

# **FY2019 Interim Report**

(Period April 1 - September 30, 2019)

**KUREHA CORPORATION**

November 11, 2019

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# 1. **FY2019 Half-Year Results**

(April 1 – September 30, 2019)

# FY2019 1H Overview

KUREHA CORPORATION

(in billions of yen except per-share values)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance (vs. Actual%)
Revenue	72.5	<b>69.6</b>	-4%	75.0 (-7%)
Core operating profit	7.1	<b>8.9</b>	26%	8.2 (9%)
Operating profit	7.1	<b>10.2</b>	45%	8.0 (28%)
Profit before income tax	7.3	<b>10.1</b>	38%	8.0 (27%)
Profit attributable to owners of Kureha	5.3	<b>8.4</b>	57%	6.1 (37%)
Profit per share	¥257.63	<b>¥417.23</b>		
Profit per share attributable to owners of Kureha	¥7,695	<b>¥8,284</b>		
Dividend per share	¥70.0	<b>¥85.0</b>		

## Vs. FY2018 1H

- Revenue declined in Advanced Materials and Specialty Chemicals
- Higher core operating profit driven by Advanced Materials and Specialty Plastics, despite lower agrochemical volumes in Specialty Chemicals
- Operating profit up on higher core operating profit coupled with a ¥1.5bn bargain purchase gain related to newly consolidated subsidiary

## (Vs. Guidance) \*Revised in August 2019

- Revenue down on weaker-than-expected performances in Advanced Materials and Specialty Chemicals while Other Operations improved
- Higher operating profit led by lower raw materials and fuel costs, delayed spending of expenses and a discount purchase gain related to new subsidiary

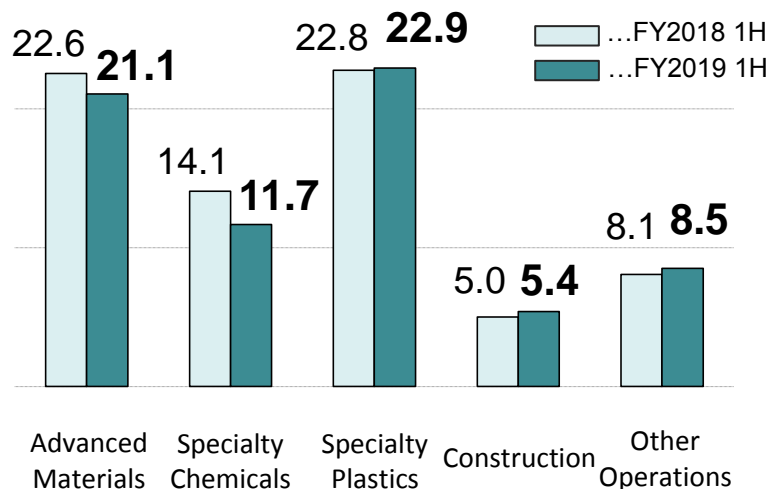


# FY2019 1H Overview: YOY Analysis

KUREHA CORPORATION

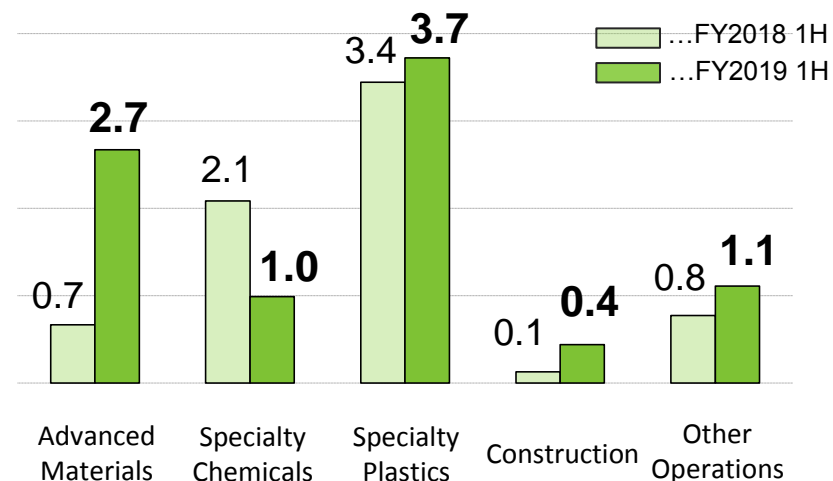
## Performance by Segment: FY2019 1H vs. FY2018 1H

### Revenue



### Operating profit

(billions of yen)



### Factors attributing to operating profit (vs. FY2018 1H)

- AM: Improved profit for PVDF and PGA
- SC: Lower agrochemical fungicides volumes
- SP: Increased profit for home products more than offsetting a decline in packaging materials
- CO: Higher construction volumes in the private sector
- OO: Higher industrial waste treatment volumes and a discount purchase gain related to new subsidiary

# FY2019 1H Overview: YOY Analysis

KUREHA CORPORATION

(billions of yen)

## FY2018 1H

	AM	SC	SP	CO	OO	Total
Revenue	22.6	14.1	22.8	5.0	8.1	72.5
Segment operating profit	0.7	2.1	3.4	0.1	0.8	7.1
Intersegment adjustment						-0.1
Other income						0.2
Other expenses						0.2
Operating profit						7.1
Finance income						0.4
Finance costs						0.2
Profit before income tax						7.3
Profit for the period						5.3

## FY2019 1H

	AM	SC	SP	CO	OO	Total
Revenue	21.1	11.7	22.9	5.4	8.5	69.6
Segment operating profit	2.7	1.0	3.7	0.4	1.1	8.9
Intersegment adjustment						-0.1
Other income						1.6
Other expenses						0.2
Operating profit						10.2
Finance income						0.3
Finance costs						0.4
Profit before income tax						10.1
Profit for the period						8.4

... Gain on discount purchase related to newly consolidated subsidiary: ¥1.5bn

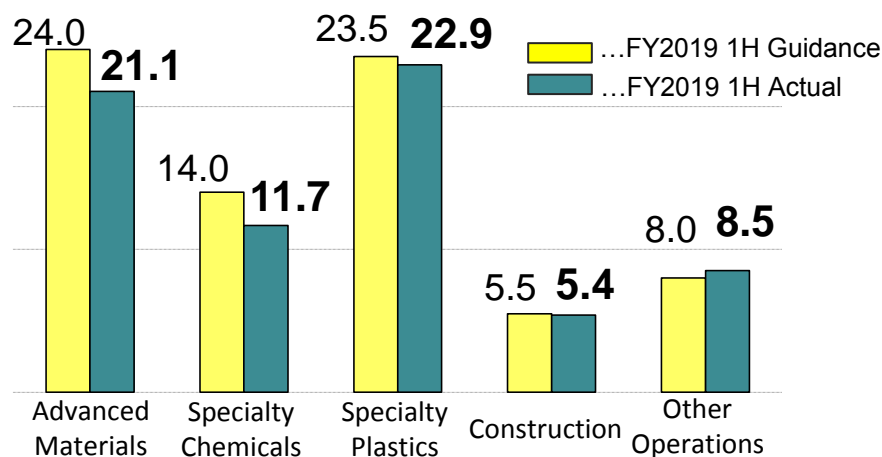
# FY2019 1H Overview: vs. Guidance

KUREHA CORPORATION

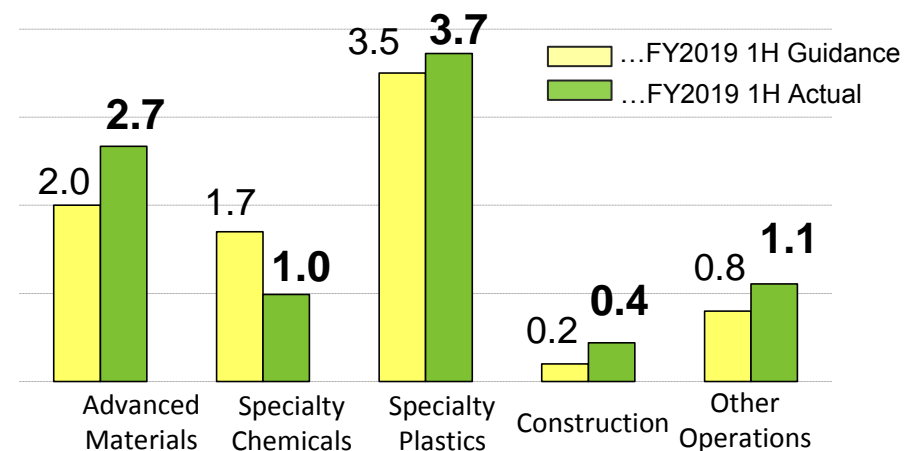
(billions of yen)

## FY2019 1H Actual vs. Guidance

### Revenue



### Operating profit



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

- AM: Improved PVDF product mix and improved profit for PGA
- SC: Delayed delivery of agrochemicals to 2H period
- SP: Delayed spending of expenses related to home products (to be spent in 2H)
- CO: Delayed spending of expenses (to be spent in 2H)
- OO: Higher industrial waste treatment volumes

# FY2019 1H Overview: vs. Guidance

KUREHA CORPORATION

(billions of yen)

## FY2019 1H Guidance

	AM	SC	SP	CO	OO	Total
Revenue	24.0	14.0	23.5	5.5	8.0	75.0
Segment operating profit	2.0	1.7	3.5	0.2	0.8	8.2
Intersegment adjustment						0.0
Other income						0.0
Other expenses						0.2
Operating profit						8.0
Finance income						0.3
Finance costs						0.3
Profit before income tax						8.0
Profit for the period						6.1

## FY2019 1H Actual

	AM	SC	SP	CO	OO	Total
Revenue	21.1	11.7	22.9	5.4	8.5	69.6
Segment operating profit	2.7	1.0	3.7	0.4	1.1	8.9
Intersegment adjustment						-0.1
Other income						1.6
Other expenses						0.2
Operating profit						10.2
Finance income						0.3
Finance costs						0.4
Profit before income tax						10.1
Profit for the period						8.4

... Gain on discount purchase related to newly consolidated subsidiary: ¥1.5bn



# FY2019 1H Segment Performance: Advanced Materials

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
<b>Advanced Materials</b>				
Advanced plastics	14.5	<b>13.7</b>	-6%	16.2
Carbon products	3.2	<b>3.1</b>	-3%	3.0
Other	4.8	<b>4.3</b>	-11%	4.8
<b>Revenue</b>	<b>22.6</b>	<b>21.1</b>	<b>-7%</b>	<b>24.0</b>
<b>Operating Profit</b>	<b>0.7</b>	<b>2.7</b>	<b>301%</b>	<b>2.0</b>

**Vs. FY2018 1H**

**Revenue** ↓ **Operating Profit** ↑

## Advanced plastics

Revenue declined on lower sales volumes of PGA stock shapes, despite steady growth of PGA frac plugs, PVDF and PPS; operating profit improved by PVDF and PGA

## Carbon products

Revenue and operating profit down on lower carbon fiber volumes despite continued full-capacity production

**(Vs. Guidance)**

**Revenue** ↓ **Operating Profit** ↑

- Higher operating profit resulting from improved PVDF product mix and improved profit in PGA business

# FY2019 1H Segment Performance: Specialty Chemicals

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
<b>Specialty Chemicals</b>				
Agrochemicals	4.6	<b>2.3</b>	-49%	3.8
Pharmaceuticals	2.4	<b>2.4</b>	0%	2.6
Industrial chemicals	3.9	<b>3.6</b>	-8%	3.8
Other	3.1	<b>3.3</b>	5%	3.8
<b>Revenue</b>	<b>14.1</b>	<b>11.7</b>	<b>-17%</b>	<b>14.0</b>
<b>Operating Profit</b>	<b>2.1</b>	<b>1.0</b>	<b>-53%</b>	<b>1.7</b>

Vs. FY2018 1H

Revenue ↓ Operating Profit ↓

**Agrochemicals**

Revenue and operating profit declined on lower fungicides volumes

**Pharmaceuticals**

Performed on par with prior year

**Industrial chemicals**

Revenue and profit reduced by lower organic and inorganic chemicals volumes

(Vs. Guidance)

Revenue ↓ Operating Profit ↓

- Delivery of agrochemicals postponed to 2H period

# FY2019 1H Segment Performance: Specialty Plastics

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
<b>Specialty Plastics</b>				
Home products	10.5	<b>11.3</b>	8%	11.5
Fishing lines	1.5	<b>1.6</b>	5%	1.5
Packaging materials	8.2	<b>7.3</b>	-11%	7.6
Other	2.6	<b>2.8</b>	6%	2.9
<b>Revenue</b>	<b>22.8</b>	<b>22.9</b>	<b>1%</b>	<b>23.5</b>
<b>Operating Profit</b>	<b>3.4</b>	<b>3.7</b>	<b>8%</b>	<b>3.5</b>

Vs. FY2018 1H

Revenue Operating Profit 

## Home products & Fishing lines

Revenue and operating profit increased on volume growth of New Krewrap (food wrap film) and Seaguar (fishing lines)

## Packaging materials

Revenue and profit down on lower multilayer shrink film volume

(Vs. Guidance)

Revenue Operating Profit 

- Revenue down in Packaging materials and Home products; operating profit up due to the spending of expenses deferred to 2H period in Home products

# FY2019 1H Segment Performance: Construction

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
<b>Construction</b>				
Construction	8.1	<b>9.6</b>	18%	9.4
Consolidation adjustments	-3.1	<b>-4.2</b>	--	-3.9
<b>Revenue</b>	<b>5.0</b>	<b>5.4</b>	<b>8%</b>	5.5
<b>Operating Profit</b>	0.1	<b>0.4</b>	<b>250%</b>	0.2

Vs. FY2018 1H

Revenue  Operating Profit 

## Construction

Higher revenue and operating profit propelled by construction projects in private sector

(Vs. Guidance)

Revenue  Operating Profit 

- Revenue reduced by lower sales in private sector; operating profit up due to delayed spending of expenses to 2H period

# FY2019 1H Segment Performance: Other Operations

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KUREHA CORPORATION

(billions of yen)

	FY2018 1H	FY2019 1H	Change YOY%	FY2019 1H Guidance
<b>Other Operations</b>				
Environmental engineering	5.3	<b>5.8</b>	9%	5.6
Logistics	4.1	<b>4.1</b>	-1%	4.1
Hospital operation	1.8	<b>2.0</b>	13%	1.8
Other	1.0	<b>1.1</b>	16%	1.1
Consolidation adjustments	-4.1	<b>-4.4</b>	--	-4.6
<b>Revenue</b>	<b>8.1</b>	<b>8.5</b>	<b>5%</b>	<b>8.0</b>
<b>Operating Profit</b>	<b>0.8</b>	<b>1.1</b>	<b>43%</b>	<b>0.8</b>

Vs. FY2018 1H

Revenue Operating Profit **Environmental engineering**

Revenue and operating profit increased on higher industrial waste treatment volume and as a result of business consolidation

**Logistics**

Revenue down, operating profit up

**Hospital operation**

Revenue up, operating profit on par with prior year

(Vs. Guidance)

Revenue Operating Profit 

- Better-than-expected performance in Environmental engineering



# Financial Position

KUREHA CORPORATION

(billions of yen)

## Assets

	Mar. 31 2019	Sept. 30 2019	Change
Cash and cash equivalents	6.0	7.4	1.4
Trade and other receivables	30.7	25.8	-4.9
Inventories	38.3	42.1	3.8
Other current assets	3.7	4.2	0.4
<b>Total current assets</b>	<b>78.8</b>	<b>79.6</b>	<b>0.8</b>
Property, plant and equipment	117.6	125.5	8.0
Intangible assets	1.1	1.1	-0.0
Investments and other assets	49.9	49.1	-0.9
<b>Total non-current assets</b>	<b>168.6</b>	<b>175.6</b>	<b>7.1</b>
<b>Total assets</b>	<b>247.4</b>	<b>255.2</b>	<b>7.9</b>

## Liabilities and Equity

	Mar. 31 2019	Sept. 30 2019	Change
Trade and other payables	24.0	18.7	-5.3
Interest-bearing debt	39.0	48.9	9.9
Provisions	6.8	7.2	0.3
Other liabilities	15.3	14.7	-0.6
<b>Total liabilities</b>	<b>85.2</b>	<b>89.6</b>	<b>4.4</b>
Shareholders' equity	18.2	18.2	--
Capital surplus	15.0	15.0	--
Less: Treasury stock	-3.7	-6.8	-3.1
Retained earnings	122.4	131.8	9.5
Other components of equity	8.7	5.8	-2.9
Non-controlling interests	1.6	1.6	-0.0
<b>Total equity</b>	<b>162.2</b>	<b>165.6</b>	<b>3.4</b>
<b>Total liabilities and equity</b>	<b>247.4</b>	<b>255.2</b>	<b>7.9</b>

### Notes to the statement of financial position as of March 31, 2019 and other supplementary information

- Impacts of business merger with Himeyuri Total Work: Current assets: +¥2.2bn, Property, plant and equipment: +¥5.5bn, Other non-current assets: +¥0.8bn, Interest-bearing debt: +¥4.9bn, Provision: +¥1bn
- Impacts of changes in accounting policy (IFR, 16 'Lease'): Property, plant and equipment: +¥2.5bn, Interest-bearing debt: +¥2.6bn
- Ratio of equity attributable to owners of Kureha to total assets: 64.9% (as of Mar. 31, 2019), 64.3% (as of Sept. 30, 2019)
- Treasury stock acquired during the first six months of FY2019 (April 1 through September 30, 2019: 460,200 shares valued at ¥3.095 million)

# Cash Flow

KUREHA CORPORATION

(billions of yen)

	FY2018 1H	FY2019 1H	Change
Profit before income tax	7.3	10.1	2.8
Depreciation	5.0	6.0	1.1
Other	-1.9	-9.6	-7.6
<b>Cash flow from operating activities</b>	<b>10.3</b>	<b>6.6</b>	<b>-3.7</b>
<b>Cash flow from investing activities</b>	<b>-6.9</b>	<b>-2.5</b>	<b>4.4</b>
<b>Cash flow from financing activities</b>	<b>-4.4</b>	<b>-2.6</b>	<b>1.8</b>
Effect of exchange rate changes on cash and cash equivalents	0.0	-0.1	-0.1
Increase/decrease in cash and cash equivalents	-0.9	1.4	2.4
Cash and cash equivalents at beginning of period	6.5	6.0	-0.5
Cash and cash equivalents at end of period	5.5	7.4	1.9

## **2. FY2019 Full-Year Outlook**

(April 1, 2019 – March 31, 2020)



# FY2019 Earnings Forecast

KUREHA CORPORATION

\*FY2019 earnings forecast was updated on November 11, 2019

(In billions of yen, except per-share values)

	FY2018	FY2019 Revised guidance	Change YOY (%)	FY2019 Guidance (August)
Revenue	148.3	<b>144.0</b>	-4.3 (-3%)	152.0
Core operating profit	17.4	<b>17.0</b>	-0.4 (-2%)	17.0
Operating profit	17.2	<b>28.5</b>	11.3 (66%)	26.0
Profit before income tax	17.4	<b>28.5</b>	11.1 (63%)	26.0
Profit attributable to owners of Kureha	13.9	<b>22.0</b>	8.1 (58%)	19.5
Profit per share	¥679.6	<b>¥1,111</b>		
Owners' equity per share	¥7,923	<b>¥8,920</b>		
Dividend per share (Interim, Year-end)	¥165.0 (70, 95)	<b>¥170 (85, 85)</b>		

## Vs. FY2018

- Revenue expected to decrease mainly in Advanced Materials and Specialty Plastics
- Lower core operating profit led by Specialty Chemicals and Specialty Plastics, despite profit growth in Advanced Materials (PGA turning profitable)
- Operating profit to increase due to gains from land sales and the discount purchase of new subsidiary

## (Vs. Previous guidance)

- Lower revenue driven by Advanced Materials and Specialty Plastics
- Operating profit up on higher 'other income' inclusive of gains from the discount purchase of new subsidiary and the sale of bottle business

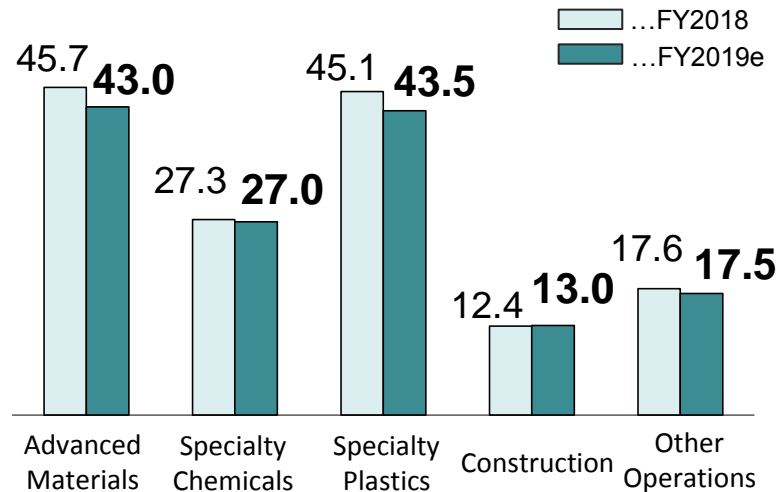


# FY2019 Earnings Forecast (vs. FY2018)

## Performance by Segment: FY2019e (revised guidance) vs. FY2018

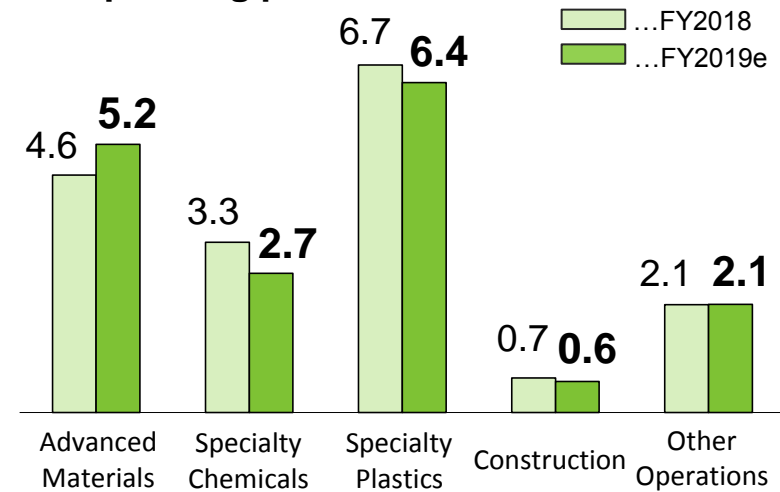
(billions of yen)

### Revenue



FY2018: ¥148.3bn    FY2019e: ¥144.0bn

### Core operating profit



FY2018: ¥17.4bn    FY2019e: ¥17.0bn

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

AM: PGA business turning in black, higher profit generated by PVDF

SC: Lower agrochemical volume due to customer's inventory adjustments more than offsetting profit growth in Pharmaceuticals

SP: Lower packaging materials volumes

CO: Fewer high-margin construction projects

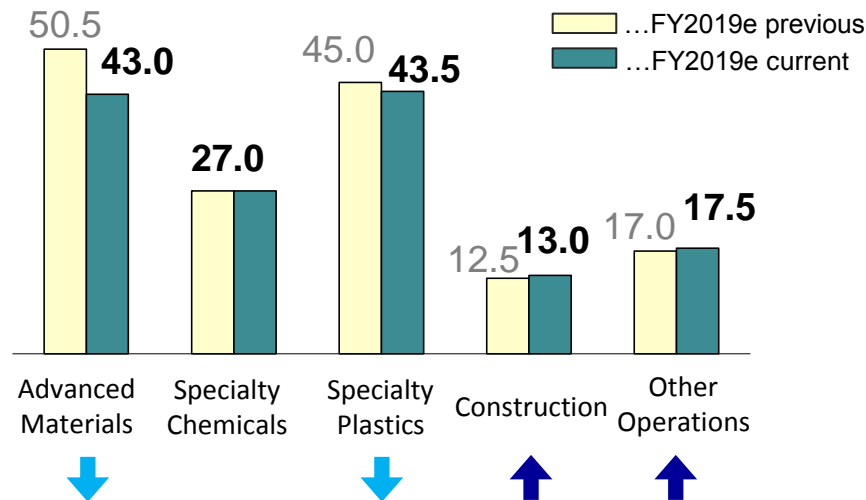
OO: (Performs on par with FY18)



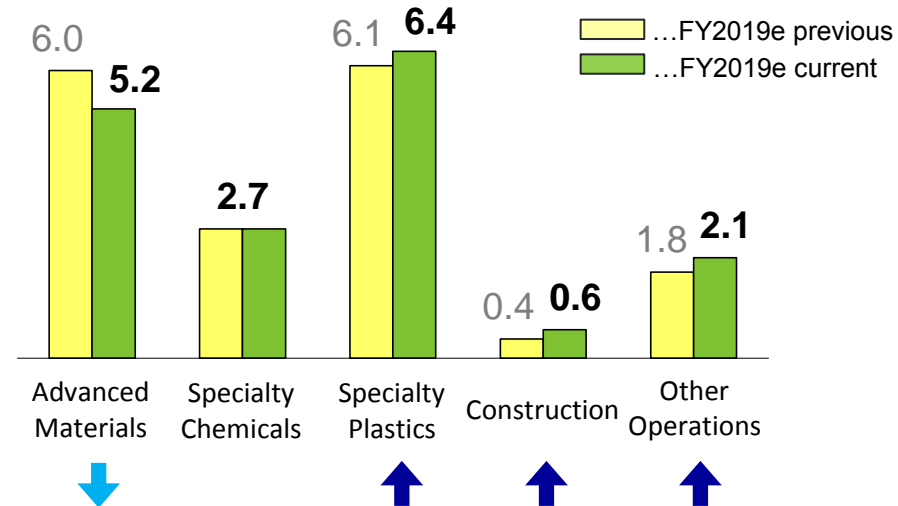
# FY2019 Earnings Forecast (vs. previous guidance)

## FY2019 Guidance: Current (November) vs. Previous (August)

### Revenue



### Operating profit



### Factors attributing to operating profit (vs. previous guidance)

- AM: Profit decreases for PPS and other products more than offsetting higher profit generated by PVDF
- SC: (Performs in line with previous guidance)
- SP: Higher NEW Krewrap volume
- CO: Higher profit generated by large-scale construction projects
- OO: Higher industrial waste treatment volumes

# FY2019 Earnings Forecast (vs. previous guidance)

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KUREHA CORPORATION

(billions of yen)

## FY2019 guidance (Aug)

	AM	SC	SP	CO	OO	Total
Revenue	50.5	27.0	45.0	12.5	17.0	152.0
Segment operating profit	6.0	2.7	6.1	0.4	1.8	17.0
Intersegment adjustment						
Other income						10.0
Other expenses						1.0
Operating profit						26.0
Finance income						0.7
Finance costs						0.7
Profit before income tax						26.0
Profit for the period						19.5

... Gain on land sales (HQ annex): ¥9.2bn

... Loss on sales and retirement of non-current assets: ¥0.8bn

## FY2019 guidance (Nov)

	AM	SC	SP	CO	OO	Total
Revenue	43.0	27.0	43.5	13.0	17.5	144.0
Segment operating profit	5.2	2.7	6.4	0.6	2.1	17.0
Intersegment adjustment						
Other income						12.5
Other expenses						1.0
Operating profit						28.5
Finance income						0.7
Finance costs						0.7
Profit before income tax						28.5
Profit for the period						22.0

... Gain on land sales (HQ annex): ¥9.2bn

Gain on discount purchase related to newly consolidated subsidiary: ¥1.5bn

Gain on business merger related to bottle business: ¥1.2bn

# Segment Outlook: Advanced Materials

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
<b>Advanced Materials</b>				
Advanced plastics	28.5	<b>29.5</b>	3%	34.2
Carbon products	6.1	<b>5.5</b>	-10%	5.9
Other	11.1	<b>8.0</b>	-28%	10.4
<b>Revenue</b>	<b>45.7</b>	<b>43.0</b>	<b>-6%</b>	<b>50.5</b>
<b>Operating Profit</b>	<b>4.6</b>	<b>5.2</b>	<b>13%</b>	<b>6.0</b>

**Vs. FY2018**

**Revenue** ↓ **Operating Profit** ↑

### Advanced plastics

Revenue up on higher sales volumes of PGA frac plugs and PVDF; higher operating profit driven by PVDF and PGA

### Carbon products

Revenue and profit to decrease on lower carbon fiber volumes

### Other

Revenue and profit down due to slower demand in semiconductor and electric/electronics businesses

**(Vs. Previous guidance)**

**Revenue** ↓ **Operating Profit** ↓

- Lower operating profit led by PPS and other products, despite higher profit generated by PVDF

# Segment Outlook: Specialty Chemicals

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
<b>Specialty Chemicals</b>				
Agrochemicals	8.3	<b>6.5</b>	-22%	6.5
Pharmaceuticals	5.0	<b>5.3</b>	7%	5.3
Industrial chemicals	7.6	<b>7.5</b>	-2%	7.5
Other	6.4	<b>7.7</b>	21%	7.7
<b>Revenue</b>	<b>27.3</b>	<b>27.0</b>	<b>-1%</b>	<b>27.0</b>
<b>Operating Profit</b>	<b>3.3</b>	<b>2.7</b>	<b>-18%</b>	<b>2.7</b>

**Vs. FY2018**

**Revenue** ↘ **Operating Profit** ↘

## Agrochemicals

Revenue and operating profit to decline due to customer's inventory adjustments for fungicides

## Pharmaceuticals

Higher revenue and profit propelled by volume growth of new Kremezin tablets

## Industrial chemicals

Revenue and profit down due to slower demand

**(Vs. Previous guidance)**

**Revenue** ➡ **Operating Profit** ➡

(Performs in line with previous guidance)

# Segment Outlook: Specialty Plastics

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
<b>Specialty Plastics</b>				
Home products	20.5	<b>20.8</b>	2%	20.8
Fishing lines	2.9	<b>3.0</b>	3%	3.0
Packaging materials	16.2	<b>14.2</b>	-13%	15.3
Other	5.5	<b>5.5</b>	-1%	5.9
<b>Revenue</b>	<b>45.1</b>	<b>43.5</b>	<b>-4%</b>	<b>45.0</b>
<b>Operating Profit</b>	<b>6.7</b>	<b>6.4</b>	<b>-5%</b>	<b>6.1</b>

**Vs. FY2018**

**Revenue** ↓ **Operating Profit** ↓

## Home products

Operating profit to remain flat on slightly higher revenue as higher expenses offset volumes growth of New Krewrap and Kichinto-san series

## Packaging materials

Revenue and profit to decrease on lower ML shrink film and PVDC film volumes and as a result of bottle business divestment

**(Vs. Previous guidance)**

**Revenue** ↓ **Operating Profit** ↑

- Higher operating profit driven by NEW Krewrap volume growth, despite a profit decline in Packaging materials



# Segment Outlook: Construction

(billions of yen)

	FY2018	FY2019 Revised Guidance	Change YOY%	FY2019 Guidance (August)
<b>Construction</b>				
Construction	20.3	<b>21.2</b>	4%	19.5
Consolidation adjustments	-7.9	<b>-8.2</b>	--	-7.0
<b>Revenue</b>	<b>12.4</b>	<b>13.0</b>	<b>5%</b>	<b>12.5</b>
<b>Operating Profit</b>	<b>0.7</b>	<b>0.6</b>	<b>-10%</b>	<b>0.4</b>

Vs. FY2018

Revenue  Operating Profit 

## Construction

Revenue up on higher construction volumes in the private sector, but operating profit likely to decrease due to fewer high-margin projects

(Vs. Previous guidance)

Revenue  Operating Profit 

- Operating profit up with off-budget, large-scale construction projects

# Segment Outlook: Other Operations

(billions of yen)

	FY2018	FY2019 Revised guidance	Change YOY%	FY2019 Guidance (August)
<b>Other Operations</b>				
Environmental engineering	12.0	<b>12.3</b>	3%	11.4
Logistics	8.3	<b>8.1</b>	-3%	8.5
Hospital operation	3.7	<b>3.9</b>	5%	3.9
Other	1.9	<b>2.2</b>	17%	2.2
Consolidation adjustments	-8.3	<b>-9.0</b>	--	-9.0
<b>Revenue</b>	<b>17.6</b>	<b>17.5</b>	<b>-1%</b>	17.0
<b>Operating Profit</b>	<b>2.1</b>	<b>2.1</b>	<b>1%</b>	1.8

Vs. FY2018

Revenue ↘ Operating Profit →

## Environment engineering

Revenue down and operating profit to remain flat as slower environment equipment sales offset the impact of business consolidation and higher industrial waste treatment volumes

(Vs. Previous guidance)

Revenue → Operating Profit ↗

- Higher operating profit supported by volume growth of industrial waste treatment

# Key Indicators

KUREHA CORPORATION

(billions of yen)

	FY2018			FY2019			Change YOY(%)
	1H	2H	Full year	1H	2H(e)	Full year(e)	
Capital expenditure	5.8	7.4	<b>13.2</b>	7.4	9.2	<b>16.6</b>	3.4 (26%)
Depreciation expenses	5.0	5.3	<b>10.3</b>	6.0	6.0	<b>12.0</b>	1.7 (17%)
R&D expenses	2.5	2.8	<b>5.3</b>	2.9	3.5	<b>6.4</b>	1.1 (21%)
Interest-bearing debt	45.9	39.0	<b>39.0</b>	48.9	39.2	<b>39.2</b>	0.1 (0%)

## Currency exchange rates

1USD:	Term average	¥110.3	¥111.6	<b>¥110.9</b>	¥108.6	¥105.0	<b>¥106.8</b>
	Term end	¥113.6	¥110.0	<b>¥110.0</b>	¥107.9	¥105.0	<b>¥105.0</b>
1EUR:	Term average	¥129.8	¥127.1	<b>¥128.4</b>	¥121.4	¥120.0	<b>¥120.7</b>
	Term end	¥132.1	¥124.6	<b>¥124.6</b>	¥118.0	¥120.0	<b>¥120.0</b>
1CHY:	Term average	¥16.7	¥16.3	<b>¥16.5</b>	¥15.7	¥15.5	<b>¥15.6</b>
	Term end	¥16.5	¥16.5	<b>¥16.5</b>	¥15.1	¥15.5	<b>¥15.5</b>

# Cash Flow

KUREHA CORPORATION

(billions of yen)

	FY2018	FY2019e	Change YOY
Profit before income tax	17.4	28.5	11.1
Depreciation and amortization	10.3	12.0	1.7
Other	-4.4	-26.0	-21.6
<b>Cash flow from operating activities</b>	<b>23.4</b>	<b>14.5</b>	<b>-8.9</b>
<b>Cash flow from investing activities</b>	<b>-8.4</b>	<b>2.6</b>	<b>10.9</b>
<b>Cash flow from financing activities</b>	<b>-15.5</b>	<b>-16.3</b>	<b>-0.8</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	0.7	1.2
Cash and cash equivalents at beginning of year	6.5	6.0	-0.5
Cash and cash equivalents at end of year	6.0	6.7	0.7

## 3. Consolidated Companies

# Revenues & Assets

KUREHA CORPORATION

(billions of yen)

		FY2018 1H		FY2019 1H		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Kureha Corporation		34.3	196.9	<b>32.3</b>	<b>196.9</b>	-2.0	-0.0
Kureha Trading Group (2)		9.2	13.8	<b>8.8</b>	<b>12.3</b>	-0.4	-1.6
Advanced Materials	Kureha Corporation	15.7	--	<b>15.2</b>	--	-0.4	--
	Kureha Trading Group (2)	5.7	--	<b>4.4</b>	--	-1.3	--
	Kureha Extron	1.1	2.1	<b>1.6</b>	<b>5.5</b>	-0.8	2.0
	Kureha Extech	1.3	1.4	(Consolidated into Kureha Extron as of April 2019)			
	Kureha GmbH	1.1	1.1	<b>1.1</b>	<b>0.9</b>	-0.1	-0.3
	Kureha America Group (3)	1.2	27.2	<b>1.9</b>	<b>27.9</b>	0.6	0.7
	Kureha (Shanghai) Carbon Fiber Materials	0.7	1.3	<b>0.7</b>	<b>1.3</b>	0.0	-0.0
	Kureha China Group (2)	3.5	10.2	<b>3.5</b>	<b>9.7</b>	-0.0	-0.5
	Consolidation adjustments	-7.7	--	<b>-7.3</b>	--	0.4	--
	<b>Total</b>	<b>22.6</b>	<b>--</b>	<b>21.1</b>	<b>--</b>	<b>-1.5</b>	<b>--</b>
Specialty Chemical s	Kureha Corporation	12.2	--	<b>9.6</b>	--	-2.7	--
	Kureha Trading	3.4	--	<b>3.6</b>	--	0.2	--
	Consolidation adjustments	-1.6	--	<b>-1.5</b>	--	0.1	--
	<b>Total</b>	<b>14.1</b>	<b>--</b>	<b>11.7</b>	<b>--</b>	<b>-2.4</b>	<b>--</b>
Specialty Plastics	Kureha Corporation	13.6	--	<b>14.0</b>	--	0.4	--
	Kureha Trading	2.4	--	<b>2.7</b>	--	0.3	--
	Kureha Gohsen	2.3	5.0	<b>2.3</b>	<b>5.0</b>	-0.0	-0.0
	Kureha China Group (2)	0.1	--	<b>0.1</b>	--	-0.0	--
	Kureha America Group (3)	0.8	0.8	<b>0.8</b>	<b>0.7</b>	-0.0	-0.1
	Kureha Europe Group (4)	4.7	7.7	<b>4.2</b>	<b>7.2</b>	-0.5	-0.5
	Kureha Vietnam	1.6	3.4	<b>1.6</b>	<b>3.1</b>	-0.0	-0.2
	Consolidation adjustments	-2.7	--	<b>-2.7</b>	--	0.0	--
<b>Total</b>	<b>22.8</b>	<b>--</b>	<b>22.9</b>	<b>--</b>	<b>0.2</b>	<b>--</b>	

# Revenues & Assets

KUREHA CORPORATION

(billions of yen)

		FY2018 1H		FY2019 1H		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Construction	Kureha Nishiki Group (4)	6.7	10.0	8.1	11.2	1.3	1.2
	Kureha Engineering	1.4	1.8	1.5	1.9	0.1	0.1
	Consolidation adjustments	-3.1	--	-4.2	--	-1.1	--
	<b>Total</b>	<b>5.0</b>	<b>--</b>	<b>5.4</b>	<b>--</b>	<b>0.4</b>	<b>--</b>
Other Operations	Kureha Ecology Management Group (2)	4.7	8.8	5.2	22.6	0.5	13.8
	Kureha Special Laboratory	0.6	0.6	0.6	0.7	-0.0	0.0
	Kureha Unyu Group (2)	4.1	6.2	4.1	5.4	-0.1	-0.8
	Kureha Trading	0.0	--	0.0	--	-0.0	--
	Kureha Service	0.3	1.0	0.3	1.2	0.0	0.2
	Kureha-Kai Medical Corp.	1.8	3.3	2.0	3.4	0.2	0.1
	Kureha Staff Service	0.6	0.6	0.8	0.6	0.1	0.0
	Consolidation adjustments	-4.1	--	-4.4	--	-0.4	--
	<b>Total</b>	<b>8.1</b>	<b>--</b>	<b>8.5</b>	<b>--</b>	<b>0.4</b>	<b>--</b>
<b>Kureha Group Total</b>		<b>72.5</b>	<b>--</b>	<b>69.6</b>	<b>--</b>	<b>-2.9</b>	<b>--</b>
<i>Number of consolidated subsidiaries and equity- method affiliates</i>		32		30			

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

## 4. Supplementary

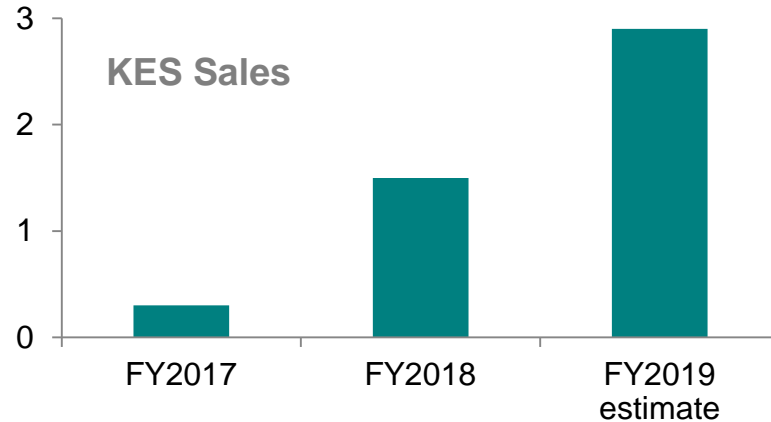


# PGA Business Update

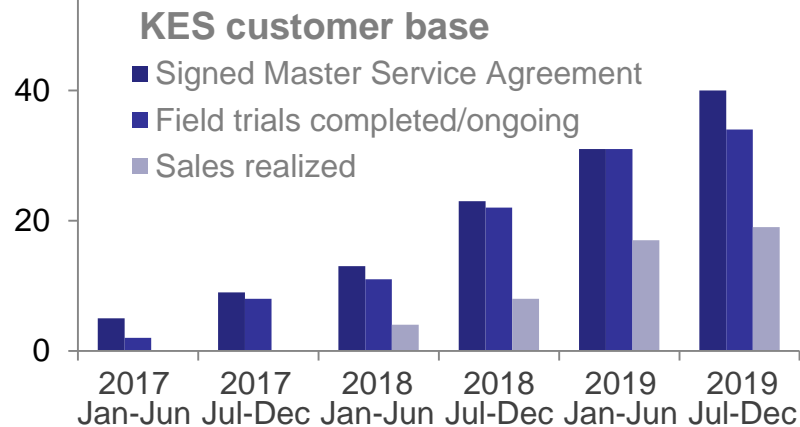
KUREHA CORPORATION

Kureha Energy Solutions is expanding the market for its original PGA frac plugs

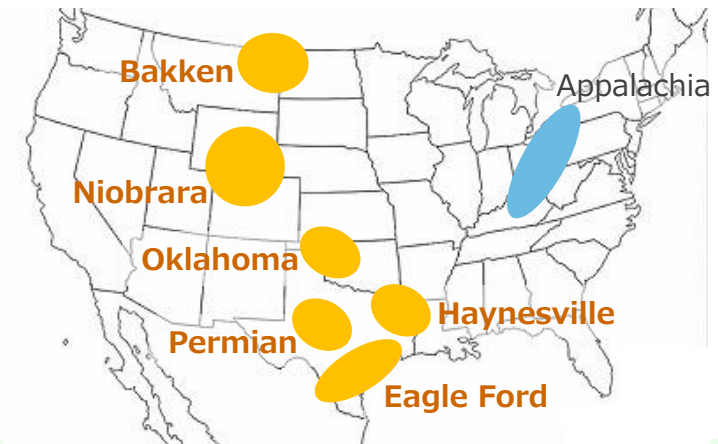
Billion yen



Number of companies



● KES sales reach



- KES is steadily expanding sales with a growing customer base after launching its first original PGA frac plugs in 2017. The company now operates seven sales/distribution locations and continues to improve its market access and supply ability.
- KES currently sells PGA frac plugs primarily for mid/high-temperature wells but is enhancing its presence in low-temperature markets including the Permian region, which holds 50% of the U.S. shale oil and gas reserves.

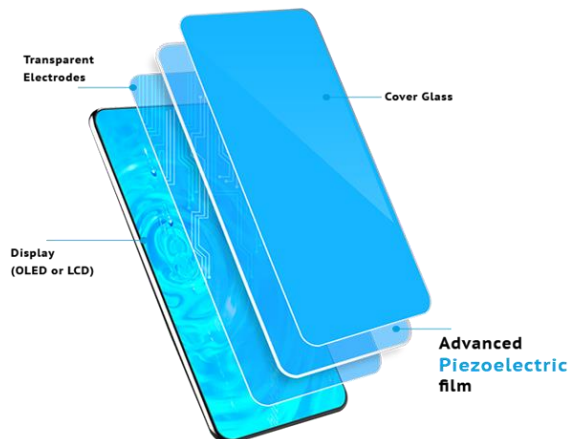
**KUREHA**

# Kureha's Evolving Business Portfolio

KUREHA CORPORATION

## Kureha funds Cambridge Touch Technologies (June 2019)

- Cambridge Touch Technologies, a startup in England, develops next-generation 3D multi-touch sensors with Kureha's KF Piezofilm technology
- Will accelerate our downstream business development
- Application areas: Smart phones, touch panels



## Kureha's blow bottle business demerged into Kyodo Printing (Nov. 1, 2019)

(FY2018)

Revenue: ¥1.8 billion

Business profit: ¥0.1 billion


**KUREHA**

# Kureha's CSR Management Initiatives

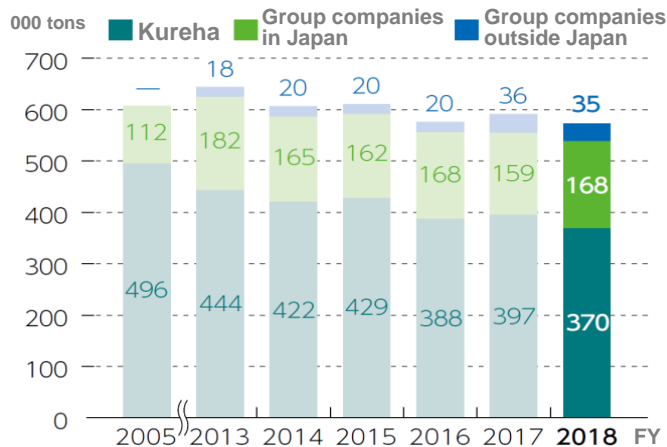
KUREHA CORPORATION

## Reducing Greenhouse Gas Emissions

- 'Kureha ECO<sup>2</sup> Actions 2020'
  - Reduce energy unit by more than 1% YoY
  - Reduce BAU\* CO<sub>2</sub> emissions by more than 10% by 2020 (vs. 2005)
- Adopted for the S&P/JPX Carbon Efficient Index



### CO<sub>2</sub> Emissions



\*BAU=business as usual

## Tackling Marine Plastic Problems

- Became a member of the Clean Ocean Material Alliance (CLOMA)  
January 2019



## Improving Labor Environment

- Declared our support in the 'White Logistics' movement  
September 2019

## Corporate Governance

- Abolished the positions of executive and senior corporate advisors; Reformed executive compensation systems  
April 2019

# 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.