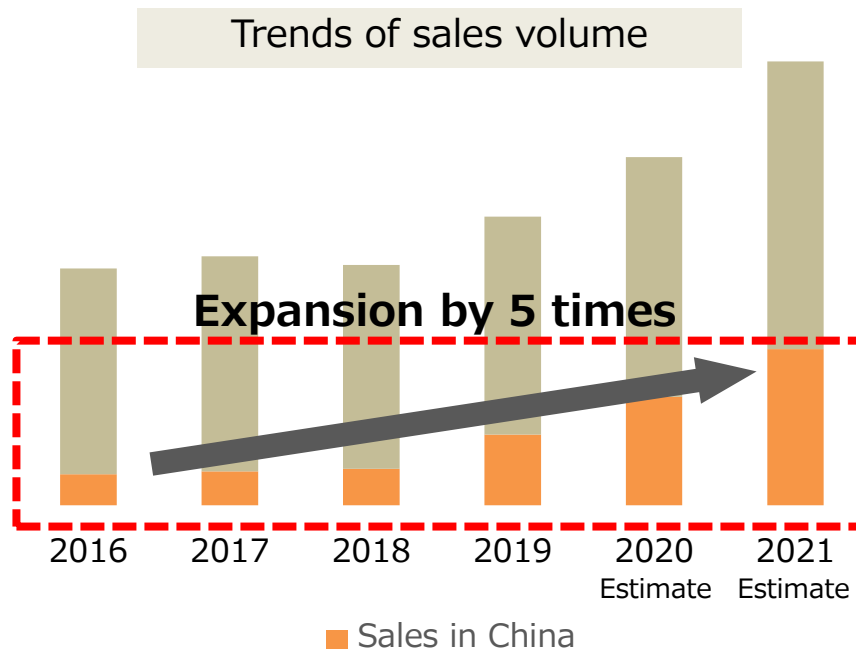
LTCC for LED Packages

# Review of “EGP2021”

## ■ Priorities

- ② **Business Strategies** . . . Medical, building materials and heat resistant glass
- Medical use: enhance product capacity in Malaysia by introducing state-of-the-art facilities and expand sales in emerging countries (production from Aug. 2020)
  - Building and heat-resistant: promote development of new products and new applications, and focus on sales expansion overseas

### Expansion of glass tubing sales in China



Lamion® used as train station platform doors at Tokyo Metro Co., Ltd.



Firelite® used at Shonan Enoshima station of Shonan Monorail Co., Ltd.

# Review of “EGP2021”

## ■ Priorities

### ③ Strategic investment

#### Progress

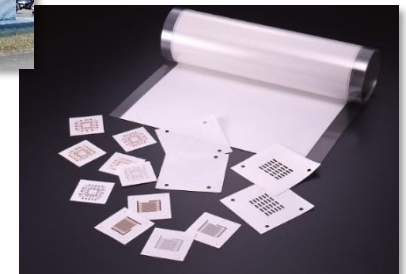
- Established a joint-venture on LTCC business

#### Actions

- Implement M&A and establish collaborations and affiliations with other companies
- Set aside about 50 billion yen spread out in “EGP2021” for strategic investments

#### LTCC Materials Co., Ltd.

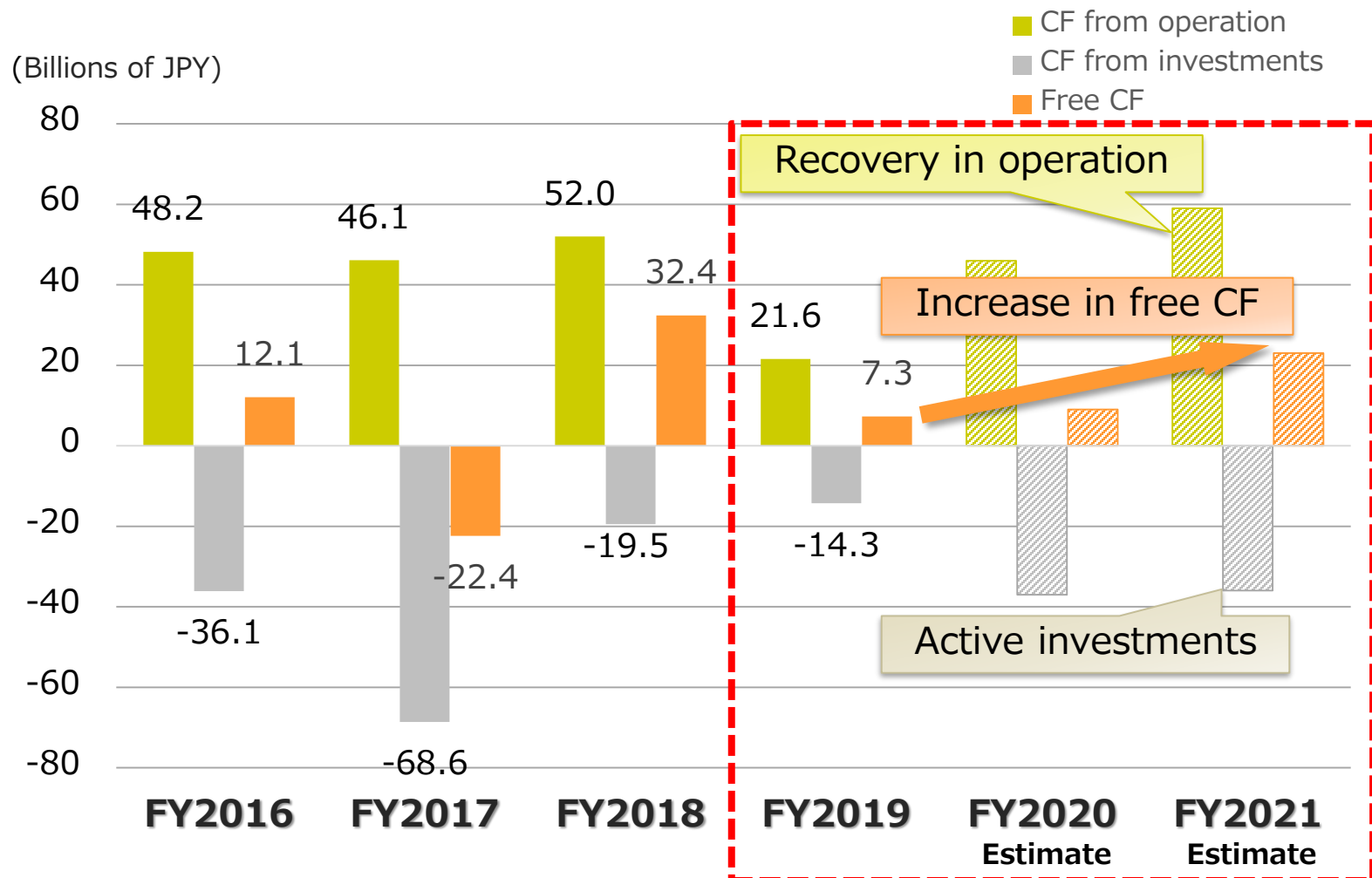
Purpose	Respond to the expanding global market through an integrated manufacturing system ranging from materials to LTCC products
Establishment	October 1, 2019
Capital	315 million yen (shareholding ratio : the company 70% and Yokowo Co., Ltd. 30%)
Product	LTCC (Low Temperature Co-fired Ceramics)
Usage	LED packages, communication modules and probe cards of semiconductor processes etc.



M&A and collaborations are under consideration

# Review of “EGP2021”

## Emphasis on cash flow





# Review of “EGP2021”

## ■ Priorities

### ④ CSR

- Achieve sustainable growth and increase corporate value through initiatives that address the three priority themes of “environment”, “diversity and inclusion” and “community contribution”.

#### Environment

- Development and sales of eco-friendly products
- Expansion of manufacturing processes to improve productivity and reduce CO2 emission
- Green procurement
- Local forest protection
- Removal of alien fish species from Lake Biwa



#### Diversity and inclusion

- Work-style reforms (expand telecommuting & flexible work hour systems)
- Percentage of employees with disabilities...double the statutory requirement (percentage of 2019: 4%)
- Platinum Kurumin Certification (on supporting the development of the next generation)
- Reform of personnel treatment system
- Restructuring of the rehiring system

#### Community contribution

- Continuous collaboration with the University of Shiga Prefecture
- Lake Biwa Floating School Program support
- Active participation in local community events
- Educational support to local schools
- Enhanced science study events



# Forecasts of FY2020





# Forecasts of FY2020

(FY2020)

(Billions of JPY)

	2Q (accum)	Full year	For reference		
			Mid-term Business plan	FY2019	Change(%)
Net sales	130.0	<b>260.0</b>	300.0	257.1	1.1
Operating Profit	7.0	<b>16.0</b>	25.0	15.9	0.6
Ordinary profit	7.0	<b>15.0</b>	—	15.3	2.0
Profit attributable to owners of parent	5.0	<b>11.0</b>	—	(33.6)	—
Operating margin	5.4%	<b>6.2%</b>	8%	6.2%	—
Dividend forecast (JPY/share)	50	<b>100</b>	—	100	—

Foreign exchange  
rate

- Assumption: 1USD = 105JPY, 1 EUR = 120JPY

Cost of raw  
materials and fuels

- Slightly decline (assumption: \$65/bbl)

CAPEX

- FY2020: Planned 26.0 billion (FY2019: 20.1 billion)  
Horizontally roll out innovative manufacturing process, enhance product capacity for glass tubing for medical use in Malaysia, productivity improvement, equipment repairs and investment in new markets

Depreciation

- FY2020: Planned 28.0 billion (FY2019: 28.5 billion)

# Consolidated Earning Forecasts

## (Outlook)

Displays(FPDs)	<ul style="list-style-type: none"><li>● Gradual market growth, and sales expansion mainly in China</li><li>● Slight price decline continues</li></ul>
Optical and electronic devices	<ul style="list-style-type: none"><li>● Sales recovery in auto parts and home appliances markets</li><li>● Take advantage of growth in markets such as 5G and telecommunications infrastructure</li><li>● Promote commercialization of newly developed products</li></ul>
Glass fiber	<ul style="list-style-type: none"><li>● Modest recovery in auto parts market</li><li>● Review the production structure and product mix on global scale to realize recovery in business performance</li><li>● Improve productivity in each base</li></ul>
Medical Heat-resistant Building materials	<ul style="list-style-type: none"><li>● Glass tubing for pharmaceutical and medical use: strengthen production capacity in Malaysia and expand sales in China</li><li>● Heat-resistant: expand sales for cooking appliance top plates overseas</li><li>● Building materials: expand sales for fire rated glass</li></ul>



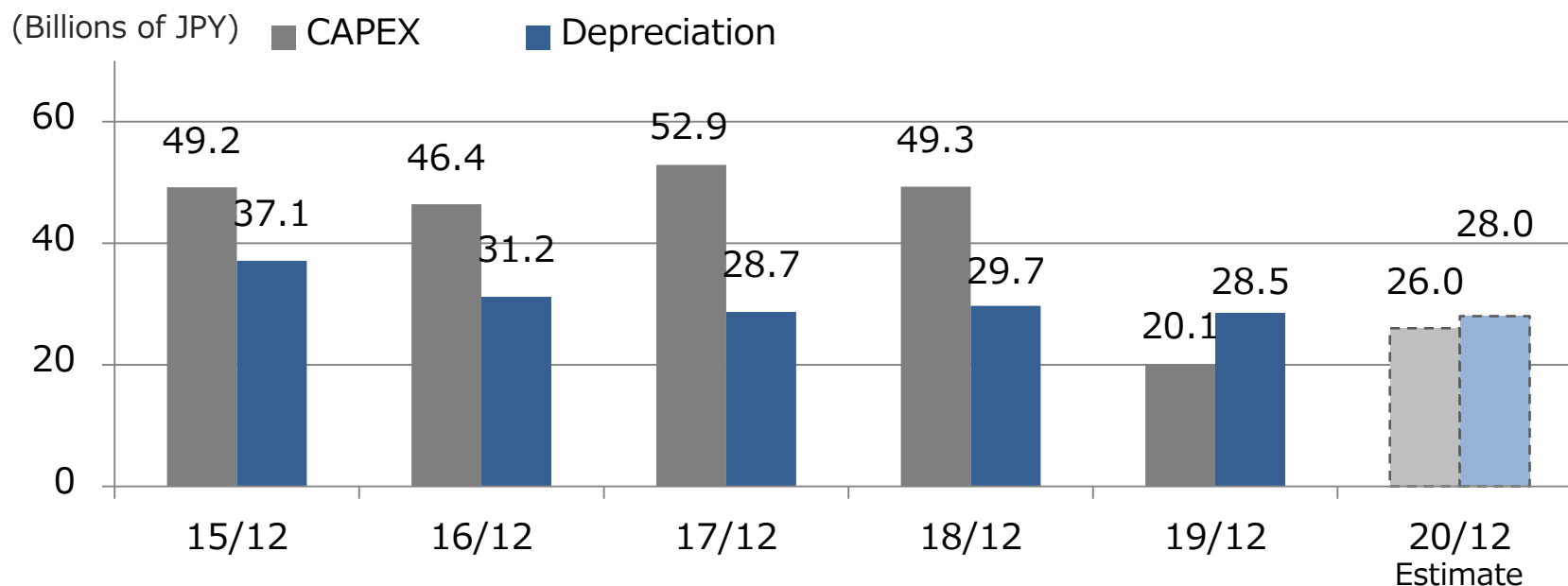
# CAPEX and Depreciation

## CAPEX

- Planned 26.0 billion JPY in FY2020  
Horizontally roll out innovative manufacturing process, enhance product capacity for glass tubing for medical use in Malaysia, equipment repairs, productivity improvement, and investment in new markets

## Depreciation

- Planned 28.0 billion JPY in FY2020





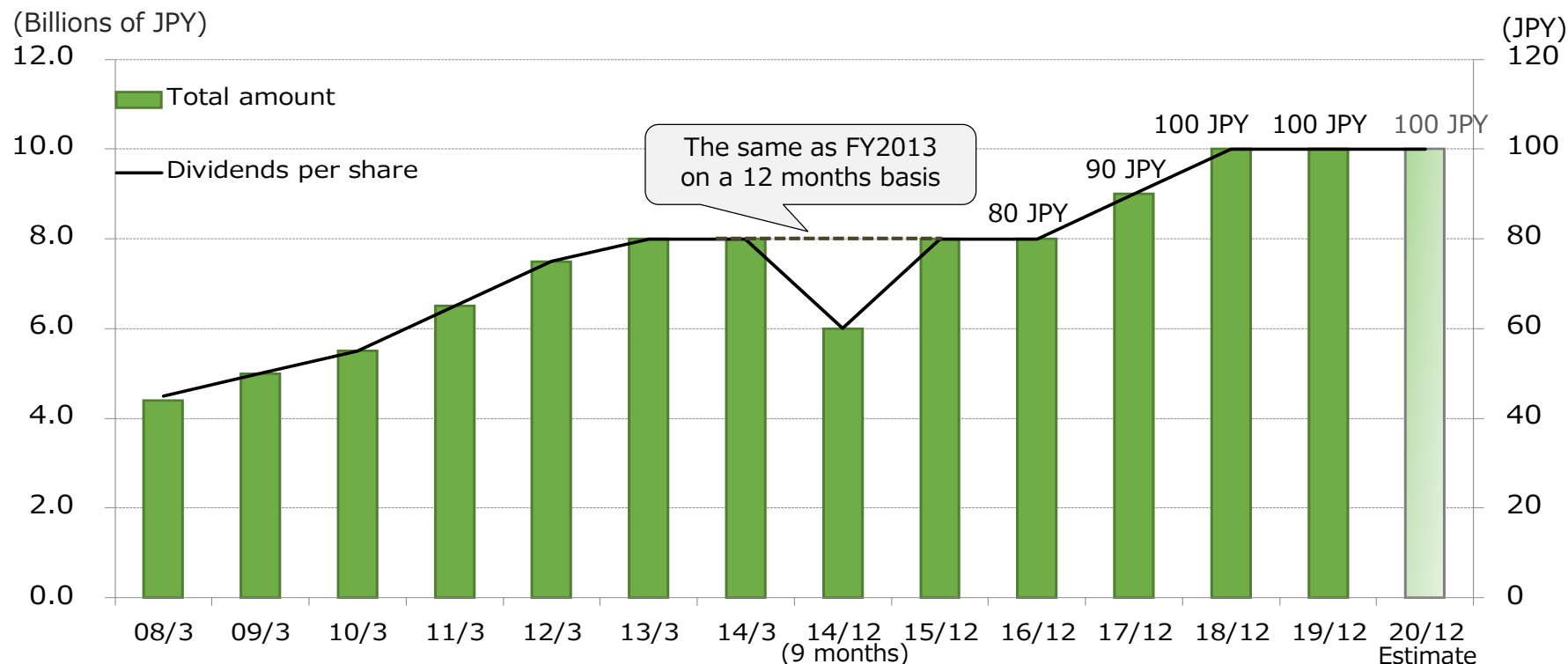
# Profit allocation policy & Dividends

## Profit allocation policy

- Continued and stable payment of dividends over the long term
- Dividends on equity ratio (DOE) :2% and upwards
- Implementation of flexible shareholder return measures according to the status achievement of the medium-term business plan

## FY2020 (Estimate)

- Interim: 50 JPY per share
- Year-end: 50 JPY per share (100 JPY share/annum)



\*Amounts of dividends per share are retroactively adjusted for the share consolidation.

# Corporate Information

## Main business

Electronics & Information Technology	FPD	Glass for Liquid Crystal Displays (LCD) Glass for Organic Light-Emitting Diode (OLED) Displays
	Cover Glass	"Dinorex" Specialty Glass for Chemical Strengthening
	Optical Devices	Capillary and Ferrule for Optical Communication Devices Lens for Optical Communication Devices Micro Prism
	Electronic Devices	Functional Powdered Glass Sheet Glass for Image Sensors Glass Tube for Small Electronic Products "Lumiphous" Phosphor-Glass Composites
	Solar Cells	Glass for Solar Cells
Performance Materials & Others	Glass Fiber	Chopped Strands for Function Plastic Reinforcement Wet Chopped Strands for Building Materials Roving for Plastics Reinforcement Chopped-Strand Mats for Automobiles Alkali-Resistant Glass Fiber for Cement Reinforcement
	Building Materials	Glass Blocks "Neoparies" Glass Ceramics Building Materials "FireLite" Fire Rated Glass "Lamion" Ultra-thin Glass Laminated on Resin "Invisible Glass" Ultra-Low Reflection Glass
	Heat-Resistant	"Neoceram" Super Heat-Resistant Glass Ceramic "StellaShine" Super Heat-Resistant Glass-Ceramics for Cooking Appliance Top Plates
	Medical Applications	Glass Tubing for Pharmaceutical and Medical Use "LX Premium" Radiation-Shielding Glass
	Others	Glass for Lighting Use Glass for Thermos Flasks Glass Making Machinery

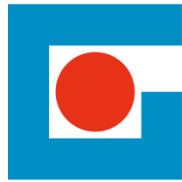
## Corporate information

Name:	Nippon Electric Glass Co., Ltd.
Head Office:	7-1, Seiran 2-chome, Otsu, Shiga 520-8639, Japan
Founded:	Dec 1, 1949
Representative:	Masayuki Arioka, Chairman of the Board Motoharu Matsumoto, President
Capital:	32.1 billion JPY
Employees:	6,482 (Group total as of Dec. 31, 2019)
Business:	Production and sales of special glass products, and manufacture and sales of glass making machinery
Plants:	Otsu, Shiga-Takatsuki, Notogawa, Precision Glass Center
Sales Office:	Osaka and Tokyo
Consolidated Companies:	11 in Japan 15 overseas (Malaysia, Korea, China, Taiwan, Europe, US)

## Note regarding earnings forecasts

- ◆ The forward-looking statements, including earnings forecasts, contained in these materials are based on certain assumptions deemed to be reasonable by the Company at the present moment and include risks and contingencies.
- ◆ Actual business results may differ substantially from the earnings forecasts due to a number of factors.

*GLASS FOR FUTURE*



**Nippon Electric Glass**