

# FY2018 3Q Results

February 7, 2019

# FY2018 3Q Overview

KUREHA CORPORATION

(in billions of yen, except where stated otherwise)

	FY2017 3Q	FY2018 3Q	Change (%)
Revenue	110.2	<b>110.8</b>	0.6 (0.5%)
Operating profit	12.5	<b>13.9</b>	1.4 (11.2%)
Profit before income tax	12.6	<b>14.2</b>	1.6 (13.0%)
Profit attributable to owners of Kureha Corp.	9.5	<b>11.1</b>	1.6 (16.7%)

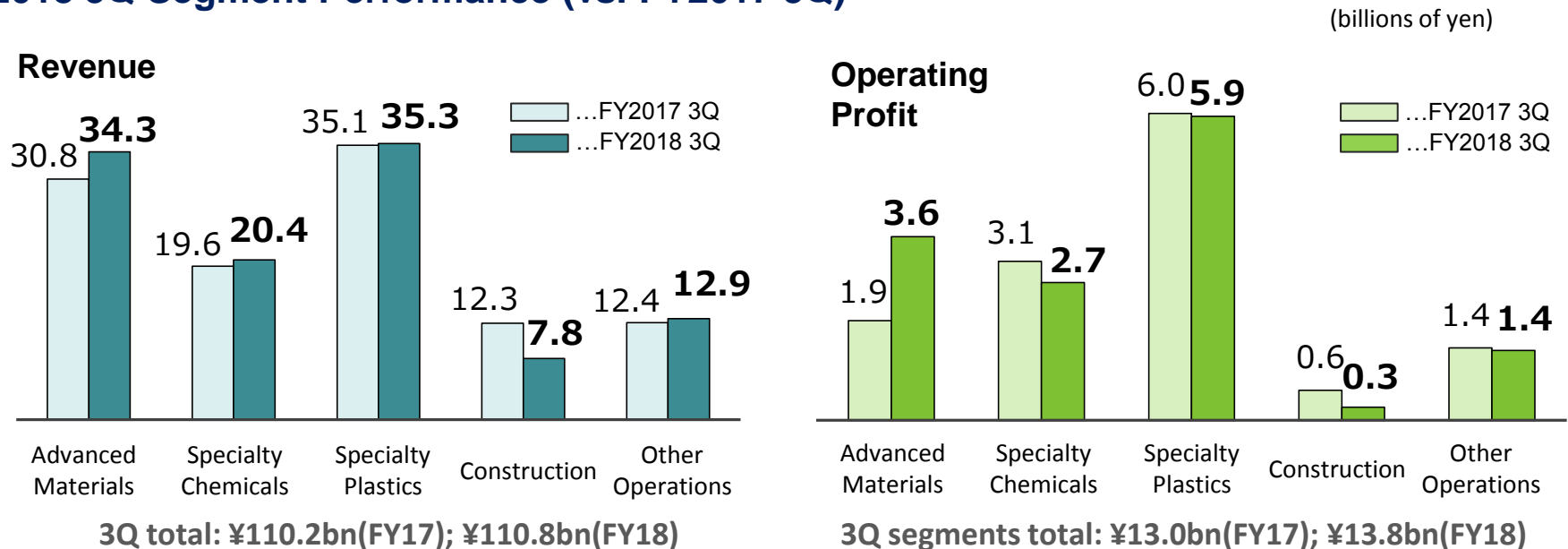
## FY2018 3Q vs. FY2017 3Q

- Revenue growth driven primarily by Advanced Materials, partially offset by a volume decrease in Construction
- Higher operating profit supported by Advanced Materials more than offsetting declines in other segments
- Profit before income tax increased due to higher operating profit and lower financial expenses
- Profit for the period increased due to higher profit before income tax

# FY2018 3Q Overview

KUREHA CORPORATION

## FY2018 3Q Segment Performance (vs. FY2017 3Q)



### Factors attributing to operating profit (vs. FY2017 3Q)

- Advanced Materials: Increased profit gains for advanced plastics and carbon products
- Specialty Chemicals: Lower gains for pharmaceuticals and agrochemicals
- Specialty Plastics: Higher costs for home products partially offset by increased gains for packaging materials
- Construction: Fewer construction projects in private sector
- Other Operations: Lower service unit price in environmental business partially offset by improved hospital operation

# FY2018 3Q Overview

KUREHA CORPORATION

(billions of yen)

<b>FY2017 3Q</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	30.8	19.6	35.1	12.3	12.4	110.2	-----	110.2
Elimination							0.2	-----
Other income							0.2	-----
Other expenses	*Environment-related expenses: ¥0.4bn, Loss on retirement of non-current assets: ¥0.2bn, Impairment loss for non-current assets: ¥0.2bn						0.9	-----
Operating profit	1.9	3.1	6.0	0.6	1.4	13.0	-0.5	12.5
Finance income							0.6	-----
Finance costs							0.5	-----
Profit before income tax								12.6
Profit for the period								9.5

<b>FY2018 3Q</b>	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	34.3	20.4	35.3	7.8	12.9	110.8	-----	110.8
Elimination							0.1	-----
Other income							0.3	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.2bn						0.3	-----
Operating profit	3.6	2.7	5.9	0.3	1.4	13.8	0.1	13.9
Finance income							0.6	-----
Finance costs							0.3	-----
Profit before income tax								14.2
Profit for the period								11.1

# Segment Performance: Advanced Materials

(billions of yen)

	FY2017 3Q	FY2018 3Q	Change %
<b>Advanced Materials</b>			
Advanced plastics	17.9	<b>20.1</b>	12%
Carbon products	3.7	<b>4.0</b>	6%
Revenue: Kureha Co.	21.6	<b>24.0</b>	11%
Revenue: Subsidiaries	21.4	<b>23.8</b>	11%
Elimination	-12.2	<b>-13.6</b>	--
<b>Kureha-G Revenue</b>	<b>30.8</b>	<b>34.3</b>	<b>11%</b>
<b>Kureha-G Operating Profit</b>	<b>1.9</b>	<b>3.6</b>	<b>84%</b>

## FY2018 3Q vs. FY2017 3Q

Revenue  Operating Profit 

### Advanced plastics:

Operating profit increased due to higher sales volumes of PVDF (LiB binder application) and PGA (oil/gas field application) compensating for weak PPS performance

### Carbon products

Operating profit improved on higher carbon fiber volume

# Segment Performance: Specialty Chemicals

(billions of yen)

	FY2017 3Q	FY2018 3Q	Change %
<b>Specialty Chemicals</b>			
Agrochemicals	6.6	6.4	-3%
Pharmaceuticals	3.4	3.6	6%
Industrial chemicals	7.0	7.6	9%
<hr/>			
Revenue: Kureha Co.	17.0	17.6	4%
Revenue: Subsidiaries	4.7	5.3	12%
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Elimination	-2.0	-2.4	--
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<b>Kureha-G Revenue</b>	<b>19.6</b>	<b>20.4</b>	<b>4%</b>
<b>Kureha-G Operating Profit</b>	<b>3.1</b>	<b>2.7</b>	<b>-13%</b>

## FY2018 3Q vs. FY2017 3Q

Revenue  Operating Profit 

### Agrochemicals

Operating profit declined due to lower fungicides volumes

### Pharmaceuticals

Operating profit decreased due largely to the impact of NHI drug price revisions, despite higher sales volume of Kremezin (therapeutic agent for chronic kidney disease)

### Industrial chemicals

Operating profit remained flat despite revenue growth as higher prices offset higher costs

# Segment Performance: Specialty Plastics

(billions of yen)

	FY2017 3Q	FY2018 3Q	Change %
<b>Specialty Plastics</b>			
Home products	16.7	<b>16.9</b>	1%
Packaging materials	4.9	<b>4.7</b>	-4%
<b>Revenue: Kureha Co.</b>	<b>21.6</b>	<b>21.7</b>	<b>0%</b>
Packaging materials	9.6	<b>9.7</b>	1%
Fiber products	3.2	<b>3.4</b>	5%
Others	5.5	<b>5.0</b>	-10%
<b>Revenue: Subsidiaries</b>	<b>18.3</b>	<b>18.1</b>	<b>-1%</b>
Elimination	-4.8	<b>-4.4</b>	--
<b>Kureha-G Revenue</b>	<b>35.1</b>	<b>35.3</b>	<b>1%</b>
<b>Kureha-G Operating Profit</b>	<b>6.0</b>	<b>5.9</b>	<b>-1%</b>

## FY2018 3Q vs. FY2017 3Q

Revenue  Operating Profit 

### Home products

Operating profit decreased on higher costs, despite volumes growth for NEW Krewrap (plastic wrap) and Seaguar (fishing lines)

### Packaging materials

Operating profit increased due to improved unit manufacturing cost in Europe, despite a decline in ML shrink film volume

# Segment Performance: Construction & Other Operations

(billions of yen)

	FY2017 3Q	FY2018 3Q	Change %
<b>Construction</b>			
Construction	17.2	<b>13.0</b>	-24%
Elimination	-4.9	<b>-5.2</b>	--
<b>Kureha-G Revenue</b>	<b>12.3</b>	<b>7.8</b>	<b>-36%</b>
<b>Kureha-G Operating Profit</b>	<b>0.6</b>	<b>0.3</b>	<b>-56%</b>
<b>Other Operations</b>			
Environmental engineering	8.0	<b>8.6</b>	8%
Logistics	6.3	<b>6.2</b>	-1%
Hospital operations	2.7	<b>2.8</b>	3%
Others	1.4	<b>1.4</b>	5%
<b>Revenue: Subsidiaries</b>	<b>18.3</b>	<b>19.0</b>	<b>4%</b>
Elimination	-5.9	<b>-6.1</b>	--
<b>Kureha-G Revenue</b>	<b>12.4</b>	<b>12.9</b>	<b>4%</b>
<b>Kureha-G Operating Profit</b>	<b>1.4</b>	<b>1.4</b>	<b>-3%</b>

## FY2018 3Q vs. FY2017 3Q

Revenue ↓ Operating Profit ↓

### Construction

Operating profit declined due to fewer construction projects in private sector more than offsetting a volume increase in public sector

Revenue ↑ Operating Profit ↓

### Environmental Engineering

Operating profit decreased due to lower unit service price for industrial waste treatment despite volume growth

### Logistics

Operating profit remained flat on lower revenue

### Hospital Operations

Operating profit increase on higher revenue



# Financial Position

KUREHA CORPORATION

## Assets

	Mar.31 2018	Dec.31 2018	Change
Cash and cash equivalents	6.5	<b>7.8</b>	1.3
Trade and other receivables	32.7	<b>30.6</b>	-2.0
Inventories	36.0	<b>36.4</b>	0.3
Other current assets	1.8	<b>5.1</b>	3.3
<b>Total current assets</b>	<b>77.0</b>	<b>79.8</b>	<b>2.9</b>
Property, plant and equipment	114.2	<b>115.6</b>	1.3
Intangible assets	1.3	<b>1.2</b>	-0.2
Investments and other assets	49.7	<b>47.2</b>	-2.6
<b>Total non-current assets</b>	<b>165.3</b>	<b>163.9</b>	<b>-1.4</b>
<b>Total assets</b>	<b>242.3</b>	<b>243.7</b>	<b>1.4</b>

## Liabilities and Equity

(billions of yen)

	Mar.31 2018	Dec.31 2018	Change
Trade and other payables	21.5	<b>21.0</b>	-0.5
Interest-bearing debt	48.1	<b>47.8</b>	-0.3
Provisions	6.6	<b>5.2</b>	-1.4
Other liabilities	14.0	<b>13.8</b>	-0.2
<b>Total liabilities</b>	<b>90.2</b>	<b>87.8</b>	<b>-2.4</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>117.6</b>	8.9
Other components of equity	8.7	<b>7.2</b>	-1.6
Non-controlling interests	1.8	<b>1.6</b>	-0.3
<b>Total equity</b>	<b>152.0</b>	<b>155.9</b>	<b>3.9</b>
<b>Total liabilities and equity</b>	<b>242.3</b>	<b>243.7</b>	<b>1.4</b>

\*Kureha has repurchased its own shares valued at approximately ¥3 billion over a period from November to December 2018.

# FY2018 Full-Year Forecast

KUREHA CORPORATION

(billions of yen, except for dividends)

	FY2017	FY2018e	Change YOY (%)	FY2018 Initial mid- term plan
Revenue	147.3	<b>150.0</b>	2.7 (1.8%)	160.0
Operating profit	13.0	<b>15.5*</b>	2.5 (19.5%)	14.0
Profit before income tax	12.7	<b>15.5*</b>	2.8 (22.2%)	
Profit attributable to owners of Kureha Corp.	9.7	<b>12.0*</b>	2.3 (23.7%)	9.0
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Dividend per share				
(Interim)	¥55.0	<b>¥70.0</b>		
(Year-end)	¥70.0	<b>¥70.0</b>		

## FY2018e vs. FY2017

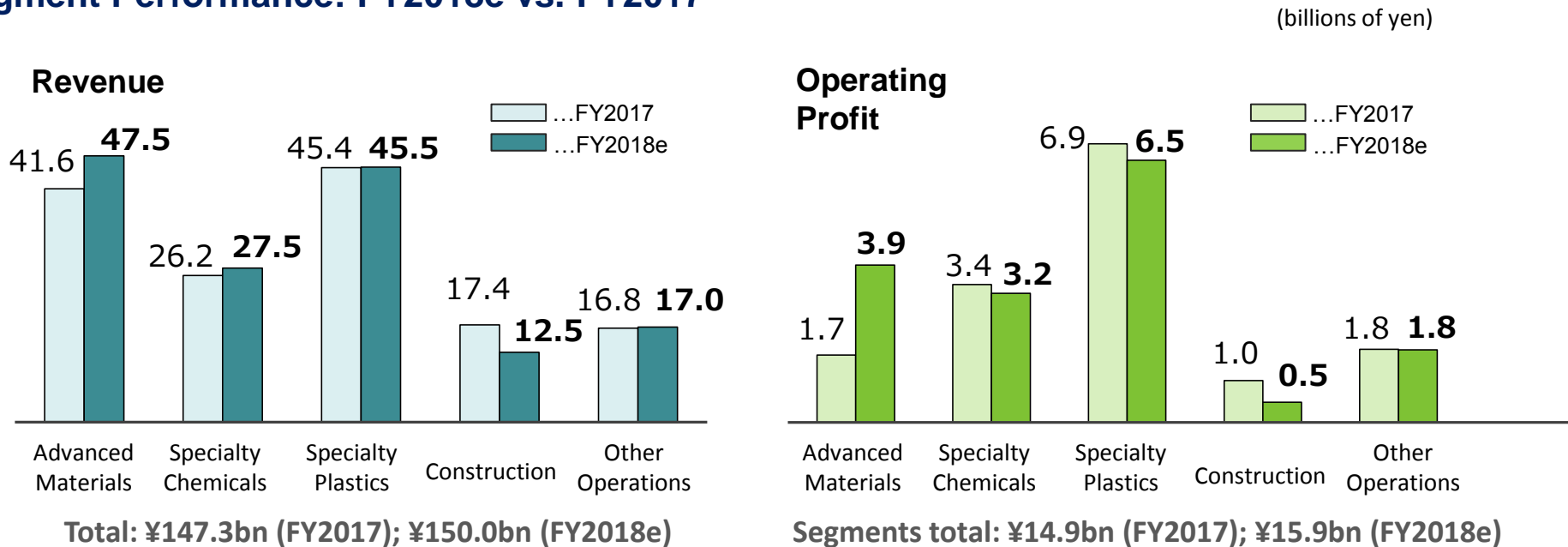
- Revenue to increase due to volume growth mainly in Advanced Materials
- Higher operating profit supported by Advanced Materials (improved operating loss for PGA; higher PVDF volume) and fewer 'other expenses' more than offsetting volume declines and higher costs in other segments
- Profit before income tax to improve on higher operating profit
- Profit for the period to improve on higher profit before income tax

\* Forecast revised on Feb. 7, 2019

# FY2018 Full-Year Forecast

KUREHA CORPORATION

## Segment Performance: FY2018e vs. FY2017



### Factors attributing to FY2018e operating profit (vs. FY2017)

- Advanced Materials: Higher PVDF volume; improved operating loss for PGA; lower profit gains for PPS
- Specialty Chemicals: Lower agrochemicals volumes; impact of NHI drug price revisions on pharmaceuticals more than offsetting volume growth of new Kremezin tablets
- Specialty Plastics: Higher promotion cost for home products
- Construction: Decreased revenue
- Other Operations: Improved hospital operation offsetting a decline in competitive environmental business

# FY2018 Full-Year Forecast

KUREHA CORPORATION

(billions of yen)

## FY2017

	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

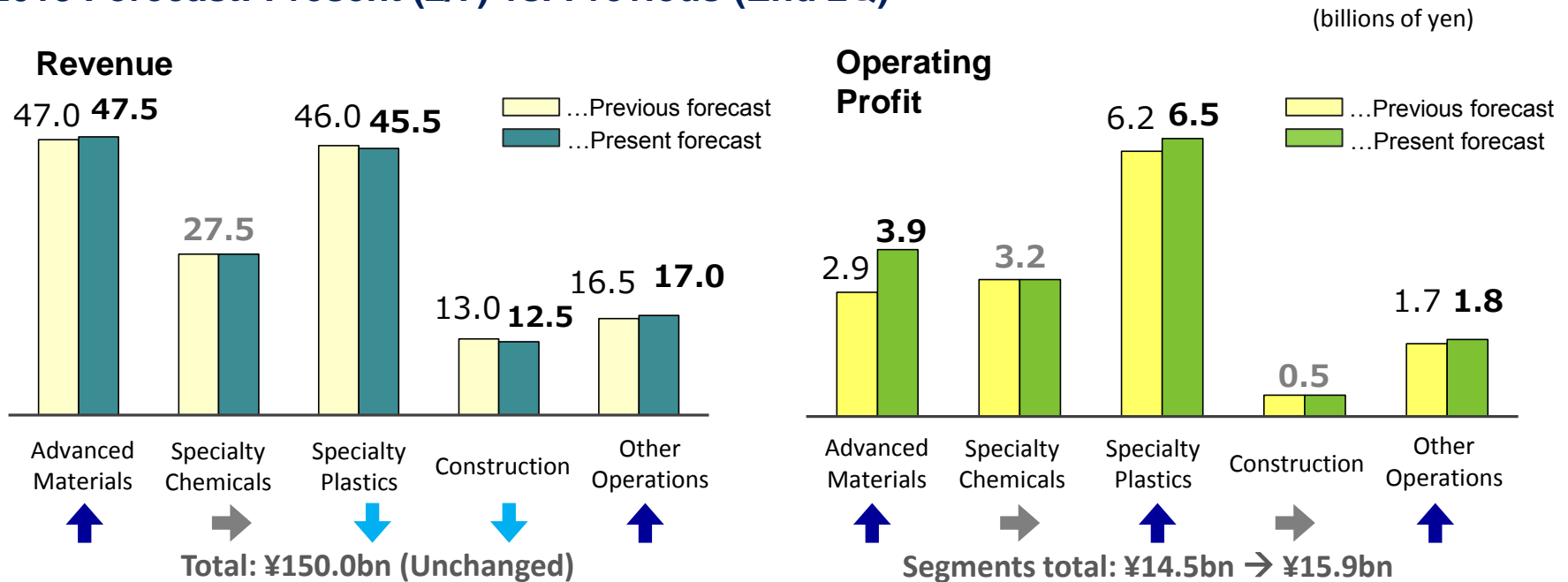
## FY2018e (revised Feb.7)

	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Segment Total	Adjustment	Total
Revenue	47.5	27.5	45.5	12.5	17.0	150.0	-----	150.0
Elimination							0.0	-----
Other income							0.3	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.5bn						0.7	-----
Operating profit	3.9	3.2	6.5	0.5	1.8	15.9	-0.4	15.5
Finance income							0.6	-----
Finance costs							0.6	-----
Profit before income tax								15.5
Profit for the period								12.0

# FY2018 Full-Year Forecast

KUREHA CORPORATION

## FY2018 Forecast: Present (2/7) vs. Previous (End 2Q)



### Factors attributing to FY2018e operating profit (vs. previous forecast)

- Advanced Materials: Better-than-expected performances of PVDF, carbon products and PPS; slower volume growth for PGA
- Specialty Chemicals: (no change from previous forecast)
- Specialty Plastics: Higher volume and lower costs in home products; a slightly lower profit gain expected for packaging materials
- Construction: (no change from previous forecast)
- Other Operations: Higher volume in industrial waste treatment business

# FY2018 Full-Year Forecast

KUREHA CORPORATION

(billions of yen)

## Previous Forecast (at end 2Q)

	Advanced Materials	Specialty Chemicals	Specialty Plastics	Con- struction	Other Operations	Segment Total	Adjustment	Total
Revenue	47.0	27.5	46.0	13.0	16.5	150.0	-----	150.0
Elimination							0.0	-----
Other income							0.2	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.5bn						0.7	-----
Operating profit	2.9	3.2	6.2	0.5	1.7	14.5	-0.5	14.0
Finance income							0.6	-----
Finance costs							0.6	-----
Profit before income tax								14.0
Profit for the period								10.5

## Present Forecast (revised on Feb. 7)

	Advanced Materials	Specialty Chemicals	Specialty Plastics	Con- struction	Other Operations	Segment Total	Adjustment	Total
Revenue	47.5	27.5	45.5	12.5	17.0	150.0	-----	150.0
Elimination							0.0	-----
Other income							0.3	-----
Other expenses	*Loss on retirement of non-current assets: ¥0.5bn						0.7	-----
Operating profit	3.9	3.2	6.5	0.5	1.8	15.9	-0.4	15.5
Finance income							0.6	-----
Finance costs							0.6	-----
Profit before income tax								15.5
Profit for the period								12.0

# Supplemental Information

- Update on PGA business development
- Iwaki Factory Capacity Enhancement

# Update on PGA Business Development (PGA Frac Plugs for Shale Oil & Gas Drilling)

Application of PGA frac plugs is expanding to full-bore use in more oilfields...

**(Before)**



Non-degradable frac plugs are used for the fracturing process of horizontal well

2km

The length of a horizontal well is limited due to technological difficulties to drill out frac plugs after use

**(Jan. 2018—)**



Degradable PGA frac plugs are used for an extended 'toe' part of horizontal well

3km

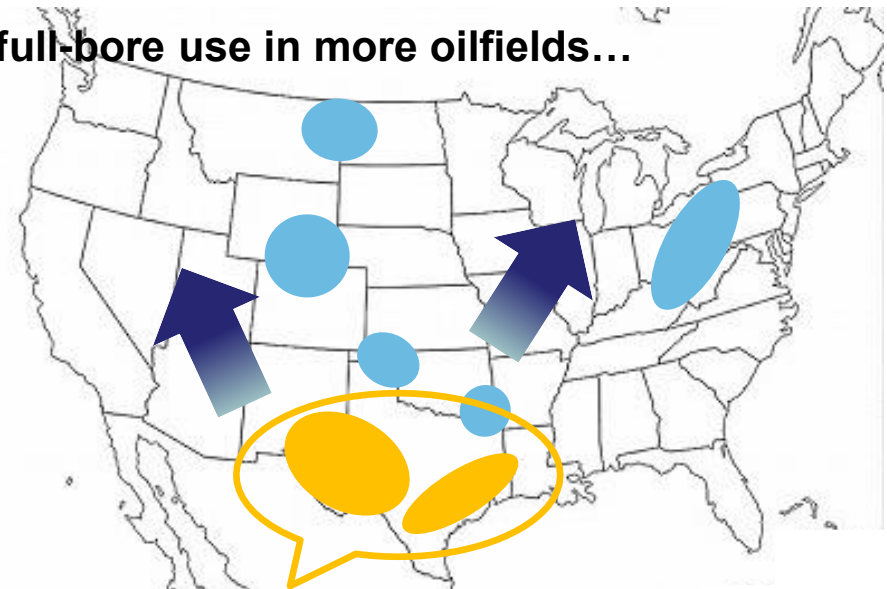
(Toe)

**(In Future)**



Degradable PGA frac plugs are used for an entire horizontal well (and completely eliminate the drillout process)

3km



Market expansion is now focused on Permian and Eagle Ford regions

## PGA degradable frac plugs

- Currently adopted by 12 field operators (4 more since last Nov.) in wider oilfields
- Used for full-bore application by major operators; aggressive promotion ongoing
- Improvements on ultra low-temp degradable grade completed, awaiting field tests



## Polyvinylidene fluoride(PVDF)

Electrification of vehicles  
(EV, PHEV, HEV)



**PVDF demand growing for  
LiB binder**



New PVDF plant in Iwaki Factory (Japan)

- Commercial production begins at a new Iwaki plant (2000tpa, capex ¥4.7bn) in January 2019
- Kureha's total PVDF production capacity reaches 11,000tpa (6,000 tons in Japan/ 5,000 tons in China), with further expansion under study
- All plants continue to run at high operating rate in response to strong demand from LiB makers

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