

## Management's Discussion and Analysis

Year 2018

### Overall Group Performance

Hana Microelectronics Group 'Hana' Sales Revenue increased 3% year on year, at THB 22.3 billion in year 2018 from THB 21.6 billion in year 2017. Sales Revenue in USD terms increased by 8% to USD 689 million in 2018 from USD 635m in 2017. Operating profits increased 1% to THB 2,309 million Baht in 2018 from THB 2,290 million Baht in 2017. Operating profits increased 6% in USD terms to USD 71 million in 2018 from USD 67 million in 2017.

Net Profit decreased by 18% to THB 2,375 million in 2018 from THB 2,888 million in 2017 due to THB 531 million positive change in foreign exchange gain (loss) in 2017.

### Past Performance Analysis

#### Revenue Analysis

Group Sales increased 3% in 2018 at THB 22,264 million from 2017 at THB 21,551 million with markets continued strength throughout the year. USD sales were 8% higher in 2018 at USD 689 million up from USD 635 million in 2017 as the average THB/USD exchange rate strengthened 5% to THB/USD 32.31 in 2018 from THB/USD 33.93 in 2017.

The Microelectronics divisions' sales revenue increased 13% [+7% THB] in 2018 over 2017. The microelectronics operation in Lamphun sales increased 16% [+10% in THB terms] and JXG increased by 7% [+2% in THB terms] in 2018. In 2018 IC assembly sales overall increased by 5% in USD terms [+0% in THB terms]. Specifically, IC AYT sales increased 6% [+1% in THB terms], and IC JXG USD sales decreased by 3% [-8% in THB terms]. Hana Technologies "HTI", (formerly named Hana Microdisplay Technologies) sales decreased 5% [-10% THB] for the year.

The annual sales split was:

|                 | <u>2018</u> | <u>2017</u> | <u>2016</u> |
|-----------------|-------------|-------------|-------------|
| PCBA (Thailand) | 40%         | 38%         | 38%         |
| PCBA (China)    | 17%         | 17%         | 18%         |
| PCBA (Cambodia) | 0%          | 0%          | 0%          |
| IC (Thailand)   | 33%         | 34%         | 34%         |
| IC (China)      | 5%          | 6%          | 5%          |
| HTI (USA)       | 5%          | 5%          | 5%          |
|                 | <hr/>       | <hr/>       | <hr/>       |
|                 | 100%        | 100%        | 100%        |

### Gross Profit / Cost of Sales Analysis and Sales and Administration Analysis

Gross Profit decreased by THB 11 million with the gross margin being 14% in 2018 down 1 percentage point from 15% in 2017, due to stronger THB/USD exchange rate.

### Operating Profit Analysis

The Operating profit margin decreased by 1 percentage point to 10% in 2018 from 11% in 2017. SGA expenses increased by 4% [THB 50 million] due to R&D expense increase.

### Payout Analysis

For the year 2018 the company paid an interim dividend of THB 805 million in Q4/18.

For the year 2017 the company paid full dividends of THB 1,610 million (THB 2.00/share). An interim dividend paid of THB 805 million in Q4/17 and the final dividend of THB 805 million in Q2/18.

For the year 2016 the company paid full dividends of THB 1,610 million (THB 2.00/share). An interim dividend paid of THB 805 million in Q4/16 and the final dividend of THB 805 million in Q2/17.

The final dividend is normally announced in the board meeting in February of the following year for approval in the annual general meeting in April and paid out in May.

### Financial Status

The group currently has no interest bearing debt. Cash reserves and financial investments at the 31st December 2018 were THB 8.7 billion down from 31st December 2017 were THB 9.7 billion.

## Asset Quality

### Accounts Receivable

Most of customers are well known and have good reputation in the IC, and electronics industry. Provision is made of amounts outstanding over 90 days and amounts which the management believe may be doubtful. Accounts receivable were 63 days in 2018, 63 days in 2017 and 61 days in 2016 .

| Trade Receivables                           | '000 | <u>2018</u>      | <u>2017</u>      | <u>2016</u>      |
|---|------|------------------|------------------|------------------|
| Less than 3 months                          |      | 3,668,482        | 3,713,024        | 3,404,803        |
| 3 - 6 months                                |      | 34,940           | 14,756           | 18,549           |
| 6 - 12 months                               |      | 7,737            | 681              | 26,032           |
| More than 12 months                         |      | 1,480            | 9,130            | 4,443            |
| Total accounts receivable - other companies |      | 3,712,639        | 3,737,591        | 3,453,827        |
| Less : Allowance for doubtful accounts      |      | (21,556)         | (11,159)         | (19,855)         |
|   |      | <u>3,691,083</u> | <u>3,726,432</u> | <u>3,433,972</u> |

### Inventory

In general, Hana's production is based on clients' order, consequently, the majority of inventory are raw materials, expendable tools and work in process with little finished goods pending for customer delivery. The group companies normally write-off out-of-date inventory, and make provision for aged inventory and depletion in the value of fixed assets, if material, each quarter.

Inventory days were 89 days in 2018, 77 days in 2017 and 73 days in 2016.

### Liquidity

The group has THB 8.7 billion in cash and financial investments with no interest bearing debt. Liquidity ratios are high at over 3 times current liabilities. Operating Cashflow (EBITDA) was THB 3,420 million in 2018 1% higher than THB 3,374 million in 2017.

EBITDA was THB 3.4 billion in 2018 and 3.4 billion in 2017 and THB 3.1 billion in 2016.

Cash and financial investments in 2018 decreased by THB 1.0 billion to THB 8.7 billion, due to EBITDA 3.4 billion less final dividend THB 0.8 billion 2017 paid in Q218, interim dividend Q418 THB 0.8 billion , capital expenditure THB 1.9 billion, other items THB -0.9 billion.

Cash and financial investments in 2017 decreased by THB 0.2 billion to THB 9.7 billion, due to EBITDA 3.4 billion less final dividend THB 0.8 billion 2016 paid in Q217, interim dividend Q417 THB 0.8 billion , capital expenditure THB 1.1 billion, other items THB -0.9 billion.

Cash and financial investments in 2016 increased by THB 0.8 billion to THB 9.9 billion, due to EBITDA 3.1 billion less final dividend THB 0.8 billion 2015 paid in Q216, interim dividend Q416 THB 0.8 billion , capital expenditure THB 0.8 billion, other items THB +0.1 billion.

### Capital Expenditure

Net Capital Expenditure was THB 2,333 million in 2018, THB 1,111 million in 2017 and THB 801 million in 2016. Capital Expenditure was higher in 2018 due to the higher capital expenditure from Ayutthaya plant compared to recent years due to the strength in the semiconductor industry in 2018.

Generally, capital expenditure for production equipment will follow the increase in sales, particularly in the IC division. However, there is a 3 to 6 month time lag due to the ordering lead time. Plant expansion will depend on the current building utilisation and lead time to construct new plant or expand in an existing plant.

### Source of Financial Capital

As the group as no interest bearing debt and operating working capital is positive the groups funding is from the shareholders equity.

### Major Factors which could have an Impact on the Company's Performance

The company business is that of an electronics manufacturing service company. The company manufactures products on behalf of its customers for shipment to them or their customers. Therefore, the company's performance is mostly affected by its ability to win and retain business from the existing and new customers. In turn, customer demand is affected by world economic growth and the customer's sales growth.

The groups sales revenue are in foreign currency (primarily USD) and USD currency costs are approximately 60% percent of sales revenues. The Group operating profit sensitivity to change in the Thai Baht/USD and Chinese CNY/USD exchange rates is currently about Baht 200 million per quarter for every 10% change in the average Baht/USD and CNY/USD rates (i.e.  $(1 - 0.60) \times \text{Sales Revenue} \times 10\%$  ).

Out of the groups foreign exchange exposure, USD 120 million is hedged, Foreign exchange contracts are used to buy THB and Sell USD on a rolling 3 or 6 months basis.

Whilst the book value of the offshore companies are represented in foreign currency, the effect of the change in the exchange rate is shown by the movement of the foreign currency 'Translation Adjustment' in the shareholders funds section of the balance sheet. There is no cash affect concerning its movement.

For Hana being an export group of companies the currency movements cause volatility in earnings due to effects on the operating margins and also inventory valuations (which the management report each quarter when there is a material effect on the profits) and margins.

#### **Foreign Exchange Rates**

The THB/USD currency movements reflected the economic trends in emerging markets and commodities during period. The average rate for 2018 of THB/USD 32.31 was 5% stronger than the THB/USD 33.93 in 2017 which was 4% stronger than the THB/USD 35.30 in 2016.

#### **Exceptional Items**

There were no Exceptional Items in 2018, 2017 or 2016.

#### **Subsequent Event**

None

# HANA MICROELECTRONICS GROUP

## CONSOLIDATED Balance Sheet

| '000 Baht  | Year<br><b>2018</b> | Year<br><b>2017</b> | Year<br><b>2016</b> | <b>2018-2017</b> | %<br><b>2018-2017</b> |
|--|---------------------|---------------------|---------------------|------------------|-----------------------|
| <b>ASSETS</b>  |                     |                     |                     |                  |                       |
| <b>CURRENT ASSETS</b>  |                     |                     |                     |                  |                       |
| Cash in Hand & at Banks                                      | 4,081,336           | 4,756,538           | 6,347,595           | (675,202)        | -14%                  |
| Financial Investments  | 4,465,406           | 4,982,973           | 3,292,934           | (517,567)        | -10%                  |
| Accounts Receivable - trade                                  | 3,831,672           | 3,904,178           | 3,561,206           | (72,505)         | -2%                   |
| Inventories  | 5,222,840           | 4,082,874           | 3,676,207           | 1,139,966        | 28%                   |
| Other Current Assets   | 155,141             | 166,896             | 159,638             | (11,754)         | -7%                   |
| <b>TOTAL CURRENT ASSETS</b>                                  | <b>17,756,395</b>   | <b>17,893,458</b>   | <b>17,037,580</b>   | <b>(137,063)</b> | <b>-1%</b>            |
| Fixed Deposit  | 146,121             | -                   | 313,262             | 146,121          |                       |
| INVESTMENTS IN ASSOCIATED COMPANY                            | -                   | -                   | -                   |                  |                       |
| <b>FIXED ASSETS (net)</b>                                    | <b>7,251,542</b>    | <b>6,065,872</b>    | <b>6,217,792</b>    | <b>1,185,670</b> | <b>20%</b>            |
| OTHER ASSETS   | 214,255             | 443,768             | 212,150             | (229,513)        |                       |
| <b>TOTAL ASSETS</b>  | <b>25,368,314</b>   | <b>24,403,098</b>   | <b>23,780,784</b>   | <b>965,215</b>   | <b>4%</b>             |
| <b>LIABILITIES</b>   |                     |                     |                     |                  |                       |
| <b>CURRENT LIABILITIES</b>                                   |                     |                     |                     |                  |                       |
| Bank Overdrafts & Loans                                      | -                   | -                   | -                   |                  |                       |
| Accounts & Notes Payable                                     | 3,421,409           | 2,920,965           | 2,813,467           | 500,444          | 17%                   |
| Short Term Provisions  | 324,498             | -                   | -                   | 324,498          |                       |
| Corporate Income Tax Payable                                 | 37,278              | 40,486              | 42,023              | (3,208)          | -8%                   |
| Accrued Expenses   | -                   | 326,809             | 358,307             | (326,809)        | -100%                 |
| Other Current Liabilities                                    | 130,408             | 97,658              | 150,343             | 32,750           | 34%                   |
| <b>TOTAL CURRENT LIABILITIES</b>                             | <b>3,913,593</b>    | <b>3,385,918</b>    | <b>3,364,139</b>    | <b>527,675</b>   | <b>16%</b>            |
| <b>LONG TERM LIABILITIES</b>                                 |                     |                     |                     |                  |                       |
| Long Term Loans  |                     |                     |                     |                  |                       |
| Other Long Term Liabilities                                  | 371,590             | 327,302             | 454,879             | 44,288           |                       |
| <b>TOTAL LIABILITIES</b>                                     | <b>4,285,183</b>    | <b>3,713,220</b>    | <b>3,819,019</b>    | <b>571,963</b>   | <b>15%</b>            |
| <b>SHAREHOLDERS EQUITY</b>                                   |                     |                     |                     |                  |                       |
| Share Capital  | 804,879             | 804,879             | 804,879             |                  |                       |
| Unrealised gain(loss) on change in investments               | -                   | -                   | -                   |                  |                       |
| Share Premium  | 1,723,219           | 1,723,219           | 1,723,219           |                  |                       |
| Retained Earnings  | -                   | -                   | -                   |                  |                       |
| Appropriated Statutory Reserve                               | 456,463             | 443,691             | 428,284             | 12,772           | 3%                    |
| Unappropriated & Treasury Share Reserve                      | 18,237,930          | 17,504,229          | 16,088,535          | 733,701          | 4%                    |
| Translation adj. & Investment revaluation                    | (139,361)           | 213,860             | 916,848             | (353,220)        | -165%                 |
| Treasury shares  | -                   | -                   | -                   |                  |                       |
| may be doubtful. Accounts receivable were 63 days in 2018, € | -                   | -                   | -                   |                  |                       |
| <b>TOTAL SHAREHOLDERS EQUITY</b>                             | <b>21,083,130</b>   | <b>20,689,878</b>   | <b>19,961,765</b>   | <b>393,252</b>   | <b>2%</b>             |
| <b>TOTAL LIABILITIES &amp; SHAREHOLDERS EQUITY</b>           | <b>25,368,313</b>   | <b>24,403,098</b>   | <b>23,780,784</b>   | <b>965,215</b>   | <b>4%</b>             |

**HANA MICROELECTRONICS GROUP**  
**CONSOLIDATED Summary Statement of Cashflows**

| '000 Baht   | Year<br><b>2018</b> | Year<br><b>2017</b> | Year<br><b>2016</b> | <b>2018-2017</b>   |
|---|---------------------|---------------------|---------------------|--------------------|
| <b>Cashflow from Operating Activities</b>   |                     |                     |                     |                    |
| Net Earnings before Tax   | 2,515,760           | 3,019,704           | 2,242,635           | (503,945)          |
| <b>Adjustments to reconcile net earnings to net cash provided by operating activities</b> |                     |                     |                     |                    |
| <b>Non Cash items</b>   |                     |                     |                     |                    |
| Depreciation  | 1,110,629           | 1,083,474           | 1,179,998           | 27,155             |
| Unrealised (gain) Loss on exchange  | 18,516              | 8,964               | 123                 | 9,552              |
| Change in other provisions  | (106,226)           | (376,972)           | (381,021)           | 270,747            |
|   | <u>1,022,919</u>    | <u>715,466</u>      | <u>799,100</u>      | <u>307,454</u>     |
| <b>Working Capital (increase) decrease</b>  |                     |                     |                     |                    |
| Trade accounts receivable   | 2,933               | (317,305)           | (232,345)           | 320,238            |
| Inventories   | (1,166,828)         | (362,756)           | (230,189)           | (804,072)          |
| Trade accounts payable  | 152,498             | 99,205              | 551,275             | 53,293             |
| Other   | (47,320)            | (140,119)           | (122,040)           | 92,799             |
|   | <u>(1,058,716)</u>  | <u>(720,975)</u>    | <u>(33,299)</u>     | <u>(337,741)</u>   |
| <b>Net Cashflow from Operating Activities</b>   | <u>2,479,962</u>    | <u>3,014,195</u>    | <u>3,008,436</u>    | <u>(534,233)</u>   |
| <b>Cashflow from Investing Activities</b>   |                     |                     |                     |                    |
| (Increase) decrease in short term investment  | 171,229             | (1,091,869)         | 349,889             | 1,263,099          |
| Increase in property, plant and equipment   | 11,696              | (943,116)           | (841,722)           | 954,812            |
| Proceeds from sale of fixed assets  | (80,662)            | 16,477              | 269,282             | (97,139)           |
| Increase (decrease) in translation adjustment   | (675,202)           | (812,434)           | (245,125)           | 137,232            |
| Decrease in short term loans to related parties   |                     |                     |                     | -                  |
| Other   | 75,924              | (164,552)           | (9,901)             | 240,475            |
|   | <u>(497,015)</u>    | <u>(2,995,494)</u>  | <u>(477,577)</u>    | <u>2,498,479</u>   |
| <b>Cashflow from Financing Activities</b>   |                     |                     |                     |                    |
| Cash paid for treasury stock  | -                   | -                   | -                   | -                  |
| Cash received from increase in share capital & overdraft                                  | -                   | -                   | -                   | -                  |
| Dividend paid   | (1,609,758)         | (1,609,758)         | (1,609,758)         | -                  |
| <b>Net cash (used in ) from financing activities</b>                                      | <u>(1,609,758)</u>  | <u>(1,609,758)</u>  | <u>(1,609,758)</u>  | <u>-</u>           |
| Net Cash, equivalents and short term liquid investments increase (decrease)               | 373,189             | (1,591,057)         | 921,101             | 1,964,246          |
| Cash and Equivalents at the beginning of the period                                       | <u>4,756,538</u>    | <u>6,347,595</u>    | <u>5,426,494</u>    | <u>(1,591,057)</u> |
| Cash and Equivalents at the end of the period   | <u>5,129,727</u>    | <u>4,756,538</u>    | <u>6,347,595</u>    | <u>373,189</u>     |

# HANA MICROELECTRONICS GROUP

## Financial Ratios

| '000 Baht                                   | Year<br><b>2018</b> | Year<br><b>2017</b> | Year<br><b>2016</b> | <b>2018-2017</b> |
|---|---------------------|---------------------|---------------------|------------------|
| <b>Profitability Ratios</b>                 |                     |                     |                     |                  |
| Gross Profit Margin (%)                     | 14%                 | 15%                 | 14%                 | -1%              |
| Operating Profit Margin (%)                 | 10%                 | 11%                 | 10%                 | -1%              |
| Net Profit before Exceptional Margin (%)    | 11%                 | 11%                 | 10%                 |                  |
| Net Profit after Exceptional Margin (%)     | 11%                 | 13%                 | 10%                 | -2%              |
| EBITDA margin (%)                           | 15%                 | 16%                 | 15%                 | -1%              |
| Return On Equity (%) pa                     | 11%                 | 14%                 | 11%                 | -3%              |
| Return On Assets (%) pa                     | 9%                  | 12%                 | 9%                  | -3%              |
| Return On Operating Capital Employed (%) pa | 18%                 | 20%                 | 18%                 | -2%              |
| <b>Efficiency Ratios</b>                    |                     |                     |                     |                  |
| Working Capital turnover                    | 4                   | 4                   | 5                   |                  |
| Account Receivable days                     | 63                  | 63                  | 61                  | (3)              |
| Inventory days                              | 89                  | 77                  | 73                  | 8                |
| Accounts Payable days                       | 61                  | 58                  | 54                  | 3                |
| <b>Liquidity Ratios</b>                     |                     |                     |                     |                  |
| Current Ratio                               | 4.5                 | 5.3                 | 5.1                 | -0.8             |
| Quick Ratio                                 | 3.2                 | 4.0                 | 3.9                 | -0.8             |
| <b>Financial Capital Ratios</b>             |                     |                     |                     |                  |
| Debt / Equity                               | 0.2                 | 0.2                 | 0.2                 |                  |
| Net Debt to Equity                          | -0.2                | -0.3                | -0.3                | 0.1              |
| Interest Coverage                           | n/a                 | n/a                 | n/a                 |                  |