

May 15, 2020

Presentation for Investors

FY2019 (April 1, 2019 – March 31, 2020)

Financial Results

Presented by MIYAZAKI Junichi,
Director, Senior Executive Vice President & CFO

Translation of presentation materials for the conference call held on May 15, 2020



Nissan Chemical
CORPORATION

**Institutional
Investor**

2020 ALL-JAPAN EXECUTIVE TEAM

MOST HONORED COMPANY

NISSAN CHEMICAL CORPORATION

Highlight

1. 2H FY2019 Actual Review

(1) vs. 2H FY2018

- ◆ OP up ¥2.9 billion (2H FY2019 Actual ¥20.6 billion vs. 2H FY2018 Actual ¥17.7 billion)
Performance Materials and Agrochemicals up, Chemicals down, Pharma flat
- ◆ Net Income up ¥2.3 billion (2H FY2019 Actual ¥16.3 billion vs. 2H FY2018 Actual ¥14.0 billion)

(2) vs. 2H FY2019 Outlook as of November 2019

- ◆ OP flat (2H FY2019 Actual ¥20.6 billion vs. 2H FY2019 Outlook ¥20.6 billion)
Performance Materials above target, Chemicals, Agrochemicals and Pharma below target
- ◆ Net Income up ¥0.2 billion (2H FY2019 Actual ¥16.3 billion vs. 2H FY2019 Outlook ¥16.1 billion)

2. Full Year FY2019 Actual Review

*Net Income = Profit Attributable to Owners of Parent

(1) vs. Full Year FY2018

- ◆ OP up ¥1.5 billion (FY2019 Actual ¥38.6 billion vs. FY2018 Actual 37.1 billion)
Performance Materials and Agrochemicals up, Chemicals and Pharma down
- ◆ Net Income up ¥1.4 billion (FY2019 Actual 30.8 billion vs. FY2018 Actual ¥29.4 billion)
- ◆ As a result, OP and Ordinary Income renewed the annual highest results in 6 consecutive years, and
Net Income renewed the annual highest results in 7 consecutive years
- ◆ ROE reached 16.9%, higher than FY2018 Actual 16.6% and 16.8% target as of Nov. 2019
(Mid-term Plan target : above 16%)

(2) Shareholders Return

- ◆ Annual dividend up ¥8/share (FY2019 Actual ¥90 = 1H 42 + 2H 48 vs. FY2018 Actual ¥82 = 1H 40 + 2H 42),
up ¥2/share vs. ¥88/share target as of Nov. 2019
- ◆ Dividend payout ratio reached 42.8% vs. FY2018 Actual 41.5%, Mid-term Plan FY2019 target 42.5%
- ◆ Share repurchase up ¥1.0 billion (FY2019 Actual ¥10.0 billion vs. FY2018 Actual ¥9.0 billion)
- ◆ Total payout ratio 75.1%, higher than FY2018 Actual 72.0% and Mid-term plan FY2019 target 72.5%

Highlight

3. Full Year FY2020 Outlook

FY2020 Outlook does not reflect the effects of the COVID-19 pandemic since they cannot be reasonably assessed at this time

(1) vs. Full Year FY2019

- ◆ OP up ¥0.7 billion (FY2020 Outlook ¥39.3 billion vs. FY2019 Actual ¥38.6 billion)
Chemicals and Performance Materials up, Agrochemicals and Pharma down
- ◆ Net Income flat (FY2020 Outlook ¥30.8 billion vs. FY2019 Actual ¥30.8 billion)
- ◆ ROE 16.4%, lower than FY2019 Actual 16.9%, but higher than Mid-term Plan target (above 16%)

*Net Income = Profit Attributable to Owners of Parent

(2) Shareholders Return

- ◆ Annual dividend up ¥6/share
(FY2020 Outlook ¥96 = 1H 46 + 2H 50 vs. FY2018 Actual ¥90 = 1H 42 + 2H 48)
- ◆ Dividend payout ratio 44.8% vs. FY2019 Actual 42.8%, Mid-term Plan FY2020 target 45.0%
- ◆ Announced a ¥7.0 billion (2.6 million share) share repurchase program on May 15, 2020
- ◆ Total payout ratio expected to be 67.4% taking into account of ¥96/share dividend and ¥7.0 billion share repurchase program (Mid-term Plan FY2020 target: 75%)

FY2019 PL⁽¹⁾

(¥billion)

	FY2018			FY2019			Change			Change (%)	FY2019 Outlook as of Nov. 2019		
	1H	2H	Total	1H	2H	Total	1H	2H	Total	Total	1H Actual	2H	Total
Sales	98.0	106.9	204.9	96.5	110.3	Record 206.8	-1.5	+3.4	+1.9	+1%	96.5	112.5	209.0
Operating Profit	19.4	17.7	37.1	18.0	20.6	Record 38.6	-1.4	+2.9	+1.5	+4%	18.0	20.6	38.6
Non-Operating Income/Expenses	1.2	0.8	2.0	0.6	0.8	1.4	-0.6	-0.0	-0.6	-	0.6	0.5	1.1
Ordinary Income	20.6	18.5	39.1	18.6	21.4	Record 40.0	-2.0	+2.9	+0.9	+2%	18.6	21.1	39.7
Extraordinary Income/Loss	0.0	0.0	0.0	0.9	0.1	1.0	+0.9	+0.1	+1.0	-	0.9	0.0	0.9
Net Income (2)	15.4	14.0	29.4	14.5	16.3	Record 30.8	-0.9	+2.3	+1.4	+5%	14.5	16.1	30.6
EBITDA (3)	24.4	23.6	48.0	22.7	26.5	49.2	-1.7	+2.9	+1.2	+2%	22.7	26.2	48.9
EPS (¥/share)	103.53	94.14	197.67	98.75	111.34	210.09	-4.78	+17.20	+12.42	+6%	98.75	110.17	208.92
Dividend (¥/share)	40	42	82	42	48	90	+2	+6	+8		42	46	88
Total amount of Dividend	5.9	6.2	12.1	6.2	6.9	13.1	+0.3	+0.7	+1.0		6.2	6.7	12.9
OP Margin	19.8%	16.6%	18.1%	18.7%	18.7%	18.7%	-1.1%	+2.1%	+0.6%		18.7%	18.3%	18.5%
ROE	-	-	16.6%	-	-	16.9%	-	-	+0.3%		-	-	16.8%
FX Rate (¥/\$)	110	112	111	109	109	109					109	108	
Crude Oil (JCC) (\$/bbl) (4)	74	70	72	69	67	68					69	67	

(1) FY2018 = April 1, 2018 - March 31, 2019

(2) Net Income = Profit Attributable to Owners of Parent

(3) EBITDA = Operating Profit + Depreciation

(4) Based on Trade Statistics of Japan Ministry of Finance

2H FY2019 Review

< vs. 2H FY2018 >

(Sales) ◆ Up ¥ 3.4 billion (+3%) (+) Performance Materials, Agrochemicals, Pharmaceuticals, Trading

(OP) ◆ Up ¥ 2.9 billion (+17%) (−) Chemicals
(+) Performance Materials, Agrochemicals, Trading
(±) Pharmaceuticals
(−) Chemicals

(Ordinary Income) ◆ Up ¥ 2.9 billion (+16%)

(Net Income) ◆ Up ¥ 2.3 billion (+18%)

(EPS) ◆ Up ¥ 17.20 (+18%)

< vs. 2H FY2019 Outlook as of November 2019 >

(Sales) ◆ Down ¥ 2.2 billion (+) Performance Materials, Trading
(±) Pharmaceuticals

(OP) ◆ Flat (−) Chemicals, Agrochemicals

(+) Performance Materials

(±) Trading

(−) Chemicals, Agrochemicals, Pharmaceuticals

(Ordinary Income) ◆ Up ¥ 0.3 billion

(Net Income) ◆ Up ¥ 0.2 billion

(EPS) ◆ Up ¥ 1.17

FY2019 Review

< vs. FY2018 >

(Sales) ◆ Up ¥ 1.9 billion (+1%) (+) Performance Materials, Agrochemicals

(±) Pharmaceuticals, Trading

(-) Chemicals

(OP) ◆ Up ¥ 1.5 billion (+4%) (+) Performance Materials, Agrochemicals, Trading

(-) Chemicals, Pharmaceuticals

(OP Margin) ◆ 18.7% **More than 10% OP Margin in 17 consecutive years since FY2003**

(Ordinary Income) ◆ Up ¥ 0.9 billion (+2%)

(Extraordinary Income/Loss) ◆ Up ¥ 1.0 billion

(Extraordinary Income) ¥1.8 billion (Gain on sales of investment securities ¥1.8 billion, sales amount ¥3.2 billion, sold total 13 listed companies shares, including 7 listed companies sold 100% of our shareholdings)

(Extraordinary Loss) ¥0.8 billion (NCC's payment of a fee for a licensing arrangement relating to Fluralaner)

(Net Income) ◆ Up ¥ 1.4 billion (+5%)

(EPS) ◆ Up ¥ 12.42 (+6%)

(ROE) ◆ 16.9% (FY2018: 16.6%)

★ OP and Ordinary Income renewed the highest results of a full year in 6 consecutive years.

★ Net Income renewed the highest results of a full year in 7 consecutive years.

< Shareholders Return >

(Dividend) ◆ 1H ¥42/share, 2H ¥48/share, total ¥90/share

(Dividend Payout Ratio : 42.8%, up +1.3% vs. FY2018)

(total up ¥8/share vs. FY2018) (up ¥2/share vs. FY2019 Outlook as of November 2019)

(Share Repurchase) ◆ ¥10.0 billion, 2.1 million shares completed (FY2018: ¥9.0 billion, 1.7 million shares)

(Cancellation of Shares) ◆ 3 million shares

(Total Payout Ratio) ◆ 75.1% (achieved Mid-Term Plan target 72.5%)

2H FY2019 PL

(¥billion)

	FY2018			FY2019			Change			FY2019 Outlook as of Nov. 2019		
	3Q	4Q	2H	3Q	4Q	2H	3Q	4Q	2H	3Q	4Q	2H
Sales	43.9	63.0	106.9	41.5	68.8	110.3	-2.4	+5.8	+3.4	42.5	70.0	112.5
Operating Profit	4.4	13.3	17.7	3.4	17.2	20.6	-1.0	+3.9	+2.9	2.6	18.0	20.6
Non-Operating Income/Expenses	0.4	0.4	0.8	0.5	0.3	0.8	+0.1	-0.1	-0.0	0.3	0.2	0.5
Ordinary Income	4.8	13.7	18.5	3.9	17.5	21.4	-0.9	+3.8	+2.9	2.9	18.2	21.1
Extraordinary Income/Loss	0.0	0.0	0.0	0.0	0.1	0.1	+0.0	+0.1	+0.1	0.0	0.0	0.0
Net Income (1)	3.4	10.6	14.0	3.0	13.3	16.3	-0.4	+2.7	+2.3	2.3	13.8	16.1
EBITDA (2)	7.3	16.3	23.6	6.3	20.2	26.5	-1.0	+3.9	+2.9	-	-	26.2
EPS (¥/share)	23.11	71.03	94.14	20.76	90.58	111.34	-2.35	+19.55	+17.20	-	-	110.17
Dividend (¥/share)	-	-	42	-	-	48	-	-	+6	-	-	46
Total amount of Dividend	-	-	6.2	-	-	6.9	-	-	+0.7	-	-	6.7
OP Margin	10.1%	21.1%	16.6%	8.2%	25.0%	18.7%	-1.9%	+3.9%	+2.1%	6.1%	25.7%	18.3%

(1) Net Income = Profit Attributable to Owners of Parent

(2) EBITDA = Operating Profit + Depreciation

3Q FY2019 Review

< vs. 3Q FY2018 >

(Sales) ◆ Down ¥ 2.4 billion (-5%)

(OP) ◆ Down ¥ 1.0 billion (-23%)

(Ordinary Income) ◆ Down ¥ 0.9 billion (-20%)

(Net Income) ◆ Down ¥ 0.4 billion (-12%)

(EPS) ◆ Down ¥ 2.35

(+) Performance Materials

(-) Chemicals, Agrochemicals, Pharmaceuticals, Trading

(+) Performance Materials

(±) Trading

(-) Chemicals, Agrochemicals, Pharmaceuticals

< vs. 3Q FY2019 Outlook as of November 2019 >

(Sales) ◆ Down ¥ 1.0 billion

(OP) ◆ Up ¥ 0.8 billion

(Ordinary Income) ◆ Up ¥ 1.0 billion

(Net Income) ◆ Up ¥ 0.7 billion

(+) Performance Materials, Agrochemicals

(±) Pharmaceuticals, Trading

(-) Chemicals

(+) Performance Materials, Agrochemicals, Trading

(-) Chemicals, Pharmaceutical

4Q FY2019 Review

< vs. 4Q FY2018 >

(Sales) ◆ Up	¥ 5.8	billion	(+9%)	(+) Performance Materials, Agrochemicals, Pharmaceuticals, Trading
				(-) Chemicals
(OP) ◆ Up	¥ 3.9	billion	(+30%)	(+) Performance Materials, Agrochemicals, Pharmaceuticals, Trading
				(-) Chemicals
(Ordinary Income) ◆ Up	¥ 3.8	billion	(+28%)	
(Net Income) ◆ Up	¥ 2.7	billion	(+26%)	
(EPS) ◆ Up	¥ 19.55		(+28%)	

< vs. 4Q FY2019 Outlook as of November 2019 >

(Sales) ◆ Down	¥ 1.2	billion		(+) Performance Materials, Trading
				(±) Pharmaceuticals
				(-) Chemicals, Agrochemicals
(OP) ◆ Down	¥ 0.8	billion		(+) Performance Materials
				(-) Chemicals, Agrochemicals, Pharmaceutical, Trading
(Ordinary Income) ◆ Down	¥ 0.7	billion		
(Net Income) ◆ Down	¥ 0.5	billion		

FY2019 Actual, FY2020 Outlook Non-Operating Income/Expenses, Extraordinary Income/Loss

(¥billion)

	FY2018 Actual	FY2019 Outlook as of Nov. 2019	FY2019 Actual	FY2020 Outlook
Non-Operating Income	3.13	2.61	2.61	2.52
Interest income, dividend income	1.01	0.81	0.82	0.80
Equity in earnings of affiliates	0.97	1.00	0.95	1.11
Foreign exchange gains	0.00	0.00	0.00	0.00
Others	1.15	0.80	0.84	0.61
Non-Operating Expenses	1.12	1.45	1.26	1.38
Interest expense	0.11	0.13	0.12	0.12
Loss on disposal of non-current assets	0.63	0.61	0.44	0.99
Foreign exchange losses	0.02	0.22	0.24	0.00
Others	0.36	0.49	0.46	0.27
Extraordinary Income (1)	0.00	1.69	1.83	0.50
Extraordinary Loss	0.00	0.83	0.83	0.00

(1) Gain on sales of investment securities

FY2019 Actual, FY2020 Outlook

Cash Flows

(¥billion)

	FY2018 Actual	FY2019 Outlook as of Nov. 2019	2019 Actual	FY2020 Outlook
CF from operating activities	32.1	36.1	35.5	39.1
Income before income taxes & non-controlling interests	39.1	40.6	41.0	40.9
Loss (gain) on sales of securities	-0.3	-1.7	-1.8	-0.5
Depreciation and amortization (1)	10.9	10.3	10.5	10.9
Income taxes paid	-9.4	-8.4	-8.4	-11.2
Working capital, others	-8.2	-4.7	-5.8	-1.0
CF from investing activities	-10.9	-8.9	-15.6	-11.9
Purchase of PPE	-9.7	-10.5	-8.9	-11.1
Purchase and sales of investment securities	-0.5	2.9	2.5	0.6
Others (2)	-0.7	-1.3	-9.2	-1.4
CF from financing activities	-22.6	-25.3	-25.2	-25.1
Payout to shareholders (dividend)	-11.3	-12.4	-12.4	-23.1
Payout to shareholders (share repurchase)	-9.0	-10.0	-10.0	
Borrowings	-2.1	-2.0	-1.9	-2.0
Others (3)	-0.2	-0.9	-0.9	0.0
Effect of exchange rate change on cash & cash equivalents	-0.1	0.0	-0.3	0.0
Change in cash & cash equivalents	-1.5	1.9	-5.6	2.1
Cash & cash equivalents at end of period	36.2	38.1	30.6	32.7

(1) Including amortization of goodwill

(2) FY2019 Actual: Payments for acquisition of QUINTEC -6.3, Others -2.9

(3) FY2019 Outlook as of Nov. 2019, FY2019 Actual:

Share repurchase related to Introduction of a performance-linked stock compensation plan -0.8, Others -0.1

FY2019 Balance Sheets

(¥billion)

	2019/3	2020/3	Change
Current assets	152.5	154.2	+1.7
Cash	36.2	30.6	-5.6
Accounts receivable	69.2	72.5	+3.3
Inventories	42.0	43.9	+1.9
Others	5.1	7.2	+2.1
Fixed assets	94.5	95.3	+0.8
Total PPE	52.7	51.6	-1.1
Intangible assets	1.5	7.4	+5.9
Investment securities*	35.2	30.9	-4.3
Others	5.1	5.4	+0.3
Total assets	247.0	249.5	+2.5

*Investment securities

Listed shares	25.6	20.7	-4.9
Unlisted shares	2.5	2.6	+0.1
Subsidiaries/Associates shares	7.1	7.6	+0.5
Total	35.2	30.9	-4.3

	2019/3	2020/3	Change
Liabilities	64.9	64.0	-0.9
Accounts payable	17.8	16.9	-0.9
Borrowings	26.6	24.6	-2.0
Others	20.5	22.5	+2.0
Net assets	182.1	185.5	+3.4
Shareholders' equity	169.5	177.1	+7.6
Valuation difference on available-for-sale securities	10.6	7.8	-2.8
Foreign currency translation adjustment	0.0	-0.9	-0.9
Non-controlling interests	1.7	1.6	-0.1
Remeasurements of defined benefit plans	0.3	-0.1	-0.4
Total liabilities & Net assets	247.0	249.5	+2.5

• Equity Ratio 73.0% 73.7%

• D/E Ratio (1) -5.7% -3.4%

• Change in shareholders' equity +7.6

= Net Income 30.8 - Dividend and others 23.2

(1)D/E Ratio = (Borrowings - Cash) / Shareholders' equity 13

FY2020 Outlook

The following outlook does not reflect the effects of the COVID-19 pandemic since they cannot be reasonably assessed at this time (¥billion)

	FY2019 Actual					FY2020 Outlook					Change					Change (%)
	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total	Total
Sales	48.7	47.8	96.5	110.3	206.8	49.8	46.8	96.6	117.9	Record 214.5	+1.1	-1.0	+0.1	+7.6	+7.7	+4%
Operating Profit	9.3	8.7	18.0	20.6	38.6	8.5	7.6	16.1	23.2	Record 39.3	-0.8	-1.1	-1.9	+2.6	+0.7	+2%
Non-Operating Income/Expenses	0.7	-0.1	0.6	0.8	1.4	0.6	0.0	0.6	0.5	1.1	-0.1	+0.1	-0.0	-0.3	-0.3	-
Ordinary Income	10.0	8.6	18.6	21.4	40.0	9.1	7.6	16.7	23.7	Record 40.4	-0.9	-1.0	-1.9	+2.3	+0.4	+1%
Extraordinary Income/Loss (1)	0.9	0.0	0.9	0.1	1.0	0.0	0.0	0.0	0.5	0.5	-0.9	+0.0	-0.9	+0.4	-0.5	-
Net Income (2)	7.8	6.7	14.5	16.3	30.8	6.8	5.7	12.5	18.3	Record 30.8	-1.0	-1.0	-2.0	+2.0	+0.0	+0%
EBITDA (3)	11.6	11.1	22.7	26.5	49.2	-	-	20.5	28.5	49.0	-	-	-2.2	+2.0	-0.2	-0%
EPS (¥/share)	53.13	45.62	98.75	111.34	210.09	-	-	86.64	127.59	214.23	-	-	-12.11	+16.25	+4.14	+2%
Dividend (¥/share)	-	-	42	48	90	-	-	46	50	96	-	-	+4	+2	+6	
Total amount of Dividend	-	-	6.2	6.9	13.1	-	-	6.6	7.2	13.8	-	-	+0.4	+0.3	+0.7	
OP Margin	19.2%	18.2%	18.7%	18.7%	18.7%	17.1%	16.2%	16.7%	19.7%	18.3%	-2.1%	-2.0%	-2.0%	+1.0%	-0.4%	
ROE	-	-	-	-	16.9%	-	-	-	-	16.4%						-0.5%
FX Rate (¥/\$)	110	107	109	109	109	-	-	108	108	108						
Crude Oil (JCC) (\$/bbl) (4)	72	66	69	67	68	65	65	65	65	65						

(1) FY2020 Outlook: Gain on sales of investment securities ¥0.5 billion (2) Net Income = Profit Attributable to Owners of Parent

(3) EBITDA = Operating Profit + Depreciation (4) FY2019 Actual: Based on Trade Statistics of Japan Ministry of Finance

FY2020 OP Outlook vs. FY2019 OP Actual : 1H down ¥1.9 billion (1Q down ¥0.8 billion, 2Q down ¥1.1 billion), 2H up ¥2.6 billion, Full year up ¥0.7 billion (see p20 by Segment)

FY2020 Outlook

< vs. FY2019 >

(Sales) ◆ Up ¥ 7.7 billion (+4%)

(+) Chemicals, Performance Materials, Agrochemicals, Trading

(-) Pharmaceuticals

(OP) ◆ Up ¥ 0.7 billion (+2%)

(+) Chemicals, Performance Materials

(-) Agrochemicals, Pharmaceuticals, Trading

(Ordinary Income) ◆ Up ¥ 0.4 billion (+1%)

(Net Income) ◆ Up ¥ 0.0 billion (+0%)

(EPS) ◆ Up ¥ 4.14 (+2%)

(ROE) ◆ 16.4% (FY2019: 16.9%)

★ OP and Ordinary Income expected to renew the highest results of a full year in 7 consecutive years.

★ Net Income expected to renew the highest results of a full year in 8 consecutive years.

< Shareholders Return >

(Dividend) ◆ 1H ¥46/share, 2H ¥50/share, total ¥96/share (up 1H ¥4, 2H ¥2, total ¥6 vs. FY2019)

Dividend Payout Ratio : 44.8% (up +2.0% vs. FY2019) (Mid-Term Plan target 45% in FY2020)

(Share Repurchase) ◆ ¥7.0 billion, 2.6 million shares announced on May 15, 2020

(¥6.0 billion announced in May 2019, ¥5.0 billion announced in May 2018)

(Total Payout Ratio) ◆ 67.4% (Based on ¥96/share dividend and ¥7.0 billion share repurchase)

(Mid-Term Plan target 75% in FY2020)

1Q and 1H FY2020 Outlook

<1Q FY2020 vs. 1Q FY2019>

(Sales) ◆ Up ¥ 1.1 billion (+2%)

(+) Chemicals, Performance Materials, Agrochemicals

(-) Pharmaceuticals, Trading

(OP) ◆ Down ¥ 0.8 billion (-9%)

(+) Chemicals, Performance Materials

(±) Trading

(-) Agrochemicals, Pharmaceuticals

(Ordinary Income) ◆ Down ¥ 0.9 billion (-9%)

(Net Income) ◆ Down ¥ 1.0 billion (-13%)

<1H FY2020 vs. 1H FY2019>

(Sales) ◆ Up ¥ 0.1 billion (+0%)

(+) Chemicals, Performance Materials

(-) Agrochemicals, Pharmaceuticals, Trading

(OP) ◆ Down ¥ 1.9 billion (-11%)

(+) Chemicals, Performance Materials

(±) Trading

(-) Agrochemicals, Pharmaceutical

(Ordinary Income) ◆ Down ¥ 1.9 billion (-10%)

(Net Income) ◆ Down ¥ 2.0 billion (-14%)

FY2019 Sales by Segment (1)

(¥billion)

	FY2018					FY2019					Change					FY2019 Outlook as of Nov. 2019				
	1H	3Q	4Q	2H	Total	1H	3Q	4Q	2H	Total	1H	3Q	4Q	2H	Total	1H Actual	3Q	4Q	2H	Total
Chem	17.0	9.6	9.1	18.7	35.7	16.8	8.7	8.8	17.5	34.3	-0.2	-0.9	-0.3	-1.2	-1.4	16.8	10.0	10.5	20.5	37.3
Fine	5.1	2.6	2.7	5.3	10.4	5.2	2.6	2.7	5.3	10.5	+0.1	-0.0	+0.0	-0.0	+0.1	5.2	2.9	3.2	6.1	11.3
Basic	11.9	7.0	6.4	13.4	25.3	11.6	6.1	6.1	12.2	23.8	-0.3	-0.9	-0.3	-1.2	-1.5	11.6	7.1	7.3	14.4	26.0
P.M	32.0	16.6	14.4	31.0	63.0	31.4	17.0	17.1	34.1	65.5	-0.6	+0.4	+2.7	+3.1	+2.5	31.4	16.2	15.9	32.1	63.5
Agro	28.7	5.9	28.1	34.0	62.7	27.9	5.5	30.6	36.1	64.0	-0.8	-0.4	+2.5	+2.1	+1.3	27.9	5.2	31.2	36.4	64.3
Pharma	3.7	1.9	1.4	3.3	7.0	3.4	1.6	2.0	3.6	7.0	-0.3	-0.3	+0.6	+0.3	-0.0	3.4	1.6	2.0	3.6	7.0
Trading	33.4	18.1	16.4	34.5	67.9	33.3	17.5	17.1	34.6	67.9	-0.1	-0.6	+0.7	+0.1	+0.0	33.3	17.5	16.3	33.8	67.1
Others	10.5	7.2	6.9	14.1	24.6	9.8	5.1	7.5	12.6	22.4	-0.7	-2.1	+0.6	-1.5	-2.2	9.8	5.5	7.1	12.6	22.4
Adj.	-27.3	-15.4	-13.3	-28.7	-56.0	-26.1	-13.9	-14.3	-28.2	-54.3	+1.2	+1.5	-1.0	+0.5	+1.7	-26.1	-13.5	-13.0	-26.5	-52.6
Total	98.0	43.9	63.0	106.9	204.9	96.5	41.5	68.8	110.3	206.8	-1.5	-2.4	+5.8	+3.4	+1.9	96.5	42.5	70.0	112.5	209.0

(1) Including inter-segment sales/transfers

FY2019 OP by Segment

(¥billion)

	FY2018					FY2019 (Old method)					Change					FY2019 Outlook as of Nov. 2019				
	1H	3Q	4Q	2H	Total	1H	3Q	4Q	2H	Total	1H	3Q	4Q	2H	Total	1H Actual	3Q	4Q	2H	Total
Chem	1.2	1.0	0.8	1.8	3.0	0.3	0.6	0.5	1.1	1.4	-0.9	-0.4	-0.3	-0.7	-1.6	0.3	1.4	1.7	3.1	3.4
P.M	8.1	4.3	2.6	6.9	15.0	8.2	4.9	4.3	9.2	17.4	+0.1	+0.6	+1.7	+2.3	+2.4	8.2	3.5	3.4	6.9	15.1
Agro	9.8	-1.3	9.9	8.6	18.4	9.4	-1.9	11.8	9.9	19.3	-0.4	-0.6	+1.9	+1.3	+0.9	9.4	-2.2	12.4	10.2	19.6
Pharma	0.6	0.4	0.0	0.4	1.0	0.5	0.1	0.3	0.4	0.9	-0.1	-0.3	+0.3	+0.0	-0.1	0.5	0.2	0.4	0.6	1.1
Trading	1.1	0.6	0.3	0.9	2.0	1.0	0.6	0.5	1.1	2.1	-0.1	+0.0	+0.2	+0.2	+0.1	1.0	0.5	0.6	1.1	2.1
Others	0.2	0.2	0.5	0.7	0.9	0.1	0.1	0.5	0.6	0.7	-0.1	-0.1	+0.0	-0.1	-0.2	0.1	0.0	0.5	0.5	0.6
Adj.	-1.6	-0.8	-0.8	-1.6	-3.2	-1.5	-1.0	-0.7	-1.7	-3.2	+0.1	-0.2	+0.1	-0.1	+0.0	-1.5	-0.8	-1.0	-1.8	-3.3
Total	19.4	4.4	13.3	17.7	37.1	18.0	3.4	17.2	20.6	38.6	-1.4	-1.0	+3.9	+2.9	+1.5	18.0	2.6	18.0	20.6	38.6

	FY2019 (New method)				
	1H	3Q	4Q	2H	Total
Chem	0.3	0.5	0.5	1.0	1.3
P.M	8.4	4.7	3.9	8.6	17.0
Agro	9.4	-1.8	11.7	9.9	19.3
Pharma	0.5	0.1	0.3	0.4	0.9
Trading	1.0	0.6	0.5	1.1	2.1
Others	0.1	0.1	0.5	0.6	0.7
Adj.	-1.7	-0.8	-0.2	-1.0	-2.7
Total	18.0	3.4	17.2	20.6	38.6

(New OP Segmentation Methods)

1. Applied from FY2020
(no change for sales segmentation)
2. FY2019 restated based on new methods
3. Consolidation items
(such as unrealized gain on inventories)
 - (Old method) Included in each segment
 - (New method) Excluded from each segment and included in "Adjustment"

FY2020 Sales Outlook by Segment (1)

(¥billion)

	FY2019 Actual					FY2020 Outlook					Change				
	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Chem	8.4	8.4	16.8	17.5	34.3	8.5	8.5	17.0	18.6	35.6	+0.1	+0.1	+0.2	+1.1	+1.3
Fine Chemicals	2.6	2.6	5.2	5.3	10.5	3.2	3.2	6.4	6.7	13.1	+0.6	+0.6	+1.2	+1.4	+2.6
Basic Chemicals	5.8	5.8	11.6	12.2	23.8	5.3	5.3	10.6	11.9	22.5	-0.5	-0.5	-1.0	-0.3	-1.3
Performance Materials	15.1	16.3	31.4	34.1	65.5	16.9	17.2	34.1	36.0	70.1	+1.8	+0.9	+2.7	+1.9	+4.6
Agro	14.7	13.2	27.9	36.1	64.0	15.2	10.8	26.0	39.5	65.5	+0.5	-2.4	-1.9	+3.4	+1.5
Pharma	1.9	1.5	3.4	3.6	7.0	1.2	1.6	2.8	3.6	6.4	-0.7	+0.1	-0.6	-0.0	-0.6
Trading	17.5	15.8	33.3	34.6	67.9	17.1	15.9	33.0	35.2	68.2	-0.4	+0.1	-0.3	+0.6	+0.3
Others	4.9	4.9	9.8	12.6	22.4	5.5	5.1	10.6	14.4	25.0	+0.6	+0.2	+0.8	+1.8	+2.6
Adjustment	-13.8	-12.3	-26.1	-28.2	-54.3	-14.6	-12.3	-26.9	-29.4	-56.3	-0.8	+0.0	-0.8	-1.2	-2.0
Total	48.7	47.8	96.5	110.3	206.8	49.8	46.8	96.6	117.9	214.5	+1.1	-1.0	+0.1	+7.6	+7.7

(1) Including inter-segment sales/transfers

FY2020 OP Outlook by Segment

(¥billion)

	FY2019 Actual (New method*)					FY2020 Outlook (New method*)					Change				
	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Chem	0.9	-0.6	0.3	1.0	1.3	1.2	0.0	1.2	1.5	2.7	+0.3	+0.6	+0.9	+0.5	+1.4
Performance Materials	4.0	4.4	8.4	8.6	17.0	4.2	4.5	8.7	9.4	18.1	+0.2	+0.1	+0.3	+0.8	+1.1
Agro	4.5	4.9	9.4	9.9	19.3	3.6	3.1	6.7	11.7	18.4	-0.9	-1.8	-2.7	+1.8	-0.9
Pharma	0.4	0.1	0.5	0.4	0.9	-0.1	0.2	0.1	0.3	0.4	-0.5	+0.1	-0.4	-0.1	-0.5
Trading	0.5	0.5	1.0	1.1	2.1	0.5	0.5	1.0	1.0	2.0	-0.0	-0.0	-0.0	-0.1	-0.1
Others	0.1	0.0	0.1	0.6	0.7	0.0	0.1	0.1	0.6	0.7	-0.1	+0.1	-0.0	+0.0	+0.0
Adjustment	-1.1	-0.6	-1.7	-1.0	-2.7	-0.9	-0.8	-1.7	-1.3	-3.0	+0.2	-0.2	+0.0	-0.3	-0.3
Total	9.3	8.7	18.0	20.6	38.6	8.5	7.6	16.1	23.2	39.3	-0.8	-1.1	-1.9	+2.6	+0.7

*New method, see p18

FY2019 Sales Outlook of Future Growth Engines

(Announced in May 2019)

(1) Including R&D costs deduction due to the sample shipments

FY2019 Sales Outlook Level (1)	Below ¥0.3 billion	¥0.3 to ¥0.6 billion	Above ¥0.6 billion	Total
Chem	<p>New TEPIC (Liquid type) (Fine Chemicals)</p> <p>Venus® Oilclean (Fine Chemicals)</p>			¥0.1 billion
Performance Materials	<p>HYPERTECH (High refractive) (Display)</p> <p>Hole injection layer materials for OLED (Display)</p> <p>Alignment materials for LC retarder (Display)</p> <p>CMOS image sensor materials (Semis)</p> <p>Organosol (Insulation CTE) (Inorganic)</p> <p>New high refractive materials (IM layer film) (Inorganic)</p> <p>Light control film materials (Display)</p> <p>Repellant bank layer materials (Display)</p> <p>Monomersol (3D-printing) (Inorganic)</p>	<p>3D packaging process materials (Semis)</p> <p>EUV under layer (Semis)</p>	<p>Oilfield materials (Inorganic)</p>	¥3.1 billion
Agro	<p>NEXTER (Licensed-in)</p> <p>CLARE (In-house)</p> <p>ALEILE (In-house)</p>	<p>TRANSFORM™/ EXCEED™/ VIRESCO™ (Licensed-in)</p>	<p>GRACIA (In-house)</p> <p>ROUNDUP AL II / III (In-house)</p>	¥5.6 billion
Pharma, Others	<p>New GE API product (Custom Chemicals)</p> <p>Cell culture medium</p> <p>New GE API product (Custom Chemicals)</p>	<p>Eldecalcitol (Custom Chemicals)</p>		¥0.6 billion

Total ¥9.4 billion

FY2019 Sales Actual of Future Growth Engines

(1) Including R&D costs deduction due to the sample shipments

FY2019 Sales Actual Level (1)	Below ¥0.3 billion	¥0.3 to ¥0.6 billion	Above ¥0.6 billion	Total
Chem	<p>New TEPIC (Liquid type) (Fine Chemicals)</p> <p>Venus® Oilclean (Fine Chemicals)</p>			¥0.0 billion
Performance Materials	<p>HYPERTECH (High refractive) (Display)</p> <p>Hole injection layer materials (Display)</p> <p>Alignment materials for LC retarder (Display)</p> <p>CMOS image sensor materials (Semis)</p> <p>Organosol (Insulation CTE) (Inorganic)</p> <p>New high refractive materials (IM layer film) (Inorganic)</p>	<p>Light control film materials (Display)</p> <p>Repellant bank layer materials (Display)</p> <p>3D packaging process materials (Semis)</p> <p>Oilfield materials (Inorganic)</p> <p>Monomersol (3D-printing) (Inorganic)</p>	<p>EUV under layer (Semis)</p>	¥2.0 billion
Agro	<p>NEXTER (Licensed-in)</p> <p>CLARE (In-house)</p>	<p>TRANSFORM™/ EXCEED™/ VIRESCO™ (Licensed-in)</p> <p>ALEILE (In-house)</p>	<p>ROUNDUP AL II / III (In-house)</p> <p>GRACIA (In-house) QUINTEC (Acquisition)</p>	¥6.8 billion
Pharma, Others	<p>New GE API product (Custom Chemicals)</p> <p>Cell culture medium</p>	<p>New GE API product (Custom Chemicals)</p>	<p>Eldecalcitol (Custom Chemicals)</p>	¥0.6 billion

Total ¥9.4 billion

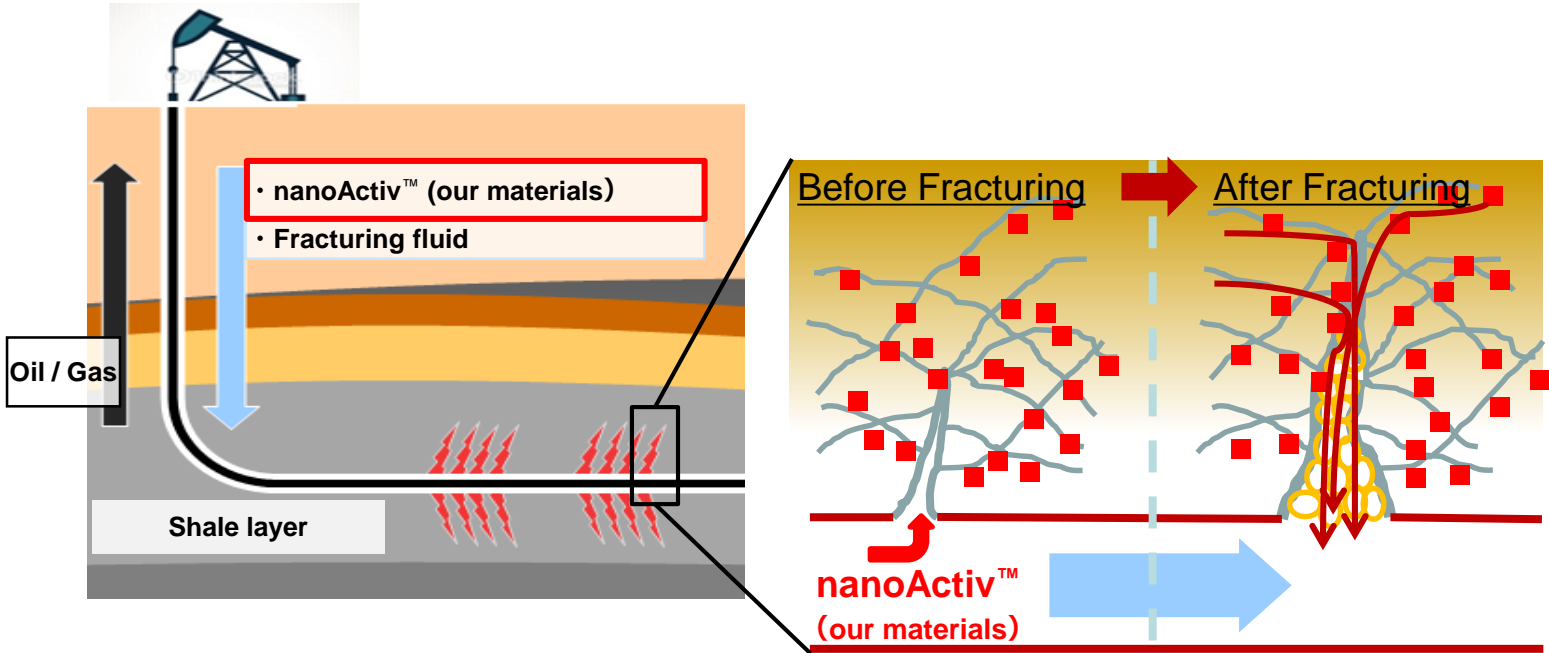
FY2020 Sales Outlook of Future Growth Engines

(1) Including R&D costs deduction due to the sample shipments

FY2020 Sales Outlook Level (1)	Below ¥0.3 billion	¥0.3 to ¥0.6 billion	Above ¥0.6 billion	Total	
Chem	<p>New TEPIC (Liquid type) (Fine Chemicals)</p> <p>Venus® Oilclean (Fine Chemicals)</p>			¥0.0 billion	
Performance Materials	<p>Flexible hard coating materials (Display)</p> <p>Hole injection layer materials (Display)</p> <p>Alignment materials for LC retarder (Display)</p> <p>3D packaging process materials (Semis)</p> <p>Organosol (Insulation CTE) (Inorganic)</p> <p>New high refractive materials (IM layer film) (Inorganic)</p>	<p>Light control film materials (Display)</p> <p>Repellant bank layer materials (Display)</p> <p>Alignment materials for TV (Display)</p> <p>Monomersol (3D-printing) (Inorganic)</p>	<p>CMOS image sensor materials (Semis)</p> <p>Oilfield materials (Inorganic)</p>	<p>EUV under layer (Semis)</p>	¥3.1 billion
Agro	<p>NEXTER (Licensed-in)</p> <p>CLARE (In-house)</p> <p>ALEILE (In-house)</p>	<p>TRANSFORM™/ EXCEED™/ VIRESKO™ (Licensed-in)</p>	<p>ROUNDUP AL II / III (In-house)</p> <p>GRACIA (In-house)</p> <p>QUINTEC (Acquisition)</p>	¥9.1 billion	
Pharma, Others	<p>New GE API product (Custom Chemicals)</p> <p>Cell culture medium</p>	<p>New GE API product (Custom Chemicals)</p>	<p>Eldecalcitol (Custom Chemicals)</p>	¥1.2 billion	

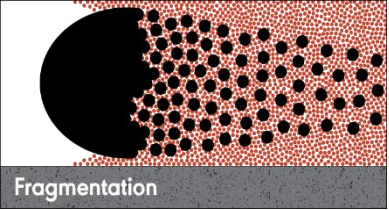
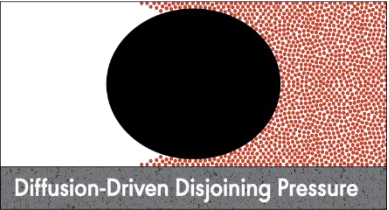
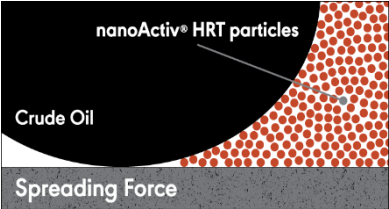
Total ¥13.4 billion

Oilfield Materials



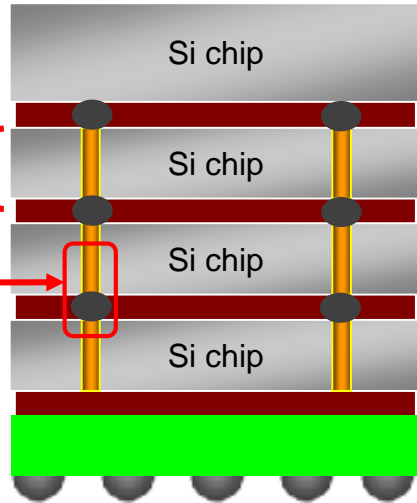
Brownian Motion/Diffusion
⇒ Spreading Force

Wasan & Nikolov, *Nature*, Vol. 423, 2003.



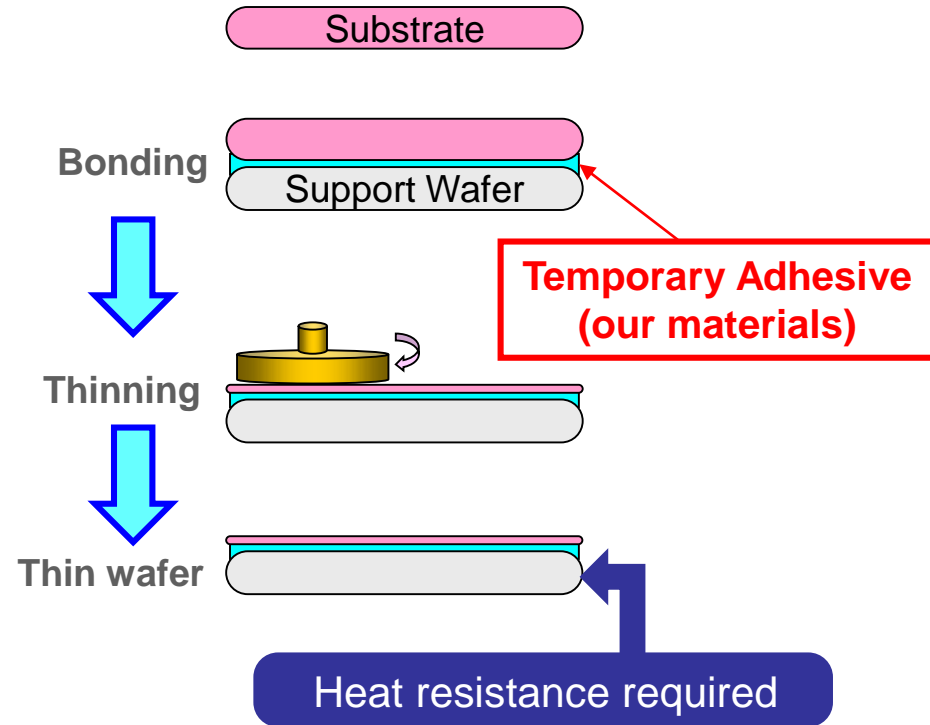
3D Packaging Process Materials

TSV (Through silicon via) technology



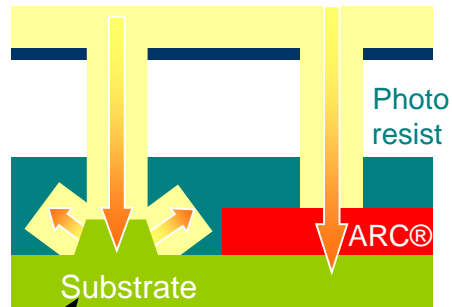
- Need for thinner substrate
- High temperature process required for TSV

Using Temporary Adhesive system



EUV Under Layer

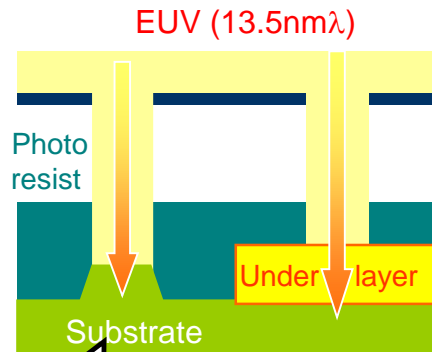
~ ArF lithography



Reflection

ARC® eliminates reflection effectively from substrate

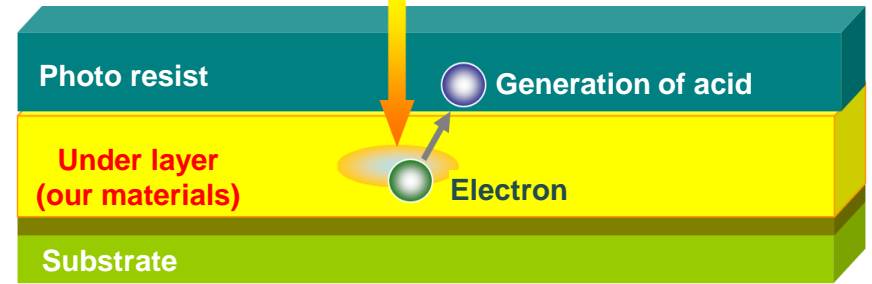
EUV lithography



Pass through

Reflection control is NOT necessary due to no reflection from substrate

EUV

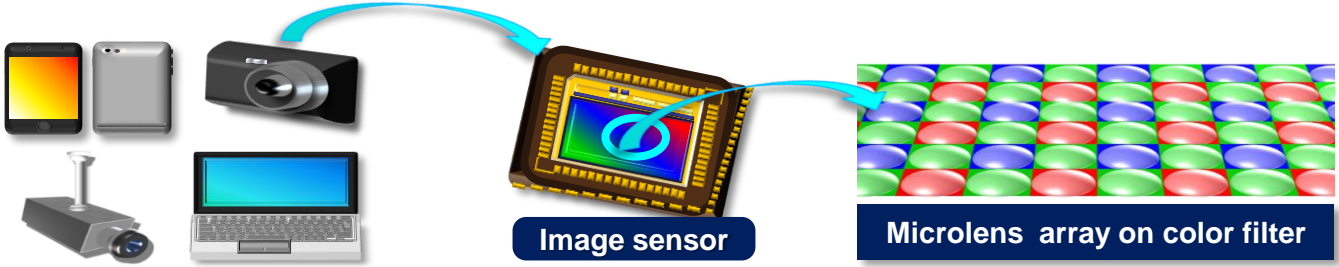


Without under layer

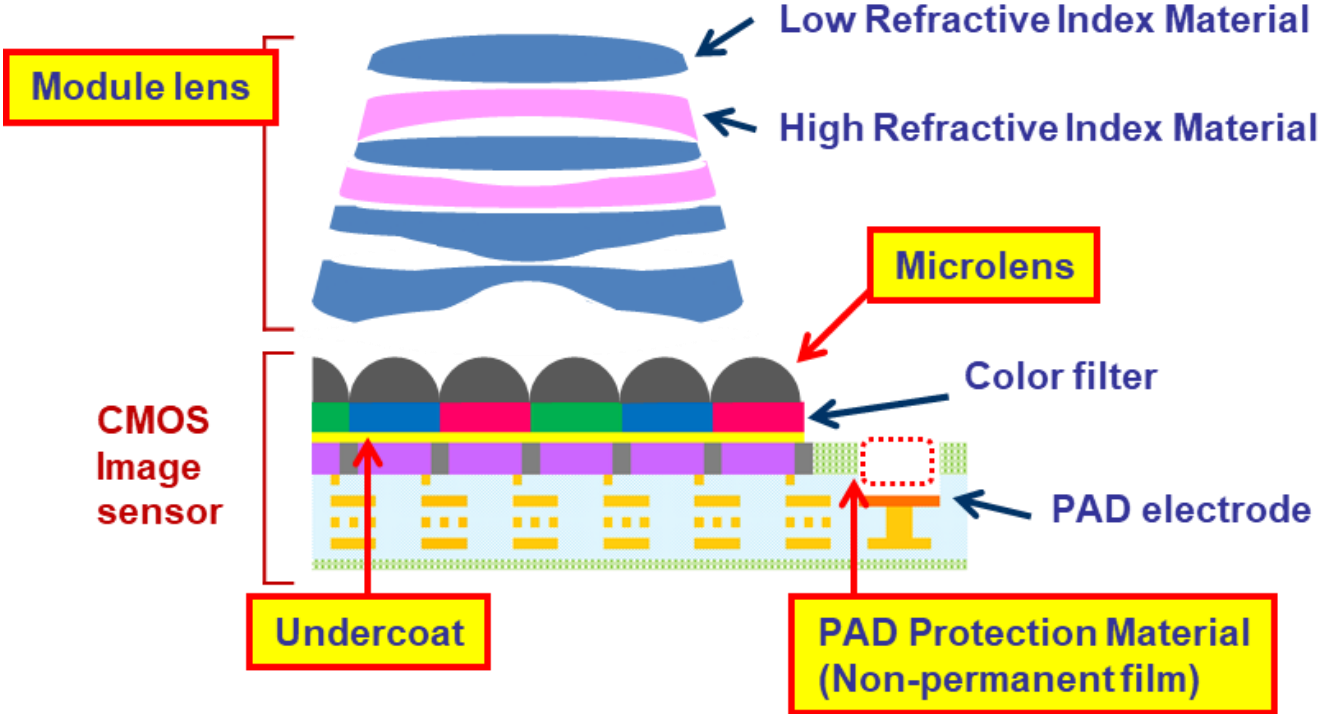
With under layer



CMOS Image Sensor Materials

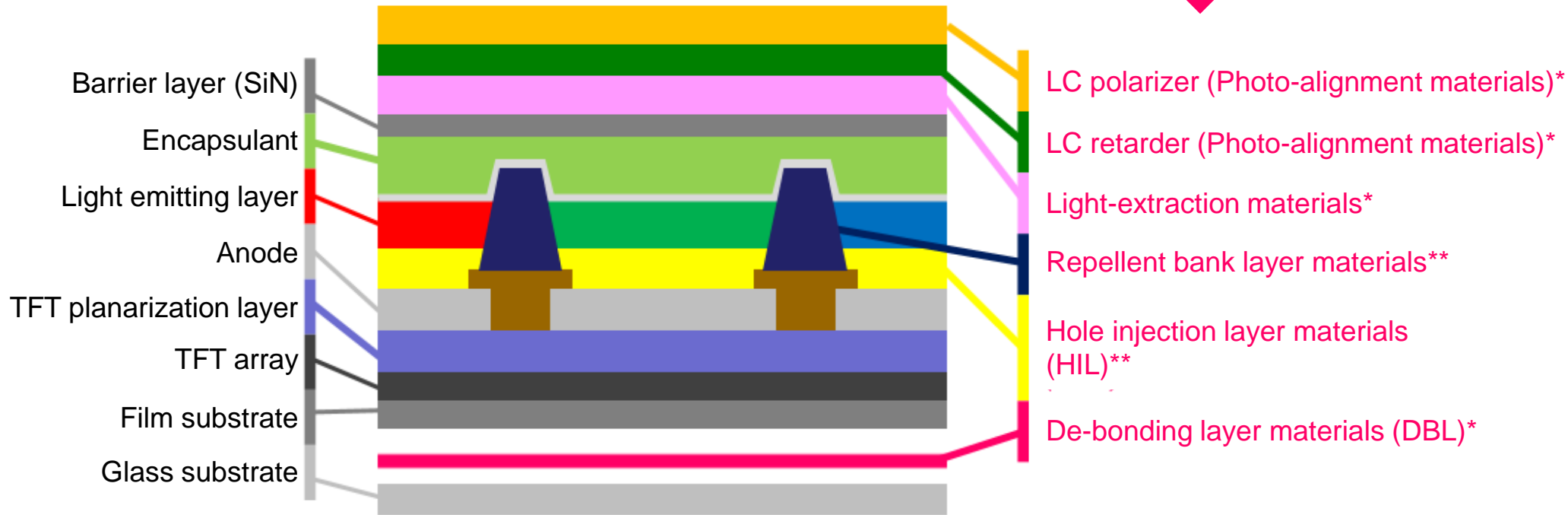


Our Materials



OLED-related Materials

Our Materials



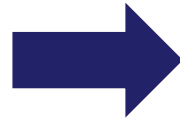
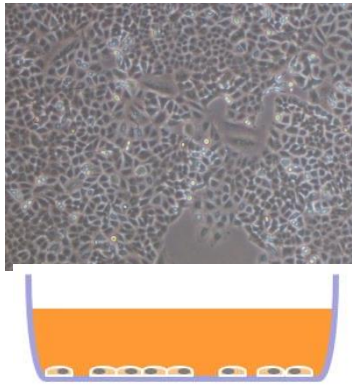
OLED type:

* Vapor deposition and Printing

** Printing

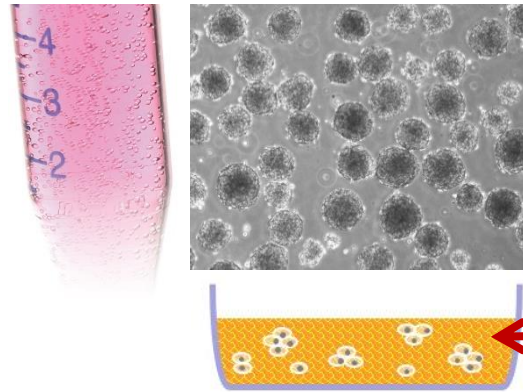
Cell Culture Medium

**Conventional
2D method**



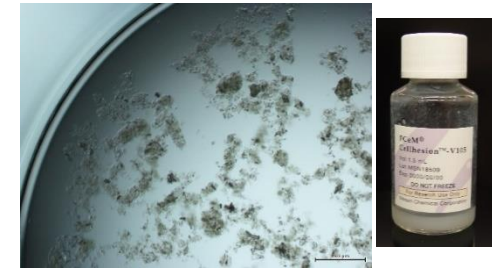
**New 3D method
FCeM®**

for cultivating large amounts of cells



Cellhesion®

for MSC Suspension Culture



Our Materials

- Our material is used for cultivating large amounts of iPS/ES cells, Mesenchymal stem cell (MSC) and so on.
- Cells are dispersed uniformly and floated by the used of our products.

FCeM® Preparation Kit



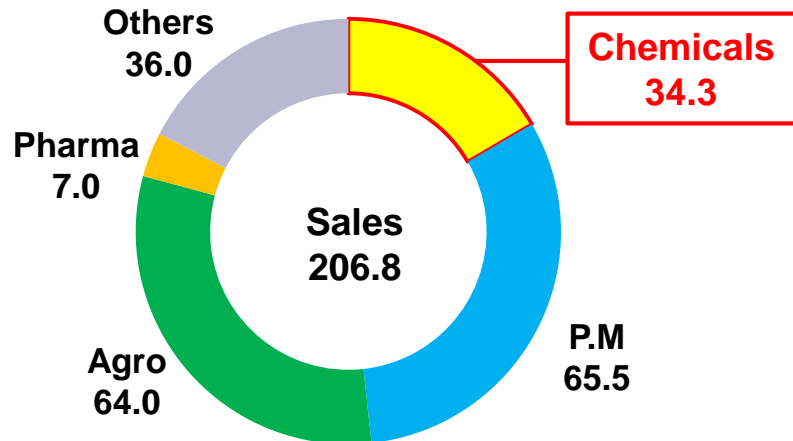
FCeM® 3D Culture Kit



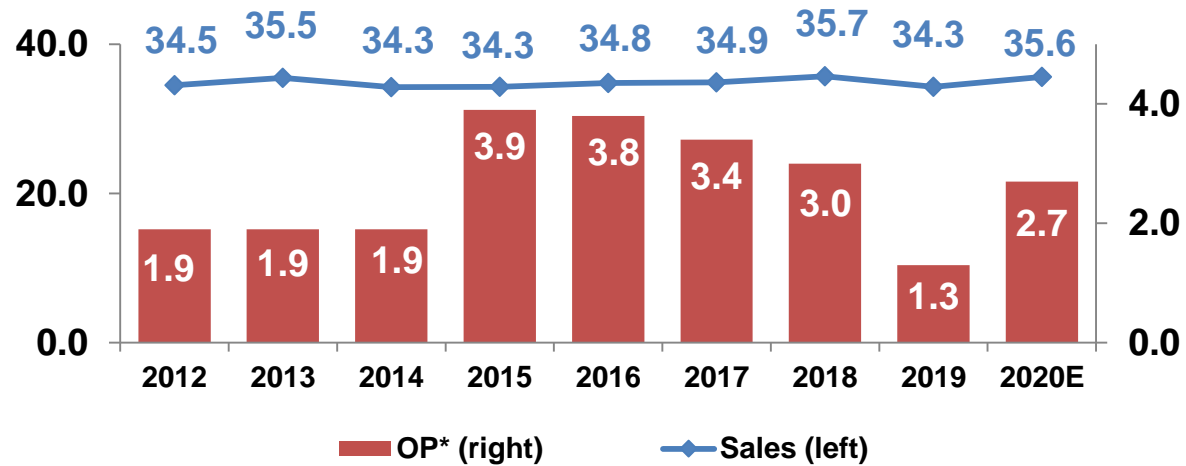
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Chemicals – (A) Recent Financial Performance

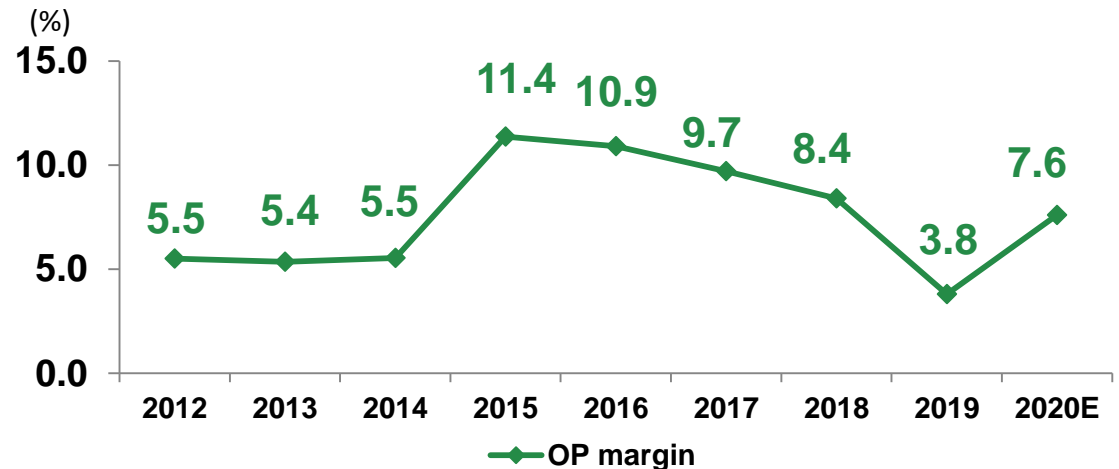
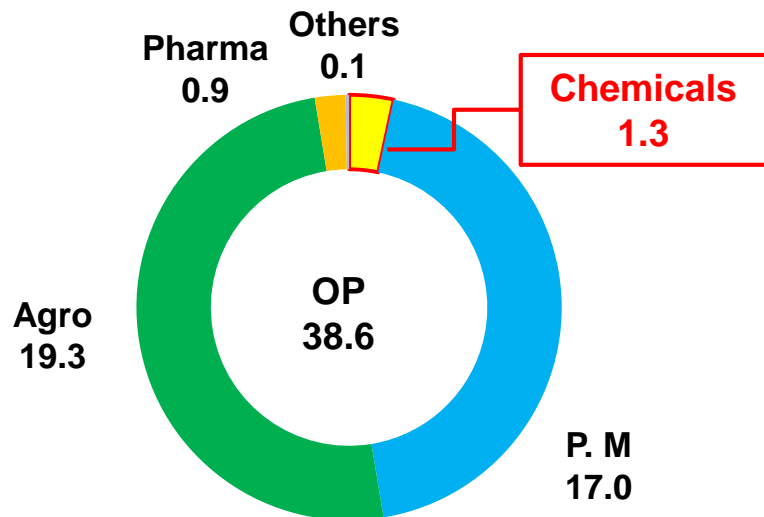
1. FY2019 Sales Distribution (¥billion)



3. Recent Financial Performance (¥billion)



2. FY2019 OP Distribution (New method*) (¥billion)

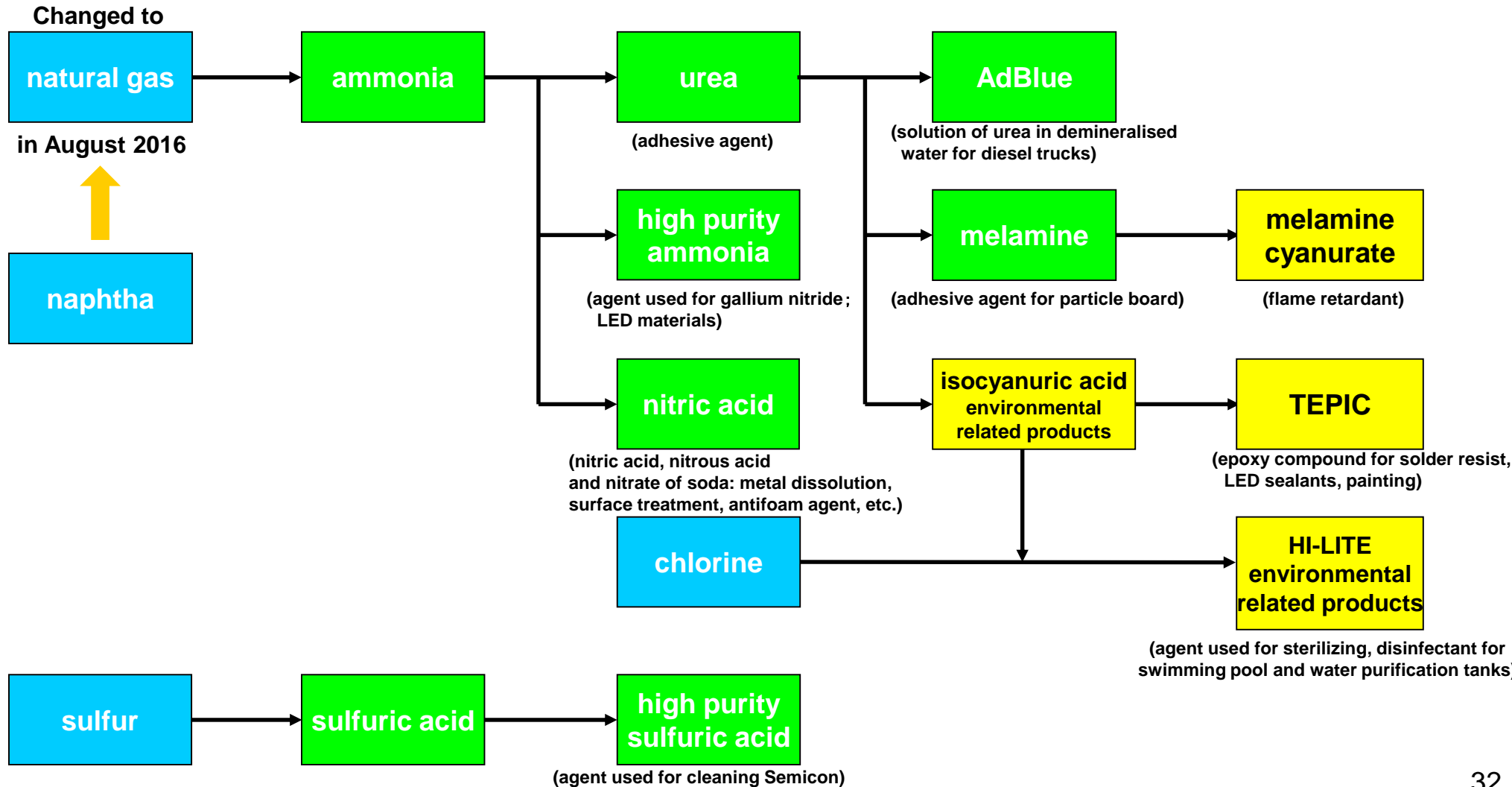


*OP is calculated by new method (see p18)

Chemicals – (B) Flow Chart of Selected Basic and Fine Chemicals Products

- ◆ Core products of Basic Chemicals : Ammonia related products and sulfuric acid related products
- ◆ FY2019 ammonia domestic production capacity share 11%, high percentage of self-consumption of ammonia

 = Purchased materials
 = Basic Chemicals
 = Fine Chemicals



Chemicals – (C) Sales YOY Change

Main Products		Sales YOY Change(1)										
		FY2019 Outlook as of Nov. 2019			FY2019 Actual					FY2020 Outlook		
		1H Actual	2H	Total	1H	3Q	4Q	2H	Total	1H	2H	Total
TEPIC	◆ Epoxy compound for : (A) electronic materials (solder resist, LED materials), (B) general applications such as powder coating agent for paint ◆ World largest producer	+5%	+17%	+12%	+5%	-10%	+18%	+3%	+4%	+5%	+7%	+6%
Environmental related products	◆ HI-LITE : made from chlorinated isocyanuric acid, used for sterilizing, disinfectant for swimming pool as well as water purification tank	+2%	+7%	+4%	+2%	-16%	+4%	-6%	-2%	+1%	+20%	+9%
Total Fine Chemicals Two products account for 83% of total consolidated subsegment sales (FY2019)		+3%	+14%	+8%	+3%	-6%	+3%	-1%	+1%	+20%	+28%	+24%
Melamine	◆ Mainly used as adhesive agent for particle board, medium density fiberboard, plywood	-0%	+14%	+7%	-0%	-30%	-13%	-22%	-12%	-34%	-26%	-30%
Urea including AdBlue	◆ Urea: mainly used for urea formaldehyde resin, adhesive agent ◆ AdBlue: solution of urea in demineralised water for diesel trucks to reduce Nox	+7%	+5%	+6%	+7%	+3%	+7%	+5%	+6%	+7%	+6%	+6%
High purity sulfuric acid	◆ Used to clean semiconductors ◆ Largest in domestic market	-2%	+18%	+8%	-2%	+5%	+19%	+12%	+5%	+19%	+15%	+17%
Nitric acid products	◆ Nitric acid, nitrous acid and nitrate of soda: Metal dissolution, surface treatment, antifoam agent	-4%	+6%	+1%	-4%	-17%	-1%	-10%	-7%	+14%	+19%	+17%
Total Basic Chemicals Four products account for 53% of total consolidated subsegment sales (FY2019)		-2%	+8%	+3%	-2%	-12%	-4%	-8%	-6%	-8%	-4%	-6%

(1) In FY2020, FINEOXOCOL (cosmetic raw materials, FY2019 sales about ¥1.5 billion) will be transferred from Basic Chemicals to Fine Chemicals

- ◆ In 1H FY2018, ammonia and melamine plants temporarily shutdown several times (and normalized)
(Estimated impact) (1H) OP down ¥0.38 billion

(Blank)

Chemicals – (D-1) Profit Overview

(¥billion)

	FY2018 Actual					2H FY2019 Outlook as of Nov.2019			FY2019 Actual (A)							FY2020 Outlook(B)					Change (B) - (A)				
	1H	3Q	4Q	2H	Total	3Q	4Q	2H	1Q	2Q	1H	3Q	4Q	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Sales	17.0	9.6	9.1	18.7	35.7	10.0	10.5	20.5	8.4	8.4	16.8	8.7	8.8	17.5	34.3	8.5	8.5	17.0	18.6	35.6	+0.1	+0.1	+0.2	+1.1	+1.3
Fine	5.1	2.6	2.7	5.3	10.4	2.9	3.2	6.1	2.6	2.6	5.2	2.6	2.7	5.3	10.5	3.2	3.2	6.4	6.7	13.1	+0.6	+0.6	+1.2	+1.4	+2.6
Basic	11.9	7.0	6.4	13.4	25.3	7.1	7.3	14.4	5.8	5.8	11.6	6.1	6.1	12.2	23.8	5.3	5.3	10.6	11.9	22.5	-0.5	-0.5	-1.0	-0.3	-1.3
OP(Old)	1.2	1.0	0.8	1.8	3.0	1.4	1.7	3.1	0.9	-0.6	0.3	0.6	0.5	1.1	1.4	-	-	-	-	-	-	-	-	-	-
OP(New)	-	-	-	-	-	-	-	-	0.9	-0.6	0.3	0.5	0.5	1.0	1.3	1.2	0.0	1.2	1.5	2.7	+0.3	+0.6	+0.9	+0.5	+1.4

4Q FY2019 Review

<vs. 4Q FY2018>

(Fine)

- ◆ Sales up: TEPIC for general applications (export to North America), TEPIC for electronic materials, Environmental related products

- ◆ Volume up, price down

- ◆ Sales up, OP down

(Basic)

- ◆ Sales up: High purity sulfuric acid (increased semis customers' orders), urea including AdBlue

- ◆ Sales down: Domestic melamine (decreased demand), Exported melamine (volume up, substantial price down due to cheap Chinese export), Nitric acid products

- ◆ Volume down, price down, feedstock cost down, inventory adjustment cost up

- ◆ Sales down, OP down

(Total)

- ◆ Sales down ¥0.3 billion, OP down ¥0.3 billion

4Q FY2019 Review

<vs. 4Q FY2019 Outlook as of Nov. 2019>

(Fine)

- ◆ Sales below target: TEPIC for general applications (export to North America), TEPIC for electronic materials, Environmental related products (export to North America)

- ◆ Volume and price below target, inventory adjustment cost below expectations

- ◆ Sales down, OP down

(Basic)

- ◆ Sales below target: Domestic melamine (decreased demand), Exported melamine (volume down, substantial price down), High purity sulfuric acid, urea including AdBlue, Nitric acid products

- ◆ Volume and price below target

- ◆ Sales down, OP down

(Total)

- ◆ Sales down ¥1.7 billion, OP down ¥1.2 billion

Chemicals – (D-2) Profit Overview

2H FY2019 Review

<vs. 2H FY2018>

- (Fine)
- ◆ Sales up: TEPIC for general applications (export to Middle East),
 - ◆ Sales down: TEPIC for electronic materials, Environmental related products (export to North America)
 - ◆ Volume up, price down, feedstock cost down, inventory adjustment cost up
 - ◆ Sales down, OP down
- (Basic)
- ◆ Sales up :High purity sulfuric acid (increased semis customers' orders), urea including AdBlue (expanding AdBlue market)
 - ◆ Sales down: Domestic melamine (decreased demand, absence of FY2018 sales to another company of the sector), Exported melamine (volume up, substantial price down due to cheap Chinese export) Nitric acid products (demand for capacitors down)
 - ◆ Volume down, price down, feedstock cost down, inventory adjustment cost up
 - ◆ Sales down, OP down
- (Total)
- ◆ Sales down ¥1.2 billion, OP down ¥0.7 billion

FY2019 Review

<vs. FY2018>

- (Fine)
- ◆ Sales up: TEPIC for general applications (export to North America),
 - ◆ Sales down: TEPIC for electronic materials, (demand for solder resist ink down), Environmental related products
 - ◆ Volume up, price down, inventory adjustment cost up
 - ◆ Sales up, OP down
- (Basic)
- ◆ Sales up :High purity sulfuric acid (increased semis customers' orders), urea including AdBlue (expanding AdBlue market)
 - ◆ Sales down: Domestic melamine (decreased demand, absence of FY2018 sales to another company of the sector), Exported melamine (volume up, substantial price down due to cheap Chinese export) Nitric acid products (demand for capacitors down)
 - ◆ Volume, price and feedstock cost down, inventory adjustment cost up
 - ◆ Sales down, OP down
- (Total)
- ◆ Sales down ¥1.4 billion, OP down ¥1.6 billion

2H FY2019 Review

<vs. 2H FY2019 Outlook as of Nov. 2019>

- (Fine)
- ◆ Sales below target: TEPIC for general applications (export to North America), TEPIC for electronic materials, Environmental related products (export to North America)
 - ◆ Volume and price below target
 - ◆ Sales down, OP down
- (Basic)
- ◆ Sales in line with target: urea including AdBlue
 - ◆ Sales below target: Domestic melamine (decreased demand), Exported melamine (volume down, substantial price down), High purity sulfuric acid, Nitric acid products (demand for capacitors down)
 - ◆ Volume and price below target, feedstock cost and inventory adjustment cost below expectations
 - ◆ Sales down, OP down
- (Total)
- ◆ Sales down ¥3.0 billion, OP down ¥2.0 billion

FY2020 Outlook

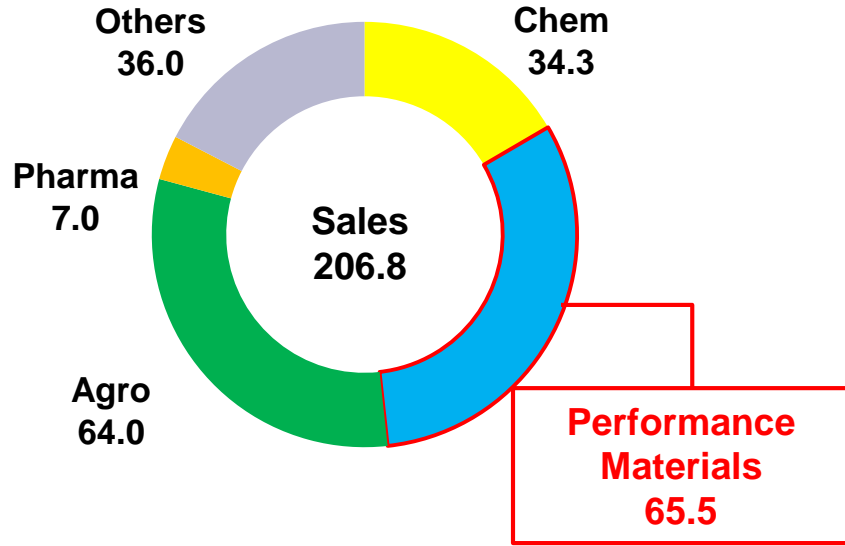
<vs. FY2019>

*FO: FINEOXOCOL (see p33)

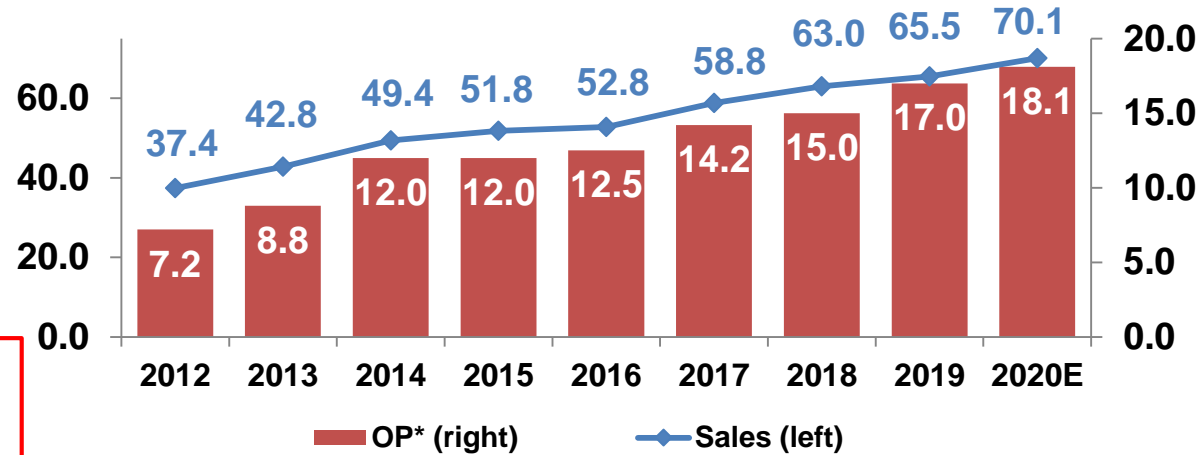
- (Fine)
- ◆ Sales up: TEPIC for electronic materials (demand recovery for solder resist ink, new customers in LED sealant and overseas solder resist ink markets) Environmental related products (isocyanuric acid capacity expansion completed, HILITE export up to Asia and Middle East) Others (reinforced fiber materials, flame retardants, cosmetic raw materials)
 - ◆ Sales down: TEPIC for general applications (price down)
 - ◆ Volume up, price down, feedstock cost down, fixed cost up, inventory adjustment cost down
 - ◆ Sales up (including ¥1.7 billion FO* transferred from BC) up, OP up
- (Basic)
- ◆ Sales up: Domestic melamine (demand recovery), High purity sulfuric acid (recovery of semis market), Urea including AdBlue (expanding AdBlue market for construction machines), Nitric acid products (demand recovery for capacitors, a competitor's withdrawal from the market, price up)
 - ◆ Sales down: Exported melamine (due to reduction of low margin deals and continued stagnant market conditions)
 - ◆ Volume down, price up, inventory adjustment cost up
 - ◆ Sales down (including ¥1.7 billion FO* transferred to FC), OP up
- (Total)
- ◆ Sales up ¥1.3 billion, OP up ¥1.4 billion

Performance Materials – (A) Recent Financial Performance

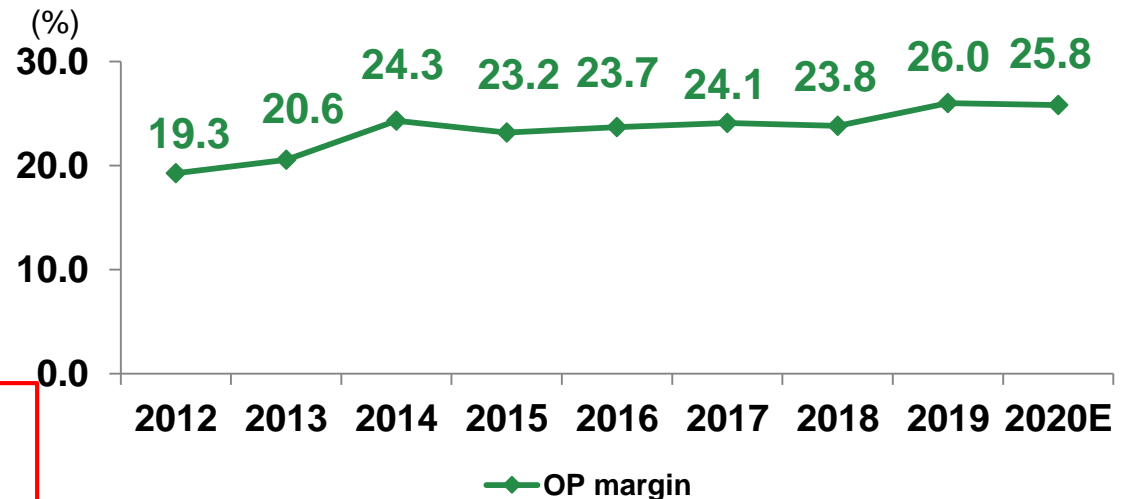
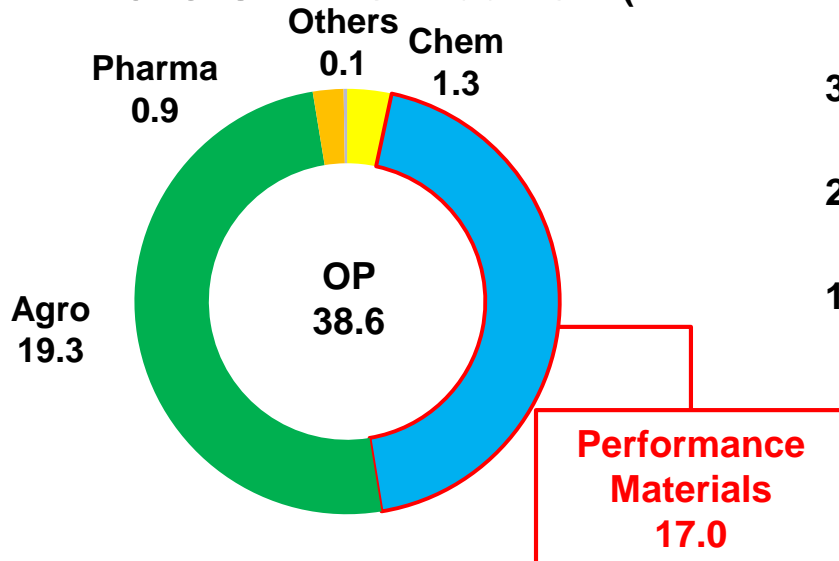
1. FY2019 Sales Distribution (¥billion)



3. Recent Financial Performance (¥billion)

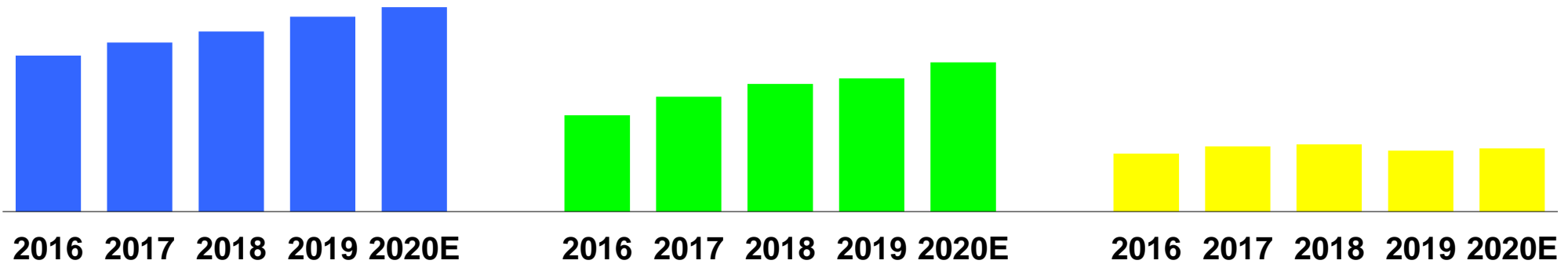


2. FY2019 OP Distribution (New method*) (¥billion)



*OP is calculated by new method (see p18)

Performance Materials – (B) FY2016-2020E Sales Distribution



< Display Materials >

SUNEVER : LCD alignment coating

< Semis Materials >

ARC® :Bottom anti-reflective coating for semis

Multi layer process materials (OptiStack®)

Other new materials:

EUV materials,
CMOS image sensor materials,
3D packaging process materials

< Inorganic >

SNOWTEX : Silica sol for:
polishing materials
(silicon wafer,
compound semiconductors,
semiconductors CMP and etc.)
and non-polishing materials
(special steel sheet and etc.)

Organo/Monomer Sol : Hard coating materials,
electronic information
materials, resin additive

Oilfield materials : For enhancing oil recovery

Performance Materials – (C) Sales YOY Change

Main Products		Sales YOY Change										
		FY2019 Outlook as of Nov. 2019			FY2019 Actual					FY2020 Outlook		
		1H Actual	2H	Total	1H	3Q	4Q	2H	Total	1H	2H	Total
SUNEVER		+3%	+2%	+3%	+3%	+9%	+21%	+14%	+9%	+7%	+1%	+4%
Total Display Materials		+3%	+2%	+3%	+3%	+9%	+20%	+14%	+8%	+7%	+3%	+5%
KrF (ARC®)		-5%	-2%	-3%	-5%	-3%	+30%	+12%	+3%	+1%	-4%	-2%
ArF (ARC®)		-3%	-0%	-2%	-3%	-5%	+17%	+5%	+1%	+6%	+5%	+6%
Total ARC®		-3%	-1%	-2%	-3%	-4%	+25%	+9%	+3%	+5%	+2%	+3%
Other Semis Materials (1)		-8%	+26%	+9%	-8%	+10%	+44%	+25%	+8%	+45%	+28%	+35%
Total Semis Materials		-4%	+6%	+1%	-4%	-0%	+30%	+13%	+4%	+15%	+9%	+12%
SNOWTEX		-2%	-4%	-3%	-2%	-11%	+7%	-2%	-2%	+6%	+7%	+7%
Organo/Monomer Sol		-11%	+6%	-3%	-11%	-16%	-13%	-14%	-13%	-5%	+2%	-1%
Oilfield Materials		-64%	+63%	-19%	-64%	+5%	-71%	-29%	-52%	+29%	+70%	+50%
Total Inorganic Materials Three products account for 82% of total consolidated subsegment sales (FY2019)		-11%	+0%	-6%	-11%	-12%	-4%	-8%	-9%	+1%	+7%	+4%

(1) Multi layer process materials (OptiStack®), EUV materials, CMOS image sensor materials, 3D packaging process materials etc.

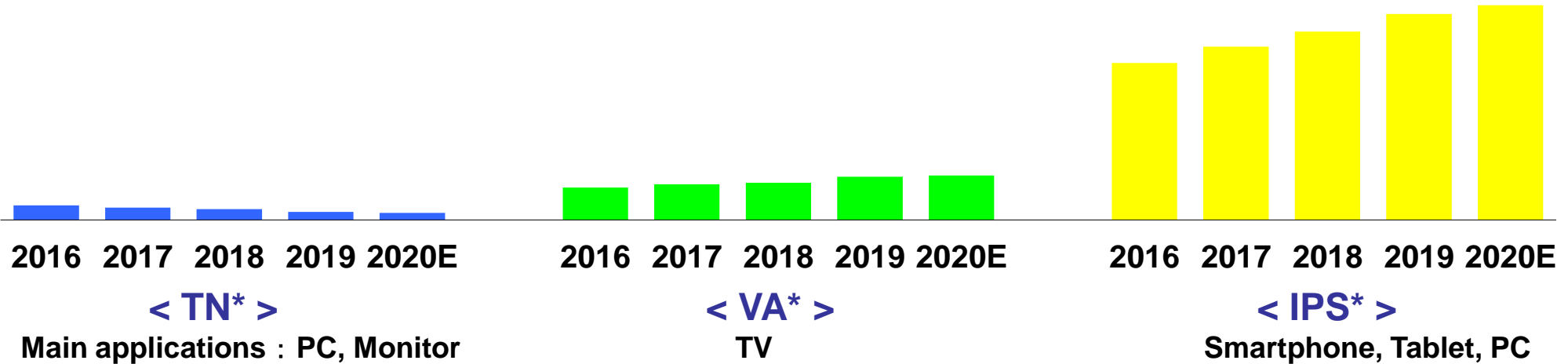
◆ Semiconductor capex plan to capture long-term future business:

Main capex :	FY2014	Analyzing and evaluation R&D equipment (¥1.1 billion)
(approval basis)	FY2015	Product development facilities(¥2.8 billion), Analyzing and evaluation R&D equipment (¥0.8 billion), Production capacity expansion (¥0.8 billion), NCK* (¥0.7 billion), Material Research Lab. (¥0.5 billion)
	FY2016	NCK* production capacity expansion (¥2.6 billion), Analyzing and evaluation R&D equipment (¥1.0 billion), Material Research Lab. (¥0.4 billion)
	FY2017	Material Research Lab. (¥0.4 billion)
	FY2018	Production capacity expansion (¥0.2 billion), Production test facilities (¥0.2 billion)
	FY2019	Production test facilities (¥0.1 billion)
	FY2020	Material Research Lab. new annex (¥2.0 billion), Analyzing and evaluation R&D equipment (¥0.9 billion), NCK* production capacity expansion (¥0.4 billion), Production test facilities (¥0.2 billion)

*NCK: Consolidated subsidiary in South Korea. R&D, production and sales of display and semis materials.

Performance Materials – (D) SUNEVER

<Sales Distribution by Mode>



<Sales YOY Change by Mode>

	FY2019 Outlook as of Nov. 2019	FY2019 Actual	FY2020 Outlook
TN	↘ ↘ ↘	↘ ↘ ↘	↘ ↘
VA	↗ ↗	↗ ↗	↗
IPS	↗	↗	↗
Total	+3%	+9%	+4%

YOY Change

+20~+29%	↗↗↗
+10~+19%	↗↗
+0~+9%	↗
-0~-9%	↘
-10~-19%	↘↘
-20~-29%	↘↘↘

*TN : Twisted Nematic, VA : Vertical Alignment, IPS : In-Plane Switching

Performance Materials – (E-1) Profit Overview

(¥billion)

	FY2018 Actual					2H FY2019 Outlook as of Nov.2019			FY2019 Actual (A)							FY2020 Outlook(B)					Change (B) - (A)				
	1H	3Q	4Q	2H	Total	3Q	4Q	2H	1Q	2Q	1H	3Q	4Q	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Sales	32.0	16.6	14.4	31.0	63.0	16.2	15.9	32.1	15.1	16.3	31.4	17.0	17.1	34.1	65.5	16.9	17.2	34.1	36.0	70.1	+1.8	+0.9	+2.7	+1.9	+4.6
OP(Old)	8.1	4.3	2.6	6.9	15.0	3.5	3.4	6.9	3.9	4.3	8.2	4.9	4.3	9.2	17.4	-	-	-	-	-	-	-	-	-	-
OP(New)	-	-	-	-	-	-	-	-	4.0	4.4	8.4	4.7	3.9	8.6	17.0	4.2	4.5	8.7	9.4	18.1	+0.2	+0.1	+0.3	+0.8	+1.1

other new materials: EUV materials, CMOS image sensor materials, 3D packaging process materials total

4Q FY2019 Review

<vs. 4Q FY2018>

- ◆ DP sales up, OP up
Photo IPS up (smartphone and non-smartphone up),
rubbing IPS flat, VA up (new contracts), TN down
- ◆ Semis Materials sales up, OP up
ARC® up, other semis materials up (multi layer materials up,
other new materials up)
Steadily growing logic market, recovery of memory market
- ◆ Inorganic Materials sales down, OP down
SNOWTEX up (both polishing and non-polishing up),
Organo/Monomer Sol down,
Oilfield materials down (sluggish shale oil market)
- ◆ Fixed cost up ¥0.5 billion
- ◆ Sales up ¥2.7 billion, OP up ¥1.7 billion

4Q FY2019 Review

<vs. 4Q FY2019 Outlook as of Nov. 2019>

- ◆ DP sales above target, OP above target
Photo IPS above target (smartphone and non-smartphone above target),
rubbing IPS below target, VA above target (new contracts),
TN above target
- ◆ Semis Materials sales above target, OP below target
ARC® above target, other semis materials above target
(multi layer materials and other new materials above target)
Steadily growing logic market, sooner-than-expected
recovery of flash memory market from 3Q
- ◆ Inorganic Materials sales below target, OP below target
SNOWTEX above target (both polishing and non-polishing above target),
Organo/Monomer Sol below target,
Oilfield materials below target (sluggish shale oil market)
- ◆ Fixed cost above expectations ¥0.2 billion
- ◆ Sales up ¥1.2 billion, OP up ¥0.9 billion

Performance Materials – (E-2) Profit Overview

other new materials: EUV materials, CMOS image sensor materials, 3D packaging process materials total

2H FY2019 Review

<vs. 2H FY2018>

- ◆ DP sales up, OP up
Photo IPS up (smartphone and non-smartphone up), rubbing IPS down, VA up (new contracts), TN down
- ◆ Semis Materials sales up, OP up
ARC® up, other semis materials up (multi layer materials up, other new materials up)
Steadily growing logic market, recovery of memory market
- ◆ Inorganic Materials sales down, OP down
SNOWTEX down (non-polishing up, polishing down), Organo/Monomer Sol down,
Oilfield materials down (sluggish shale oil market)
- ◆ Sales up ¥3.1 billion, OP up ¥2.3 billion

2H FY2019 Review

<vs. 2H FY2019 Outlook as of Nov. 2019>

- ◆ DP sales above target, OP above target
Photo IPS above target (smartphone and non-smartphone above target), rubbing IPS below target, VA above target (new contracts), TN above target
- ◆ Semis Materials sales above target, OP above target
ARC® above target, other semis materials below target (multi layer materials in line with target, other new materials below target)
Steadily growing logic market, sooner-than-expected recovery of flash memory market from 3Q
- ◆ Inorganic Materials sales below target, OP below target
SNOWTEX above target (both polishing and non-polishing above target), Organo/Monomer Sol below target,
Oilfield materials below target (sluggish shale oil market)
- ◆ Fixed cost below expectations ¥0.4 billion
- ◆ Sales up ¥2.0 billion, OP up ¥2.3 billion

FY2019 Review

<vs. FY2018>

- ◆ DP sales up, OP up
Photo IPS up (smartphone and non-smartphone up), rubbing IPS down, VA up (new contracts), TN down
- ◆ Semis Materials sales up, OP up
ARC® up, other semis materials up (multi layer materials up, other new materials up)
Steadily growing logic market, recovery of memory market
- ◆ Inorganic Materials sales down, OP down
SNOWTEX down (non-polishing up, polishing down), Organo/Monomer Sol down,
Oilfield materials down (sluggish shale oil market)
- ◆ Fixed cost down ¥0.5 billion
- ◆ Inventory adjustment cost up ¥0.2 billion
- ◆ Sales up ¥2.5 billion, OP up ¥2.4 billion

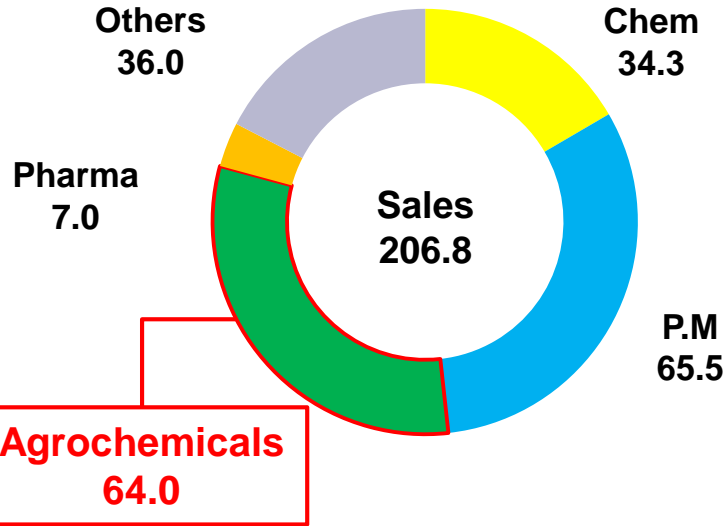
FY2020 Outlook

<vs. FY2019>

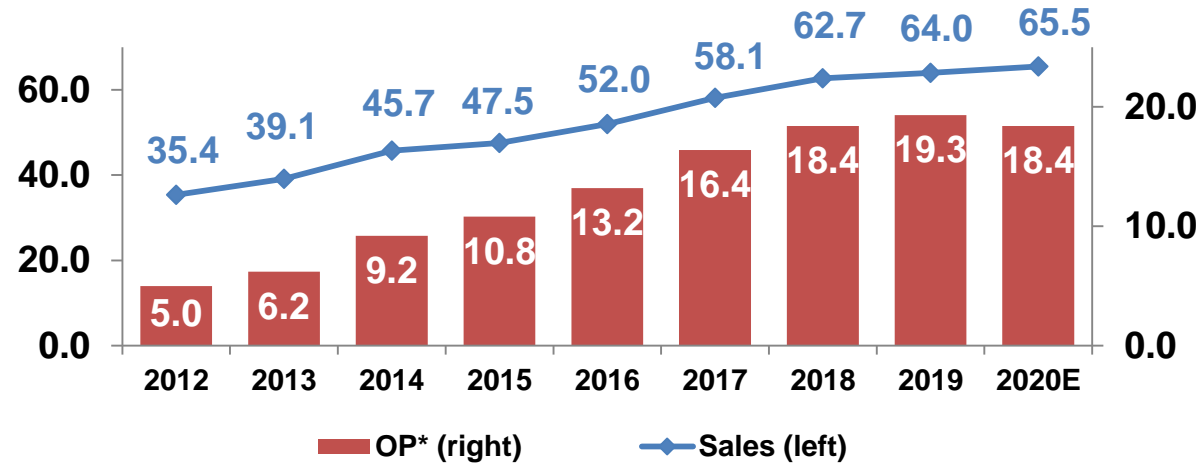
- ◆ DP sales up, OP down
Photo IPS up, rubbing IPS down, VA up (new contracts), TN down, other display materials up,
Fixed cost up ¥1.0 billion (capacity expansion, new products R&D expenses up)
- ◆ Semis Materials sales up, OP up
ARC® up, other semis materials up (multi layer materials up, other new materials up)
Fixed cost down ¥0.1 billion, Growing logic and memory markets
- ◆ Inorganic Materials sales up, OP up
SNOWTEX up (both non-polishing for automobiles and polishing up), Organo/Monomer Sol slightly down,
Oilfield materials up (sluggish shale oil market continuing, focus on other application)
- ◆ Fixed cost up ¥0.9 billion
- ◆ Inventory adjustment cost down ¥0.2 billion
- ◆ Sales up ¥4.6 billion, OP up ¥1.1 billion

Agrochemicals – (A) Recent Financial Performance

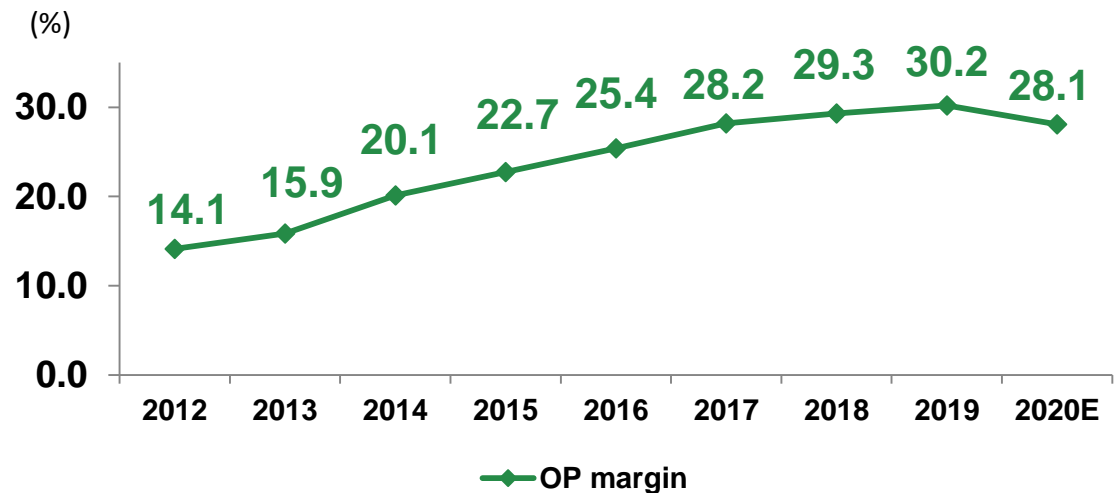
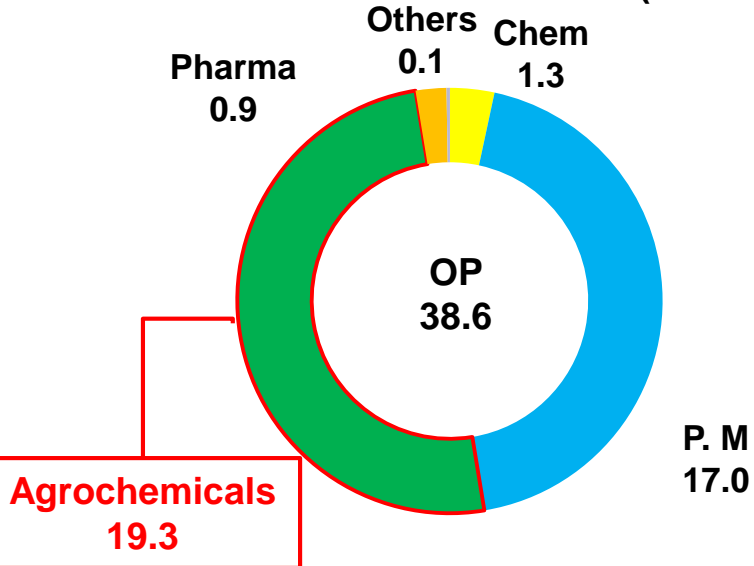
1. FY2019 Sales Distribution (¥billion)



3. Recent Financial Performance (¥billion)



2. FY2019 OP Distribution (New method*) (¥billion)



*OP is calculated by new method (see p18)

Agrochemicals – (B) Sales YOY Change (Before Discount)

Consolidated Sales YOY Change

Main Products (in order of FY2019 sales amount)		FY2018 /FY2017	FY2019E as of Nov.2019 /FY2018	FY2019 /FY2018	FY2020E /FY2019
Fluralaner	Animal health products	+25%	-3%	-9%	-9%
ROUNDUP (1)	Herbicide	-6%	+5%	+6%	-0%
ALTAIR	Herbicide	+10%	+3%	+4%	+13%
TARGA	Herbicide	+11%	-13%	-19%	-4%
GRACIA	Insecticide	-	over +700%	over +700%	+33%
PERMIT	Herbicide	+1%	+11%	+8%	-5%
LEIMAY	Fungicide	+2%	-17%	-16%	+8%
QUINTEC	Fungicide	-	-	-	+36%
Total segment	-	+7%	+4%	+3%	+2%

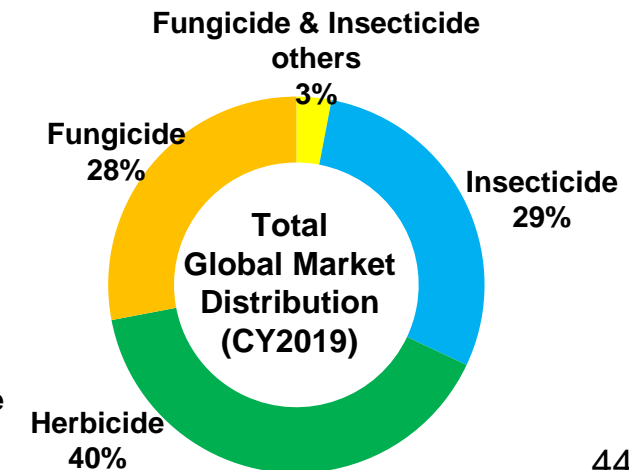
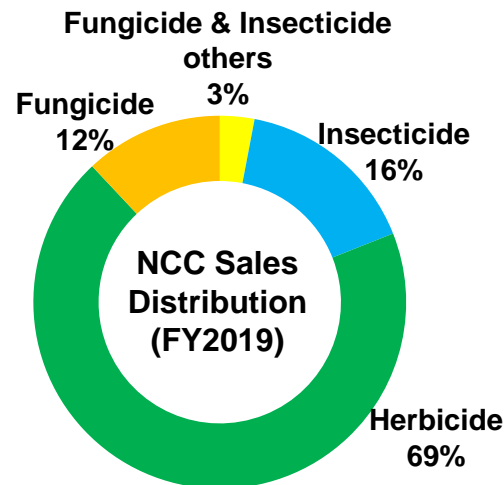
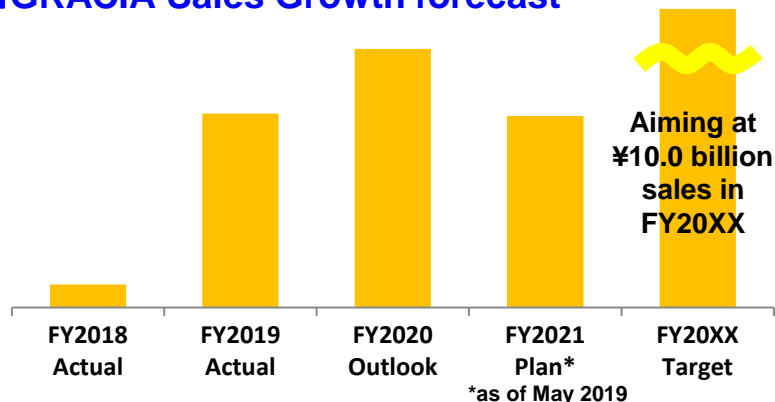
◆ No.1 in the domestic agrochemicals sales ranking (Oct.2017- Sep.2018)

⇒ See presentation materials for the ROUNDUP business briefing held on January 22, 2020

https://www.nissanchem.co.jp/eng/news_release/release/en2020_01_24.pdf

(1) ROUNDUP AL for general household accounting for 19% of FY2019 ROUNDUP sales

GRACIA Sales Growth forecast



Agrochemicals – (C) Main Products

Launch	Products	Application	Product development type	Notes
2002	ROUNDUP	Herbicide	Acquired	Acquired domestic business from Monsanto, continuing to grow
2008	LEIMAY	Fungicide	In-house	
2008	STARMITE	Insecticide	In-house	
2009	PULSOR (THIFLUZAMIDE)	Fungicide	Acquired	Acquired world business from Dow
2009	PREVATHON	Insecticide	Licensed-in	Licensed from DuPont
2010	ROUNDUP AL	Herbicide	In-house	For general household shower-type herbicide market, launched ROUNDUP ALII in FY2016 and ALIII in FY2017, growing sharply
2011	ALTAIR	Herbicide	In-house	Launched in Korea in FY2011 and in Japan in FY2012
2013	Fluralaner	Animal health products	In-house	Started to be supplied to MSD* in July as scheduled
2014	BRAVECTO**	Veterinary medical product for companion animals	-	Launched in several countries in EU in April 2014, in the USA in June 2014 and in Japan in July 2015
2015	TREFANOCIDE	Herbicide	Licensed-in	Acquired by Gowan from Dow, exclusive sales right in Japan transferred to NCC
2017	NEXTER	Fungicide	Licensed-in	Licensed from Syngenta
2017	TRANSFORM™ / EXCEED™	Insecticide	Licensed-in	Licensed from Dow
2017	EXZOLT**	Veterinary medical product for poultry	-	Launched in EU in September for poultry red mites by MSD
2018	GRACIA	Insecticide	In-house	Effective against a wide range of serious pests, having less negative impact on honeybees. Launched in Korea in FY2018 (expected peak sales 10.0 billion yen)
2019	QUINTEC (QUINOXYFEN)	Fungicide	Acquired	Acquired world business from Corteva in November 2019 Protectant fungicide highly effective in controlling powdery mildew in fruits and vegetables

Pipeline

2022	NC-241(PYRAPROPOYNE)	Fungicide	In-house	General fungicide (expected peak sales 5.0 billion yen)
2024	NC-653	Herbicide	In-house	Effective against resistant weeds, having excellent safety to rice, (expected peak sales 3.0 billion yen)
2027	NC-656	Herbicide	In-house	Our first foliar application rice herbicide with excellent efficacy against resistant grass weeds (expected peak sales 10.0 billion yen)

*MSD: MSD Animal Health, the global animal health business unit of Merck

**BRAVECTO, EXZOLT: the product names developed by MSD, containing the active substance Fluralaner

◆ Export sales* account for 39% of FY2019 consolidated segment sales (Asia:21%, Europe/Africa:65%, North/Central/South America:14%)
*Including Fluralaner

Expected peak sales of new products (GRACIA, QUINTEC, NC-241, 653, 656) 30.0 billion yen

Agrochemicals – (D-1) Fluralaner

◆ Fluralaner

- *Invented by NCC and supplied to MSD as the active pharmaceutical ingredient of BRAVECTO and EXZOLT
- *Currently, BRAVECTO series and EXZOLT are available in 100 countries
- *Compound patent
 - Fluralaner's compound patent expires in March 2025, but many countries have a patent term extension system
 - Some EU countries including France, Germany – already extended to February 2029
 - USA, UK, etc. – applications under examination



◆ BRAVECTO

- *Developed and launched by MSD
- *Veterinary medical products providing 12 weeks of continuous protection for dogs and cats against fleas and ticks with immediate effect, nearly 3 times longer than any monthly products in the market.
- *Chewable tablet for dogs
 - April 2014 Europe, June 2014 USA, July 2015 Japan, July 2019 China
- *Spot-on solution for dogs and cats
 - July 2016 EU(cats), December 2016 USA(cats)
 - January 2017 USA, Germany, Austria(dogs)
 - June 2018 Japan(cats)

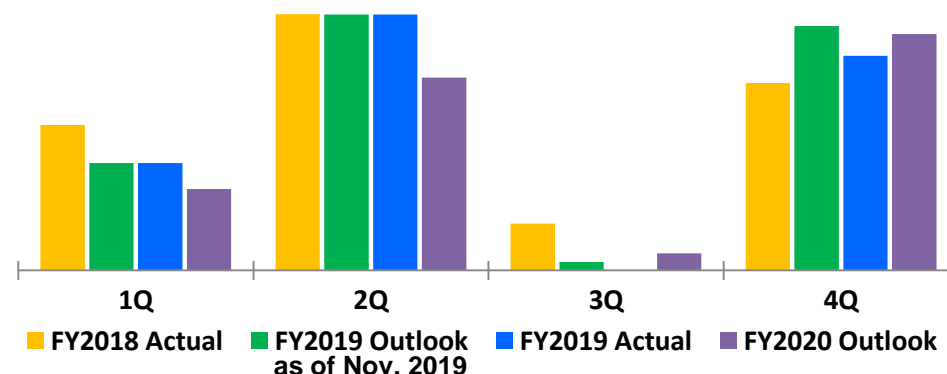
◆ EXZOLT

- *A poultry medicine against red mite launched by MSD (administered via drinking water)
 - September 2017 Europe, June 2018 Korea

◆ BRAVECTO Plus

- *A broad-spectrum combination spot-on solution for cats to treat internal and external parasite infestations
 - July 2018 Europe, December 2019 USA

■ Fluralaner Quarterly Sales (including royalties)



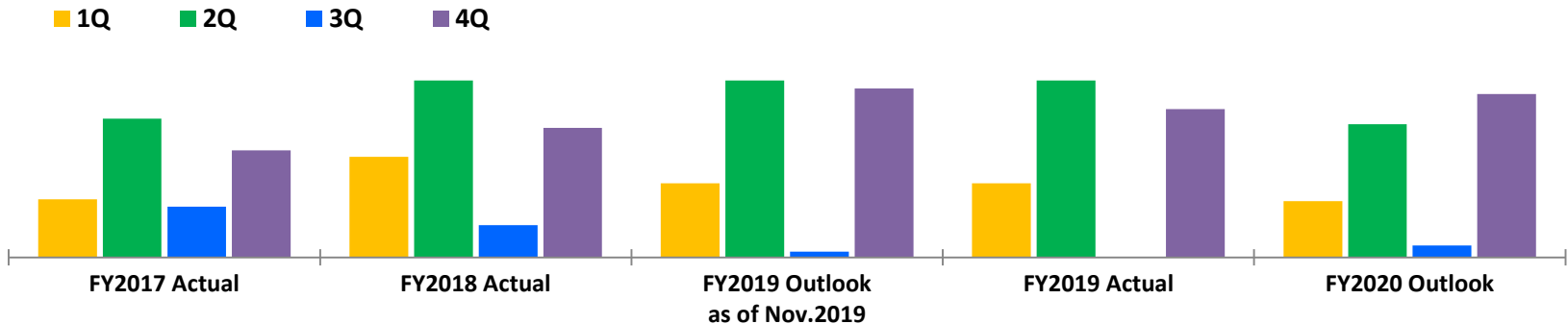
Agrochemicals – (D-2) Fluralaner

◆ NCC's Revenues

Sales of Fluralaner to MSD as API* of BRAVECTO and EXOLT products + Running royalties received from MSD semi-annually (February, August)

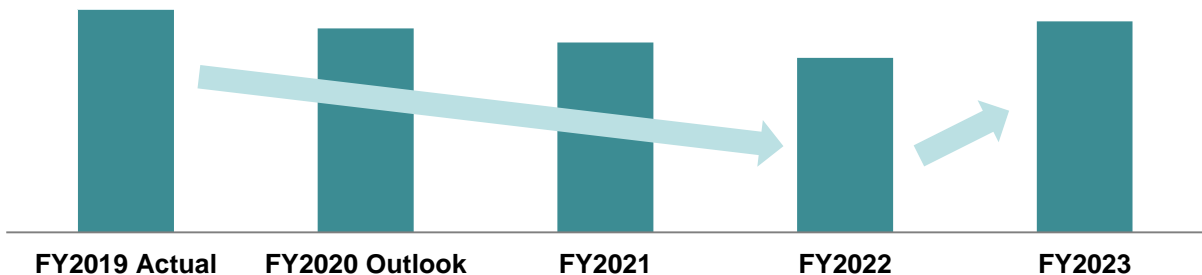
API*: Active Pharmaceutical Ingredient

◆ FY2017-FY2020 Fluralaner Quarterly Sales (including royalties)



◆ FY2019-FY2023 Fluralaner Pro-forma Sales (including royalties) Image

- BRAVECTO and EXOLT sales expected to grow steadily
- NCC's Fluralaner sales expected to decrease until FY2022 due to continuing inventory adjustment and recover in FY2023



◆ BRAVECTO and EXOLT R&D

Several pipeline products being developed by MSD (including new type of BRAVECTO for pets and spot-on solution for livestock)

Agrochemicals – (E) Joint Venture in India, QUINTEC

1. Joint Venture Company in India

Nissan Bharat Rasayan Private Limited (NBR)

Head Office	Gurgaon, Haryana (near New Delhi)
Plant Location	Newly built in Sayakha, Gujarat (land leased by Gujarat Industrial Development Corporation)
Opening of Business	April 1, 2020
Business	Manufacturing active ingredients of agrochemicals (GRACIA, LEIMAY, QUINTEC, etc.) and exporting them to NCC
Number of Operators	150-200
Plant Operating	2Q FY2022
Shareholders	NCC 70%, Bharat Rasayan LTD (BRL) 30%
Board of Directors	NCC 5, BRL 2, Independent 1, Total 8

<Funding Plan (¥billion)>

Plant	4.3	Capital (INR 1.5 billion)	2.3
Working capital and others	2.4	Borrowings provided by NCC	3.3
		Borrowings provided by local banks	1.1
Total required funds	6.7	Total funding plan	6.7

<Expected Net Contribution to NCC's Consolidated PL>

(round number, ¥billion)

FY	2021	2022	2023	2024	2025
OP	-0.3	0.5	1.2	2.0	3.2

Bharat Rasayan Ltd (BRL)

Foundation	1989
Listing	National Stock Exchange of India(NSE), Bombay Stock Exchange (BSE)
Major Shareholders	Founders families including Sat Narain Gupta, Chairman 74.8%
2018 PL	Sales INR 9,922 million, Net Income after Taxes INR 1,115 million (one of major Indian agrochemical companies)
Plant Location	2 plants: (A) Dahej, Gujarat (B) Rohtak, Haryana
Relationship with NCC	BRL is selling certain NCC's products (TARGA, PULSOR, PERMIT) in India and manufacturing certain active ingredients of NCC's products

Merits to NCC

- Reliable and experienced local partner
- Diversify and secure sources of active ingredients and decrease materials shortage risks
- Lower production costs compared to plants in Japan
- Readily available plant site (official approval process for land lease already completed)
- Much less management and financial risks compared to M&A of an existing local company

2. QUINTEC (QUINOXYFEN) See next page

Agrochemicals – (F-1) Profit Overview

(¥billion)

	FY2018 Actual					2H FY2019 Outlook as of Nov.2019			FY2019 Actual (A)							FY2020 Outlook(B)					Change (B) - (A)				
	1H	3Q	4Q	2H	Total	3Q	4Q	2H	1Q	2Q	1H	3Q	4Q	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Sales	28.7	5.9	28.1	34.0	62.7	5.2	31.2	36.4	14.7	13.2	27.9	5.5	30.6	36.1	64.0	15.2	10.8	26.0	39.5	65.5	+0.5	-2.4	-1.9	+3.4	+1.5
OP(Old)	9.8	-1.3	9.9	8.6	18.4	-2.2	12.4	10.2	4.5	4.9	9.4	-1.9	11.8	9.9	19.3	-	-	-	-	-	-	-	-	-	-
OP(New)	-	-	-	-	-	-	-	-	4.5	4.9	9.4	-1.8	11.7	9.9	19.3	3.6	3.1	6.7	11.7	18.4	-0.9	-1.8	-2.7	+1.8	-0.9

4Q FY2019 Review

<vs. 4Q FY2018>

- ◆ Sales up : GRACIA(domestic and export), QUINTEC(export), Fluralaner, PERMIT(export), ROUNDUP
- ◆ Sales down : TARGA(export), ALTAIR(export), LEIMAY(export)
- ◆ Fixed cost up ¥0.5 billion
(including QUINTEC amortization ¥0.2 billion)
- ◆ Sales up ¥2.5 billion, OP up ¥1.9 billion

4Q FY2019 Review

<vs. 4Q FY2019 Outlook as of Nov. 2019>

- ◆ Sales above target : QUINTEC(export)
- ◆ Sales below target : Fluralaner, TARGA(export), PERMIT(export), ROUNDUP
- ◆ Fixed cost above expectations ¥0.2 billion
(including QUINTEC amortization ¥0.2 billion)
- ◆ Sales down ¥0.6 billion, OP down ¥0.6 billion

◆ QUINTEC (QUINOXYFEN)

• Acquired the QUINOXYFEN product line of fungicides including QUINTEC brand from Corteva in November 2019 and started to sell in December 2019

• Protectant fungicide highly effective in controlling powdery mildew in fruits (especially grapes) and vegetables, mainly sold in USA

<Acquisition's Estimated PL Impact>

(¥billion, round number)

	FY2019	FY2020	FY2021-24 Total
OP	0.0	0.5	2.5
OP+Amortization	0.3	1.0	5.5

*Amortization: multiple 5-9 year straight line methods depending on types of non-tangible assets

Agrochemicals – (F-2) Profit Overview

2H FY2019 Review

<vs. 2H FY2018>

- ◆ Sales up : GRACIA(domestic and export), QUINTEC(export), PERMIT(export), ROUNDUP, ALTAIR(domestic)
- ◆ Sales down : Fluralaner, TARGA(export)
- ◆ Fixed cost up ¥0.8 billion
(including QUINTEC amortization ¥0.3 billion)
- ◆ Inventory adjustment cost up ¥0.2 billion
- ◆ Sales up ¥2.1 billion, OP up ¥1.3 billion

2H FY2019 Review

<vs. 2H FY2019 Outlook as of Nov. 2019>

- ◆ Sales above target : QUINTEC(export), ROUNDUP, ALTAIR(domestic)
- ◆ Sales below target : Fluralaner, TARGA(export), GRACIA(domestic), PERMIT(domestic and export),
- ◆ Fixed cost above expectations ¥0.3 billion
(including QUINTEC amortization ¥0.3 billion)
- ◆ Sales down ¥0.3 billion, OP down ¥0.3 billion

FY2019 Review

<vs. FY2018>

- ◆ Sales up : GRACIA(domestic and export), QUINTEC(export), ROUNDUP, ALTAIR(domestic), PERMIT(export),
- ◆ Sales down : Fluralaner, TARGA(export), LEIMAY(export),
- ◆ Fixed cost up ¥0.8 billion
(including QUINTEC amortization ¥0.3 billion)
- ◆ Inventory adjustment cost up ¥0.5 billion
- ◆ Sales up ¥1.3 billion, OP up ¥0.9 billion

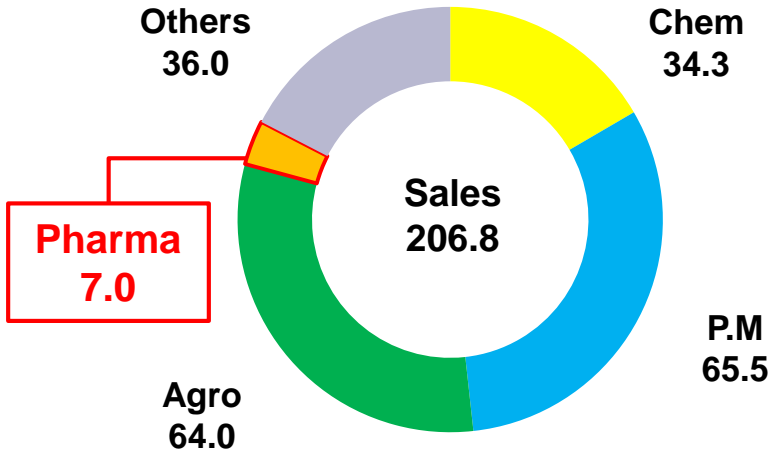
FY2020 Outlook

<vs. FY2019>

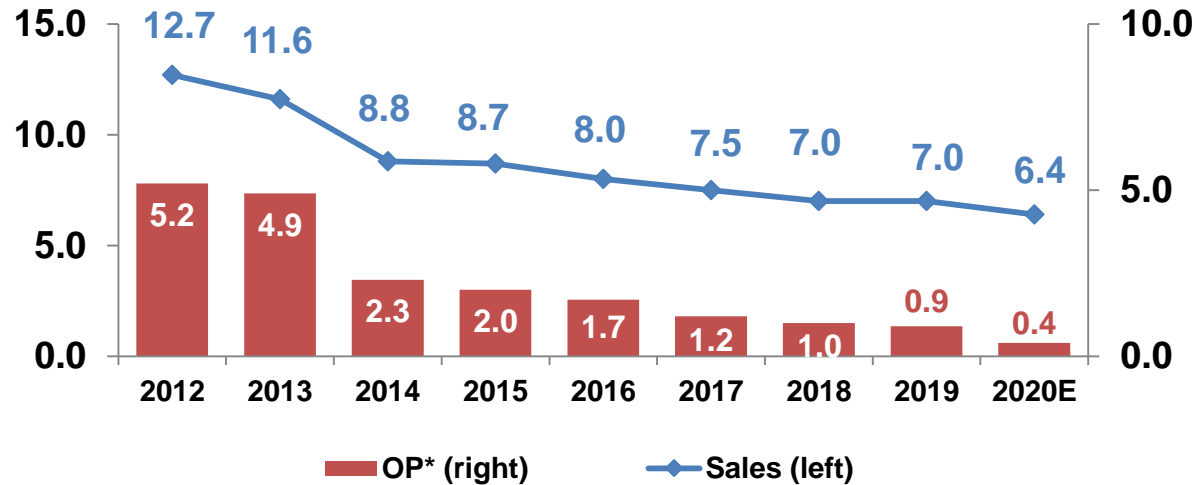
- ◆ Sales up : GRACIA(domestic and export), ALTAIR(domestic and export), QUINTEC(export), LEIMAY(export)
- ◆ Sales down : Fluralaner, TARGA(export), PERMIT(export),
- ◆ Fixed cost up ¥1.4 billion
(including QUINTEC amortization ¥0.5 billion)
- ◆ Inventory adjustment cost up ¥0.1 billion
- ◆ Sales up ¥1.5 billion, OP down ¥0.9 billion

Pharmaceuticals – (A) Recent Financial Performance

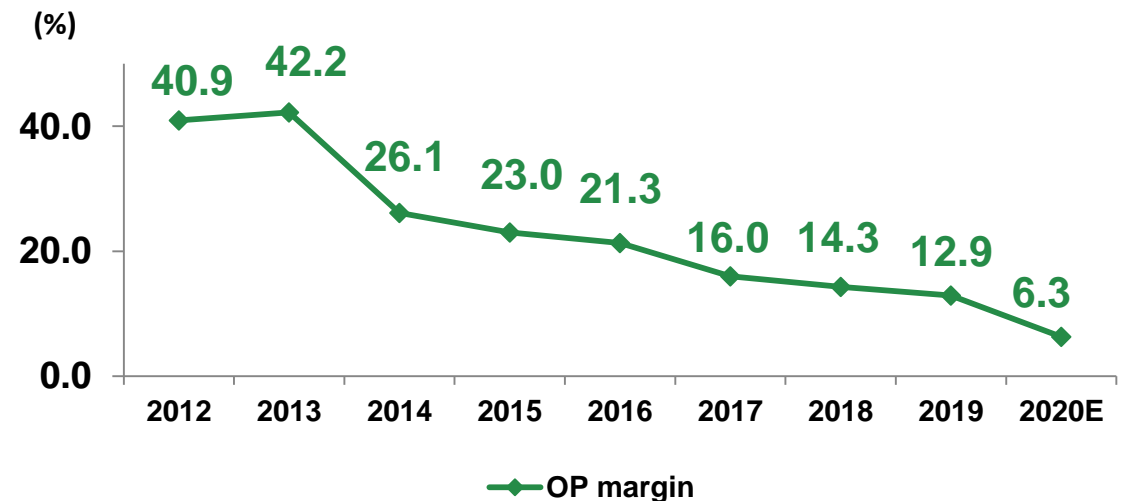
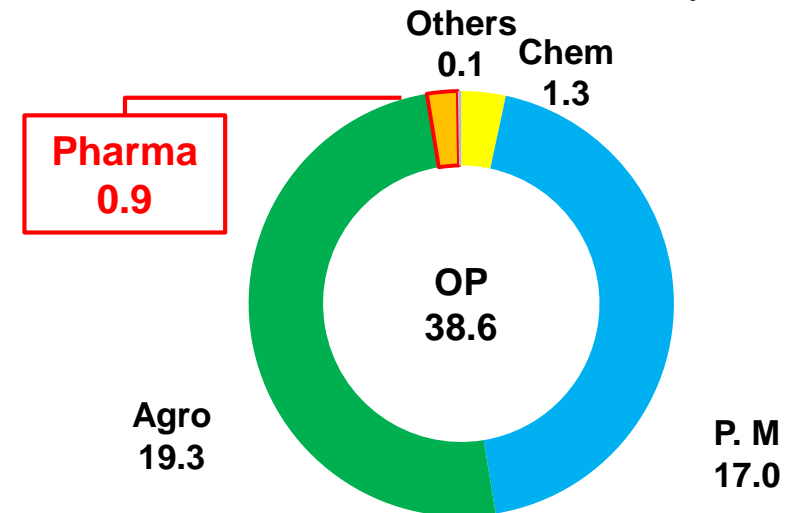
1. FY2019 Sales Distribution (¥billion)



3. Recent Financial Performance (¥billion)



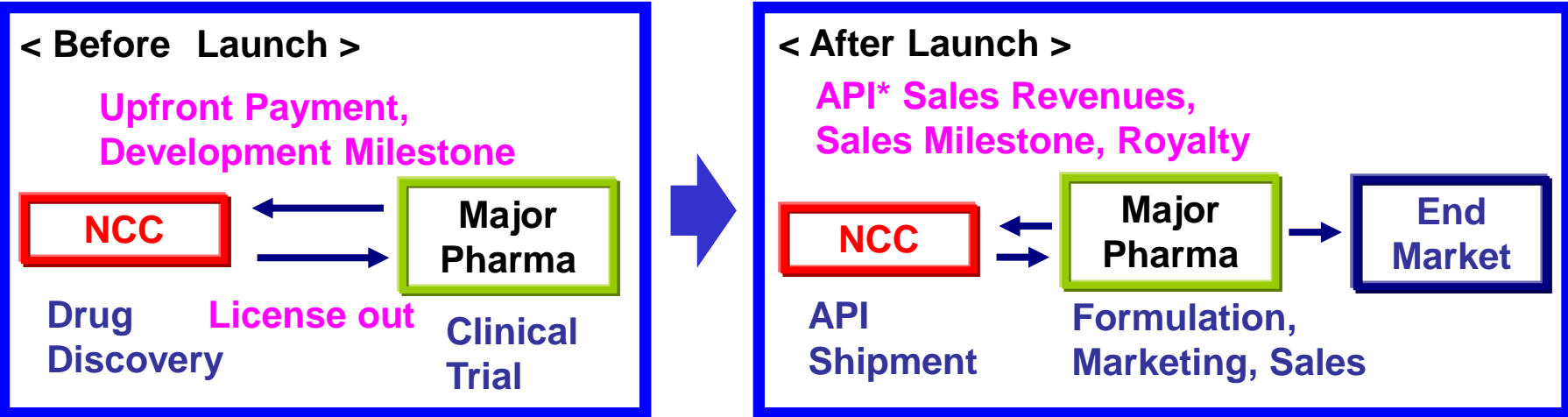
2. FY2019 OP Distribution (New method*) (¥billion)



*OP is calculated by new method (see p18)

Pharmaceuticals – (B) Business Model (New Drug) and LIVALO

◆ Unique ethical pharma business model without sales force



API*: Active Pharmaceutical Ingredient

◆ LIVALO (Anti-Cholesterol Drug)

	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Outlook as of Nov. 2019	FY2019 Actual	FY2020 Outlook
Domestic End Market Sales (NHI drug price basis, ¥billion)	52.6	34.5	29.7	23.9	21.0	16.7	-	14.3	-
Our Domestic and Export API Sales (¥billion)	10.2	6.9	5.8	5.2	4.8	4.3	3.9	4.0	2.7
Our Domestic and Export API Sales YOY Change	-2%	-32%	-15%	-11%	-7%	-11%	-10%	-7%	-31%
(Domestic API Sales YOY Change)	(-2%)	(-46%)	(-27%)	(-42%)	(-73%)	(-53%)	(+59%)	(+105%)	(+25%)
(Export API Sales YOY Change)	(-1%)	(+21%)	(+5%)	(+26%)	(+29%)	(-6%)	(-14%)	(-14%)	(-39%)

- August 2013, domestic compound patent expired
- August 2020, market exclusivity will be expired in EU
- Currently, available in 26 countries

Pharmaceuticals – (C) Pipeline

Product	Mechanism of action	Expected indications	Development partners
NTC-801	<ul style="list-style-type: none"> Acetylcholine-activated K⁺ channel current (IKACH) inhibition 	<ul style="list-style-type: none"> Arrhythmia (Atrial fibrillation) 	<ul style="list-style-type: none"> Terminated the license agreement with Teijin and BMS in September 2015 Under consideration regarding seeking new partners Adopted as AMED* program in September 2018 Starting an investigator initiated clinical trial conducted by Osaka University

*Japan Agency for Medical Research and Development

<Policy for drug discovery research>

To create innovative medicines by using the strategic chemical library, the precise organic synthesis technology, proprietary oligonucleotides therapeutics discovery platform

◆ In-house research

- Focusing on cardiovascular disease and neurological disease as core therapeutic areas
- Using state-of-the art-ion channel evaluation platform as key technology

◆ Collaborative research

- Conducting small molecule and oligonucleotides drug discovery programs with several pharmaceutical companies and bio-venture companies

Pharmaceuticals – (D) Custom Chemicals

- ◆ Custom manufacturing and process researching services for new drug pharmaceutical ingredients and intermediates from pre-clinical to commercial production stages
- ◆ In addition, focusing on obtaining new contracts mainly for high activity and high-valued added GE API products
 - 2016- Maxacalcitol (Secondary hyperparathyroidism and Psoriasis)
 - 2017- Eldecalcitol (Osteoporosis)

◆ Custom Chemicals Sales Growth

(¥billion)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020E
Sales	1.2	1.8	2.3	2.4	2.5	2.6	2.9	3.6

Sales YOY Change										
FY2019 Outlook as of Nov. 2019			FY2019 Actual					FY2020 Outlook		
1H Actual	2H	Total	1H	3Q	4Q	2H	Total	1H	2H	Total
-0%	+35%	+17%	-0%	-8%	+56%	+23%	+11%	-0%	+42%	+23%

Pharmaceuticals – (E) New Strategies

1. Drug Discovery (D.D)

(1) New drug discovery strategy

A. In-house research (Previously) License out only at clinical testing stage

(New) Focus on themes initiated by NCC and selected by potential licensees and license out before clinical testing stage

B. Collaborative research

◆ Provide our unique drug discovery technologies

(such as oligonucleotides drug discovery platform) to partners and aim to receive fees

◆ Advantages of our oligonucleotides drug discovery technologies

--- unique modified nucleic acids

(2) Ceilings on R&D resources

A. Reduce 10 drug discovery staffs in two years

B. Fix R&D expenses at ¥2.5 billion

(3) Focus on 10 out of 18 existing new drug discovery projects

2. Custom Chemicals (C.C)

(1) Expand high margin C.C business to support D.D business currently relying solely on LIVALO

(2) Following Maxacalcitol and Eldecalcitol, develop another high value added GE API products and launch peptides CMO business

3. FY2019-FY2023 Pro-forma PL Image

		FY2019	FY2020	FY2021	FY2023
		Actual	Outlook	Pro-forma	Pro-forma
Sales	D.D(1)	4.06	2.79	2.4	2.2
	C.C	2.90	3.56	5.1	6.0
	Total Segment	6.96	6.35	7.5	8.2
OP	D.D(1)	-0.12	-0.95	-1.2	-1.3
	C.C	1.05	1.38	2.3	2.8
	Total Segment	0.93	0.43	1.1	1.5

(¥billion, OP: new method)

(1) Excluding possible upfront and milestone revenues in FY2021, 2023
(p63 including ¥0.5 billion in FY2023)

Pharmaceuticals – (F) Equity participation in PeptiStar Inc. (PS)

- ◆ **Our Investment Amount:** ¥0.9 billion, (8.2% of the number of shares outstanding after the third-party allotment)
- ◆ **Outline of PS:** The world's first Contract Manufacturing Organization (CMO) for the research and commercial manufacture of constrained peptide therapeutics.
Established by PeptiDream, Shionogi and Sekisui Chemical in September 2017
- ◆ **Funding of PS :**
(approximate amount)
 - ¥11.0 billion Equity provided by about 20 companies by way of third-party allotment
 - ¥9.0 billion Grant program of Cyclic Innovation for Clinical Empowerment (CiCLE) by the Japan Agency for Medical Research and Development (AMED)Total ¥20.0 billion
- ◆ **Business Status of PS :** Completion of R&D center in April 2019, manufacturing fab in July 2019
- ◆ **Our Role and Objective:** Develop solution-phase synthesis suitable for mass production of constrained peptides
- ◆ **Impact on our Business:** Improve our novel synthetic method (solution-phase synthesis) of constrained peptides, reduce manufacturing cost substantially and expand our CMO business.

Pharmaceuticals – (G-1) Profit Overview

(¥billion)

	FY2018 Actual					2H FY2019 Outlook as of Nov.2019			FY2019 Actual (A)							FY2020 Outlook(B)					Change (B) - (A)				
	1H	3Q	4Q	2H	Total	3Q	4Q	2H	1Q	2Q	1H	3Q	4Q	2H	Total	1Q	2Q	1H	2H	Total	1Q	2Q	1H	2H	Total
Sales	3.71	1.84	1.45	3.29	7.00	1.60	2.00	3.60	1.87	1.56	3.43	1.53	2.00	3.53	6.96	1.19	1.63	2.82	3.53	6.35	-0.68	+0.07	-0.61	+0.00	-0.61
D.D	2.38	1.19	0.83	2.02	4.40	0.90	0.98	1.88	1.36	0.74	2.10	0.93	1.03	1.96	4.06	0.66	0.83	1.49	1.30	2.79	-0.70	+0.09	-0.61	-0.66	-1.27
C.C	1.33	0.65	0.62	1.27	2.60	0.70	1.02	1.72	0.51	0.82	1.33	0.60	0.97	1.57	2.90	0.53	0.80	1.33	2.23	3.56	+0.02	-0.02	+0.00	+0.66	+0.66
OP(Old)	0.61	0.40	-0.01	0.39	1.00	0.16	0.41	0.57	0.38	0.15	0.53	0.02	0.39	0.41	0.94	-	-	-	-	-	-	-	-	-	-
D.D	0.26	0.14	-0.15	-0.01	0.25	-0.07	-0.04	-0.11	0.24	-0.19	0.05	-0.17	0.00	-0.17	-0.12	-	-	-	-	-	-	-	-	-	-
C.C	0.35	0.26	0.14	0.40	0.75	0.23	0.45	0.68	0.14	0.34	0.48	0.19	0.39	0.58	1.06	-	-	-	-	-	-	-	-	-	-
OP(New)	-	-	-	-	-	-	-	-	0.39	0.14	0.53	0.02	0.38	0.40	0.93	-0.14	0.19	0.05	0.38	0.43	-0.53	+0.05	-0.48	-0.02	-0.50
D.D	-	-	-	-	-	-	-	-	0.23	-0.18	0.05	-0.17	0.00	-0.17	-0.12	-0.26	-0.07	-0.33	-0.62	-0.95	-0.49	+0.11	-0.38	-0.45	-0.83
C.C	-	-	-	-	-	-	-	-	0.16	0.32	0.48	0.19	0.38	0.57	1.05	0.12	0.26	0.38	1.00	1.38	-0.04	-0.06	-0.10	+0.43	+0.33

4Q FY2019 Review

<vs. 4Q FY2018>

- (D.D) ◆ LIVALO sales up
Domestic sales up (inventory adjustment over),
export up (Europe and America up,
high margin Asia down)
- ◆ Fixed cost down ¥0.1 billion
- ◆ Inventory adjustment cost up ¥0.1 billion
- ◆ Sales up ¥0.20 billion, OP up ¥0.15 billion
- (C.C) ◆ Sales up (volume increase)
- ◆ Fixed cost up ¥0.1 billion
- ◆ Inventory adjustment cost down ¥0.1 billion
- ◆ Sales up ¥0.35 billion, OP up ¥0.25 billion
- (Total) ◆ Sales up ¥0.55 billion, OP up ¥0.40 billion

4Q FY2019 Review

<vs. 4Q FY2019 Outlook as of Nov. 2019>

- (D.D) ◆ LIVALO sales above target
Domestic sales above target, export below target
(Europe and America above target,
high margin Asia below target)
- ◆ Sales up ¥0.05 billion, OP up ¥0.04 billion
- (C.C) ◆ Sales below target (volume below target)
- ◆ Sales down ¥0.05 billion, OP down ¥0.06 billion
- (Total) ◆ Sales flat, OP down ¥0.02 billion

Pharmaceuticals – (G-2) Profit Overview

2H FY2019 Review

<vs. 2H FY2018>

- (D.D) ◆ LIVALO sales down
Domestic sales up (inventory adjustment over),
export down (Europe up, America down,
high margin Asia down)
- ◆ Fixed cost down ¥0.2 billion
- ◆ Sales down ¥0.06 billion, OP down ¥0.16 billion
- (C.C) ◆ Sales up (volume increase)
- ◆ Fixed cost up ¥0.1 billion
- ◆ Sales up ¥0.30 billion, OP up ¥0.18 billion
- (Total) ◆ Sales up ¥0.24 billion, OP up ¥0.02 billion

2H FY2019 Review

<vs. 2H FY2019 Outlook as of Nov. 2019>

- (D.D) ◆ LIVALO sales above target
Domestic sales above target,
export below target (Europe above target,
high margin Asia below target)
- ◆ Sales up ¥0.08 billion, OP down ¥0.06 billion
- (C.C) ◆ Sales below target (volume below target)
- ◆ Sales down ¥0.15 billion, OP down ¥0.10 billion
- (Total) ◆ Sales down ¥0.07 billion, OP down ¥0.16 billion

FY2019 Review

<vs. FY2018>

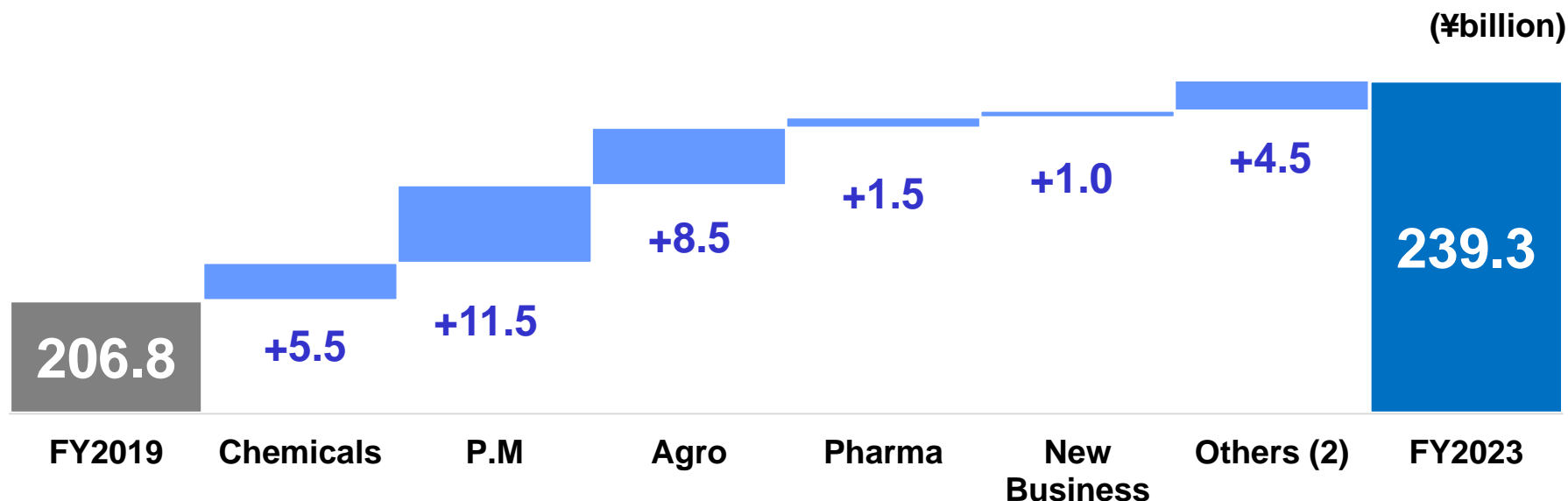
- (D.D) ◆ LIVALO sales down
Domestic sales up (inventory adjustment over),
export down (Europe up, America down,
high margin Asia down)
- ◆ Fixed cost down ¥0.2 billion
- ◆ Sales down ¥0.34 billion, OP down ¥0.37 billion
- (C.C) ◆ Sales up (volume increase)
- ◆ Fixed cost up ¥0.2 billion
- ◆ Inventory adjustment cost down ¥0.1 billion
- ◆ Sales up ¥0.30 billion, OP up ¥0.31 billion
- (Total) ◆ Sales down ¥0.04 billion, OP down ¥0.06 billion

FY2020 Outlook

<vs. FY2019>

- (D.D) ◆ LIVALO sales down
Domestic sales up (volume increase),
export down (Europe down due to GE products,
America down, high margin Asia down)
- ◆ Fixed cost down ¥0.3 billion
- ◆ Sales down ¥1.27 billion, OP down ¥0.83 billion
- (C.C) ◆ Sales up (volume increase)
- ◆ Inventory adjustment cost up ¥0.1 billion
- ◆ Sales up ¥0.66 billion, OP up ¥0.33 billion
- (Total) ◆ Sales down ¥0.61 billion, OP down ¥0.50 billion

Rough Image of FY2023 Sales- (A) Overall⁽¹⁾



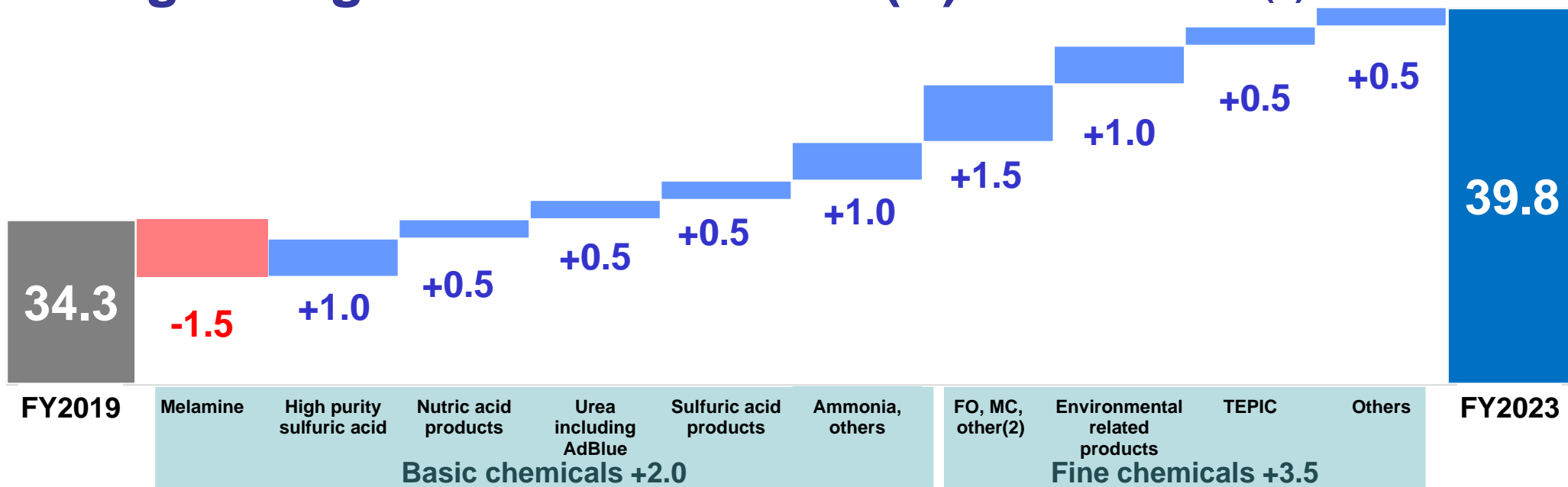
(1) Changes are rounded off to the nearest 0.5 billion yen.

(2) Trading, Others, Adjustment

- ◆ **Fluralaner sales expected to decrease until FY2022 due to continuing inventory adjustment and recover in FY2023**
- ◆ **Based on this assumption, we have created a medium-term sales growth image for each segment**
- ◆ **Total company-wide sales expected to increase from 206.8 billion yen in FY2019 to 239.3 billion yen (+16%) in FY2023**

Rough Image of FY2023 Sales- (B) Chemicals⁽¹⁾

(¥billion)



(1) Changes are rounded off to the nearest 0.5 billion yen

(2) FO: FINEOXOCOL (cosmetic raw materials, acrylate adhesives), MC: Melamine Cyanurate (flame retardants, lubricants), other products(reinforced fiber materials) (products name are undisclosed)

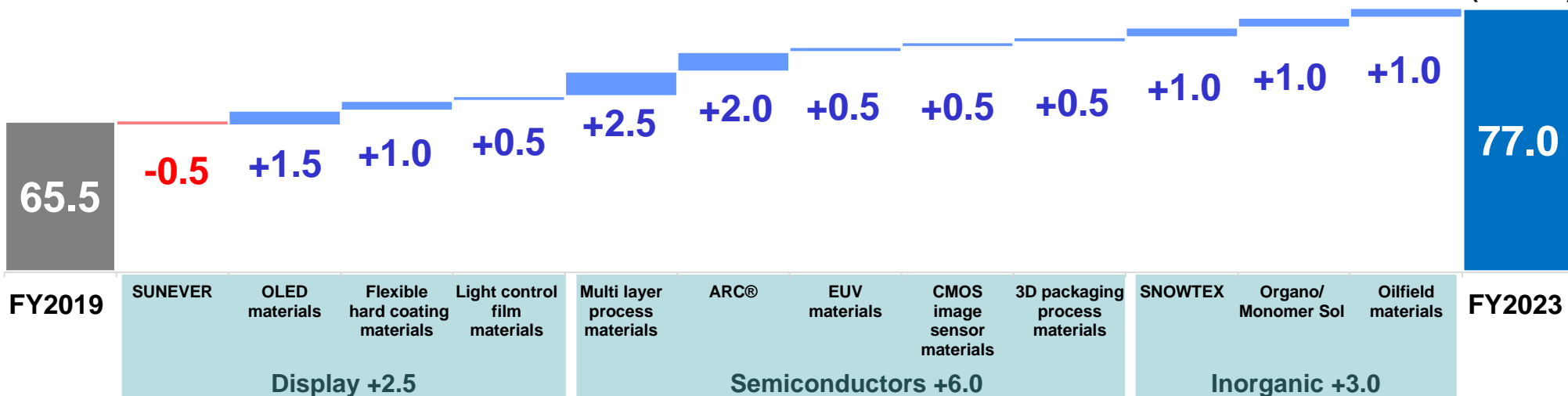
(Basic chemicals)

(Fine chemicals)

Products	Changes (billion yen, every0.5)	Main reasons for changes	Products	Changes (billion yen, every0.5)	Main reasons for changes
Melamine	-1.5	(export) Drastic volume reduction with emphasis on spreads, continued stagnant market conditions (domestic) Flat at FY2020 levels	FO, MC, Other	+1.5	(FO) Expand overseas with existing cosmetic ingredients and development of new applications (MC) Expanded applications of lubricants for new powder molding (increased density). (Other) Development of new applications (Total sales of the three products in FY2019: about 2.7 billion yen).
High purity sulfuric acid	+1.0	Expanding sales according to the equipment and production plans of semiconductor customers			
Nitric acid products	+0.5	Withdrawal of a domestic competitor from the market (April 2020)			
Urea including AdBlue	+0.5	Demand for AdBlue's light- and medium-duty trucks and construction equipment increases	Environmental related products	+1.0	Increase in isocyanuric acid capacity (to be completed by Dec. 2020) Sales expansion to major customers (with contracts)
Sulfuric acid products	+0.5	Expanding demand for electronic components and battery applications.	TEPIC	+0.5	(General) Mostly maintained at FY2019 level (Electrical Materials) Expand the customer base for solder resist inks and expand the use of LED sealants
Ammonia, others	+1.0		Others	+0.5	

Rough Image of FY2023 Sales- (C) Performance Materials(1)

(¥billion)



(1) Changes are rounded off to the nearest 0.5 billion yen.

(Display)

products	Changes (billion yen, every 0.5)	Main reasons for changes
SUNEVER	-0.5	(TN) -0.5 (VA) +1.0 market share expansion (rubbing IPS) -1.0 market share expansion, shift to photo IPS (Photo IPS) +0.0 Decrease in smartphone use, expansion of non-smartphone use
OLED materials	+1.5	(Vapor deposition) +0.5 Alignment materials for LC retarder, De-bonding layer (Printing) +1.0 Repellent bank layer, Hole injection layer
Flexible HC	+1.0	Hard coating materials for flexible OLED smartphone
Light control film	+0.5	Development of construction materials, in-vehicle and bullet train applications

(Semiconductors)

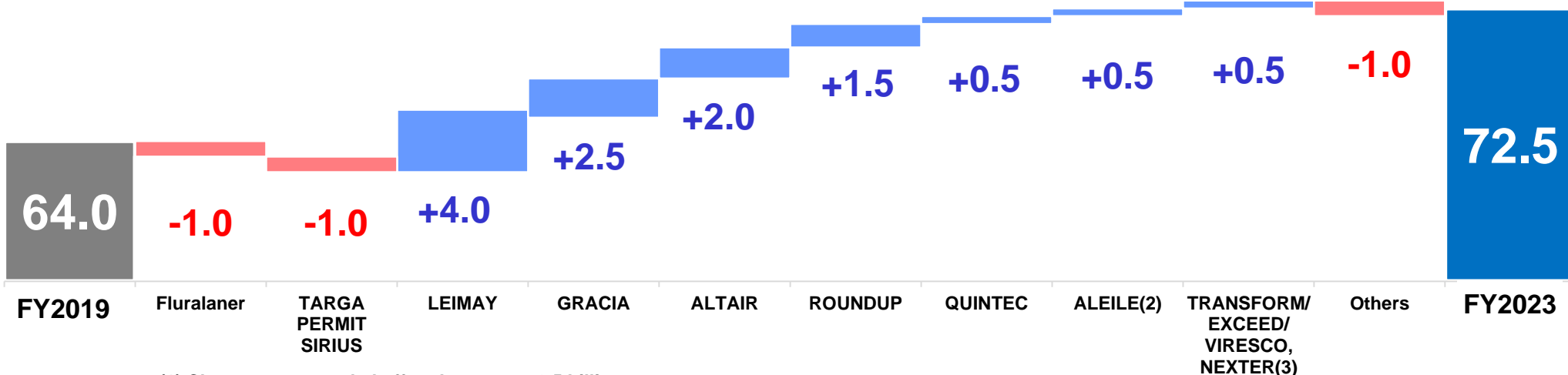
products	Changes (billion yen, every 0.5)	Main reasons for changes
Multi layer process materials	+2.5	Demand increases with the development of 5G and IoT
ARC®	+2.0	
EUV materials	+0.5	Demand increases with the development of 5G and IoT (Entered EUV Si-HM market in FY2019 finally)
CMOS image sensor materials	+0.5	Entered the market for high value-added lens materials.
3D packaging process materials	+0.5	Acquisition of new customers, development of new materials

(Inorganic)

SNOW TEX	+1.0	(non-polishing) Increase in materials for automobiles (polishing) Increase in silicon wafers and CMP
Organo/Monomer Sol	+1.0	Increase in hard coating materials for foldable smartphone film and 3D printing materials
Oilfield material	+1.0	Expanded to repair existing wells with low oil price impact

Rough Image of FY2023 Sales- (D) Agrochemicals⁽¹⁾

(¥billion)



(1) Changes are rounded off to the nearest 0.5 billion yen.

(2) ALEILE: Foliar application herbicide for paddy rice including ALTAIR

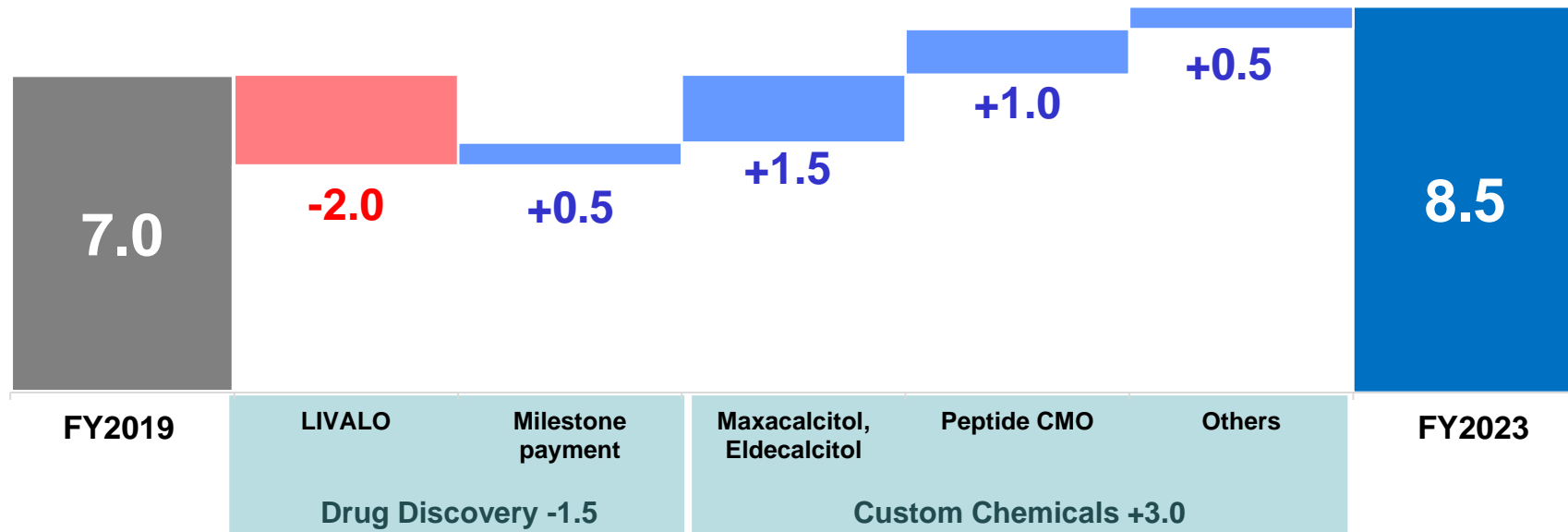
(3) TRANSFORM™/ EXCEED™/ VIRESKO™: Insecticide for fruits, vegetables, and paddy rice (licensed in from DOW)

NEXTER: Fungicide for fruits and vegetables (licensed in from Syngenta)

Products	Changes (billion yen, every 0.5)	Main reasons for changes
Fluralaner	-1.0	Decrease until FY2022 due to continuing inventory adjustment and recover in FY2023 (see p47)
TARGA, PERMIT, SIRIUS	-1.0	(TARGA) Shrink rapeseed cropping market in Europe, (PERMIT) Decrease in Europe, (SIRIUS) Decline in the alternative progression to ALTAIR.
LEIMAY	+4.0	Develop two mixtures for European market with two major agrochemical manufacturers
GRACIA	+2.5	(Domestic) Launch the new formulation in Japan (Export) Increase in sales countries (India, Indonesia, Vietnam, Argentina)
ALTAIR	+2.0	Switch to the new generation products and expand sales in China and Southeast Asia.
ROUNDUP	+1.5	Focus on large-sized standardized products in ROUNDUP ML, and strengthen AL via drugstores and supermarkets as well as home centers
QUINTEC	+0.5	Increase in sales volume
ALEILE	+0.5	New foliar application herbicide for paddy rice including ALTAIR Capable of in-water and highly resistant to rain
TRANSFORM/ EXCEED/ VIRESKO, NEXTER	+0.5	Focused licensed-in products
Others	-1.0	

Rough Image of FY2023 Sales- (E) Pharmaceuticals⁽¹⁾

(¥billion)



(1) Changes are rounded off to the nearest 0.5 billion yen.

(Drug Discovery)

Products	Changes (billion yen, every 0.5)	Main reasons for changes
LIVALO	-2.0	(Domestic) Volume down due to increase in generics (Export) Generic entry in Europe and the U.S. and volume down in Korea
Milestone payment	+0.5	Pipeline drug is expected to be licensed in the focused area

(Custom Chemicals)

Maxacalcitol, Eldecalcitol	+1.5	(Maxacalcitol) Started accepting orders from new customer (Eldecalcitol) Expected to increase in volume at 1H 2020 launch
Peptide CMO	+1.0	Expect to be commissioned by PeptiStar and other companies
Others	+0.5	Existing contracted products

Rough Image of FY2023 Sales- (F) New Business

Field	Products	Changes (every 0.5 billion yen)
Life Sciences	<p>Cell culture medium</p> <p>Biointerface control materials (inhibition of cell and protein adhesion)</p> <p>Cosmetic materials (promotion of skin penetration of active ingredients, moisturizing effect, etc.)</p>	Total ¥1.0 billion
Environment & Energy	<p>Secondary battery materials (undercoat materials to promote low resistance)</p> <p>Hole transport layer materials for organic solar cells (energy conversion of sunlight)</p>	
Information & Communication	Optical interconnect materials	

Capex/Depreciation/R&D by Segment

(¥billion)

	Capex (1)						Depreciation (2)						R&D expenses						% of Sales			
	2015	2016	2017	2018	2019	2020E	2015	2016	2017	2018	2019	2020E	2015	2016	2017	2018	2019	2020E				
Chem	2.3	2.0	2.6	2.0	3.1	6.8	1.4	1.6	1.7	1.8	1.8	2.2	0.5	0.5	0.6	0.6	0.4	0.4	1.1%			
Performance M.	5.4	8.4	7.2	3.3	3.3	4.9	5.2	4.8	5.9	6.0	5.1	5.0	7.4	7.9	8.1	8.2	7.7	8.4	12.0%			
Agro	1.3	2.4	2.6	3.3	7.9	0.7	1.4	1.3	1.4	1.7	2.2	2.3	3.9	3.8	4.3	4.5	4.6	5.0	7.6%			
Pharma	0.4	0.9	0.7	0.5	0.6	0.4	0.8	0.7	0.7	0.6	0.6	0.6	2.4	2.2	2.5	2.5	2.5	2.3	35.9%			
Trading	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-			
Others	0.8	0.6	0.6	0.7	0.7	0.8	0.8	0.4	0.7	0.7	0.7	0.5	1.6	1.7	1.7	2.0	2.0	2.1	-			
Total	10.2	14.3	13.7	9.9	15.7	13.8	9.7	8.9	10.5	10.9	10.5	10.7	15.8	16.1	17.2	17.8	17.2	18.2				
													R&D expenses/Sales				8.9%	8.9%	8.9%	8.7%	8.3%	8.5%

(1) Capex

Actual - Acceptance basis

Outlook - Production commencement basis

(2) Depreciation Method

SUNEVER, ARC®, Multi layer process materials

- 4 year declining balance method

(50.0% of initial capex amount in the 1st year)

Other products - 8 year declining balance method

(25.0% of initial capex amount in the 1st year)

R&D Personnel (Sept. 2019) –A	450
Total Professionals (Sept. 2019) –B	1,165
A/B	39%

※Parent company only

※Round number

Main Capex Items (Approval Basis)

(¥billion)

FY2017 Actual		FY2018 Actual		FY2019 Outlook		FY2020 Outlook	
Agro (Production facilities)	1.4	Chemical Research Lab. (Instruments)	0.7	Isocyanuric acid (1) (Production capacity expansion)	1.9	Semis (Material Research Lab. new annex)	2.0
NSU R&D Center	1.0	Material Research Lab. (Instruments)	0.7	Chemical Research Lab. (Instruments)	0.7	Display (Production facilities)	0.9
Material Research Lab. (Instruments)	0.9	Agro (Product development facilities)	0.6	Material Research Lab. (Instruments)	0.6	Chemical Research Lab. (Instruments)	0.8
Chemical Research Lab. (Instruments)	0.6	NSU R&D Center	0.5	Display (Production facilities)	0.5	Material Research Lab. (Instruments)	0.7
Display (Test facilities)	0.3	TEPIC (Production capacity expansion)	0.5	Biological Research Lab. (Instruments)	0.3	Cell culture medium (Production facilities)	0.6
Biological Research Lab. (Instruments)	0.3	Biological Research Lab. (Instruments)	0.4	TEPIC (Production facilities)	0.2	High Purity Sulfic Acid (Production capacity expansion)	0.5
Display (Production facilities)	0.3	Semis (Production test facilities)	0.2			SNOWTEX (Production facilities)	0.4
		SNOWTEX (Production capacity expansion)	0.2			NCK Semis (Production capacity expansion)	0.4
						Biological Research Lab. (Instruments)	0.2

(1) Fine Chemicals materials (see p32)

New Mid-Term Plan Vista2021 Stage II (FY2019-2021) announced in May 2019 - (A)

(¥billion)

1. PL

	Actual	New Mid-Term Plan announced in May 2019	Mid-Term Plan announced in May 2016
	FY2018	FY2021	FY2021
Sales	204.9	235.0	250.0
Operating Profit	37.1	43.0	40.0
Ordinary Income	39.1	44.0	40.8
Net Income	29.4	33.0	31.0
EPS (¥/share)	197.67	230.00	-
Dividend (¥/share)	82	-	-
FX Rate (¥/\$)	111	110	115
Naphtha (¥/kl)	49,700	43,000	51,100

(Financial Targets)

	Actual	New Mid-Term Plan announced in May 2019	Mid-Term Plan announced in May 2016
	FY2018	FY2020, FY2021	FY2021
OP Margin	18.1%	Above 18%	Above 15%
ROE	16.6%	Above 16%	Above 14%
Dividend Payout Ratio	41.5%	45%	40%
Total Payout Ratio	72.0%	75%	70%

(¥billion)

2. Segment (1)

	Sales			Operating Profit		
	Actual	New Mid-Term Plan announced in May 2019	Mid-Term Plan announced in May 2016	Actual	New Mid-Term Plan announced in May 2019	Mid-Term Plan announced in May 2016
	FY2018	FY2021	FY2021	FY2018	FY2021	FY2021
Chem	35.7	43.1	40.5	3.0	5.1	4.5
Performance M.	63.0	75.1	82.9	15.0	17.3	18.4
Agro	62.7	70.1	67.0	18.4	21.1	16.7
Pharma	7.0	7.5	8.3	1.0	0.7	2.4
Trading, Others, Adj	36.5	39.2	51.3	-0.3	-1.2	-2.0
Total	204.9	235.0	250.0	37.1	43.0	40.0

(1) Including inter-segment sales/transfers

New Mid-Term Plan Vista2021 Stage II (FY2019-2021) announced in May 2019 - (B)

1. Cash Flows

	Actual	New Mid-Term Plan	(¥billion)
	Total FY2016-2018	Total FY2019-2021 (round number)	
CF from operating activities	102.1	115.0	
CF from investing activities	-39.2	-45.0	
CF from financing activities	-62.0	-75.0	
(Total payout to shareholders (dividend & share repurchase))	-55.6	-70.0	
(Repayment of borrowings)	-6.4	-5.0	
	FY2018	FY2021	
Cash at end of fiscal year	36.2	30.0	

2. Capex, Depreciation, R&D expenses, Researchers

	(¥billion)						(person)	
	Capex		Depreciation		R&D expenses		Researchers	
	Actual	New Mid-Term Plan	Actual	New Mid-Term Plan	Actual	New Mid-Term Plan	Actual	New Mid-Term Plan
	Total FY2016-2018	Total FY2019-2021	Total FY2016-2018	Total FY2019-2021	Total FY2016-2018	Total FY2019-2021	FY2018	FY2021
Chemicals	6.6	14.7	5.2	9.4	1.6	1.4	10	10
Performance Materials	18.9	17.8	16.7	17.0	24.3	26.7	200	210
Agrochemicals	8.3	8.2	4.4	5.5	12.6	14.8	95	95
Pharmaceuticals	2.1	1.7	2.1	1.8	7.2	7.1	85	90
Trading, Others, Adjustment	2.0	2.3	1.9	3.1	5.4	8.0	80	75
Total	37.9	44.7	30.3	36.8	51.1	58.0	470	480

ESG and Awards

◆ March 2019

NCC was selected for the first time as an inclusion in the S&P/JPX Carbon Efficient Index.

◆ April 2019

Established Nomination and Remuneration Advisory Committee as an optional advisory body of the Board of Directors

◆ June 2019

- Introduced a performance-linked stock compensation plan called a Board Benefit Trust for members of the Board of Directors, etc.

- One Outside Director added

As a result, the Board of Directors consisting of 9 Directors include 3 Outside Directors

◆ August 2019

NCC was selected as one of the 50 candidates of the Corporate Value Improvement Award hosted by the Tokyo Stock Exchange for the second consecutive year. The Award targets all listed companies in Japan (approximately 3,600 companies).

◆ September 2019

- NCC was selected as an inclusion in the Dow Jones Sustainability Asia Pacific Index for the second consecutive year

◆ December 2019

- Published “Integrated Reports 2019”

https://www.nissanchem.co.jp/eng/ir_info/archive/ar/ar2019.pdf

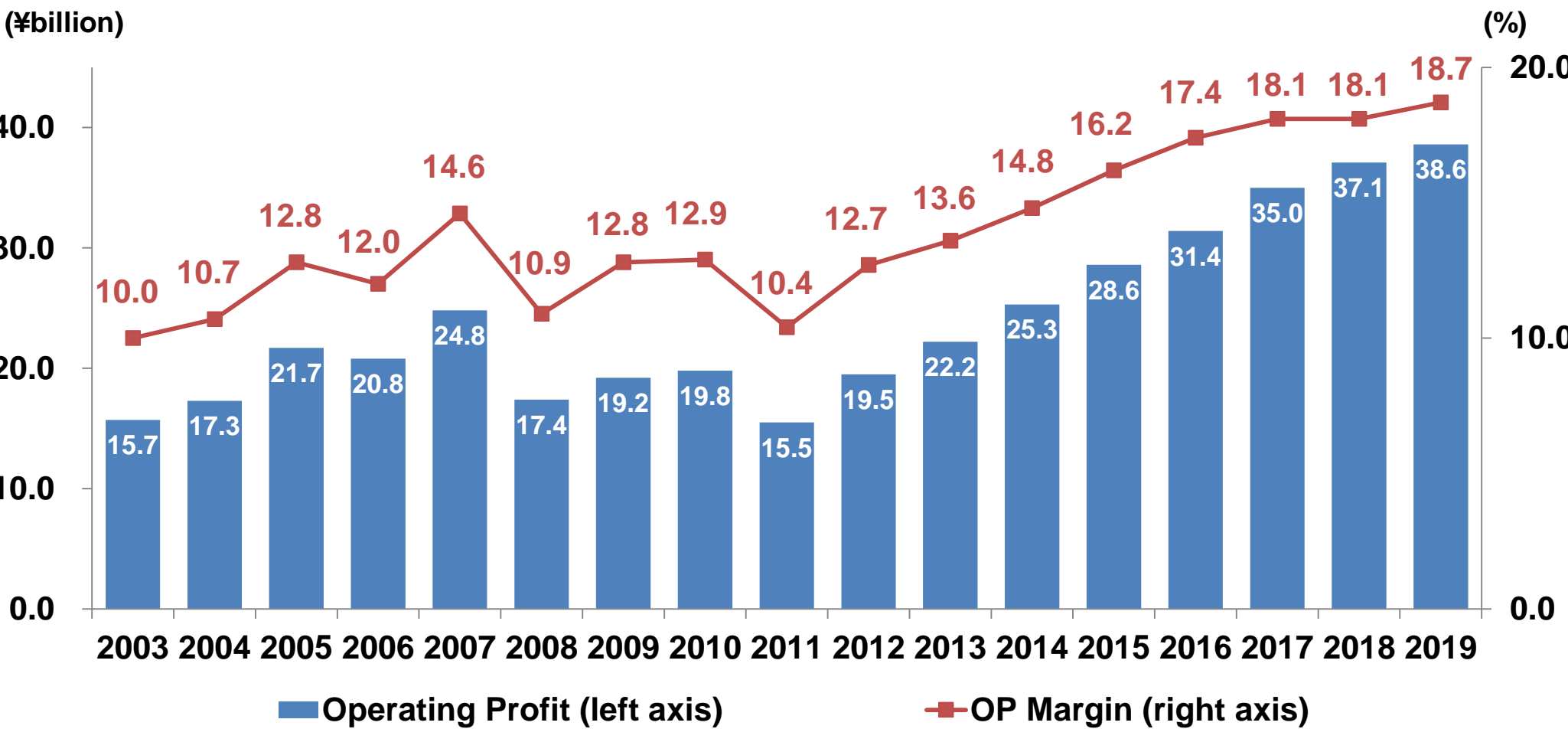
◆ February 2020

NCC was listed for the first time on Water Security “A List” as a company with excellent sustainable water resource management by CDP

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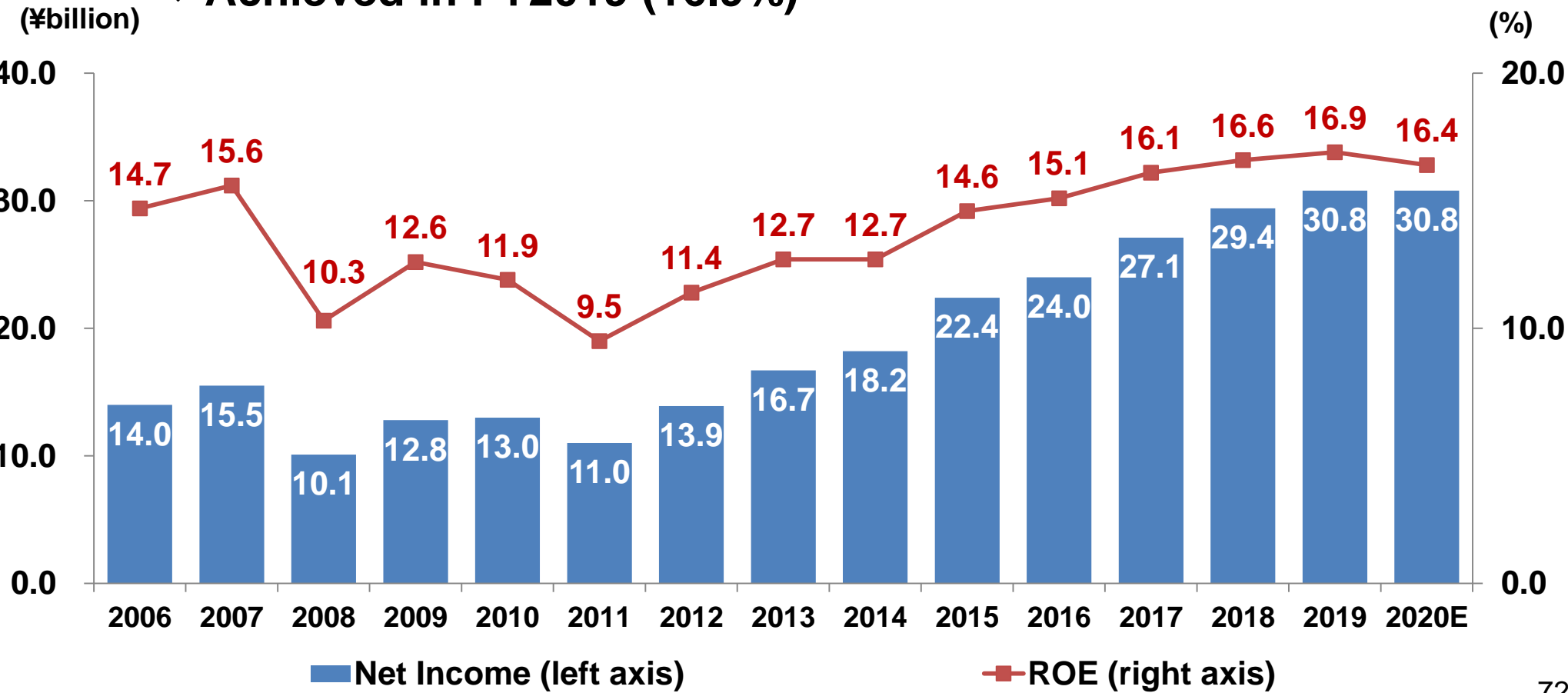
Our Characteristics - (A) Recording Stable OP Margin

◆ NCC has recorded more than 10% OP margin in 17 consecutive years (FY2003-2019)



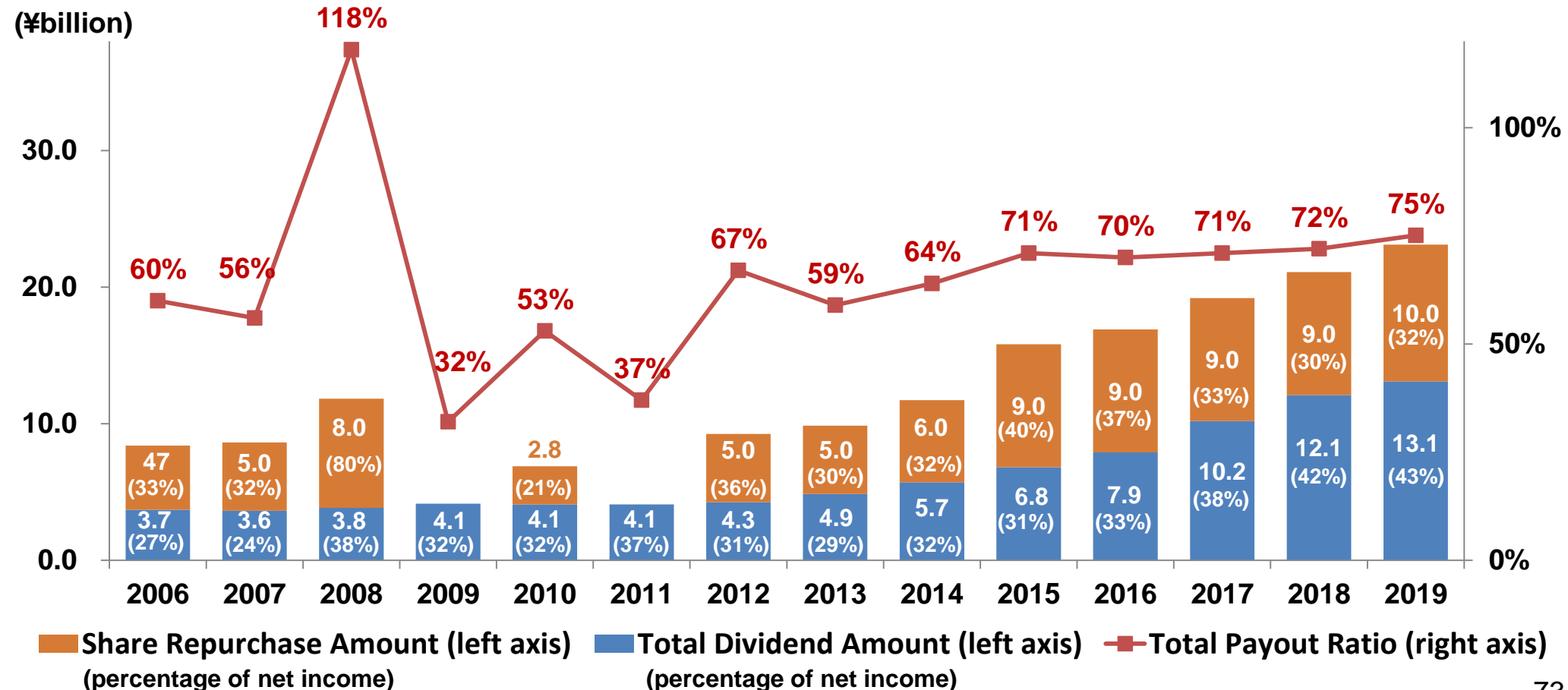
Our Characteristics - (B) High ROE

- ◆ The most important financial indicator for a long time
- ◆ Mid-Term Plan FY2016-2018 Target : Maintain above 14%
⇒ Achieved in FY2016, 2017 and 2018
- ◆ New Mid-Term Plan FY2019-2021 Target : Maintain above 16%
⇒ Achieved in FY2019 (16.9%)



Our Characteristics - (C) Shareholders Return Policy - Total Payout Ratio

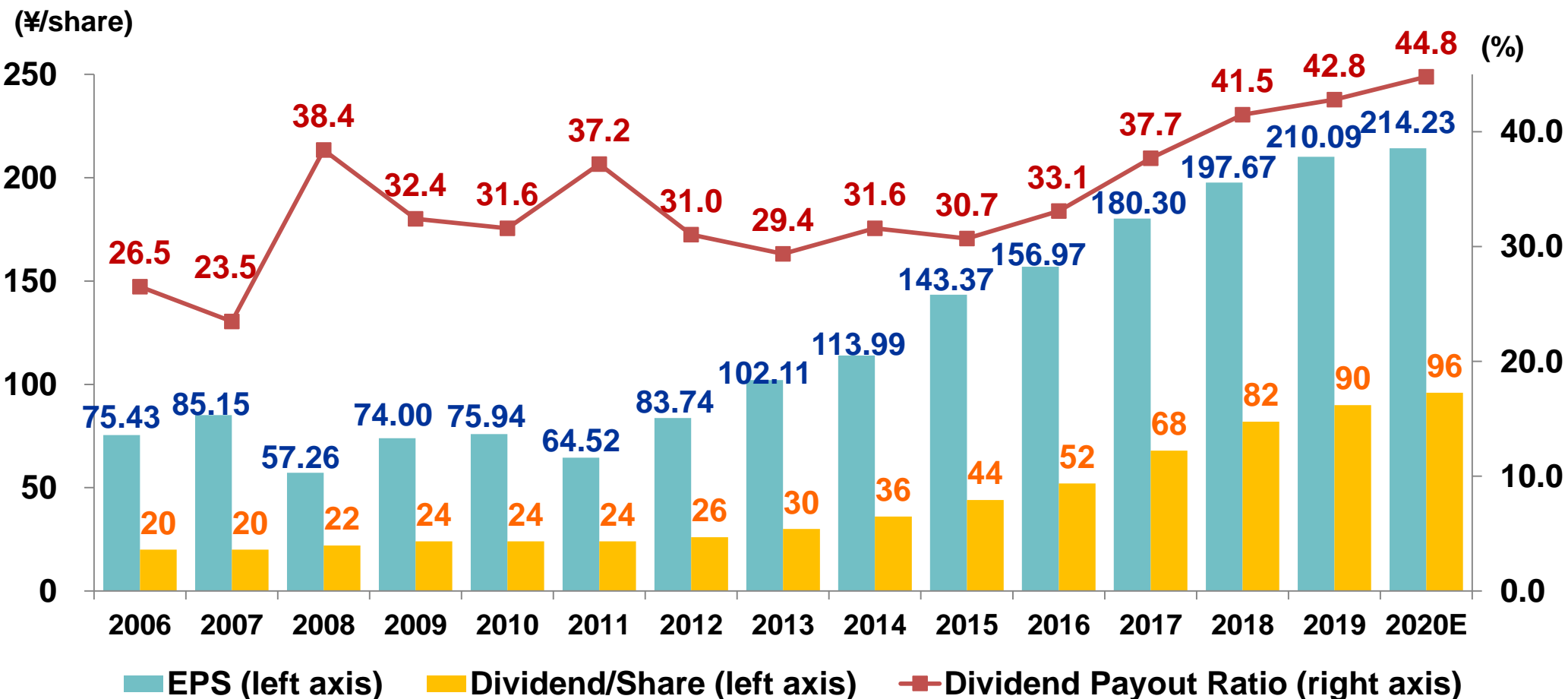
- ◆ Maintaining an aggressive shareholders return policy
- ◆ Mid-Term Plan FY2016-2018 Target : Maintain 70% total payout ratio
⇒ Achieved in FY2016, 2017 and 2018
- ◆ New Mid-Term Plan FY2019-2021 Target : 72.5% in FY2019, 75% in FY2020-2021
⇒ Achieved in FY2019 (75.1%)



Our Characteristics - (D) Shareholders Return Policy - Dividend

◆ Mid-Term Plan FY2016-2018 Target : Gradually increased to 41.5% in FY2018
 ⇒ Achieved in FY2018 (41.5%)

◆ New Mid-Term Plan FY2019-2021 Target : 42.5% in FY2019, 45% in FY2020-2021
 ⇒ Achieved in FY2019 (42.8%)



Our Characteristics - (E) Shareholders Return Policy - Share Repurchase

- ◆ Started share repurchase in 2006 only to enhance ROE
- ◆ Repurchased ¥82.5 billion, 40.9 million shares (21.8% of shares issued) in total from FY2006 to FY2019
- ◆ **Cancelled all repurchased shares**

Shareholders Return FY2006 - 2019

(1) excluding share acquisitions for performance-based compensation (166,200 shares)
 (2) including share acquisitions for performance-based compensation (166,200 shares)

Fiscal year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Shares purchased (1) (thousand shares)	3,500	3,399	7,355	0	2,167	0	6,372	3,263	2,764	3,333	2,621	2,292	1,682	2,138	40,886
Purchase costs (1) (¥billion)	4.7	5.0	8.0	0.0	2.8	0.0	5.0	5.0	6.0	9.0	9.0	9.0	9.0	10.0	82.5
Shares cancelled (thousand shares)	3,000	3,635	7,000	0	3,000	0	6,000	4,000	3,000	2,000	2,000	3,000	2,000	3,000	41,635
Shares issued at FY end (million shares)	185	181	174	174	171	171	165	161	158	156	154	151	149	146	
Treasury shares at FY end (2) (thousand shares)	1,367	1,233	1,660	1,709	885	886	1,258	522	287	1,621	2,242	1,535	1,218	523	

◆ Share repurchase program

Fiscal Year	2017			2018			2019			2020E*
	1H	2H	Total	1H	2H	Total	1H	2H	Total	Total
Shares purchased (thousand shares) (1)	1,304	988	2,292	976	706	1,682	1,270	868	2,138	up to 2,600
Purchase costs (¥billion) (1)	5.0	4.0	9.0	5.0	4.0	9.0	6.0	4.0	10.0	up to 7.0
Shares cancelled (thousand shares)	3,000	0	3,000	2,000	0	2,000	2,000	1,000	3,000	

*announced in May 2020

◆ Cash Management Policy

Aiming to control cash balance around the level of

= Minimum required level

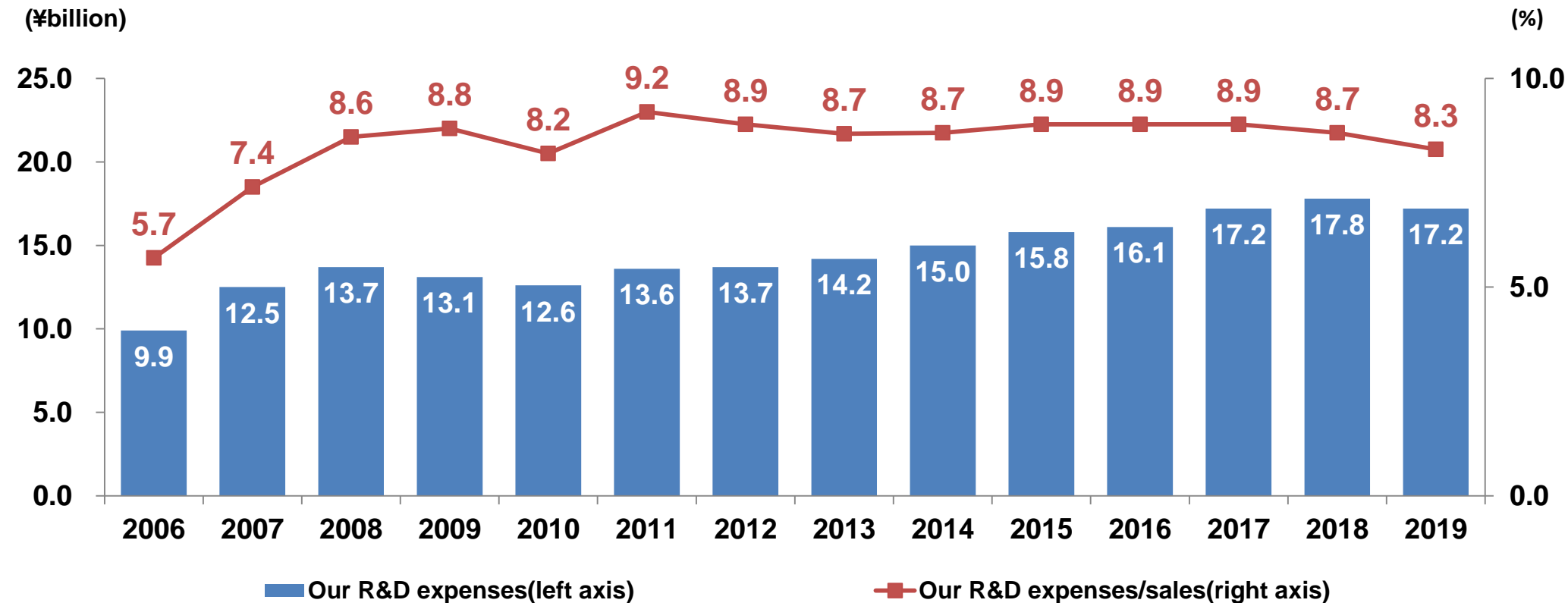
+ 1/3 of annual scheduled long-term borrowings repayment

+ 1/3 of short-term borrowings outstanding + Contingent risk reserves

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Our Characteristics- (F-1) R&D Oriented Chemical Company

- ◆ FY2019 R&D expenses/sales: 8.3%
- ◆ Maintaining above 8% R&D expenses/sales in recent years
- ◆ About 40% of profession staff assigned to R&D centers

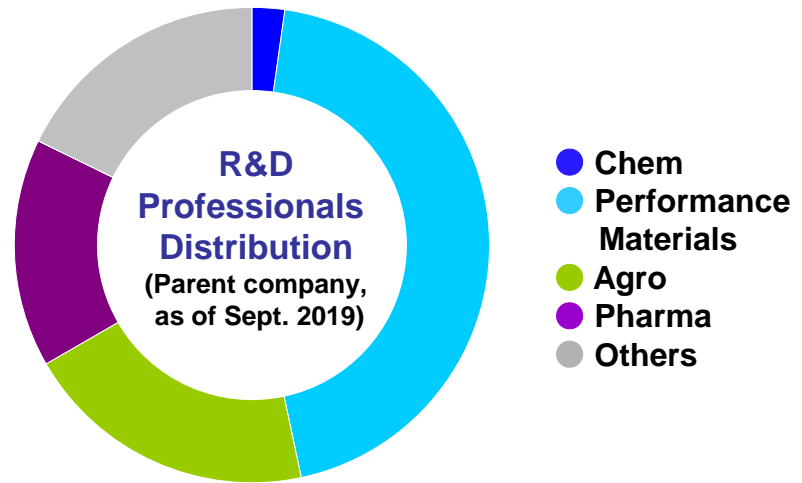
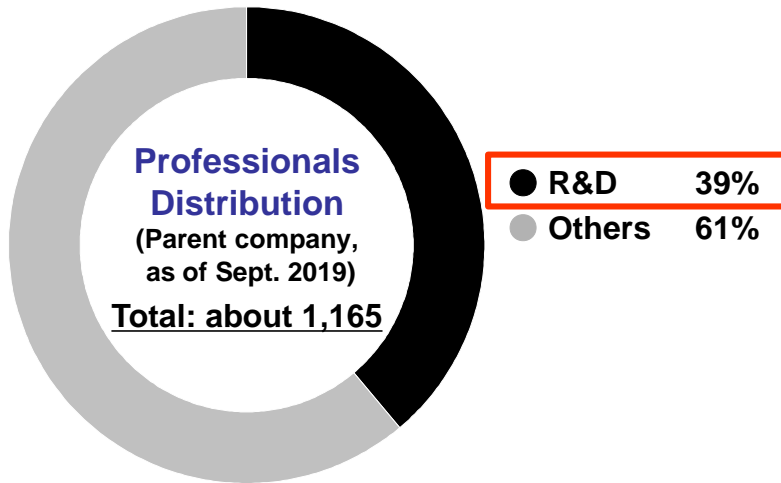


Our Characteristics- (F-2) R&D Oriented Chemical Company

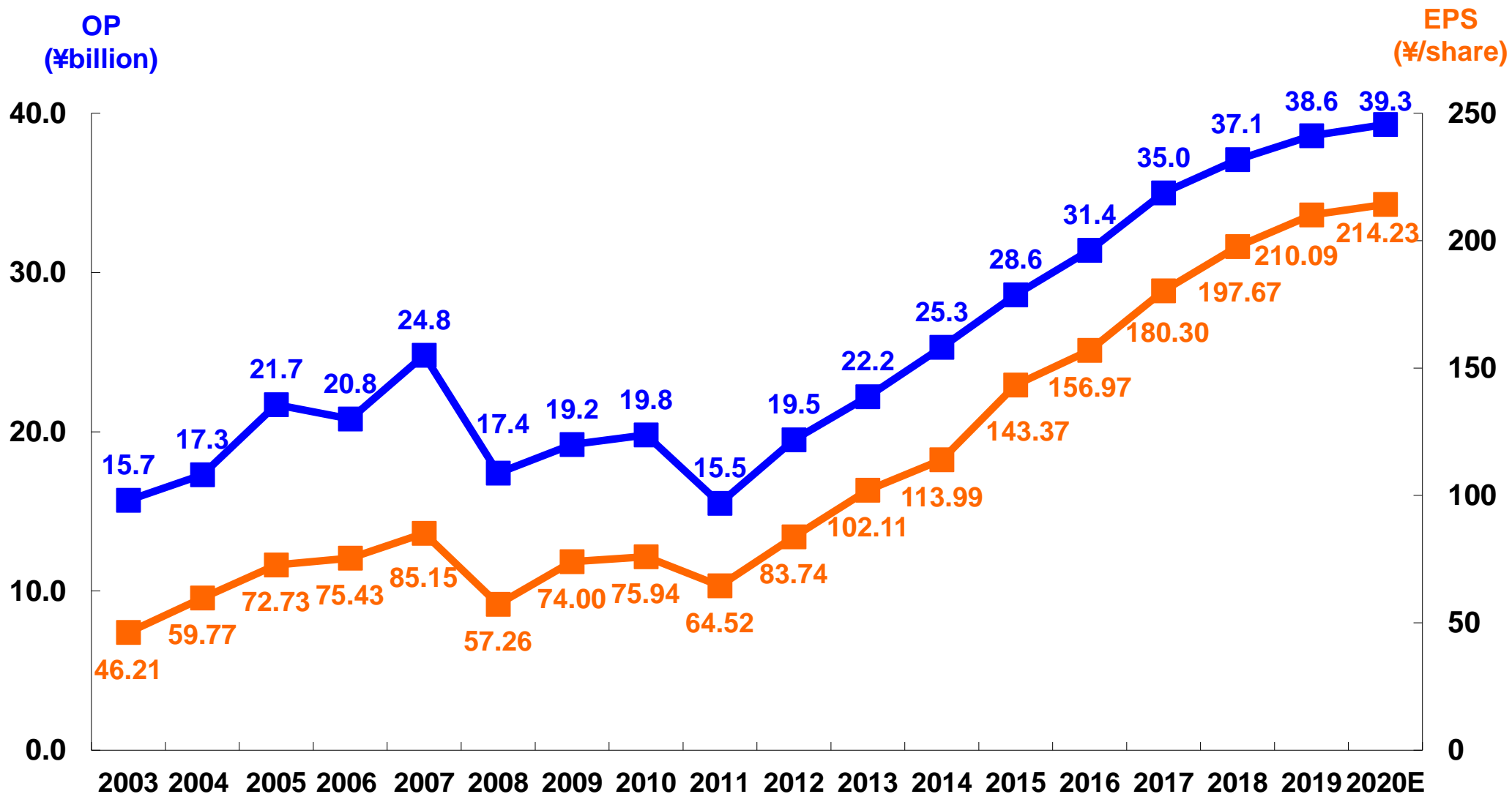
◆ R&D by segment

Segment	FY2019 Actual				
	Sales (¥billion)	OP* (¥billion)	OP margin	R&D expenses (¥billion)	% of Sales
Chemicals	34.3	1.3	3.8%	0.4	1.2%
Performance Materials	65.5	17.0	26.0%	7.7	11.8%
Agrochemicals	64.0	19.3	30.2%	4.6	7.2%
Pharmaceuticals	7.0	0.9	12.9%	2.5	35.7%
Others	-	-	-	2.0	-
Total (including others and adjustment)	206.8	38.6	18.7%	17.2	8.3%

*New method, see p18



Long-term Financial Performance Trend



Long Term Financial Performance Trend

(¥billion)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E
Sales	155.9	161.4	169.1	174.4	169.2	160.2	149.0	154.2	148.6	153.8	163.7	171.2	176.9	180.3	193.4	204.9	206.8	214.5
Operating Profit	15.7	17.3	21.7	20.8	24.8	17.4	19.2	19.8	15.5	19.5	22.2	25.3	28.6	31.4	35.0	37.1	38.6	39.3
Ordinary Income	14.6	17.4	21.3	21.2	24.4	16.9	19.2	19.4	15.9	20.5	23.7	26.4	29.5	31.7	36.2	39.1	40.0	40.4
Net Income	8.7	11.3	13.7	14.0	15.5	10.1	12.8	13.0	11.0	13.9	16.7	18.2	22.4	24.0	27.1	29.4	30.8	30.8
EBITDA	26.1	26.9	31.6	30.5	34.5	27.6	30.1	30.2	25.9	29.0	30.8	33.8	38.3	40.3	45.5	48.0	49.2	49.0
OP Margin	10.0%	10.7%	12.8%	12.0%	14.6%	10.9%	12.8%	12.9%	10.4%	12.7%	13.6%	14.8%	16.2%	17.4%	18.1%	18.1%	18.7%	18.3%
ROE	13.4%	15.2%	16.1%	14.7%	15.6%	10.3%	12.6%	11.9%	9.5%	11.4%	12.7%	12.7%	14.6%	15.1%	16.1%	16.6%	16.9%	16.4%
EPS(¥/share)	46.21	59.77	72.73	75.43	85.15	57.26	74.00	75.94	64.52	83.74	102.11	113.99	143.37	156.97	180.30	197.67	210.09	214.23
Dividend(¥/share)	11	11	15	20	20	22	24	24	24	26	30	36	44	52	68	82	90	96
Dividend Payout Ratio	23.8%	18.4%	20.6%	26.5%	23.5%	38.4%	32.4%	31.6%	37.2%	31.0%	29.4%	31.6%	30.7%	33.1%	37.7%	41.5%	42.8%	44.8%
Share Repurchase	-	-	-	4.7	5.0	8.0	-	2.8	-	5.0	5.0	6.0	9.0	9.0	9.0	9.0	10.0	7.0
Total Assets	172.6	169.4	183.2	177.3	172.7	172.3	181.4	183.4	190.1	199.2	208.0	223.9	228.2	231.7	246.0	247.0	249.5	-
Net Assets	70.4	80.0	93.6	99.3	101.2	96.8	107.7	112.4	119.6	126.7	137.8	151.3	156.9	163.7	176.4	182.1	185.5	-
Cash	5.9	4.3	8.5	11.0	7.6	9.7	14.8	21.1	27.9	31.9	30.8	31.3	35.3	35.7	37.7	36.2	30.6	-
Liabilities with Interest	57.4	44.6	41.5	32.4	34.4	45.5	42.1	39.9	38.9	38.1	36.1	35.1	33.1	30.8	28.6	26.6	24.6	-
Equity Ratio	40.1%	46.4%	50.2%	55.3%	58.0%	55.5%	58.7%	60.7%	62.4%	63.0%	65.7%	66.9%	68.1%	69.9%	71.0%	73.0%	73.7%	-
Capex	6.6	6.6	9.2	12.1	10.9	13.9	10.1	9.6	8.3	8.1	8.8	9.8	10.2	14.3	13.7	9.9	15.7	13.8
Depreciation	10.4	9.6	9.9	9.7	9.7	10.2	11.0	10.4	10.5	9.5	8.5	8.5	9.7	8.9	10.5	10.9	10.5	10.7
R&D Expenses	8.7	8.6	9.2	9.9	12.5	13.7	13.1	12.6	13.6	13.7	14.2	15.0	15.8	16.1	17.2	17.8	17.2	18.2
R&D Expenses/Sales	5.6%	5.3%	5.4%	5.7%	7.4%	8.6%	8.8%	8.2%	9.2%	8.9%	8.7%	8.7%	8.9%	8.9%	8.9%	8.7%	8.3%	8.5%

FY2016 - FY2019 Quarterly Sales by Segment (1)

	FY2016 Actual					FY2017 Actual					FY2018 Actual					FY2019 Actual				
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
Chem	8.5	8.0	9.1	9.2	34.8	8.8	7.9	9.2	9.0	34.9	8.7	8.3	9.6	9.1	35.7	8.4	8.4	8.7	8.8	34.3
Fine	2.8	2.5	2.7	2.7	10.7	2.8	2.5	2.8	2.5	10.6	2.7	2.4	2.6	2.7	10.4	2.6	2.6	2.6	2.7	10.5
Basic	5.7	5.5	6.4	6.5	24.1	6.0	5.4	6.4	6.5	24.3	6.0	5.9	7.0	6.4	25.3	5.8	5.8	6.1	6.1	23.8
P.M	12.6	12.9	13.8	13.5	52.8	14.1	15.0	15.1	14.6	58.8	15.6	16.4	16.6	14.4	63.0	15.1	16.3	17.0	17.1	65.5
Agro	14.5	9.5	4.2	23.8	52.0	14.6	11.5	6.4	25.6	58.1	16.4	12.3	5.9	28.1	62.7	14.7	13.2	5.5	30.6	64.0
Pharma	2.2	1.5	2.4	1.9	8.0	2.1	1.4	2.3	1.7	7.5	1.8	1.9	1.9	1.4	7.0	1.9	1.5	1.6	2.0	7.0
Trading	14.4	13.2	13.7	13.9	55.2	14.6	14.5	15.9	14.5	59.5	17.8	15.6	18.1	16.4	67.9	17.5	15.8	17.5	17.1	67.9
Others	4.0	4.6	5.8	9.6	24.0	5.4	4.3	4.6	7.2	21.5	4.6	5.9	7.2	6.9	24.6	4.9	4.9	5.1	7.5	22.4
Adj.	-11.1	-10.3	-11.4	-13.7	-46.5	-12.2	-11.0	-11.8	-11.9	-46.9	-14.0	-13.3	-15.4	-13.3	-56.0	-13.8	-12.3	-13.9	-14.3	-54.3
Total	45.1	39.4	37.6	58.2	180.3	47.4	43.6	41.7	60.7	193.4	50.9	47.1	43.9	63.0	204.9	48.7	47.8	41.5	68.8	206.8

(1) Including inter-segment sales/transfers

FY2016 - FY2019 Quarterly OP by Segment

	FY2016 Actual					FY2017 Actual					FY2018 Actual					FY2019 Actual (Old method)				
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
Chem	1.5	-0.2	1.3	1.2	3.8	1.5	-0.2	1.2	0.9	3.4	1.6	-0.4	1.0	0.8	3.0	0.9	-0.6	0.6	0.5	1.4
P.M	3.0	3.2	3.8	2.5	12.5	3.6	4.1	4.0	2.5	14.2	3.9	4.2	4.3	2.6	15.0	3.9	4.3	4.9	4.3	17.4
Agro	4.5	2.4	-2.0	8.3	13.2	4.5	3.6	-0.6	8.9	16.4	5.1	4.7	-1.3	9.9	18.4	4.5	4.9	-1.9	11.8	19.3
Pharma	0.6	0.0	0.8	0.3	1.7	0.5	0.0	0.6	0.1	1.2	0.3	0.3	0.4	0.0	1.0	0.4	0.1	0.1	0.3	0.9
Trading	0.4	0.4	0.5	0.4	1.7	0.4	0.5	0.5	0.4	1.8	0.6	0.5	0.6	0.3	2.0	0.5	0.5	0.6	0.5	2.1
Others	0.0	0.0	0.2	0.8	1.0	0.1	0.1	0.1	0.3	0.6	0.1	0.1	0.2	0.5	0.9	0.1	0.0	0.1	0.5	0.7
Adj.	-0.5	-0.6	-0.6	-0.8	-2.5	-0.6	-0.8	-0.7	-0.5	-2.6	-0.9	-0.7	-0.8	-0.8	-3.2	-1.0	-0.5	-1.0	-0.7	-3.2
Total	9.5	5.2	4.0	12.7	31.4	10.0	7.3	5.1	12.6	35.0	10.7	8.7	4.4	13.3	37.1	9.3	8.7	3.4	17.2	38.6

	FY2019 Actual (New method*)				
	1Q	2Q	3Q	4Q	Total
Chem	0.9	-0.6	0.5	0.5	1.3
P.M	4.0	4.4	4.7	3.9	17.0
Agro	4.5	4.9	-1.8	11.7	19.3
Pharma	0.4	0.1	0.1	0.3	0.9
Trading	0.5	0.5	0.6	0.5	2.1
Others	0.1	0.0	0.1	0.5	0.7
Adj.	-1.1	-0.6	-0.8	-0.2	-2.7
Total	9.3	8.7	3.4	17.2	38.6

*New method, see p18

Sales and OP by Segment (1)(2)(3)

<Sales (A)>

(¥billion)

	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020E
Chem	38.1	36.9	34.5	35.5	34.3	34.3	34.8	34.9	35.7	34.3	35.6
P.M	38.0	34.0	37.4	42.8	49.4	51.8	52.8	58.8	63.0	65.5	70.1
Agro	34.4	33.8	35.4	39.1	45.7	47.5	52.0	58.1	62.7	64.0	65.5
Pharma	9.6	10.0	12.7	11.6	8.8	8.7	8.0	7.5	7.0	7.0	6.4
Trading	44.1	44.8	46.6	50.7	54.4	55.6	55.2	59.5	67.9	67.9	68.2
Others	27.0	20.0	21.2	21.4	20.9	20.9	24.0	21.5	24.6	22.4	25.0
Adj.	-37.0	-30.9	-34.0	-37.4	-42.3	-41.9	-46.5	-46.9	-56.0	-54.3	-56.3
Total	154.2	148.6	153.8	163.7	171.2	176.9	180.3	193.4	204.9	206.8	214.5

<Segment Assets (D)>

<OP (B)>

Chem	2.4	1.6	1.9	1.9	1.9	3.9	3.8	3.4	3.0	1.3	2.7
P.M	7.9	4.8	7.2	8.8	12.0	12.0	12.5	14.2	15.0	17.0	18.1
Agro	4.8	4.4	5.0	6.2	9.2	10.8	13.2	16.4	18.4	19.3	18.4
Pharma	4.4	4.6	5.2	4.9	2.3	2.0	1.7	1.2	1.0	0.9	0.4
Trading	1.4	1.3	1.4	1.5	1.7	1.8	1.7	1.8	2.0	2.1	2.0
Others	1.0	0.3	0.7	0.8	0.6	0.5	1.0	0.6	0.9	0.7	0.7
Adj.	-2.1	-1.5	-1.9	-1.9	-2.4	-2.4	-2.5	-2.6	-3.2	-2.7	-3.0
Total	19.8	15.5	19.5	22.2	25.3	28.6	31.4	35.0	37.1	38.6	39.3

FY2019
27.7
50.2
73.9
10.6
25.2
12.0
49.9
249.5

<OP Margin (C)=(B)/(A)>

Chem	6.3%	4.3%	5.5%	5.4%	5.5%	11.4%	10.9%	9.7%	8.4%	3.8%	7.6%
P.M	20.8%	14.1%	19.3%	20.6%	24.3%	23.2%	23.7%	24.1%	23.8%	26.0%	25.8%
Agro	14.0%	13.0%	14.1%	15.9%	20.1%	22.7%	25.4%	28.2%	29.3%	30.2%	28.1%
Pharma	45.8%	46.0%	40.9%	42.2%	26.1%	23.0%	21.3%	16.0%	14.3%	12.9%	6.3%
Trading	3.2%	2.9%	3.0%	3.0%	3.1%	3.2%	3.1%	3.0%	2.9%	3.1%	2.9%
Others	3.7%	1.5%	3.3%	3.7%	2.9%	2.4%	4.2%	2.8%	3.7%	3.1%	2.8%
Adj.	12.9%	10.4%	12.7%	13.6%	14.8%	16.2%	17.4%	18.1%	18.1%	18.7%	18.3%

<ROA (E)=(B)/(D)>

4.7%
33.9%
26.1%
8.5%
8.3%
5.8%
15.5%

(1) FY2010-2011 : Former Segmentation, FY2012- : New Segmentation

(2) Including inter-segment sales/transfers

(3) FY2019-2020 : New OP method (see p18)

Main Products by Segment

Segment	Products	Main Applications
Chem	◆ Fine Chemicals TEPIC Melamine cyanurate Environmental product	epoxy compound for LED sealants, solder resist, painting flame retardant HI-LITE (chlorinated isocyanuric acid for sterilizing)
	◆ Basic Chemicals Melamine AdBlue High purity Sulfuric acid Ammonia, Sulfuric acid, Nitric acid	adhesive agent for plywood solution of urea in demineralised water for diesel trucks to reduce NOx agents used for cleaning semiconductors
Performance Materials	◆ Electronic Materials SUNEVER ARC® OptiStack® NHC OPTIFOCUS ELSOURCE	LCD alignment coating bottom anti-reflective coating for semiconductors multi layer process material for semiconductors (Si-HM/SOC) *ARC® and OptiStack® are registered trade mark of Brewer Science, Inc. protective coating for touch panel microlens material for image sensor application hole injection layer materials for OLED
	◆ Inorganic Materials SNOWTEX Organo silica sol Monomer sol Alumina sol SUNCOLLOID CELNAX Oilfield materials	water dispersed colloidal silica sol for polishing silicon wafers, special steel sheets film coating, antistatic interference shielding, electronic printing materials resin additive automotive catalyst, electronic printing materials high refractive sol for lens antistatic sol for film for enhancing oil recovery
Agro	◆ Herbicide TARGA PERMIT SIRIUS, ALTAIR ROUNDUP	soybean, rapeseed, sugarbeet corn, sugarcane, rice paddy rice non-selective herbicide for orchard, noncrop land
	◆ Insecticide STARMITE, SANMITE, MITOKOHNE GRACIA ◆ Fungicide LEIMAY/ORACLE PULSOR, IKARUGA, GREATAM (THIFLUZAMIDE) QUINTEC (QUINOXYFEN) ◆ Animal health products Fluralaner	fruits, tea, vegetables vegetables, tea vegetables, potato, fruits potato, grape, turf fruits, vegetables active substance of BRAVECTO (veterinary medical product for dogs and cats) and EXZOLT (for poultry red mites)
Pharma	LIVALO Custom Chemicals	anti-cholesterol drug custom manufacturing and process researching services for pharmaceutical companies
Trading	Nissei Corporation	
Others	Transportation, Landscaping, Engineering, Fertilizer	

Forward Looking Statements

The forward looking statements in this material are based on information available at the time of preparation of the material. Although they reflect our current expectations, these statements are not guarantees of future performance, but include a number of risks and uncertainties. Actual results may largely differ from these statements due to various factors which may be beyond company control.

The outlook does not reflect the effects of the COVID-19 pandemic since they cannot be reasonably assessed at this time.

No information in this material is provided as an offer to buy or sell the shares of the company. We urge users of the material to make investment decision based upon own judgment.



Nissan Chemical
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