

FY2020 Interim Report

(Period April 1 - September 30, 2020)

KUREHA CORPORATION

November 10, 2020

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1. FY2020 Half-Year Results

(Period April 1 - September 30, 2020)

□ FY2020 1H operating profit: ¥6.2bn (down ¥4.1bn YoY)

- Limited impact of COVID on manufacturing and sales operations
- Challenging market conditions for Advanced Materials with slower automobile and shale oil production
- Primary factors attributing to operating profit:
 - ¥2.9bn operating loss in the PGA business due to lower sales volumes (-¥1.5bn) and temporary cost of sales related to PGA manufacturing facility*(-¥1.4bn)
 - * There was no resin production at the US PGA plant in the 1H period, and expenses related to the plant were all temporarily recorded as cost of sales (to be incurred as inventory assets after PGA production in 3Q)
 - Lower sales volumes in other businesses due to COVID-related economic slowdown, business transfer (blow bottle), effects of mandatory drug price revisions, etc. (-¥1.9bn)
 - Absence of a discount business purchase gain recorded in prior year (-¥1.5bn)
 - Lower raw materials and fuel cost (+¥0.9bn)
 - Lower SG&A expenses amid COVID (+¥1.3bn)

□ Shareholder returns and cash flow

- FY2020 interim dividend: ¥85 per share (same amount as FY2019)
FY2020 year-end dividend: ¥85 per share (same amount as FY2019)
- The balance of cash and cash equivalents at the end of FY2020 1H amounted to ¥17.6bn (¥10.3bn up from FY2019 1H end) including cash from sale of investment securities, which will be used for further capital investment while hedging against credit risks amid COVID

FY2020 1H Overview

KUREHA CORPORATION

(in billions of yen except per-share values)

	FY2019 1H	FY2020 1H	Change YOY
Revenue	69.6	66.0	-3.5 (-5.1%)
Core operating profit	8.9	6.3	-2.6 (-29.3%)
Adjustments	-0.1	-0.0	0.1
Other income	1.6	0.2	-1.4
Other expenses	0.2	0.3	0.1
Operating profit	10.2	6.2	-4.1 (-39.6%)
Financial income	0.3	0.3	0.0
Financial expenses	0.4	0.1	-0.3
Profit for the period	10.1	6.4	-3.8 (-37.0%)
Profit for the period attributable to owners of the Company	8.4	4.8	-3.5 (-42.4%)
Basic profit per share	¥417.23	¥246.64	

Vs. FY2019 1H

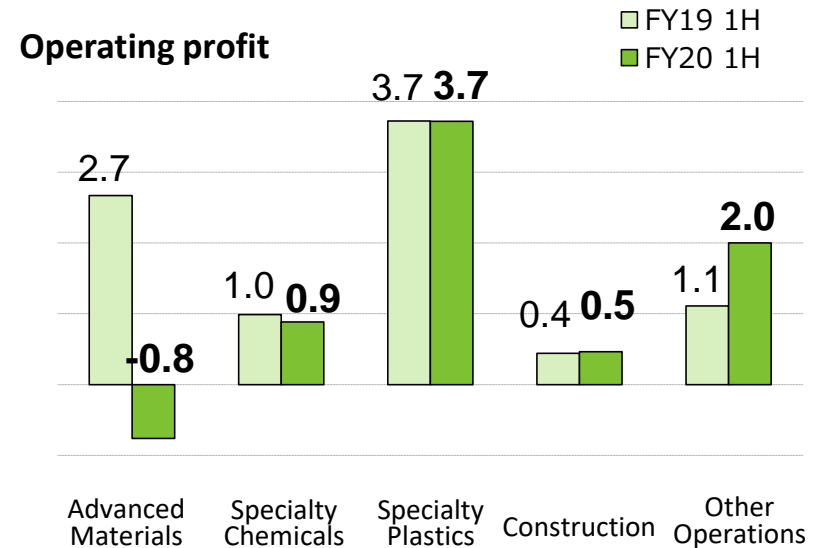
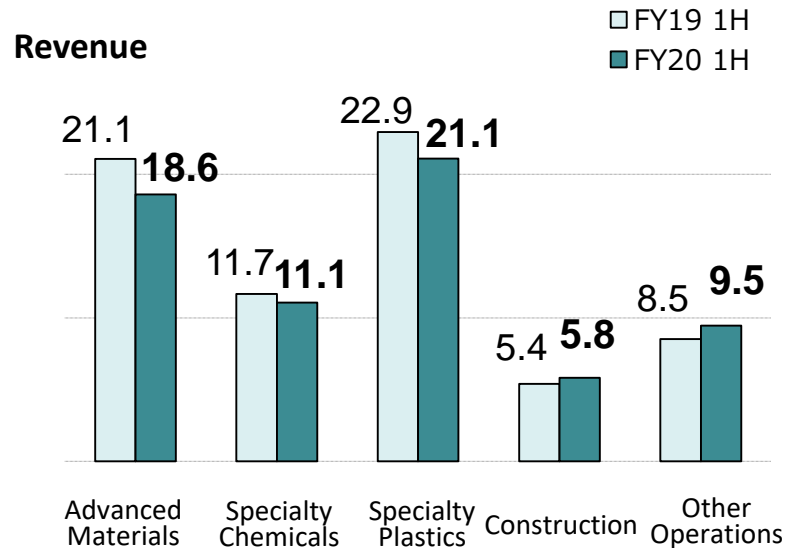
- Revenue down on lower sales volumes in Advanced Materials, Specialty Chemicals and Specialty Plastics' packaging materials business, partially offset by higher Construction and environmental business volumes
- Operating profit down due largely to lower PGA volumes and temporary cost of sales related to the US PGA plant combined with the lack of prior year's bargain business purchase gain, partially offset by margin expansion in environmental businesses
- Profit for the period decreased on lower operating profit and profit before income tax

FY2020 1H Overview

KUREHA CORPORATION

Segment results

(in billions of yen)



(Factors attributing to operating profit)

AM: Decline driven by PPS, PGA and carbon products, despite improved earnings for PVDF

SC: Decline in industrial chemicals more than offsetting higher profit in agrochemicals

SP: Profit even with prior year due to profit increase for fishing lines offset by a decline in packaging materials

CO: Profit even with prior year despite higher sales volumes in the civil engineering business

OO: Growth driven by higher environmental engineering business volumes

FY2020 1H Overview

KUREHA CORPORATION

(in billions of yen)

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

(Notes)

- Other income includes gains from discount business purchase (¥1.5bn)

FY2020 1H	AM	SC	SP	CO	OO	Total
Revenue	18.6	11.1	21.1	5.8	9.5	66.0
Segment operating profit	-0.8	0.9	3.7	0.5	2.0	6.3
Intersegment adjustment						-0.0
Other income						0.2
Other expenses						0.3
Operating profit						6.2
Finance income						0.3
Finance costs						0.1
Profit before income tax						6.4
Profit for the period						4.8

Segment Results: Advanced Materials

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change %
Advanced Materials			
Advanced plastics	13.7	11.6	-15%
Carbon products	3.1	2.6	-17%
Other	4.3	4.5	4%
Segment revenue	21.1	18.6	-12%
Segment operating profit	2.7	-0.8	--

Vs. FY2019 1H

Revenue ↓ Operating Profit ↓

Advanced plastics

PPS: Profit declined on lower volumes for automobile applications and lower equity income in affiliates

PVDF: Higher profit driven by volume growth for LiB binder applications, partially offset by declines in other applications

PGA: Revenue down on lower frac plugs and stock shapes volumes as shale oil production slowed with falling oil prices; a sharp decline in operating profit resulting from temporary cost of sales related to the US plant (plant expenses temporarily recorded due to no production in 1H)

Carbon products

Profit down on lower carbon fiber sales volume for automobile and furnace insulation applications

Other

Profit even with prior year despite higher adhesive sales volume

Segment Results: Specialty Chemicals

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change %
Specialty Chemicals			
Agrochemicals	2.3	3.1	33%
Pharmaceuticals	2.4	2.2	-10%
Industrial chemicals	3.6	2.8	-23%
Other	3.3	3.0	-9%
Segment revenue	11.7	11.1	-5%
Segment operating profit	1.0	0.9	-11%

Vs. FY2019 1H

Revenue ↓ Operating Profit ↓

Agrochemicals

Higher profit driven by higher fungicides volumes

Pharmaceuticals

Profit improved on lower expenses, despite a decline in sales affected by the National Health Insurance drug price revisions

Industrial chemicals

Revenue and profit decreased due to slower demand for organic and inorganic chemicals amid COVID-related slump

Segment Results: Specialty Plastics

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change %
Specialty Plastics			
Home products	11.3	11.2	-1%
Fiber products	1.6	2.0	26%
Packaging materials	7.3	5.6	-23%
Other	2.8	2.3	-16%
Segment revenue	22.9	21.1	-8%
Segment operating profit	3.7	3.7	-0%

Vs. FY2019 1H

Revenue ↘ Operating Profit →

Home products / Fiber products

Higher profit driven by volume growth for 'Seaguar' fishing lines, despite flat home products sales

Packaging materials

Profit declined due to slower sales of heat-shrink multilayer film in EU and Australia meat markets amid COVID, combined with effects of the transfer of the blow-bottle business (divested in FY2019)

Segment Results: Construction

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change %
Construction			
Construction	9.6	9.3	-3%
Elimination (Intercompany sale)	-4.2	-3.5	--
Segment revenue	5.4	5.8	8%
Segment operating profit	0.4	0.5	5%

Vs. FY2019 1H

Revenue ↗ Operating Profit →

Construction

Revenue up on higher number of civil engineering projects

Segment Results: Other Operations

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change %
Other Operations			
Environmental engineering	5.8	6.8	18%
Logistics	4.1	3.7	-8%
Hospital operations	2.0	1.9	-5%
Others	1.1	1.2	10%
Elimination (Intercompany sale)	-4.4	-4.2	--
Segment revenue	8.5	9.5	11%
Segment operating profit	1.1	2.0	81%

Vs. FY2019 1H

Revenue  Operating Profit 

Environmental Engineering

Profit growth driven by higher industrial waste processing and treatment volumes

Logistics

Revenue and profit even with prior year

Hospital Operations

Declines in revenue and profit

Cash Flow

KUREHA CORPORATION

(billions of yen)

	FY2019 1H	FY2020 1H	Change
Profit before income tax	10.1	6.4	-3.8
Depreciation	6.0	5.8	-0.3
Other	-9.6	-0.8	8.7
Cash flow from operating activities	6.6	11.3	4.7
Cash flow from investing activities	-2.5	3.5	5.9*
Cash flow from financing activities	-2.6	-4.5	-1.8
Effect of exchange rate changes on cash and cash equivalents	-0.1	0.0	0.1
Increase/decrease in cash and cash equivalents	1.4	10.3	8.9
Cash and cash equivalents at beginning of period	6.0	7.3	1.3
Cash and cash equivalents at end of period	7.4	17.6	10.2

* Gains on sales of investment securities: ¥9.2bn (FY20 1H) and ¥4.6bn (FY19 1H)

Financial Position

KUREHA CORPORATION

Assets

	Mar. 31 2020	Sept. 30 2020	Change
Cash and cash equivalents	7.3	17.6	10.3
Trade and other receivables	28.3	25.2	-3.1
Inventories	38.2	36.7	-1.5
Other current assets	5.2	3.4	-1.8
Total current assets	79.0	82.9	3.9
Property, plant and equipment	119.8	119.2	-0.6
Intangible assets	0.8	1.5	0.7
Investments and other assets	47.3	45.1	-2.1
Total non-current assets	167.9	165.9	-2.0
Total assets	246.9	248.8	1.9

Liabilities and Equity

(billions of yen)

	Mar. 31 2020	Sept. 30 2020	Change
Trade and other payables	19.4	17.8	-1.6
Interest-bearing debt	37.3	34.9	-2.4
Provisions	7.8	7.4	-0.4
Other liabilities	15.7	15.6	-0.1
Total liabilities	80.3	75.8	-4.5
Shareholders' equity	18.2	18.2	--
Capital surplus	15.0	15.0	--
Less: Treasury stock	-8.7	-8.7	-0.0
Retained earnings	135.9	146.0	10.1
Other components of equity	4.6	0.9	-3.7
Non-controlling interests	1.6	1.6	-0.0
Total equity	166.6	173.0	6.3
Total liabilities and equity	246.9	248.8	1.9

3. FY2020 Full-Year Outlook

FY2020 Forecast Highlights

KUREHA CORPORATION

□ FY2020 Full-year forecast: ¥14.5bn in operating profit (¥3.5bn down YoY)

- Sales expected to pick up from 3Q onward at a varying speed for each segment

FY2020 Core operating profit by segment

(¥ billion)

	1Q	2Q	1Q-2Q total	3Q-4Q total estimate	Full-year estimate	Change YoY
Advanced Materials	-0.28	-0.48	-0.76	3.4	2.6	-1.1
(Effects of PGA business)	(-1.2)	(-1.4)	(-2.6)	(0.4)	(-2.2)	(-2.2)
Specialty Chemicals	0.20	0.68	0.88	1.3	2.2	0.1
Specialty Plastics	1.78	1.94	3.72	2.3	6.0	-0.3
Construction	0.21	0.26	0.46	0.2	0.7	-0.4
Other Operations	0.62	1.38	2.00	1.5	3.5	0.8
Core operating profit total	2.52	3.79	6.31	8.7	15.0	-1.0

- Advanced Materials exclusive of PGA to record ¥1.1bn increase in operating profit
- Expansion of environmental engineering business driven by higher industrial waste treatment volumes
- Operating profit of ¥14.5bn projected based on core operating profit at ¥15bn (¥1.0bn down YoY) and a ¥2.5bn decrease in the net effect of other income and expenses (gains from fixed asset sales and business restructuring cost recorded in FY2019)

□ Capital investment

PPS: 5000 ton capacity increase at Iwaki Factory; commercial operations scheduled for February 2021

PVDF: Monomer process enhancements at Iwaki Factory; commercial operations scheduled for April 2022

FY2020 Forecast Overview

KUREHA CORPORATION

(in billions of yen except par-share values)

	FY2019 results	FY2020 estimate	Change YOY
Revenue	142.4	138.0	-4.4 (-3.1%)
Core operating profit	16.0	15.0	-1.0 (-6.3%)
Adjustments	0.0	0.0	-0.0
Other income	13.4	0.5	-12.9
Other expenses	11.4	1.0	-10.4
Operating profit	18.0	14.5	-3.5 (-19.6%)
Financial income	0.5	0.5	-0.0
Financial expenses	0.6	0.5	-0.1
Profit before income tax	17.9	14.5	-3.4 (-19.2%)
Profit attributable to owners of Kureha Corp.	13.7	11.5	-2.2 (-16.2%)
Basic profit per share	¥692.61	¥589.19	

Vs. FY2019

- Revenue decline led by:
 - Slower PGA demand in sluggish shale market
 - Effects of the bottle business transfer
 - Slower demand for industrial chemicals
 partly offset by
 - Higher PVDF volume for LiB binder applications
 - Expansion of the environmental business
- Operating profit down due to lower segment operating profit led by Advanced Materials and a decrease in the net effect of other income and expenses
- Profit before income tax to decrease on lower operating profit
- Profit for the period to decrease on lower profit before income tax

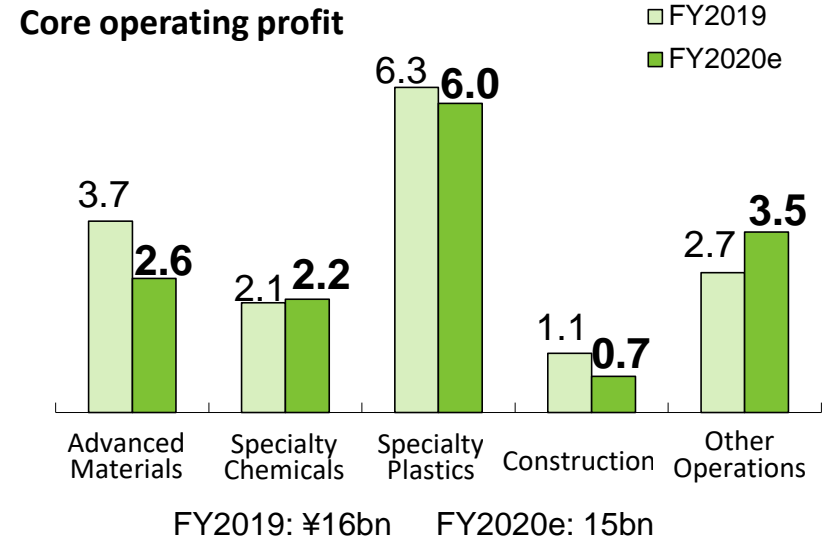
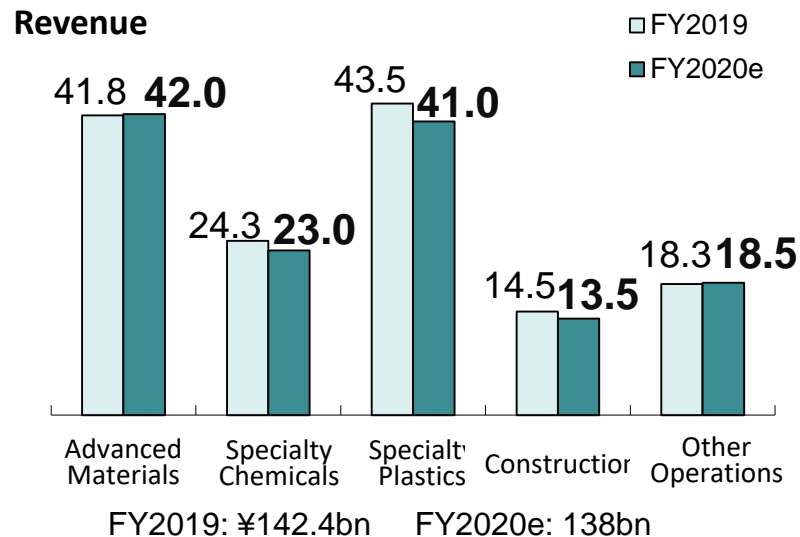


FY2020 Forecast Overview

KUREHA CORPORATION

Segment performance forecast

(in billions of yen)



(Factors attributing to operating profit)

AM: PGA-related operating loss more than offsetting PVDF volume growth

SC: Improved demand for agrochemicals after prior year's inventory adjustments

SP: Slower sales for packaging materials more than offsetting volume growth of fishing lines

CO: Fewer high-margin projects and intensified market competition

OO: Higher environmental engineering business volumes

FY2020 Forecast Overview

KUREHA CORPORATION

(in billions of yen)

FY2019	AM	SC	SP	CO	OO	Total
Revenue	41.8	24.3	43.5	14.5	18.3	142.4
Segment operating profit	3.7	2.1	6.3	1.1	2.7	16.0
Intersegment adjustment						0.0
Other income						13.4
Other expenses						11.4
Operating profit						18.0
Finance income						0.5
Finance costs						0.6
Profit before income tax						17.9
Profit for the period						13.7

(Notes)

- FY2019 other income includes gains from sales of non-current assets (¥10.2bn), bargain business purchase gain (¥1.5bn), and business transfer gain (¥1.2bn)

- FY2019 other expenses include business restructuring costs (¥10.6bn)

FY2020e	AM	SC	SP	CO	OO	Total
Revenue	42.0	23.0	41.0	13.5	18.5	138.0
Segment operating profit	2.6	2.2	6.0	0.7	3.5	15.0
Intersegment adjustment						
Other income						0.5
Other expenses						1.0
Operating profit						14.5
Finance income						0.5
Finance costs						0.5
Profit before income tax						14.5
Profit for the period						11.5

Segment Forecast: Advanced Materials

KUREHA CORPORATION

(billions of yen)

	FY2019	FY2020e	Change %
Advanced Materials			
Advanced plastics	27.4	26.2	-4%
Carbon products	5.6	4.8	-14%
Other	8.9	11.0	24%
Segment revenue	41.8	42.0	0%
Segment operating profit	3.7	2.6	-30%

Vs. FY2019

Revenue  Operating Profit 

Advanced plastics: Revenue down, profit down

- Negative impact of falling oil prices and slower shale oil production on PGA sales
- Slower demand for PPS in auto market
- Robust volume growth of PVDF LiB binder in the EV market supported by environment and economic policies

Carbon products: Revenue down, profit down

- Decreased sales of carbon fiber used for automobile sliding parts

Other: Revenue up, profit up

- Increasing demand for high-performance materials in recovering semiconductor and 5G markets

Segment Forecast: Specialty Chemicals

KUREHA CORPORATION

(billions of yen)

	FY2019	FY2020e	Change %
Specialty Chemicals			
Agrochemicals	5.8	7.2	25%
Pharmaceuticals	4.9	4.1	-16%
Industrial chemicals	6.9	5.8	-16%
Other	6.7	5.9	-12%
Segment revenue	24.3	23.0	-5%
Segment operating profit	2.1	2.2	3%

Vs. FY2019

Revenue ↓ Operating Profit ↑

Agrochemicals: Revenue up, profit up

- Improved demand for agrochemicals after customers' inventory adjustments

Pharmaceuticals: Revenue down, profit down

- Effects of mandatory drug price revisions and distribution inventory adjustments

Industrial chemicals: Revenue down, profit down

- Slower demand for organic and inorganic chemicals

Segment Forecast: Specialty Plastics

KUREHA CORPORATION

(billions of yen)

	FY2019	FY2020e	Change %
Specialty Plastics			
Home products	21.3	21.4	1%
Fiber products	3.0	3.7	23%
Packaging materials	14.1	11.2	-21%
Other	5.1	4.7	-8%
Segment revenue	43.5	41.0	-6%
Segment operating profit	6.3	6.0	-5%

Vs. FY2019

Revenue ↓ Operating Profit ↓

Home products & Fiber products:

Revenue up, profit up

- Continued demand for fishing lines due to increasing popularity of recreational fishing amid the pandemic
- Flat sales growth for home products (NEW Krewrap, Kichinto-san series)

Packaging materials: Revenue down, profit down

- Slower sales of heat-shrink multilayer film in EU and Australia meat markets amid COVID
- Effects of the transfer of the blow-bottle business (divested in FY2019)

Segment Forecast: Construction

KUREHA CORPORATION

(billions of yen)

	FY2019	FY2020e	Change %
Construction			
Construction	22.4	20.5	-8%
Elimination (Intercompany sale)	-7.9	-7.0	--
Segment revenue	14.5	13.5	-7%
Segment operating profit	1.1	0.7	-39%

Vs. FY2019

Revenue ↓ Operating Profit ↓

Construction: Revenue down, profit down

- Decrease in high-margin construction projects
- Intensified market competition

Segment Forecast: Other Operations

KUREHA CORPORATION

(billions of yen)

	FY2019	FY2020e	Change %
Other Operations			
Environmental engineering	12.8	13.5	6%
Logistics	8.2	7.5	-8%
Hospital operations	4.0	4.0	-0%
Others	2.2	2.5	15%
Elimination (Intercompany sale)	-8.9	-9.0	--
Segment revenue	18.3	18.5	1%
Segment operating profit	2.7	3.5	29%

Vs. FY2019

Revenue  Operating Profit 

Environmental engineering:

Revenue up, profit up

- Higher industrial waste processing and treatment volumes related particularly to low PCB concentration wastes

Logistics: Revenue down, profit down

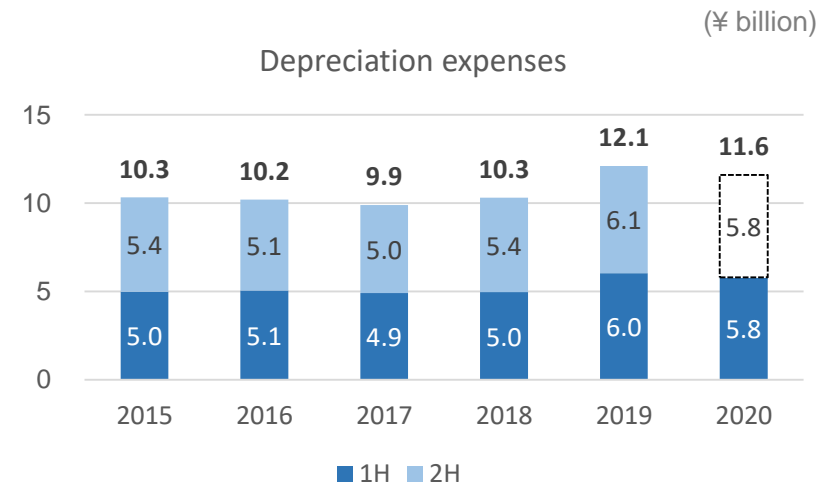
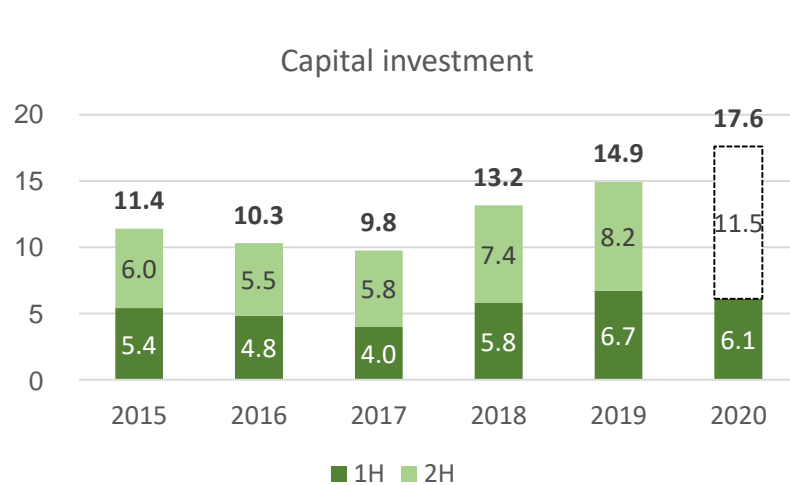
- Slower demand in and outside the Group

Hospital operations: Revenue down, profit down

- Fewer number of visiting patients

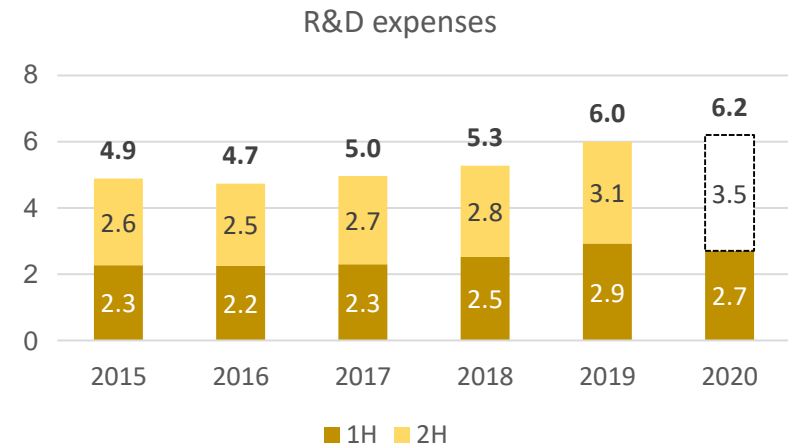
Key Indicators

KUREHA CORPORATION



FY2020 capital investment

Expected to increase due to factors including relocating a part of the R&D division and promoting digitalization in addition to the investment for PPS production capacity increase continuing from FY2018



Cash Flow

KUREHA CORPORATION

(billions of yen)

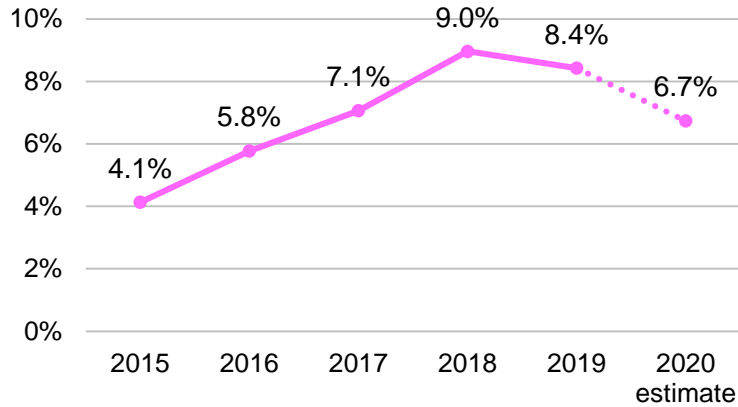
	FY2019	FY2020e	Change
Profit before income tax	17.9	14.5	-3.4
Depreciation	12.1	11.6	-0.5
Other	-14.9	-5.7	9.1
Cash flow from operating activities	15.2	20.4	5.2
Cash flow from investing activities	5.5[*]	-8.2	-13.6
Cash flow from financing activities	-19.4	-9.0	10.4
Effect of exchange rate changes on cash and cash equivalents	-0.0	0.0	0.0
Increase/decrease in cash and cash equivalents	1.3	3.2	2.0
Cash and cash equivalents at beginning of period	6.0	7.3	1.3
Cash and cash equivalents at end of period	7.3	10.5	3.2

* Gains on sales of non-current assets: ¥10.8bn (FY2019)

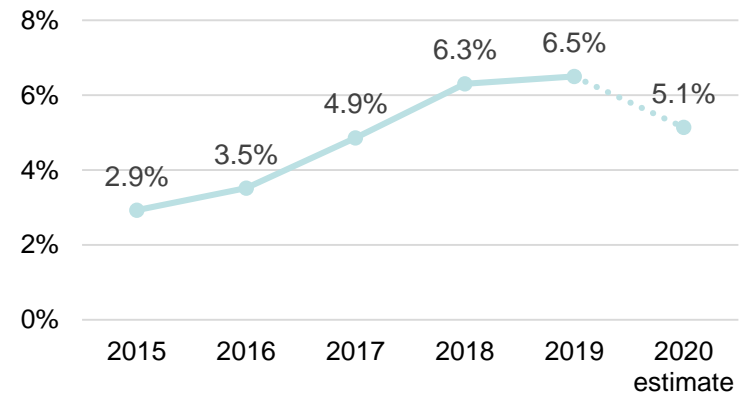
Key Indicators

KUREHA CORPORATION

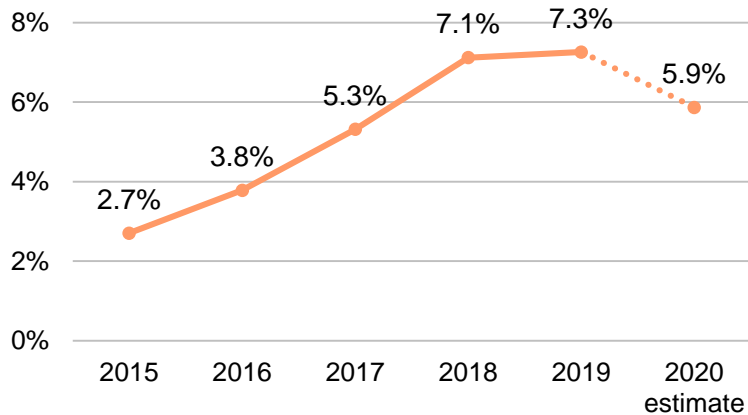
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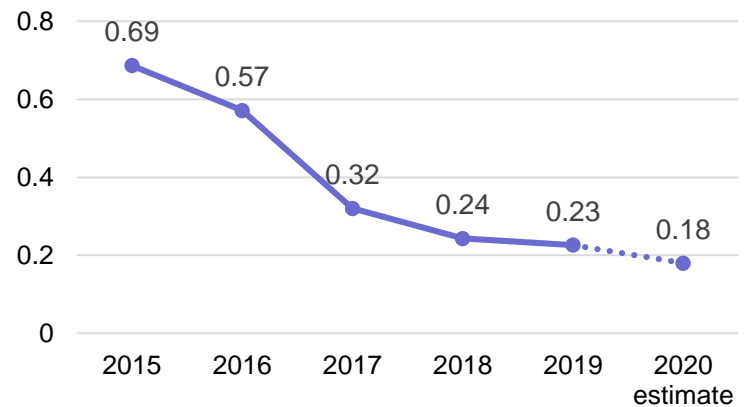
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ROA



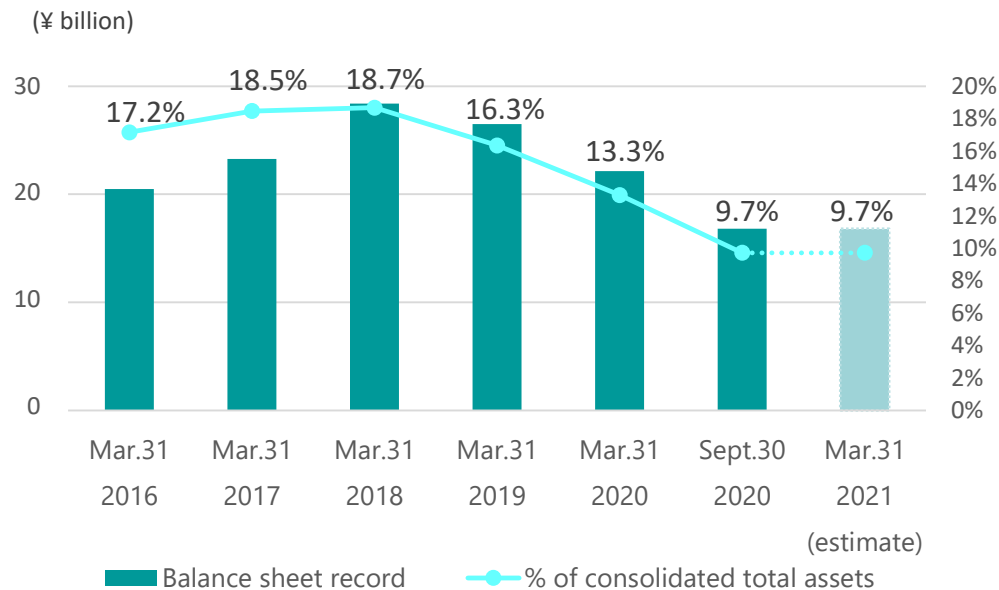
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Key indicators

KUREHA CORPORATION

Cross-shareholdings Ratio of Cross-shareholdings to Consolidated Total Assets



Kureha's cross-shareholdings decreased over past years, falling below 10% of its consolidated total assets.

3. Consolidated Companies

Revenues and Assets

KUREHA CORPORATION

(billions of yen)

		FY2019 1H		FY2020 1H		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Kureha Corporation		32.3	196.9	29.5	192.3	-2.8	-4.5
Kureha Trading Group (2)		8.8	12.3	8.5	12.2	-0.3	-0.1
Advanced Materials	Kureha Corporation	15.2	--	12.8	--	-2.4	--
	Kureha Trading Group (2)	4.4	--	5.6	--	1.2	--
	Kureha Extron	1.6	5.5	1.4	4.3	-0.2	-1.2
	Kureha GmbH	1.1	0.9	0.8	1.0	-0.3	0.2
	Kureha America Group (3)	1.9	27.9	1.2	25.2	-0.7	-2.7
	Kureha (Shanghai) Carbon Fiber Materials	0.7	1.3	0.4	1.2	-0.3	-0.1
	Kureha China Group (2)	3.5	9.7	2.6	10.0	-0.9	0.3
	Consolidation adjustments	-7.3	--	-6.1	--	1.1	--
Total		21.1	--	18.6	--	-2.5	--
Specialty Chemicals	Kureha Corporation	9.6	--	9.0	--	-0.5	--
	Kureha Trading	3.6	--	3.3	--	-0.4	--
	Consolidation adjustments	-1.5	--	-1.2	--	0.3	--
	Total	11.7	--	11.1	--	-0.6	--
Specialty Plastics	Kureha Corporation	14.0	--	12.9	--	-1.1	--
	Kureha Trading	2.7	--	2.1	--	-0.6	--
	Kureha Gohsen	2.3	5.0	2.3	5.2	0.0	0.2
	Kureha China Group (2)	0.1	--	0.1	--	0.0	--
	Kureha America Group (3)	0.8	0.7	1.0	0.9	0.2	0.2
	Kureha Europe Group (4)	4.2	7.2	3.5	7.0	-0.7	-0.2
	Kureha Vietnam	1.6	3.1	1.5	2.9	-0.1	-0.3
	Consolidation adjustments	-2.7	--	-2.3	--	0.4	--
Total		22.9	--	21.1	--	-1.8	--

Revenues and Assets

KUREHA CORPORATION

(billions of yen)

		FY2019 1H		FY2020 1H		Change	
		Revenue	Total assets	Revenue	Total assets	Revenue	Total assets
Construction	Kureha Nishiki Group (4)	8.1	11.2	7.0	11.2	-1.1	-0.0
	Kureha Engineering	1.5	1.9	2.3	2.3	0.8	0.4
	Consolidation adjustments	-4.2	--	-3.5	--	0.7	--
	Total	5.4	--	5.8	--	0.4	--
Other Operations	Kureha Ecology Management Group (2)	5.2	22.6	6.2	26.8	1.0	4.1
	Kureha Special Laboratory	0.6	0.7	0.6	0.7	-0.0	0.0
	Kureha Unyu Group (2)	4.1	5.4	3.7	5.5	-0.3	0.0
	Kureha Trading	0.0	--	0.0	--	-0.0	--
	Kureha Service	0.3	1.2	0.4	1.7	0.1	0.5
	Kureha Staff Service	0.8	0.6	0.8	0.6	0.0	-0.0
	Kureha-Kai Medical Corp.	2.0	3.4	1.9	3.5	-0.1	0.1
	Consolidation adjustments	-4.4	--	-4.2	--	0.2	--
	Total	8.5	--	9.5	--	1.0	--
Kureha Group Total		69.6	--	66.0	--	-3.5	--
<i>Number of consolidated subsidiaries and equity- method affiliates</i>		30		30			

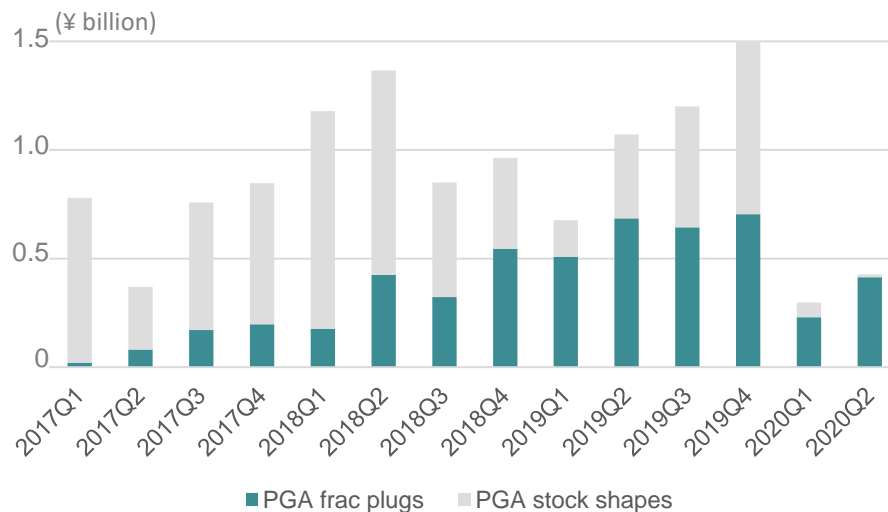
*Parenthesized numbers indicate the number of consolidated companies for each group.

4. Supplementary

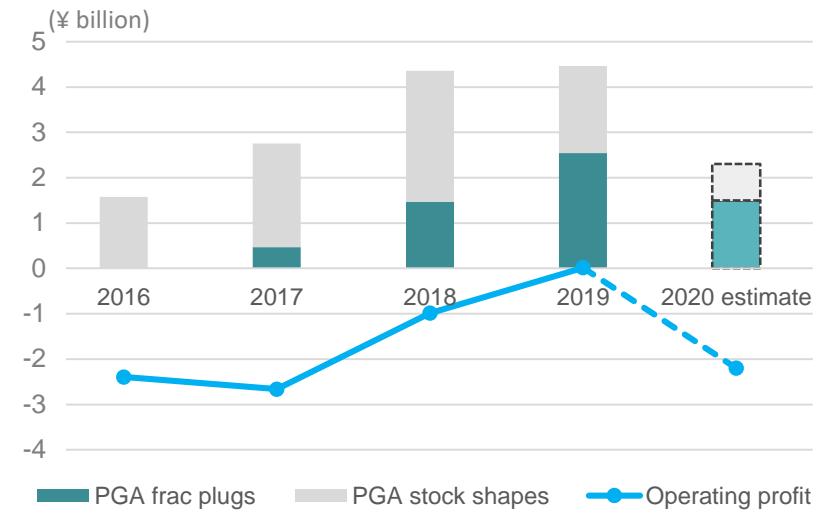
PGA Business Updates

KUREHA CORPORATION

Quarterly business revenue



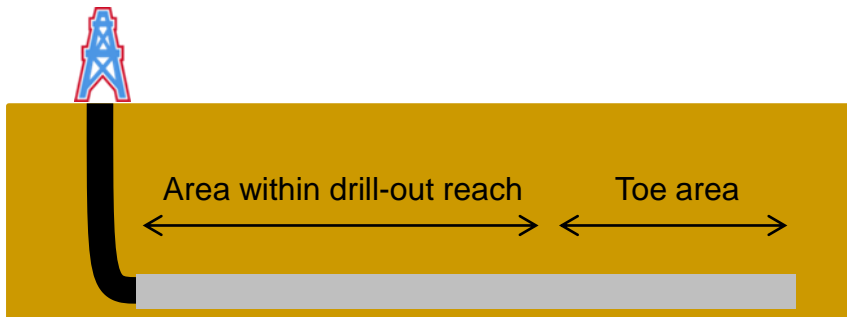
Revenue & operating profit FY2016 - FY2020e



- During the first six months of FY2020, market conditions shifted sharply as COVID-related economic slump and plunging oil prices caused shale drilling operations to slow down across the US. However, drilling and fracking operations are gradually returning along with other economic activities.
- We will accelerate the development of new products to meet diverse market needs, while positioning PGA frac plug as a core product.

Present material types of frac plugs

Underground temperatures	Area within drill-out reach	Area beyond drill-out reach (toe)
Mid to High	Undissolvable materials + drill-out	Dissolvable (PGA)
Low to Mid	Undissolvable materials + drill-out	Dissolvable (PGA, dissolvable metals)
Ultra-low to Low	Undissolvable materials + drill-out	Degradable (Dissolvable metals)



Business expansion strategies

① Marketing strategy for business expansion

By improving the current PGA frac plugs and offering price flexibility for customers, we aim to promote PGA frac plugs for use in the entire horizontal wellbore and increase sales volume.

② Technological strategy for business expansion

As a first step, we will develop a differentiated non-PGA dissolvable frac plug by leveraging our original technologies to enhance the product lineup, and begin to sell the plug in areas with low-to-middle ground temperatures.

Next we will develop a PGA frac plug targeted for the ultra-low-to-low temp areas and expand the sale of PGA frac plugs in all temperature areas.

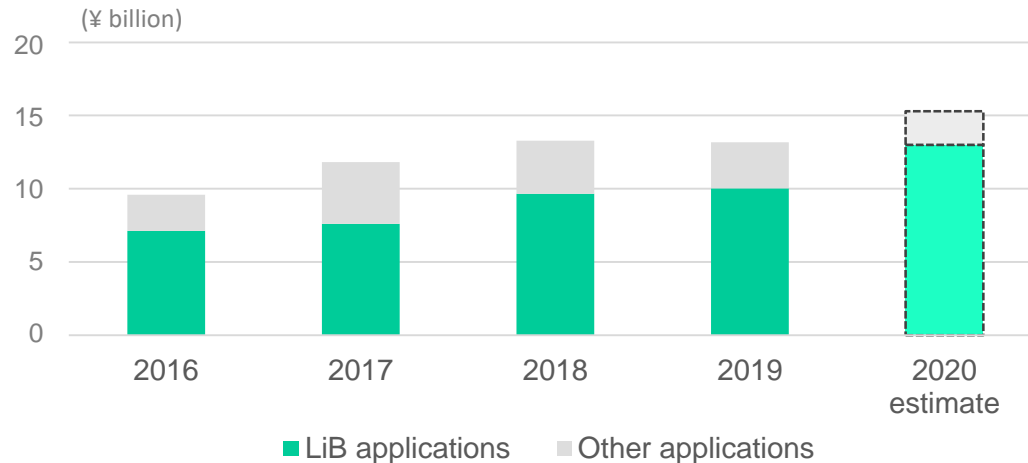
FY2019 US frac plug market (estimate)

- Total 600,000 frac plugs employed
- Of the above frac plugs, 60,000 were dissolvable, including 20,000 PGA frac plugs

PVDF Business Updates

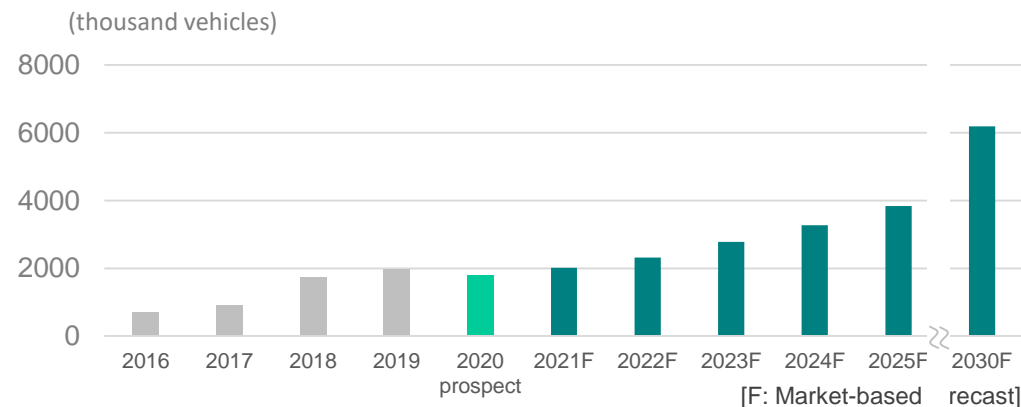
KUREHA CORPORATION

Business revenue FY2016 – FY2020e



- Primary customers are major South Korean and Chinese lithium-ion battery (LiB) makers
- Maintains a roughly 40% share in the automotive LiB cathode binder market
- LiB production was largely disrupted due to COVID during the first six months of FY2020, but the market is rapidly recovering on the back of tighter environmental regulations and economic stimulus policies
- Commenced production and supply of PVDF binder specialty grades at the China Changshu plant in May 2020
- Will continue to study for additional PVDF manufacturing facility, although delayed due to COVID, and will release details including its location (most likely in China) by Spring 2021. Commercial operations of the new plant is scheduled to start in FY2024

Trend of global electric vehicle production*

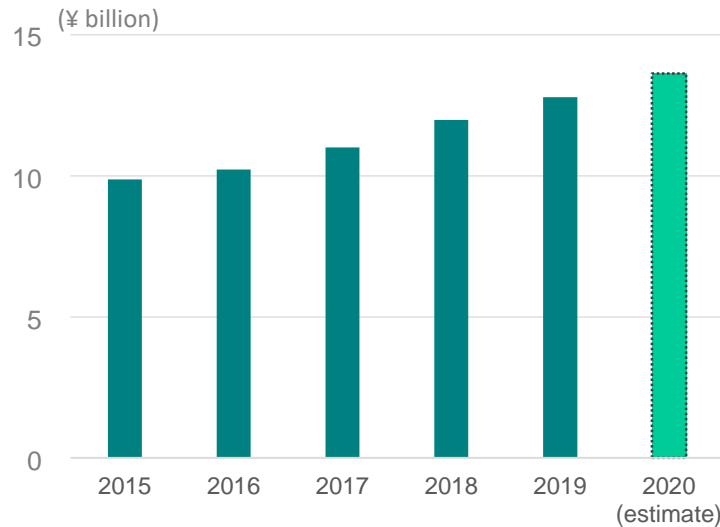


*Source: Yano Research Institute Ltd. (2020.08)

Environmental Engineering Business

KUREHA CORPORATION

Business revenue *Including inter-group sales (approx. 10%)



Primary areas of business



Intermediate waste treatment
Intermediate processing of industrial wastes is properly conducted at two locations equipped with furnaces (in Iwaki City in Fukushima and Kawasaki City in Kanagawa)



Final waste treatment and disposal
Final treatment and disposal of industrial wastes is performed at a site in Iwaki City



Environmental engineering
Provides water and gas (VOCs) treatment systems and equipment and related management services

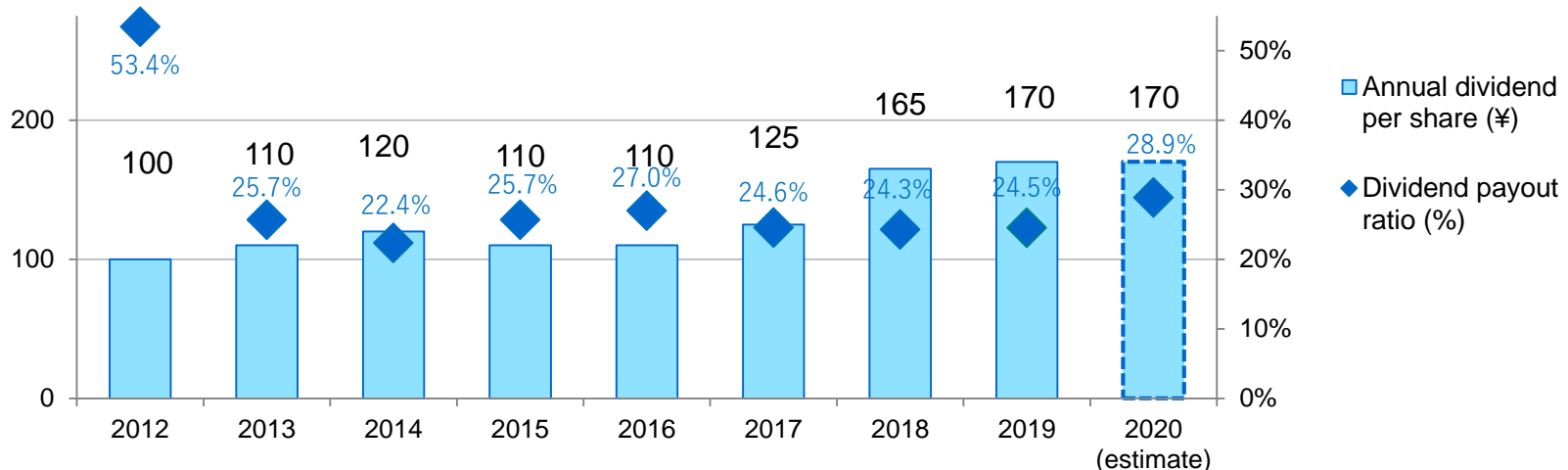
- Kureha Ecology Management (KEM) leverages its waste treatment technologies for hard-to-detoxify wastes such as industrial wastes with low polychlorinated biphenyl (PCB) concentration and chlorine- and fluorine-based halogen compounds
- In FY2019, KEM acquired full ownership of Himeyuri Total Work Co. which owned a final treatment site for industrial wastes

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.
- Share repurchase allows flexible capital management and is considered as a viable option.
**Presently Kureha is closely watching for any credit risks and effects of COVID on the financial market and has no plan to repurchase its own shares.*

Recent trends of annual dividend payout and dividend payout ratio



Notes:

- 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
- Accounting standards: Japanese GAAP (-2015); IFRS (FY2016-)
- Annual dividend for FY2014 and FY2018 includes a commemorative dividend of ¥10
- Kureha repurchased treasury shares in FY2018 (¥3bn) and in FY2019 (¥5bn)

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.