## May 12, 2017

# Presentation for Investors FY2016 (April 1 - March 31, 2017) Financial Results 

Presented by Junichi Miyazaki, Director and Senior Executive Vice President

Translation of presentation materials for the investor meeting held in Tokyo on May 12, 2017

NISSAN CHEMICAL INDUSTRIES, LTD.

| FY2016 PL(1) <br> (¥billion) | FY2015 |  |  | FY2016 |  |  | Change |  |  | Change (\%) <br> Total | FY2016 Outlook as of Nov 2016 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |  | $\begin{array}{\|c\|} \hline 1 \mathrm{H} \\ \text { Actual } \\ \hline \end{array}$ | 2H | Total |
| Sales | 83.7 | 93.2 | 176.9 | 84.5 | 95.8 | Record 180.3 | +0.8 | +2.6 | +3.4 | +2\% | 84.5 | 96.0 | 180.5 |
| Operating Profit | 14.3 | 14.3 | 28.6 | 14.7 | 16.7 | Record 31.4 | +0.4 | +2.4 | +2.8 | +10\% | 14.7 | 15.2 | 29.9 |
| Non-Operating Income/Expenses | 0.8 | 0.1 | 0.9 | -0.5 | 0.8 | 0.3 | -1.3 | +0.7 | -0.6 | - | -0.5 | 0.3 | -0.2 |
| Ordinary Income | 15.1 | 14.4 | 29.5 | 14.2 | 17.5 | Record 31.7 | -0.9 | +3.1 | +2.2 | +7\% | 14.2 | 15.5 | 29.7 |
| Extraordinary Profit/Loss (2) | 0.0 | -1.2 | -1.2 | 0.0 | 0.0 | 0.0 | +0.0 | +1.2 | +1.2 | - | 0.0 | 0.0 | 0.0 |
| Net Income (3) | 11.1 | 11.3 | 22.4 | 10.6 | 13.4 | Record 24.0 | -0.5 | +2.1 | +1.6 | +7\% | 10.6 | 11.9 | 22.5 |
| EBITDA (4) | 18.7 | 19.6 | 38.3 | 18.8 | 21.5 | 40.3 | +0.1 | +1.9 | +2.0 | +5\% | 18.8 | 20.8 | 39.6 |
| EPS ( $\# /$ share) | 71.21 | 72.16 | 143.37 | 69.00 | 87.97 | 156.97 | -2.21 | +15.81 | +13.60 | +9\% | 69.00 | 77.88 | 146.88 |
| Dividend ( $¥ /$ share) | 18 | 26 | 44 | 24 | 28 | 52 | +6 | +2 | +8 |  | 24 | 26 | 50 |
| Total amount of Dividend | 2.8 | 4.0 | 6.8 | 3.7 | 4.2 | 7.9 | +0.9 | +0.2 | +1.1 |  | 3.7 | 3.9 | 7.6 |
| OP Margin | 17.0\% | 15.4\% | 16.2\% | 17.4\% | 17.4\% | 17.4\% | +0.4\% | +2.0\% | +1.2\% |  | 17.4\% | 15.8\% | 16.6\% |
| ROE | - | - | 14.6\% | - | - | 15.1\% | - |  | +0.5\% |  | - | - | 14.2\% |
| FX Rate ( $¥ / \$$ ) | 122 | 118 |  | 105 | 112 |  |  |  |  |  | 105 | 105 |  |
| Naphtha ( $¥ / \mathrm{kl}$ ) (5) | 48,000 | 37,700 |  | 31,400 | 38,200 |  |  |  |  |  | 31,400 | 34,400 |  |
| Comprehensive Income | 9.6 | 11.9 | 21.5 | 7.4 | 16.4 | 23.8 |  |  |  |  | 7.4 |  |  |

(1) FY2016 = April 1, 2016 - March 31, 2017
(2) FY2015 Actual: Gain on sales of investment securities+3.0, Impairment loss(TMAT*) -3.9, Provision for loss on business of an affiliated company (Ammonia Terminal Company, Itd**) -0.3
(3) Net income = Profit Attributable to Owners of Parent
(4) EBITDA = Operating Profit + Depreciation (5) Based on Trade Statistics of Japan Ministry of Finance

TMAT* (consolidated subsidiary)
=Thin Materials AG(Germany) 100\% subsidiary of Nissan Chem Temporary bonding materials for 3D packaging for semis

Ammonia Terminal Company, Itd** (affiliated company) =Joint venture company owned by Sumitomo Chem(40\%), Showa Denko(30\%) and Nissan Chem(30\%)

## 2H FY2016 Review

## <vs. 2H FY2015>

(Sales) $\downarrow$ Up
(OP) $\downarrow$ Up
(Non-Operating Income and Expenses) (Ordinary Income) (Extraordinary Profit/Loss) $\bullet$ Up
(Net Income)
(EPS) Up
¥2.6 billion (+2.7\%)
¥2.4 billion (+16.5\%)
(+) Chemicals, Performance Materials, Agrochemicals
$(-)$ Pharmaceuticals, Trading
(+) Performance Materials, Agrochemicals
$( \pm)$ Chemicals, Trading
(-) Pharmaceuticals
(2H FY2015)
Gain on sales of investment securities +3.0, Impairment loss(TMAT) -3.9,
Provision for loss on business of an affiliated company
(Ammonia Terminal Company, Itd) -0.3
<vs. 2H FY2016 Outlook as of November 2016>
(Sales) Down $¥ 0.2$ billion
(OP) Up $¥ 1.5$ billion
(Non-Operating
Income and Expenses)
(Ordinary Income)
(Net Income)
(EPS) Up
$\neq 0.5$ billion
¥2.0 billion
$¥ 1.5$ billion
$¥ 10.09$ yen
(+) Chemicals, Performance Materials, Pharmaceuticals
(-) Agrochemicals, Trading
(+) Chemicals, Performance Materials, Agrochemicals, Pharmaceutical,
(-) Trading

## FY2016 Review

```
<vs. FY2015> (Sales) ४Up #3.4 billion (+1.9%) (+) Chemicals, Performance Materials, Agrochemicals
                                    (-) Pharmaceuticals, Trading
                                    (+) Performance Materials, Agrochemicals,
                                    (-) Chemicals, Pharmaceuticals, Trading
    (OP Margin) 17.4% More than 10% OP Margin in 14 consecutive years since FY2003
    (Non-Operating Down ¥0.6 billion
    Income and Expenses)
    (Ordinary Income) <Up #2.2 billion (+7.4%)
(Extraordinary Profit/Loss) <Up #1.2 billion
    (Net Income) <Up #1.6 billion (+7.5%)
    (EPS) Up ¥13.60 yen (+9.5%)
    (ROE) 15.1% (FY2015: 14.6%)
```

$\star$ OP and Ordinary Income renewed the highest results of a full year in three consecutive years $\star$ Net Income renewed the highest results of a full year in four consecutive years

## <Shareholder Return>

(Dividend) $\boldsymbol{1 H} ¥ \mathbf{2 4}, \mathbf{2 H} ¥ 28$, total $¥ 52 /$ share, dividend payout ratio $33.1 \%$ ( $2.4 \%$ up vs. FY2015)
( $¥ 8 /$ share up vs. FY2015, $¥ 2 /$ share up vs. 2H FY2016 Outlook as of November 2016)
(Share Repurchases) $\geqslant 9.0$ billion, 2.6 million shares completed in FY2016
(Cancelled 1 million shares in May 2016, 1 million shares in August 2016, 2 million shares in May 2017)
(Total Payout Ratio) $>\mathbf{7 0 . 4 \%}$ (Mid-Term Business Plan target: maintain 70\%)

Non-Operating Income/Expenses, Extraordinary Profit/Loss,
Comprehensive Income

|  | FY2015 | FY2016 | Change |
| :--- | ---: | ---: | ---: |
| Non-Operating Income | 2.48 | 2.25 | -0.23 |
| Interest income, dividend income | 0.60 | 0.75 | +0.15 |
| Equity in earnings of affiliates | 0.86 | 0.70 | -0.16 |
| Gain on foreign exchange | 0.00 | 0.00 | +0.00 |
| Others | 1.02 | 0.80 | -0.22 |
| Non-Operating Expenses | 1.56 | 1.98 | +0.42 |
| Interest expense | 0.19 | 0.16 | -0.03 |
| Loss on disposal of fixed assets | 0.32 | 0.60 | +0.28 |
| Loss on foreign exchange | 0.17 | 0.31 | +0.14 |
| Others | 0.88 | 0.91 | +0.03 |


| Extraordinary Profit | 3.08 | 0.00 | -3.08 |
| :--- | :--- | :--- | ---: |
| Extraordinary Loss | 4.25 | 0.00 | -4.25 |


| Com prehens ive Income | 21.51 | 23.77 | +2.26 |
| :--- | ---: | ---: | ---: |
| Net income | 22.35 | 24.03 | +1.68 |
| Non-controlling interests | 0.21 | 0.16 | -0.05 |
| Unrealized gains or losses on investment securities | -0.16 | -0.44 | -0.28 |
| Foreign currency translation adjustments | -0.80 | 0.19 | +0.99 |
| Remeasurements of defined benefit plans | -0.09 | -0.17 | -0.08 |

(¥billion)

## FY2016 Cash Flows

|  | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CF from operating activities | 27.6 | 2.4 | 30.0 | 29.4 | 3.1 | 32.5 | +1.8 | +0.7 | +2.5 |
| Profit before income tax | 15.1 | 13.3 | 28.4 | 14.2 | 17.5 | 31.7 | -0.9 | +4.2 | +3.3 |
| Gain on sales of investment securities | 0.0 | -3.0 | -3.0 | 0.0 | 0.0 | 0.0 | +0.0 | +3.0 | +3.0 |
| Impairment loss | 0.0 | 3.9 | 3.9 | 0.0 | 0.2 | 0.2 | +0.0 | -3.7 | -3.7 |
| Provision for loss on business of associates | 0.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | +0.0 | -0.3 | -0.3 |
| Depreciation \& Amortization | 4.4 | 5.3 | 9.7 | 4.1 | 4.8 | 8.9 | -0.3 | -0.5 | -0.8 |
| Tax | -4.0 | -3.4 | -7.4 | -4.9 | -4.1 | -9.0 | -0.9 | -0.7 | -1.6 |
| Working capital, others | 12.1 | -14.0 | -1.9 | 16.0 | -15.3 | 0.7 | +3.9 | -1.3 | +2.6 |
| CF from investing activities | -4.7 | -3.7 | -8.4 | -4.5 | -8.6 | -13.1 | +0.2 | -4.9 | -4.7 |
| Purchase of PPE | -4.3 | -4.8 | -9.1 | -5.3 | -7.1 | -12.4 | -1.0 | -2.3 | -3.3 |
| Purchase, sales and redemption of investment securities | 0.1 | 1.8 | 1.9 | 0.0 | 2.2 | 2.2 | -0.1 | +0.4 | +0.3 |
| Others | -0.5 | -0.7 | -1.2 | 0.8 | -3.7 | -2.9 | +1.3 | -3.0 | -1.7 |
| CF from financing activities | -27.3 | 10.0 | -17.3 | -26.6 | 7.5 | -19.1 | +0.7 | -2.5 | -1.8 |
| Dividends paid | -3.5 | -2.8 | -6.3 | -4.0 | -3.7 | -7.7 | -0.5 | -0.9 | -1.4 |
| Borrow ings | -17.7 | 15.8 | -1.9 | -17.5 | 15.2 | -2.3 | +0.2 | -0.6 | -0.4 |
| Purchase of treasury shares | -6.0 | -3.0 | -9.0 | -5.0 | -4.0 | -9.0 | 1.0 | -1.0 | +0.0 |
| Others | -0.1 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | +0.0 | -0.0 | +0.0 |
| Effect of FX rate changes on cash \& cash equivalents | -0.2 | -0.1 | -0.3 | -0.3 | 0.4 | 0.1 | -0.1 | +0.5 | +0.4 |
| Change in cash \& cash equivalents | -4.6 | 8.6 | 4.0 | -2.0 | 2.4 | 0.4 | +2.6 | -6.2 | -3.6 |
| Cash \& cash equivalents at end of period | 26.9 | 35.3 |  | 33.3 | 35.7 |  | +6.4 | +0.4 |  |

FY2016 Outlook as of Nov 2016

| 1 H <br> Actual | 2 H | Total |
| ---: | ---: | ---: |
| 29.4 | 2.0 | 31.4 |
| 14.2 | 15.5 | 29.7 |
| 0.0 | -0.2 | -0.2 |
| 0.0 | 0.0 | 0.0 |
| 0.0 | 0.0 | 0.0 |
| 4.1 | 5.6 | 9.7 |
| -4.9 | -4.0 | -8.9 |
| 16.0 | -14.9 | 1.1 |
| -4.5 | -12.1 | -16.6 |
| -5.3 | -12.3 | -17.6 |
| 0.0 | 2.7 | 2.7 |
| 0.8 | -2.5 | -1.7 |
| -26.6 | 11.8 | -14.8 |
| -4.0 | -3.7 | -7.7 |
| -17.5 | 15.5 | -2.0 |
| -5.0 | 0.0 | -5.0 |
| -0.1 | 0.0 | -0.1 |
| -0.3 | 0.3 | 0.0 |
| -2.0 | 2.0 | 0.0 |
| 33.3 | 35.3 |  |

FY2016 Balance Sheets

|  | $2016 / 3$ | $2017 / 3$ | Change |
| :--- | ---: | ---: | ---: |
| Current assets | 142.2 | 140.5 | -1.7 |
| Cash | 35.3 | 35.7 | +0.4 |
| Accounts receivable | 57.6 | 60.1 | +2.5 |
| Inventories | 38.5 | 36.4 | -2.1 |
| Others | 10.8 | 8.3 | -2.5 |
| Fixed assets | 86.0 | 91.2 | +5.2 |
| Total PPE | 47.5 | 52.0 | +4.5 |
| Intangible assets | 0.9 | 1.6 | +0.7 |
| Investment securities | 33.3 | 32.5 | -0.8 |
| Others | 4.3 | 5.1 | +0.8 |
| Total assets | 228.2 | 231.7 | +3.5 |

(¥billion)

|  | 2016/3 | 2017/3 | Change |
| :---: | :---: | :---: | :---: |
| Liabilities | 71.3 | 68.0 | -3.3 |
| Accounts payable | 15.4 | 14.9 | -0.5 |
| Borrowings | 33.1 | 30.8 | -2.3 |
| Others | 22.8 | 22.3 | -0.5 |
| Net assets | 156.9 | 163.7 | +6.8 |
| Shareholders' equity | 144.2 | 151.3 | +7.1 |
| Unrealized gains or losses on inv estment securities | 10.5 | 10.1 | -0.4 |
| Foreign currency translation adjustments | 0.2 | 0.2 | +0.0 |
| Minority interest | 1.5 | 1.7 | +0.2 |
| Remeasurements of defined benefit plans | 0.5 | 0.4 | -0.1 |
| Total liabilities \& Net assets | 228.2 | 231.7 | +3.5 |
| - D/E Ratio (1) | $-1.6 \%$ | -3.2\% $69.9 \%$ |  |
| - Change in shareholders' equity +6.8 |  |  |  |

= Net Income 24.0-Dividend and others 17.2
(1)D/E Ratio = (Borrowings - Cash) / Shareholders' equity7

## FY2017 Outlook

( $¥$ billion)

|  | FY2016 Actual |  |  | FY2017 Outlook |  |  | Change |  |  | Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H (1Q) | 2H | Total | 1H (1Q) | 2H | Total | 1H (1Q) | 2H | Total | Total |
| Sales | $84.5 \quad 45.1$ | 95.8 | 180.3 | $87.7 \quad 45.2$ | 101.3 | Record 189.0 | +3.2 +0.1 | +5.5 | +8.7 | +5\% |
| Operating Profit | $14.7 \quad 9.5$ | 16.7 | 31.4 | 15.08 .1 | 17.5 | Record 32.5 | +0.3 -1.4 | +0.8 | +1.1 | +3\% |
| Non-Operating Income/Expenses | -0.5 -0.1 | 0.8 | 0.3 | 0.10 .5 | 0.7 | 0.8 | +0.6 +0.6 | -0.1 | +0.5 | - |
| Ordinary Income | 14.29 .4 | 17.5 | 31.7 | 15.18 .6 | 18.2 | Record 33.3 | +0.9 -0.8 | +0.7 | +1.6 | +5\% |
| Extraordinary Profit/Loss | 0.00 .0 | 0.0 | 0.0 | 0.00 .0 | 0.0 | 0.0 | +0.0 +0.0 | +0.0 | +0.0 | - |
| Net Income | $10.6 \quad 6.8$ | 13.4 | 24.0 | 11.56 .5 | 13.7 | Record 25.2 | +0.9 -0.3 | +0.3 | +1.2 | +5\% |
| EBITDA (1) | $18.8 \quad 11.5$ | 21.5 | 40.3 | 19.9 | 23.7 | 43.6 | +1.1 | +2.2 | +3.3 | +8\% |
| EPS ( $¥ /$ share) (2) | 69.0044 .31 | 87.97 | 156.97 | 76.36 | 91.18 | 167.54 | +7.36 | +3.21 | +10.57 | +7\% |
| Dividend ( $¥ /$ share) | 24 - | 28 | 52 | 28 | 32 | 60 | +4 | +4 | +8 |  |
| Total amount of Dividend (2) | 3.7 - | 4.2 | 7.9 | 4.2 | 4.8 | 9.0 | +0.5 | +0.6 | +1.1 |  |
| OP Margin | 17.4\% 21.1\% | 17.4\% | 17.4\% | 17.1\% 17.9\% | 17.3\% | 17.2\% | -0.3\% -3.2\% | -0.1\% | -0.2\% |  |
| ROE (2) | - - | - | 15.1\% | - - | - | 15.0\% | - - |  | -0.1\% |  |
| FX Rate ( $¥ / \$$ ) | 105108 | 112 |  | 110110 | 110 |  |  |  |  |  |
| Naphtha ( $¥ / \mathrm{kl}$ ) | 31,400 | 38,200 |  | 40,700 - | 40,700 |  |  |  |  |  |
| Comprehensive income | $7.4 \quad 4.9$ | 16.4 | 23.8 |  |  |  |  |  |  |  |

(1) EBITDA = Operating Profit + Depreciation
(2) FY2017 Outlook including effects of FY2017 share repurchase program announced on May 12, 2017

## FY2017 Outlook

<Shareholder Return>
(Dividend) $\langle 1 H ¥ \mathbf{2 8}, 2 \mathrm{H} ¥ 32$, total $¥ 60 /$ share, dividend payout ratio $35.8 \%$ ( $2.7 \%$ up vs. FY2016)
( $¥ 8 /$ share up vs. FY2016)
(Share Repurchases) $\quad ¥ 5.0$ billion, 1.7 million shares (announced on May 12, 2017)
(Total Payout Ratio) $>55.4 \%$ (Mid-Term Business Plan target: maintain 70\%)

## 1Q and 1H FY2017 Outlook

<1Q vs. 1Q FY2016>
(Sales) Up $¥ 0.1$ billion (+0.3\%) (+) Performance Materials, Trading (-) Chemicals, Agrochemicals, Pharma
(OP) DDown $¥ 1.4$ billion (-14.8\%) (+) Performance Materials
(-) Chemicals, Agrochemicals, Pharma, Trading
(Non-Operating $\downarrow$ Up $¥ 0.6$ billion

Income and Expenses)
(Ordinary Income)
(Net Income) Down $¥ 0.3$ billion (-4.8\%)
<1H vs. 1H FY2016>
(Sales) Up $¥ 3.2$ billion ( $+3.8 \%$ ) ( + ) Chemicals, Performance Materials, Agrochemicals, Trading
(-) Pharma
(OP) Uup $\quad ¥ 0.3$ billion ( $+1.8 \%$ ) (+) Chemicals, Performance Materials, Agrochemicals, Trading
(-) Pharma
(Non-Operating $\downarrow$ Up $¥ 0.6$ billion
(Ordinary Income)
Up
¥0.9billion (+6.2\%)
(Net Income) Up $\quad ¥ 0.9$ billion ( $+8.5 \%$ )

## FY2017 Outlook

Non-Operating Income/Expenses, Extraordinary Profit/Loss,
Comprehensive Income

|  | Actual | Outlook | Change |
| :--- | ---: | ---: | ---: |
| Non-Operating Income | 2.25 | 1.94 | -0.31 |
| Interest income, dividend income | 0.75 | 0.62 | -0.13 |
| Equity in earnings of affiliates | 0.70 | 0.76 | +0.06 |
| Gain on foreign exchange | 0.00 | 0.00 | +0.00 |
| Others | 0.80 | 0.56 | -0.24 |
| Non-Operating Expenses | 1.98 | 1.12 | -0.86 |
| Interest expense | 0.16 | 0.13 | -0.03 |
| Loss on disposal of fixed assets | 0.60 | 0.54 | -0.06 |
| Loss on foreign exchange | 0.31 | 0.00 | -0.31 |
| Others | 0.91 | 0.45 | -0.46 |


| Extraordinary Profit | 0.00 | 0.00 | 0.00 |
| :--- | :--- | :--- | :--- |
| Extraordinary Loss | 0.00 | 0.00 | 0.00 |


| Com prehensive Income | 23.77 | - | - |
| :--- | ---: | ---: | ---: |
| Net income | 24.03 | - | - |
| Non-controlling interests | 0.16 | - | - |
| Unrealized gains or losses on investment securities | -0.44 | - | - |
| Foreign currency translation adjustments | 0.19 | - | - |
| Remeasurements of defined benefit plans | -0.17 | - | - |


| FY2017 Cash Flows Outlook |
| :--- |
|  |
|  |
| CF from operating activities FY2016 Actual FY2017 Outlook <br> Profit before income tax 32.5 36.6 <br> Impairment loss 31.7 33.3 <br> Depreciation \& Amortization 0.2 0.0 <br> Tax 8.9 11.1 <br> Working capital, others -9.0 -6.1 <br> CF from investing activities 0.7 -1.7 <br> Purchase of PPE -13.1 -17.7 <br> Purchase and sales of investment securities -12.4 -17.1 <br> Others 2.2 0.0 <br> CF from financing activities -2.9 -0.6 <br> Dividends paid -19.1 -15.6 <br> Borrowings -7.7 -8.5 <br> Purchase of treasury shares -2.3 -2.1 <br> Others -9.0 -5.0 <br> Effect of FX rate changes on cash \& cash equivalents -0.1 0.0 <br> Change in cash \& cash equivalents 0.4 0.0 <br> Cash \& cash equivalents at end of period 0.4 3.3 |

## FY2016 Sales by Segment (1)

(¥billion)

|  | FY2015 |  |  | FY2016 |  |  | Change |  |  | Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total | Total |
| Chem | 16.7 | 17.6 | 34.3 | 16.5 | 18.3 | 34.8 | -0.2 | +0.7 | +0.5 | +1\% |
| Fine Chemicals | 5.5 | 5.1 | 10.6 | 5.3 | 5.4 | 10.7 | -0.2 | +0.3 | +0.1 | +0\% |
| $\begin{aligned} & \text { Basic } \\ & \text { Chemicals } \end{aligned}$ | 11.2 | 12.5 | 23.7 | 11.2 | 12.9 | 24.1 | +0.0 | +0.4 | +0.4 | +2\% |
| Performance Materials | 26.0 | 25.8 | 51.8 | 25.5 | 27.3 | 52.8 | -0.5 | +1.5 | +1.0 | +2\% |
| Agro | 21.1 | 26.4 | 47.5 | 24.0 | 28.0 | 52.0 | +2.9 | +1.6 | +4.5 | +9\% |
| Pharma | 3.7 | 5.0 | 8.7 | 3.7 | 4.3 | 8.0 | +0.0 | -0.7 | -0.7 | -8\% |
| Trading | 27.5 | 28.1 | 55.6 | 27.6 | 27.6 | 55.2 | +0.1 | -0.5 | -0.4 | -1\% |
| Others | 8.9 | 12.0 | 20.9 | 8.6 | 15.4 | 24.0 | -0.3 | +3.4 | +3.1 | +15\% |
| Adjustment | -20.2 | -21.7 | -41.9 | -21.4 | -25.1 | -46.5 | -1.2 | -3.4 | -4.6 | - |
| Total | 83.7 | 93.2 | 176.9 | 84.5 | 95.8 | 180.3 | +0.8 | +2.6 | +3.4 | +2\% |


| FY2016 Outlook <br> as of Nov 2016 |  |  |
| ---: | ---: | ---: |
| 1 H <br> Actual | 2 H | Total |
| 16.5 | 17.6 | 34.1 |
| 5.3 | 5.0 | 10.3 |
| 11.2 | 12.6 | 23.8 |
| 25.5 | 27.0 | 52.5 |
| 24.0 | 28.2 | 52.2 |
| 3.7 | 3.9 | 7.6 |
| 27.6 | 30.6 | 58.2 |
| 8.6 | 14.8 | 23.4 |
| -21.4 | -26.1 | -47.5 |
| 84.5 | 96.0 | 180.5 |

(1) Including inter-segment sales/transfers

## FY2016 OP by Segment

(¥billion)

|  | FY2015 |  |  | FY2016 |  |  | Change |  |  | Change <br> (\%) |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | 1 H | 2 H | Total | 1 H | 2 H | Total | 1 H | 2 H | Total |
| Total |  |  |  |  |  |  |  |  |  |  |
| Chem | 1.4 | 2.5 | 3.9 | 1.3 | 2.5 | 3.8 | -0.1 | +0.0 | -0.1 | $-3 \%$ |
| Performance <br> Materials | 6.3 | 5.7 | 12.0 | 6.2 | 6.3 | 12.5 | -0.1 | +0.6 | +0.5 | $+4 \%$ |
| Agro | 6.2 | 4.6 | 10.8 | 6.9 | 6.3 | 13.2 | +0.7 | +1.7 | +2.4 | $+22 \%$ |
| Pharma | 0.6 | 1.4 | 2.0 | 0.6 | 1.1 | 1.7 | +0.0 | -0.3 | -0.3 | $-17 \%$ |
| Trading | 0.9 | 0.9 | 1.8 | 0.8 | 0.9 | 1.7 | -0.1 | +0.0 | -0.1 | $-6 \%$ |
| Others | 0.0 | 0.5 | 0.5 | 0.0 | 1.0 | 1.0 | +0.0 | +0.5 | +0.5 | $+103 \%$ |
| Adjustment | -1.1 | -1.3 | -2.4 | -1.1 | -1.4 | -2.5 | +0.0 | -0.1 | -0.1 | $-\mid$ |
| Total | 14.3 | 14.3 | 28.6 | 14.7 | 16.7 | 31.4 | +0.4 | +2.4 | +2.8 | $+10 \%$ |


| FY2016 Outlook <br> as of Nov 2016 |  |  |
| ---: | ---: | ---: |
| $1 H$ <br> Actual | 2 H | Total |
| 1.3 | 2.4 | 3.7 |
| 6.2 | 5.5 | 11.7 |
| 6.9 | 5.9 | 12.8 |
| 0.6 | 0.8 | 1.4 |
| 0.8 | 1.1 | 1.9 |
| 0.0 | 0.7 | 0.7 |
| -1.1 | -1.2 | -2.3 |
| 14.7 | 15.2 | 29.9 |

## FY2017 Sales Outlook by Segment (1)

(¥billion)

|  | FY2016 Actual |  |  | FY2017 Outlook |  |  | Change |  |  | Change <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H (1Q) | 2H | Total | 1H (1Q) | 2H | Total | 1H (1Q) | 2H | Total | Total |
| Chem | 16.58 | 18.3 | 34.8 | 17.18 | 18.4 | 35.5 | +0.6-0.1 | +0.1 | +0.7 | +2\% |
| Fine Chemicals | $5.3 \quad 2.8$ | 5.4 | 10.7 | 5.32 .6 | 5.1 | 10.4 | +0.0 $\quad-0.2$ | -0.3 | -0.3 | -2\% |
| Basic Chemicals | 11.25 .7 | 12.9 | 24.1 | 11.85 | 13.3 | 25.1 | +0.6 +0.1 | +0.4 | +1.0 | +4\% |
| Performance Materials | 25.512 .6 | 27.3 | 52.8 | 27.913 .8 | 29.7 | 57.6 | +2.4 +1.2 | +2.4 | +4.8 | +9\% |
| Agro | 24.014 .5 | 28.0 | 52.0 | 24.913 .5 | 31.4 | 56.3 | +0.9 -1.0 | +3.4 | +4.3 | +8\% |
| Pharma | $3.7 \quad 2.2$ | 4.3 | 8.0 | $3.0 \quad 1.5$ | 3.9 | 6.9 | -0.7-0.7 | -0.4 | -1.1 | -14\% |
| Trading | 27.614 .4 | 27.6 | 55.2 | 29.515 .2 | 32.0 | 61.5 | $+1.9+0.8$ | +4.4 | +6.3 | +11\% |
| Others | 8.64 .0 | 15.4 | 24.0 | 9.24 .7 | 12.5 | 21.7 | +0.6 +0.7 | -2.9 | -2.3 | -10\% |
| Adj ustment | -21.4 -11.1 | -25.1 | -46.5 | -23.9 -11.9 | -26.6 | -50.5 | -2.5 -0.8 | -1.5 | -4.0 |  |
| Total | 84.545 .1 | 95.8 | 180.3 | 87.745 .2 | 101.3 | 189.0 | +3.2 +0.1 | +5.5 | +8.7 | +5\% |

(1) Including inter-segment sales/transfers

## FY2017 OP Outlook by Segment

(¥billion)

|  | FY2016 Actual |  |  | FY2017 Outlook |  |  |  | Change |  |  |  | Change <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H (1Q) | 2H | Total | 1H | (1Q) | 2H | Total | 1H | (1Q) | 2H | Total | Total |
| Chem | 1.31 .5 | 2.5 | 3.8 | 1.5 | 1.4 | 2.1 | 3.6 | +0.2 | -0.1 | -0.4 | -0.2 | -6\% |
| Performance Materials | 6.23 .0 | 6.3 | 12.5 | 6.3 | 3.2 | 6.0 | 12.3 | +0.1 | +0.2 | -0.3 | -0.2 | -2\% |
| Agro | $6.9 \quad 4.5$ | 6.3 | 13.2 | 7.6 | 3.8 | 8.0 | 15.6 | +0.7 | -0.7 | +1.7 | +2.4 | +18\% |
| Pharma | $0.6 \quad 0.6$ | 1.1 | 1.7 | 0.1 | 0.1 | 0.8 | 0.9 | -0.5 | -0.5 | -0.3 | -0.8 | -46\% |
| Trading | $0.8 \quad 0.4$ | 0.9 | 1.7 | 0.9 | 0.4 | 1.1 | 2.0 | +0.1 | +0.0 | +0.2 | +0.3 | +18\% |
| Others | 0.0 | 1.0 | 1.0 | -0.1 | -0.1 | 0.6 | 0.5 | -0.1 | -0.1 | -0.4 | -0.5 | -48\% |
| Adj ustment | -1.1 -0.5 | -1.4 | -2.5 | -1.3 | -0.7 | -1.1 | -2.4 | -0.2 | -0.2 | +0.3 | +0.1 | - |
| Total | $14.7 \quad 9.5$ | 16.7 | 31.4 | 15.0 | 8.1 | 17.5 | 32.5 | +0.3 | -1.4 | +0.8 | +1.1 | +3\% |

## Chemicals - (A) Recent Financial Performance

1. FY2016 Sales Distribution (¥billion)

2. FY2016 OP Distribution (\#billion)

3. Recent Financial Performance (¥billion)



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

- Core products of Basic Chemicals : Ammonia related products and sulfuric acid related products
- FY2016 ammonia domestic production capacity share $11 \%$, high percentage of self-consumption of ammonia



## Chemicals - (C) FY2016 Sales Distribution



Fine Chemicals 31\%

- Basic Chemicals 69\%

Fine Chemicals
Sales $\mathbf{¥ 1 0 . 7}$ billion
Main Products 75\%
Others
25\%
TEPIC
Environmental related products
Others


| Main Products | $\mathbf{5 0 \%}$ |
| :--- | ---: |
| Others | $\mathbf{5 0 \%}$ |
| < Main Products > |  |
| Melamine |  |
| TEPIC |  |
| Environmental |  |
| related products |  |
| Urea/AdBlue |  |
| High purity sulfuric acid |  |
| Others |  |

## Chemicals - (D) Growing Products

-Sales (FY2012=100)

(1) Marginal Profit :Sales - Variable Cost

## Chemicals - (E-1) Production Capacity

Production Capacity (FY2012 Production Capacity $=100$ )

(1) Including subcontractors

Completed Cost Saving Investments at Toyama Ammonia Related Plants
Construction Cost: $¥ 0.5$ billion Cost Savings: $¥ 0.2-0.3$ billion/year
Contents: Utility and manpower savings

- Ammonia Feedstock Change Project

See Page E-2

## Chemicals - (E-2) Ammonia Feedstock Change Project

Project:
Change of feedstock for ammonia production at Toyama Plant from naphtha to natural gas
Purpose:
To pursue more stable profitability from ammonia and its derivative products by using natural gas

Construction Cost:
¥ 1.09 billion
Completion Period:
Completed in August 2016 as scheduled
Extraordinary Loss:
Extraordinary loss of $¥ 704$ million incurred in 3Q FY2014 (fiscal year ending in March 2015) as cost for dismantling the existing naphtha pipeline after completion of the project

## Chemicals - (E-3)

## Ammonia Feedstock Change Project



## Chemicals - (F) Fine Chemicals Subsegment

## FY2016 Sales Review

## <1H FY2016 vs. 1H FY2015>

- TEPIC
: Export sales for general applications down, sales for electronic materials up
: Domestic sales up due to one time large orders, export sales down
<2H FY2016 vs. 2H FY2015>
- TEPIC
: Export sales for general applications up partly due to environmental regulations in China, sales for electronic materials up
: Domestic sales up, export sales up
- Environmental related products
<2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016>
- TEPIC
: Both applications above target
Environmental related products
: Domestic sales above target, export sales above target


## FY2017 Sales Outlook

<vs. FY2016>

TEPIC

- Environmental related products
: Export sales for general applications up, sales for electronic materials up
: Domestic sales down due to the absence of one time orders, export sales up

|  |  |  |  |  | ales | YOY C | hange |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Main Products | $\begin{aligned} & \text { FY20 } \\ & \text { as ot } \end{aligned}$ | 16 Out Nov. | $\begin{aligned} & \text { look } \\ & 2016 \end{aligned}$ | FY2 | 16 Ac | ual | FY20 | 17 Out | look |
|  |  | $\begin{gathered} 1 \mathrm{H} \\ \text { Actual } \end{gathered}$ | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Total Subsegment |  | -3\% | -3\% | -3\% | -3\% | +4\% | +0\% | -0\% | -5\% | -3\% |
| TEPIC | Epoxy compound for : <br> (A) electronic materials (solder resist, LED materials), <br> (B) general applications such as powder coating agent for paint <br> - World largest producer | -9\% | +2\% | -4\% | -9\% | +19\% | +5\% | +19\% | -10\% | +2\% |
| Environmental related products | - HI-LITE : made from chlorinated isocyanuric acid, used for sterilizing, disinfectant for swimming pool as well as water purification tank | +2\% | +5\% | +3\% | +2\% | +8\% | +4\% | -3\% | +2\% | -0\% |

Two products account for 75\% of total consolidated subsegment sales (FY2016)

## Chemicals - (G) Basic Chemicals Subsegment

## FY2016 Sales Review

## <1H FY2016 vs. 1H FY2015>

- Melamine

UUrea including AdBlue : Urea flat, AdBlue up
$\checkmark$ High purity sulfuric acid : Flat
<2H FY2016 vs. 2H FY2015>

## - Melamine

Urea including AdBlue
: Urea down due to volume increase as materials for melamine production, AdBlue up
-High purity sulfuric acid
<2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016>
$\rightarrow$ Melamine $\quad$ : Both domestic and export sales above target

- Urea including AdBlue : Both urea and AdBlue below target
$\Rightarrow$ High purity sulfuric acid : Above target


## FY2017 Sales Outlook

<vs. FY2016>

Melamine
High purity sulfuric acid
: Domestic sales up, export sales up
: Urea down due to volume increase as materials for melamine production, AdBlue up : Up due to demand increase by domestic semis customers

| Main Products |  | Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | FY2016 Outlook as of Nov. 2016 |  |  | FY2016 Actual |  |  | FY2017 Outlook |  |  |
|  |  | $1 \mathrm{H}$ Actual | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Total Subsegment |  | -0\% | +1\% | +0\% | -0\% | +3\% | +2\% | +5\% | +3\% | +4\% |
| Melamine | - Mainly used as adhesive agent for particle board, medium density fiberboard, plyw ood | +1\% | -7\% | -3\% | +1\% | +11\% | +6\% | +10\% | +8\% | +9\% |
| Urea including AdBlue | Urea: mainly used for urea formaldehyde resin, adhesive agent <br> - AdBlue: solution of urea in demineralised water for diesel trucks to reduce Nox | +2\% | +1\% | +1\% | +2\% | -9\% | -4\% | +3\% | +5\% | +4\% |
| High purity sulfuric acid | Used to clean semiconductors <br> Largest in domestic market | -1\% | +4\% | +2\% | -1\% | +9\% | +4\% | +13\% | +1\% | +7\% |

Three products account for 39\% of total consolidated subsegment sales (FY2016)

|  | FY2015 Actual |  |  | 2H FY2016 E as of Nov. 2016 | FY2016 Actual <br> (A) |  |  | FY2017 Outlook <br> (B) |  |  | Change$\text { (B) }-(\mathrm{A})$ |  |  | Change(\%) <br> (B) - (A) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 2H | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Sales | 16.7 | 17.6 | 34.3 | 17.6 | 16.5 | 18.3 | 34.8 | 17.1 | 18.4 | 35.5 | +0.6 | +0.1 | +0.7 | +3\% | +1\% | +2\% |
| Fine | 5.5 | 5.1 | 10.6 | 5.0 | 5.3 | 5.4 | 10.7 | 5.3 | 5.1 | 10.4 | +0.0 | -0.3 | -0.3 | +0\% | -4\% | -2\% |
| Basic | 11.2 | 12.5 | 23.7 | 12.6 | 11.2 | 12.9 | 24.1 | 11.8 | 13.3 | 25.1 | +0.6 | +0.4 | +1.0 | +5\% | +3\% | +4\% |
| OP | 1.4 | 2.5 | 3.9 | 2.4 | 1.3 | 2.5 | 3.8 | 1.5 | 2.1 | 3.6 | +0.2 | -0.4 | -0.2 | +13\% | -16\% | -6\% |

## 2H FY2016 Review

<vs. 2H FY2015>

## (Fine Chemicals)

$\bullet$ Sales of TEPIC and environmental related products up

- Sales up, OP up
(Basic Chemicals)
- Sales of melamine and high purity sulfuric acid up
- Sales of urea including AdBlue down
- Fixed cost up
- Sales up, OP down
(Total Segment)
$\checkmark$ Sales up $¥ 0.7$ billion( $+4 \%$ ), OP flat


## FY2016 Review

(Fine Chemicals)

## <vs. FY2015>

$\checkmark$ Sales of TEPIC and environmental related products up

- Feedstock cost down, inventory adjustment cost up
- Sales of non-core products down
- Sales up, OP down
(Basic Chemicals)
- Sales of melamine and high purity sulfuric acid up
- Urea including AdBlue down
- Feedstock cost down

Sales up, OP up
(Total Segment)
$\checkmark$ Sales up $¥ 0.5$ billion( $+1 \%$ ), OP down $¥ 0.1$ billion (including inventory adjustment cost up $¥ 0.3$ billion)(-3\%)

## 2H FY2016 Review

<vs. 2H FY2016 Outlook as of Nov. 2016>

## (Fine Chemicals)

$\checkmark$ Sales of TEPIC and environmental related products above target
$\checkmark$ Sales above target, OP below target
(Basic Chemicals)

- Sales of melamine and high purity sulfuric acid above target
- Sales of urea including AdBlue below target
$\checkmark$ Sales above target, OP above target
(Total Segment)
$\checkmark$ Sales up $¥ 0.7$ billion, OP up $¥ 0.1$ billion


## (Fine Chemicals)

## FY2017Outlook

- Sales of TEPIC up
<vs. FY2016>
- Sales of environmental related products flat (domestic down, export up)
- Inventory adjustment cost down
- Sales down, OP up
(Basic Chemicals)
$\checkmark$ Sales of melamine, urea including AdBlue, high purity sulfuric acid up
- Feedstock cost up
- Sales up, OP down
(Total Segment)
- Sales up $¥ 0.7$ billion(+2\%), OP down $¥ 0.2$ billion
(including inventory adjustment cost down $¥ 0.6$ billion)( $-6 \%$ )


## Performance Materials - (A) Recent Financial Performance

1. FY2016 Sales Distribution (¥billion)

2. Recent Financial Performance (¥billion)

3. FY2016 OP Distribution (\#billion)


## Performance Materials - (B) Display Materials

## FY2016 Sales Review

<1H FY2016 vs. 1H FY2015>

- Total Display Materials up 4\%

IPS/FFS up, TN and VA down, Photo-alignment IPS SUNEVER up substantially
<2H FY2016 vs. 2H FY2015>

- Total Display Materials up 7\%

IPS/FFS and VA up, TN down, Photo-alignment IPS SUNEVER up substantially
<2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016 >
Total Display Materials above target IPS/FFS and TN above target, VA in line with target
FY2017 Sales Outlook
<vs. FY2016>
$\bullet$ Total Display Materials up 8\% IPS/FFS and VA up, TN down, Photo-alignment IPS SUNEVER up substantially

| Main Products | Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2016 Outlook as of Nov. 2016 |  |  | FY2016 Actual |  |  | FY2017 Outlook |  |  |
|  | 1H Actual | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Total SUNEVER | +4\% | +2\% | +3\% | +4\% | +7\% | +5\% | +6\% | +9\% | +8\% |
| Other Display Materials | -3\% | +35\% | +16\% | -3\% | +21\% | +9\% | +10\% | +27\% | +20\% |
| Total Display Materials | +4\% | +3\% | +3\% | +4\% | +7\% | +5\% | +6\% | +10\% | +8\% |

$\diamond$ Purchased patents and expertise of OLED hole injection and hole transport materials from Solvay (September 2016)

## Performance Materials - (C) Semiconductors Materials

## FY2016 Sales Review

<1H FY2016 vs. 1H FY2015>

- Total Semis Materials sales down 6\%
<2H FY2016 vs. 2H FY2015>
- Total Semis Materials sales up 6\%
<2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016 >
- Total Semis Materials below target

FY2017 Sales Outlook
<vs. FY2016>
Total Semis Materials sales up 12\%
KrF down, ArF and other semis materials up

| Main Products | Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2016 Outlook as of Nov. 2016 |  |  | FY2016 Actual |  |  | FY2017 Outlook |  |  |
|  | 1H Actual | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| $\mathrm{KrF}\left(\mathrm{ARC}_{\circledR}\right)$ | -8\% | +3\% | -3\% | -8\% | +10\% | +0\% | +2\% | -4\% | -1\% |
| ArF (ARC® ${ }_{8}$ ) | -1\% | +6\% | +2\% | -1\% | +4\% | +1\% | +16\% | +11\% | +13\% |
| Total | -3\% | +5\% | +1\% | -3\% | +7\% | +1\% | +10\% | +5\% | +8\% |
| Other Semis Materials (1) | -15\% | +36\% | +10\% | -15\% | +3\% | -6\% | +29\% | +30\% | +29\% |
| Total Semis Materials | -6\% | +11\% | +3\% | -6\% | +6\% | -0\% | +14\% | +10\% | +12\% |

(1) Multi layer process materials (OptiStack®), microlens materials, etc

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

Main capex (approval basis): FY2014 Analyzing and evaluation R\&D equipment ( $¥ 1.1$ billion)
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 ( $¥ 3.2$ billion),
Analyzing and evaluation R\&D equipment ( $¥ 1.0$ billion), Material Research Lab. ( $¥ 0.5$ billion) FY2017 Material Research Lab. ( $¥ 0.3$ billion)

## Performance Materials - (D-1) Inorganic Materials

High performance


## Performance Materials - (D-2) SNOWTEX, Organo sol

## FY2016 Sales Review

<1H FY2016 vs. 1H FY2015>
$\checkmark$ SNOWTEX : Down (polishing materials down, non-polishing materials up)

- Organo sol : Down
<2H FY2016 vs. 2H FY2015>
SNOWTEX : Up (polishing materials up, non-polishing materials down)
$\checkmark$ Organo sol : Down
< 2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016>
$\checkmark$ SNOWTEX : Above target (polishing materials above target, non-polishing materials below target)
$\checkmark$ Organo sol : Below target


## FY2017 Sales Outlook

<vs. FY2016>
$\checkmark$ SNOWTEX : Flat (polishing materials up, non-polishing materials down)

- Organo sol : Up

|  |  |  |  | Cons | dated | Sale | YOY | ange |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Main Products | $\begin{aligned} & \text { FY20 } \\ & \text { as of } \end{aligned}$ | $\begin{aligned} & 16 \text { Outl } \\ & \text { ov. } 20 \end{aligned}$ | ook $16 \text { (1) }$ | FY20 | Actu | (1) | FY20 | 7 Out | ook |
|  |  | $\begin{array}{\|c} \hline 1 \mathrm{H} \\ \text { Actual } \end{array}$ | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| SNOWTEX | - Mainly Used for : <br> (A) polishing materials (silicon wafer, aluminum and glass hard disk), <br> (B) non-polishing materials ( NOx reduction catalyst, automobile catalyst, special steel sheet) | -4\% | +2\% | -1\% | -4\% | +6\% | +1\% | +3\% | -3\% | +0\% |
| Organo sol | -Used for : hard coating materials, electronic information materials | -7\% | -1\% | -4\% | -7\% | -3\% | -5\% | +15\% | +5\% | +10\% |

(1) Non-consolidated basis

## Performance Materials - (E) Profit Overview

(¥billion)

|  | FY2015 Actual |  |  | 2H FY2016E as of Nov. 2016 | FY2016 Actual (A) |  |  | FY2017 Outlook <br> (B) |  |  | Change(B) - (A) |  |  | Change (\%) (B) - (A) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 2H | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Sales | 26.0 | 25.8 | 51.8 | 27.0 | 25.5 | 27.3 | 52.8 | 27.9 | 29.7 | 57.6 | +2.4 | +2.4 | +4.8 | +9\% | +9\% | +9\% |
| OP | 6.3 | 5.7 | 12.0 | 5.5 | 6.2 | 6.3 | 12.5 | 6.3 | 6.0 | 12.3 | +0.1 | -0.3 | -0.2 | +2\% | -6\% | -2\% |

## 2H FY2016 Review <br> <vs. 2H FY2015>

SUNEVER sales up (IPS/FFS and VA up, TN down)

- Total Semis Materials sales up (KrF, ArF and other materials up)
- Inorganic Materials sales up (SNOWTEX up, Organo sol down)
- Fixed cost up $¥ 0.3$ billion (including R\&D)

Sales up $¥ 1.5$ billion(+6\%), OP up $¥ 0.6$ billion(+12\%)

## FY2016 Review <br> <vs. FY2015>

SUNEVER sales up (IPS/FFS and VA up, TN down)

- Total Semis Materials sales flat
(KrF flat, ArF up, other materials down)
Inorganic Materials sales flat (SNOWTEX up, Organo sol down)
$\checkmark$ Fixed cost up $¥ 0.5$ billion (including R\&D)
Sales up $¥ 1.0$ billion(+2\%), OP up $¥ 0.5$ billion( $+4 \%$ )


## 2H FY2016 Review

<vs. 2H FY2016 Outlook as of Nov. 2016>
$\checkmark$ SUNEVER sales above target
(IPS/FFS and TN above target, VA in line with target)
Total Semis Materials sales below target
(KrF above target, ArF and other materials below target)

- Inorganic Materials sales above target
(SNOWTEX above target, Organo sol below target)
$\checkmark$ Fixed cost down $¥ 0.8$ billion (including R\&D)
Sales up $¥ 0.3$ billion, OP up $¥ 0.8$ billion


## FY2017 Outlook <br> <vs. FY2016>

SUNEVER sales up (IPS/FFS and VA up, TN down)

- Total Semis Materials sales up
(KrF down, ArF and other materials up)
- Inorganic Materials sales up (SNOWTEX flat, Organo sol up)

Fixed cost up $¥ 3$.3billion (including R\&D)
Sales up $¥ 4.8$ billion(+9\%), OP down $¥ 0.2$ billion(-2\%)

## Agrochemicals - (A) Recent Financial Performance

1. FY2016 Sales Distribution (¥billion)

2. FY2016 OP Distribution (¥billion)

3. Recent Financial Performance (\#billion)

## Agrochemicals－（B）Sales YOY Change（Before Discount）

|  |  | Sales YOY Change |  |  | Domestic sales of all major products down due to a change in domestic shipment and pricing policies resulting in one－time sales shift from 2H FY2017 to 1Q FY 2018 （¥1．4billion） |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main Products （in order of FY2016 sales amount） |  | FY2015 ／FY2014 （1） | FY2016 ／FY2015 <br> （1） | FY2017E <br> IFY2016 <br> （2） |  |  |
| ROUNDUP | herbicide |  |  |  |  |  |
| Fluralaner | Animal health products |  |  |  | FY 2018 （¥1．4b |  |
| $\begin{gathered} \text { ALTAR } \\ \text { (NC-620) } \end{gathered}$ | herbicide |  |  |  |  |  |
| TARGA | herbicide |  |  |  |  |  |
| PERMIT | herbicide |  |  |  | YOY Change |  |
|  |  |  |  |  | $\begin{aligned} & +30 \% \sim \\ & +20 \sim+30 \% \end{aligned}$ | フイアイ |
| SIRIUS | herbicide |  |  |  |  | フアイ |
| LEIMAYIORACLE | fungicide |  |  |  | ＋10～＋20\％ | $\nearrow ワ$ |
|  |  |  |  |  | ＋0～＋10\％ | $\lambda$ |
| STARMITE | miticide |  |  |  | －0～－10\％ | $\downarrow$ |
|  |  |  |  |  | －10～－20\％ | dy |
| （THIFLUZAMIDE） | fungicide |  |  |  | －20～－30\％ | 4.4 |
| SANMITE | insecticide |  |  |  | －30\％～ | 14ty |

（1）Non－consolidated basis
（2）Consolidated basis

## Agrochemicals - (C) Overview

- Transforming from a stable profit sector into a high growth sector driven by ALTAIR (new paddy rice herbicide), ROUNDUP and FLURALANER
Strengthening product portfolio by: in-house developed products, acquired products, licensed-in products

```
(launch) (products)
FY2002 ROUNDUP (herbicide, acquired domestic business from Monsanto)
FY2008 LEIMAY (fungicide, in-house)
    STARMITE (miticide, in-house)
FY2009 PULSOR (THIFLUZAMIDE) (fungicide, acquired from Dow)
    PREVATHON (insecticide, licensed from DuPont)
FY2010 ROUNDUP AL for general household shower-type herbicide market, growing sharply
FY2011-12 ALTAIR (paddy rice herbicide, in-house) launched in Korea in FY2011 and in Japan in FY2012
FY2013 Fluralaner started to be supplied to MAH in July as scheduled
FY2014 BRAVECTO launched in several countries in EU in April and in the USA in June by MAH
    EXIREL/PRYROSSO (CYAZYPYR) launched (insecticide, licensed from DuPont)
FY2015 BRAVECTO launched in Japan in July by Intervet K.K
    TREFANOCIDE (herbicide, acquired by Gowan from Dow, exclusive sales right in Japan transferred to NCI)
FY2017-18 ISOCLAST (SULFOXAFLOR) (insecticide, licensed from Dow)
    ISOPYRAZAM (fungicide, licensed from Syngenta)
FY2019 GRACIA (Insecticide, in-house)
FY2022 General fungicide (in-house)
```

MAH: Merck Animal Health, the global animal health business unit of Merck Intervet K.K: a Japanese subsidiary of MAH

- Expanded Fluralaner production capacity at two outsourced factories (March 2017)
- Full reconstruction of Biological Research Laboratories for Agro and Pharma segments completed (April 2017) FY2010-2017 total capex $¥ 6.4$ billion
- Construction of GRACIA plant started in May 2017 (to be completed in July 2018, capex $¥ 1.4$ billion)
- Acquired 3\% share of IHARABRÁS (leading agro company in Brazil) in September 2011
- Established subsidiaries in China (April 2014) and Brazil (Aug. 2016) for sales support and product development
- Export sales account for $32 \%$ of FY2016 consolidated segment sales
(Asia:25\%, Europe/Africa:64\%, North/Central/South America:11\%) *Including Fluralaner


## Agrochemicals - (D) Fluralaner

*Fluralaner

Invented by NCI and supplied to MAH as the active pharmaceutical ingredient of BRAVECTO
-BRAVECTO
*Developed by MAH
*Veterinary medical product (chewable tablets) providing unique immediate and persistent tick and flea killing activity for dogs for 12 weeks, longer than currently available once-monthly commercialized products
*Launched by MAH in Germany, Spain, Italy, France, the Netherlands and the United Kingdom in April 2014, and in the USA in June 2014 (at present, launched in about 80 countries)
*Launched by Intervet K.K. in Japan in July 2015
*BRAVECTO Spot-On Solution for dogs and cats approved in EU in May 2016 and in USA in July 2016
*BRAVECTO Spot-On Solution for cats launched in EU in July 2016 and USA in December 2016
*BRAVECTO Spot-On Solution for dogs launched in Germany and Austria in January 2017


## Agrochemicals - (E) Segment Sales (before discount)

|  | Sales YOY Change (2) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2013 <br> Actual | FY2014 Actual | FY2015 Actual |  |  | FY2016 Outlook as of Nov. 2016 |  |  | FY2016 Actual |  |  | FY2017 Outlook |  |  |
|  | Total | Total | 1H | 2H | Total | 1H Actual | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| ROUNDUP <br> (ROUNDUP AL(1)) | $\begin{array}{r} -0 \% \\ (+66 \%) \end{array}$ | $\begin{aligned} & +17 \% \\ & (+59 \%) \end{aligned}$ | $\begin{array}{r} +2 \% \\ (+27 \%) \end{array}$ | $\begin{array}{r} -3 \% \\ (+62 \%) \end{array}$ | $\begin{array}{r} -0 \% \\ (+36 \%) \end{array}$ | $\begin{aligned} & +20 \% \\ & (+26 \%) \end{aligned}$ | $\begin{array}{r} +7 \% \\ (+4 \%) \end{array}$ | $\begin{aligned} & +13 \% \\ & (+20 \%) \end{aligned}$ | $\begin{aligned} & +20 \% \\ & (+26 \%) \end{aligned}$ | $\begin{array}{r} +6 \% \\ (+40 \%) \end{array}$ | $\begin{aligned} & +13 \% \\ & (+30 \%) \end{aligned}$ | $\begin{array}{r} -1 \% \\ (+30 \%) \end{array}$ | $\begin{gathered} -7 \% \\ (-4 \%) \end{gathered}$ | $\begin{array}{r} -4 \% \\ (+19 \%) \end{array}$ |

(1) ROUNDUP for general household, launched in FY2010, accounting for about 15\% of FY2016 ROUNDUP sales
(2) FY2013-2016 Actual: Non-consolidated basis, FY2017 Outlook: Consolidated basis


[^0]
## Agrochemicals - (F) Profit Overview

(¥billion)

|  | FY2015 Actual |  |  | 2H FY2016 E as of Nov. 2016 | FY2016 Actual <br> (A) |  |  | FY2017 Outlook <br> (B) |  |  | Change(B) - (A) |  |  | Change (\%)$\text { (B) }-(A)$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 2H | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Sales | 21.1 | 26.4 | 47.5 | 28.2 | 24.0 | 28.0 | 52.0 | 24.9 | 31.4 | 56.3 | +0.9 | +3.4 | +4.3 | +4\% | +12\% | +8\% |
| OP | 6.2 | 4.6 | 10.8 | 5.9 | 6.9 | 6.3 | 13.2 | 7.6 | 8.0 | 15.6 | +0.7 | +1.7 | +2.4 | +11\% | +26\% | +18\% |

## 2H FY2016 Review <br> <vs. 2H FY2015>

- Sales up: Fluralaner, ALTAIR(domestic, export), ROUNDUP LEIMAY, TREFANOCIDE
Sales down: PERMIT, TARGA(export), PULSOR, SIRIUS
- Inventory adjustment cost up $¥ 0.3$ billion
- Sales up $¥ 1.6$ billion $(+6 \%)$, OP up $¥ 1.7$ billion $(+38 \%)$


## 2H FY2016 Review

<vs. 2H FY2016 Outlook as of Nov. 2016>

- Sales above target : ALTAIR(domestic, export), PERMIT(export), TARGA(export)
-Sales below target : Fluralaner, PULSOR(export), SANMITE
- Inventory adjustment cost down $¥ 0.2$ billion
- Sales down $¥ 0.2$ billion, OP up $¥ 0.4$ billion


## FY2017 Outlook <vs. FY2016>

Domestic sales of all major products down due to a change in domestic shipment and pricing policies resulting in one-time sales shift from 2H FY2017 to 1Q FY 2018 ( $¥ 1.4$ billion)
Export sales up : Fluralaner, PERMIT, PULSOR, LEIMAY, SANMITE

- Export sales down : TARGA
- Fixed cost up $¥ 0.8$ billion
- Inventory adjustment cost down $¥ 0.2$ billion

Sales up $¥ 4.3$ billion( $+8 \%$ ), OP up $¥ 2.4$ billion(+18\%)

## Pharmaceuticals - (A) Recent Financial Performance

1. FY2016 Sales Distribution (¥billion)

2. FY2016 OP Distribution (\#billion)

3. Recent Financial Performance (¥billion)


## Pharmaceuticals - (B) NCI Business Model (New Drug)

- Unique ethical pharma business model without sales force


API*: Active Pharmaceutical Ingredient

## Pharmaceuticals - (C) LIVALO (Anti-Cholesterol Drug)

|  | FY2013 Actual | FY2014 Actual | FY2015 Actual | FY2016 <br> Outlook <br> as of Nov. 2016 | FY2016 <br> Actual | FY2017 <br> Outlook |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domestic End Market Sales (NHI drug price basis, ¥billion) | 52.6 | 34.5 | 29.7 | - | 23.9 | - |
| Domestic End Market Share (1) | 21\% | 16\% | 15\% | - | 13\% | - |
| Our Domestic and Export API Sales ( $¥$ billion) | 10.2 | 6.9 | 5.8 | 5.1 | 5.2 | 4.3 |
| Our Domestic and Export API Sales YOY Change (Our Domestic API Sales YOY Change) | $\begin{array}{r} -2 \% \\ (-2 \%) \\ \hline \end{array}$ |  |  |  |  |  |

(1) Excluding generic

August 2013, domestic compound patent expired
-April 2014, filed complaints against certain companies in USA which had submitted Abbreviated New Drug Application(ANDA) with FDA

## FY2016

Domestic Market Share(1)
Crestor 60\%
Lipitor 15\%
LIVALO 13\%
Mevalotin 7\%
-Domestic market share 13\% in FY2016
-FY2016 NHI drug price cut about -7~-9\%
FFull reconstruction of Biological Research Laboratories completed (April 2017)

## Pharmaceuticals - (D) LIVALO World Wide Strategy

| Region | Country | Launch | Business Partner |
| :--- | :--- | :--- | :--- |
|  | Japan | Sep 2003 | Kowa |
|  | Korea | Jul 2005 | JW Pharmaceutical |
|  | Thailand | Jan 2008 | Biopharm Chemicals |
|  | China | Jul 2009 | Kowa (Shanghai) Pharma |
|  | Indonesia | May 2012 | Tanabe Indonesia |
|  | Taiwan | Jun 2012 | Taiwan Tanabe |
| North America | USA | Jun 2010 | Kowa (KPA) |
| Latin America | Mexico, Brazil, <br> Colombia, Venezuela | Feb 2012- | Eli Lilly |
| Europe | Spain, Portugal, <br> Ukraine, <br> Greece,Switzerland | May 2011- | Recordati |
|  | Lebanon, Jordan, UAE, <br> Kuwait, Saudi Arabia | Mar 2011- | Algorithm SAL |

Selling in total 21 countries

## Pharmaceuticals - (E) Pipeline

| Product | Mechanism of action | Expected indications | Development partners |
| :---: | :---: | :---: | :---: |
| NIP-022 | - Thrombopoietin (TPO) receptor activation | - Thrombocytopenia | - Terminated the license agreement with Ono in April 2014 <br> - Entered into the license agreement with Yakult in October 2015 <br> - Started a Phase I clinical trial in Japan in July 2016 |
| NT-702 | - Phosphodiesterase (PDE)3 inhibition | - Intermittent claudication <br> - Asthma | - Terminated the license agreement with Taisho <br> - Under consideration regarding seeking new partners |
| NTC-801 | - Acetylcholine-activated $\mathrm{K}^{+}$channel current (IKACh) inhibition | - Arrhythmia (Atrial fibrillation) | - Terminated the license agreement with Teijin and BMS in September 2015 <br> - Under consideration regarding seeking new partners |

- Strategic research collaboration
- With Shionogi for discovering novel antifungal drug candidates(Started in January 2016)
- With Mitsubishi Tanabe Pharma to create novel drug candidates for autoimmune diseases(Started in March 2017)
- With Shionogi for discovering novel analgesic drug candidates(Started in April 2017)
- Novel drug discovery research

To create innovative medicines by using the strategic chemical library, the precise organic synthesis technology and the state-of-the-art evaluation technology;

- In-house research : Focusing on cardiovascular disease and neurological disease as core therapeutic areas.
- Collaborative research : Utilizing open innovation effectively (e.g. Shionogi)


## Pharmaceuticals - (F) Custom Chemicals

- Custom manufacturing and process researching services for pharmaceutical ingredients and intermediates from pre-clinical to commercial production stages
- October 2013, Custom Chemicals shifted from Chemicals Segment to Pharma Segment to seek synergy of the two divisions (organic synthesis technology, R\&D/manufacturing/quality control systems)
- Focusing on obtaining new contracts including high activity and high-valued added GE API products
(Prostaglandin and vitamin D3, etc.)
FY2016 Sales Review
<1H FY2016 vs. 1H FY2015>
$\checkmark$ Up due to volume increase in existing products
<2H FY2016 vs. 2H FY2015>
- Up due to volume increase in existing products and new contracts
<2H FY2016 vs. 2H FY2016 Outlook as of Nov. 2016>
- In line with target


## FY2017 Sales Outlook

<vs. FY2016>

- Up due to volume increase in existing products and new contracts

| Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FY2016 Outlook <br> as of Nov. 2016 |  | FY2016 Actual |  |  | FY2017 Outlook |  |  |  |
| $1 H$ <br> Actual | 2 H | Total | 1 H | 2 H | Total | 1 H | 2 H | Total |
| $+10 \%$ | $+3 \%$ | $+6 \%$ | $+10 \%$ | $+2 \%$ | $+6 \%$ | $-10 \%$ | $+17 \%$ | $+6 \%$ |

## Pharmaceuticals - (G) Profit Overview

(¥billion)

|  | FY2015 Actual |  |  | 2H FY2016E as of Nov. 2016 | FY2016 Actual <br> (A) |  |  | FY2017 Outlook <br> (B) |  |  | Change(B) - (A) |  |  | $\begin{aligned} & \text { Change (\%) } \\ & \text { (B) - (A) } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 2H | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total | 1H | 2H | Total |
| Sales | 3.7 | 5.0 | 8.7 | 3.9 | 3.7 | 4.3 | 8.0 | 3.0 | 3.9 | 6.9 | -0.7 | -0.4 | -1.1 | -19\% | -9\% | -14\% |
| OP | 0.6 | 1.4 | 2.0 | 0.8 | 0.6 | 1.1 | 1.7 | 0.1 | 0.8 | 0.9 | -0.5 | -0.3 | -0.8 | -84\% | -23\% | -46\% |

## 2H FY2016 Review <br> <vs. 2H FY2015>

- LIVALO sales down
(domestic sales down due to GE, export up)
- Custom Chemicals sales up
- Decrease in up-front payment
$\checkmark$ Sales down $¥ 0.7$ billion(-13\%), OP down $¥ 0.3$ billion(-25\%)


## FY2016 Review

<vs. FY2015>
LIVALO sales down (domestic down , export up)

- Custom Chemicals sales up
- Decrease in up-front payment

Sales down $¥ 0.7$ billion( $-8 \%$ ), OP down $¥ 0.3$ billion(-17\%)

## 2H FY2016 Review

## <vs. 2H FY2016 Outlook as of Nov. 2016>

$\checkmark$ LIVALO sales above target
(domestic sales in line with target, export above target)
$\checkmark$ Custom Chemicals sales in line with target

- Up-front payment received (research collaboration with Mitsubishi Tanabe Pharma (unexpected in budget))
- Sales up $¥ 0.4$ billion, OP up $¥ 0.3$ billion


## FY2017 Outlook

 <vs. FY2016>LIVALO sales down (domestic down , export down)

- Custom Chemicals sales up
- LIVALO ANDA related legal cost down
$\rightarrow$ Absence of up-front payment
$\checkmark$ Sales down $¥ 1.1$ billion(-14\%), OP down $¥ 0.8$ billion(-46\%)


## (Blank)

## Capex/Depreciation/R\&D by Segment

(¥billion)

|  | Capex (1) |  |  |  |  | Depreciation (2) |  |  |  |  | R\&D expenses |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 | 2014 | 2015 | 2016 | 2017E | 2013 | 2014 | 2015 | 2016 | 2017E | 2013 | 2014 | 2015 | 2016 | 2017E | \% of Sales |
| Chem | 1.2 | 1.4 | 2.3 | 2.0 | 3.5 | 1.4 | 1.4 | 1.4 | 1.6 | 1.9 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 1.4\% |
| Performance M. | 4.3 | 5.2 | 5.4 | 8.4 | 8.5 | 3.2 | 3.6 | 5.2 | 4.8 | 6.3 | 6.3 | 6.7 | 7.4 | 7.9 | 8.5 | 14.8\% |
| Agro | 1.3 | 1.8 | 1.3 | 2.4 | 1.3 | 2.0 | 1.8 | 1.4 | 1.3 | 1.5 | 3.5 | 3.5 | 3.9 | 3.8 | 4.2 | 7.5\% |
| Pharma | 0.6 | 0.4 | 0.4 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 | 0.7 | 0.7 | 2.9 | 2.7 | 2.4 | 2.2 | 2.5 | 36.2\% |
| Trading | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Others | 1.4 | 0.1 | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.4 | 0.6 | 1.1 | 1.6 | 1.6 | 1.7 | 1.5 |  |
| Total | 8.8 | 9.8 | 10.2 | 14.3 | 14.8 | 8.5 | 8.5 | 9.7 | 8.9 | 11.1 | 14.2 | 15.0 | 15.8 | 16.1 | 17.2 |  |
| (1) Capex |  |  |  |  |  |  | R\&D | expe | nses/ | Sales | 8.7\% | 8.7\% | 8.9\% | 8.9\% | 9.1\% |  |

Actual - Acceptance basis Outlook - Production commencement basis
(2) Depreciation Method SUNEVER, ARC®, OptiStack ${ }^{\circledR}$

- 4 year declining balance method ( $50.0 \%$ of initial capex amount in the $1^{\text {st }}$ year) Other products - 8 year declining balance method ( $25.0 \%$ of initial capex amount in the $1^{\text {st }}$ year)

| R\&D Personnel (Sept. 2016) -A | 430 |
| :--- | ---: |
| Total Professionals (Sept. 2016) -B | 1,090 |
| A/B | $39 \%$ |

※Parent company only
※Round number

## Main Capex Items (Approval Basis)

(¥billion)

| FY2014 Actual |  | FY2015 Actual |  | FY2016 Actual |  | FY2017 Outlook |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reconstruction of Biological Research Lab. The fifth stage (Facilities) | 1.3 | Semis (Product development facilities) | 2.8 | NCK Semis (Production capacity expansion) | 3.2 | Agro <br> (Production facilities) | 1.4 |
| Semis <br> (Analyzing and evaluation R\&D equipment) | 1.1 | Material Research Lab. (Instruments) | 1.7 | Material Research Lab. (Instruments) | 1.3 | Chemicals <br> (Product development plant) | 1.2 |
| Ammonia Feedstock Change Project | 1.1 | Agro <br> (Formulation facilities) | 1.2 | Semis <br> (Analyzing and evaluation R\&D equipment) | 1.0 | Material Research Lab. (Instruments) | 1.0 |
| Electronic Materials Lab. (Instruments) | 0.9 | SUNEVER <br> (Raw materials products) | 1.0 | Chemical Research Lab. (Instruments) | 0.6 | Chemical Research Lab. (Instruments) | 0.6 |
| Quality improvement of Inorganic Materials products | 0.7 | Semis <br> (Analyzing and evaluation R\&D equipment) | 0.8 | SNOWTEX (Production capacity expansion) | 0.5 | Display (Test facilities) | 0.4 |
| Chemical Research Lab. (Instruments) | 0.6 | Semis (Production capacity expansion) | 0.8 | NCK SUNEVER (Production capacity expansion) | 0.3 | Biological Research Lab. (Instruments) | 0.3 |
| NCK R\&D Center (Instruments) | 0.3 | NCK Semis (Production capacity expansion) | 0.7 | SNOWTEX (Production capacity expansion) | 0.3 | Display (production facilities) | 0.3 |
|  |  | Custom Chemicals (Production capacity expansion) | 0.4 | NCK R\&D Center (Instruments) | 0.2 |  |  |
|  |  | TEPIC (Production capacity expansion) | 0.3 | Biological Research Lab. (Instruments) | 0.2 |  |  |
|  |  | Biological Research Lab. (Instruments) | 0.2 |  |  |  |  |
|  |  | NCK R\&D Center (Instruments) | 0.2 |  |  |  |  |
|  |  |  |  |  |  |  | 48 |

## Our Characteristics - (A) Recording Stable OP Margin

NCI has recorded more than 10\% OP margin in 14 consecutive years (FY2003-2016)


## Our Characteristics - (B) High ROE

- The most important financial indicator for a long time
$\checkmark$ Target : Maintain above 14\% (15.1\% in FY2016)
(Mid-Term Business Plan Vista 2021 (FY2016-2021))



## Our Characteristics - (C) Shareholders Return Policy

- Maintaining an aggressive shareholders return policy
- Target : Maintain 70\% total payout ratio (70.4\% in FY2016)
(Mid-Term Business Plan Vista 2021 (FY2016-2021))


[^1]
## Our Characteristics - (D) Shareholders Return Policy - Dividend

- Maintaining about 30\% dividend payout ratio in recent years
- Target : Gradually increase to 40\% in FY2018
(Mid-Term Business Plan Vista 2021 (FY2016-2021))



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

- Started share repurchase in 2006 only to enhance ROE

Repurchased $¥ 54.5$ billion, 34.8 million shares ( $18.5 \%$ of shares issued) in total from FY2006 to FY2016
$\checkmark$ Cancelled all repurchased shares

- Target : Continue to repurchase shares to achieve the 70\% total payout ratio

| Shareholders Return FY2006-2016 |  |  |  |  |  |  |  |  |  | 2015 | 2016 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal year | 2006 | $2007$ | $2008$ | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |  |  |  |
| Shares purchased (thous and shares) | 3,500 | 3,399 | 7,355 | 0 | 2,167 | 0 | 6,372 | 3,263 | 2,764 | 3,333 | 2,621 | 34,774 |
| Purchase costs ( $¥$ billion) | 4.7 | 5.0 | 8.0 | 0.0 | 2.8 | 0.0 | 5.0 | 5.0 | 6.0 | 9.0 | 9.0 | 54.5 |
| Shares cancelled (thousand shares) | 3,000 | 3,635 | 7,000 | 0 | 3,000 | 0 | 6,000 | 4,000 | 3,000 | 2,000 | 2,000 | 33,635 |
| Shares issued at FY end (million shares) | 185 | 181 | 174 | 174 | 171 | 171 | 165 | 161 | 158 | 156 | 154 |  |
| Treasury shares at FY end (thous and shares) | 1,367 | 1,233 | 1,660 | 1,709 | 885 | 886 | 1,258 | 522 | 287 | 1,621 | 2,242 |  |

- Cancellation of shares:
1.0 million shares in May 2016, 1.0 million shares in August 2016 and 2.0 million shares in May 2017
- FY2017 share repurchase program (announced on May 12, 2017)
- Total number of shares repurchased :1.7 million shares
- Total amount : $¥ 5.0$ billion
- Period of repurchase :From May 15, 2017 to July 31, 2017


## 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


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

- FY2016 R\&D expenses/sales: 8.9\%
- Target: Maintain above 8\% R\&D expenses/sales (Mid-Term Business Plan Vista 2021 (FY2016-2021))
-40\% of profession staff assigned to R\&D centers



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

| by segme |  | FY2016 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment | Main Products | Sales ( $¥$ billion) | OP <br> ( $¥$ billion) | OP margin | R\&D expenses ( $¥$ billion) | $\%$ of Sales |
| Chem | Ammonia related products, sulfuric acid related products, fine chemicals | 34.8 | 3.8 | 10.9\% | 0.5 | 1.4\% |
| Performance Materials | LCD alignment coating, Bottom anti-reflective coating for semicon Inorganic materials | 52.8 | 12.5 | 23.7\% | 7.9 | 15.0\% |
| Agro | Agrochemical | 52.0 | 13.2 | 25.4\% | 3.8 | 7.3\% |
| Pharma | LIVALO (anti-cholesterol drug), Custom Chemicals | 8.0 | 1.7 | 21.3\% | 2.2 | 27.5\% |
| Others |  | - | - | - | 1.7 | - |
| Total (including others and adjustment) |  | 180.3 | 31.4 | 17.4\% | 16.1 | 8.9\% |



## (Blank)

## Mid-Term Business Plan Vista 2021 (FY2016-2021) Financial Indicators (A)

| 1. PL | 2015 | 2016 | 2018 | 2021 |
| :---: | :---: | :---: | :---: | :---: |
| Sales | 176.9 | 187.5 | 217.0 | 250.0 |
| Operating Profit | 28.6 | 29.7 | 35.0 | 40.0 |
| Ordinary Income | 29.5 | 30.4 | 35.6 | 40.8 |
| Net Income | 22.4 | 23.0 | 27.1 | 31.0 |
| OP Margin | 16.2\% | 15.8\% | 16.1\% | 16.0\% |
| ROE | 14.6\% | 14.3\% | above 14\% | above 14\% |
| Dividend Payout Ratio | 30.7\% | 33.3\% | 40\% | 40\% |
| Total Payout Ratio | 70.8\% | maintain 70\% | maintain 70\% | maintain 70\% |


| FX Rate (¥/\$) | 1 H | 122 | 2 H | 118 | FY2016 onward 115 |  |  |
| :--- | :--- | ---: | ---: | ---: | :--- | :--- | :--- |
| Naphtha $(¥ / \mathrm{KL})(4)$ | $1 \mathrm{H} 48,000$ | 2 H | 37,700 | $1 \mathrm{H} 35,400$ | $2 \mathrm{H} 35,400$ | FY2017 onward | 51,100 |

(¥billion)

| 2. Segment(1) | Sales |  |  |  | Operating Profit |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2015 | 2016 | 2018 | 2021 | 2015 | 2016 | 2018 | 2021 |
| Chem | 34.3 | 35.4 | 38.0 | 40.5 | 3.9 | 4.9 | 4.0 | 4.5 |
| Performance M. | 51.8 | 55.3 | 68.0 | 82.9 | 12.0 | 11.7 | 15.4 | 18.4 |
| Agro | 47.5 | 52.1 | 58.6 | 67.0 | 10.8 | 11.3 | 12.9 | 16.7 |
| Pharma | 8.7 | 7.4 | 8.1 | 8.3 | 2.0 | 1.4 | 2.0 | 2.4 |
| Trading,Others,Adjustment | 34.6 | 37.3 | 44.3 | 51.3 | -0.1 | 0.4 | 0.7 | -2.0 |
| Total | 176.9 | 187.5 | 217.0 | 250.0 | 28.6 | 29.7 | 35.0 | 40.0 |

[^2]
## Mid-Term Business Plan Vista 2021 (FY2016-2021)

 Financial Indicators (B)- OP Margin : Maintain above 15\% (FY2016 Actual 17.4\%)

ROE : Maintain above 14\% (FY2016 Actual 15.1\%)
Dividend Payout Ratio :
Gradually increase to 40\% in FY2018 (FY2016 Actual 33.1\%)
Total Payout Ratio Maintain 70\% (FY2016 Actual 70.4\%) New indicator

- R\&D expenses/sales : above 8\% (FY2016 Actual 8.9\%)


## Mid-Term Business Plan Vista 2021 (FY2016-2021) Sources of Sales Growth for Stage I (FY2016-2018)(C)



## Mid-Term Business Plan Vista 2021 (FY2016-2021) Initiatives for 2019 Onwards(D)

Developing materials for:
-Heat-resistant lenses

- Light control film
- Optical interconnect

Developing:

- NC-515(insecticide)
- New fungicide
- New paddy rice herbicide

Developing materials for:

- Secondary batteries
-Fuel cells

Creating next-generation display

Creating next-generation semis materials

Developing NIP-022 (platelet increasing agent)
Promoting research collaboration of antifungal drug

Upgrading cell culture materials to the global standardized product

Creating energy harvesting materials

## 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 | 2017E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 189.0 |
| 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 | 32.5 |
| 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 | 33.3 |
| 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 | 25.2 |
| 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 | 43.6 |
| 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\% | 17.2\% |
| 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\% | 15.0\% |
| EPS(\#/s hare) | 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 | 167.54 |
| Dividend( $¥ /$ share) | 11 | 11 | 15 | 20 | 20 | 22 | 24 | 24 | 24 | 26 | 30 | 36 | 44 | 52 | 60 |
| 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\% | 35.8\% |
| Share Repurchase | - | - | - | 4.7 | 5.0 | 8.0 | - | 2.8 | - | 5.0 | 5.0 | 6.0 | 9.0 | 9.0 | 5.0 |
| 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 |  |
| Net Assets | 69.2 | 78.5 | 92.0 | 98.1 | 100.1 | 95.7 | 106.5 | 112.4 | 119.6 | 126.7 | 137.8 | 151.3 | 156.9 | 163.7 |  |
| 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 |  |
| 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 |  |
| D/E Ratio | 78.0\% | 53.7\% | 38.5\% | 23.2\% | 27.2\% | 37.1\% | 26.0\% | 16.9\% | 9.3\% | 5.0\% | 4.1\% | 2.7\% | -1.6\% | -3.2\% |  |
| 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\% |  |
| 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 | 14.8 |
| 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 | 11.1 |
| 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 |
| 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\% | 9.1\% |

FY2011-2Q FY2013 Quarterly Sales by Segment ${ }_{(1)}$
(Former Segmentation)
( $¥$ billion)

|  | FY2011 Actual |  |  |  |  | FY2012 Actual |  |  |  |  | FY2013 Actual |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q |
| Chem | 9.4 | 9.2 | 9.0 | 9.3 | 36.9 | 9.1 | 8.8 | 8.9 | 9.8 | 36.6 | 9.5 | 9.1 |
| Fine | 3.0 | 2.9 | 2.4 | 2.6 | 10.9 | 2.9 | 2.7 | 2.4 | 3.2 | 11.2 | 2.9 | 3.1 |
| Basic | 6.4 | 6.3 | 6.6 | 6.7 | 26.0 | 6.2 | 6.1 | 6.5 | 6.6 | 25.4 | 6.6 | 6.0 |
| $\begin{array}{\|l\|} \hline \text { Performance } \\ \text { Materials } \\ \hline \end{array}$ | 8.7 | 8.3 | 8.6 | 8.4 | 34.0 | 9.5 | 9.3 | 9.5 | 9.1 | 37.4 | 10.3 | 10.3 |
| Agro | 7.1 | 5.4 | 3.7 | 17.6 | 33.8 | 8.3 | 5.1 | 4.6 | 17.4 | 35.4 | 9.9 | 6.1 |
| Pharma | 2.9 | 2.3 | 2.4 | 2.4 | 10.0 | 3.5 | 1.8 | 3.1 | 2.2 | 10.6 | 2.9 | 2.8 |
| Trading | 11.6 | 10.9 | 10.8 | 11.5 | 44.8 | 11.9 | 10.8 | 12.5 | 11.4 | 46.6 | 12.7 | 11.8 |
| Others | 4.6 | 4.7 | 4.3 | 6.4 | 20.0 | 3.9 | 6.3 | 4.6 | 6.4 | 21.2 | 4.6 | 5.1 |
| Adj ustment | -7.7 | -7.6 | -7.3 | -8.3 | -30.9 | -7.8 | -9.4 | -8.6 | -8.2 | -34.0 | -9.7 | -9.0 |
| Total | 36.6 | 33.2 | 31.5 | 47.3 | 148.6 | 38.4 | 32.7 | 34.6 | 48.1 | 153.8 | 40.2 | 36.2 |

(1) Including inter-segment sales/transfers

FY2011-2Q FY2013 Quarterly OP by Segment
(Former Segmentation)

|  | FY2011 Actual |  |  |  |  | FY2012 Actual |  |  |  |  | FY2013 Actual |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q |
| Chem | 1.0 | -0.2 | 0.6 | 0.2 | 1.6 | 0.8 | 0.0 | 0.4 | 0.7 | 1.9 | 0.8 | 0.0 |
| Performance <br> Materials | 1.7 | 0.9 | 1.1 | 1.1 | 4.8 | 2.1 | 2.0 | 1.6 | 1.5 | 7.2 | 2.1 | 2.3 |
| Agro | 1.2 | -0.4 | -1.5 | 5.1 | 4.4 | 1.6 | -0.3 | -1.1 | 4.8 | 5.0 | 2.3 | 0.1 |
| Pharma | 1.4 | 1.2 | 1.0 | 1.0 | 4.6 | 1.9 | 0.7 | 1.6 | 1.0 | 5.2 | 1.6 | 1.5 |
| Trading | 0.4 | 0.3 | 0.3 | 0.3 | 1.3 | 0.4 | 0.3 | 0.4 | 0.3 | 1.4 | 0.4 | 0.3 |
| Others | 0.0 | 0.0 | -0.1 | 0.4 | 0.3 | -0.1 | 0.2 | 0.1 | 0.5 | 0.7 | 0.1 | 0.1 |
| Adjustment | -0.5 | -0.4 | -0.4 | -0.2 | -1.5 | -0.4 | -0.6 | -0.5 | -0.4 | -1.9 | -0.6 | -0.4 |
| Total | 5.2 | 1.4 | 1.0 | 7.9 | 15.5 | 6.3 | 2.3 | 2.5 | 8.4 | 19.5 | 6.7 | 3.9 |
| OP Margin | 14.3\% | 4.0\% | 3.4\% | 16.6\% | 10.4\% | 16.5\% | 6.8\% | 7.5\% | 17.4\% | 12.7\% | 16.7\% | 10.6\% |

## FY2012-FY2016 Quarterly Sales by Segment (1) (New Segmentation)

(¥billion)

|  | FY2012 Actual |  |  |  |  | FY2013 Actual |  |  |  |  | FY2014 Actual |  |  |  |  | FY2015 Actual |  |  |  |  | FY2016 Actual |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total |
| Chem | 8.6 | 8.3 | 8.7 | 8.9 | 34.5 | 9.3 | 8.6 | 8.8 | 8.8 | 35.5 | 8.5 | 8.2 | 9.1 | 8.5 | 34.3 | 8.7 | 8.0 | 9.0 | 8.6 | 34.3 | 8.5 | 8.0 | 9.1 | 9.2 | 34.8 |
| Fine | 2.4 | 2.2 | 2.2 | 2.3 | 9.1 | 2.7 | 2.6 | 2.3 | 2.3 | 9.9 | 2.7 | 2.6 | 2.8 | 2.5 | 10.6 | 3.0 | 2.5 | 2.5 | 2.6 | 10.6 | 2.8 | 2.5 | 2.7 | 2.7 | 10.7 |
| Basic | 6.2 | 6.1 | 6.5 | 6.6 | 25.4 | 6.6 | 6.0 | 6.5 | 6.5 | 25.6 | 5.8 | 5.6 | 6.3 | 6.0 | 23.7 | 5.7 | 5.5 | 6.5 | 6.0 | 23.7 | 5.7 | 5.5 | 6.4 | 6.5 | 24.1 |
| Perf | 9.5 | 9.3 | 9.5 | 9.1 | 37.4 | 10.3 | 10.3 | 11.1 | 11.1 | 42.8 | 11.8 | 12.4 | 13.0 | 12.2 | 49.4 | 13.0 | 13.0 | 13.6 | 12.2 | 51.8 | 12.6 | 12.9 | 13.8 | 13.5 | 52.8 |
| Agro | 8.3 | 5.1 | 4.6 | 17.4 | 35.4 | 9.9 | 6.1 | 5.5 | 17.6 | 39.1 | 12.3 | 6.2 | 5.7 | 21.5 | 45.7 | 13.6 | 7.5 | 5.0 | 21.4 | 47.5 | 14.5 | 9.5 | 4.2 | 23.8 | 52.0 |
| Pharma | 4.0 | 2.3 | 3.3 | 3.1 | 12.7 | 3.1 | 3.3 | 3.0 | 2.2 | 11.6 | 2.5 | 2.5 | 2.1 | 1.7 | 8.8 | 2.1 | 1.6 | 3.5 | 1.5 | 8.7 | 2.2 | 1.5 | 2.4 | 1.9 | 8.0 |
| Trading | 11.9 | 10.8 | 12.5 | 11.4 | 46.6 | 12.7 | 11.8 | 12.8 | 13.4 | 50.7 | 14.1 | 13.2 | 14.1 | 13.0 | 54.4 | 14.7 | 12.8 | 14.9 | 13.2 | 55.6 | 14.4 | 13.2 | 13.7 | 13.9 | 55.2 |
| Others | 3.9 | 6.3 | 4.6 | 6.4 | 21.2 | 4.6 | 5.1 | 4.9 | 6.8 | 21.4 | 3.8 | 4.7 | 4.6 | 7.8 | 20.9 | 4.1 | 4.8 | 4.7 | 7.3 | 20.9 | 4.0 | 4.6 | 5.8 | 9.6 | 24.0 |
| Adjust | -7.8 | -9.4 | -8.6 | -8.2 | -34.0 | -9.7 | -9.0 | -8.9 | -9.8 | -37.4 | -10.5 | -9.8 | -10.7 | -11.3 | -42.3 | -11.0 | -9.2 | -11.0 | -10.7 | -41.9 | -11.1 | -10.3 | -11.4 | -13.7 | -46.5 |
| Total | 38.4 | 32.7 | 34.6 | 48.1 | 153.8 | 40.2 | 36.2 | 37.2 | 50.1 | 163.7 | 42.5 | 37.4 | 37.9 | 53.4 | 171.2 | 45.2 | 38.5 | 39.7 | 53.5 | 176.9 | 45.1 | 39.4 | 37.6 | 58.2 | 180.3 |

(1) Including inter-segment sales/transfers

## FY2012-FY2016 Quarterly OP by Segment

(New Segmentation)
(¥billion)

|  | FY2012 Actual |  |  |  |  | FY2013 Actual |  |  |  |  | FY2014 Actual |  |  |  |  | FY2015 Actual |  |  |  |  | FY2016 Actual |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total |
| Chem | 0.8 | 0.0 | 0.4 | 0.7 | 1.9 | 1.0 | -0.2 | 0.6 | 0.5 | 1.9 | 1.0 | -0.6 | 0.6 | 0.9 | 1.9 | 1.5 | -0.1 | 1.2 | 1.3 | 3.9 | 1.5 | -0.2 | 1.3 | 1.2 | 3.8 |
| Perf | 2.1 | 2.0 | 1.6 | 1.5 | 7.2 | 2.1 | 2.3 | 2.3 | 2.1 | 8.8 | 3.3 | 3.4 | 3.2 | 2.1 | 12.0 | 3.4 | 2.9 | 3.6 | 2.1 | 12.0 | 3.0 | 3.2 | 3.8 | 2.5 | 12.5 |
| Agro | 1.6 | -0.3 | -1.1 | 4.8 | 5.0 | 2.3 | 0.1 | -0.8 | 4.6 | 6.2 | 4.0 | 0.0 | -0.5 | 5.7 | 9.2 | 4.4 | 1.8 | -1.3 | 5.9 | 10.8 | 4.5 | 2.4 | -2.0 | 8.3 | 13.2 |
| Pharma | 1.9 | 0.7 | 1.6 | 1.0 | 5.2 | 1.4 | 1.7 | 1.4 | 0.4 | 4.9 | 0.8 | 0.8 | 0.4 | 0.3 | 2.3 | 0.4 | 0.2 | 1.6 | -0.2 | 2.0 | 0.6 | 0.0 | 0.8 | 0.3 | 1.7 |
| Trading | 0.4 | 0.3 | 0.4 | 0.3 | 1.4 | 0.4 | 0.3 | 0.4 | 0.4 | 1.5 | 0.5 | 0.4 | 0.5 | 0.3 | 1.7 | 0.5 | 0.4 | 0.5 | 0.4 | 1.8 | 0.4 | 0.4 | 0.5 | 0.4 | 1.7 |
| Others | -0.1 | 0.2 | 0.1 | 0.5 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | 0.8 | -0.1 | 0.0 | 0.1 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.2 | 0.8 | 1.0 |
| Adjust | -0.4 | -0.6 | -0.5 | -0.4 | -1.9 | -0.6 | -0.4 | -0.5 | -0.4 | -1.9 | -0.6 | -0.4 | -0.7 | -0.7 | -2.4 | -0.8 | -0.3 | -0.7 | -0.6 | -2.4 | -0.5 | -0.6 | -0.6 | -0.8 | -2.5 |
| Total | 6.3 | 2.3 | 2.5 | 8.4 | 19.5 | 6.7 | 3.9 | 3.5 | 8.1 | 22.2 | 8.9 | 3.6 | 3.6 | 9.2 | 25.3 | 9.4 | 4.9 | 4.9 | 9.4 | 28.6 | 9.5 | 5.2 | 4.0 | 12.7 | 31.4 |
| OPMargin | 16.5\% | 6.8\% | 7.5\% | 17.4\% | 12.7\% | 16.7\% | 10.6\% | 9.3\% | 16.4\% | 13.6\% | 21.0\% | 9.6\% | 9.6\% | 17.2\% | 14.8\% | 20.9\% | 12.6\% | 12.5\% | 17.6\% | 16.2\% | 21.1\% | 13.3\% | 10.6\% | 21.9\% | 17.4\% |

## Sales and Operating Profit by Segment

(¥billion)

|  |  | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 | FY2017E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \infty \\ & \frac{\mathscr{M}}{\otimes} \\ & \underset{\sim}{\mathbb{D}} \end{aligned}$ | Chem | 38.1 24.7\% | 36.9 24.8\% | 34.5 22.4\% | 35.5 21.7\% | 34.3 20.0\% | 34.3 19.4\% | 34.8 19.3\% | 35.5 18.8\% |
|  | Perf | 38.0 24.6\% | 34.0 22.9\% | 37.4 24.3\% | 42.8 26.1\% | 49.4 28.9\% | 51.8 29.3\% | 52.8 29.3\% | 57.6 30.5\% |
|  | Agro | 34.4 22.3\% | 33.8 22.7\% | 35.4 23.0\% | 39.1 23.9\% | 45.7 26.7\% | 47.5 26.9\% | 52.0 28.8\% | 56.3 29.8\% |
|  | Pharma | 9.6 6.2\% | 10.0 6.7\% | 12.7 8.3\% | 11.6 7.1\% | 8.8 5.1\% | 8.7 4.9\% | 8.0 4.4\% | 6.9 3.7\% |
|  | Trading | 44.1 28.6\% | 44.8 30.1\% | 46.6 30.3\% | 50.7 31.0\% | 54.4 31.8\% | 55.6 31.4\% | 55.2 30.6\% | 61.5 32.5\% |
|  | Others | 27.0 17.5\% | 20.0 13.5\% | 21.2 13.8\% | 21.4 13.1\% | 20.9 12.2\% | 20.9 11.8\% | 24.0 13.3\% | 21.7 11.5\% |
|  | Adj | -37.0-24.0\% | -30.9-20.8\% | -34.0-22.1\% | -37.4-22.8\% | -42.3-24.7\% | -41.9-23.7\% | -46.5-25.8\% | -50.5-26.7\% |
|  | Total | 154.2 100\% | 148.6 100\% | 153.8 100\% | 163.7 100\% | 171.2 100\% | 176.9 100\% | 180.3 100\% | $189.0 \quad 100$ |



| $\infty$ <br> 0 <br> 0 <br> 3 <br> 0 <br> 0 <br> 3 <br> 8 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 | 26.1 | 11.3\% |
| :---: | :---: | :---: |
|  | 48.0 | 20.7\% |
|  | 55.6 | 24.0\% |
|  | 10.2 | 4.4\% |
|  | 19.8 | 8.5\% |
|  | 10.7 | 4.6\% |
|  | 61.3 | 26.5\% |
|  | 231.7 | 100\% |


|  | Chem | 6.3\% | 4.3\% | 5.5\% | 5.4\% | 5.5\% | 11.4\% | 10.9\% | 10.1\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Perf | 20.8\% | 14.1\% | 19.3\% | 20.6\% | 24.3\% | 23.2\% | 23.7\% | 21.4\% |
|  | Agro | 14.0\% | 13.0\% | 14.1\% | 15.9\% | 20.1\% | 22.7\% | 25.4\% | 27.7\% |
|  | Pharma | 45.8\% | 46.0\% | 40.9\% | 42.2\% | 26.1\% | 23.0\% | 21.3\% | 13.0\% |
|  | Trading | 3.2\% | 2.9\% | 3.0\% | 3.0\% | 3.1\% | 3.2\% | 3.1\% | 3.3\% |
|  | Others | 3.7\% | 1.5\% | 3.3\% | 3.7\% | 2.9\% | 2.4\% | 4.2\% | 2.3\% |
|  | Total | 12.9\% | 10.4\% | 12.7\% | 13.6\% | 14.8\% | 16.2\% | 17.4\% | 17.2\% |


|  | 14.6\% |
| :---: | :---: |
|  | 26.0\% |
|  | 23.7\% |
|  | 16.7\% |
|  | 8.6\% |
|  | 9.3\% |
|  | 13.6\% |

FY2010-2011 : Former Segmentation, FY2012-2017E : New Segmentation

## New Segmentation (From October 1, 2013)

| Former Segmentation |  |  |
| :--- | :--- | :--- |
| Segment | Main Products |  |
| Chem | Fine <br> Chemicals | TEPIC <br> Melamine cyanurate <br> HI-LITE <br> Custom Chemicals |
|  | Basic <br> Chemicals | Melamine <br> Urea, AdBlue <br> Ammonia, Sulfuric acid, Nitric acid <br> High purity chemicals |


| Performance | SUNEVER, NHC, |
| :--- | :--- |
| Materials | ARC® (Bottom anti-reflective coating) |
|  | OptiStack® (Multi layer process materials) |
|  | Micro lens |
|  | SNOWTEX, Organo silica sol <br>  <br>  <br> Alumina sol, SUNCOLLOID <br> CELNAX |


| Agro | Agro | Herbicides <br> Insecticides <br> Fungicide |
| :--- | :--- | :--- |
|  | Active substance of Veterinary medical product |  |


| Pharma | LIVALO |
| :--- | :--- |


| Trading | Nissei Corporation |
| :--- | :--- |
| Others Nissan Butsuryu, Nissan Green \& Landscape, <br> Nissan Engineering, Fertilizer |  |


| Adjustment | R\&D expenses of Advanced Materials \& Planning Dept. <br> included |
| :--- | :--- |


| Adjustment | R\&D expenses of Advanced Materials \& Planning Dept. <br> included |
| :--- | :--- |

## Main Products by Segment (New Segmentation)

| Segment | Products | Main Applications |
| :---: | :---: | :---: |
| Chem | Fine Chemicals TEPIC Melamine cyanurate Environmental product | epoxy compound for LED sealants, solder resist, painting flame retardant <br> HI-LITE (chlorinated isocyanuric acid for sterilizing) |
|  | Basic Chemicals <br> Melamine <br> AdBlue <br> Ammonia, Sulfuric acid, Nitric acid High purity chemicals | 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 <br> ARC ${ }^{(8)}$ <br> OptiStack® <br> NHC <br> OPTIFOCUS <br> ELSOURCE | LCD alignment coating <br> bottom anti-reflective coating for semiconductors multi layer process material for semiconductors (Si-HM/SOC) <br> ${ }^{*} A R C ®$ and OptiStack ${ }^{\circledR}$ are registered trade mark of Brewer Science, Inc. protective coating for touch panel <br> microlens material for image sensor application <br> hole injection layer materials for OLED |
|  | Inorganic Materials SNOWTEX <br> Organo silica sol Alumina sol SUNCOLLOID CELNAX | water dispersed colloidal silica sol for polishing silicon wafers, special steel sheets, NOx reduction catalyst, electronic printing materials film coating, antistatic interference shielding, electronic printing materials automotive catalyst, electronic printing materials high refractive sol for lens antistatic sol for film |
| Agro | $\rightarrow$ Herbicide <br> TARGA <br> PERMIT <br> SIRIUS, ALTAIR <br> ROUNDUP <br> Insecticide <br> STARMITE, SANMITE, MITOKOHNE <br> Fungicide <br> LEIMAY/ORACLE <br> PULSOR, IKARUGA, GREATAM <br> (THIFLUZAMIDE) <br> Animal health products <br> Fluralaner (BRAVECTO) | soybean, rapeseed, sugarbeet <br> corn, sugarcane, rice <br> paddy rice <br> non-selective herbicide for orchard, noncrop land <br> fruits, tea, vegetables <br> vegetables, potato, fruits <br> potato, grape, turf <br> active substance of BRAVECTO (veterinary medical product for dogs) |
| Pharma | LIVALO <br> Custom Chemicals | Anti-cholesterol drug custom manufacturing and process 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.

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.


[^0]:    (3) Excluding Fluralaner

[^1]:    - Share Repurchase Amount (left axis) $\quad$ Total Dividend Amount (left axis) - - Total Payout Ratio (right axis)

[^2]:    (1) Including inter-segment sales/transfers

