

Mid-Term Management Plan Kureha's Challenge 2020

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’

KUREHA

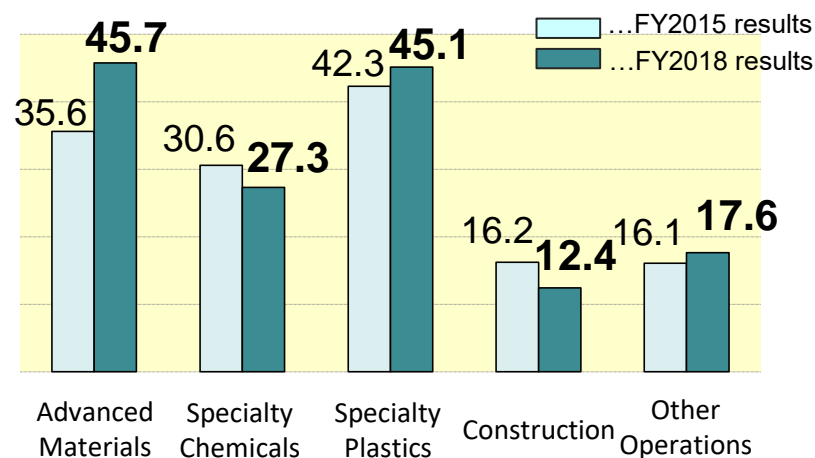
FY2018 Results vs. FY2015 Results

KUREHA CORPORATION

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

Revenue

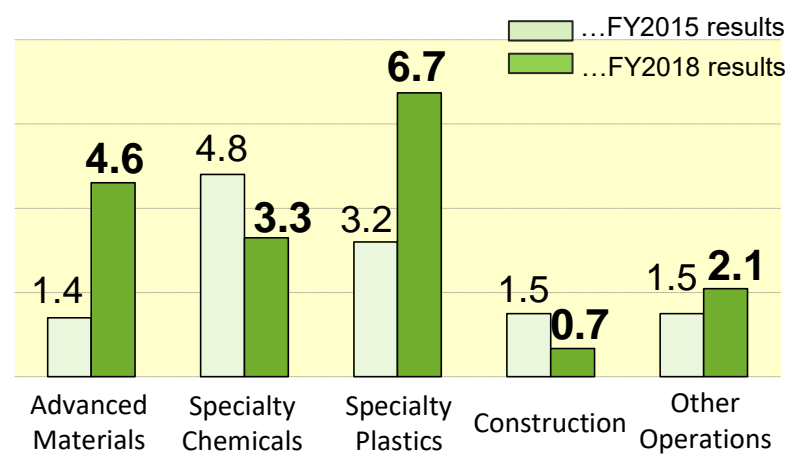
FY2015: ¥140.8bn FY2018: ¥148.3bn



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)

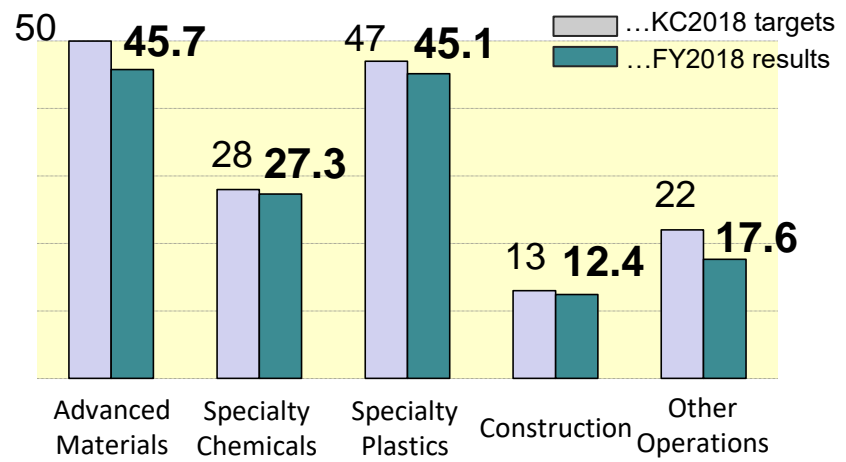
- AM: Earnings expanded for PVDF, improved operating margin for carbon products, Lower PPS earnings
- SC: Higher earnings generated by pharmaceuticals and agrochemicals
- SP: Higher earnings in home products and fiber products, improved operating margin for packaging materials
- CO: Lower earnings due 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

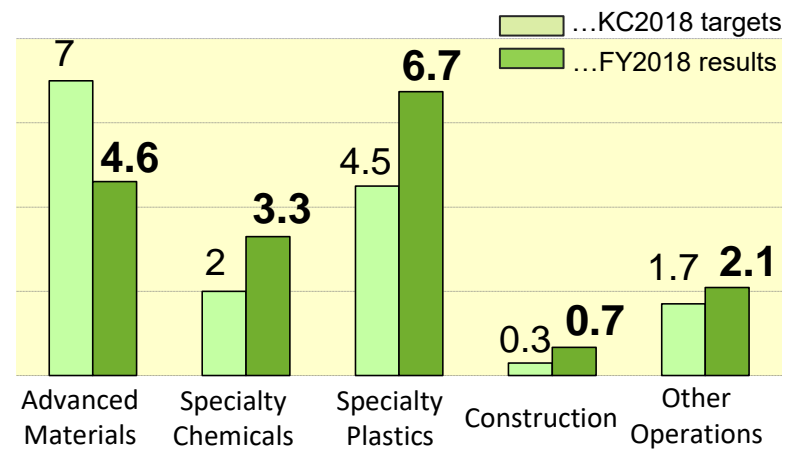
KC2018 Targets: ¥160bn FY2018 Results: ¥148.3bn



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%)	157.0 (33%)	8.7
Operating profit (% operating margin)	17.2 (11.6%)	18.0 (11.5%)	0.8
Profit attributable to owners of Kureha Corp.	13.9	14.0	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%	8.0%
ROA	7.1%	Same level as FY2018

	FY2018 Results	FY2019 -2020 Targets
Capital investment	13.2	38.0
R&D investment	5.3	13.0

KC2020: Qualitative Plan

KUREHA CORPORATION

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

(billions of yen)

FY2020 vs. FY2018
Operating profit in
key businesses:

(AD)

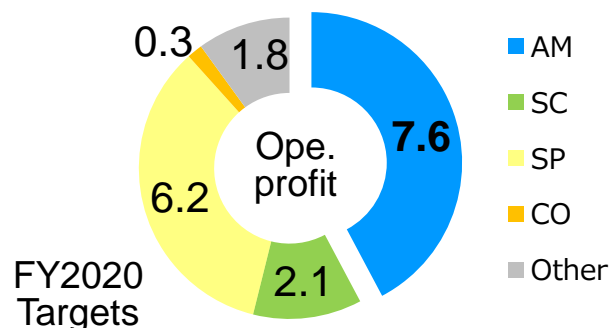
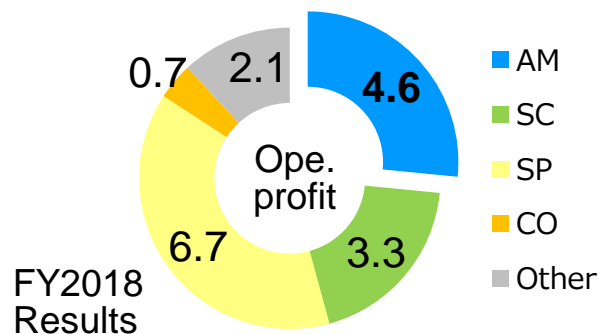
PGA ↑
PPS ↑
PVDF ↑
Carbon ↓

(SC)

Agrochemicals ↓
Pharmaceuticals ↑
Ind. Chemicals ↓

(SP)

Home products ↓
Packaging ↓



KC2020: Capital Expenditure, R&D

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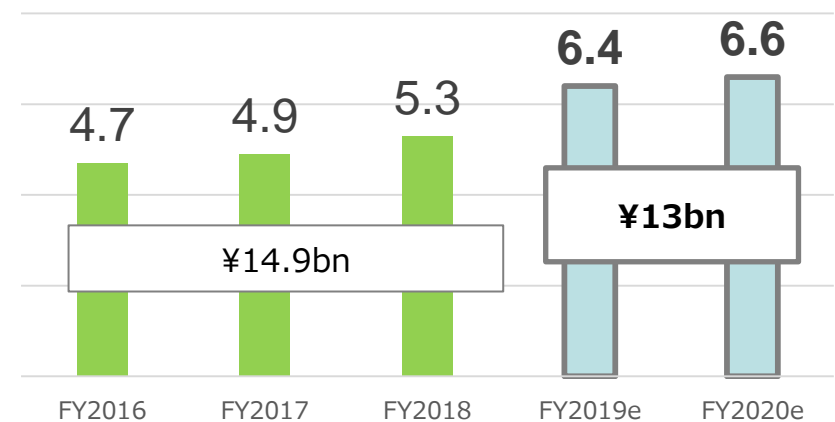
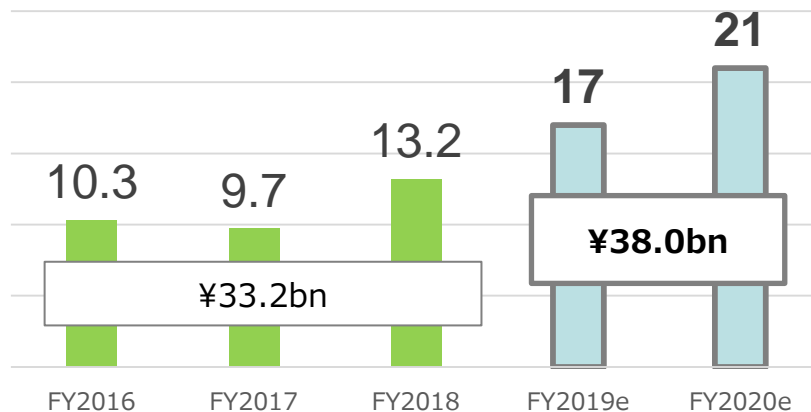
Kureha actively invests for its future expansion utilizing both operating cash flow and cash gained through effective use of assets

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 new azole-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

Promoting the CSR Management

Continued management in line with the corporate governance guidelines

Improved the CSR management system

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

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

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

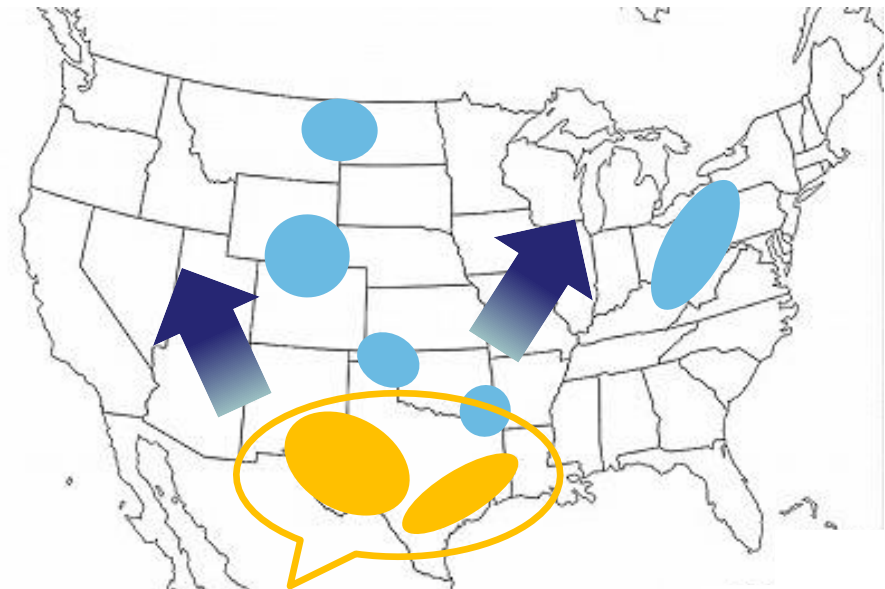
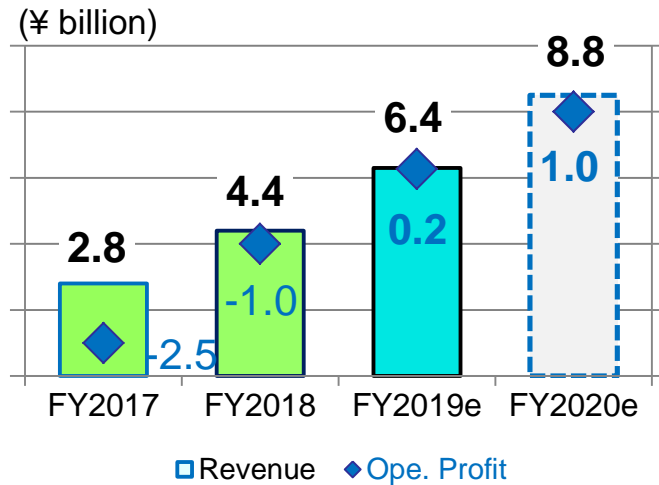
develop products to solve social issues including those targeted as the SDGs

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

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



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



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

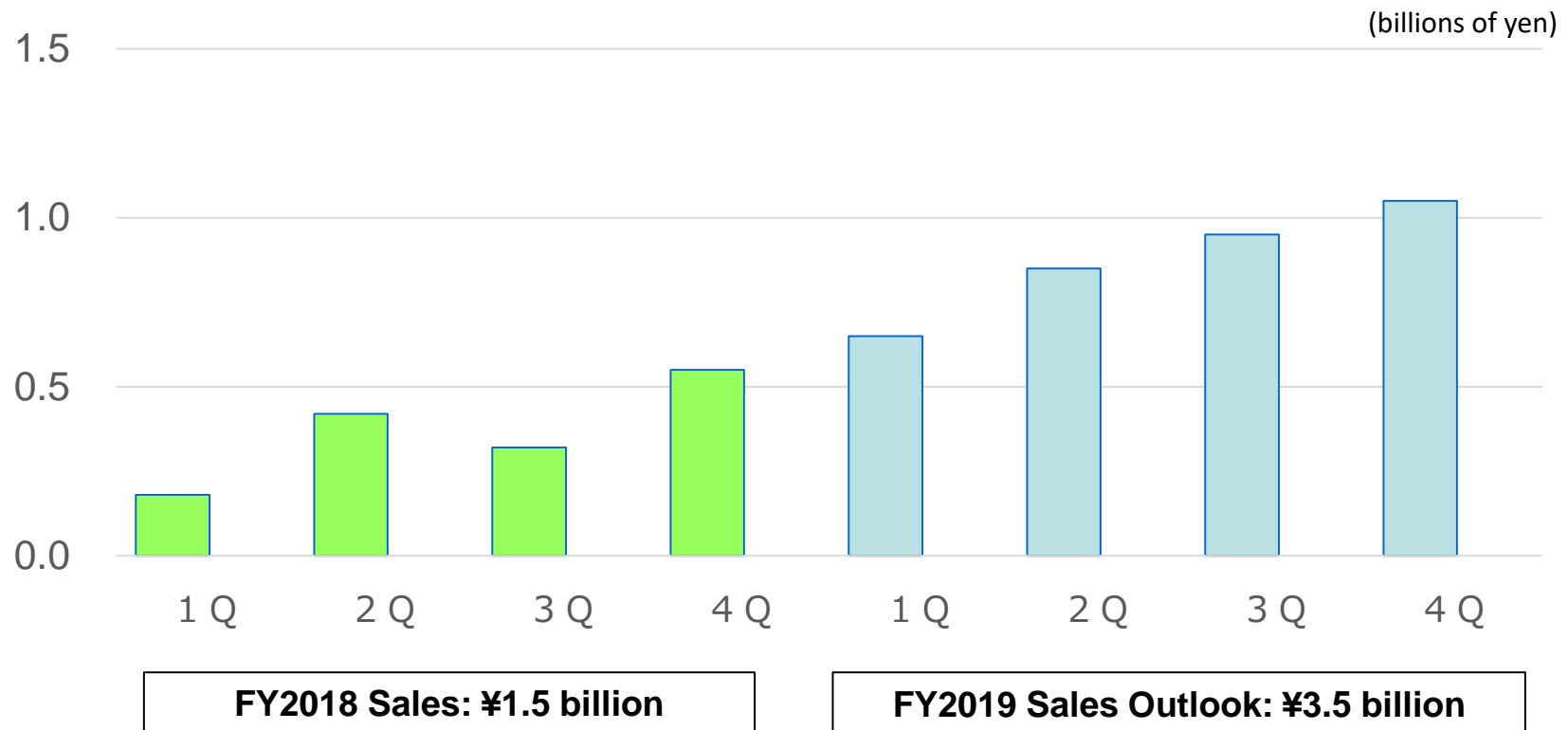


Kureha Degradable Plugs (KDPs)

- 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
- 1st 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)

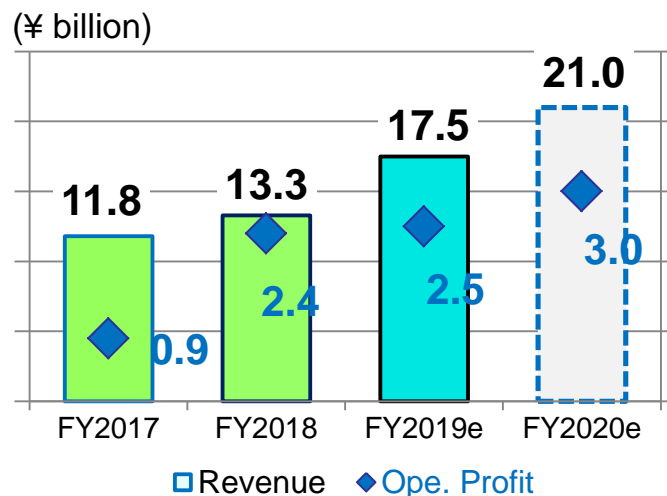
Kureha Energy Solutions: KDP Quarterly Sales FY2018-2019



Expansion of PVDF Business

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- 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.

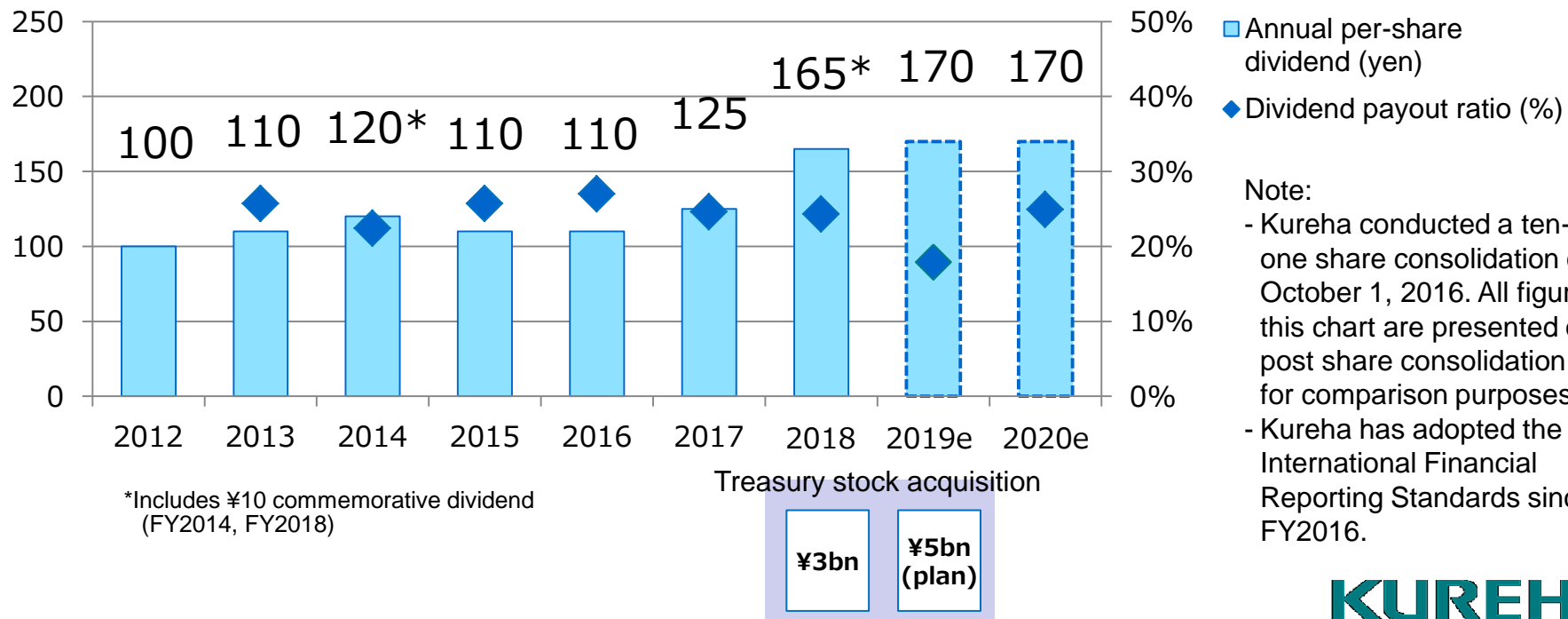
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Returning to Shareholders

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- 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.

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