ASMI Annual Meeting of Shareholders
May 20 2010

Chuck del Prado
President & CEO
Safe Harbor Statements

All matters discussed in this presentation, except for any historical data, are forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These include, but are not limited to, economic conditions and trends in the semiconductor industry generally and the timing of the industry cycles specifically, currency fluctuations, financing and liquidity matters, the success of restructurings, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholder and other issues, outlooks, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, epidemics and other risks indicated in the Company's filings from time to time with the U.S. Securities and Exchange Commission, including, but not limited to, the Company's reports on Form 20-F and Form 6-K. The Company assumes no obligation nor intends to update or revise any forward-looking statements to reflect future developments or circumstances.
Outline

• Semiconductor Equipment Market
• ASMI Results in 2009
• Status ASMI Back-end
  • Market dynamics
  • Product update
• Status ASMI Front-end
  • Restructuring Program
  • Technology & Penetration update
• ASMI Financing
• Market Outlook and Conclusions
Our Industry experienced Steep Drop and is now in Fast Recovery

- In 1H08 market moved into slowdown, as part of typical cyclicality after record 2007
- Global recession in 2H08, leading to 2009 Semi Equipment to be down by 64% relative to 2007
- In 2010 Semi Equipment spending expected to be up, but still significantly below the 2007 level

### Semi Capital Equipment Year to Year Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>April '08 FC</th>
<th>March '10 FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>-17.1%</td>
<td>-31.6%</td>
</tr>
<tr>
<td>2008-2009</td>
<td>+12.2%</td>
<td>-45.6%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>+13.8%</td>
<td>+76.0%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>-8.7%</td>
<td>+23.8%</td>
</tr>
</tbody>
</table>
In Front-end the Key Market Drivers of the recovery are:

- Spending in 2009 down compared to 2008 (-46%)
- Foundry only segment with growth in 2009
- 2010 WFE spending is expected to be up, but still significantly below the 2007 level
- Growth in 2010 led by foundry and memory

Gartner Mar. 12, 2010
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ASMI Revenue climbed out of trough in 2H of 2009

• **Company-wide**
  • FY09: down 21 % versus FY08
  • 1H09: down 49 % versus 1H08
  • 2H09: up 12 % versus 2H08 and up 83% versus 1H09
  • 1Q10: up 146% versus 1Q09

• **For Back-end:**
  • Recovery started as of Q2 2009

• **For Front-end:**
  • Recovery started as of Q3 2009
## Consolidated Results ASMI M€

<table>
<thead>
<tr>
<th></th>
<th>FY 09</th>
<th>Q1 09</th>
<th>Q2 09</th>
<th>Q3 09</th>
<th>Q4 09</th>
<th>Q1 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong>*</td>
<td>591</td>
<td>89</td>
<td>120</td>
<td>180</td>
<td>202</td>
<td>219</td>
</tr>
<tr>
<td><strong>Gross Margin %</strong>*</td>
<td>34.8</td>
<td>23.9</td>
<td>28.2</td>
<td>38.3</td>
<td>40.4</td>
<td>42.2</td>
</tr>
<tr>
<td><strong>R&amp;D and SG&amp;A</strong>*</td>
<td>170</td>
<td>42</td>
<td>40</td>
<td>43</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td><strong>EBIT</strong>*</td>
<td>34</td>
<td>(21)</td>
<td>(7)</td>
<td>26</td>
<td>36</td>
<td>48</td>
</tr>
<tr>
<td><strong>Net result</strong></td>
<td>(107)</td>
<td>(23)</td>
<td>(56)</td>
<td>(16)</td>
<td>(12)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Cash Flow from operations</strong></td>
<td>63</td>
<td>6</td>
<td>(6)</td>
<td>32</td>
<td>31</td>
<td>26</td>
</tr>
</tbody>
</table>

* Before impairment inventories and restructuring expenses

** Allocated to shareholders of the parent
ASMI Working Capital M€

- **Working capital ASMI**
- **Working capital Front-end**
- **Working capital Back-end**

Graph showing working capital trends from Q1 08 to Q1 10.
2009 Highlights for Back-end and Front-End are….

• **Back-end**
  - Bookings reached new records in 2H 2009
  - Strong growth in LED besides IC

• **Front-end**
  - Achieved significant reduction in cost base
  - Strategic additional ALD-customer penetrations made
May 14 2010: ASMI € 17.83 ($ 22.51)

- ASMI share price increases 2.5x in 2009
- Comparison same sector companies
- ASMI received Euronext award for best performing Midcap-company in 2009

Source: Yahoo!
ASMI Share Price last 5 years

May 14 2010: ASMI € 17.83 ($ 22.51)

ASMI share price increases 50% over 5 year period

Source: Yahoo!
Global Sustainability

- **ASMI is committed to**
  - High standards for employee and product safety
  - High standards for energy conservation and environmental quality

  **This commitment is part of ASMI’s Code of Ethics**

- **ASMI Global Health & Safety program**
  - Pro-active Management of Safety
    - Use of global Key Performance Indicators
    - Recordable incidents in 2009 per 100 FTEs:
      - for Front-End: 0.52
      - for Back-End: 0.47

- **Environment**
  - In 2009 focused on
    - increase of Recycling & Reduction of Hazardous waste (local programs)
    - energy savings efforts (i.e. all LED lighting in new FEMS cleanroom)
  - In 2010 start of aligning Global Environmental program
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## Operations Back-end M€

<table>
<thead>
<tr>
<th></th>
<th>Q1 09</th>
<th>Q2 09</th>
<th>Q3 09</th>
<th>Q4 09</th>
<th>Q1 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>43</td>
<td>92</td>
<td>142</td>
<td>153</td>
<td>165</td>
</tr>
<tr>
<td><strong>Gross Margin %</strong></td>
<td>21.2</td>
<td>36.2</td>
<td>43.8</td>
<td>44.5</td>
<td>45.1</td>
</tr>
<tr>
<td><strong>OPEX</strong></td>
<td>16</td>
<td>17</td>
<td>21</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td>(7)</td>
<td>16</td>
<td>41</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td><strong>Net result</strong></td>
<td>(8)</td>
<td>15</td>
<td>37</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td><strong>Cash Flow from operations</strong></td>
<td>1</td>
<td>14</td>
<td>44</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>

* Opex includes R&D and SG&A
ASM Back-End
Record Quarterly Bookings as of Q3-09

US$ (M)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
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<tbody>
<tr>
<td>Q1</td>
<td>164</td>
<td>197</td>
<td>176</td>
<td>161</td>
<td>35</td>
</tr>
<tr>
<td>Q2</td>
<td>180</td>
<td>183</td>
<td>208</td>
<td>161</td>
<td>63</td>
</tr>
<tr>
<td>Q3</td>
<td>124</td>
<td>150</td>
<td>207</td>
<td>234</td>
<td>188</td>
</tr>
<tr>
<td>Q4</td>
<td>120</td>
<td>150</td>
<td>161</td>
<td>284</td>
<td>208</td>
</tr>
<tr>
<td>Q1</td>
<td>176</td>
<td>208</td>
<td>35</td>
<td>234</td>
<td>188</td>
</tr>
<tr>
<td>Q2</td>
<td>207</td>
<td>161</td>
<td>63</td>
<td>284</td>
<td>208</td>
</tr>
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<td>188</td>
<td>124</td>
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</tr>
<tr>
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<td>208</td>
<td>234</td>
<td>120</td>
<td>284</td>
<td>188</td>
</tr>
<tr>
<td>Q1</td>
<td>35</td>
<td>63</td>
<td>150</td>
<td>234</td>
<td>188</td>
</tr>
</tbody>
</table>

US$ (M)
• **Revenue**
  - 1H 2009: growth in China market and LED
  - 2H 2009: broad recovery from all application markets and geographical areas
  - Solid and diversified customer base

• **Product offerings and market penetration**
  - Total solution approach continues to help in winning new business
  - Cu wire solutions enabling cost reduction for customers
  - Extending total solution approach into LED
  - Enhancing product offerings in power management market
    - for applications such as LED lighting, automotive, electrical appliances and handheld gadgets
Eagle Xtreme - Wire Bonder for highly Integrated Products

- Ultra fine pitch capability of 30 µm
- Bond placement control of 2 µm @ 3 sigma
- Capable of process wires from 15 µm to 50 µm in diameter
- Qualified with gold, gold alloy, insulated gold wire, and copper wire
ASM Back-End
Total Solution for LED Packaging Process

Material
- Leadframe & Wafer

Die Sorting

Die Bonding

Curing

Post Curing

Encapsulation / Lens Attach / Lens Molding

Phosphor Application Jetting

Wire Bonding

Singulation

Testing, Sorting and Taping

Finished

Material
- Leadframe & Wafer

Die Sorting

Die Bonding

Curing

Post Curing

Encapsulation / Lens Attach / Lens Molding

Phosphor Application Jetting

Wire Bonding

Singulation

Testing, Sorting and Taping

Finished
ASM Back-End Power Applications

- **eClip**
  Automatic Clip Bonding System

- **HA501**
  Automatic Heavy Aluminum Bonding System
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- **Status ASMI Front-end**
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PERFORM! is about:

- Improving Front-End’s financial performance through the cycles
- Changing organizational structure from Regional to Global
- Strengthening Commercialization
- Execution & Operational Excellence
- Focus and stronger Accountability
- Enhancing Technology Leadership
• **Established Global Sales and Service**
  • From Technical/Product focus to Customer focus ("Commercialization")
  • Voice of the Customer now at the highest level of organization
  • Accelerated penetration into Memory and Foundry development lines in 2009

• **Established Global Operations**
  • Transfer of Manufacturing to one location (Singapore)
    • Almere-factory (NL) is closed
    • Phoenix-factory (USA) planned for close by end of Q2 2010
    • Nagaoko-factory (Japan) planned for close by end of Q4 2010
  • Global Procurement has been set up
• **R&D and Product Management**
  • Disciplined prioritization of R&D-programs
  • All single wafer applications to one product platform by 2010
  • New Platform Group that owns single wafer product platform
    • Allows Product Lines to focus
  • Merged product lines into 2 Business Units (Thermal & Plasma)
  • Consolidated our Global Training facilities into one location

• **G&A**
  • Standardized & consolidated G&A-functions
    • e.g. global SAP and Shared Service Center for Finance
  • Insourced number of Tax and HR-activities
  • Consolidated Offices, Cleanrooms & Warehouses
• Significant Reduction of Cost Base and Restructuring of the Company

• Significant Reduction of Working Capital by year end 2009

• On schedule in reducing our cost base by mid 2010 by 40% versus the Q4 2008 runrate
  • At end of Q1 2010 Cost Base reduced by 33% compared to Q4 2008

• Key Customer Penetrations made
## Operations Front-end M€

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<td>26.5</td>
<td>1.7</td>
<td>17.7</td>
<td>27.7</td>
<td>33.4</td>
</tr>
<tr>
<td><strong>OPEX/</strong> **</td>
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<td>25</td>
</tr>
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<td>(22)</td>
<td>(15)</td>
<td>(8)</td>
<td>(1)</td>
</tr>
<tr>
<td><strong>Net result</strong></td>
<td>(19)</td>
<td>(64)</td>
<td>(35)</td>
<td>(34)</td>
<td>(19)</td>
</tr>
<tr>
<td><strong>Cash Flow from operations</strong></td>
<td>7</td>
<td>(20)</td>
<td>(12)</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

* Before impairment inventories and restructuring expenses
** Opex includes indirect overhead operations, R&D and SG&A
ASM Technologies focused on extending Moore’s Law


Scaling enabled by Litho

Scaling enabled by Materials

Scaling enabled by 3D

ASM Key Technologies are required for device scaling

- Low-k
- Strained Si
- High-k
- SDDP
- FinFETs
- 3D SIC
ASM Front-End
ASM has broad ALD Portfolio

Original ASM Innovations

Thermal ALD

Batch Thermal ALD

Plasma Enhanced ALD (PEALD)

Precise film control for high-k metal gate transistors

Lowest cost ALD deposition method

Low temperature conformal dielectric films

ASM is very well positioned and the only company having all ALD technologies in-house
We made Key Customer ALD Penetrations in 2009 and Q1-10

- 12 Key customer penetrations in last 15 months
- All for 32nm, 22nm nodes and beyond
- Memory, Foundry and Logic segment
- Applications ALD high-k, ALD metal, PEALD SDDP, PEALD spacer
Eagle® XP
PECVD
ALD
PEALD
Common Platform

Epsilon® 3200
Epitaxy
Advanced strain layers

Pulsar®
ALD
High-k leader

A412
Vertical Furnace
Highest productivity
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New Debt Financing

What

• Renewed €50 mln standby facility, subsequently raised to €90 mln.
• New issue of €150 mln senior unsecured convertible bonds due November 2014

Why

• To provide financial security to weather the cycle and allow for the ongoing restructuring
• To have adequate level of Working Capital available to finance recovery and growth
### Consolidated Cash Flow Statement M€

<table>
<thead>
<tr>
<th></th>
<th>FY 2008</th>
<th>FY 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash Flow from Operations</td>
<td>137</td>
<td>63</td>
</tr>
<tr>
<td>Net Cash Flow from Investments</td>
<td>(33)</td>
<td>(15)</td>
</tr>
<tr>
<td>Net Cash Flow before Financing</td>
<td>104</td>
<td>48</td>
</tr>
<tr>
<td>Net Cash Flow used for Financing</td>
<td>(121)</td>
<td>91</td>
</tr>
<tr>
<td>Net Change in Cash</td>
<td>(11)</td>
<td>136</td>
</tr>
<tr>
<td>Ending Cash Balance</td>
<td>157</td>
<td>293</td>
</tr>
<tr>
<td>Net debt</td>
<td>(3)</td>
<td>(23)</td>
</tr>
</tbody>
</table>
Use of ASMPT Dividends

2008

• Received ASMPT dividend € 49 million
  – Purchase of treasury shares ~ € 36 million (before dividend withholding tax)
  – Buy back of convertible debt ~ € 30 million

2009

• Received ASMPT dividend € 21 million
  – Surplus spending, 2008 ~ € 17 million
  – Buy back of convertible debt for remaining ~ € 4 million plus an excess buy back of ~ € 22 million
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Applications Driving Market Growth Through 2014

- Mobile applications drive most semiconductor revenue in the coming 5 yrs
  - Low power, small form factor required
- LED’s driven by cost, thermal management, white light needs and brightness

10% of high CAGR or high revenue apps outside of the box drive >40% of semiconductor revenue

Source: Gartner (February 2010), ASM
Applications Driving Growth Through 2014

- ASM new technologies are well positioned to supply the equipment to manufacture the semiconductors in the high CAGR/high revenue segments
Packaging and Assembly Equipment Forecast

- 2010 Packaging and Assembly Equipment spending is expected to be up
- Growth expected next 3 years
• **Very strong demand**  
  • Across all segments, products and geographical areas

• **Fundamentals: long term prospect of the market look promising despite concern on 2H 2010**  
  • No immediate sign of slowing down yet

• **Driver for growth**  
  • LED  
  • Robust growth of Asian economy (will also trigger consumer demand)  
  • Increased business spending, especially in IT

• **LED will continue to be a key driver for the market for the years to come**  
  • LED backlit TV and displays, general lighting  
  • LED demand will also drive up demand for power packages and power management ICs

• **Manufacturing plant in Huizhou, China, operational by Q4 2010**
Front End Market Forecast shows growth in new technology nodes

Wafer Fab Equipment Forecast by node

- Share of 32nm and 22nm of total Equipment spending is increasing in the coming years

Gartner Mar. 12, 2010
• Experienced strongest drop in history of our industry

• Back-end 2009
  • Bookings reached new records in 2H
  • Strong growth in LED besides IC

• Front-end 2009
  • Achieved significant reduction in cost base
  • Strategic additional ALD-customer penetrations made

• Outlook
THANK YOU