

# **FY2018 Financial Results**

(Period April 1, 2018 – March 31, 2019)

**KUREHA CORPORATION**

May 14, 2019

## 1. FY2018 Results

- FY2018 Highlights 3-6
- Segment Performance 7-10
- FY2018 Results vs. Initial Projection 11
- Key Indicators 12
- Financial Position 13
- Cash Flow 14

## 2. Review and Extension of the Mid-Term Management Plan

- KC2018 Review, KC2020 Outline 16-20
- KC2020 Quantitative Targets 21-22
- KC2020 Capital Expenditures, R&D 23
- KC2020 Action Plans 24-25

- Expansion of PGA Business 26-27
- Expansion of PVDF Business 28
- Returning to Shareholders 29

## 3. FY2018 Outlook

- FY2018 Forecast 31-33
- Segment Outlook 34-37
- Key Indicators 38
- Cash Flow Outlook 39

## 4. Consolidated Companies 41-42

# 1. FY2018 Results

(April 1, 2018 – March 31, 2019)

# FY2018 Highlights

KUREHA CORPORATION

(in billions of yen, except where stated otherwise)

	FY2017	FY2018	Change YOY(%)	Mid-term Plan Targets
Revenue	147.3	<b>148.3</b>	0.9 (0.6%)	160
Operating profit	13.0	<b>17.2</b>	4.2 (32.4%)	14
Profit before income tax	12.7	<b>17.4</b>	4.8 (37.5%)	14
Profit attributable to owners of Kureha Corp.	9.7	<b>13.9</b>	4.2 (43.7%)	9
ROE	7.1%	<b>9.0%</b>		6.0%
ROA	5.3%	<b>7.1%</b>		
ROS	8.8%	<b>11.6%</b>		8.8%
EPS	¥507.5	<b>¥679.6</b>		
Per-share dividend	¥125.0	<b>¥165.0</b>		

## FY2018 vs. FY2017

- Revenue growth driven by Advanced Materials more than offsetting a sharp decline in Construction
- Higher operating profit led by Advanced Materials and fewer 'Other Expenses'
- Profit before income tax increased on higher operating profit and improved net financial income
- Profit for the period increased on higher profit before income tax

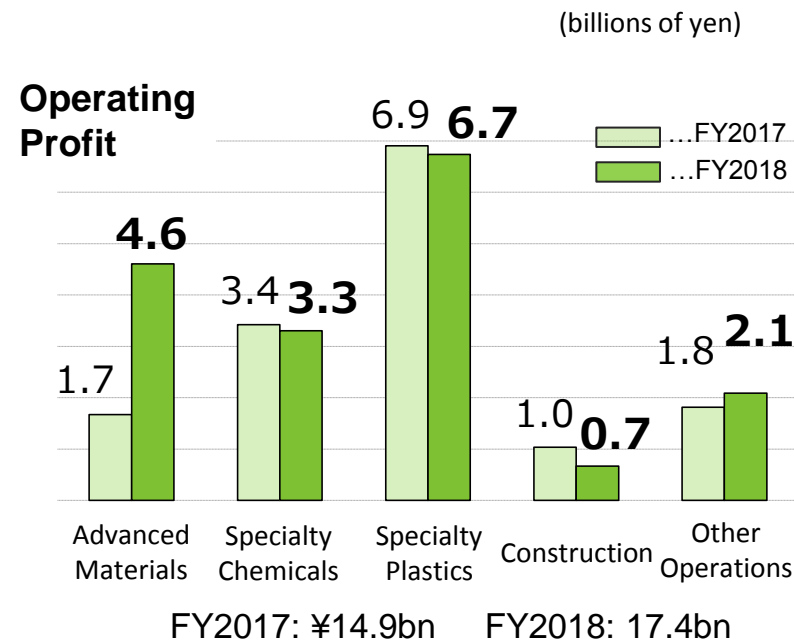
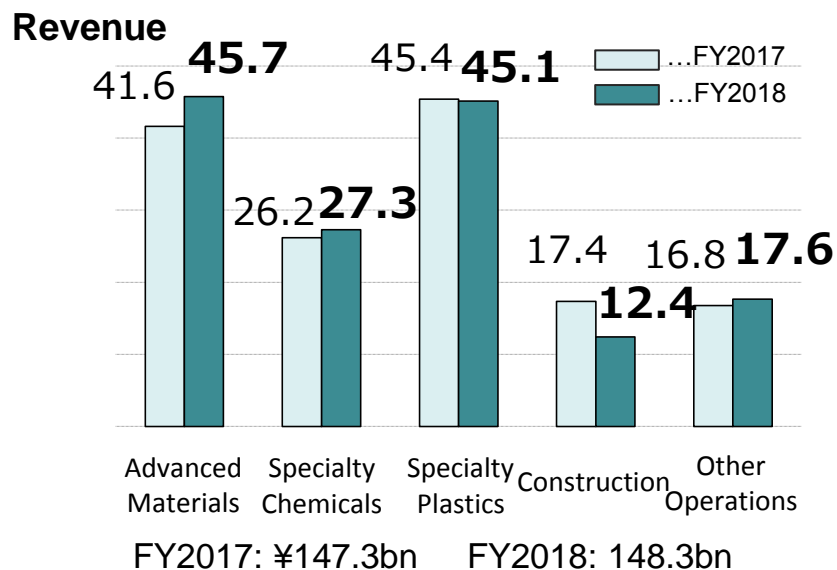
Note: ROE=Profit attributable to owners of Kureha/Shareholder's equity  
 ROA=Profit before tax/Total assets  
 ROS=Operating profit/Revenue  
 EPS=Profit attributable to owners of Kureha/Number of shares (term average)



# FY2018 Highlights

KUREHA CORPORATION

## Segment Performance: FY2018 vs. FY2017



### Factors attributing to operating profit (vs. FY2017)

- AM: Higher earnings in advanced plastics and carbon products
- SC: Lower agrochemicals earnings; higher earnings generated by pharmaceuticals and industrial chemicals
- SP: Lower earnings in home products and packaging materials; higher fiber products earnings
- CO: Lower earnings in private sector construction business
- OO: Higher earnings in logistics and hospital operations, flat growth in environmental engineering

# FY2018 Highlights

KUREHA CORPORATION

(billions of yen)

<b>FY2017</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	41.6	26.2	45.4	17.4	16.8	147.3	-----	147.3
Elimination							0.2	-----
Other income	*Subsidy income: ¥0.3bn						0.5	-----
Other expenses	*Loss on retirement of non-current assets: ¥1.3bn, Loss on non-current asset impairment: ¥0.7bn, Environment-related expenses: ¥0.4bn						2.6	-----
Operating profit	1.7	3.4	6.9	1.0	1.8	14.9	-1.9	13.0
Finance income							0.6	-----
Finance costs							0.9	-----
Profit before income tax								12.7
Profit for the period								9.7

<b>FY2018</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	45.7	27.3	45.1	12.4	17.6	148.3	-----	148.3
Elimination							0.1	-----
Other income	*Subsidy income: ¥0.3bn						0.6	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.8bn						0.9	-----
Operating profit	4.6	3.3	6.7	0.7	2.1	17.4	-0.2	17.2
Finance income							0.7	-----
Finance costs							0.4	-----
Profit before income tax								17.4
Profit for the period								13.9

# FY2018 Highlights

KUREHA CORPORATION

## Other Income and Expenses

### FY2017

**Other income**      **¥0.5 billion**

Subsidy income: ¥0.3bn

\*Includes government's subsidies for post-quake restoration initiatives

Other: ¥0.2bn

**Other expenses**      **¥2.6 billion**

Loss on retirement/sales of noncurrent assets:  
¥1.3bn

Impairment loss: ¥0.7bn

\*Related to former PVDC plant and China carbon fiber facilities

Provision for environmental measures: ¥0.4bn

Other: ¥0.2bn

### FY2018

**Other income**      **¥0.6 billion**

Subsidy income: ¥0.3bn

\*Includes government's subsidies for post-quake restoration initiatives

Other: ¥0.2bn

**Other expenses**      **¥0.9 billion**

Loss on retirement/sales of noncurrent assets:  
¥0.8bn

Other: ¥0.1bn

# Segment Performance: Advanced Materials

(billions of yen)

	FY2017	FY2018	Change %
<b>Advanced Materials</b>			
Advanced plastics	24.4	<b>27.3</b>	12%
Carbon products	4.9	<b>5.1</b>	4%
Revenue: Kureha Co.	29.4	<b>32.5</b>	10%
Revenue: Subsidiaries	29.6	<b>31.3</b>	6%
Elimination	-17.3	<b>-18.1</b>	--
<b>Kureha-G Revenue</b>	<b>41.6</b>	<b>45.7</b>	<b>10%</b>
<b>Kureha-G Operating Profit</b>	<b>1.7</b>	<b>4.6</b>	<b>176%</b>

## FY2018 vs. FY2017

Revenue  Operating Profit 

### Advanced plastics

Revenue up; Ope. profit up:

- Higher PVDF (LiB binder applications) and PGA (oil/gas drilling applications) sales volumes
- Lower profit gains for PPS

### Carbon products

Revenue up; Ope. profit up:

- Higher carbon fiber volume



# Segment Performance: Specialty Chemicals

(billions of yen)

	FY2017	FY2018	Change %
<b>Specialty Chemicals</b>			
Agrochemicals	9.2	8.3	-9%
Pharmaceuticals	3.8	5.1	32%
Industrial chemicals	9.4	10.1	7%
<hr/>			
Revenue: Kureha Co.	22.4	23.5	5%
Revenue: Subsidiaries	6.5	7.1	9%
<hr/>			
Elimination	-2.7	-3.3	--
<hr/>			
<b>Kureha-G Revenue</b>	<b>26.2</b>	<b>27.3</b>	<b>4%</b>
<b>Kureha-G Operating Profit</b>	<b>3.4</b>	<b>3.3</b>	<b>-4%</b>

## FY2018 vs. FY2017

Revenue  Operating Profit 

### Agrochemicals

Revenue down, Ope. profit down:  
- Lower fungicides volumes

### Pharmaceuticals

Revenue up, Ope. profit up:  
- Higher Kremezin volume more than offsetting the negative effect of mandatory price revisions

### Industrial chemicals

Revenue up, Ope. profit up:  
- Higher prices penetrating among customers

# Segment Performance: Specialty Plastics

(billions of yen)

	FY2017	FY2018	Change %
<b>Specialty Plastics</b>			
Home products	20.7	<b>20.8</b>	0%
Packaging materials	6.3	<b>6.2</b>	-1%
<b>Revenue: Kureha Co.</b>	<b>27.0</b>	<b>27.1</b>	<b>0%</b>
Packaging materials	13.1	<b>12.6</b>	-4%
Fiber products	4.2	<b>4.4</b>	5%
Others	7.4	<b>6.7</b>	-9%
<b>Revenue: Subsidiaries</b>	<b>24.8</b>	<b>23.8</b>	<b>-4%</b>
Elimination	-6.4	<b>-5.7</b>	--
<b>Kureha-G Revenue</b>	<b>45.4</b>	<b>45.1</b>	<b>-1%</b>
<b>Kureha-G Operating Profit</b>	<b>6.9</b>	<b>6.7</b>	<b>-2%</b>

## FY2018 vs. FY2017

Revenue ↓ Operating Profit ↓

### Home products

Revenue up, Ope. profit down:

- Volumes growth for NEW Krewrap (plastic wrap) and Seaguar (fishing lines) more than offset by increased costs

### Packaging materials

Revenue down, Ope. profit down:

- Lower heat-shrink multilayer film volume

### Fiber products

Revenue up, Ope. profit up:

- Higher fishing line sales volume

# Segment Performance: Construction & Other Operations

(billions of yen)

	FY2017	FY2018	Change %
<b>Construction</b>			
Construction	23.9	<b>20.3</b>	-15%
Elimination	-6.6	<b>-7.9</b>	--
<b>Kureha-G Revenue</b>	<b>17.4</b>	<b>12.4</b>	<b>-28%</b>
<b>Kureha-G Operating Profit</b>	<b>1.0</b>	<b>0.7</b>	<b>-36%</b>
<b>Other Operations</b>			
Environmental engineering	11.0	<b>12.0</b>	9%
Logistics	8.3	<b>8.3</b>	0%
Hospital operations	3.6	<b>3.7</b>	3%
Others	1.8	<b>1.9</b>	5%
<b>Revenue: Subsidiaries</b>	<b>24.7</b>	<b>25.9</b>	<b>5%</b>
Elimination	-7.9	<b>-8.3</b>	--
<b>Kureha-G Revenue</b>	<b>16.8</b>	<b>17.6</b>	<b>5%</b>
<b>Kureha-G Operating Profit</b>	<b>1.8</b>	<b>2.1</b>	<b>15%</b>

## FY2018 vs. FY2017

Revenue ↓ Operating Profit ↓

### Construction

- Fewer construction projects in private sector more than offsetting steady volume growth in public engineering business

Revenue ↑ Operating Profit ↑

### Environmental Engineering

Revenue up, Ope. profit up:  
- Volume growth in industrial waste treatment business

### Logistics

Revenue down, Ope. profit up:

### Hospital Operations

Revenue up, Ope. profit up:

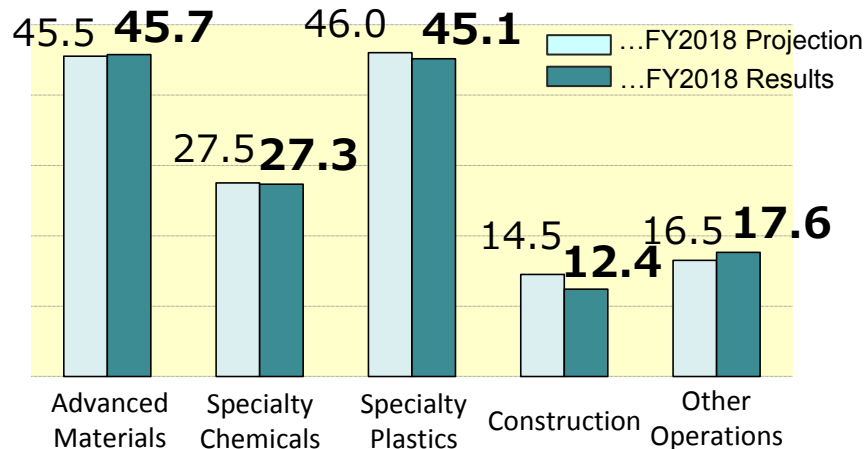
# FY2018 Results vs. Projection

KUREHA CORPORATION

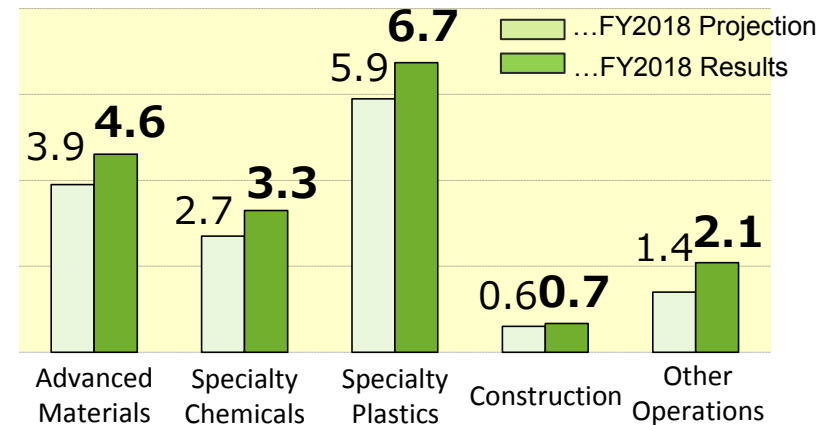
(billions of yen)

## FY2018 Results vs. Projection (May 2018)

**Revenue** Projection: ¥150bn Results: ¥148.3bn



**Operating profit** Projection: ¥14bn Results: ¥17.2bn



\*Exchange rates: Initial assumption → Actual

1USD = ¥105 → ¥110.9

1EUR = ¥130 → ¥128.4

1CHY = ¥16.5 → ¥16.5

Segment total Projection: ¥14.5bn, Results: ¥17.4bn  
Other income/expenses Projection: ▲¥0.5bn, Results: ▲¥0.2bn

### Factors attributing to operating profit (vs. Projection)

- AM: Higher earnings generated by PVDF and carbon products, lower earnings by PGA and PPS
- SC: Favorable currency effect for agrochemicals, higher earnings in industrial chemicals
- SP: Lower cost related to home products, higher earnings in fiber products
- CO: (Performed as planned)
- OO: Sales volume growth in industrial waste treatment business

# Key Indicators

KUREHA CORPORATION

(billions of yen)

	FY2017			FY2018			Change YOY
	1H	2H	Full year	1H	2H	Full year	
Capital expenditure	4.0	5.8	<b>9.8</b>	5.8	7.4	<b>13.2</b>	35%
Depreciation	4.9	5.0	<b>9.9</b>	5.0	5.3	<b>10.3</b>	4%
R&D expenses	2.3	2.7	<b>5.0</b>	2.5	2.8	<b>5.3</b>	6%
Interest-bearing debt	56.0	48.1	<b>48.1</b>	45.9	39.0	<b>39.0</b>	-19%

## (Currency exchange rates)

1USD:	Term average	¥111.0	¥110.7	<b>¥110.9</b>	¥110.3	¥111.6	<b>¥110.9</b>
	Term end	¥112.7	¥106.2	<b>¥106.2</b>	¥113.6	¥111.0	<b>¥111.0</b>
1EUR:	Term average	¥126.3	¥133.1	<b>¥129.7</b>	¥129.8	¥127.1	<b>¥128.4</b>
	Term end	¥132.9	¥130.5	<b>¥130.5</b>	¥132.1	¥124.6	<b>¥124.6</b>
1CHY:	Term average	¥16.4	¥17.1	<b>¥16.7</b>	¥16.7	¥16.3	<b>¥16.5</b>
	Term end	¥17.0	¥16.9	<b>¥16.9</b>	¥16.5	¥16.5	<b>¥16.5</b>

# Financial Position

KUREHA CORPORATION

(billions of yen)

## Assets

	Mar. 31 2018	Mar. 31 2019	Change
Cash and cash equivalents	6.5	<b>6.0</b>	-0.5
Trade and other receivables	32.7	<b>30.7</b>	-1.9
Inventories	36.0	<b>38.3</b>	2.3
Other current assets	1.8	<b>3.7</b>	1.9
<b>Total current assets</b>	<b>77.0</b>	<b>78.8</b>	<b>1.8</b>
Property, plant and equipment	114.2	<b>117.6</b>	3.3
Intangible assets	1.3	<b>1.1</b>	-0.2
Investments and other assets	49.7	<b>49.9</b>	0.2
<b>Total non-current assets</b>	<b>165.3</b>	<b>168.6</b>	<b>3.3</b>
<b>Total assets</b>	<b>242.3</b>	<b>247.4</b>	<b>5.1</b>

## Liabilities and Equity

	Mar. 31 2018	Mar. 31 2019	Change
Trade and other payables	21.5	<b>24.0</b>	2.5
Interest-bearing debt	48.1	<b>39.0</b>	-9.1
Provisions	6.6	<b>6.8</b>	0.2
Other liabilities	14.0	<b>15.3</b>	1.3
<b>Total liabilities</b>	<b>90.2</b>	<b>85.2</b>	<b>-5.1</b>
Shareholders' equity	18.2	<b>18.2</b>	—
Capital surplus	15.3	<b>15.0</b>	-0.2
Less: Treasury stock	-0.7	<b>-3.7</b>	-3.0
Retained earnings	108.7	<b>122.4</b>	13.6
Other components of equity	8.7	<b>8.7</b>	-0.1
Non-controlling interests	1.8	<b>1.6</b>	-0.2
<b>Total equity</b>	<b>152.0</b>	<b>162.2</b>	<b>10.1</b>
<b>Total liabilities and equity</b>	<b>242.3</b>	<b>247.4</b>	<b>5.1</b>

# Cash Flow

KUREHA CORPORATION

(billions of yen)

	FY2017	FY2018	Change
Profit before income tax	12.7	17.4	4.8
Depreciation	9.9	10.3	0.4
Other	-2.4	-4.4	-2.0
<b>Cash flow from operating activities</b>	<b>20.2</b>	<b>23.4</b>	<b>3.2</b>
<b>Cash flow from investing activities</b>	<b>-9.7</b>	<b>-8.4</b>	<b>1.3</b>
<b>Cash flow from financing activities</b>	<b>-10.4</b>	<b>-15.5</b>	<b>-5.1</b>
Effect of exchange rate changes on cash and cash equivalents	0.2	-0.0	-0.2
Increase/decrease in cash and cash equivalents	0.3	-0.5	-0.7
Cash and cash equivalents at beginning of period	6.2	6.5	0.3
Cash and cash equivalents at end of period	6.5	6.0	-0.5

## **2. Review and Extension of the Mid-Term Management Plan**



# Kureha's Challenge 2018 Review

KUREHA CORPORATION

## “Kureha's Challenge 2018” (FY2016-2018 Mid-term Management Plan)

~ Product Differentiation & New Business Creation ~

### Strategic Direction

#### Management Goals

##### ◆ Business strategies:

- Enhance competitiveness and earnings capacity of existing businesses
- Expand the PGA business
- Explore new business themes

##### ◆ Promote CSR-based management

##### ◆ Strengthen management foundations

Qualitative target: ¥14 billion in operating profit

*FY2016-2018 is a period to lay the foundation for Kureha's future expansion*

‘As a company built on technology, Kureha will develop differentiated products in the field of specialty chemicals and become a high value-added enterprise that continually contributes to global society’

The KUREHA logo is located at the bottom right of the slide. It consists of the word "KUREHA" in a bold, teal, sans-serif font. Below the text is a stylized teal arrow pointing to the right, which is part of the company's branding.

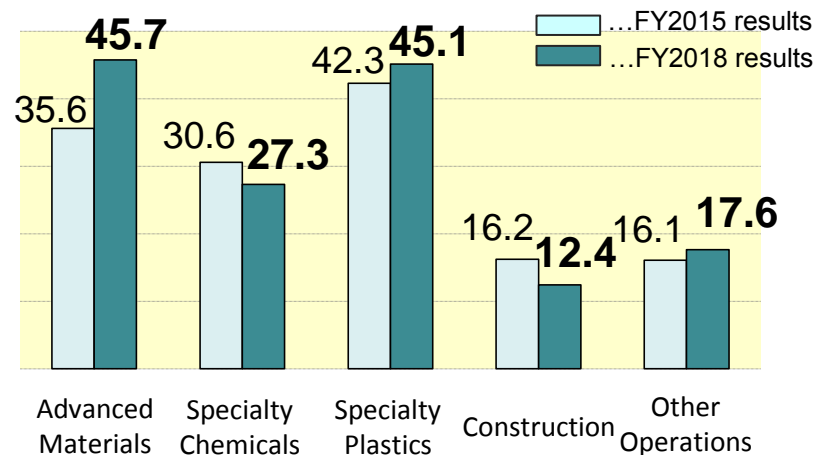
# FY2018 Results vs. FY2015 Results

KUREHA CORPORATION

## FY2018 Results vs. FY2015 Results (Final year of FY2012-2015 Mid-term Management)

### Revenue

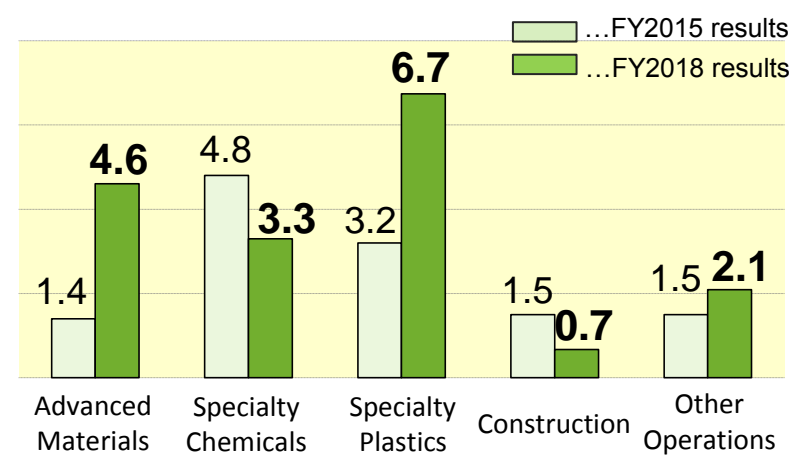
FY2015: ¥140.8bn FY2018: ¥148.3bn



### Operating profit

(billions of yen)

FY2015: ¥7.4bn FY2018: ¥17.2bn



Segment total FY2015: ¥12.4bn, FY2018: ¥17.4

Other income/expenses FY2015: ▲¥5bn, FY2018: ▲¥0.2bn

### Factors attributing to operating profit (vs. FY2015)

AM: Earnings expanded for PVDF, improved operating margin for carbon products, Lower PPS earnings

SC: Higher earnings generated by pharmaceuticals and agrochemicals

SP: Higher earnings in home products and fiber products, improved operating margin for packaging materials

CO: Lower earnings due to a decline in post-quake reconstruction demand

OO: Higher earnings in environmental engineering, improved operating margin in logistics and hospital operation

Other income/expenses: Structural reform cost (¥4.5bn/FY15), Loss on retirement of non-current assets (¥1.1bn)

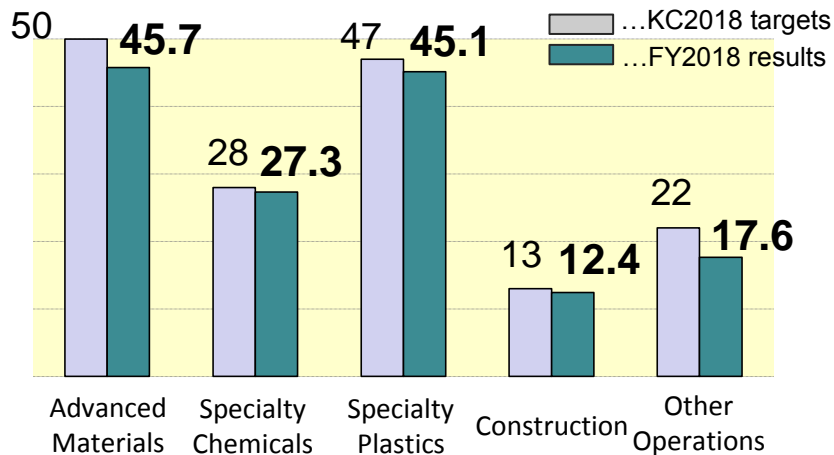
# FY2018 Results vs. KC2018 Targets

KUREHA CORPORATION

## FY2018 Results vs. KC2018 Initial Targets (FY2016-2018 Mid-term Management Plan)

### Revenue

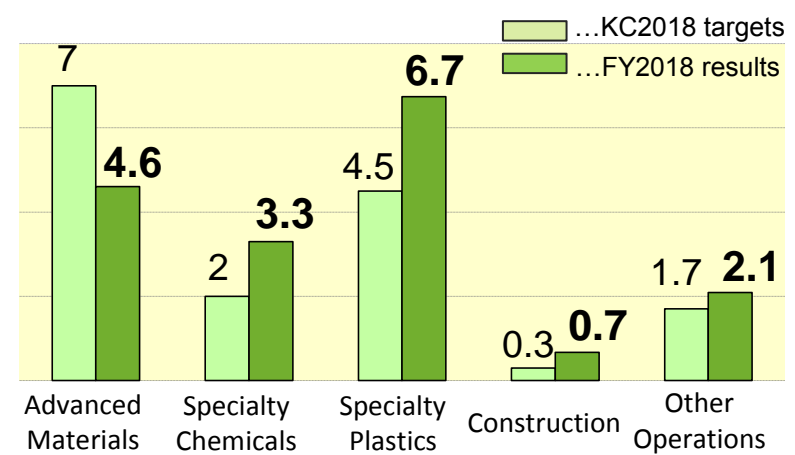
KC2018 Targets: ¥160bn FY2018 Results: ¥148.3bn



### Operating profit

(billions of yen)

KC2018 Targets: ¥14bn FY2018 Results: ¥17.2bn



Segment total KC2018t: ¥15.5bn, FY2018: ¥17.4bn

Other income/expenses KC2018t: ▲¥1.5bn, FY2018: ▲¥0.2bn

### Factors attributing to operating profit (vs. KC2018 targets)

AM: PVDF and carbon products exceeded earnings targets; PPS and PGA below targets

SC: Higher-than-targeted profit achieved in all product groups (agrochemicals, pharmaceuticals, industrial chemicals)

SP: Home products and fiber products exceeded targets; packaging materials below target

CO: Construction exceeded target due to lower cost

OO: Logistics and hospital operation exceeded targets; environmental engineering performed as planned

Other income/expenses: Loss on retirement of non-current assets decreased

# From 'Kureha's Challenge 2018' To 'Kureha's Challenge 2020'

## Kureha's Challenge 2018 (KC2018)

Kureha exceeded its quantitative target (achieved ¥17.2bn in operating profit) but was unable to complete the following strategic measures:

- ✓ PGA business expansion
- ✓ New business development
- ✓ Strengthening of management foundations

FY 2016 – 18

## Kureha's Challenge 2020 (KC2020)

- **Complete the strategic measures remaining from KC2018**
- **Address emerging issues in response to changing business environment**

**..and further solidify the foundation for Kureha's future expansion**

**2 more years**

FY 2019 – 20

# Kureha's Challenge 2020 Overview

KUREHA CORPORATION

## “Kureha's Challenge 2020”

~ Product Differentiation & New Business Generation ~

### Strategic Direction

#### Management Goals

- ◆ Expand the PGA business and generate earnings
- ◆ Strengthen the PVDF business for further expansion
- ◆ Optimize business model for existing businesses
- ◆ Globally explore and develop new businesses
- ◆ Strengthen management foundations

Qualitative target: ¥18 billion in operating profit

*FY2018-2020 is a period to solidify the foundation for Kureha's future expansion*

‘As a company built on technology, Kureha will develop differentiated products in the field of specialty chemicals and become a high value-added enterprise that continually contributes to global society’

**KUREHA**

# KC2020: Qualitative Plan

KUREHA CORPORATION

(in billions of yen, except where stated otherwise)

	FY2018 Results	FY2020 Targets	Change
Revenue (% revenue overseas)	148.3 (30%)	<b>157.0</b> <b>(33%)</b>	8.7
Operating profit (% operating margin)	17.2 (11.6%)	<b>18.0</b> <b>(11.5%)</b>	0.8
Profit attributable to owners of Kureha Corp.	13.9	<b>14.0</b>	0.1

## Currency exchange rates

(presumptions)

1USD:	¥110.9	¥110.0
1EUR:	¥128.4	¥125.0
1CHY:	¥16.5	¥16.5

	FY2018 Results	FY2020 Targets
ROE	9.0%	<b>8.0%</b>
ROA	7.1%	<b>Same level as FY2018</b>

	FY2018 Results	FY2019 -2020 Targets
Capital investment	13.2	<b>38.0</b>
R&D investment	5.3	<b>13.0</b>

# KC2020: Qualitative Plan

KUREHA CORPORATION

(billions of yen)

	FY2018 Results		FY2020 Targets		Change 2020 vs. 2018	
	Revenue	Ope. profit	Revenue	Ope. profit	Revenue	Ope. profit
Advanced Materials	45.7	4.6	<b>55</b>	<b>7.6</b>	9.3	3.0
Specialty Chemicals	27.3	3.3	<b>26</b>	<b>2.1</b>	-1.3	-1.2
Specialty Plastics	45.1	6.7	<b>46</b>	<b>6.2</b>	0.9	-0.5
Construction	12.4	0.7	<b>12.5</b>	<b>0.3</b>	0.1	-0.4
Other operations	17.6	2.1	<b>17.5</b>	<b>1.8</b>	-0.1	-0.3
Adjustment, Other income & expenses		-0.2				0.2
<b>Total</b>	<b>148.3</b>	<b>17.2</b>	<b>157</b>	<b>18</b>	<b>8.7</b>	<b>0.8</b>

FY2020 vs. FY2018  
Operating profit in  
key businesses:

(AD)

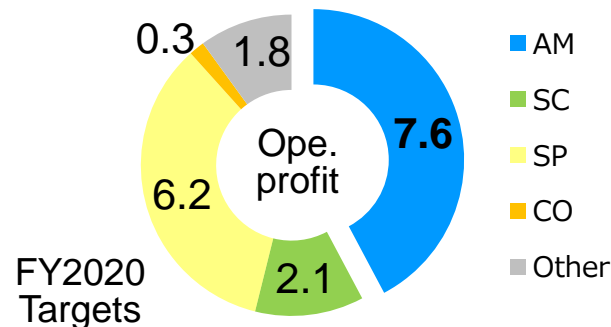
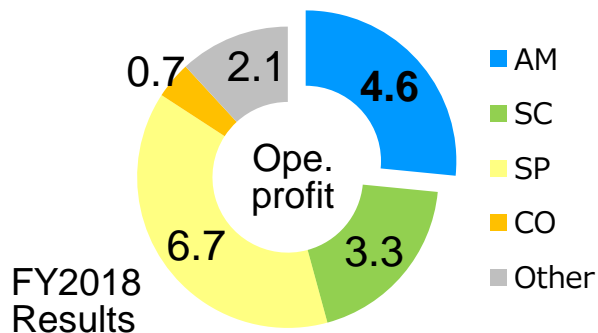
PGA ↑  
PPS ↑  
PVDF ↑  
Carbon ↓

(SC)

Agrochemicals ↓  
Pharmaceuticals ↑  
Ind. Chemicals ↓

(SP)

Home products ↓  
Packaging ↓



# KC2020: Capital Expenditure, R&D

KUREHA CORPORATION

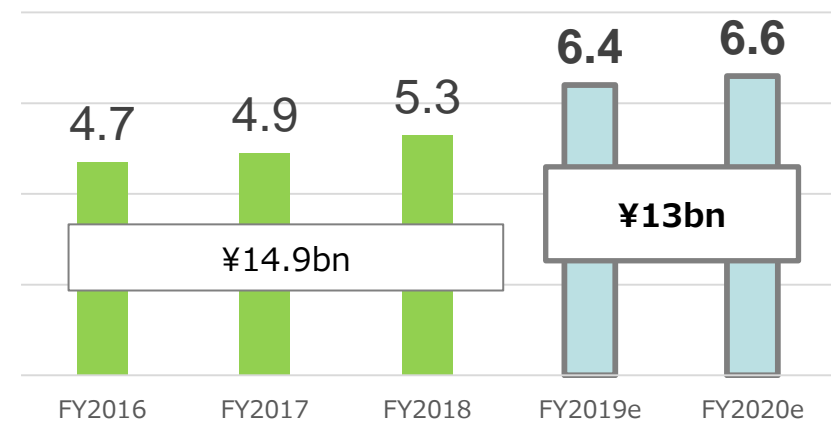
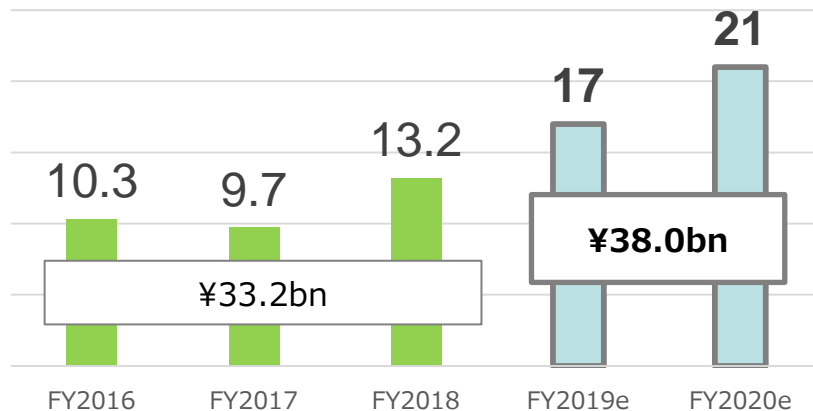
**Kureha actively invests for its future expansion utilizing both operating cash flow and cash gained through effective use of assets**

## FY2019-20 Capital expenditure: ¥38bn

- PPS 5000t capacity increase (FY18-20): ¥5.6bn (of total ¥10bn)
- PVDF capacity increase, 5000t or more (FY20-22): ¥5bn (of total ¥10bn or more)
- New business development/R&D facilities, etc.: ¥2.6bn

## FY2019-20 Research & Development: ¥13bn

- Accelerate the development of new businesses
- Improve process technologies and develop downstream businesses
- Accelerate the development of newazole-type agrochemicals
- Promote collaborative work with other companies and universities





# KC2020: Action Plans

KUREHA CORPORATION

## Developments in FY2016-2018 (KC2018)

## Actions in FY2019-2020 (KC2020)

### Expanding & Generating Profit in PGA Business

Established U.S. Kureha Energy Solutions to boost local sales & marketing functions; Launched low-temp degradable PGA frac plugs

Achieve profitability; accelerate sales expansion for ultra low-temp frac plugs in the US; Initiate business development in China

### Improving Competitiveness & Profitability in Existing Businesses

AM

PVDF: Completed 2000t capacity increase (Jan 2019)

PPS: Determined 5000t capacity increase

Carbon Products: Achieved profitability by undertaking structural reforms

SC

Pharmaceuticals/Agrochemicals: Launched new easy-to-dissolve Kremezin tablets; Maintained steady agrochemicals sales

SP

Home Products: Promoted higher prices for added value among customers

Packaging Materials: Restructured the manufacturing and sales framework in EU

Fiber Products: Expanded the product lineup

CO

Construction: Achieved growth on increased post-quake reconstruction demand

Other

Environmental Engineering: Achieved volume growth in post-quake and low-level PCB wastes treatment

### Enhancing PVDF Business for Further Expansion

Determine additional capacity increase; continue to promote quality differentiation

### Optimizing Business Model for Existing Businesses

Start up a new PPS plant in Feb. 2021

Continue to make profit and promote quality differentiation in the Carbon Product business

Achieve sales expansion for new Kremezin tablets; develop new agrochemicals

Secure steady profit and explore East Asia markets for Home Products

Revise the business strategy for Packaging Materials

Launch new process technologies and develop new PVDF fiber products

Execute measures to strengthen the business foundation

Achieve volume growth for difficult-to-treat industrial waste treatment

# KC2020: Action Plans

KUREHA CORPORATION

## Developments in FY2016-2018 (KC2018)

### Exploring New Business Themes

Identified and developed new business themes derived from market needs while collaborating with external parties

## Actions for FY2019-2020 (KC2020)

### Exploring & Cultivating New Businesses Globally

Explore new business themes in Japan and overseas

Allocate resources to accelerate the development of downstream businesses and technology innovation

Speed up business launch by utilizing external resources

### Promoting the CSR Management

Continued management in line with the corporate governance guidelines

Improved the CSR management system

### Strengthening the Management Foundation

Establish a value chain management system led by business divisions

Improve efficiency of group management and enhance its control system

Strengthen the systems to secure workplace safety, product quality and environmental sustainability

Further enhance operational efficiency and divisional functions through the Reform Project with a two-year cost reduction target at ¥1.5bn

Improve operations by utilizing digital technologies; Promote smart operation models for manufacturing and R&D

develop products to solve social issues including those targeted as the SDGs

Develop human resources required for global business operations and new business development

### Strengthening the Management Foundation

Reinforcing corporate governance: Established Nomination and Remuneration Committees; terminated executive/senior corporate advisers; revised the Director's compensation system

Improving manufacturing process technologies: Established a process laboratory and pilot plant

Reform Project: Achieved the cumulative cost reduction of ¥8.8bn (over FY2013-18 period)

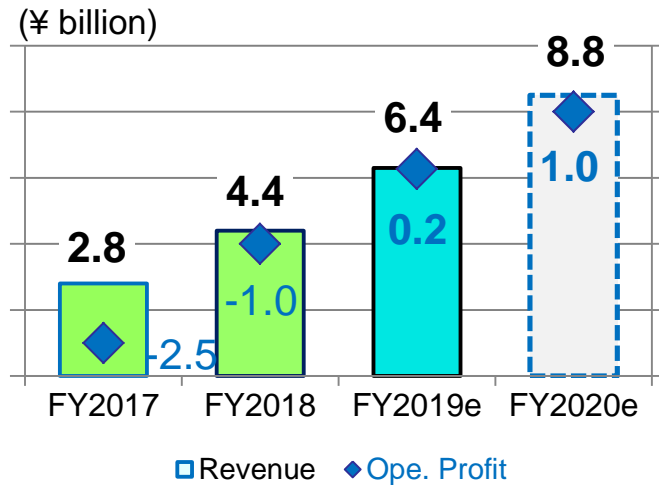
Launched a project to improve productivity of manufacturing and administrative divisions

Improved training and education to cultivate human resources

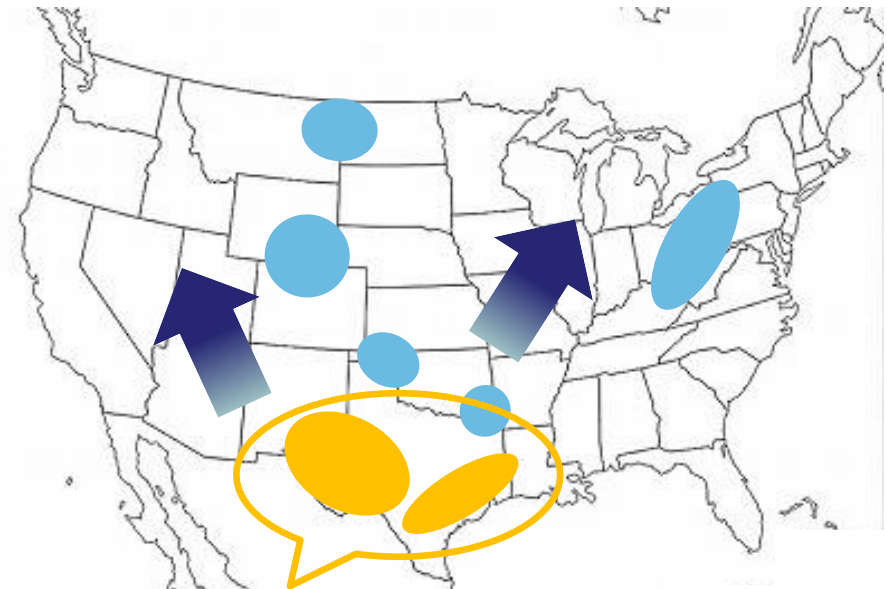
# Expansion of PGA Business (PGA Frac Plugs for Shale Oil & Gas Drilling)

By expanding sales of Kureha original degradable frac plugs (KDPs), we aim to:

- Achieve profitability in FY2019
- Generate ¥1bn operating profit in FY2020



Application of KDPs is expanding from partial (toe part) to full-bore use in a horizontal well.



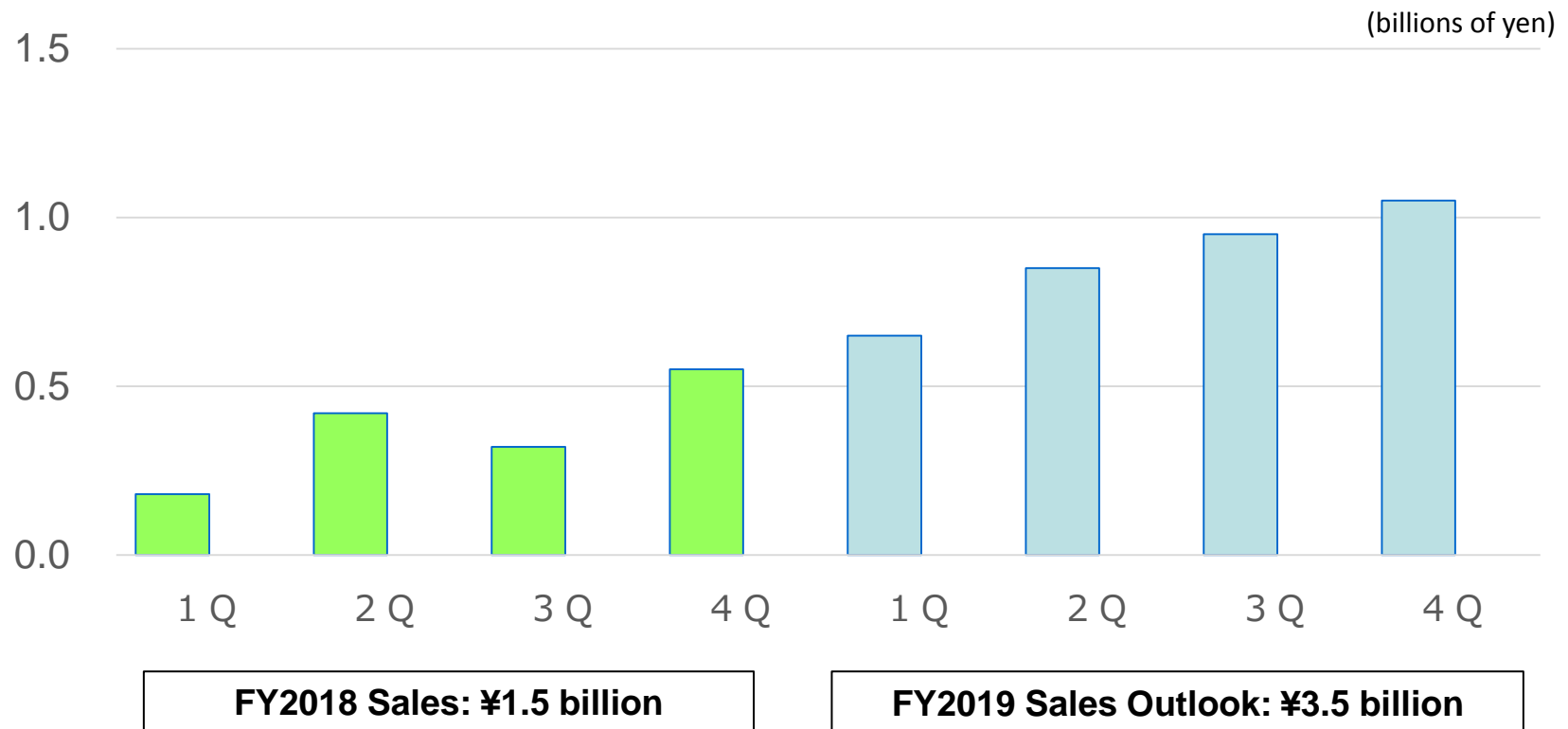
**Present target markets:  
Permian and Eagle Ford regions**

## Kureha Degradable Plugs (KDPs)

- Currently adopted by 17 field operators (5 more since last February), sales also expanding in Bakken, Oklahoma, and Haynesville areas
- Are on full-bore trials with major operators— contract negotiations ongoing
- 1<sup>st</sup> field trial for improved ultra low-temp grade completed with positive results, other location trials under preparation

# Expansion of PGA Business (PGA Frac Plugs for Shale Oil & Gas Drilling)

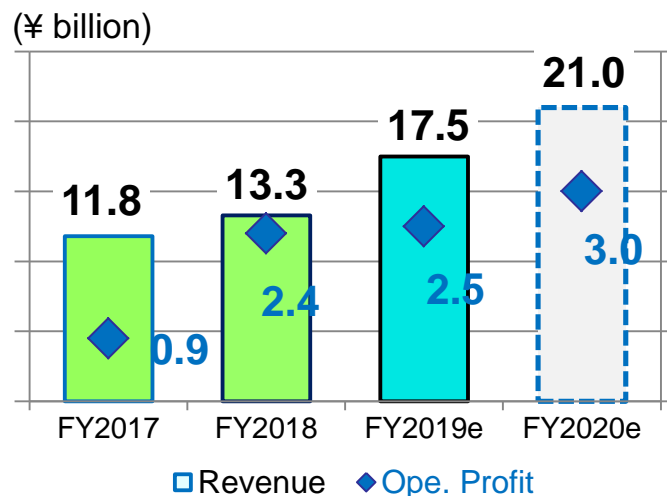
## Kureha Energy Solutions: KDP Quarterly Sales FY2018-2019



# Expansion of PVDF Business

KUREHA CORPORATION

- Demand for lithium-ion battery is growing rapidly due to vehicle electrification
- Kureha is a leading supplier of PVDF binder for LiBs with over 40% market share, selling primarily to large LiB makers in China and South Korea
- Our challenge is to secure suppliability for higher quality LiBs and growing market
- All our PVDF plants, including the latest Iwaki plant launched in January 2019, are running at full capacity, shifting production focus to LiB application
- We are planning on additional capacity increase of 5,000tpa or more with scheduled operational launch in FY2023



Kureha's annual PVDF production is 11,000 tons (6,000t/Japan, 5,000t/China), including 2000 tons manufactured at its latest Iwaki facility shown above.

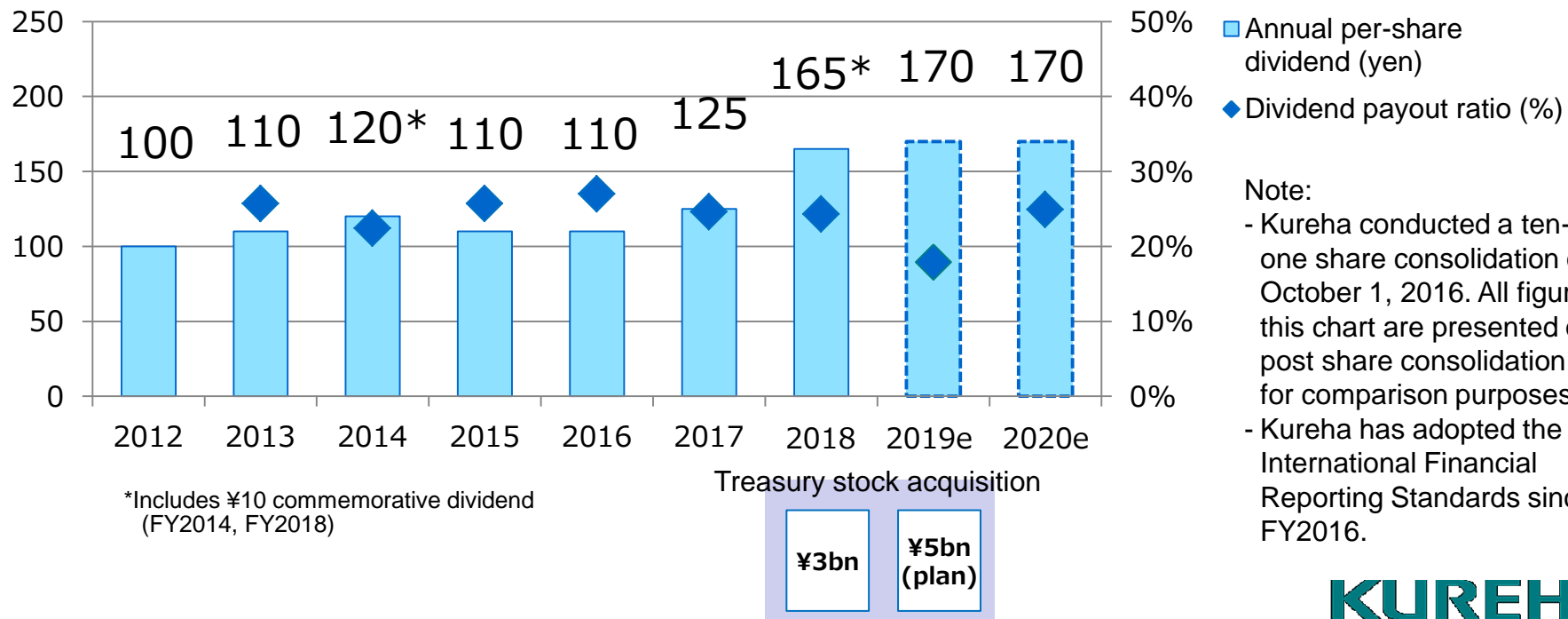
**KUREHA**

# Returning to Shareholders

KUREHA CORPORATION

- Kureha's basic policy for the distribution of earnings is to strengthen the company overall to realize longer-term growth, prepare for future business expansion, enhance retained earnings, and provide a stable and continued dividend.
- Kureha will consider the acquisition of its own shares as an option to flexibly adjust to varying financial conditions.

Recent trend of annual dividend payout and dividend payout ratio



Note:

- Kureha conducted a ten-to-one share consolidation on October 1, 2016. All figures in this chart are presented on a post share consolidation basis for comparison purposes.
- Kureha has adopted the International Financial Reporting Standards since FY2016.

**KUREHA**

# 3. FY2019 Outlook

(April 1, 2019 – March 31, 2020)

# FY2019 Forecast

KUREHA CORPORATION

(billions of yen, except where stated otherwise)

	FY2018	FY2019e 1H   2H	Change YOY (%)
Revenue	148.3	<b>152</b> 75   77	3.7 (2.5%)
Operating profit	17.2	<b>26</b> 8.0   18.0	8.8 (51.4%)
Profit before income tax	17.4	<b>26</b> 8.0   18.0	8.6 (49.1%)
Profit attributable to owners of Kureha Corp.	13.9	<b>19.5</b> 6.1   13.4	5.6 (39.9%)
Profit per share	¥679.6	<b>¥962.2</b>	
Dividend per share	¥165*	<b>¥170</b>	
Number of employees	4,299	<b>4,360</b>	

## FY2019e vs. FY2018

- Revenue growth driven by Advanced Materials
- Operating profit to increase on earnings growth in Advanced Materials, including profitability achieved for PGA, and increased other income related to asset sale, more than offsetting profit declines and higher costs in other segments
- Profit before income tax to improve on higher operating profit
- Profit for the period to improve on higher profit before income tax

\*Includes ¥10 commemorative dividend

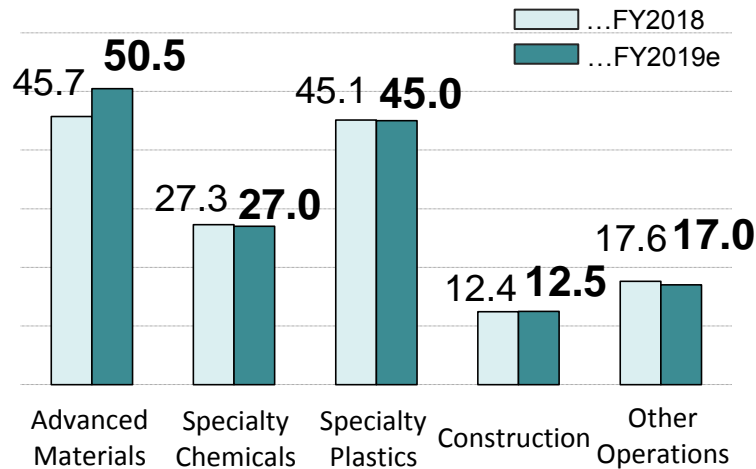


# FY2019 Forecast

KUREHA CORPORATION

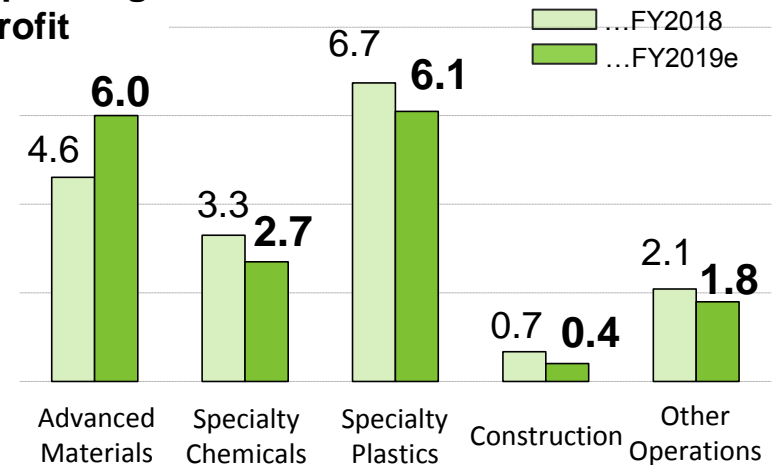
## Segment Performance: FY2019e vs. FY2018

### Revenue



FY2018: ¥148.3bn FY2019e: ¥152bn

### Operating Profit



FY2018: ¥17.4bn FY2019e: ¥17bn

### Factors attributing to operating profit (vs. FY2018)

AM: Higher PGA sales volume leading to profit generation, higher earnings generated by PPS and PVDF; lower carbon fiber earnings

SC: Earnings to decrease in agrochemicals and industrial chemicals; higher pharmaceuticals earnings

SP: Higher cost related to home products, intensified competition for packaging materials

CO: Higher labor and raw materials costs

OO: Intensified competition in the industrial waste treatment business

# FY2019 Forecast

KUREHA CORPORATION

(billions of yen)

<b>FY2018</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	45.7	27.3	45.1	12.4	17.6	148.3	-----	148.3
Elimination							0.1	-----
Other income	*Subsidy income: ¥0.3bn						0.6	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.8bn						0.9	-----
Operating profit	4.6	3.3	6.7	0.7	2.1	17.4	-0.2	17.2
Finance income							0.7	-----
Finance costs							0.4	-----
Profit before income tax								17.4
Profit for the period								13.9

<b>FY2019e</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	50.5	27.0	45.0	12.5	17.0	152.0	-----	152.0
Elimination							0	-----
Other income	*Gain on sale of non-current assets: ¥9.2bn						10.0	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.7bn						1.0	-----
Operating profit	6.0	2.7	6.1	0.4	1.8	17.0	9.0	26.0
Finance income							0.7	-----
Finance costs							0.7	-----
Profit before income tax								26.0
Profit for the period								19.5

# Segment Outlook: Advanced Materials

(billions of yen)

	FY2018	FY2019e	Change %
<b>Advanced Materials</b>			
Advanced plastics	27.3	<b>29.8</b>	9%
Carbon products	5.1	<b>4.7</b>	-8%
Revenue: Kureha Co.	32.5	<b>34.5</b>	6%
Revenue: Subsidiaries	31.3	<b>35.5</b>	13%
Elimination	-18.1	<b>-19.5</b>	--
<b>Kureha-G Revenue</b>	<b>45.7</b>	<b>50.5</b>	<b>10%</b>
(1H)	(22.6)	(24.0)	(6%)
<b>Kureha-G Operating Profit</b>	<b>4.6</b>	<b>6.0</b>	<b>30%</b>
(1H)	(0.7)	(2.0)	(200%)

## FY2019e vs. FY2018

Revenue  Operating Profit 

### Advanced plastics

Revenue up, Ope. profit up:

- PGA volume growth leading to profit generation
- Higher PVDF volume to more than offset higher cost
- Improved earnings for PPS, including equity gains

### Carbon products

Revenue up, Ope. profit down:

- Carbon fiber full-capacity production propelled by continued strong demand
- Other carbon materials volumes likely to decline

# Segment Outlook: Specialty Chemicals

(billions of yen)

	FY2018	FY2019e	Change %
<b>Specialty Chemicals</b>			
Agrochemicals	8.3	6.7	-20%
Pharmaceuticals	5.1	5.3	5%
Industrial chemicals	10.1	9.8	-3%
Revenue: Kureha Co.	23.5	21.8	-7%
Revenue: Subsidiaries	7.1	7.5	6%
Elimination	-3.3	-2.3	--
<b>Kureha-G Revenue</b> (1H)	<b>27.3</b> (14.1)	<b>27.0</b> (14.0)	<b>-1%</b> (-0%)
<b>Kureha-G Operating Profit</b> (1H)	<b>3.3</b> (2.1)	<b>2.7</b> (1.7)	<b>-18%</b> (-18%)

## FY2019e vs. FY2018

Revenue ↓ Operating Profit ↓

### Agrochemicals

Revenue down, Ope. profit down:  
- Lower sales volumes due to inventory adjustment

### Pharmaceuticals

Revenue up, Ope profit up:  
- Volume growth for new Kremezin tablets

### Industrial chemicals

Revenue down, Ope profit down:  
- Sales volumes for certain products expected to decline  
- Continued efforts to improve operating margin

# Segment Outlook: Specialty Plastics

(billions of yen)

	FY2018	FY2019e	Change %
<b>Specialty Plastics</b>			
Home products	20.8	<b>21.4</b>	3%
Packaging materials	6.2	<b>4.8</b>	-23%
<b>Revenue: Kureha Co.</b>	<b>27.1</b>	<b>26.2</b>	<b>-3%</b>
Packaging materials	12.6	<b>13.6</b>	8%
Fiber products	4.4	<b>4.4</b>	-1%
Others	6.7	<b>6.8</b>	1%
<b>Revenue: Subsidiaries</b>	<b>23.8</b>	<b>24.8</b>	<b>4%</b>
Elimination	-5.7	<b>-6.0</b>	--
<b>Kureha-G Revenue</b>	<b>45.1</b>	<b>45.0</b>	<b>0%</b>
(1H)	(22.8)	(23.5)	(3%)
<b>Kureha-G Operating Profit</b>	<b>6.7</b>	<b>6.1</b>	<b>-9%</b>
(1H)	(3.4)	(3.5)	(2%)

## FY2018e vs. FY2017

Revenue ↓ Operating Profit ↓

### Home products

Revenue up, Ope. profit down:

- Volumes growth for New Krewrap and Kichinto-san series products more than offset by increased cost related to sales promotion, etc.

### Packaging materials

Revenue flat, Ope. profit down:

- Intensified competition in global multi-layer shrink film market, despite continued sales expansion efforts.
- Note: The sales rights for certain packaging materials are transferred from Kureha to its subsidiary in FY2019.

# Segment Outlook: Construction & Other Operations

(billions of yen)

	FY2018	FY2019e	Change %
<b>Construction</b>			
Construction	20.3	<b>19.5</b>	-4%
Elimination	-7.9	<b>-7.0</b>	--
<b>Kureha-G Revenue</b> (1H)	<b>12.4</b> (5.0)	<b>12.5</b> (5.5)	<b>1%</b> (10%)
<b>Kureha-G Operating Profit</b> (1H)	<b>0.7</b> (0.1)	<b>0.4</b> (0.2)	<b>-40%</b> (59%)
<b>Other Operations</b>			
Environmental engineering	12.0	<b>11.4</b>	-5%
Logistics	8.3	<b>8.5</b>	2%
Hospital operations	3.7	<b>3.9</b>	5%
Others	1.9	<b>2.2</b>	17%
<b>Revenue: Subsidiaries</b>	<b>25.9</b>	<b>26.0</b>	<b>0%</b>
Elimination	-8.3	<b>-9.0</b>	--
<b>Kureha-G Revenue</b> (1H)	<b>17.6</b> (8.1)	<b>17.0</b> (8.0)	<b>-4%</b> (-1%)
<b>Kureha-G Operating Profit</b> (1H)	<b>2.1</b> (0.8)	<b>1.8</b> (0.8)	<b>-14%</b> (4%)

## FY2019e vs. FY2018

Revenue → Operating Profit ↘

### Construction

Operating profit expected to fall on flat revenue growth due to higher labor and raw materials costs

Revenue ↘ Operating Profit ↘

### Other Operations

Revenue and operating profit in Environmental Engineering expected to decline due to intensified competition in the industrial waste treatment business

# Key Indicators

KUREHA CORPORATION

(billions of yen)

	FY2018	FY2019e	Change YOY(%)
Capital expenditure	13.2	17.0	3.8 (29%)
Depreciation	10.3	11.5	1.2 (12%)
R&D expenses	5.3	6.4	1.1 (21%)
Interest-bearing debt	39.0	39.5	0.5 (1%)

(Currency exchange rates)

1USD:	Term average	¥110.9	¥110.0
	Term end	¥111.0	¥110.0
1EUR:	Term average	¥128.4	¥125.0
	Term end	¥124.6	¥125.0
1CHY:	Term average	¥16.5	¥16.5
	Term end	¥16.5	¥16.5

# Cash Flow

KUREHA CORPORATION

(billions of yen)

	FY2018	FY2019e	Change YOY
Profit before income tax	17.4	26.0	8.6
Depreciation	10.3	11.6	1.3
Other	-4.4	-19.7	-15.3
<b>Cash flow from operating activities</b>	<b>23.4</b>	<b>17.9</b>	<b>-5.5</b>
<b>Cash flow from investing activities</b>	<b>-8.4</b>	<b>-5.3</b>	<b>3.0</b>
<b>Cash flow from financing activities</b>	<b>-15.5</b>	<b>-13.2</b>	<b>2.3</b>
Effect of exchange rate changes on cash and cash equivalents	-0.0	0.0	0.0
Increase/decrease in cash and cash equivalents	-0.5	-0.6	-0.1
Cash and cash equivalents at beginning of year	6.5	6.0	-0.5
Cash and cash equivalents at end of year	6.0	5.4	-0.6



## 4. Consolidated Companies

# Revenues & Assets

KUREHA CORPORATION

(billions of yen)

		FY2017		FY2018		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Kureha Corporation		78.9	192.7	<b>83.0</b>	<b>198.2</b>	4.2	5.5
Kureha Trading Group (2)		22.5	14.1	<b>22.7</b>	<b>13.2</b>	0.2	-1.0
Advanced Materials	Kureha Corporation	29.4	--	<b>32.5</b>	--	3.1	--
	Kureha Trading Group (2)	10.7	--	<b>10.6</b>	--	0.0	--
	Kureha Extron	2.2	2.1	<b>2.5</b>	<b>2.3</b>	0.3	0.2
	Kureha Extech	1.9	1.4	<b>2.0</b>	<b>1.4</b>	0.1	0.1
	Kureha Europe Group (4)	2.2	0.8	<b>2.0</b>	<b>1.1</b>	-0.1	0.3
	Kureha America Group (4)	6.2	25.3	<b>6.5</b>	<b>26.8</b>	0.3	1.6
	Kureha (Shanghai) Carbon Fiber Materials	1.1	1.5	<b>1.3</b>	<b>1.4</b>	0.2	-0.1
	Kureha China Group (2)	5.4	10.6	<b>6.4</b>	<b>10.0</b>	1.0	-0.6
	Consolidation adjustments	-17.3	--	<b>-18.1</b>	--	--	--
	<b>Total</b>	<b>41.6</b>	<b>--</b>	<b>45.7</b>	<b>--</b>	<b>4.1</b>	<b>--</b>
Specialty Chemicals	Kureha Corporation	22.4	--	<b>23.5</b>	--	1.1	--
	Kureha Trading	6.5	--	<b>7.1</b>	--	0.6	--
	Consolidation adjustments	-2.7	--	<b>-3.3</b>	--	--	--
	<b>Total</b>	<b>26.2</b>	<b>--</b>	<b>27.3</b>	<b>--</b>	<b>1.1</b>	<b>--</b>
Specialty Plastics	Kureha Corporation	27.0	--	<b>27.1</b>	--	0.0	--
	Kureha Trading	5.2	--	<b>4.9</b>	--	-0.3	--
	Kureha Gohsen	4.2	4.9	<b>4.4</b>	<b>5.1</b>	0.2	0.2
	Kureha China Group (2)	0.2	--	<b>0.1</b>	--	-0.1	--
	Kureha America Group (4)	2.0	0.9	<b>1.7</b>	<b>0.8</b>	-0.3	-0.1
	Kureha Europe Group (4)	9.7	7.9	<b>9.4</b>	<b>7.3</b>	-0.4	-0.6
	Kureha Vietnam	3.4	3.4	<b>3.2</b>	<b>3.1</b>	-0.2	-0.4
	Consolidation adjustments	-6.4	--	<b>-5.7</b>	--	--	--
<b>Total</b>	<b>45.4</b>	<b>--</b>	<b>45.1</b>	<b>--</b>	<b>-0.2</b>	<b>--</b>	

# Revenues & Assets

KUREHA CORPORATION

(billions of yen)

		FY2017		FY2018		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Construction	Kureha Nishiki Group (4)	21.9	11.3	<b>17.9</b>	<b>12.0</b>	-4.0	0.7
	Kureha Engineering	2.0	2.1	<b>2.4</b>	<b>1.8</b>	0.4	-0.3
	Consolidation adjustments	-6.6	--	<b>-7.9</b>	--	--	--
	<b>Total</b>	<b>17.4</b>	<b>--</b>	<b>12.4</b>	<b>--</b>	<b>-4.9</b>	<b>--</b>
Other Operations	Kureha Ecology Management	9.7	9.2	<b>10.6</b>	<b>10.6</b>	0.9	1.4
	Kureha Special Laboratory	1.3	0.7	<b>1.3</b>	<b>0.7</b>	0.0	0.0
	Kureha Unyu Group (2)	8.3	6.1	<b>8.3</b>	<b>6.5</b>	0.0	0.4
	Kureha Trading	0.1	--	<b>0.1</b>	--	0.0	--
	Kureha Service	0.5	1.2	<b>0.6</b>	<b>1.4</b>	0.0	0.1
	Kureha-Kai Medical Corp.	3.6	3.4	<b>3.7</b>	<b>3.3</b>	0.1	-0.2
	Kureha Staff Service	1.2	0.6	<b>1.3</b>	<b>0.6</b>	0.1	0.0
	Consolidation adjustments	-7.9	--	<b>-8.3</b>	--	--	--
<b>Total</b>	<b>16.8</b>	<b>--</b>	<b>17.6</b>	<b>--</b>	<b>0.9</b>	<b>--</b>	
<b>Kureha Group Total</b>		<b>147.3</b>	<b>242.3</b>	<b>148.3</b>	<b>247.4</b>	<b>0.9</b>	<b>5.0</b>
<i>Number of consolidated subsidiaries</i>		29		<b>29</b>			
<i>Number of equity- method affiliates</i>		3		<b>3</b>			

\*Parenthesized numbers indicate the number of consolidated companies for each group.

# Disclaimer

KUREHA CORPORATION

- These materials are supplied to provide a deeper understanding of our company, and are not intended to as a solicitation for investment or other actions.
- These materials have been prepared by our company based on the information available at this point in time. However, actual performance may produce results that differ from the plan due to unforeseeable events and factors.
- Please utilize these materials using you own judgment and responsibility.