

## November 4, 2016

## Presentation for Investors

## 1H FY2016 (April 1 - September 30, 2016) Financial Results

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Translation of presentation materials for the investor meeting held in Tokyo on November 4, 2016

NISSAN CHEMICAL INDUSTRIES, LTD.

1H FY2016 PL
(¥billion)

|  | $\begin{gathered} \text { 1H } \\ \text { FY2015 } \end{gathered}$ | $\begin{gathered} \text { 1H } \\ \text { FY2016 } \end{gathered}$ | Change | Change <br> (\%) | 1H FY2016 Outlook as of May 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 83.7 | Record 84.5 | +0.8 | +1.0\% | 86.0 |
| Operating Profit | 14.3 | Record 14.7 | +0.4 | +3.3\% | 13.3 |
| Non-Operating Income/Expenses | 0.8 | -0.5 | -1.3 | -160.4\% | 0.0 |
| Ordinary Income | 15.1 | 14.2 | -0.9 | -6.1\% | 13.3 |
| Extraordinary Income/Loss | 0.0 | 0.0 | +0.0 | - | 0.0 |
| Net Income (1) | 11.1 | 10.6 | -0.5 | -4.9\% | 10.2 |
| EBITDA (2) | 18.7 | 18.8 | +0.1 | +0.5\% | 17.6 |
| EPS ( $~+~$ | 71.21 | 69.00 | -2.21 | -3.1\% | 66.56 |
| Dividend ( $¥ /$ share) | 18 | 24 | +6 |  | 24 |
| Total amount of Dividend | 2.8 | 3.7 | +0.9 |  | 3.7 |
| OP Margin | 17.0\% | 17.4\% | +0.4\% |  | 15.5\% |
| FX Rate ( $¥ 1$ ) | 122 | 105 |  |  | 115 |
| Naphtha ( $¥ / \mathrm{KL}$ ) (3) | 48,000 | 31,400 |  |  | 35,400 |


| Comprehensive Income | 9.6 | 7.4 |
| :--- | ---: | ---: |

(1) Net income $=$ Profit Attributable to Owners of Parent
(2) EBITDA $=$ Operating Profit + Depreciation
(3) Based on Trade Statistics of Japan Ministry of Finance (1H FY2016: Based on actual April-September data)

## 1H FY2016 Review

```
<vs.1H FY2015>
(Sales) Up #0.8 billion (+1%) (+) Agrochemicals, Trading
(\pm) Pharmaceuticals
(-) Chemicals, Performance Materials
(+) Agrochemicals
(\pm) Pharmaceuticals
(-) Chemicals, Performance Materials, Trading
(Non-Operating Income
    and Expenses) DDown ¥1.3 billion
    (Ordinary Income) &Down ¥0.9 billion (-6%)
            (Net Income) &Down ¥0.5 billion (-5%)
                    (EPS) Down ¥2.21 (-3%)
                    Sales, OP renewed the highest results for 1H
```

<vs. 1H FY2016 Outlook as of May 2016>

| (Sales) | Down | $¥ 1.5$ billion | (+) Agrochemicals, Pharmaceuticals <br> (-) Chemicals, Performance Materials, Trading |
| :---: | :---: | :---: | :---: |
| (OP) | $\checkmark$ Up | $¥ 1.4$ billion | (+) Performance Materials, Agrochemicals, Pharmaceuticals <br> $(-)$ Chemicals, Trading |
| (Ordinary Income) | $\checkmark$ Up | $¥ 0.9$ billion |  |
| (Net Income) | $\checkmark$ Up | $¥ 0.4$ billion |  |
| (EPS) | $\checkmark$ Up | ¥2.44 |  |

<Shareholders Return>
(Dividend) $>1 \mathrm{H} ¥ 24 /$ share, $2 \mathrm{H} ¥ 26 /$ share
( 1 H up $¥ 6,2 \mathrm{H}$ flat vs. FY2015)
(1H, 2H flat vs. FY2016E as of May 2016)
(Share Repurchase) $\geqslant ¥ 5.0$ billion, 2 million shares completed in August 2016
(Cancelled 1 million shares in May 2016, 1 million shares in August 2016)

## 1H FY2016

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

|  | 1 H <br> FY2015 | 1 H <br> FY2016 | Change |
| :--- | ---: | ---: | ---: |
| Non-Operating Income | 1.57 | 0.89 | -0.68 |
| Interest income, dividend income | 0.25 | 0.30 | +0.05 |
| Share of profit of entities accounted for using equitymethod | 0.45 | 0.15 | -0.30 |
| Foreign exchange gains | 0.13 | 0.00 | -0.13 |
| Others | 0.74 | 0.44 | -0.30 |
| Non-Operating Expenses | 0.71 | 1.41 | +0.70 |
| Interest expense | 0.11 | 0.09 | -0.02 |
| Foreign exchange losses | 0.00 | 0.63 | +0.63 |
| Loss on disposal of fixed assets | 0.13 | 0.26 | +0.13 |
| Others | 0.47 | 0.43 | -0.04 |
| Extraordinary Income |  | - | - |
| Extraordinary Loss | - | - | - |
| Comprehensive Income | 9.56 | 7.44 | -2.12 |
| Net income | 11.15 | 10.60 | -0.55 |
| Non-controlling interests | 0.10 | 0.07 | -0.03 |
| Unrealized gains or losses on investment securities | -1.24 | -2.32 | -1.08 |
| Foreign currency translation adjustments | -0.41 | -0.87 | -0.46 |
| Remeasurements of defined benefit plans | -0.04 | -0.04 | +0.00 |

## 1H FY2016 Cash Flow

(¥billion)

|  | $\begin{gathered} \text { 1H } \\ \text { FY2015 } \end{gathered}$ | $\begin{gathered} \text { 1H } \\ \text { FY2016 } \end{gathered}$ |
| :---: | :---: | :---: |
| CF from operating activities | 27.6 | 29.4 |
| Profit before income tax | 15.1 | 14.2 |
| Depreciation \& amortization | 4.4 | 4.1 |
| Tax | -4.0 | -4.9 |
| Working capital, others | 12.1 | 16.0 |
| CF from investing activities | -4.7 | -4.5 |
| Purchase of PPE | -4.3 | -5.3 |
| Others | -0.4 | 0.8 |
| CF from financing activities | -27.3 | -26.6 |
| Dividends paid | -3.5 | -4.0 |
| Borrowings | -17.7 | -17.5 |
| Share repurchase | -6.0 | -5.0 |
| Others | -0.1 | -0.1 |
| Effect of FX rate changes on cash \& cash equivalents | -0.2 | -0.3 |
| Change in cash \& cash equivalents | -4.6 | -2.0 |
| Cash \& cash equivalents at end of period | 26.9 | 33.3 |

## Balance Sheets as of September 30, 2016

(¥billion)

|  | $2015 / 9$ | $2016 / 3$ <br> (A) | $2016 / 9$ <br> (B) | Change <br> (B) - (A) |
| :--- | ---: | ---: | ---: | ---: |
| Current assets | 115.9 | 142.2 | 120.4 | -21.8 |
| Cash | 26.9 | 35.3 | 33.3 | -2.0 |
| Accounts <br> receivable | 43.4 | 57.6 | 43.6 | -14.0 |
| Inventories | 38.1 | 38.5 | 36.8 | -1.7 |
| Others | 7.5 | 10.8 | 6.7 | -4.1 |
| Fixed assets | 89.6 | 86.0 | 84.3 | -1.7 |
| Total PPE | 47.0 | 47.5 | 48.6 | +1.1 |
| Intangible assets | 5.0 | 0.9 | 1.5 | +0.6 |
| Investment <br> securities | 33.5 | 33.3 | 28.7 | -4.6 |
| Others | 4.1 | 4.3 | 5.5 | +1.2 |
| Total assets | 205.5 | 228.2 | 204.7 | -23.5 |


|  | 2015/9 | $\begin{gathered} 2016 / 3 \\ (A) \end{gathered}$ | 2016/9 <br> (B) | Change (B) - (A) |
| :---: | :---: | :---: | :---: | :---: |
| Liabilities | 54.7 | 71.3 | 49.7 | -21.6 |
| Accounts payable | 13.6 | 15.4 | 13.1 | -2.3 |
| Borrowings | 17.4 | 33.1 | 15.5 | -17.6 |
| Others | 23.7 | 22.8 | 21.1 | -1.7 |
| Net assets | 150.8 | 156.9 | 155.0 | -1.9 |
| Shareholders' equity | 138.8 | 144.2 | 145.6 | +1.4 |
| Unrealized gains or losses on inv estment securities | 9.4 | 10.5 | 8.2 | -2.3 |
| Foreign currency translation adjustments | 0.5 | 0.2 | -0.7 | -0.9 |
| Non-controlling interests | 1.5 | 1.5 | 1.5 | +0.0 |
| Remeasurements of defined benefit plans | 0.6 | 0.5 | 0.4 | -0.1 |
| Total liabilities \& Net assets | 205.5 | 228.2 | 204.7 | -23.5 |
| - Equity Ratio $72.7 \%$ <br> - D/E Ratio (1) $-6.9 \%$ <br> - Change in shareholders' equity  |  | 68.1\% 75.0\% |  |  |
|  |  | - ${ }^{-1.6 \%}$ | -12.2\% |  |
|  |  |  |  |

= Net Income 10.6 - Dividend and others 9.2
(1)D/E Ratio $=($ Borrowings - Cash $) /$ Shareholders' equity
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FY2016 Outlook

|  | FY2015 Actual |  |  | FY2016 Outlook as of Nov. 2016 |  |  | Change |  |  | Change (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2 H | Total | 1H <br> Actual | 2 H | Total | 1H <br> Actual | 2 H | Total | Total |
| Sales | 83.7 | 93.2 | 176.9 | 84.5 | 96.0 | Record 180.5 | +0.8 | +2.8 | +3.6 | +2\% |
| Operating Profit | 14.3 | 14.3 | 28.6 | 14.7 | 15.2 | Record 29.9 | +0.4 | +0.9 | +1.3 | +5\% |
| Non-Operating Income/Expenses | 0.8 | 0.1 | 0.9 | -0.5 | 0.3 | -0.2 | -1.3 | +0.2 | -1.1 | -122\% |
| Ordinary Income | 15.1 | 14.4 | 29.5 | 14.2 | 15.5 | Record 29.7 | -0.9 | +1.1 | +0.2 | +1\% |
| Extraordinary Income/Loss (1) | 0.0 | -1.2 | -1.2 | 0.0 | 0.0 | 0.0 | +0.0 | +1.2 | +1.2 | - |
| Net Income (2) | 11.1 | 11.3 | 22.4 | 10.6 | 11.9 | Record 22.5 | -0.5 | +0.6 | +0.1 | +1\% |
| EBITD A (3) | 18.7 | 19.6 | 38.3 | 18.8 | 20.8 | 39.6 | +0.1 | +1.2 | +1.3 | +3\% |
| EPS (¥/share) (4) | 71.21 | 72.16 | 143.37 | 69.00 | 77.88 | 146.88 | -2.21 | +5.72 | +3.51 | +2\% |
| Dividend ( $\ddagger /$ share) | 18 | 26 | 44 | 24 | 26 | 50 | +6 | +0 | +6 |  |
| Total amount of Dividend (4) | 2.8 | 4.0 | 6.8 | 3.7 | 3.9 | 7.6 | +0.9 | -0.1 | +0.8 |  |
| OP Margin | 17.0\% | 15.4\% | 16.2\% | 17.4\% | 15.8\% | 16.6\% | +0.4\% | +0.4\% | +0.4\% |  |
| ROE (4) | - | - | 14.6\% | - | - | 14.2\% |  |  | -0.4\% |  |
| FX Rate ( $¥ 1$ ) | 122 | 118 |  | 105 | 105 |  |  |  |  |  |
| Naphtha ( $¥ / \mathrm{kl}$ ) | 48,000 | 37,700 |  | 31,400 | 34,400 |  |  |  |  |  |
| Comprehensive Income | 9.6 | 11.9 | 21.5 | 7.4 |  |  |  |  |  |  |

(¥billion)

| FY2016 Outlook <br> as of May 2016 |  |  |
| ---: | ---: | ---: |
| 1 H | 2 H | Total |
| 86.0 | 101.5 | 187.5 |
| 13.3 | 16.4 | 29.7 |
| 0.0 | 0.7 | 0.7 |
| 13.3 | 17.1 | 30.4 |
| 0.0 | 0.0 | 0.0 |
| 10.2 | 12.8 | 23.0 |
| 17.6 | 22.1 | 39.7 |
| 66.56 | 83.80 | 150.36 |
| 24 | 26 | 50 |
| 3.7 | 3.9 | 7.6 |
| $15.5 \%$ | $16.2 \%$ | $15.8 \%$ |
|  | - | $14.3 \%$ |
| 115 | 115 |  |
| 35,400 | 35,400 |  |

(1) 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
(2) Net income = Profit Attributable to Owners of Parent
(3) EBITDA = Operating Profit + Depreciation
(4) FY2016 Outlook including effects of FY2016 share repurchase program ended on August, 2016

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 Outlook

```
<vs. 2H FY2015> (Sales) <Up #2.8 billion (+3%) (+) Performance Materials, Agrochemicals, Trading
                                    (\pm) Chemicals
                                    (-) Pharmaceuticals
                                    (+) Agrochemicals, Trading
                                    (-) Chemicals, Performance Materials, Pharmaceuticals
    (Non-Operating Income
            and Expenses)
                            * Up
                            Up
                            #0.9 billion (+6%)
                            #0.2 billion
    (Ordinary Income) &Up ¥1.1 billion (+8%)
            (Net Income) UP #0.6 billion (+6%)
                            (EPS) \Up #5.72 (+7.9%)
<vs. 2H FY2016 Outlook as of May 2016>
            (Sales) Down ¥5.5 billion
                            (-) Chemicals, Performance Materials, Agrochemicals,
                        Pharmaceuticals, Trading
                            (OP) Down ¥1.2 billion
(+) Agrochemicals, Trading
(-) Chemicals, Performance Materials, Pharmaceuticals
<Shareholders Return>
(Dividend) \diamond1H ¥24/share, 2H ¥26/share
                                    (1H up ¥6, 2H flat vs. FY2015)
                                    (1H, 2H flat vs. FY2016E as of May 2016)
```


## Full Year FY2016 Outlook

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<vs. FY2015> (Sales) <Up #3.6 billion (+2%) (+) Performance Materials, Agrochemicals, Trading
    (OP)}\langleU
(Non-Operating Income
    and Expenses) Down ¥1.1 billion
    (Ordinary Income) <Up #0.2 billion (+1%)
            (Net Income) Up #0.1 billion (+1%)
                    (EPS) Up #3.51 (+2%)
                (ROE) 14.2% (-0.4%)
```

Sales, OP, Ordinary Income, Net Income expected to renew the highest results
<vs. FY2016 Outlook as of May 2016>

| (Sales) Down | $¥ 7.0$ billion |
| ---: | :--- |
| $(O P) \diamond$ Up | $¥ 0.2$ billion |


| (Ordinary Income) | Down | $¥ 0.7$ billion <br> (Net Income) Down |
| ---: | :--- | :--- |
| ¥0.5 billion |  |  |
| $(E P S)$ | Down | $¥ 3.48$ |
| $($ ROE $)$ | $14.2 \%$ | $(-0.1 \%)$ |

(+) Agrochemicals, Pharmaceuticals
(-) Chemicals, Performance Materials, Trading
(+) Agrochemicals
$( \pm)$ Performance Materials, Pharmaceuticals, Trading
( - ) Chemicals
<Shareholders Return>
(Dividend) $\boldsymbol{1 H} ¥ 24 /$ share, $2 \mathrm{H} ¥ 26 /$ share
( 1 H up $¥ 6,2 \mathrm{H}$ flat vs. FY2015)
(1H, 2H flat vs. FY2016E as of May 2016)
(Share Repurchase)
$\geqslant ¥ 5.0$ billion, 2 million shares completed in August 2016
(Cancelled 1 million shares in May 2016, 1 million shares in August 2016)
(Total Shareholders
Return Target) $>70 \%$ ( $56 \%$ based on the above Share Repurchase and Dividend)

FY2016 Outlook
Non-Operating Income/Expenses, Extraordinary Income/Loss

|  | FY2015 <br> Actual | FY2016 Outlook as of Nov. 2016 | Change | (¥billion) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | FY2016 Outlook as of May. 2016 |
| Non-Operating Income | 2.48 | 1.97 | -0.51 | 1.84 |
| Interest income, dividend income | 0.60 | 0.63 | +0.03 | 0.59 |
| Share of profit of entities accounted for using equitymethod | 0.86 | 0.60 | -0.26 | 0.70 |
| Foreign exchange gains | 0.00 | 0.00 | +0.00 | 0.00 |
| Others | 1.02 | 0.74 | -0.28 | 0.55 |
| Non-Operating Expenses | 1.56 | 2.21 | +0.65 | 1.18 |
| Interest expense | 0.19 | 0.16 | -0.03 | 0.20 |
| Loss on disposal of fixed assets | 0.32 | 0.73 | +0.41 | 0.64 |
| Loss on foreign exchange | 0.17 | 0.63 | +0.46 | 0.00 |
| Others | 0.88 | 0.69 | -0.19 | 0.34 |
| Extraordinary Income | 3.08 | 0.00 | -3.08 | 0.00 |
| Extraordinary Loss | 4.25 | 0.00 | -4.25 | 0.00 |

## FY2016 Cash Flow Outlook

|  | FY2015 <br> Actual | FY2016 Outlook <br> as of Nov. 2016 |
| :--- | ---: | ---: |
| CF from operating activities | 30.0 | 31.4 |
| Profit before income tax | 28.4 | 29.7 |
| Gain on sales of investment securities | -3.0 | -0.2 |
| Impairment loss | 3.9 | 0.0 |
| Provision for loss on business of associates | 0.3 | 0.0 |
| Depreciation \& Amortization | 9.7 | 9.7 |
| Tax | -7.4 | -8.9 |
| Working capital, others | -1.9 | 1.1 |
| CF from investing activities | -8.4 | -16.6 |
| Purchase of PPE | -9.1 | -17.6 |
| Purchase and sales of investment securities | 1.9 | 2.7 |
| Others | -1.2 | -1.7 |
| CF from financing activities | -17.3 | -14.8 |
| Dividends paid | -6.3 | -7.7 |
| Borrowings | -1.9 | -2.0 |
| Share repurchase | -9.0 | -5.0 |
| Others | -0.1 | -0.1 |
| Effect of FX rate changes on cash \& cash equivalents | -0.3 | 0.0 |
| Change in cash \& cash equivalents | 4.0 | 0.0 |
| Cash \& cash equivalents at end of period | 35.3 | 35.3 |


| FY2016 Outlook <br> as of May 2016 |
| ---: |
| 30.9 |
| 30.3 |
| 0.0 |
| 0.0 |
| 0.0 |
| 10.0 |
| -9.2 |
| -0.2 |
| -14.4 |
| -17.1 |
| 2.7 |
| 0.0 |
| -14.7 |
| -7.7 |
| -2.0 |
| -5.0 |
| 0.0 |
| 0.0 |
| 1.8 |
| 37.1 |

(Blank)

## FY2016 Sales Outlook by Segment(1)

(¥billion)

|  | FY2015 Actual |  |  | FY2016 Outlook as of Nov. 2016 |  |  | Change |  |  | Change (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 2H | Total | $\mathbf{1 H}$ <br> Actual | 2H | Total | 1H <br> Actual | 2H | Total |
| Chem | 16.7 | 17.6 | 34.3 | 16.5 | 17.6 | 34.1 | -0.2 | +0.0 | -0.2 | -1\% | -0\% | -1\% |
| Fine | 5.5 | 5.1 | 10.6 | 5.3 | 5.0 | 10.3 | -0.2 | -0.1 | -0.3 | -3\% | -3\% | -3\% |
| Basic | 11.2 | 12.5 | 23.7 | 11.2 | 12.6 | 23.8 | +0.0 | +0.1 | +0.1 | -0\% | +1\% | +0\% |
| Performance | 26.0 | 25.8 | 51.8 | 25.5 | 27.0 | 52.5 | -0.5 | +1.2 | +0.7 | -2\% | +5\% | +1\% |
| Agro | 21.1 | 26.4 | 47.5 | 24.0 | 28.2 | 52.2 | +2.9 | +1.8 | +4.7 | +13\% | +7\% | +10\% |
| Pharma | 3.7 | 5.0 | 8.7 | 3.7 | 3.9 | 7.6 | +0.0 | -1.1 | -1.1 | -1\% | -21\% | -12\% |
| Trading | 27.5 | 28.1 | 55.6 | 27.6 | 30.6 | 58.2 | +0.1 | +2.5 | +2.6 | +0\% | +9\% | +5\% |
| Others | 8.9 | 12.0 | 20.9 | 8.6 | 14.8 | 23.4 | -0.3 | +2.8 | +2.5 | -3\% | +23\% | +12\% |
| Adjustment | -20.2 | -21.7 | -41.9 | -21.4 | -26.1 | -47.5 | -1.2 | -4.4 | -5.6 | - | - | - |
| Total | 83.7 | 93.2 | 176.9 | 84.5 | 96.0 | 180.5 | +0.8 | +2.8 | +3.6 | +1\% | +3\% | +2\% |


| FY2016 Outlook <br> as of May 2016 |  |  |
| ---: | ---: | ---: |
| 1 H | 2 H | Total |
| 17.5 | 17.9 | 35.4 |
| 5.7 | 5.2 | 10.9 |
| 11.8 | 12.7 | 24.5 |
| 26.6 | 28.7 | 55.3 |
| 22.3 | 29.8 | 52.1 |
| 3.4 | 4.0 | 7.4 |
| 28.8 | 31.2 | 60.0 |
| 8.8 | 14.4 | 23.2 |
| -21.4 | -24.5 | -45.9 |
| 86.0 | 101.5 | 187.5 |

(1) Including inter-segment sales/transfers

## FY2016 OP Outlook by Segment

(¥billion)

|  | FY2015 Actual |  |  | FY2016 Outlook as of Nov. 2016 |  |  | Change |  |  | Change (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | $\begin{array}{\|c} \hline \mathbf{1 H} \\ \text { Actual } \end{array}$ | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 2H | Total |
| Chem | 1.4 | 2.5 | 3.9 | 1.3 | 2.4 | 3.7 | -0.1 | -0.1 | -0.2 | -6\% | -6\% | -6\% |
| Performance | 6.3 | 5.7 | 12.0 | 6.2 | 5.5 | 11.7 | -0.1 | -0.2 | -0.3 | -3\% | -3\% | -3\% |
| Agro | 6.2 | 4.6 | 10.8 | 6.9 | 5.9 | 12.8 | +0.7 | +1.3 | +2.0 | +10\% | +29\% | +18\% |
| Pharma | 0.6 | 1.4 | 2.0 | 0.6 | 0.8 | 1.4 | +0.0 | -0.6 | -0.6 | +0\% | -44\% | -30\% |
| Trading | 0.9 | 0.9 | 1.8 | 0.8 | 1.1 | 1.9 | -0.1 | +0.2 | +0.1 | -2\% | +11\% | +5\% |
| Others | 0.0 | 0.5 | 0.5 | 0.0 | 0.7 | 0.7 | +0.0 | +0.2 | +0.2 | -143\% | +36\% | +47\% |
| Adjustment | -1.1 | -1.3 | -2.4 | -1.1 | -1.2 | -2.3 | +0.0 | +0.1 | +0.1 |  |  |  |
| Total | 14.3 | 14.3 | 28.6 | 14.7 | 15.2 | 29.9 | +0.4 | +0.9 | +1.3 | +3\% | +6\% | +5\% |


| FY2016 Outlook <br> as of May 2016 |  |  |
| :---: | ---: | ---: |
| 1 H | 2 H | Total |
| 1.6 | 3.3 | 4.9 |
| 5.8 | 5.9 | 11.7 |
| 5.8 | 5.5 | 11.3 |
| 0.4 | 1.0 | 1.4 |
| 0.9 | 1.0 | 1.9 |
| 0.0 | 0.8 | 0.8 |
| -1.2 | -1.1 | -2.3 |
| 13.3 | 16.4 | 29.7 |

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

- Core products of Basic Chemicals : Ammonia related products and sulfuric acid related products

FY2015 ammonia domestic production capacity share 11\%, high percentage of self-consumption of ammonia


## Chemicals - (B) 1H FY2016 Sales Distribution



Fine Chemicals 32\%
Basic Chemicals 68\%

Fine Chemicals
Sales $¥ 5.3$ billion


Main Products 73\%
Others
27\%
TEPIC
Environmental related products
Others


| Main Products | $50 \%$ |
| :--- | :--- |
| Others | $50 \%$ |

< Main Products >

- Melamine
- TEPIC

Environmental related products

- High purity sulfuric acid

UrealAdBlue
Others

Basic Chemicals
Sales $¥ 11.2$ billion

Main Products 39\%
Others
61\%

- Melamine
- High purity sulfuric acid Urea/AdBlue
Others


## Chemicals - (C) Growing Products


(1) Marginal Profit : Sales - Variable Cost

## Chemicals - (D-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: ¥0.2-0.3billion/year Contents: Utility and manpower savings

- Ammonia Feedstock Change Project

See Page D-2

## Chemicals - (D-2) <br> 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 - (D-3)

## Ammonia Feedstock Change Project



## Chemicals - (E) Fine Chemicals Subsegment

## 1H FY2016 Sales Review

## <vs. 1H FY2015>

- TEPIC
: Sales for general applications down due to strong yen, sales for electronic materials up
- Environmental related products
: Domestic sales up, export sales down
<vs. 1H FY2016 Outlook as of May 2016>
- TEPIC
: Both applications below target
- Environmental related products
: Domestic sales above target, export sales below target


## 2H FY2016 Sales Outlook

<vs. 2H FY2015>
$\begin{array}{ll}\text { TEPIC } & \text { : Sales for general applications up, sales for electronic materials down } \\ \text { Environmental related products } & \text { : Domestic sales up, export sales flat }\end{array}$
<vs. 2H FY2016 Outlook as of May 2016>

- TEPIC
- Environmental related products
: Sales for general applications below target, sales for electronic materials in line with target
: Domestic and export sales below target

|  |  |  |  |  | ales | OY C | ange |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Main Products | FY2 | 15 Act |  | $\begin{aligned} & \text { FY2 } \\ & \text { as } 0 \end{aligned}$ | $\begin{aligned} & 6 \text { Out } \\ & \text { May } 2 \end{aligned}$ |  | $\begin{aligned} & \text { FY2 } \\ & \text { as } 0 \end{aligned}$ | $\begin{aligned} & 6 \text { Out } \\ & \text { Nov. } \end{aligned}$ | $\begin{aligned} & \text { look } \\ & 2016 \end{aligned}$ |
|  |  | 1H | 2H | Total | 1H | 2H | Total | $\begin{gathered} \hline \mathbf{1 H} \\ \text { Actual } \end{gathered}$ | 2H | Total |
| Total Subsegment |  | +4\% | -3\% | +1\% | +4\% | +3\% | +3\% | -3\% | -3\% | -3\% |
| TEPIC | Epoxy compound for : <br> (A) electronic materials (solder resist, LED sealant), <br> (B) general applications such as powder coating agent for paint <br> - World largest producer | -8\% | -17\% | -12\% | +9\% | +9\% | +9\% | -9\% | +2\% | -4\% |
| Environmental related products | - HI-LITE : made from chlorinated isocyanuric acid, used for sterilizing, disinfectant for swimming pool as well as water purification tank | +18\% | +9\% | +14\% | +0\% | +0\% | +4\% | +2\% | +5\% | +3\% |

Two products account for 72\% of total consolidated subsegment sales (FY2015)

## Chemicals - (F) Basic Chemicals Subsegment <br> 1H FY2016 Sales Review

## <vs. 1H FY2015>

| * Melamine | : Domestic sales down, export sales up |
| :--- | :--- |
| *UrealAdBlue | Urea flat, AdBlue up |
| High purity sulfuric acid | : Flat |

<vs. 1H FY2016 Outlook as of May 2016>

| Melamine | : Domestic sales below target, export sal |
| :---: | :---: |
| - Urea/AdBlue | : Both urea and AdBlue below target |
| -High purity sulfuric acid | : Below target due to lower consumption |
| 2H FY2016 Sales Outlook |  |
| <vs. 2H FY2015> |  |
| - Melamine | : Both domestic and export sales down |
| - Urea/AdBlue | : Urea down, AdBlue up |
| -High purity sulfuric acid | : Up |

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

| \& Melamine | : Domestic sales below target, export sales above target |
| :--- | :--- |
| \& UrealAdBlue | : Both urea and AdBlue in line with target |
| High purity sulfuric acid | : Below target |


| Main Products |  | Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | FY2015 Actual |  |  | FY2016 Outlook as of May 2016 |  |  | FY2016 Outlook as of Nov. 2016 |  |  |
|  |  | 1H | 2H | Total | 1H | 2H | Total | $\begin{gathered} 1 \mathrm{H} \\ \text { Actual } \end{gathered}$ | 2H | Total |
| Total Subsegment |  | -2\% | +2\% | +0\% | +5\% | +2\% | +3\% | -0\% | +1\% | +0\% |
| Melamine | Mainly used as adhesive agent for particle board, medium density fiberboard, plyw ood | +11\% | +15\% | +13\% | -1\% | -11\% | -6\% | +1\% | -7\% | -3\% |
| UrealAdBlue | Urea: mainly used for urea formaldehyde resin, adhesive agent <br> - AdBlue: solution of urea in demineralised water for diesel trucks to reduce Nox | +7\% | +13\% | +10\% | +11\% | +2\% | +7\% | +2\% | +1\% | +1\% |
| High purity sulfuric acid | -Used to clean semiconductors <br> Largest in domestic market | -12\% | -3\% | -8\% | +5\% | +8\% | +7\% | -1\% | +4\% | +2\% |


(Fine Chemicals)
Environmental related products sales up, TEPIC sales down

- Inventory adjustment cost up
$\checkmark$ Sales down, OP down
(Basic Chemicals)
Sales of melamine and urea including AdBlue up, high purity sulfuric acid down
- Fuel cost down

Sales flat, OP up
(Total Segment)
Sales down $¥ 0.2$ billion, OP down $¥ 0.1$ billion
<vs. 1H FY2016 Outlook as of May 2016>
(Fine Chemicals)
Environmental related products sales above target

- TEPIC sales below target
(Fine Chemicals)
$\checkmark$ Environmental related products sales up, TEPIC sales up
- Fuel cost down
$\checkmark$ Sales down, OP up
(Basic Chemicals)
- Sales of melamine down
- Sales of urea including AdBlue and high purity sulfuric acid up

Sales up, OP down
(Total Segment)
$\checkmark$ Sales flat, OP down $¥ 0.1$ billion

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

(Fine Chemicals)

- Sales of environmental related products and TEPIC below target
- Strong yen
- Inventory adjustment cost up
- Sales below target, OP below target
(Basic Chemicals)
Sales of melamine above target
- Sales of urea including AdBlue in line with target

Sales of high purity sulfuric below target

- Strong yen
- Inventory adjustment cost up
- Sales below target, OP below target
(Total Segment)
Sales down $¥ 0.3$ billion, OP down $¥ 0.9$ billion
(Blank)


## Performance Materials - (A) Display Materials

## 1H FY2016 Sales Review

<vs. 1H FY2015>

- SUNEVER up 4\%
- IPS/FFS up, TN and VA down
-Photo-alignment IPS SUNEVER sales increasing substantially
<vs. 1H FY2016 Outlook as of May 2016>
$\checkmark$ SUNEVER above target
- IPS/FFS above target, TN and VA below target

2H FY2016 Sales Outlook
<vs. 2H FY2015> SUNEVER up +2\%

- IPSIFFS and VA up, TN down
- Photo-alignment IPS SUNEVER sales increasing substantially
<vs. 2H FY2016 Outlook as of May 2016>
$\checkmark$ SUNEVER below target
TN, VA and IPS/FFS below target

| Main Products | Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2015 Actual |  |  | FY2016 Outlook as of May 2016 |  |  | FY2016 Outlook as of Nov. 2016 |  |  |
|  | 1H | 2H | Total | 1H | 2H | Total | 1H <br> Actual | 2H | Total |
| Total SUNEVER | +18\% | +9\% | +13\% | +3\% | +7\% | +5\% | +4\% | +2\% | +3\% |
| Other Display Materials (1) | +1\% | +15\% | +7\% | +80\% | +189\% | +136\% | -3\% | +35\% | +16\% |
| Total Display Materials | +18\% | +9\% | +13\% | +4\% | +9\% | +7\% | +4\% | +3\% | +3\% |

(1) NHC(protective coating for touch panels), 3D TV materials, Elsource (hole injection layer materials for OLED), etc

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

## Performance Materials - (B) Semis Materials

1H FY2016 Sales Review
<vs. 1H FY2015>

- Total Semis Materials sales down -6\%
<vs. 1H FY2016 Outlook as of May 2016>
Total Semis Materials sales below target
2H FY2016 Sales Outlook
<vs. 2H FY2015>
$\checkmark$ Total Semis Materials sales up +11\%
<vs. 2H FY2016 Outlook as of May 2016>
Total Semis Materials sales below target
$\mathrm{KrF}, \mathrm{ArF}$ and other semis materials down

KrF above target, ArF and other semis materials below target

KrF, ArF and other semis materials up

KrF, ArF and other semis materials below target

(1) Multi layer process materials (OptiStack ${ }^{\circledR}$ ), 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)
FY2016 NCK production capacity expansion ( $¥ 3.2$ billion),
Analyzing and evaluation R\&D equipment ( $¥ 1.0$ billion)

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

High performance


SNOWTEX Characteristics

High transparency High hydrophilicity High heat resistance High electro-conductivity High hardness
Control refractive index Increase friction Increase bonding Increase viscosity


## SNOWTEX

 Key functionsCoating


Binding


## < Application Examples >

| •Polishing |
| :---: |
| silicon wafer, |
| aluminum/glass |
| hard discs |

```
-Coating for
    special steel sheet,
    plastic optical
    lenses,
    metals, plastic films
```

-Binding catalyst carrier, ceramics

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

## 1H FY2016 Sales Review

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

- Organo sol : Down
<vs. 1H FY2016 Outlook as of May 2016>
$\checkmark$ SNOWTEX : Above target (sales for polishing materials and non-polishing materials above target)
- Organo sol : Above target


## 2H FY2016 Sales Outlook

## <vs. 2H FY2015>

SNOWTEX : Up (sales for polishing materials flat, sales for non-polishing materials up)

- Organo sol : Flat
<vs. 2H FY2016 Outlook as of May 2016>
$\checkmark$ SNOWTEX : Above target (sales for polishing materials and non-polishing materials above target)
- Organo sol : Above target

|  |  |  |  |  | s | Y Ch | nge ( |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Main Products | FY2 | 15 Act |  | $\begin{aligned} & \text { FY20 } \\ & \text { as } 0 \end{aligned}$ | 6 Out May 2 | $\begin{aligned} & \text { ook } \\ & 016 \end{aligned}$ | $\begin{aligned} & \text { FY20 } \\ & \text { as of } \end{aligned}$ | 6 Out Nov. 2 | $\begin{aligned} & \text { ook } \\ & 016 \end{aligned}$ |
|  |  | 1H | 2H | Total | 1H | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 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\% | +1\% | +2\% | -5\% | -3\% | -4\% | -4\% | +2\% | -1\% |
| Organo sol | - Used for : <br> hard coating materials, electronic information materials | +18\% | -4\% | +6\% | -11\% | -8\% | -10\% | -7\% | -1\% | -4\% |

(1) Non-consolidated basis

# Performance Materials - (D) Profit Overview 

(¥billion)

|  | FY2015 Actual (A) |  |  | FY2016 Outlook as of May 2016 |  |  | FY2016 Outlook(B) <br> as of Nov. 2016 |  |  | Change$(B)-(A)$ |  |  | $\begin{aligned} & \text { Change(\%) } \\ & (B)-(A) \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 1H | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 2H | Total | $\begin{gathered} 1 \mathrm{H} \\ \text { Actual } \end{gathered}$ | 2H | Total | $1 \mathrm{H}$ Actual | 2H | Total |
| Sales | 26.0 | 25.8 | 51.8 | 26.6 | 28.7 | 55.3 | 25.5 | 27.0 | 52.5 | -0.5 | +1.2 | +0.7 | -2\% | +5\% | +1\% |
| OP | 6.3 | 5.7 | 12.0 | 5.8 | 5.9 | 11.7 | 6.2 | 5.5 | 11.7 | -0.1 | -0.2 | -0.3 | -3\% | -3\% | -3\% |

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

- SUNEVER sales up (IPS/FFS up, TN and VA down)
- Total Semis Materials sales down
(KrF, ArF and other semis materials down)
- Inorganic Materials sales down
(SNOWTEX and Organo sol down)
- Fixed cost up $¥ 0.4$ billion
- Sales down $¥ 0.5$ billion, OP down $¥ 0.1$ billion


## <vs. 1H FY2016 Outlook as of May 2016>

- SUNEVER sales above target
(IPS/FFS above target, TN and VA below target)
- Total Semis Materials sales below target
(KrF above target, ArF and other semis materials below target)
- Inorganic Materials sales below target
(SNOWTEX and Organo sol above target)
Fixed cost down $¥ 0$.4billion
-Sales down $¥ 1$.1billion, OP up $¥ 0.4$ billion


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

- SUNEVER sales up (IPSIFFS and VA up, TN down)
- Total Semis Materials sales up (KrF, ArF and other semis materials up)
- Inorganic Materials sales up
(SNOWTEX up, Organo sol down)
- Fixed cost up $¥ 1.0$ billion
- Sales up $¥ 1.2$ billion, OP down $¥ 0.2$ billion
<vs. 2H FY2016 Outlook as of May 2016>
- SUNEVER sales below target
(TN, VA and IPS/FFS below target)
- Total Semis Materials sales below target (KrF, ArF and other semis materials below target)
- Inorganic Materials sales below target
(SNOWTEX and Organo sol above target)
- Fixed cost down $¥ 0.1$ billion
- Sales down $¥ 1.7$ billion, OP down $¥ 0.4$ billion
(Blank)


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

|  |  | Non－consolidated Sales YOY Change |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main Products <br> （in order of FY2015 sales amount） |  | $\begin{aligned} & \text { FY2015 } \\ & \text { IFY2014 } \end{aligned}$ | FY2016E IFY2015 as of May 2016 | FY2016E IFY2015 as of Nov． 2016 |  |  |
| ROUNDUP | herbicide |  |  |  |  |  |
| $\begin{gathered} \text { ALTAR } \\ \text { (NC-620) } \end{gathered}$ | herbicide | $\cdots$ |  | ${ }^{1}$ |  |  |
| TARGA | herbicide |  |  |  |  |  |
| PERMIT | herbicide |  |  |  | YOY Chang |  |
|  |  |  |  |  | ＋15\％～ | ハイアイ |
| SIRIUS | herbicide |  |  | 4 | ＋10～＋15\％ | フィ7 |
| PULSOR <br> （THIFLUZAMIDE） | fungicide |  | 1 |  | $+5 \sim+10 \%$ $+0 \sim+5 \%$ | $\nearrow 1$ |
| LEIMAYIORACLE | fungicide |  | 1 |  | $+0 \sim+5 \%$ <br> $-0 \sim-5 \%$ | $\lambda$ |
|  |  |  |  | － | －5～－10\％ | d |
| STARMITE | miticide |  |  |  | －10～－15\％ | WW |
| SANMITE | insecticide |  |  |  | －15\％～ | W4t |

## Agrochemicals - (B) 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 AVH (herbicide, licensed from ZEN-NOH, Bayer and Hokko)
    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 Shipment of fluralaner to MSD started in July as scheduled
FY2014 BRAVECTO launched in several countries in EU in April and in the USA in June by MSD
    EXIRELIPRYROSSO (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 Insecticide (in-house)
FY2022 General fungicide (in-house)
```

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

- Full reconstruction of Biological Research Laboratories for Agro and Pharma segments FY2010-2017 Total capex $¥ 6.4$ billion (FY2015-2017 last phase $¥ 1.3$ billion)
$\checkmark$ Acquired 3\% share of IHARABRÁS (leading agro company in Brazil) in September 2011
- Established subsidiaries in China (April 2014) and Brazil (August 2016) for sales support and new product development
- Export sales account for 31\% of FY2015 non-consolidated segment sales (Asia:30\%, Europe/Africa:52\%, North/Central/South America:18\%) *Including Fluralaner


## Agrochemicals - (C) Fluralaner

-Fluralaner
Invented by NCI and supplied to MSD as the active pharmaceutical ingredient of BRAVECTO

## -BRAVECTO

*Developed by MSD Animal Health
*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 MSD 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 70 countries)
*Launched by Intervet K.K. in Japan in July 2015
*BRAVECTO Spot-On Solution for dogs and cats approved in EU in May and in USA in July
*BRAVECTO Spot-On Solution for cats launched in EU in July 2016 and USA in October 2016

## Agrochemicals - (D) Non-consolidated Segment Sales (before discount)

|  | Non-consolidated Sales YOY Change |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2013 <br> Actual | FY2014 <br> Actual | FY2015 Actual |  |  | FY2016 Outlook as of May 2016 |  |  | FY2016 Outlook as of Nov. 2016 |  |  |
|  | Total | Total | 1H | 2H | Total | 1H | 2H | Total |  | 2H | Total |
| ROUNDUP <br> (ROUNDUP AL(1)) | $\begin{array}{r} \hline-0 \% \\ (+66 \%) \end{array}$ | $\begin{aligned} & +17 \% \\ & (+59 \%) \end{aligned}$ | $\begin{array}{r} +2 \% \\ (+27 \%) \end{array}$ | $\begin{array}{r} \hline-3 \% \\ (+62 \%) \end{array}$ | $\begin{array}{r} -0 \% \\ (+36 \%) \end{array}$ | $\begin{array}{r} +6 \% \\ (+11 \%) \end{array}$ | $\begin{array}{r} +5 \% \\ (-31 \%) \end{array}$ | $\begin{aligned} & +5 \% \\ & (-1 \%) \end{aligned}$ | $\begin{aligned} & +20 \% \\ & (+26 \%) \end{aligned}$ | $\begin{gathered} +7 \% \\ (+4 \%) \end{gathered}$ | $\begin{aligned} & +13 \% \\ & (+20 \%) \end{aligned}$ |
| Others(2) | +14\% | +13\% | +18\% | -2\% | +5\% | +7\% | +12\% | +10\% | +12\% | +6\% | +8\% |
| Total Segment | +11\% | +14\% | +14\% | -2\% | +4\% | +7\% | +11\% | +9\% | +14\% | +6\% | +9\% |

(1) ROUNDUP for general household, launched in FY2010, accounting for 15\% of FY2015 ROUNDUP sales
(2) Including Fluralaner

|  | Distribution of NCl Non-consolidated Sales |  | NCl's Strategy | Distribution of the Total Domestic Market |
| :---: | :---: | :---: | :---: | :---: |
|  | FY2014 | FY2015 | Strengthening product lines <br> - LEMAY, STARMITE, PULSOR <br> - New in-house developed products <br> - New licensed-in products <br> - New acquisitions | Oct 2014-Sept 2015 |
| Fungicide + Insecticide | 1\% | 1\% |  | 11\% |
| Insecticide | 14\% | 13\% |  | 29\% |
| Fungicide | 12\% | 12\% |  | 22\% |
| Herbicide | 71\% | 71\% |  | 35\% |
| Plant growth regulator | 2\% | 2\% |  | 2\% |
| Others | 1\% | 1\% | Maintaining strong market positions | 1\% |
| Total (3) | 100\% | 100\% | - ALTAIR, ROUNDUP AL | 100\% |

(3) Excluding Fluralaner

## Agrochemicals - (E) Profit Overview

(¥billion)

|  | FY2015 Actual (A) |  |  | FY2016 Outlook as of May 2016 |  |  | FY2016 Outlook(B) as of Nov. 2016 |  |  | Change$(B)-(A)$ |  |  | $\begin{gathered} \text { Change(\%) } \\ (\mathrm{B})-(\mathrm{A}) \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 1H | 2H | Total | $\begin{array}{\|c\|} \hline \mathbf{1 H} \\ \text { Actual } \end{array}$ | 2H | Total | $1 \mathrm{H}$ Actual | 2H | Total | $\begin{gathered} 1 \mathrm{H} \\ \text { Actual } \end{gathered}$ | 2H | Total |
| Sales | 21.1 | 26.4 | 47.5 | 22.3 | 29.8 | 52.1 | 24.0 | 28.2 | 52.2 | +2.9 | +1.8 | +4.7 | +13\% | +7\% | +10\% |


| OP | 6.2 | 4.6 | 10.8 | 5.8 | 5.5 | 11.3 | 6.9 | 5.9 | 12.8 | +0.7 | +1.3 | +2.0 | $+10 \%$ | $+29 \%$ | $+18 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## 1H FY 2016 Review

<vs. 1H FY2015>

- Sales up : Fluralaner, ROUNDUP (ML, AL), ALTAIR, TARGA(export), TREFANOCIDE
- Sales down : PERMIT (export), PULSOR (export), STARMITE, SIRIUS
- Fixed cost up
- Inventory adjustment cost up $¥ 0.4$ billion
- Sales up $¥ 2.9$ billion, OP up $¥ 0.7$ billion
<vs. 1H FY2016 Outlook as of May 2016>
Sales above target : Fluralaner, ROUNDUP (ML, AL), ALTAIR
- Sales below target : PERMIT (export), PULSOR (export), SIRIUS, ISOCLAST
- Fixed cost down
- Inventory adjustment cost up $¥ 0.2$ billion

Sales up $¥ 1.7$ billion, OP up $¥ 1.1$ billion

## 2H FY 2016 Outlook <br> <vs. 2H FY2015>

- Sales up : Fluralaner, ROUNDUP (ML, AL), ALTAIR, TREFANOCIDE, LEIMAY
- Sales down : TARGA (export), PERMIT (export), SIRIUS
- Fixed cost down
- Inventory adjustment cost up $¥ 0.5$ billion
- Sales up $¥ 1.8$ billion, OP up $¥ 1.3$ billion
<vs. 2H FY2016 Outlook as of May 2016>
Sales above target : ALTAIR, ROUNDUP (AL), STARMITE (export)
- Sales below target : TARGA (export), Fluralaner, SIRIUS,

PULSOR (export), ISOCLAST

- Fixed cost down
- Inventory adjustment cost up $¥ 0.2$ billion
- Sales down $¥ 1.6$ billion, OP up $¥ 0.4$ billion
(Blank)


## Pharmaceuticals - (A) NCI Business Model

- Unique ethical pharma business model without sales force


API*: Active Pharmaceutical Ingredient

Pharmaceuticals - (B) LIVALO (Anti-Cholesterol Drug)

|  | FY2013 Actual | FY2014 Actual | FY2015 Actual | FY2016 <br> Outlook <br> as of May <br> 2016 | FY2016 <br> Outlook <br> as of Nov. <br> 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Domestic End Market Sales (NHI drug price basis, ¥billion) | 52.6 | 34.5 | 29.7 |  |  |
| Domestic End Market Share (1) | 21\% | 16\% | 15\% |  |  |
| Our Domestic and Export API Sales ( $¥$ billion) | 10.2 | 6.9 | 5.8 | 4.7 | 5.1 |
| Our Domestic and Export API Sales YOY Change (Our Domestic API Sales YOY Change) | $\begin{gathered} -2 \% \\ (-2 \%) \end{gathered}$ | $\begin{gathered} -32 \% \\ (-46 \%) \end{gathered}$ | $\begin{gathered} -15 \% \\ (-27 \%) \end{gathered}$ | $\begin{gathered} -19 \% \\ (-37 \%) \end{gathered}$ | $\begin{gathered} -13 \% \\ (-41 \%) \end{gathered}$ |

(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
-Domestic market share 15\% in FY2015
-FY2016 NHI drug price cut about -7~-9\%
Full reconstruction of Biological Research Laboratories (FY2010-2017)

## Pharmaceuticals - (C) 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 - (D) 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 Phase I clinical trials in Japan in July 2016 |
| NT-702 | - Phosphodiesterase <br> (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 |

$\checkmark$ Strategic Research Collaboration with Shionogi

- Started in January 2016 for novel antifungal drug candidates
$\checkmark$ 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 - (E) 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.)


## 1H FY2016 Sales Review

<vs. 1H FY2015>

- Up due to volume increase in existing products
<vs. 1H FY2016 Outlook as of May 2016>
- Above target (existing products sales above target, high value-added generic API product sales above target)


## 2H FY2016 Sales Outlook

## <vs. 2H FY2015>

- Up (existing products sales up, a new contracts expected)
<vs. 2H FY2016 Outlook as of May 2016>
$\checkmark$ Above target (some shipments of the high value-added generic API product shifted to FY2017, a new contract expected)

| Sales YOY Change |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FY2015 Actual |  | FY2016 Outlook <br> as of May 2016 |  | FY2016 Outlook <br> as of Nov. 2016 |  |  |  |  |
| $1 H$ | $2 H$ | Total | 1 H | 2 H | Total | 1 H <br> Actual | 2 H | Total |
| $-6 \%$ | $+68 \%$ | $+27 \%$ | $-5 \%$ | $+2 \%$ | $-1 \%$ | $+10 \%$ | $+3 \%$ | $+6 \%$ |

## Pharmaceuticals - (F) Profit Overview

(¥billion)

|  | FY2015 Actual (A) |  |  | FY2016 Outlook as of May 2016 |  |  | $\begin{array}{\|c} \text { FY2016 Outlook(B) } \\ \text { as of Nov. } 2016 \end{array}$ |  |  | Change$(B)-(A)$ |  |  | $\begin{aligned} & \text { Change(\%) } \\ & \text { (B) }-(\mathrm{A}) \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1H | 2H | Total | 1H | 2H | Total | $\begin{array}{\|c\|} \hline \mathbf{1 H} \\ \text { Actual } \end{array}$ | 2H | Total | $\begin{array}{\|c} \hline 1 \mathrm{H} \\ \text { Actual } \\ \hline \end{array}$ | 2H | Total | $\begin{gathered} \text { 1H } \\ \text { Actual } \end{gathered}$ | 2H | Total |
| Sales | 3.7 | 5.0 | 8.7 | 3.4 | 4.0 | 7.4 | 3.7 | 3.9 | 7.6 | +0.0 | -1.1 | -1.1 | -1\% | -21\% | -12\% |
| OP | 0.6 | 1.4 | 2.0 | 0.4 | 1.0 | 1.4 | 0.6 | 0.8 | 1.4 | +0.0 | -0.6 | -0.6 | 0\% | -44\% | -30\% |

## 1H FY 2016 Review

<vs. 1H FY2015>
LIVALO sales down (domestic down due to GE, export up)

- Custom Chemicals sales up
$\checkmark$ Fixed cost down
Sales flat, OP flat


## <vs. 1H FY2016 Outlook as of May 2016>

- LIVALO sales above target (domestic sales below target due to shipments shifted to 2 H , export above target)
- Custom Chemicals sales above target

Sales up $¥ 0.3$ billion, OP up $¥ 0.2$ billion

## 2H FY 2016 Outlook <br> <vs. 2H FY2015>

- LIVALO sales down (domestic down due to GE, export up)
- Custom Chemicals sales up
- Absence of up-front payment on pipeline products
- Fixed cost down
- Sales down $¥ 1.1$ billion, OP down $¥ 0.6$ billion
<vs. 2H FY2016 Outlook as of May 2016>
- LIVALO sales above target (domestic sales above target due to shipments shifted from 1H, export above target)
- Custom Chemicals sales above target
- Absence of up-front payment on pipeline products
$\checkmark$ Fixed cost up
$\checkmark$ Sales down $¥ 0.1$ billion, OP down $¥ 0.2$ billion


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

(¥billion)

|  | Capex (1) |  |  |  |  | Depreciation (2) |  |  |  |  | R\&D expenses |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2013 | 2014 | 2015 | 2016E | 2012 | 2013 | 2014 | 2015 | 2016E | 2012 | 2013 | 2014 | 2015 | 2016E | \% of Sales |
| Chem | 0.9 | 1.2 | 1.4 | 2.3 | 2.1 | 1.6 | 1.4 | 1.4 | 1.4 | 1.6 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 1.4\% |
| Performance M. | 3.1 | 4.3 | 5.2 | 5.4 | 9.4 | 3.7 | 3.2 | 3.6 | 5.2 | 5.2 | 6.5 | 6.3 | 6.7 | 7.4 | 8.3 | 15.0\% |
| Agro | 2.5 | 1.3 | 1.8 | 1.3 | 2.6 | 1.9 | 2.0 | 1.8 | 1.4 | 1.4 | 3.0 | 3.5 | 3.5 | 3.9 | 3.6 | 6.9\% |
| Pharma | 0.8 | 0.6 | 0.4 | 0.4 | 0.8 | 1.5 | 1.2 | 0.9 | 0.8 | 0.7 | 2.6 | 2.9 | 2.7 | 2.4 | 2.2 | 29.7\% |
| Trading | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Others | 0.8 | 1.4 | 0.1 | 0.8 | 0.5 | 0.7 | 0.6 | 0.7 | 0.8 | 0.7 | 1.2 | 1.1 | 1.6 | 1.6 | 1.5 |  |
| Total | 8.1 | 8.8 | 9.8 | 10.2 | 15.4 | 9.5 | 8.5 | 8.5 | 9.7 | 9.7 | 13.7 | 14.2 | 15.0 | 15.8 | 16.1 |  |
| (1) Capex |  |  |  |  |  |  | R\&D | expe | nsesl | Sales | 8.9\% | 8.7\% | 8.7\% | 8.9\% | 8.9\% |  |

Actual - Acceptance basis
Outlook - Production commencement basis
(2) Depreciation Method

SUNEVER, ARC ${ }^{\circledR}$, OptiStack ${ }^{\circledR}$

- 4 year declining balance method (50.0\% of initial capex amount in the $1^{\text {st }} y e a r$ )

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)

| FY2013 Actual |  | FY2014 Actual |  | FY2015 Actual |  | FY2016 Outlook as of Nov. 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chemical Research Lab. (Instruments) | 0.8 | Reconstruction of Biological Research Lab. The fifth stage (Facilities) | 1.3 | Semis (Product development facilities) | 2.8 | NCK Semis (Production capacity expansion) | 3.2 |
| Electronic Materials Lab. (Instruments) | 0.8 | Semis <br> (Analyzing and evaluation R\&D equipment) | 1.1 | Material Research Lab. (Instruments) | 2.2 | Chemicals <br> (Product development plant) | 1.2 |
| Reconstruction of Biological Research Lab. The fourth stage (Facilities) | 0.5 | Ammonia Feedstock Change Project | 1.1 | Agro <br> (Formulation facilities) | 1.2 | Material Research Lab. (Instruments) | 1.1 |
|  |  | Electronic Materials Lab. (Instruments) | 0.9 | SUNEVER <br> (Raw materials products) | 1.0 | Semis <br> (Analyzing and evaluation R\&D equipment) | 1.0 |
|  |  | Quality improvement of Inorganic Materials products | 0.7 | Semis (Analyzing and evaluation R\&D equipment) | 0.8 | Chemical Research Lab. (Instruments) | 0.6 |
|  |  | Chemical Research Lab. (Instruments) | 0.6 | Semis (Production capacity expansion) | 0.8 | Biological Research Lab. (Instruments) | 0.3 |
|  |  | NCK R\&D Center (Instruments) | 0.3 | NCK Semis (Production capacity expansion) | 0.7 | NCK SUNEVER (Production capacity expansion) | 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 |  |  |
|  |  |  |  | NCK R\&D Center (Instruments) | 0.2 |  |  |

## Financial Strategy

## (A) Share Repurchase to Enhance ROE

- Started share repurchase in 2006

Repurchased $¥ 50.5$ billion, 33.7 million shares ( $18.0 \%$ of shares issued) in total from FY2006 to FY2016

- Cancelled all repurchased shares

- Repurchase plan announced on May 12, 2016
- Total number of shares repurchased :1.6 million shares
- Total amount
- Period of repurchase
- Cancellation of shares
- Total number of shares cancelled
- Total number of shares cancelled
: $¥ 5.0$ billion
:From May 13, 2016 to August 2, 2016
:1.0 million shares (May 10, 2016)
:1.0 million shares (August 31, 2016)


## (B) 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
(Blank)

Mid-Term Business Plan Vista 2015 Stage II (FY2013-2015)
FY2015 Financial Targets (Mid-Term Plan vs. Actual)(A) FY2015 Financial Targets (Mid-Term Plan vs. Actual)(A)

| 1. PL <br> (¥billion) | Mid-term Plan | Actual |  | Variance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY2015 (A) | FY2015 (B) |  | (B)-(A) |  |  |
| Sales | 180.0 | 176.9 |  | -3.1 |  |  |
| Operating Profit | 26.0 | 0 Achieved | 28.6 | +2.6 |  |  |
| Ordinary Income | 26.5 | 5 Achieved | 29.5 | +3.0 |  |  |
| Net Income | 18.5 | 5 Achieved | 22.4 | +3.9 |  |  |
| EPS(\%) | 113.00 | 0 Achieved | 143.37 | +30.37 |  |  |
| FX Rate ( $\#$ /\$) | 85 | 5 1H | 122 2H | 118 |  |  |
| Naphtha ( $\# / \mathrm{kl}$ ) | 61,000 | 1H | 48,000 2H | 37,700 |  |  |
| 2. Segment (1) <br> (¥billion) | Mid-term Plan |  | Actual |  | Variance |  |
|  | Sales (2) | OP | Sales | OP | Sales | OP |
|  | 2015 (C) | 2015 (D) | 2015 (E) | 2015 (F) | (E) - (C) | (F) - (D) |
| Chem | 41.5 | 4.9 | 36.6 | 4.5 | -4.9 | -0.4 |
| Performance M. | 53.8 | 11.3 | 51.8 | 12.0 | -2.0 | +0.7 |
| Agro | 40.8 | 7.6 | 47.5 | 10.8 | +6.7 | +3.2 |
| Pharma | 7.9 | 3.5 | 6.4 | 1.4 | -1.5 | -2.1 |
| Trading,Others,Adjustment | 36.0 | -1.3 | 34.6 | -0.1 | -1.4 | +1.2 |
| Total | 180.0 | 26.0 | 176.9 | 28.6 | -3.1 | +2.6 |

(1) Former segmentation (2) Including inter-segment sales/transfers

## Mid-Term Business Plan Vista 2015 Stage II (FY2013-2015) FY2015 Sales Variance by Segment (Mid-Term Plan vs. Actual)(B)

|  | Sales <br> Variance <br> 2. (E) - (C) | FY2015 Actual <br> $>$ FY2015 Mid-term Plan | FY2015 Actual <br> < FY2015 Mid-term Plan |
| :--- | ---: | :--- | :--- |
| Chem | -4.9 | Melamine(domestic, export) <br> TEPIC(general), Custom Chemicals | Ammonia, High purity sulfuric acid, <br> TEPIC(electronic, liquid), <br> Ureal/AdBlue, Fertilizer, <br> Environmental related products |
| Performance M. | -2.0 | IPS/FFS, Photo-alignment IPS, <br> ARC®(Bottom anti-reflective coating) | TN, VA, Other display materials, <br> OptiStack® (Multi layer process <br> materials), <br> SNOWTEX(polishing, non-polishing), <br> Organo sol, New products |
| Agro | +6.7 | Fluralaner, ROUNDUP, ALTAIR, <br> Export | LEIMAY, SIRIUS |

Highest importance on ROE as well as OP margin
ROE : FY2015 Target 13.4\% vs FY2015 Actual 14.6\% achieved

OP margin : FY2015 Target 14.4\% vs FY2015 Actual 16.2\% achieved

Dividend payout ratio above 30\%
vs FY2015 Actual 30.7\%

- In addition, continue to repurchase shares timely achieved
- R\&D expenses/sales :

FY2015 Target 9.6\%
vs FY2015 Actual 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 (\#/\$) | 1H 122 | 2H 118 | FY2016 onward 115 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Naphtha (\#/KL) (4) | 1H 48,000 | 2H 37,700 | 1H 35,400 | 2H 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 |

(1) Including inter-segment sales/transfers

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

- OP Margin : Maintain above 15\% (FY2015 Actual 16.2\%)
- ROE : Maintain above 14\% (FY2015 Actual 14.6\%)
- Dividend Payout Ratio :

Gradually increase to 40\% in FY2018 (FY2015 Actual 30.7\%)Total Payout Ratio :
Maintain 70\% (FY2015 Actual 70.8\%) New indicator

- R\&D expenses/sales : above 8\% (FY2015 Actual 8.9\%)


## Long-term Financial Performance Trend



## Long Term Financial Performance Trend

(¥billion)

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 180.5 |
| 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 | 29.9 |
| 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 | 29.7 |
| 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 | 22.5 |
| 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 | 39.6 |
| 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\% | 16.6\% |
| 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\% | 14.2\% |
| 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 | 146.88 |
| Dividend(¥/share) | 11 | 11 | 15 | 20 | 20 | 22 | 24 | 24 | 24 | 26 | 30 | 36 | 44 | 50 |
| 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\% | 34.0\% |
| Share Repurchase | - | - | - | 4.7 | 5.0 | 8.0 | - | 2.8 |  | 5.0 | 5.0 | 6.0 | 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 |  |
| 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 |  |
| 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 |  |
| 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 |  |
| 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\% |  |
| 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\% |  |
| 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 | 15.4 |
| 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 | 9.7 |
| 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 |
| 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\% |

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 |
| Performance Materials | 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 |
| Adjustment | -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 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\% |

## FY2013-2Q FY2016 Quarterly Sales by Segment (1) <br> (New Segmentation)

(¥billion)

|  | 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 |
| Chem | 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 |
| Fine | 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 |
| Basic | 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 |
| Performance Materials | 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 |
| Agro | 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 |
| Pharma | 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 |
| Trading | 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 |
| Others | 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 |
| Adj ustment | -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 |
| Total | 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 |

(1) Including inter-segment sales/transfers

## FY2013-2Q FY2016 Quarterly OP by Segment (New Segmentation)

( $¥$ billion)

|  | 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 |
| Chem | 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 |
| Performance Materials | 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 |
| Agro | 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 |
| Pharma | 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 |
| Trading | 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 |
| Others | 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 |
| Adjustment | -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 |
| Total | 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 |
| OP Margin | 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\% | 15.8\% | 21.1\% | 13.3\% |


|  | 1H FY2015 <br> Actual |  |  | 1H FY2016 Outlook as of May 2016 |  |  | 1H FY2016 <br> Actual |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | Total | 1Q | 2Q | Total | 1Q | 2Q | Total |
| Chem | 8.7 | 8.0 | 16.7 | 8.9 | 8.6 | 17.5 | 8.5 | 8.0 | 16.5 |
| Fine | 3.0 | 2.5 | 5.5 | 3.0 | 2.7 | 5.7 | 2.8 | 2.5 | 5.3 |
| Basic | 5.7 | 5.5 | 11.2 | 5.9 | 5.9 | 11.8 | 5.7 | 5.5 | 11.2 |
| Performance Materials | 13.0 | 13.0 | 26.0 | 13.1 | 13.5 | 26.6 | 12.6 | 12.9 | 25.5 |
| Agro | 13.6 | 7.5 | 21.1 | 12.2 | 10.1 | 22.3 | 14.5 | 9.5 | 24.0 |
| Pharma | 2.1 | 1.6 | 3.7 | 1.6 | 1.8 | 3.4 | 2.2 | 1.5 | 3.7 |
| Trading | 14.7 | 12.8 | 27.5 | 14.2 | 14.6 | 28.8 | 14.4 | 13.2 | 27.6 |
| Others | 4.1 | 4.8 | 8.9 | 4.1 | 4.7 | 8.8 | 4.0 | 4.6 | 8.6 |
| Adjustment | -11.0 | -9.2 | -20.2 | -10.7 | -10.7 | -21.4 | -11.1 | -10.3 | -21.4 |
| Total | 45.2 | 38.5 | 83.7 | 43.4 | 42.6 | 86.0 | 45.1 | 39.4 | 84.5 |

(1) Including inter-segment sales/transfers

## 1H FY2016 OP by Segment

(¥billion)

|  | 1H FY2015 <br> Actual |  |  | 1H FY2016 Outlook as of May 2016 |  |  | 1H FY2016 <br> Actual |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | Total | 1Q | 2Q | Total | 1Q | 2Q | Total |
| Chem | 1.5 | -0.1 | 1.4 | 1.5 | 0.1 | 1.6 | 1.5 | -0.2 | 1.3 |
| Performance Materials | 3.4 | 2.9 | 6.3 | 2.8 | 3.0 | 5.8 | 3.0 | 3.2 | 6.2 |
| Agro | 4.4 | 1.8 | 6.2 | 3.0 | 2.8 | 5.8 | 4.5 | 2.4 | 6.9 |
| Pharma | 0.4 | 0.2 | 0.6 | 0.1 | 0.3 | 0.4 | 0.6 | 0.0 | 0.6 |
| Trading | 0.5 | 0.4 | 0.9 | 0.4 | 0.5 | 0.9 | 0.4 | 0.4 | 0.8 |
| Others | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjustment | -0.8 | -0.3 | -1.1 | -0.6 | -0.6 | -1.2 | -0.5 | -0.6 | -1.1 |
| Total | 9.4 | 4.9 | 14.3 | 7.1 | 6.2 | 13.3 | 9.5 | 5.2 | 14.7 |

## Sales and Operating Profit by Segment

## (¥billion)

|  |  | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016E |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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\% | 34.1 18.9\% |  |  |  |  |
|  | Perf | 38.0 24.6\% | 34.0 22.9\% | 37.4 24.3\% | 42.8 26.1\% | 49.4 28.9\% | $51.8 \quad 29.3 \%$ | 52.5 29.1\% |  |  |  |  |
|  | Agro | 34.4 22.3\% | 33.8 22.7\% | 35.4 23.0\% | 39.1 23.9\% | $\begin{array}{ll}45.7 & 26.7 \%\end{array}$ | $47.5 \quad 26.9 \%$ | 52.2 28.9\% |  |  |  |  |
|  | 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\% | 7.6 4.2\% |  |  |  |  |
|  | 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\% | 58.2 32.2\% |  |  |  |  |
|  | 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\% | 23.4 13.0\% |  |  |  |  |
|  | 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\% | -47.5-26.3\% |  |  |  |  |
|  | Total | 154.2 100\% | 148.6 100\% | 153.8 100\% | 163.7 100\% | 171.2 100\% | 176.9 100\% | 180.5 100\% |  | FY2013 | FY2014 | FY2015 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { O } \\ & \text { O} \\ & \text { ■0 } \end{aligned}$ | Chem | 2.4 12.1\% | 1.6 10.3\% | 1.9 9.7\% | 1.9 8.6\% | 1.9 7.5\% | 3.9 13.6\% | 3.7 12.4\% |  | 25.8 12.4\% | 25.2 11.3\% | 26.6 11.7\% |
|  | Perf | 7.9 39.9\% | 4.8 31.0\% | 7.2 36.9\% | 8.8 39.6\% | 12.0 47.4\% | 12.0 42.0\% | 11.7 39.1\% |  | 38.0 18.3\% | 43.9 19.6\% | $40.9 \quad 17.9 \%$ |
|  | Agro | 4.8 24.2\% | 4.4 28.4\% | $5.0 \quad 25.6 \%$ | 6.2 27.9\% | 9.2 36.4\% | 10.8 37.8\% | 12.8 42.8\% |  | 48.6 23.4\% | $53.6 \quad 23.9 \%$ | $52.9 \quad 23.2 \%$ |
|  | Pharma | 4.4 22.2\% | 4.6 29.7\% | $5.2 \quad 26.7 \%$ | 4.9 22.1\% | 2.3 9.1\% | 2.0 7.0\% | $1.4 \quad 4.7 \%$ |  | 12.7 6.1\% | 11.4 5.1\% | 11.1 4.9\% |
|  | Trading | 1.4 7.1\% | 1.3 8.4\% | 1.4 7.2\% | 1.5 6.8\% | 1.76 6.7\% | 1.8 6.3\% | $1.96 .4 \%$ |  | 18.1 8.7\% | 18.5 8.3\% | 19.5 8.5\% |
|  | Others | 1.0 5.1\% | 0.3 1.9\% | 0.7 3.6\% | 0.8 3.6\% | 0.6 2.4\% | $0.5 \quad 1.7 \%$ | 0.7-2.3\% |  | 9.1 4.4\% | 9.9 4.4\% | 10.1 4.4\% |
|  | Adj | -2.1-10.6\% | -1.5 $\quad-9.7 \%$ | -1.9 $\quad-9.7 \%$ | -1.9 -8.6\% | -2.4 -9.5\% | -2.4 $\quad-8.4 \%$ | -2.3 $-7.7 \%$ |  | 55.7 26.8\% | 61.4 27.4\% | 67.1 29.4\% |
|  | Total | 19.8 100\% | 15.5 100\% | 19.5 100\% | 22.2 100\% | 25.3 100\% | 28.6 100\% | 29.9 100\% |  | 208.0 100\% | 223.9 100\% | 228.2 100\% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Chem | 6.3\% | 4.3\% | 5.5\% | 5.4\% | 5.5\% | 11.4\% | 10.9\% | O | 7.4\% | 7.5\% | 14.7\% |
|  | Perf | 20.8\% | 14.1\% | 19.3\% | 20.6\% | 24.3\% | 23.2\% | 22.3\% |  | 23.2\% | 27.3\% | 29.3\% |
|  | Agro | 14.0\% | 13.0\% | 14.1\% | 15.9\% | 20.1\% | 22.7\% | 24.5\% |  | 12.8\% | 17.2\% | 20.4\% |
|  | Pharma | 45.8\% | 46.0\% | 40.9\% | 42.2\% | 26.1\% | 23.0\% | 18.4\% |  | 38.9\% | 20.2\% | 18.0\% |
|  | Trading | 3.2\% | 2.9\% | 3.0\% | 3.0\% | 3.1\% | 3.2\% | 3.3\% |  | 8.3\% | 9.2\% | 9.2\% |
|  | Others | 3.7\% | 1.5\% | 3.3\% | 3.7\% | 2.9\% | 2.4\% | 3.0\% |  | 8.3\% | 6.1\% | 5.0\% |
|  | Total | 12.9\% | 10.4\% | 12.7\% | 13.6\% | 14.8\% | 16.2\% | 16.6\% |  | 10.7\% | 11.3\% | 12.5\% |

FY2010-2011 : Former Segmentation, FY2012-2016E : 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 |  |
|  | Alumina sol, SUNCOLLOID |
|  | CELNAX |


| Agro | Agro |
| :--- | :--- |
|  | Herbicides <br> Insecticides <br> Fungicide |
| Pharma | Active substance of Veterinary medical product |
| Trading | Nissei Corporation |
| Others | Nissan Butsuryu, Nissan Green \& Landscape, <br> Nissan Engineering, Fertilizer |
| Adjustment | R\&D expenses of Advanced Materials \& Planning Dept. <br> included |

New Segmentation

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

## Performance <br> Materials

```
SUNEVER,NHC,
ARC® (Bottom anti-reflective coating)
OptiStack® (Multi layer process materials)
Micro lens
SNOWTEX, Organo silica sol
Alumina sol, SUNCOLLOID
CELNAX
```

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


| Pharma | LIVALO |
| :--- | :--- |
|  | Custom Chemicals |


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


| 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 |
| $\begin{aligned} & \text { Performance } \\ & \text { Materials } \end{aligned}$ | Electronic Materials SUNEVER ARC ${ }^{*}$ <br> OptiStack® NHC OPTIFOCUS ELSOURCE | LCD alignment coating bottom anti-reflective coating for semiconductors multi layer process material for semiconductors (Si-HM/SOC) <br> *ARC® and OptiStack ${ }^{\circledR}$ 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 <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 <br> film coating, antistatic interference shielding, electronic printing materials automotive catalyst, electronic printing materials <br> high refractive sol for lens <br> antistatic sol for film |
| Agro | Herbicide <br> TARGA <br> PERMIT <br> SIRIUS, ALTAIR <br> ROUNDUP <br> Insecticide <br> STARMITE, SANMITE, MITOKOHNE <br> Fungicide <br> LEIMAYIORACLE <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 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.

