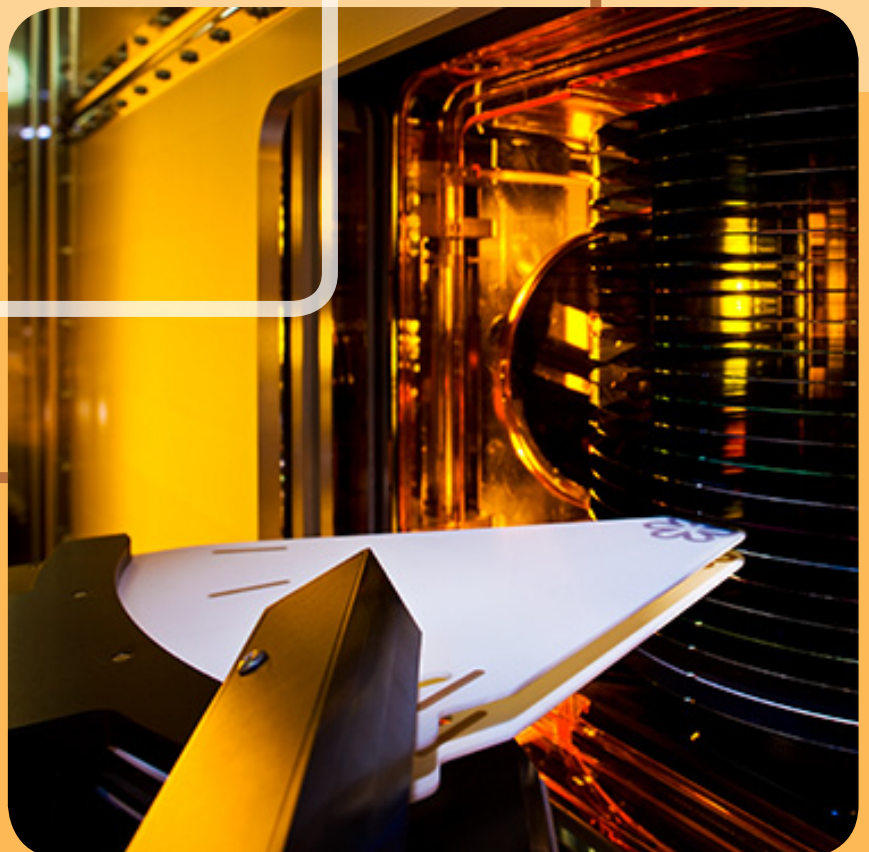
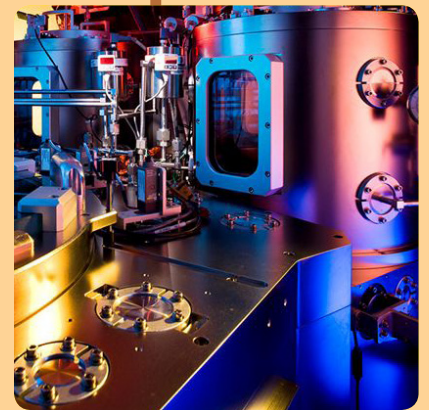
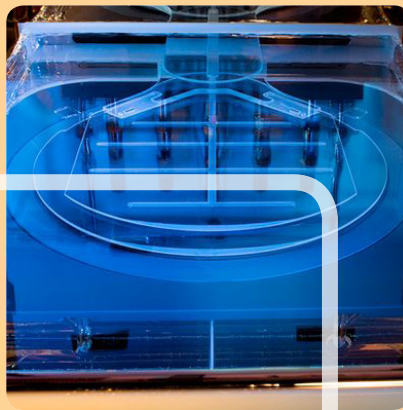
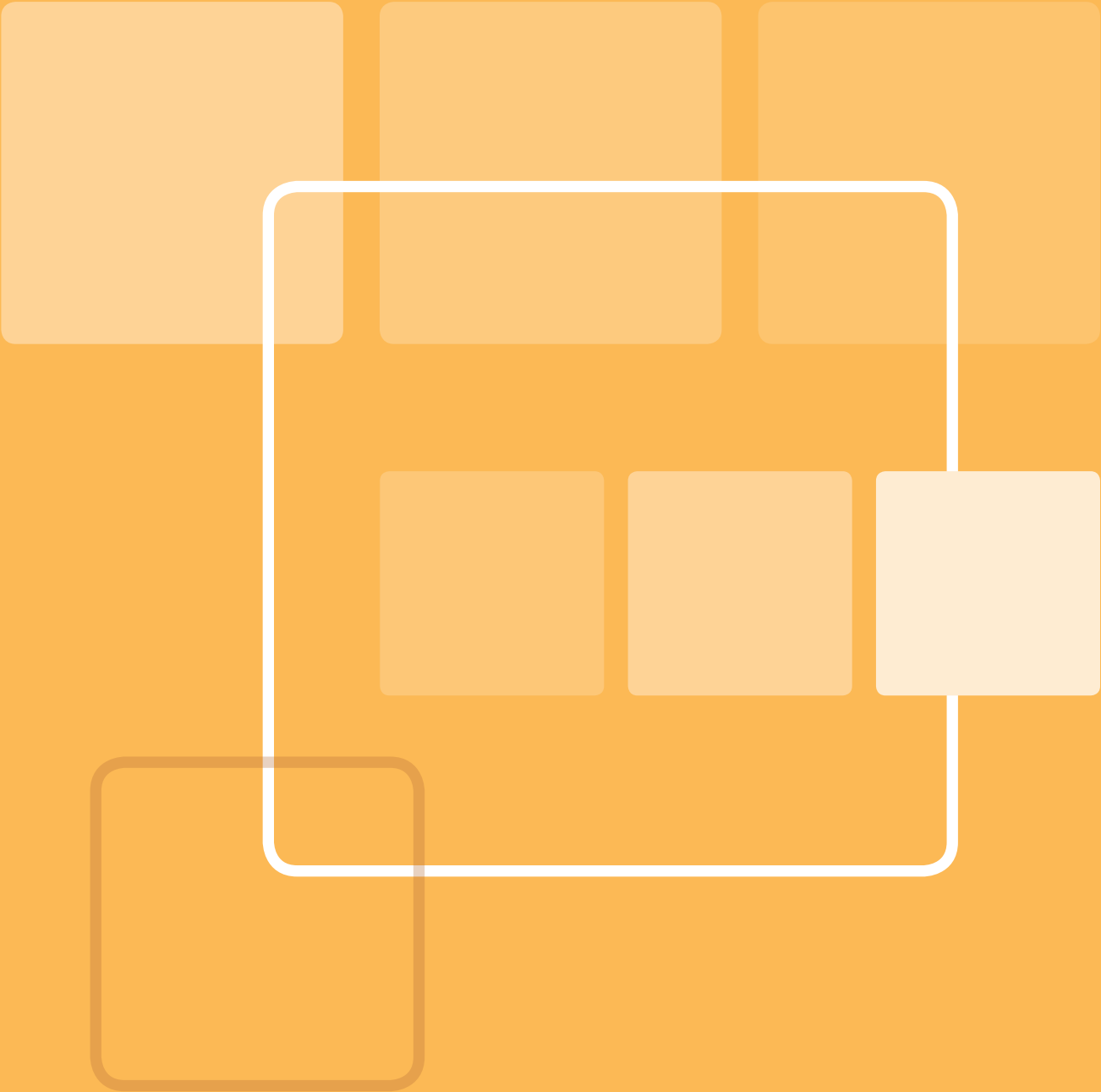


# 2010 Annual Report

The Process of Innovation<sup>SM</sup>





# 2010 Annual Report

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## Trademarks

ASM, the ASM International logo, Advance, Aurora, Dragon, Eagle, EmerALD, Epsilon, Polygon, Pulsar, Silcore and Stellar are our registered trademarks. A400, A412, A4ALD, ALCVD, Atomic Layer CVD, NCP, PEALD, Pore Builder, SmartBatch, and Superfill CVD are our trademarks. “The Process of Innovation” and “The Switch Is On” are our service marks.

AB500B, DreamPAK, DRYLUB, EQUIPMANAGER, EQUIPMGR, IDEALine, IDEALsystem, IDEALab, IDEALNet, PGS, SMARTWALK, SOFTEC, SmartSurf, and Ultravac are registered trademarks of ASM Pacific Technology Ltd. Cheetah, Eagle60, Harrier, Hummingbird, IDEALCompress, IDEALmold, Osprey, TwinEagle, FAB Farming and SolarCSI are trademarks of ASM Pacific Technology.

## Safe Harbor Statement

In addition to historical information, this Annual Report contains statements relating to our future business and / or results, including, among others, statements regarding future revenue, sales, income, expenditures, sufficiency of cash generated from operations, maintenance of majority interest in ASM Pacific Technology Ltd., business strategy, product development, product acceptance, market penetration, market demand, return on investment in new products, facility completion dates and product shipment dates, corporate transactions, restructurings, liquidity and financing matters, outlooks and any other non-historical information in this Annual Report. These statements include certain projections and business trends, which are “forward-looking” within the meaning of the United States Private Securities Litigation Reform Act of 1995.

You can identify these statements by the use of words like “may”, “could”, “should”, “project”, “believe”, “anticipate”, “expect”, “plan”, “estimate”, “forecast”, “potential”, “intend”, “continue” and variations of these words or comparable words. Forward-looking statements do not guarantee future performance and involve risks and uncertainties. You should be aware that our actual results may differ materially from those contained in the forward-looking statements as a result of certain risks and uncertainties. These risks and uncertainties include, but are not limited to, economic conditions and trends in the semiconductor industry and the duration of industry downturns, currency fluctuations, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholder and other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, epidemics and other risks indicated in our Annual Report on Form 20-F for the year ended December 31, 2010 and other filings from time to time with the SEC. The risks described are not the only ones facing ASM. Some risks are not yet known and some that we do not currently believe to be material could later become material. Each of these risks could materially affect our business, revenues, income assets, liquidity and capital resources. All statements are made as of the date of this report unless otherwise noted, and we assume no obligation nor intend to update or revise any forward-looking statements to reflect future developments or circumstances.

## Statutory Annual Report

The Consolidated Financial Statements and other financial information included in this Annual Report are prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”). A copy of our Statutory Annual Report prepared in accordance with International Financial Reporting Standards (“IFRS”), is available free of charge by writing to our corporate offices or e-mail to [investor.relations@asm.com](mailto:investor.relations@asm.com).

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*In the 40-year history of our Company, ASM International N.V. has witnessed the evolution of the semiconductor equipment industry, from two inch wafers of the late 1960's, to the 300mm wafers of today. Symbolic of these products... the silicon crystal... the basis of the ASM International logo.*



## Financial Highlights and Selected Comparative Financial Data

In euros and U.S. dollars <sup>(1)</sup>		Year ended December 31,					
(millions, except per share data and full-time equivalents)		2006	2007	2008	2009	2010	2010
		EUR	EUR	EUR	EUR	EUR	US \$
<b>Operations:</b>							
Net sales:		877.5	955.2	747.4	590.7	1,222.9	1,634.2
Front-end		409.4	450.9	296.8	160.4	293.4	392.0
Back-end		468.1	504.3	450.6	430.4	929.5	1,242.1
Earnings (loss) from operations		129.5	147.4	59.7	(25.2)	328.6	439.2
Net earnings from continuing operations		109,6	116,3	56,7	(68.3)	242.5	324.1
Net loss from discontinued operations <sup>(2)</sup>		(20.4)	-	-	-	-	-
Net earnings (loss) <sup>(3)</sup>		89,2	116,3	56,7	(68.3)	242.5	324.1
Allocation of net earnings (loss):							
Shareholder of the parent		34.3	61.0	18.4	(107.5)	110.6	147.8
Minority interest		54,9	55,3	38,3	39.2	131.9	176.2
<b>Balance sheet:</b>							
Net working capital <sup>(4)</sup>		220.0	266.1	253.9	181.3	292.5	390.3
Total assets		832.3	840.3	767.8	851.7	1,214.1	1,622.4
Net debt (cash) <sup>(5)</sup>		34.6	19.0	(3.6)	(28.5)	(124.6)	(166.5)
<b>Backlog:</b>							
		234.3	200.4	90.7	196.7	499.8	667.9
Front-end		155.5	99.2	53.0	50.3	162.9	217.7
Back-end		78.8	101.2	37.7	146.4	336.9	450.2
<b>Number of staff:</b>							
Full-time equivalents:		10,868	11,832	11,714	12,067	16,699	16,699
Front-end		1,860	1,843	1,667	1,294	1,450	1,450
Back-end		9,008	9,989	10,047	10,773	15,249	15,249
<b>Per share data:</b>							
Net earnings (loss) per share:							
Basic net earnings (loss)		0.64	1.13	0.35	(2.08)	2.11	2.82
Basic net earnings (loss) from continuing operations		1.02	1.13	0.35	(2.08)	2.11	2.82
Basic net loss from discontinued operations		(0.38)	-	-	-	-	-
Diluted net earnings (loss):		0.64	1.07	0.35	(2.08)	2.09	2.79
Diluted net earnings (loss) from continuing operations		1.02	1.07	0.35	(2.08)	2.09	2.79
Diluted net loss from discontinued operations		(0.38)	-	-	-	-	-
Weighted average number of shares used in computing per share amounts (in thousands):							
Basic		53,403	53,968	52,259	51,627	52,435	52,435
Diluted		53,575	65,076	52,389	51,627	61,494	61,494

- (1) For the convenience of the reader, Financial Highlights and Selected Comparative Financial Data for 2010 have been converted into U.S. dollars at the exchange rate according to the European Central Bank of 1,3363 U.S. dollar per euro, at December 31, 2010.
- (2) The restructuring of ASM NuTool in 2005 followed by the sale of substantially all of the ASM NuTool patent portfolio to a third party in December 2006 required ASM NuTool to be accounted for retroactively as discontinued operations under US GAAP in our Consolidated Financial Statements.
- (3) Following the adoption of ASC 810(-10 45-23) in 2009 results on dilution of investments in subsidiaries are accounted for directly in equity. The 2009 results and changes in equity have been adjusted accordingly.
- (4) Net working capital includes accounts receivable, inventories, other current assets, accounts payable, provision for warranty and accrued expenses and other. Since 2009 Evaluation tools at customers are no longer reported under inventories but under non-current assets. The historical figures have been adjusted for this reclassification.
- (5) Net debt (cash) includes long-term debt, convertible subordinated debt, the conversion option and notes payable to banks, less cash and cash equivalents.

ASM International N.V. (“ASMI”) is a leading supplier of semiconductor equipment, materials and process solutions addressing both the wafer processing and assembly and packaging markets. Our customers include all of the top semiconductor device manufacturers in the world.

## Mission and Strategy

ASMI’s mission is to provide our customers with the most advanced, cost-effective, and reliable products, service and global support network in the semiconductor industry and beyond. We advance the adoption of our new technology platforms by developing new materials and process applications that progressively align ASMI with our customers’ long-term technology roadmaps.

Our strategic objective is to realize profitable, sustainable growth by capitalizing on our technological innovations, manufacturing infrastructure, and sales and support offices close to our global customers. This includes:

- Streamlining our Front-end manufacturing processes to follow the highly successful vertical manufacturing model of our Back-end segment, by systematically reducing manufacturing costs through global sourcing, product platform consolidation, and locating significant parts of our manufacturing capability in more cost efficient countries.
- Maintaining our global reach through our operating, sales and customer service facilities in key parts of the world in order to establish and maintain long-term customer relationships.
- Leveraging our combined strong Front-end and Back-end technology leadership and manufacturing capabilities through advancements in our products and processes early in the technology lifecycle.
- Expanding the scope and depth of our research and development capabilities through strategic alliances with independent research institutes, universities, customers and suppliers, and expanding our patent portfolio by filing applications for key developments in equipment, processes, materials and software where this is deemed necessary and beneficial.

## Wafer Processing

ASMI participates in three distinct Front-end manufacturing processes: wafer manufacturing, transistor formation, and interconnect. By building upon our core strengths in Vertical Furnaces, Epitaxy, PECVD and Atomic Layer Deposition technologies, today we address all of the critical areas driving the semiconductor industry roadmap: silicon-on-insulator (SOI) and strained silicon, high-k dielectrics and metal electrodes for logic and memory, dielectrics for double patterning, and low-k for interconnect, enabling the industry transition to smaller line-widths and better transistors employing new materials.

## Assembly and Packaging

ASM Pacific Technology Ltd. (“ASMPT”), our 52.4% owned Back-end subsidiary, is the world’s largest assembly and packaging equipment supplier for the semiconductor and LED industries and is a leading supplier of stamped and etched lead frames. With headquarters in Hong Kong, and operations in the People’s Republic of China, Singapore and Malaysia, ASMPT offers the most comprehensive leading edge portfolio for all of the major process steps in Back-end, from die attach through encapsulation. In early 2011, ASMPT entered the Surface Mount Technology market through the acquisition of the Siemens Electronics Assembly Systems business from Siemens AG.

## Global Operations

With corporate headquarters in Almere, the Netherlands, ASMI operates manufacturing facilities in Singapore, Malaysia, Hong Kong, and the People’s Republic of China, with design, research and development centers in Europe, North America, and Asia, and our sales and service operations spanning 18 countries across the globe. Our workforce totals more than 16,500 worldwide. ASMI trades on the NASDAQ stock market under the symbol “ASMI”, and on Euronext Amsterdam under the symbol “ASM”. ASMPT trades on the Hong Kong Stock Exchanges under the code 0522.



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## ATOMIC LAYER DEPOSITION – A CRITICAL NANOTECHNOLOGY

### Building Atom by Atom

Atomic Layer Deposition (ALD) is an advanced process that enables the formation of thin films atom by atom. This truly enabling technology creates atomically-engineered nanoscale structures and devices with unique properties that address the challenges of very small dimensions. Building devices at the atomic level provides precise process control for uniform thickness of deposition materials over all topographies.

### Expanding Application Markets

ALD serves an expanding range of applications within the semiconductor industry and beyond, in consumer, medical and government sectors. Many leading edge products in use today from the high performance chips to the hard disk drives in our desktop PC's, and the low power chips in our wireless handheld devices are now built using ASM's ALD technology.

### Materials-Enabled Scaling

In the vast field of microelectronics, ALD is a critical technology for manufacturing integrated circuits that enables the continuation of *Moore's Law*. Inspired by Intel founder, Gordon Moore, *Moore's Law* states that the density of ICs will double approximately every two years. What makes ALD such a critical technology for the miniaturization of both transistors and capacitors is that it enables the semiconductor industry to lay down a myriad of new materials with atomic precision.

Like thermal ALD, PEALD or "Plasma Enhanced ALD" is an ASM innovation. PEALD not only widens the spectrum of materials that can be deposited, its capability to deposit many materials at temperatures as low as room temperature makes processes possible on temperature sensitive substrates such as photoresist. The technology is currently in use for so-called direct spacer defined double patterning, a technique that can reduce device dimensions at 32nm and below, postponing the need for new lithography technologies.

### ASM: Pioneer and Industry Leader

ASMI pioneered ALD technology for the semiconductor industry in 1999, following the acquisition of Microchemistry in Finland, who researched ALD for over 20 years. Today, ASM is a leading supplier of ALD tools and process solutions, offering both single wafer and batch systems. Based on its current success with semiconductor industry leaders, ASMI is well positioned to leverage its market leadership in ALD by also penetrating the industry fast-followers.

### Global R&D: the Foundation for Future Enhancements

ASM maintains the broadest and most diversified ALD development organization in the industry, with access to all the stages in its life cycle, from developing basic chemistry to the implementation in production. With research centers around the globe working on ALD – in Finland, the U.S., Japan, Korea, the Netherlands, and Belgium, as well as joint research projects with Europe's largest independent research institute, IMEC – at ASM, developments in ALD are a priority, and a dynamic and ongoing process.

### ALD: Driving Sustainable Growth

Despite the early invention of ALD around 30 years ago, it is a technology still very early in its lifecycle. Over the next decade, ALD is expected to be one of the principal drivers of growth in microelectronics. In the next 4 years, the market for ALD equipment is expected to grow, from about \$320 million in 2010 to about \$580 million in 2014 [VLSI Research, January 2011].

At ASM, ALD has grown from an emerging technology a decade ago, to a core technology today, and a principal driver of our growth going forward.

As the parameters of miniaturization forge new paths, atomic layer deposition, a technology that has been invented in the early seventies, is now quickly becoming a core technology for the semiconductor industry. ASMI is strongly positioned and strategically focused to benefit from this momentum as ALD continues to shape the cutting edge of our industry – one atom at a time – as a true nanotechnology.

# Letter to Shareholders

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2010 was a momentous year for the semiconductor equipment industry and for ASM International. It was a year of achievements in both our Front-end, or wafer processing, and Back-end, or assembly and packaging, segments.

In 2010, the semiconductor industry emerged from one of the most severe downturns on record, fueled by hefty global consumer demand for electronic products, particularly for newer generations of mobile communication devices. With production expanding, semiconductor manufacturers unleashed capital equipment spending. As a result, the semiconductor equipment industry more than doubled in size from the depressed levels of 2009.

The positive market environment was only one of the factors contributing to ASMI's performance that included higher revenues and margins in both our Front-end and Back-end operations. Net sales for the year reached EUR1.2 billion, an increase of 107% from the prior year. Front-end sales rose 83% and Back-end climbed 116%. Consolidated net profits allocated to the shareholders of the parent of EUR 110 million represented a 200% positive swing from the loss reported for 2009. For Back-end, 2010 was a record year for bookings, billings and earnings.

For ASMI, 2010 new orders more than doubled from the prior year, as customers responded to the semiconductor cyclical recovery, technology transitions, and the more secular growth in the LED market. In Front-end, bookings of EUR 405 million represented an increase of 156% year-over-year; in Back-end new orders were broad-based, and increased 90% compared to the 2009 level. At year end we recorded very healthy backlogs in both business segments.

We also ended the year in a stronger financial position. Net cash from operations at year end stood at EUR 260 million, up from EUR 63 million at the end of 2009. During the year we reduced our convertible debt by US\$73 million through the repurchase of 2011 debentures and conversion into common shares of the remaining 2010 convertibles. The repurchase was financed with the dividends received from our Back-end operation. In early 2011, we took further action by calling the remaining approximately US\$45 million outstanding of the 2011 convertible notes.

Our strong 2010 results form the basis for our financial policy going forward to include a sustainable annual dividend to our shareholders. Accordingly, we will propose at the 2011 Annual Meeting of Shareholders in May that the Company declare a dividend of EUR 0.40 per share.

## Front-end

Our Front-end business made solid progress at all levels of operation during the year. We increased our engagements with industry leaders in both the logic, memory and foundry segments with our advanced deposition technologies and innovative solutions to extend Moore's Law.

In 2010, we further strengthened our foothold as leader in ALD high-k metal gate for gate stack, forming the basis for an acceleration in the industry transition of high-k gate dielectrics from R&D to high volume manufacturing. Further, our PEALD solution for low-temperature dielectrics gained further traction in memory for double patterning applications. Demand for our Epitaxy product line increased in 2010, led by systems for power management applications, while our Vertical Furnace business continued to provide steady revenue streams.

The significant turnaround in Front-end's operating performance towards profitability was largely due to the successful execution of our PERFORM! restructuring program, which met its financial targets and was concluded at the end of 2010.

Highlights of the PERFORM! program obtained in 2010 include:

- Completion of the transfer of our United States and Japan manufacturing to our central manufacturing facility in Singapore.
- Completion of the restructuring program ahead of schedule, while keeping our PERFORM!-related expenses lower than anticipated over the two-year implementation period.
- The establishment of a third business unit: Global Service and Spares to generate increased revenue and improved margin from our growing installed equipment base.
- Completion of the consolidation of finance and administrative functions in our new Global Service Center in Singapore.

By the middle of 2010 we had obtained the target of a more than 40% reduction of our cost base, meaning R&D, SG&A and indirect overhead, compared to the run rate in the fourth quarter of 2008. This contributed to the substantial improvement to our operating margin as the year unfolded.

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## Back-end

2010 was a very strong year for ASM Pacific Technology, Ltd., our 52.4% owned Asian-based assembly and packaging operation. The upturn in the Back-end semiconductor equipment cycle, which began in 2009, combined with the surge in demand from the LED market drove our Back-end results past their historical peak.

As demand in Back-end accelerated to record levels, we quickly expanded our manufacturing capability with capacity additions for both equipment and lead frames that will help meet ongoing demand from our expanded market base. Our new Back-end factory in Huizhou, China, became fully operational in 2010, increasing capacity for our customers. We also increased our capacity for packaging products and stamped leadframes at our Fuyong, China facility.

With the bulk of our manufacturing and related activities located in China, the fastest growing geography for Back-end growth, we benefit from our 30-year ties to this important region.

In 2010 we announced the acquisition of SEAS the Surface Mount Technology division of Siemens AG, now renamed “ASM Assembly Systems”. This is the first major acquisition in our Back-end segment and one that we expect will provide another major growth engine for our Company. Surface Mount Technology (SMT), the construction of electronic circuits by mounting components directly on the circuit boards, is expected to offer synergies in engineering and manufacturing and marketing. We believe that with our cost efficient manufacturing expertise, our cost efficient Asian supplier base, and our Asian marketing infrastructure, we can build upon SEAS’ existing position in this market.

## Outlook

As we enter 2011, ASMI is well-positioned as a key enabler of the technology transitions that are shaping the future of our industry. In the past two years we have undergone substantial operational improvements while addressing long-term growth initiatives. We have shaped the Company around our core strengths, establishing innovative product portfolios that differentiate us in the marketplace. We have created new markets and aligned adjacent markets for our products that provide us with opportunities to build both our Front-end and Back-end businesses.

With many industry pundits forecasting a semiconductor industry expansion driven by consumer electronics demand, global communications infrastructures, and prior underinvestment in chip capacity, the industry environment for 2011 remains promising. At the same time, we acknowledge the unpredictability of global macro economic forces that could affect our performance at any point in the future.

Our growth drivers in 2011 include:

- the further adoption of ALD for high-volume manufacturing, and the expansion of ALD and PEALD applications.
- a higher level of sustainable business in Back-end than in prior cycles as a result of competitive gains in the LED market, and an acquired presence in SMT, which have substantially increased the size of our addressable market, and
- the introduction of new generations of Back-end products.

We are grateful to our very dedicated employees for their hard work that made the achievements of the past year possible. We also thank our customers and investors who continue to support the execution of our long-term vision. We look forward to growing our business, at this very strategic point in the Company’s evolution, for the benefit of all our stakeholders.



Charles D. (Chuck) del Prado  
President and Chief Executive Officer

Almere, The Netherlands  
March 25, 2011

# Report from the Supervisory Board

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## Financial Statements

We present the ASMI 2010 Annual Report and Annual Accounts for Form 20-F in accordance with US GAAP, as prepared by the Management Board and reviewed by the Supervisory Board. Our independent auditors, Deloitte Accountants B.V., have audited these Annual Accounts and issued an unqualified opinion. Their report appears on page F-2 of the Form 20-F.

All of the members of the Supervisory Board have signed the Financial Statements in respect of the financial year 2010.

## Introduction

On July 9, 2010 the Supreme Court annulled the Enterprise Court ruling of August 5, 2009. The Enterprise Court had ordered in August of 2009 an inquiry in respect of certain affairs of the Company having to do with litigation that arose in 2008 from a conflict with a group of shareholders. In 2008 two ASMI shareholders requested the Dutch Enterprise Court to investigate certain matters in relation to the Company and Stichting Continuïteit ASM International.

With the annulment of the order in July 2010 the Dutch Supreme Court reverted the decision back to the Enterprise Court, whereby certain observations of the Supreme Court are to be taken into account. The Enterprise Court has not yet rendered a new decision whether an inquiry into the affairs of ASMI is to be held. Following the annulment by the Supreme Court in July of 2010, the investigation was suspended.

2010 was also characterized by a recovery of the semiconductor equipment industry. In 2010 ASM also completed the aggressive restructuring plan for the Front-end activities, called PERFORM!, that had been adopted in 2009 following the deep global recession in the second half of 2008 and the first half of 2009. More on this program is discussed in the Letter to Shareholders in the 2010 Annual Report.

## Supervision

Supervision of the Management Board, its policy decisions and actions, are entrusted to the Supervisory Board. In accordance with Dutch law, the Supervisory Board is a separate body, independent of the Management Board. The Supervisory Board is of the view that all its members qualify as “independent” in accordance with Rule III.2.1. of the Code. The Supervisory Board supervises and advises the Management Board in executing its responsibilities. The profile of the Supervisory Board describes the range of expertise that should be represented within the Board. The procedures of the Supervisory Board and the division of its duties are laid down in the Supervisory Board Rules. Both documents are available on our website [www.asm.com](http://www.asm.com).

## Meetings of the Supervisory Board

During 2010, the Supervisory Board met with the Management Board on six occasions, and in a number of conference calls. Furthermore, the Supervisory Board held a few conference calls without the Management Board participating. In these meetings, the Boards discussed operations, business risks, product and market developments, the Company's organization, management and financial structure and performance, and initiatives of shareholders. In 2010, an important focus area for the Boards was the execution of the aggressive Front-end restructuring plan. This comprehensive roadmap focused on cost-reduction, product portfolio positioning and increasing the effectiveness of Front-end's global organization in order to become a financially healthy organization throughout industry cycles.

In addition, the Supervisory Board discussed the functioning of the Supervisory Board and its individual members, the relationship between the Supervisory Board and the Management Board, the composition of the Management Board, its performance, and the performance of its individual members without the members of the Management Board attending.

## Corporate Governance

Included in the responsibilities of the Supervisory Board is to oversee the Company's compliance with corporate governance standards and best practices in the Netherlands and the United States. The changes to the amended Dutch Corporate Governance Code relate, amongst others, to risk management of the Company, remuneration of Management Board members and corporate social responsibility issues. These matters were broadly discussed within the Supervisory Board. The Supervisory

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Board is of the opinion that the Company complies with the Sarbanes-Oxley Act and applicable corporate governance requirements and best practices set out by NASDAQ, the U.S. Securities and Exchange Commission (SEC), and the Dutch Corporate Governance Code, except for those discussed in the Corporate Governance section, which follows this report.

### **Supervisory Board Composition**

At the Annual General Meeting on May 20, 2010, Mr. Eric van Amerongen retired from the Supervisory Board after having been on the Board for 8 years. In the same meeting Mr. Martin.C.J. van Pernis was elected to the Supervisory Board. The Supervisory Board is currently composed of six members.

### **Management Board Composition**

At the Annual General Meeting of Shareholders on May 20, 2010, Mr. Peter A.M. van Bommel was elected a member of the Management Board effective July 1, 2010 and Chief Financial Officer effective September 1, 2010. Mr Peter van Bommel previously held positions as Chief Financial Officer of NXP and Odersun AG. Effective September 1, 2010, Mr. Robert A. Ruijter retired from his position as interim Chief Financial Officer.

### **Supervisory Board Committees**

#### *Audit Committee*

The role of the Audit Committee is described in its charter, which is available on the Company's website, [www.asm.com](http://www.asm.com). The Audit Committee consists of Messrs Jan Lobbezoo (Chairman), Heinrich Kreutzer and Ulrich Schumacher.

During the year, the Audit Committee held five meetings with the Management Board and Deloitte Accountants, the Company's independent auditors. Audit Committee discussions included: the Company's internal risk management systems; progress in testing operating effectiveness of internal controls required by Section 404 of the Sarbanes-Oxley Act; the Company's financial position and financing programs; the application of accounting principles; the establishment of an internal audit function; the appointment of Deloitte Accountants; the audit performed, and its findings, the Annual Report and Annual Accounts; and the budget and the quarterly progress reports prepared by the Management Board.

On one occasion, the Audit Committee met with Deloitte Accountants, without the members of the Management Board present, to discuss the risk of fraud. Furthermore, the Audit Committee discussed the auditor's performance with the Management Board without Deloitte Accountants present.

#### *Nomination, Selection and Remuneration Committee*

The role of the Nomination, Selection and Remuneration Committee is described in its charter, which is available on the Company's website, [www.asm.com](http://www.asm.com). In general, the Committee advises the Supervisory Board on matters relating to the selection and nomination of new Management Board members, as well as the remuneration of the members of the Management Board. This committee consists of Messrs Gert-Jan Kramer (Chairman), Johan Danneels, and Martin van Pernis.

In 2010, the Nomination, Selection and Remuneration Committee held two meetings. The topics discussed included the remuneration of the individual members of the Management Board and the evaluation of remuneration policy for the Management Board. A proposal to update the remuneration policy was submitted to the Annual General Meeting of Shareholders in May 2010 and approved. During the meetings of the committee, the Chief Executive Officer was present, except on the occasion when his own remuneration was discussed. For practical reasons most of the committee's work was done by e-mail or telephone.

The remuneration of the members of the Management Board is disclosed in Item 6.B. of the Annual Report on Form 20-F, "Directors, Senior Management and Employees – Compensation". The remuneration of the members of the Management Board during 2010 is fully in accordance with the Remuneration Policy. The Remuneration Policy for the Management Board has been submitted to, and adopted by, the 2010 Annual General Meeting of Shareholders.

## Report from the Supervisory Board (*continued*)

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### Word of Thanks

We extend gratitude and appreciation to ASMI employees worldwide for their many contributions and enduring commitment to the Company during a difficult year for our Company, our industry and the entire global economy. It is their commitment and determination that enabled us to pursue our ambitious restructuring goals in this unsettled environment. As we progress through this dynamic transition period for the Company, we recognize that the cumulative efforts of our work force are truly creating real value for all of our stakeholders.

### Supervisory Board

G.J. Kramer, Chairman  
J.M.R. Danneels  
H.W. Kreutzer  
J.C. Lobbezoo  
M.C.J. van Pernis  
U.H.R. Schumacher

Almere, The Netherlands  
March 25, 2011



## General

As we are listed on both the NASDAQ Global Select Market (“NASDAQ”) and on Euronext Amsterdam, we are required to comply with the applicable Sarbanes-Oxley Act corporate governance requirements and applicable best practices set out by NASDAQ, the U.S. Securities and Exchange Commission (“SEC”) and the Dutch Corporate Governance Code published in December 2008 (the “Code”).

At ASMI, we are committed to upholding high standards in corporate governance and ethics practices. We believe our numerous internal policies and procedures provide a good structure for the operation of ASMI that is consistent with the best interests of our shareholders and customers as well as applicable legal requirements. We endeavour to ensure that our policies and procedures comply with both applicable U.S. and applicable Dutch corporate governance requirements, to the extent possible and desirable. In this section, we discuss our corporate governance structure in accordance with the Code.

Corporate governance related documents are available on our website, including the Supervisory Board Profile, Supervisory Board Rules, Management Board Rules, the Audit Committee Charter, the Nomination, Selection and Remuneration Committee Charter, the Code of Ethics, the Whistleblower Policy, the Anti-Fraud Policy, the Rules concerning Insider Trading, and the Remuneration Policy.

## Dutch Corporate Governance Code

The Code contains principles and best practices for Dutch companies with listed shares and requires companies to either comply with these best practice provisions or to explain why they deviate from the Code. The Code has been granted statutory force by designating it as a code of conduct pursuant to article 2:391 subsection 5 of the Dutch Civil Code. A copy of the Code can be downloaded from [www.commissiecorporategovernance.nl](http://www.commissiecorporategovernance.nl).

We currently comply with the principles and best practice provisions of the Code, except for the following:

Pursuant to rule III.5.11 of the Code the chairman of the Supervisory Board should not act as chairman of the Remuneration Committee. However, ASMI does not have a separate Remuneration Committee but has combined the Remuneration Committee and the Selection and Nomination Committee as envisaged by the Code in a Nomination, Selection and Remuneration Committee (NSRC) which is chaired by Mr Gert-Jan Kramer. To the extent that the chairmanship of Mr Kramer of the NSRC qualifies as a deviation from the Code ASMI believes that such deviation is in the best interest of the company and its stakeholders given the overriding importance of the chairman of the supervisory board’s significant involvement in the nomination and selection process for management and supervisory board members.

In general we agree with Rule II.2.8 of the Code that in most circumstances a maximum severance payment of one year for Management Board members is appropriate. However, we want to reserve the right to agree to different amounts in case we deem this to be required by the circumstances. Any deviations will be disclosed.

## Management Board

### *Responsibilities*

In addition to the duties of the Management Board stipulated by law and our Articles of Association, the Management Board has the following responsibilities:

- achieving the aims, strategy, policy and results of the Company;
- managing the risks associated with the activities of the Company;
- ensuring proper financing of the Company;
- establishing and maintaining disclosure controls and procedures which ensure that all major financial information is known to the Management Board to ensure the timeliness, completeness and accuracy of the external financial reporting are achieved; and
- determining relevant aspects and achieve aims in relation to corporate social responsibility and sustainability.

The Management Board shall be guided by the interests of the Company, taking into consideration the interests of all stakeholders.



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The members of the Management Board are collectively responsible for managing the Company. They are collectively and individually accountable to the Supervisory Board and the General Meeting of Shareholders for the execution of the Management Board's responsibilities. The Management Board has the general authority to enter into binding agreements with third parties.

The Management Board shall ensure that the Company has an adequate functioning Internal Risk Management and Control Framework. The Management Board shall periodically discuss the internal risk management and control systems with the Supervisory Board and the Audit Committee, including any significant changes that have been made and any major improvements that are planned.

The Management Board shall timely provide the Supervisory Board with all information that they reasonably require for the fulfilment of their obligations and the exercise of their powers.

The Management Board shall timely provide the General Meeting of Shareholders with all information that they reasonably require for the fulfilment of their obligations and the exercise of their powers, unless this would be contrary to an overriding interest of the Company. If the Management Board invokes an overriding interest, it must give reasons.

The Management Board is responsible for the quality and completeness of financial and other reports, which are publicly disclosed by or on behalf of the Company, including all reports and documents the Company is required to file with regulatory agencies.

#### *Conflicts of Interest*

Each Management Board member shall immediately report any potential conflict of interest to the Chairman of the Supervisory Board and to the other Management Board members. A Management Board member shall in such cases provide the Chairman of the Supervisory Board and the other Management Board members with all information relevant to the conflict, and follow the procedures as set out in the Management Board Rules.

#### *Appointment, Suspension and Dismissal*

The General Meeting of Shareholders appoints a Management Board member from a binding nomination drawn up by the Supervisory Board. The General Meeting of Shareholders may set aside a binding nomination by a resolution taken with an absolute majority of the votes cast representing at least one third of the share capital. If such a binding nomination is set aside a new binding nomination will be drawn up by the Supervisory Board and submitted to a newly called General Meeting of Shareholders. If this binding nomination is set aside the General Meeting of Shareholders is free to appoint a Management Board member but only with an absolute majority of the votes cast representing at least one third of our issued capital.

A Management Board member may at any time be suspended by the Supervisory Board. A Management Board member may, in accordance with a proposal of the Supervisory Board, be dismissed by the General Meeting of Shareholders with a majority of the votes cast. A resolution to suspend or to dismiss a member of the Management Board, other than in accordance with a proposal of the Supervisory Board, shall require the affirmative vote of a majority of the votes cast at a meeting, which affirmative votes represent at least one third of our issued capital.

#### *Remuneration*

The remuneration of individual members of the Management Board is decided upon by the Supervisory Board on the recommendations by the Nomination, Selection and Remuneration Committee of the Supervisory Board and is based on the Company's Remuneration Policy. Our Remuneration Policy was last adopted by the General Meeting of Shareholders in 2010. The remuneration structure includes four components: a fixed (base) salary component, a variable component (annual bonus or short term incentive), long-term component (stock options) and pension provisions and fringe benefits. The remuneration structure mirrors short-term and long-term elements of the responsibilities of members of the Management Board.

ASMI has adopted a stock option plan, which has been submitted to and adopted by the General Meeting of Shareholders at the 2001 Annual General Meeting of Shareholders. This plan has been extended at the 2006 Annual General Meeting of Shareholders, for a five-year period ending 2011. We intend to implement a new stock option plan going forward.

For further information regarding the remuneration of the Management Board, reference is made to the Remuneration Policy, which is posted on our website, the Remuneration Report 2010, which is posted on our website, the Report of the Supervisory

Board 2010, which is included in our Annual Report 2010, and Item 6.B “Directors, Senior Management and Employees-Compensation” and in Note 28 “Board Remuneration” of the Annual Report on Form 20-F.

### **Internal Risk Management and Control Framework**

The Management Board is responsible for designing, implementing and operating an adequate functioning Internal Risk Management and Control Framework in the Company. The objective of this Framework is to identify and manage the strategic, operational, financial, financial reporting, and compliance risks to which the Company is exposed, to promote effectiveness and efficiency of the Company’s operations, to promote reliable financial reporting and to promote compliance with laws and regulations. The Management Board is aware that such Framework can neither provide absolute assurance that its objectives will be achieved, nor can it entirely prevent material errors, losses, fraud and the violation of laws and regulations.

For a detailed discussion of our risk factors, see Item 3.D. “Risk Factors” of our Annual Report on Form 20-F.

Our Internal Risk Management and Control Framework is based on the framework in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). The framework aims to provide reasonable assurance regarding effectiveness and efficiency of an entity’s operations, reliability of financial reporting, prevention of fraud and compliance with laws and regulations.

Our Internal Risk Management and Control Framework has the following key components:

#### *Responsibilities*

The Management Board is responsible for designing, implementing and operating an adequately functioning Internal Risk Management and Control Framework in the Company. Management of our subsidiaries is responsible for managing performance, risks and effectiveness of its operations, within our Management Board’s guidelines, and supported and supervised by ASMI departments.

#### *Authorization*

Management of risks is supported by authorization limits with respect to expenditures and commitments.

#### *Planning and Control Cycle*

The planning and control cycle starts with an annual budget approved by the Management Board and the Supervisory Board. The budget includes objectives and targets, which provide the basis for monitoring performance. For the Front-end activities the budget is followed up by monthly outlooks and quarterly forecasts. The Management Board monitors performance, both operational and financial, on a monthly basis, which includes discussion with management of the business / operating units. In addition, performance and action plans are discussed in operational performance reviews of the business / operating units.

The ASMPT Board is responsible for ongoing monitoring of the performance of the Back-end activities. The actual results of Back-end are discussed with the ASMPT Audit Committee and reported to the ASMI Management Board on a quarterly basis. On a monthly basis informal updates are discussed between the ASMPT board and ASMI Management Board.

Finally each quarter for our operating units Front-end and Back-end the actual performances compared to budgets and planning are discussed with the ASMI Audit Committee and the Supervisory Board. In these meetings progress on specific programs such as cost reduction and working capital management are also discussed.

#### *Code of Ethics, Whistleblower Policy, Anti-Fraud Policy*

Our Code of Ethics applies to all of our employees worldwide, as well as our Supervisory Board and Management Board. The Code is designed to promote honest and ethical conduct and timely and accurate disclosure in our periodic financial reports.

Our Whistleblower Policy provides for the reporting of alleged violations of the Code of Ethics and alleged irregularities of a financial nature by Company employees or other stakeholders to the Management Board and/or the Supervisory Board without any fear of reprisal against the individual who reports the violation or irregularity.

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Our Anti-Fraud Policy provides specific rules to promote ethical conduct and understanding of legal requirements regarding anti-corruption matters (such as bribery and corruption of governmental officials) and anti-fraud matters (such as maintaining accurate and complete Company records, protection and use of Company resources, information security, and conflicts of interest).

#### *Environment, Health and Safety Procedures*

We have embedded various procedures concerning environment, health and safety in most of our operations. With respect to safety procedures, material safety incidents are monitored and reported to the Management Board.

#### *Disclosure Controls and Procedures*

We have extensive guidelines for the lay-out and the content of our annual reports. These guidelines are primarily based on applicable laws. We apply the requirements of the U.S. Securities and Exchange Act 1934 in preparing our Annual Report on Form 20-F, and prepare the financial statements included therein in accordance with US GAAP. We follow the requirements of applicable Dutch laws and regulations in preparing our Statutory Annual Report, and prepare the financial statements included therein in accordance with IFRS. With respect to the preparation process of these and other financial reports, we apply internal procedures to safeguard completeness and correctness of such information as part of our disclosure controls and procedures.

The Disclosure Committee, consisting of senior managers from various functional areas within the Company, assists the Management Board in overseeing the Company's disclosure activities and to ensure compliance with applicable disclosure requirements arising under U.S. and Netherlands law and regulatory requirements. The Disclosure Committee obtains information for its recommendations from the operational and financial reviews, letters of representation, which include a risk and internal control self assessment, input from the documentation and assessment of our internal controls over financial reporting, and input from risk management activities during the year.

Our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures and recommendation by the Disclosure Committee, concluded that as of December 31, 2010 our disclosure controls and procedures were effective.

#### *Policies and Procedures*

We have implemented financial policies and procedures, including accounting policies and a standard chart of accounts, information technology policies and procedures and non-financial policies and procedures to ensure control by the Management Board over the Company's operations. Managing directors and finance directors of our main subsidiaries and business / operating units quarterly sign a detailed letter of representation to confirm compliance with financial reporting, internal controls and ethical principles.

#### *Risk Management and Internal Controls*

We have embedded an Internal Risk Management and Control Framework ("Framework") in the Company. Within the Framework, we continue to enhance our identification and assessment of our strategic, operational, financial, financial reporting, and compliance risks, and continue to expand our risk management policies. We have documented our internal controls for financial reporting both on the transaction level and entity level and continuously assess such internal controls. We identified key controls over financial reporting and embedded these in common business and financial reporting processes to provide further assurance regarding the reliability of our financial reporting.

The Framework, and the evaluation of the effectiveness of our internal controls and areas for improvement, are regularly discussed with the Audit Committee and Deloitte Accountants, our external auditor. The Audit Committee reports on these matters to the Supervisory Board.

The Management Board conducted an evaluation of the effectiveness of our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) based on the *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation of the effectiveness of the Company's internal control over financial reporting in accordance with the requirements of Section 404 of the Sarbanes Oxley Act of 2002 ("SOX 404") all of the members of the Management Board concluded that as of December 31,

2010, the Company's internal control over financial reporting was effective and provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. In addition, to the best of the knowledge of the Management Board the management report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation as a whole, as well as a description of the principal risks and uncertainties that the Company faces. No changes to the Company's internal control over financial reporting have occurred during 2010 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

All internal control systems, no matter how well designed and implemented, have inherent limitations. Even systems determined to be effective may not prevent or detect misstatements or fraud and can only provide reasonable assurance with respect to disclosure and financial statement presentation and reporting. Additionally, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changed conditions and the degree of compliance with the policies or procedures may deteriorate.

In view of all of the above, the Management Board believes that it complies with the requirements of rule II.1.5 of the Code.

### *Identification and Assessment of Risks*

Risk management is a continuous process owned by management. Efforts have been made to establish a process for separate monitoring and reporting of business risks. Interviews and meetings with the Management Board and senior management have been conducted to identify and assess those risks that threaten ASMI in the achievement of our company objectives and strategy and the mitigating controls and programs in place. The assessment process is in progress and will continue on an ongoing basis. For an understanding of our business risks, we give an indication below of some risks that we face. We also refer to the section entitled "Risks related to our business" set forth in our Form 20-F filed with the SEC. This does not constitute a complete list of all strategic, operational, compliance, financial and financial reporting risks to which we are exposed, nor does it imply an order of priority.

- **Economic and Market Risk**

ASMI is vulnerable to changing economic circumstance and market conditions. The semiconductor industry and market have always been very cyclical and dependent on the economic climate. The industry has recovered from the severe economic downturn in 2008-2009 and the impact of the resulting credit crisis. Potential ASMI customers may have difficulties in obtaining credit facilities from financial institutions to fund investments in our equipment. We face the risk of not being able to respond timely and effectively to these industry cycles, and not being able to reduce our activities and expenses in time. On the other hand, industry upturns which we are now experiencing have been characterized by fairly abrupt increases in demand for semiconductor devices and equipment and insufficient production capacity. During a period of increasing demand and rapid growth, we must be able to quickly increase manufacturing capacity to meet customer demand and to assimilate a sufficient number of additional qualified personnel. These variable economic and market conditions materially affect our revenues, income, assets and liquidity and capital resources.

The cyclicity is inherent to the semiconductor industry, but we endeavor to mitigate its effects. As an example, we have increased flexibility of our employees. Furthermore we focus as well on the sales of spare parts and customer service, which are less correlated with the economic climate and are expected to continue even in a period of declining demand.

- **Cash Resources Risk**

Managing our cash position becomes more important in periods of economic decline affecting our revenues and creditworthiness of customers. As a result, our cash position may be severely impacted. Credit facilities and borrowings are in place to mitigate the impact on our cash position. Furthermore we try to find a balance between cost control and reduction of expenses on the one hand, and continued investment in engineering and research and development for advanced technology on the other hand.

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- Balancing Cost Control and Long Term Investments

As market conditions affect our business by a decline of revenues, cost control becomes an important measure to reduce the impact on financial results. Our industry is subject to rapid decline of revenues and we may not be able to respond in time by reducing costs and expenses to avoid negative impact on financial results.

Furthermore, our future success depends to a large extent upon our ability to define and realize Product Roadmaps that are well aligned with the industry, and may have technology projections forward by as much as 5-10 years. The execution of product roadmap needs expenditures in investments for research and development programs.

Our ability to reduce costs and expenses is limited by our need for continued investments. In addition long lead time for production and delivery of some of our products creates a risk that we may incur expenditures and purchase inventories for products that we cannot sell.

Cost and expense reduction programs are currently in place e.g. by strong reduction of head count and transferring operational activities to the central production facilities at FEMS in Singapore.

- Customer Creditworthiness

Our customers operate under difficult market conditions affecting the creditworthiness of several of these companies; some of these companies are actively pursuing funding from governments. We may not succeed in avoiding the effect of bad debts completely.

Creditworthiness assessments of customers and the close monitoring of outstanding receivables have become more critical. Therefore, risk profiles of customers are reviewed and based on due diligence information and adjusted. The assessment process is carried out under responsibility of the product managers with support from the regional and finance managers. Furthermore, provisioning has taken place to mitigate the impact of bad debts.

- Availability of Financial Back-up Facilities

ASMI has credit facilities for short term funding of working capital. The renewal of credit facilities may be at risk when financial institutions are not willing to provide new facilities leading to liquidity stringency. The current cash position and credit facilities of ASMI are considered adequate. We refer to Item 5 “Operating and Financial Review and Prospects” set forth in our Form 20-F, for more insight in the financing position of the Company.

ASMI has short term and long term credit facilities and borrowings. We enlarged the standby revolving credit facility in 2010.

- Foreign Currency Exchange Rates Risk

The foreign currency exchange risk exists for three types of risks:

- Transaction Risk

We conduct business in a number of foreign countries, with certain transactions denominated in currencies other than our functional currency (Euro) or the currency of one of our subsidiaries.

We manage the effect of most exchange rate fluctuations on revenues, costs and eventual cash flows and assets and liabilities denominated in selected foreign currencies, in particular in U.S dollar, by way of derivative instruments (including forward exchange contract).

- Translation Risk

The translation of financial results from our foreign entities could lead to translation effects of reported results. These translation effects (especially from the U.S. Dollar the Singapore Dollar, the Korean Won and the Japanese Yen to the Euro) may have material effect on the reported results.

As the translation to reporting currency does not lead to realized currency exchange results, and local activities are in the same currency, the translation risk is not covered.

- Economic Risk

The activities in different countries and foreign currencies may have the economic risk that exchange rates changes are leading to unfavorable competitive circumstances. The mismatch of currency between revenues and expenditures leads to economic exposure.

We have taken the following mitigating measures: borrowings in local currency mitigating the economic risk from currency mismatch, increased flexibility in the currency of sourcing and bringing manufacturing activities to Singapore. The movement to Singapore should primarily improve our competitive edge, but will also limit our economic risk to a certain extent.

- Change and Transition Risk

Our future success depends on the successful execution of strategic goals as stated in the PERFORM! and other programs within ASMI. The organizational changes and business transitions may be subject to risks that could have impact on the success of the change or transition process. Furthermore, the following inherent risks with impact on the change and transition processes could threaten ASMI in the achievement of its objectives, e.g. control over costs incurred not sufficient, no actual achievement of pursued benefits, and finally, distraction of management from the business.

Project management and change management are key instruments for the successful transition to a more global organization, including e.g. a global sales organization, a more centralized and cost efficient R&D, the development and implementation of a shared service center, re-design of our SAP system aligned with the new global organization, and the sharing of platforms between products. We have allocated dedicated resources to these projects.

### **Supervisory Board**

#### *Responsibilities*

The supervision over the policies of our Management Board and the general course of our business and the management actions related thereto is entrusted to the Supervisory Board. In our two tier structure under applicable Dutch law, the Supervisory Board is a separate body independent from the Management Board.

The Supervisory Board supervises and advises the Management Board in executing its responsibilities, particularly regarding:

- the achievement of the Company objectives;
- corporate strategy and the risks inherent in the business activities;
- the structure and operation of the internal risk management and control systems;
- the financial reporting process;
- compliance with legislation and regulations;
- the relation of the Company to its shareholders; and
- relevant aspects of corporate social responsibility.

#### *Conflicts of Interest*

A Supervisory Board member facing a conflict of interest shall, in accordance with Article 13 of our Supervisory Board Rules, inform the Chairman of the Supervisory Board immediately. The Chairman shall, if possible in consultation with the other members of the Supervisory Board, determine the course of action to be taken.

#### *Appointment*

In accordance with Dutch law and the Code, the Supervisory Board has drawn up a profile for its own composition. This Supervisory Board Profile is available on our website. The Supervisory Board shall consist of at least three members. The members should operate independently of each other and within a good relationship of mutual trust. They should be

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experienced in the management of an international, publicly listed company, and have sufficient time available to fulfil the function of a Supervisory Board member. The Supervisory Board members appoint a chairman from amongst their midst.

The Supervisory Board is currently composed of six members who are appointed in the same way as the members of the Management Board. Supervisory Board members serve a four-year term and may be re-elected twice.

Any (re)appointment to the Supervisory Board shall be based on consistency with the Supervisory Board Profile. On reappointment, account shall be taken of the candidate's performance in the past period. A Supervisory Board member who is available for reappointment must be interviewed by the chairman of the Supervisory Board Nomination, Selection and Remuneration Committee. The chairman of the Nomination, Selection and Remuneration Committee must be interviewed by the chairman of the Supervisory Board. All members of the Supervisory Board follow an introduction program after their first appointment, in which financial and legal aspects as well as financial reporting and specific features of ASMI are discussed.

#### *Remuneration*

The remuneration of the Supervisory Board was last approved by the shareholders in the 2006 Annual General Meeting of Shareholders.

#### *Independence*

All members are considered to be independent under the NASDAQ regulations and the Code.

#### *Composition and Role of Key Committees of the Supervisory Board*

In order to more efficiently fulfil its role and in compliance with the Code, the Supervisory Board has created the following committees:

- **Audit Committee**

This committee has a supervisory task with regard to monitoring the integrity of our financial reports and risk management. The Audit Committee consists of Mr. Lobbezoo (Chairman), Mr. Schumacher and Mr. Kreutzer.

The Audit Committee supervises the activities of the Management Board with respect to:

- the structure and operation of the internal risk management and control systems, including supervision of the enforcement of the relevant legislation and regulations;
- our release of financial information;
- compliance with recommendations and observations of internal and external auditors;
- our policy on tax planning;
- relations with the external auditor, including, in particular, its independence,
- remuneration, and any non-audit services performed for us;
- our financing and financial position; and
- the applications of information and communication technology.

The Audit Committee meets periodically to nominate a firm to be appointed as independent auditors to audit the financial statements and to perform services related to the audit, review the scope and results of the audit with the independent auditors, review with management and the independent auditors our annual operating results, and consider the adequacy of the internal control procedures and the procedures and evaluations relating to the auditor's independence.

As recommended by the Sarbanes-Oxley Act and the Code, we intend for the Audit Committee to include at least one Financial Expert, who must have in-depth experience and knowledge of financial statements, international accounting principles and internal controls and procedures for financial reporting. The Supervisory Board has concluded that Mr. Lobbezoo meets these requirements.



- Nomination, Selection and Remuneration Committee

This committee advises the Supervisory Board on matters relating to the selection and nomination of the members of the Management Board and Supervisory Board. The committee further monitors and evaluates the remuneration policy for the Management Board. This committee consists of Mr. Kramer (Chairman), Mr. Danneels and Mr. Van Pernis.

The objective of the remuneration policy is twofold:

- to create a remuneration structure that will allow ASMI to attract, reward and retain qualified executives who will lead ASMI in achieving its strategic objectives; and
- to provide and motivate these executives with a balanced and competitive remuneration.

The remuneration structure includes five elements: base salary, annual incentive (bonus), long term incentive (stock options), pension and other arrangements. The remuneration structure mirrors short-term and long-term elements of the responsibilities of members of the Management Board.

The Nomination, Selection and Remuneration Committee ensures that a competitive remuneration structure is provided by benchmarking with other multinational companies of comparable size and complexity operating in comparable geographical and industrial markets. The Nomination, Selection and Remuneration Committee evaluates the achievement of performance criteria specified per Management Board member and following the evaluation recommends the level of remuneration to the Supervisory Board.

On an annual basis, the Nomination, Selection and Remuneration Committee reports to the Supervisory Board on the application of the Remuneration Policy in the past year and the Remuneration Policy for the following years.

### **The Shareholders and General Meeting of Shareholders**

#### *Powers*

A General Meeting of Shareholders is held each year to discuss the Annual Report and to adopt the Annual Accounts.

In the General Meeting of Shareholders, each ordinary share with a nominal value of € 0.04 entitles the holder to cast one vote, each financing preferred share with a nominal value of € 40.00 entitles the holder to cast one thousand votes and each preferred share with a nominal value of € 40.00 entitles the holder to cast one thousand votes. Presently there are no preferred shares and financing preferred shares outstanding.

The powers of the General Meeting of Shareholders are defined in our Articles of Association. The main powers of the shareholders are to appoint, suspend and dismiss members of the Management Board and Supervisory Board, to adopt the financial statements, to declare dividends, to discharge the Management Board and Supervisory Board from responsibility for the performance of their respective duties for the previous financial year, to appoint the external auditors, to adopt amendments to the Articles of Association, to issue shares and grant subscriptions for shares, to authorize the Management Board to issue shares and grant subscriptions for shares, to withdraw pre-emptive rights of shareholders upon issuance of shares, to authorize the Management Board to withdraw pre-emptive rights of shareholders upon issuance of shares, and to authorize the Management Board to repurchase or cancel outstanding shares.

#### *Record Date*

Our Articles of Association provide that the Management Board can determine a record date for the exercise of voting rights by shareholders at a general meeting. In accordance with Dutch law, this date cannot be set earlier than thirty days prior to the meeting. For our 2011 Annual General Meeting of Shareholders the record date is twenty-eight days prior to the meeting. Only shareholders of record at that date will be entitled to attend and vote at the meeting.



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## The Audit of the Financial Reporting, and the Position of the External Auditor and the Internal Auditor Function

### *Role, Appointment, Remuneration and Assessment of the Functioning of the External Auditor*

Our external auditor is appointed by the General Meeting of Shareholders and is nominated for appointment by the Audit Committee. Our current external auditor, Deloitte Accountants B.V. ("Deloitte"), was reappointed in the 2010 General Meeting of Shareholders. The Audit Committee has determined that the provision of services by Deloitte and its member firms is compatible with maintaining Deloitte's independence. All audit and permitted non-audit services provided by Deloitte and its member firms during 2010 were pre-approved by the Audit Committee.

The Audit Committee has adopted the following policies and procedures for pre-approval of all audit and permitted non-audit services provided by our independent registered public accounting firm:

- **Audit Services.** Management submits to the Audit Committee for pre-approval the scope and estimated fees for specific services directly related to performing the independent audit of our consolidated financial statements for the current year.
- **Audit-Related Services.** The Audit Committee may pre-approve expenditures up to a specified amount for services included in identified service categories that are related extensions of audit services and are logically performed by the auditors. Additional services exceeding the specified pre-approved limits require specific Audit Committee approval.
- **Tax Services.** The Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total for identified services related to tax matters. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, require specific Audit Committee approval.
- **Other Services.** In the case of specified services for which utilizing our independent registered public accounting firm creates efficiencies, minimizes disruption, or preserves confidentiality, or for which management has determined that our independent registered public accounting firm possesses unique or superior qualifications to provide such services, the Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, require specific Audit Committee approval.

### *Internal Audit*

The Internal Audit function is established to strengthen the governance of the Company by creating an independent, objective function that adds value by improving operation by providing assurance, audit recommendations and advisory activities.

Internal Audit assists the Audit Committee and the Management Board in accomplishing their objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes. In addition, Internal Audit provides an advisory service to the Company, based on the outcome of its experience in reviewing and appraising operations and systems.

### **Declarations**

#### *Responsibility Statement as required by article 5:25C of the Dutch Act on Financial Supervision*

The members of the Management Board state that, to the best of their knowledge, (i) the financial statements, as shown on pages F-1 to F-52 of our Annual Report, provide a true and fair view of the assets, liabilities, financial position and result for the financial year 2010 of ASM International and its subsidiaries included in the consolidated statements, (ii) the Annual Report, as shown on pages 72 to 89 of this report, provides a true and fair view of the position and the business of ASM International and its subsidiaries (details of which are contained in the financial statements), and (iii) the Annual Report provides a description of the principal risks and uncertainties that ASM International faces.

### *Corporate Governance Statement*

According to the Governmental Decree of 23 December 2004 governmental (as lastly amended on December 10, 2009), ASM International has to publish a statement on corporate governance. This statement has to report on compliance with the Code. Furthermore, a description must be included on the main characteristics of the internal risk management and control systems connected with the Company's financial reporting process. The corporate governance statement must also provide information on the functioning of the General Meeting of Shareholders including its main rights, the composition of the Management Board and the Supervisory Board including its committees and the information which must be disclosed pursuant to the Decree Article 10 Takeover Directive.

The Management Board states that the information required by the December 23, 2004 (as lastly amended on December 10, 2009) is included in this "Corporate Governance" chapter.



## Supervisory Board

Gert-Jan Kramer <sup>1</sup> (1942)  
Chairman  
Nationality: Dutch  
Current term expires: 2013  
Supervisory Boards of Scheuten Solar (Chairman), Damen Shipyards Group (Vice-Chairman), Trajectum B.V. (Mammoet), Fugro N.V., Bronwaterleiding Doorn and Energie Beheer Nederland B.V., and IRO (Chairman).  
Chairman of the Supervisory Board of Delft Technical University.  
Advisory boards of cultural organisations such as the Royal Concertgebouw, Nieuwe Kerk/Hermitage, Frans Hals Museum, Museum Beelden aan Zee and the Pieterskerk in Leiden.

Johan M.R. Danneels <sup>2</sup> (1949)  
Nationality: Belgian  
Current term expires: 2012  
Chief Executive Officer of Essensium N.V.

Heinrich W. Kreutzer <sup>4</sup> (1949)  
Nationality: German  
Current term expires: 2014  
Chairman of the Supervisory Boards of Micronas Semiconductor GmbH, Germany and Bktel communications GmbH, Germany  
Chairman of the Board of Directors of Micronas Semiconductor AG, Switzerland

Jan C. Lobbezoo <sup>3</sup> (1946)  
Nationality: Dutch  
Current term expires: 2013  
Supervisory Boards of TMC Group N.V. (Chairman); Smartrac N.V.; Mapper Lithography (Chairman); Mutracx B.V. (Chairman), A.L.S.I.; and Point One Innovation.  
Fund. Member of the Board of FEI Inc, USA (member of the Audit Committee)

Martin C.J. van Pernis <sup>2</sup> (1945)  
Nationality: Dutch  
Current term expires: 2014  
Chairman of the Supervisory Board of Dutch Space B.V.  
Member of the Supervisory Boards of Aalberts Industries N.V., Feyenoord Rotterdam N.V. and Batenburg Beheer N.V.

Ulrich H.R. Schumacher <sup>4</sup> (1958)  
Nationality: German  
Current term expires: 2012  
CGS Consulting  
Member Board of Directors Siano Mobile Silicon

## Honorary Chairman

Arthur H. del Prado (1931)  
Nationality: Dutch  
Chairman of the Board of ASM Pacific Technology Ltd.

## Senior Management

Charles D. (Chuck) del Prado  
Chairman of the Management Board,  
President and Chief Executive Officer

Peter A.M. van Bommel  
Member of the Management Board,  
Chief Financial Officer

J. (Han) F.M. Westendorp  
Vice President Corporate Marketing  
Front-end

Per Ove (Peo) Hansson  
General Manager ASM America, Inc. and  
ASM Europe B.V.  
Business Unit Manager – Thermal Products

Tominori Yoshida  
General Manager ASM Japan K.K.  
Business Unit Manager – Plasma Products

Albert Hasper  
Vice President Global Operations

Wu, Tom  
Vice President Front-end Global Sales &  
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Ivo J.M.M. Raaijmakers  
Chief Technology Officer and Director  
of Research and Development, Front-end  
Operations

Richard W. Bowers  
Chief Legal Officer Front-end Operations

Lee Wai Kwong  
Member of the Board of Directors and  
Chief Executive Officer of ASM Pacific  
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Lo Tsan Yin, Peter  
Member of the Board of Directors and Vice  
Chairman of ASM Pacific Technology Ltd.

Chow Chuen, James  
Member of the Board of Directors and  
Chief Operating Officer of ASM Pacific  
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Ng, Cher Tat Robin  
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Amsterdam, the Netherlands

## Trade Register

Chamber of Commerce  
Number 30037466

## Annual Meeting of Shareholders

The Annual General Meeting of  
Shareholders will be held on May 23, 2011

## Financial Calendar for 2011

April 27, 2011  
Announcement of first quarter results 2011

July 27, 2011  
Announcement of second quarter results 2011

October 27, 2011  
Announcement of third quarter results 2011

<sup>1</sup> Chairman Nomination, Selection and Remuneration Committee

<sup>2</sup> Member Nomination, Selection and Remuneration Committee

<sup>3</sup> Chairman Audit Committee

<sup>4</sup> Member Audit Committee



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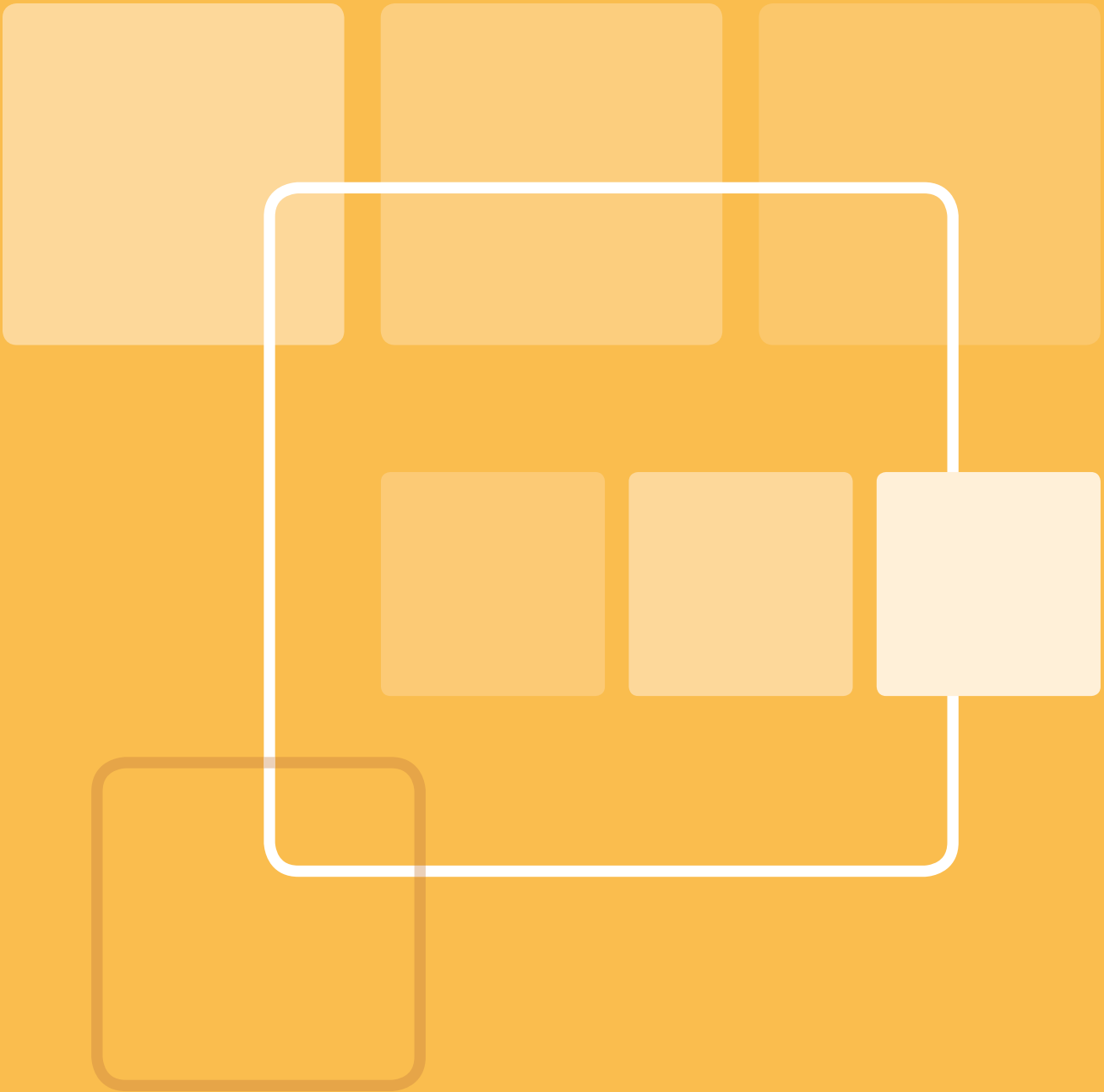
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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 20-F**

- ☐ Registration Statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934.
- ☒ Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.  
For the fiscal year ended December 31, 2010
- ☐ Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
- ☐ Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.  
Date of event requiring this shell company report  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 0-13355

**ASM INTERNATIONAL N.V.**

(Exact name of Registrant as specified in its charter)

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(jurisdiction of incorporation or organization)  
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(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)  
Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Shares, par value € 0.04	The NASDAQ Stock Market LLC
Securities registered or to be registered pursuant to Section 12(g) of the Act: None	
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None	

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 52,931,881 common shares; 0 preferred shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

If this annual report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Sections 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒ International Financial Reporting Standards as issued by the International Accounting Standards Board ☐ Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): Yes ☐ No ☒

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## **PART I**

As used in this report, the terms “we,” “us,” “our,” “ASMI,” and “ASM International” mean ASM International N.V. and its subsidiaries, unless the context indicates another meaning, and the term “common shares” means our common shares, par value € 0.04 per share. Since we are a Netherlands company, the par value of our common shares is expressed in euros (“€”). The terms “United States” and “U.S.” refer to the United States of America.

### **Forward Looking Safe Harbor Statement**

Some of the information in this report constitutes forward-looking statements within the meaning of the United States federal securities laws, including the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements include, among others, statements regarding future revenue, sales, income, expenditures, sufficiency of cash generated from operations, maintenance of majority interest in ASM Pacific Technology Ltd. (“ASM Pacific Technology”), business strategy, product development, product acceptance, market penetration, market demand, return on investment in new products, product shipment dates, corporate transactions, restructurings, liquidity and financing matters, currency fluctuations, litigation involving intellectual property, shareholder matters, and outlooks. These statements may be found under Item 4, “Information on the Company,” Item 5, “Operating and Financial Review and Prospects” and elsewhere in this report. Forward-looking statements are statements other than statements of historical fact and typically are identified by use of terms such as “may,” “could,” “should,” “project,” “believe,” “anticipate,” “expect,” “plan,” “estimate,” “forecast,” “potential,” “intend,” “continue” and similar words, although some forward-looking statements are expressed differently. You should be aware that these statements involve risks and uncertainties and our actual results could differ materially from those contained in the forward-looking statements due to a number of factors, including the matters discussed in Item 4, “Information on the Company” and the risks discussed in Item 3.D., “Risk factors.” The risks described are not the only ones facing ASMI. Some risks are not yet known and some that we do not currently believe to be material could later become material. Each of these risks could materially affect our business, revenues, income, assets, liquidity and capital resources. All statements are made as of the date of this report, and we assume no obligation and do not intend to update or revise any forward-looking statements to reflect future developments or circumstances.

#### **Item 1. Identity of Directors, Senior Management and Advisers**

Not applicable.

#### **Item 2. Offer Statistics and Expected Timetable**

Not applicable.

#### **Item 3. Key Information**

##### **A. Selected consolidated financial data.**

The following selected financial data has been derived from ASMI’s historical audited consolidated financial statements. The selected financial data should be read in conjunction with Item 5, “Operating and Financial Review and Prospects” and Item 18, “Financial Statements,” and the accompanying notes for the corresponding fiscal years:

	Year ended December 31				
	2006	2007	2008	2009	2010
	EUR	EUR	EUR	EUR	EUR
	(in thousands, except per share data)				
<b>Consolidated Statements of Operations data:</b>					
Net sales	877,491	955,239	747,362	590,739	1,222,900
Cost of sales	(538,674)	(594,163)	(477,100)	(409,224)	(673,322)
Gross profit	338,817	361,076	270,262	181,515	549,578
Operating expenses:					
Selling, general and administrative	(120,654)	(129,676)	(126,591)	(107,777)	(130,596)
Research and development, net	(88,130)	(83,468)	(75,011)	(62,806)	(78,785)
Amortization of other intangible assets	(553)	(553)	(475)	(401)	(357)
Impairment of goodwill	—	—	(1,395)	—	—
Restructuring expenses	—	—	(7,068)	(35,687)	(11,201)
Total operating expenses	(209,337)	(213,697)	(210,540)	(206,671)	(220,939)
Earnings (loss) from operations	129,480	147,379	59,722	(25,156)	328,640
Interest income	5,902	6,113	4,047	1,018	1,221
Interest expense	(11,726)	(9,866)	(7,745)	(8,556)	(15,677)
Gain (loss) resulting from early extinguishment of debt	—	(10,049)	7,956	(1,759)	(3,609)
Accretion interest expense convertible notes	—	—	—	(4,286)	(6,010)
Revaluation conversion option	—	—	—	(24,364)	(19,037)
Foreign currency exchange gains (losses), net	(1,250)	(1,020)	785	(1,384)	(65)
Earnings (loss) from continuing operations before income taxes	122,406	132,557	64,765	(64,487)	285,462
Income tax expense	(14,095)	(19,245)	(12,144)	(3,786)	(42,939)
Earnings (loss) from continuing operations before dilution on investment in subsidiary	108,311	113,312	52,621	(68,273)	242,523
Gain on dilution of investment in subsidiary <sup>(1)</sup>	1,255	3,010	4,088	—	—
Net earnings (loss) from continuing operations	109,566	116,322	56,709	(68,273)	242,523
Loss from discontinued operations before income taxes <sup>(2)</sup>	(20,350)	—	—	—	—
Income tax expense	—	—	—	—	—
Net loss from discontinued operations	(20,350)	—	—	—	—
Net earnings (loss)	89,216	116,322	56,709	(68,273)	242,523
Net earnings (loss) for allocation between shareholders of the parent and non-controlling interest					
Allocation of net earnings (loss)					
Shareholders of the parent	34,334	60,977	18,411	(107,517)	110,639
Non-controlling interest	54,882	55,345	38,298	39,244	131,884
<b>Earnings per Share data:</b>					
Basic net earnings (loss) from continuing operations per share:	€ 1.02	€ 1.13	€ 0.35	€ (2.08)	€ 2.11
Basic net loss from discontinued operations per share:	€ (0.38)	€ —	€ —	€ —	€ —
Basic net earnings (loss) per share	€ 0.64	€ 1.13	€ 0.35	€ (2.08)	€ 2.11
Diluted net earnings (loss) from continuing operations per share:	€ 1.02	€ 1.07	€ 0.35	€ (2.08)	€ 2.09
Diluted net loss from discontinued operations per share:	€ (0.38)	€ —	€ —	€ —	€ —
Diluted net earnings (loss) per share:	€ 0.64	€ 1.07	€ 0.35	€ (2.08)	€ 2.09
Basic weighted average number of shares (thousands)	53,403	53,968	52,259	51,627	52,435
Diluted weighted average number of shares (thousands)	53,575	65,076	52,389	51,627	61,494
<b>Other data:</b>					
Number of common shares outstanding at year end (in thousands)	53,829	54,005	54,275	51,745	52,932
Dividends declared on common shares	—	€ 0.10	—	—	—
Number of preferred shares outstanding at year end	—	—	21,985	—	—

	As of December 31				
	2006	2007	2008	2009	2010
	EUR	EUR	EUR (in thousands)	EUR	EUR
<b>Consolidated Balance Sheet data:</b>					
Cash and cash equivalents .....	193,872	167,923	157,277	293,902	340,294
Total assets .....	832,297	840,333	767,798	851,700	1,214,117
Net current assets <sup>(3)</sup> .....	381,204	392,213	372,029	419,535	509,867
Total debt .....	228,500	186,936	153,682	265,430	215,681
Capital stock .....	2,153	2,160	2,171	2,070	2,117
Total shareholders' equity .....	276,458	318,878	317,902	241,229	411,460

- (1) Following the adoption of ASC 810(-10 45-23) in 2009 results on dilution of investments in subsidiaries are accounted for directly in equity. The 2009 results and changes in equity have been adjusted accordingly.
- (2) The restructuring of ASM NuTool in 2005 followed by the sale of substantially all of the ASM NuTool patent portfolio to a third party in December 2006 required ASM NuTool to be accounted for retroactively as discontinued operations under US GAAP in our Consolidated Financial Statements.
- (3) Net current assets is calculated as the difference between total current assets, including cash and cash equivalents, and total current liabilities.



## Exchange Rate Information

The following table sets forth, for each period indicated, specified information regarding the U.S. dollar per euro exchange rates based on the noon buying rate in New York City for cable transfers payable in euros as certified for customs purposes by the Federal Reserve Bank of New York, which is often referred to as the “noon buying rate.” Effective January 1, 2009 the Federal Reserve Bank has discontinued publication of Foreign Exchange Rates. The information regarding the U.S. dollar per euro exchange rates will now be based on the rates of the European Central Bank, referred to as the “reference rate.” On March 2, 2011, the reference rate was 1.3809 U.S dollars per euro.

### U.S. Dollar per Euro Exchange Rate

	September 2010	October 2010	November 2010	December 2010	January 2011	February 2011	March 2011 <sup>1</sup>
High .....	1.3648	1.3705	1.2998	1.3435	1.3716	1.3440	1.3825
Low .....	1.2697	1.4101	1.4244	1.3064	1.2903	1.3834	1.3809
	Years Ended December 31,						
						2006	2007
						2008	2009
						2010	
Average exchange rate <sup>2</sup> .....	1.2661	1.3797	1.4695	1.3963	1.3207		

(1) Through March 2, 2011.

(2) Average of the exchange rates on the last day of each month during the period presented.

#### B. Capitalization and indebtedness.

Not applicable.

#### C. Reasons for the offer and use of proceeds.

Not applicable.

#### D. Risk factors.

You should carefully consider each of the risks and uncertainties described below and all other information contained in this Annual Report on Form 20-F. In order to help assess the major risks in our business, we have identified many, but not all, of these risks, which may not be in order of likelihood or materiality. Due to the scope of our operations, a wide range of factors could materially affect future developments and performance.

If any of the following risks are realized, our business, financial condition, cash flow or results of operations could be materially and adversely affected, and as a result, the trading price of our common stock could be materially and adversely impacted. These risk factors should be read in conjunction with other information set forth in this Report, including without limitation Item 4 Information on the Company, Item 5 Operating and Financial Review and Prospects, and our Consolidated Financial Statements and related notes.

## RISKS RELATED TO OUR INDUSTRY

**The industry in which we operate is highly cyclical and continues to recover from an unprecedented downturn which negatively impacted our business.**

We sell our products to the semiconductor manufacturing industry, which is subject to sudden, extreme, cyclical variations in product supply and demand. Starting late in 2008 and continuing in 2009, this industry experienced a dramatic and unprecedented decline in demand for semiconductor devices due to the worldwide economic downturn, which led to significant layoffs, plant closings, reduced capital expenditures and other cost reduction measures by semiconductor manufacturers. These conditions caused a substantial diminution in the demand for our products, which represent capital expenditures for our customers although a pick-up in demand was evident in the second half of 2009 and continued through 2010. However, future negative industry or general economic conditions may lead to business and financial deterioration and further consolidation in the semiconductor manufacturing industry. The timing, length and severity of such cycles cannot be predicted. The unprecedented nature of the recent and any future global financial crisis and economic downturn may result in changes in the semiconductor manufacturing industry and the manner in which we must conduct our business in ways that cannot now be predicted.

Semiconductor manufacturers may contribute to the severity of downturn and upturn cycles by misinterpreting the conditions in the industry and over-investing or under-investing in semiconductor manufacturing capacity and equipment. In any event, the lag between changes in demand for semiconductor devices and changes in demand for our products by semiconductor manufacturers accentuates the intensity of these cycles in both expansion and contraction phases. We may not be able to respond timely and effectively to these industry cycles in the expansion and contraction phases.

Industry downturns historically have been characterized by reduced demand for semiconductor devices and equipment, production over-capacity and a decline in average selling prices. During periods of declining demand, we must quickly and effectively reduce expenses. However, our ability to reduce expenses is limited by our need for continued investment in engineering and research and development and extensive ongoing customer service and support requirements. In addition, in a downturn, our ability to reduce inventories quickly is limited by the long lead time for production and delivery of some of our products, reduced sales, order cancellations and delays, and delays associated with reducing deliveries from our supplier pipeline. During an extended downturn, a portion of our inventory may have to be written down as excess or obsolete if it is not sold in a timely manner.

Industry upturns have been characterized by fairly abrupt increases in demand for semiconductor devices and equipment and insufficient production capacity. During a period of increasing demand and rapid growth, we must be able to quickly increase manufacturing capacity to meet customer demand and hire and assimilate a sufficient number of additional qualified personnel, and fund such increase of manufacturing capacity. Our inability to quickly respond in times of increased demand, because of the effect, for example, of our ongoing programs to reduce expenses and regulate the rate of purchases from our suppliers, could harm our reputation and cause some of our existing or potential customers to place orders with our competitors rather than us.

**Our industry is subject to rapid technological change and we may not be able to forecast or respond to commercial and technological trends in time to avoid competitive harm.**

Our future success depends upon commercial acceptance of products incorporating new technologies we are developing, such as new plasma enhanced and atomic layer deposition processes, new epitaxy processes and new materials and chemistries. The semiconductor industry and the semiconductor equipment industry are subject to rapid technological change and frequent introductions of enhancements to existing products which can result in significant write-downs and impairment charges and costs. Technological changes have had and will continue to have a significant impact on our business. Our operating results and our ability to remain competitive are affected by our ability to accurately anticipate customer and market requirements and develop technologies and products to meet these requirements. Our success in developing, introducing and selling new and enhanced products depends upon a variety of factors, including, without limitation:

- successful innovation of processes and equipment;
- accurate technology and product selection;
- timely and efficient completion of product design, development and qualification;
- timely and efficient implementation of manufacturing and assembly processes;
- successful product performance in the field;
- effective and timely product support and service; and
- effective product sales and marketing.

We may not be able to accurately forecast or respond to commercial and technical trends in the semiconductor industry or to the development of new technologies and products by our competitors. Our competitors may develop technologies and products that are more effective than ours or that may be more widely accepted. We may also experience delays and technical and manufacturing difficulties in future introductions or volume production of new systems or enhancements. Significant delays can occur between a product's introduction and the commencement of volume production of that product. Any of these events could negatively impact our ability to generate the return we intend to achieve on our investments in new products.

**If we fail to adequately invest in research and development, we may be unable to compete effectively.**

We have limited resources to allocate to research and development, and must allocate our resources among a wide variety of projects in our Front-end and Back-end businesses. If we have insufficient cash flow from our businesses to support the necessary level of research and development, we will have to fund such expenditures by diminishing our cash balances, or utilizing our credit facilities or reducing our level of research and development expenses.

Because of intense competition in our industry, the consequences of failing to invest in strategic developments are significant. In order to enhance the benefits obtained from our research and development expenditures, we have contractual and other relationships with independent research institutes. If we fail to adequately invest in research and development or lose our ability to collaborate with these independent research entities, we may be unable to compete effectively in the Front-end and Back-end markets in which we operate.

**We face intense competition from companies which have greater resources than we do, and potential competition from new companies entering the market in which we compete. If we are unable to compete effectively with these companies, our market share may decline and our business could be harmed.**

We face intense competition in both the Front-end and Back-end segments of the semiconductor equipment industry from other established companies. Our primary competitors in the Front-end business include amongst others Applied Materials, Novellus Systems, Tokyo Electron, Kokusai, and Jusung. Our primary competitors in the Back-end business include amongst others Kulicke & Soffa, ESEC, Shinkawa, Apic Yamada, BE Semiconductor Industries, Towa, Shinko and Mitsui. A number of our competitors have substantial financial, technological, engineering, manufacturing, marketing and distribution resources, which may enable them to:

- better withstand periodic downturns in the semiconductor industry, such as the recent downturn;
- compete more effectively on the basis of price, technology, service and support;
- more quickly develop enhancements to and new generations of products; and
- more effectively retain existing customers and attract new customers.

In addition, new companies may enter the markets in which we compete, further increasing competition in the semiconductor equipment industry.

We believe that our ability to compete successfully depends on a number of factors, including, without limitation:

- our success in developing new products and enhancements;
- performance of our products;
- quality of our products;
- ease of use of our products;
- reliability of our products;
- cost of ownership of our products;
- our ability to ship products in a timely manner;
- quality of the technical service we provide;
- timeliness of the services we provide;
- responses to changing market and economic conditions; and
- price of our products and our competitors' products.

Some of these factors are outside our control. We may not be able to compete successfully in the future, and increased competition may result in price reductions, reduced profit margins, loss of market share, and inability to generate cash flows that are sufficient to maintain or expand our development of new products.

#### **Industry Alliances May Not Select our Equipment.**

Our customers are entering into alliances or other forms of cooperation with one another to expedite the development of processes and other manufacturing technologies. One of the results of this cooperation may be the definition of a system or particular tool set for a certain function or a series of process steps that uses a specific set of manufacturing equipment. These decisions could work to our disadvantage if a competitor's equipment becomes the standard equipment for such function or process. Even if our equipment was previously used by a customer, that equipment may be displaced in current and future applications by the equipment standardized through such cooperation. These forms of cooperation may have a material adverse effect on our business, financial condition and results of operations.

## RISKS RELATED TO OUR BUSINESS

**Commencing in 2009 and continuing through 2010, we implemented a major restructuring plan, the execution of which involves risks to our business and financial results.**

Our PERFORM! program, designed to streamline our Front-end global operations and reduce our cost base including a focused effort on lowering our working capital requirements, was started in 2009 and involved the material restructuring of our significant Front-end operating, manufacturing and administrative units. These efforts and other initiatives continued through 2010. While the majority of the initiatives have been finalized in 2010, we will continue to further implement and build upon these initiatives as we transition to a more global sales organization, a more centralized and cost efficient R&D function, a global Enterprise Reporting Process (ERP) system, and the sharing of platforms among products. Changes of this magnitude across a broad spectrum of our Front-end operations involve significant risks to our operations, including among others the following:

- adverse impact on our ability to provide customers with timely delivery and satisfactory service;
- loss of intellectual capital through redirecting of R&D and other functions; and
- underestimation of cost or overestimation of benefit.

We cannot assure you that we will be able to successfully manage these changes or that the changes will achieve all desired effects of streamlining our operations and reducing our cost base. If such restructuring and continued efforts are not successful for any reason, including because the attendant costs are higher or benefits are lower than estimated, it could have a material adverse impact on our competitiveness, financial condition, results of operations and cash flows.

**Our customers face challenges in economic downturns and if they cannot perform their obligations to us our financial results will suffer.**

We face increased payment and performance risk in economic downturns from our customers. If any of our customers become insolvent or commence bankruptcy or similar proceedings, our receivables from such customers may become uncollectible. In order to promote sales, we may be required to provide extended payment terms, financing arrangements or other modified sale terms for some customers, which will increase our sales expenses and further increase our exposure to customer credit risk, all in an environment of downward pressure on average selling prices. Even though we may be a secured creditor in these arrangements with rights in the underlying equipment, the equipment may have only limited value upon a customer default, especially if activity in our markets remains at low levels, which may result in substantial write-downs upon any such default.

If we do not accurately evaluate our customers' creditworthiness in connection with sales financing arrangements involving increased exposure to customer payment risk, our bad debt expense will increase. If we are too cautious in our sales practices because of this, we may lose sales. In either case, our results of operations and financial condition would be negatively affected.

**We derive a significant percentage of our revenue from sales to a small number of large customers, and if we are not able to retain these customers, or if they reschedule, reduce or cancel orders, or fail to make payments, our revenues would be reduced and our financial results would suffer.**

Our largest customers account for a significant percentage of our revenues. Our largest customer accounted for 5.2% (which is 21.6% for our largest Front-end customer and 4.3% for our largest Back-end customer) and our ten largest customers accounted for 27.9% (which is 61.2% for our ten largest Front-end customers and 27.3% for our ten largest Back-end customers) of our net sales in 2010. Sales to and the relative importance of these large customers have varied significantly from year to year and will continue to fluctuate in the future. These sales also may fluctuate significantly from quarter to quarter. We may not be able to retain our key customers or they may cancel purchase orders or reschedule or decrease their level of purchases from us, which would reduce our revenues and negatively affect our financial results. In addition, any difficulty in collecting amounts due from one or more key customers could harm our financial results.

**We may need additional funds to finance our future growth and ongoing research and development activities. If we are unable to obtain such funds, we may not be able to expand our business as planned.**

In the past, we have experienced capital constraints that adversely affected our operations and ability to compete, particularly in our Front-end business. We may require additional capital to finance our future growth and fund our ongoing research and development activities particularly with regard to our Front-end

business. We have only limited ability to reallocate funds from our Back-end business to our Front-end business and some limitations on our ability to reallocate funds among our Front-end businesses.

If we raise additional funds through the issuance of equity securities, the percentage ownership of our existing shareholders would be diluted. If we finance our capital requirements with debt, we may incur significant interest costs. Additional financing may not be available to us when needed or, if available, may not be available on terms acceptable to us, particularly in light of the current global financial crisis that has dramatically affected the availability of bank and other sources of debt financing.

If we are unable to raise needed additional funds, we may have to reduce the amount we spend on research and development, slow down our introduction of new products, reduce capital expenditures necessary to support future growth and/or take other measures to reduce expenses which could limit our growth and ability to compete.

**Our products (primarily in the Front-end) generally have long sales cycles and implementation periods, which increase our costs in obtaining orders and reduce the predictability of our earnings.**

Our products are technologically complex. Prospective customers generally must commit significant resources to test and evaluate our products and to install and integrate them into larger systems. In addition, customers often require a significant number of product presentations and demonstrations, in some instances evaluating equipment on site, before reaching a sufficient level of confidence in the product's performance and compatibility with the customer's requirements to place an order. As a result, our sales process is often subject to delays associated with lengthy approval processes that typically accompany the design and testing of new products. Accordingly, the sales cycles of our products often last for many months or even years, thereby requiring us to invest significant resources in attempting to complete sales.

Long sales cycles also subject us to other risks, including customers' budgetary constraints, internal acceptance reviews and cancellations. In addition, orders expected in one quarter could shift to another because of the timing of customers' purchase decisions. The time required for our customers to incorporate our products into their systems can vary significantly with the needs of our customers and generally exceeds several months, which further complicates our planning processes and reduces the predictability of our earnings from operations.

**Our ability to compete could be jeopardized if we are unable to protect our intellectual property rights from challenges by third parties; claims or litigation regarding intellectual property rights could require us to incur significant costs.**

Our success and ability to compete depend in large part upon protecting our proprietary technology. We rely on a combination of patent, trade secret, copyright and trademark laws, nondisclosure and other contractual agreements and technical measures to protect our proprietary rights and confidential information. These agreements and measures may not be sufficient to protect our technology from third party infringements or to protect us from the claims of others. In addition, patents issued to us may be challenged, invalidated or circumvented, rights granted to us under patents may not provide competitive advantages to us, and third parties may assert that our products infringe their patents, copyrights or trade secrets. Third parties could also independently develop similar products or duplicate our products.

Intellectual property laws may not adequately support our proprietary rights or may change in an unfavorable manner. Patent rights may not be granted or construed as we expect, and key patents may expire resulting in technology becoming available that may hurt our competitive position.

In addition, monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology. The laws of some countries in which our products are or may be developed, manufactured or sold, including various countries in Asia, may not protect our products or intellectual property rights to the same extent as do the laws of the Netherlands and the United States and thus make the possibility of piracy of our technology and products more likely in such countries. If competitors are able to use our technology as their own, our ability to compete effectively could be harmed.

In past years, there has been substantial litigation regarding patent and other intellectual property rights in our semiconductor and related technology industries. In the future, litigation may be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us or to defend us against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others.

Claims that our products infringe the proprietary rights of others would force us to defend ourselves and possibly our customers or suppliers against the alleged infringement. Such claims, if successful, could

subject us to significant liability for damages and potentially invalidate our proprietary rights. Regardless of the outcome, patent infringement litigation is time-consuming and expensive to resolve and diverts management time and attention.

Intellectual property litigation could force us to do one or more of the following, any one of which could severely harm our business with adverse financial consequences:

- forfeit our proprietary rights;
- stop manufacturing or selling our products that incorporate the challenged intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell, produce, use, have sold, have produced or have used the relevant technology, which license may not be available on reasonable terms or at all or may involve significant royalty payments;
- pay damages, including treble damages and attorney's fees in some circumstances; or
- redesign those products that use the challenged intellectual property.

**We license the use of some patents from a competitor pursuant to a settlement agreement; if the agreement is terminated, our business could be adversely affected.**

In October 1997, we entered into an agreement to settle mutual patent infringement litigation with Applied Materials, which was amended and restated in 1998, pursuant to which Applied Materials agreed to grant us a worldwide, non-exclusive and royalty-bearing license to use all of the litigated patents and certain additional patents that were not part of the litigation. In return we agreed to pay Applied Materials a settlement fee and to grant it a worldwide, non-exclusive and royalty-free license to use a number of our patents including but not limited to those patents which we were enforcing in the litigation. All licenses granted by Applied Materials to us expire at the end of the life of the underlying patents which expire at various times through approximately 2018. Our obligation to pay certain royalties to Applied Materials generally continues until the expiration of the corresponding underlying patent. In addition, the settlement agreement included covenants for limited periods during which the parties would not litigate the issue of whether certain of our products infringe any of Applied Materials' patents that were not licensed to us under the settlement agreement. These covenants, which lasted for different periods of time for different products, have expired. Upon the occurrence of an event of default or other specified events, including, among other things, our failure to pay royalties, a change of control of ASM International, and improper use of the licenses, Applied Materials may terminate the settlement agreement, including the licenses included in the agreement.

Additional litigation with Applied Materials regarding the operation of the settlement agreement or other matters could occur. Litigation with Applied Materials, which has greater financial resources than we do, could negatively impact our earnings and financial position.

**As of December 18, 2007, we ceased paying royalties under certain Applied Materials patent licenses in respect of patents that we no longer practice. If it is determined that we still practice these patents, we will owe royalty payments to Applied Materials on our sales of covered products since that time.**

Under our settlement agreement with Applied Materials, we pay royalties based upon our sales of equipment that employs technology covered by the licensed patents. We believe that we no longer practice patents applicable to certain equipment and ceased paying royalties on the sale of such equipment as of December 18, 2007 and gave written notice to Applied Materials in December 2007. The agreement provides a process to address royalty issues in a prescribed manner: the first step is written notice of a royalty matter to a party; the second step is amicable resolution with the participation of an expert if desired by Applied Materials; and the final step if not resolved by the parties is through binding arbitration. Initiation of this process is not considered a default event and the remedy is the payment of any unpaid royalties for equipment shipped after the written notice that are ultimately agreed to by the parties or determined by arbitration. Applied Materials is verifying our position through the review by an independent expert. While we consider the matter closed, Applied Materials notified us in late 2009 that they are continuing to evaluate the matter and will contact us if they require additional information. Although we believe our position is correct, the outcome of any possible arbitration is uncertain and, if we are not successful, we could be required to pay up to approximately € 4.3 million for royalties as of December 31, 2010.

**Our net earnings could be negatively impacted by currency fluctuations.**

Our assets, liabilities and operating expenses and those of our subsidiaries are to a large extent denominated in the currency of the country where each entity is established. Our financial statements, including our Consolidated Financial Statements, are expressed in euros. The translation exposures that

result from the inclusion of financial statements of our subsidiaries that are expressed in the currencies of the countries where the subsidiaries are located are not hedged. As a result, our assets, liabilities and operating expenses are exposed to fluctuations of various foreign currency exchange rates.

In addition, foreign currency fluctuations may affect the prices of our products. Prices for our products for sales to our customers throughout the world are currently denominated in various foreign currencies including, but not limited to, U.S. dollar, euro, Japanese yen and Chinese Yuan. If there is a significant devaluation of the currency in a specific country, the prices of our products will increase relative to that country's currency, and could increase relative to prices of our competitors, and our products may be less competitive in that country. Also, we cannot be sure that our international customers will continue to be willing to place orders denominated in these currencies. If they do not, our revenue and earnings from operations could be subject to additional foreign exchange rate fluctuations.

Although we monitor our exposure to currency fluctuations, these fluctuations could negatively impact our financial position, net earnings and cash flow.

**Substantially all of our equipment orders are subject to operating, performance, safety, economic specifications and other contractual obligations. We occasionally experience unforeseen difficulties in compliance with these criteria, which can result in increased design, installation and other costs and expenses.**

Substantially all of our equipment sales have specific commercial terms and are conditioned on our demonstration, and our customer's acceptance, that the equipment meets specified operating and performance criteria, either before shipment or after installation in a customer's facility. We occasionally experience difficulties in adhering to and demonstrating compliance with such terms and other contractual obligations, which can lead to unanticipated expenses for the performance of the contract or the redesign, modification and testing of the equipment and related software. To the extent this occurs in the future, our cost of goods sold and earnings from operations will be adversely affected. If we are not able to demonstrate compliance with the particular contract or the performance and operating specifications in respect of specific equipment, we may have to pay penalties to the customer, issue credit notes to the customer and/or take other remedial action, including payment of damages or adjusted pricing, any one of which could negatively affect our earnings from operations.

**We are subject to various legal proceedings and claims, the outcomes of which are uncertain. If we fail to accurately evaluate the probability of loss or the amount of possible losses, an adverse outcome may materially and adversely affect our financial condition and results of operations.**

We are party to various legal proceedings and claims generally incidental to our business, as disclosed in Note 20 of Notes to Consolidated Financial Statements included elsewhere in this report. For each of these proceedings and claims, our management evaluates, based on the relevant facts and legal principles, the likelihood of an unfavorable outcome and whether the amount of the loss can be reasonably estimated, in connection with our determination of whether or not to record a charge to earnings. Significant subjective judgments are required in these evaluations, including judgments regarding the validity of asserted claims and the likely outcome of legal, arbitration and administrative proceedings. The outcome of these proceedings is subject to a number of factors beyond our control. In addition, estimates of the potential costs associated with legal, arbitration and administrative proceedings frequently cannot be subjected to any sensitivity analysis, as damage estimates or settlement offers by claimants may bear little or no relation to the eventual outcome. Finally, in any particular proceeding, even where we believe that we would ultimately prevail, we may agree to settle or to terminate a claim or proceeding where we believe that doing so, when taken together with other relevant commercial considerations, is more cost-effective than engaging in an expensive and protracted contest. If we do not accurately assess the probability of an unfavorable outcome or the range of possible loss, an unfavorable outcome could have a material adverse impact on our financial condition and results of operations.

**The Dutch Enterprise Court is reviewing certain matters in relation to ASMI and Stichting Continuïteit ASM International, the timeline and outcome of which are uncertain.**

During 2008 two ASMI shareholders requested the Dutch Enterprise Court to investigate certain matters in relation to the Company and Stichting Continuïteit ASM International. In August 2009 the Enterprise Court ordered an inquiry in respect of the affairs of the Company. In July 2010 the Dutch Supreme Court annulled the order of the Enterprise Court and remanded the decision to the Enterprise Court to consider certain observations of the Supreme Court. The Enterprise Court has not yet rendered a new decision on whether an inquiry into the affairs of ASMI is to be held.

**If our products are found to be defective, we may be required to recall and/or replace them, which could be costly and result in a material adverse effect on our business, financial position and net earnings.**

One or more of our products may be found to be defective after we have already shipped the products in volume, requiring a product replacement or recall. We may also be subject to product returns and product liability claims that could impose substantial costs and have a material and adverse effect on our business, financial position and net earnings.

**Although we currently are a majority shareholder of ASM Pacific Technology, we may not be able to maintain our majority interest, which, if other circumstances are such that we do not control ASM Pacific Technology, would prevent us from consolidating its results of operations with ours. This event would have a significant negative effect on our consolidated earnings from operations.**

We derive a significant portion of our net sales, earnings from operations and net earnings from the consolidation of the results of operations of ASM Pacific Technology in our results. ASM Pacific Technology is a Cayman Islands limited liability company that is based in Hong Kong and listed on the Hong Kong Stock Exchange. As of December 31, 2010, we owned 52.36% of ASM Pacific Technology through our wholly-owned subsidiary, ASM Pacific Holding B.V. and the remaining 47.64% was owned by the public. If we do not maintain our majority interest in ASM Pacific Technology, and if other circumstances are such that we do not control it through other means, we would no longer be able to consolidate its results of operations in ours. Any such determination of whether we could continue to consolidate would be based on whether we still have a “controlling financial interest” within the meaning of United States generally accepted accounting principles. If we were to become unable to consolidate the results of operations of ASM Pacific Technology with our results, the results of operations of ASM Pacific Technology would no longer be included in our earnings from operations. Instead, our proportionate share of ASM Pacific Technology’s earnings would be reflected as a separate line-item called “share of results from investments” in our Consolidated Statements of Operations. We would no longer be able to consolidate the assets and liabilities of ASM Pacific Technology and would have to reflect the net investment in ASM Pacific Technology in the line-item “investments” in our Consolidated Balance Sheet. This event would have a significant negative effect on our consolidated earnings from operations, although our net earnings would be reduced only to the extent of the reduction of our ownership interest in ASM Pacific Technology.

The ASM Pacific Technology shares we own are partly pledged as security for our revolving credit facility. If such shares were sold upon the exercise of remedies following an uncured default under this credit facility, we may no longer be able to consolidate the result of operations of ASM Pacific Technology.

ASM Pacific Technology has an employee share incentive program pursuant to which it can issue up to an aggregate of 7.5% of its total issued shares subject to certain limitations. When ASM Pacific Technology issues shares pursuant to this program, our ownership interest is diluted. Our interest could further be diluted if ASM Pacific Technology issues equity for other purposes. Any such decision by ASM Pacific Technology to issue additional shares requires the approval of shareholders in general meeting in accordance with the listing rules of the Hong Kong Stock Exchange, which in effect makes such decision subject to our approval. We may need to purchase shares of ASM Pacific Technology or take other measures to maintain our majority interest in the future. There is no assurance that we will have sufficient financial resources to do so at that time.

**Although we are a majority shareholder, ASM Pacific Technology is not obligated to pay dividends to us and may take actions or enter into transactions that are detrimental to us.**

Certain directors of ASM Pacific Technology are directors of ASM International. However, they are under no obligation to take any actions that are beneficial to us. Issues and conflicts of interest therefore may arise which might not be resolved in our best interest.

In addition, the directors of ASM Pacific Technology are under no obligation to declare a payment of dividends to shareholders. As a shareholder of ASM Pacific Technology, we cannot compel the payment or amount of dividends. With respect to the payment of dividends, the directors must consider the financial position of ASM Pacific Technology after the dividend. Cash dividends received from ASM Pacific Technology totaled € 49.1 million, € 21.4 million, and € 65.6 million in 2008, 2009 and 2010, respectively. In the past, we have used these dividends in our Front-end business. In November 2006, we announced our commitment that for at least the years 2007, 2008 and 2009 we would not use these cash dividends to support our Front-end business, but instead would use such dividends to retire outstanding convertible debt, repurchase our common shares, pay dividends on our common shares, or purchase shares of ASM Pacific Technology. At our 2010 Annual General Meeting, we announced that we would continue this commitment for at least another two years through 2011. See Item 5, “Operating and Financial Review and Prospects—Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.”



The directors of ASM Pacific Technology owe their fiduciary duties to ASM Pacific Technology, and may approve transactions to which we are a party only if the transactions are commercially beneficial to ASM Pacific Technology. Further, under the listing rules of the Hong Kong Stock Exchange, directors who are on the boards of both ASM Pacific Technology and ASM International are not permitted to vote on a transaction involving both entities. This would disqualify all affiliates of ASM International who serve on the board of ASM Pacific Technology from voting on any such transaction.

As a shareholder of ASM Pacific Technology, we can vote our shares in accordance with our own interests. However, we may not be entitled to vote on transactions involving both us and ASM Pacific Technology under the listing rules of the Hong Kong Stock Exchange and the Hong Kong Takeovers Code. In particular, under the Hong Kong Takeovers Code we would be excluded from voting on a takeover transaction requiring shareholder approval if we have an interest in such transaction.

**We may not be able to recruit or retain qualified personnel or integrate qualified personnel into our organization. Consequently, we could experience reduced sales, delayed product development and diversion of management resources.**

Our business and future operating results depend in part upon our ability to attract and retain qualified management, technical, sales and support personnel for our operations on a worldwide basis. Competition for qualified personnel is intense, and we cannot guarantee that we will be able to continue to attract and retain qualified personnel particularly during sustained economic upturns in the industry. Availability of qualified technical personnel varies from country to country, and may affect the operations of our subsidiaries in some parts of the world. Our operations could be negatively affected if we lose key executives or employees or are unable to attract and retain skilled executives and employees as needed. In particular, if our growth strategies are successful, we may not have sufficient personnel to manage that growth and may not be able to attract the personnel needed. We have agreements with some, but not all, key employees restricting their ability to compete with us after their employment terminates. We do not maintain insurance to protect against the loss of key executives or employees. Our future growth and operating results will depend on:

- our ability to continue to broaden our senior management group;
- our ability to attract, hire and retain skilled employees; and
- the ability of our officers and key employees to continue to expand, train and manage our employee base.

We have in the past experienced intense competition for skilled personnel during market expansions and believe competition will be intense if the semiconductor market experiences a sustained expansion. Consequently, we generally attempt to minimize reductions in skilled personnel in reaction to industry downturns, which reduces our ability to lower costs by payroll reduction.

**Because the costs to semiconductor manufacturers of switching from one semiconductor equipment supplier to another can be high, it may be more difficult to sell our products to customers having a competing installed base, which could limit our growth in sales and market share.**

We believe that once a semiconductor manufacturer has selected a supplier's equipment for a particular product line, that manufacturer generally continues to rely on that supplier for future equipment requirements, including new generations of similar products. Changing from one equipment supplier to another is expensive and requires a substantial investment of resources by the customer. Accordingly, it is difficult to achieve significant sales to a customer using another supplier's equipment. Our inability to sell our products to potential customers who use another supplier's equipment could adversely affect our ability to increase revenue and market share.

**Our reliance on a limited number of suppliers and a single manufacturing facility in our Front-end could result in disruption of our operations.**

We outsource a portion of the manufacturing of our Front-end business to a limited number of suppliers. If our suppliers were unable or unwilling to deliver products in a timely manner to us in the quantities we require for any reason, including without limitation, capital constraints, natural disaster, labor unrest, capacity constraints, supply chain management problems or contractual disputes, we may be unable to fill customer orders on a timely basis, which could negatively affect our customer relationships and financial performance. Many of our suppliers face economic challenges in a depressed or difficult global economy, which increases our risk of disruption from a supplier's failure to perform its obligations to us in a timely manner.

We have shifted an increasing portion of our Front-end manufacturing to our Front-end Manufacturing Singapore (FEMS) facility, and expect to increase the concentration of Front-end manufacturing there in the

future. If this facility experiences a manufacturing disruption for any reason, including without limitation, natural disaster, labor unrest, capacity constraints, supply chain management problems or contractual disputes, our ability to timely meet our customers' needs may be impaired, which would negatively affect our customer relationships and financial performance.

**We operate worldwide; economic, political, military or other events in a country where we make significant sales or have significant operations could interfere with our success or operations there and harm our business.**

We market and sell our products and services throughout the world. A substantial portion of our manufacturing employees and operations are in the People's Republic of China and the success of our business depends substantially on those operations. In addition, we have operating facilities in the Netherlands, the United States, Japan, Hong Kong, Singapore, Malaysia and South Korea. Our operations are subject to risks inherent in doing business internationally, including, without limitation:

- unexpected changes in regulatory or legal requirements or changes in one country in which we do business which are inconsistent with regulations in another country in which we do business;
- potentially adverse tax consequences;
- fluctuations in foreign currency exchange rates and foreign currency controls;
- political conditions and instability;
- economic conditions and instability;
- terrorist activities;
- human health emergencies, such as the outbreak of infectious diseases or viruses;
- tariffs and other trade barriers, including current and future import and export restrictions, and freight rates;
- difficulty in staffing, coordinating and managing international operations;
- burden of complying with a wide variety of foreign laws and licensing requirements;
- differences in possibilities to protect intellectual property rights;
- differences to enforce agreements and other rights;
- differences in accounts receivable payment terms and practices; and
- business interruption and damage from natural disasters.

To the extent that such disruptions slow the global economy or, more particularly, result in delays or cancellations of purchase orders, our business and operating results could be materially and adversely affected.

**Environmental laws and regulations may expose us to liability and increase our costs.**

Our operations are subject to many environmental laws and regulations wherever we operate governing, among other things, air emissions, wastewater discharges, the use and handling of hazardous substances, waste disposal and the investigation and remediation of soil and groundwater contamination. As with other companies engaged in similar activities, we face inherent risks of environmental liability in our current and historical manufacturing R&D activities. Costs associated with future environmental compliance or remediation obligations could adversely affect our business.

For example, the European Commission published in 2003 a directive on waste electrical and electronic equipment ("WEEE"), which has been implemented in the Netherlands. In principle, the rules result in "take-back" obligations of manufacturers and/or the responsibility of manufacturers for the financing of the collection, recovery and disposal of electrical and electronic equipment by requiring that European Union Member States adopt appropriate measures to minimize WEEE disposal and achieve high levels of collection and separation of WEEE. Producers of WEEE must provide for the financing of the collection, treatment, recovery and environmentally sound disposal of WEEE. Another directive of the European Commission provides for a ban on the use of lead and some flame retardants in manufacturing electronic components. To the extent these and other similar regulations in other countries apply to our business throughout the world, these measures could adversely affect our manufacturing costs or product sales by forcing us or our suppliers to change production processes or use more costly materials.

**Any acquisitions or investments we may make could disrupt our business and harm our financial condition.**

We may consider from time to time additional investments in complementary businesses, products or technologies, such as the current acquisition by ASM Pacific Technology of the SEAS Business. We may not be able to successfully integrate these businesses, products, technologies or personnel that we might acquire in the future, and accordingly we may not realize the anticipated benefits from such acquisitions. In particular, our operation of acquired businesses involves numerous risks, including without limitation:

- problems integrating the purchased operations, technologies or products;
- unanticipated costs and liabilities for which we are not able to obtain indemnification from the sellers;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with customers;
- risks associated with entering markets in which we have no, or limited, prior experience;
- risks associated with installation, service and maintenance of equipment of which we have limited or no prior experience;
- limited technical documentation of the equipment developed in the acquired company; and
- potential loss of key employees, particularly those of the acquired organizations.

In addition, in the event of any future acquisitions of such businesses, products or technologies, we could:

- issue shares that would dilute our current shareholders' percentage ownership;
- incur debt;
- assume liabilities;
- incur impairment expenses related to goodwill and other intangible assets; or
- incur substantial accounting write-offs.

## **RISKS RELATED TO AN INVESTMENT IN OUR SHARES**

**Lehman Bros. liquidation administrators have notified us that our common shares purchased by Lehman and held by Lehman in custody accounts on our behalf may have a shortfall.**

During 2008, we engaged Lehman to repurchase ordinary ASMI shares on the Euronext and Nasdaq markets. As of September 15, 2008, Lehman had purchased and held 2,552,071 shares for our account. Lehman went into bankruptcy administration on September 15, 2008, and we subsequently filed a submission giving notice of our proprietary interest in the shares believed to be held in custody by Lehman. At our May 2009 AGM, our shareholders resolved to cancel all of these treasury shares and we so notified Lehman of the cancellation. However we were notified in September 2010 by the Lehman administrators that there is a possible shortfall in the number of shares held by Lehman as reflected in the statements of our accounts with Lehman. To the extent the number of treasury shares held by Lehman as of the date of their cancellation is lower than 2,552,071 only such lower number of shares have been cancelled and the shortfall of shares may still be considered outstanding. The Lehman administrators report that some time prior to its bankruptcy, Lehman put into a segregated client omnibus account a cash sum on our behalf of \$6,758,796, which the administrators apparently regard as money to which we have a proprietary right in lieu of some or all of the missing shares. We are uncertain at this time as to the accuracy of the shortfall of shares, the sufficiency of this cash sum to cover the value of any such discrepancy, and our entitlement to all or a portion of such sum when distributions are determined and made since there is likely to also be a shortfall in Lehman assets subject to proprietary rights. Given the magnitude of the overall Lehman administration, the timeline for clarity and resolution of this item is expected to be considerable, perhaps up to several years.

**Our founder who is also Chairman of the Board of ASM Pacific Technology controls approximately 21.4% of our voting power which gives him significant influence over matters voted on by our shareholders, including the election of members of our Supervisory Board and Management Board and makes it substantially more difficult for a shareholder group to remove or elect such members without his support.**

Our founder controlled approximately 21.4% of the voting power of our outstanding common shares as of December 31, 2010. Accordingly, he has significant influence on the outcome of matters submitted to a shareholder vote, such as the election of the members of our Supervisory Board and Management Board.

Persons nominated by the Supervisory Board for appointment by the shareholders to the Supervisory Board or Management Board at a general meeting of shareholders will be elected if they receive a majority of the votes cast at the meeting. Nominees to the Supervisory Board or Management Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at the meeting, provided such affirmative votes represent at least one third of our issued capital. Members of the Supervisory and Management Boards may be removed only by the affirmative vote of a majority of the votes cast at a meeting, and, unless such removal is recommended by the Supervisory Board, the affirmative votes must represent at least one third of our issued capital. This makes it difficult for a group of shareholders to remove or elect members of our Supervisory Board or Management Board without the support of our founder.

**Our anti-takeover provisions may prevent a beneficial change of control.**

The Company has granted to Stichting Continuïteit ASM International ("Stichting"), a non-membership organization with a board composed of three members independent of ASMI, the right to acquire and vote our preferred shares. The objective of Stichting is to serve the interests of the Company. To that objective Stichting may, among other things, acquire, own and vote our preferred shares in order to maintain our independence and/or continuity and/or identity. This may prevent a change of control from occurring that shareholders may otherwise support. On May 14, 2008, Stichting exercised this right in response to a perceived threat to our continuity and acquired shares of our preferred stock representing 29.9% of the total voting power of our outstanding capital shares at that time. These shares were retired in 2009 and a new right was issued to Stichting to acquire and vote preferred shares in certain situations in the future. For additional information regarding Stichting, see Item 7, "Major Shareholders and Related Party Transactions."

The voting power of Stichting may make it more difficult for a shareholder or a group of shareholders to cause us to enter into a change of control transaction not supported by Stichting, even if such transaction offers our shareholders an opportunity to sell their shares at a premium over the market price.

**We must offer a possible change of control transaction to Applied Materials first.**

Pursuant to our 1997 settlement agreement with Applied Materials, as amended and restated in 1998, if we desire to effect a change of control transaction, as defined in the settlement agreement, with a competitor of Applied Materials, we must first offer the change of control transaction to Applied Materials on the same terms as we would be willing to accept from that competitor pursuant to a bona fide arm's-length offer made by that competitor.

**Our failure to maintain effective internal controls over financial reporting may prevent our auditor from attesting to our evaluation of our controls.**

We are subject to United States securities laws, including the Sarbanes-Oxley Act of 2002 and the rules and regulations adopted by the U.S. Securities and Exchange Commission pursuant to the Act. Under Section 404 of the Sarbanes-Oxley Act and the related regulations, we are required to perform an annual evaluation of our internal controls over financial reporting and submit a management report on such controls. In addition, we are required to have our independent auditor publicly attest to our evaluation of internal controls over financial reporting.

If we fail to maintain effective internal controls over financial reporting, if we do not timely evaluate the effectiveness of internal controls over financial reporting, or if our independent auditor cannot timely attest to our evaluation, we could be subject to regulatory scrutiny and decreased public confidence in our internal controls, which may adversely affect the market price of our common shares.

**Our stock price has fluctuated and may continue to fluctuate widely.**

The market price of our common shares has fluctuated substantially in the past. Between January 1, 2010 and December 31, 2010, the sale price of our common shares, as reported on the NASDAQ Global Select Market, ranged from a low of US\$ 19.10 to a high of US\$ 35.09. The market price of our common shares will continue to be subject to significant fluctuations in the future in response to a variety of factors, including the risk factors discussed in this report and the following, without limitation:

- future announcements concerning our business or that of our competitors or customers;
- the introduction of new products or changes in product pricing policies by us or our competitors;
- litigation regarding proprietary rights or other matters;
- changes in analysts' earnings estimates and recommendations;
- developments in the financial markets;

- quarterly fluctuations in operating results;
- hedge fund and shareholder activist activities;
- general economic, political and market conditions, such as recessions or foreign currency fluctuations; and
- general conditions in the semiconductor and semiconductor equipment industries.

In addition, public stock markets frequently experience substantial price and trading volume volatility, particularly in the high technology sectors of the market. This volatility has significantly affected the market prices of securities of many technology companies for reasons frequently unrelated to or disproportionately impacted by the operating performance of these companies. These broad market fluctuations may adversely affect the market price of our common shares.

**Our quarterly revenues and earnings from operations have varied significantly in the past and may vary in the future due to a number of factors, including, without limitation:**

- cyclicity and other economic conditions in the semiconductor industry;
- production capacity constraints;
- the timing of customer orders, cancellations and shipments;
- the length and variability of the sales cycle for our products;
- the introduction of new products and enhancements by us and our competitors;
- the emergence of new industry standards;
- product obsolescence;
- disruptions in sources of supply;
- our ability to time our expenditures in anticipation of future orders;
- our ability to fund our capital requirements;
- changes in our pricing and pricing by our suppliers and competitors;
- our product and revenue mix;
- seasonal fluctuations in demand for our products;
- foreign currency exchange rate fluctuations; e.g. appreciation of the euro versus the Japanese yen and U.S. dollar, which would negatively affect the competitiveness of those manufacturing activities that are domiciled in countries whose currency is the euro; and
- economic conditions generally or in various geographic areas where we or our customers do business.

In addition, in our Front-end segment we derive a substantial portion of our net sales from products that have a high average selling price and significant lead times between the initial order and delivery of the product. The timing and recognition of net sales from customer orders can cause significant fluctuations in our earnings from operations from quarter to quarter. Gross margins realized on product sales vary depending upon a variety of factors, including the mix of products sold during a particular period, negotiated selling prices, the timing of new product introductions and enhancements and manufacturing costs. A delay in a shipment near the end of a fiscal quarter or year, due, for example, to rescheduling or cancellations by customers or to unexpected manufacturing difficulties experienced by us, may cause sales in a particular period to fall significantly below our expectations and may materially adversely affect our earnings from operations for that period. Further, our need to continue expenditures for research and development and engineering make it difficult for us to reduce expenses in a particular quarter even if our sales goals for that quarter are not met. Our inability to adjust spending quickly enough to compensate for any sales shortfall would magnify the adverse impact of a sales shortfall on our earnings from operations. In addition, announcements by us or our competitors of new products and technologies could cause customers to defer purchases of our existing systems, which could negatively impact our financial position and net earnings.

As a result of these factors, our revenues or earnings from operations may vary significantly from quarter to quarter. Any shortfall in revenues or earnings from operations from levels expected by securities analysts and investors could cause a decrease in the trading price of our common shares.

#### **Item 4. Information on the Company**

The information in this Item 4 should be read in conjunction with the risks discussed under Item 3.D., “Risk Factors.”

## A. History and development of the Company.

ASM International N.V. was incorporated on March 4, 1968 as a Netherlands *naamloze vennootschap*, or public limited liability company, and was previously known as Advanced Semiconductor Materials International N.V. Our principal executive offices are located at Versterkerstraat 8, 1322 AP, Almere, the Netherlands. Our telephone number at that location is +31 8810 08810. Our authorized agent in the United States is our subsidiary, ASM America Inc., a Delaware corporation, located at 3440 East University Drive, Phoenix, Arizona 85034.

## B. Business overview.

### Introduction

#### Our Business

We are a semiconductor capital equipment supplier. We design, manufacture and sell equipment and services to our customers for the production of semiconductor devices, or integrated circuits. The semiconductor capital equipment market is composed of three major market segments: wafer processing equipment, assembly and packaging equipment, and test equipment. ASMI is mainly active in the wafer processing and assembly and packaging market segments. The wafer processing segment is referred to as “Front-end.” Assembly and packaging is referred to as “Back-end.”

Front-end production systems perform processes on round slices of silicon, called wafers, which are typically 200mm or 300mm in diameter. During these processes, thin films, or layers, of various materials are grown or deposited onto the wafer, or modified in various ways such as through temperature treatment or etching. Some of these films are electrically conductive, some are electrically insulating. By depositing multiple layers of films, multi-level, integrated electrical circuits are created. Many individual integrated circuits are created at one time on each wafer, and these are referred to as “dies” or “chips.” After testing these individual circuits for correct performance, the dies on the processed wafer are separated, with each die of the same wafer containing the same circuitry. Back-end production systems then assemble and connect one or more known good dies in a single package, to form a complex semiconductor device that will perform calculations, store data and interface with its environment.

Our Front-end operations are conducted through wholly-owned subsidiaries, the most significant being ASM Front-End Manufacturing Singapore Pte Ltd. (“FEMS”), located in Singapore, ASM Europe B.V. (“ASM Europe”), located in the Netherlands, ASM America, Inc. (“ASM America”), located in the United States, ASM Japan K.K. (“ASM Japan”), located in Japan, and ASM Genitech Korea Ltd. (“ASM Genitech”) located in Korea.

Our Back-end operations are conducted through our majority-owned subsidiary, ASM Pacific Technology Ltd. (“ASM Pacific Technology”), with principal operations in Hong Kong, the People’s Republic of China, Singapore, and Malaysia. At December 31, 2010, we owned 52.36% of the outstanding equity of ASM Pacific Technology.

The location of our Front-end facilities allows us to interact closely with customers in the world’s major Front-end geographic market segments: Europe, North America, and Asia. The principal market we address in the Front-end is a portion of the “Deposition and Related Tools” market segment, as defined by VLSI Research<sup>1</sup>. Our Front-end segment accounted for 27.1% of our net sales in 2009 and 24.0% of our net sales in 2010.

Our Back-end facilities are in close proximity to where most customer assembly and packaging operations are located. The principal markets we address in Back-end are portions of the “IC Bonding Equipment,” “Packaging Equipment” and “IC Integrated Assembly Systems” segments as defined by VLSI Research<sup>2</sup>, which segments include assembly and packaging equipment for LED’s. We also manufacture and sell lead-frames which are substrates connecting the various circuits on a chip to the devices in which the chips are installed. Our Back-end segment accounted for 72.9% of our net sales in 2009 and 76.0% of our net sales in 2010.

<sup>1</sup> [www.vlsiresearch.com](http://www.vlsiresearch.com), VIC code 1460.00000, accessed February 21, 2011.

<sup>2</sup> [www.vlsiresearch.com](http://www.vlsiresearch.com), VIC codes 1540.00000, 1550.00000 and 1560.00000, accessed February 22, 2011.

## ***Recent Developments—Front-end Business***

### ***Front-end Manufacturing—Singapore***

In late 2004, we established FEMS in Singapore as a low-cost manufacturing hub for Front-end production. We established FEMS to manufacture generic subsystems and parts for our Front-end products that we previously outsourced, in order to improve cost-effectiveness and strengthen our gross profit margin in our Front-end segment.

In January 2009 we announced the transfer to Singapore of the complete manufacturing, i.e. including final assembly and test, of our Vertical Batch Furnaces. As a result, since the end of 2009, our Vertical Batch Furnaces are completely manufactured in FEMS. In 2010 we continued with the transfer of the manufacturing responsibility for our Single Wafer Products to FEMS. As part of this transfer, in 2010, we closed our production facilities in Phoenix, Arizona and in Nagaoka, Japan.

### ***Almere Headquarters***

In December 2008, we relocated our headquarters from Bilthoven to our existing facility in Almere, the Netherlands. We are marketing our Bilthoven facility for sale.

### ***Product Portfolio Streamlining***

We are in the process of moving the 300mm process technologies offered on the Polygon Platform to the Eagle XP platform. The Eagle XP common platform enables us to improve the coherency in our product portfolio.

### ***Restructuring***

In July 2009 we announced a major restructuring program called PERFORM! This plan calls for globalization of manufacturing, sales and service, and platform R&D functions, and streamlining of our Front-end organization in two business units: Thermal Products (including CVD/Diffusion and ALD/Epi Product Lines) and Plasma Products (including PECVD and PEALD Product Lines). We announced in 2010, as part of PERFORM!, the establishment of a third business unit: Global Service and Spares, to increase the focus on servicing, and to generate increased revenue and improved margin from our growing installed equipment base.

In 2010, we completed the restructuring of our ASM America (ASMA) operations by transferring the manufacturing in our Phoenix, Arizona, facility to our FEMS operation in Singapore, and closing the Phoenix manufacturing facility in August. In 2010, we also completed the restructuring of our ASM Japan operations by closing our manufacturing facility in Nagaoka, Japan, by the end of 2010.

We also completed in 2010 much of the consolidation of the regional finance and IT activities to our new Shared Service Center in Singapore.

## ***Recent Developments—Back-end Business***

The year 2010 was a stellar year for ASMPT. Capturing the opportunity that was brought about by the strong recovery of the economy in Asia, ASMPT managed to break all new records in bookings, billings and net profits and managed to achieve revenues of over US\$1 billion, for the first time in ASMPT's history. In the course of the year, ASMPT set up a new factory in Huizhou, China, and also started the construction of a new R&D building in Chengdu, China.

In 2010, ASMPT also made a strategic move to enter the SMT equipment industry by acquiring the SEAS business from Siemens AG as at January 1, 2011. The size of the SMT equipment market is at least the same as the semiconductor assembly and packaging equipment market, if not bigger. The acquisition of the SEAS business offers ASMPT another excellent growth engine. The SEAS business is renamed ASM Assembly Systems (ASM AS). Munich, Germany, will continue to be the Headquarters of ASM AS as well as the Center of Excellence for SMT equipment within the ASMPT Group. With ASM AS, ASMPT is in a unique position to capitalize on the industry trend of convergence of the semiconductor assembly process and the SMT process. The addition of the Munich R&D center will further strengthen the long term strategic position of ASMPT.

## ***Industry Background and Major Business Trends***

Semiconductor devices are the key enablers of the electronic age. Each semiconductor device can hold many individual components, most of which are transistors. For over 30 years now, the average number of

components per integrated semiconductor device, at the optimum cost-per-component, has been increased by a factor of two every 18 to 24 months. This trend is generally referred to as Moore's law, after Gordon Moore who co-founded Intel. Increases in complexity, along with simultaneous reductions in the cost-per-component, have mainly been achieved by reducing the size of individual transistors, so that a larger number of transistors fit within a given size die. Today, transistors less than 45nm (1 nm is equal to one billionth of a meter) long are manufactured in high volume, and several billion transistors can be manufactured on a single die with an area of a few square centimeters.

A second development that has decreased the cost per device is the increased size of the wafer (the silicon substrate upon which semiconductors are built), so that more devices can be produced within one production cycle. Today, almost all of the newly installed semiconductor device fabrication capacity employs 300mm wafers, with each wafer typically holding between a few dozen to several thousand individual circuits. In several industry consortia a transition to 450mm wafers is being discussed.

The semiconductor industry had a substantial up year in 2010, driven by an over US\$ 1.6 trillion global electronics industry (VLSI Research Chip Insider February 14, 2011), that required approximately \$248 billion (ibid.) in semiconductors. The semiconductor industry in turn, supported the approximately \$47 billion (ibid.) semiconductor capital equipment industry, which supplies the needed production systems and services.

The yield, or the fraction of chips on a wafer that operate according to specifications (known good dies), is one of the key variables that influences the financial performance of the integrated device manufacturers. Large initial investments are needed to build an automated production line in an ultra-clean environment in order to achieve high yield. The capital equipment in this production line is increasingly becoming an important determinant for the yield of the factory.

Parallel to the above-mentioned trends of transistor scaling and larger wafer size, another trend is beginning to emerge on the die level: heterogeneous integration. While the components on a chip that perform calculation and storage can undergo scaling, other components, such as inductors, capacitors, sensors, micromechanical, photonic, or micro-fluidic devices, do not scale as easily as do transistors and some capacitors. Yet, in order to make devices with these components small and cost-effective enough, they will eventually also have to be integrated into the same semiconductor device. Although several functions can be integrated on a single die, as in a system on a chip ("SoC"), for economic reasons this is usually limited to the components that scale with Moore's law ("more Moore"), and use the same base material (silicon). For components that do not scale, or components that use a different base material it is not always practical or economically feasible to place them on the same die. In that case, integration of several dies, sometimes coming from different supply lines, in a single package to form a system in a package ("SiP") is the alternative solution that provides the desired functionality. This trend is sometimes referred to as "more than Moore."

The trends outlined above are the drivers of the broad semiconductor roadmap which semiconductor equipment companies track in developing new production systems and process technologies. These new systems and technologies must be developed well ahead of volume demand for the semiconductor devices they make. As a result, there is a large lead time between the investment in a new technology, and its commercial success. With the combination of a long lead time and the short product life-cycles comes the inherent difficulty of matching supply and demand, which results in the high volatility associated with the semiconductor equipment industry. In this highly cyclical industry, the Front-end and Back-end market segments have historically reacted differently to market forces. We believe, therefore, that operating in both segments works in our favor to reduce the impact of business cycles on our operations.

### ***Our Strategy***

Our strategic objective is to realize profitable, sustainable growth by capitalizing on our technological innovations, manufacturing infrastructure and sales and support offices located close to our global customers. The key elements of our strategy include:

- Streamlining our Front-end manufacturing processes to follow the highly successful vertical manufacturing model of our Back-end segment, by systematically reducing manufacturing costs through global sourcing, product platform consolidation, and locating our manufacturing capability in more cost efficient countries.
- Maintaining our global reach through our global operating, sales and customer service organization and its facilities in key parts of the world in order to establish and maintain long-term customer relationships.
- Leveraging our combined strong Front-end and Back-end technology leadership and manufacturing capabilities through advancements in our products and processes early in the technology lifecycle.



- Expanding the scope and depth of our research and development capabilities through strategic alliances with independent research institutes, universities, customers and suppliers, and expanding our patent portfolio by filing applications for key developments in equipment, processes, materials and software where this is deemed necessary and beneficial.

## **Background of Semiconductor Manufacturing Processes**

### **Overview**

The process of manufacturing an integrated semiconductor, from raw material to finished device, includes amongst others the segments in which we participate: Front-end and Back-end.

### **Front-end Manufacturing Process**

The Front-end manufacturing process, or wafer processing, can be divided in three distinct parts: wafer manufacturing, transistor formation (known as Front-end of the line ("FEOL") processing), and interconnect formation (known as Back-end of the line ("BEOL") processing). We develop and sell technology, develop, manufacture and sell equipment, and provide services used by semiconductor device manufacturers in each of these sections of Front-end manufacturing.

In the wafer manufacturing process a large single crystal of very pure silicon is grown from molten silicon. The crystal is then sliced into a large number of thin slices, or wafers, of single crystalline silicon. These slices are polished to an atomic level flatness before the next steps are executed. For advanced applications, some layers are deposited on the wafer for later use, by either epitaxy or diffusion/oxidation (described below). Epitaxial wafers are even flatter and contain fewer defects at the surface than polished wafers. Some wafers are made with an embedded electrically insulating layer, such as silicon oxide, just below a very thin top layer of pure silicon. These special wafers are called Silicon-on-Insulator or SOI wafers and are used for some of the most advanced microprocessors. The finished wafers, still without pattern on them, are shipped to the integrated device manufacturers and foundries for further processing.

During FEOL and BEOL wafer processing, multiple thin films of either electrically insulating material, also called dielectrics, or conductive material are modified, grown, or deposited on a silicon wafer. First, several material processing cycles are used in the FEOL to build the basic transistor and other components such as capacitors and resistors. Second, several processing cycles are used in the BEOL to electrically connect the large amount of transistors and components, and to build additional passive components such as capacitors, inductors and resistors. Patterning of deposited layers with lithography and etching (described below) creates the transistors, passive components and connecting wires, which together make up the integrated circuit. Each integrated circuit is on a single "chip" or a "die" on the wafer. A finished wafer may contain a few dozen to several thousand individual dies. Front-end processes are performed either one wafer at a time in single wafer processing systems or many wafers at a time in batch processing systems. Multiple deposition, and patterning processes are performed on the same wafer.

The number and precise order of the process steps vary depending upon the complexity and design of the integrated circuit. The performance of the circuit is determined in part by the various electrical characteristics of the materials used in the layers of the circuit and the wafer. Simple circuits may have as few as ten layers, while complex circuits may have more than one hundred layers. The Front-end manufacturing process is capital intensive, requiring multiple units of several different production systems. Many different but complementary methods are used to modify, grow, or deposit materials on the wafers. We are predominantly active in developing and manufacturing the equipment used by semiconductor device manufacturers in the deposition processes, i.e., those steps that involve the creation of insulating, conducting and semi-conducting layers on the wafer surface.

The Front-end manufacturing process is complete when all of the layers have been deposited and patterned on the wafer. As a last step, the correct electrical functioning of the integrated circuits on each die is confirmed by probing. Non-functioning circuits are marked so they can be eliminated before the Back-end processing. The introduction of even trace levels of foreign particles or material can make a circuit, or even an entire wafer, unusable. To reduce the level of foreign particles or material, Front-end processing is performed in clean rooms with ultra-low particle and contamination levels. Once the Front-end processing is complete, the entire wafer with multiple, functioning, integrated circuits is shipped to the Back-end facility where it is separated into dies, which are then bonded to a suitable substrate or lead frame, packaged, and tested before final shipment of the semiconductor device to the end customer. Back-end processes do not require the same level of contaminant control. These processes are performed in facilities that differ from facilities in which Front-end processes are performed.

The following is an alphabetical list of the principal Front-end process technologies used by semiconductor device manufacturers:

- *Atomic Layer Deposition ("ALD")* is an advanced technology that deposits atomic layers one at a time at low temperatures on wafers. This process is used to create ultra-thin films of exceptional quality and flatness. Plasma is sometimes used to enhance the process further (*Plasma Enhanced ALD, PEALD*).
- *Chemical Mechanical Polishing ("CMP")* is a technology that planarizes, or levels, layers deposited on wafers by polishing them with a chemical solution called slurry. Planarization reduces the vertical height differences of the various layers. This increases the number of layers that can be processed without introducing reliability problems. *Electrochemical Mechanical Polishing ("ECMP")* is comparable to CMP aided with an electric current.
- *Chemical Vapor Deposition ("CVD")* is a technique in which one or more gaseous reactants are used to form a solid insulating or conducting layer on the surface of a wafer. Low pressure (*Low Pressure CVD, LPCVD*) or plasma is sometimes used to enhance the process further (*Plasma Enhanced CVD, PECVD*).
- *Clean* removes undesirable contaminants from the wafer's surface.
- *Diffusion and Oxidation* are high-temperature processes that change the electrical characteristics of layers. *Diffusion* is used to move dopants, or impurities, and make dopants introduced by ion implantation electrically active. *Anneal* is used as a synonym to diffusion. *Oxidation* forms a silicon oxide layer on the wafer's surface, which acts as an insulating or protective layer over the wafers surface.
- *Electroplating or Electrochemical Deposition ("ECD")* deposits a layer of metal from a complex liquid solution, containing metal salts, and certain additives, by passing an electrical current through that solution and towards the surface of the wafer. *Electrochemical Mechanical Deposition ("ECMD")* is ECD with concurrent mechanical planarization.
- *Epitaxy* involves the deposition of silicon or silicon compounds on the wafer, continuing and perfecting the crystal structure of the bare wafer underneath. Epitaxy improves the electrical characteristics of the wafer surface, making it suitable for highly complex microprocessors and memory devices. *Selective epitaxy* is an epitaxy process that only deposits silicon or a silicon compound on certain predetermined areas of the wafer.
- *Etch* reproduces the pattern imprinted by lithography by removing excess material from the uppermost layer(s) of the wafer.
- *Ion Implantation* is a process in which wafers are bombarded with ions to introduce dopant atoms, or impurities, into the wafer to improve its electrical characteristics. Silicon conducts little or no electricity. In order to have electrical current within a layer, it is necessary to place small amounts of impurities into the layer.
- *Lithography* is used to print the various layer patterns of the semiconductor device on the uppermost layer of the wafer. These patterns determine the functions of the semiconductor device. The lithography process determines the smallest pitch with which components can be placed in the circuit.
- *Metrology* is used to measure the width of lines on semiconductor devices, the thickness of layers, the surface profiles of layers, and certain electrical properties of layers.
- *Probing* is a process in which electrical and functional tests are performed on each die and defective ones are marked on the wafer so that they can be discarded prior to the Back-end processing.
- *Rapid Thermal Processing ("RTP")* is similar to diffusion/oxidation, except that it exposes a single wafer to heat over a short period of time. *Rapid Thermal Anneal ("RTA")* is a subset of RTP that is restricted to heat treatments in a non-reactive ambient.

### **Back-end Manufacturing Process**

When the wafer with confirmed working integrated circuits is received in the Back-end facility, wafers are first cut ("diced") into individual dies or chips by a dicing saw or sometimes a laser. The dies are then separated and a single die is (or for an advanced device several different dies are) picked and attached to a lead frame or other substrate by a bonding process. The lead frame or substrate provides the interface between the electrical circuit on the die and the system in which the die is incorporated. Lead frames are produced by stamping or etching out a pattern on a strip of copper or iron-nickel alloy. For high precision (and fast turnaround purposes) lead frames are produced by an etching process to achieve a shorter time to market. Stamped frames are typically used for very high volumes on mature designs. In order to allow a wire to be easily attached to its surface, the lead frames are plated with a thin layer of silver or a stacked layer of nickel, palladium, and gold on appropriate places. The electrical connection of the electrical circuit to the lead frame is made by wire bonding. As few as one or as many a thousand or more separate wires are each connected between a terminal connection point called "pad" on the die and a lead on the lead frame, through which the device is able to communicate with the printed circuit board. Lead frames and wire bonding are by far the most common technology in use today.

After this assembly and wire bonding interconnection process, the dies are encapsulated to protect them from environmental influences. The encapsulation process employs high-grade epoxy molding compounds ("EMC"), automated molding systems, and tooling to enclose the die and wires. The molding compound forms a hard casing around the die and wires after it is cured. For production efficiency during assembly most lead frames consist of many parts arranged in rows and columns. Each individual part is moved through the multiple assembly process steps connected to other identical parts. After the molding process is completed, the parts are separated from this array in a series of processes referred to as trim, form, and singulation. Here too, high precision tooling and automation are employed to precisely cut away portions of the substrate or lead frame so that the packaged unit is freed from the rest. These singulated units will then move through inspection, electrical test, marking and packing to prepare the tested and finished devices for shipment to the customer.

Another method used for chips with high pin count and speed is flip chip. The flip chip process eliminates the need for die and wire bonding. Instead, it involves populating the electrical interconnect points on a chip with small solder balls made of low melting point materials, a process called bumping. The substrate is designed such that it has an identical pattern to that of the device. The device is then flipped onto the substrate with precise alignment and the bonding process is completed by the application of heat, force, ultrasonic vibration, or a combination of the three. Wafer level packaging ("WLP") is another emerging technique that places all the protective layers, interconnections and interconnection points directly on the surface of the wafer, such that completely packaged devices are made at wafer level. After probing and dicing, the die can be separated and may be directly attached to printed circuit boards.

The following is an alphabetical list of the principal Back-end processes used by semiconductor manufacturers:

- *Binning* assigns tested, packaged devices to defined performance categories.
- *Die Bonding* mounts the die onto carriers such as lead-frames using a die bonder.
- *Die Separation* separates the dies on the wafer into individual units using dicing saws.
- *Die Sorting* segregates tested dies into different performance levels.
- *Encapsulation or Molding* encases the die in a protective housing, often epoxy, using dispensing systems or transfer molds.
- *Marking* puts product identification information on the semiconductor package using stencil printing or laser inscription techniques.
- *Product Testing* tests the performance of the completed, encapsulated, and singulated semiconductor device.
- *Singulation* is the separation of the many individual devices attached to a lead frame.
- *Trim and Form* cuts away the excess portion of the lead frame and bends the leads into the desired shape, resulting in the completed semiconductor device.
- *Wire Bonding* attaches extremely thin gold, copper, or aluminum wires between the input/output terminals ("I/O terminals") known as "pads" on the die and the lead frame leads creating electrical connections using a wire bonder. Wedge bonding employs only ultrasonic energy, while thermosonic wire bonding employs both heat and ultrasonic energy.

### **LED Manufacturing Process**

Light Emitting Diodes (LEDs) are manufactured on sapphire or silicon carbide substrates of typically 2" to 4" in diameter. The LED is formed by sequentially depositing semiconducting N- and P- type thin films on the substrate surface by MOCVD (Metalorganic Chemical Vapor Deposition). Following MOCVD patterned electrical contacts are provided by a Mask Aligner. Individual dies are singulated by a laser scribe and a dicing machine. The individual LED dies are then tested on electrical and chromatic properties and binned in different performance categories. The substrates of LED packages can be Vertical Lead frames, pre-molded SMT Lead frames or Ceramic substrates. LED dies are attached to the package substrates with conductive or non-conductive glue. Eutectic die attach and flip chip die attach are also employed. The electrodes of the LED die are connected to the leads of the package substrate with fine Gold Wire by a Wire Bonder.

For white LED packages, a yellow phosphor is deposited onto the surface of Blue LED dies. LED dies with dome surface are coated in a Silicone Liquid Molding machine. The packages are singulated and then tested and sorted into different bins, and each bin is packed onto a Tape and Reel Form by the Taping Machine.

### **The SMT Placement Process (Electronics Assembly)**

Modern electronic modules are produced by placing various components and connectors on printed circuit boards. To ensure the precision and efficiency required to handle ever smaller components at ever lower cost, the placement process takes place on highly automated surface-mount technology (SMT) lines.

These SMT lines and the placement process in general can be divided into three main segments:

- The solder paste printer, which applies solder paste to the printed circuit board (PCB) in order to keep the components in place during the entire placement process
- The placement machine, which places various components on the printed circuit board in predefined positions
- The reflow oven, in which the solder paste is heated and hardened or adhesives are cured in order to create a permanent bond between the components and the printed circuit board's conducting paths

### **The Printer**

The soldering paste or adhesive is applied with special paste printers, mostly by using the screen printing method. A laser-perforated metallic stencil (the screen) is positioned over the printed circuit board in such a way that the stencil's openings are centered over the contact areas (pads) for the components. The machine then presses the screen against the circuit board and uses a squeegee to press the solder paste through the openings onto the pads.

### **The Placement Machine**

The components are supplied to the placement machine via various types of feeders such as tapes, trays, belts or tubes, depending on the type and size of the component.

A placement head, which can move along three axes and rotate around the Z-axis, uses suction to pick up a component from the tape or tray, checks the component's position with the help of a camera system, computes its angle and offset from the nominal position, and places it onto the printed circuit board. When all components have been placed, a conveyor system moves the board to the next station and replaces it with a fresh, empty board.

To increase the throughput rate, modern placement machines have several "revolver-type" placement heads, each of which is able to pick up and place multiple components per cycle in order to minimize the travel time between pick-up and placement positions. And thanks to their modular design, the machines can be configured with different feeder modules, placement heads, camera systems, etc. in order to best meet the specific production requirements. For products with many components and high line throughput requirements, multiple SMT placement machines are usually positioned in a line.

### **The Reflow Oven**

Once all components have been placed, the PCB is transported into the reflow oven, where the board is heated to the appropriate processing temperature. The solder balls in the solder paste melt and create a mechanical as well as an electrical connection between the components and the printed circuit board. If the SMD components were glued on, the reflow oven is used to cure the adhesive at a temperature that is lower than the heat required to melt the solder paste. Once the adhesive has hardened, the boards are flow-soldered – usually after additional special components have been installed.

Modern SMT lines contain additional systems and components such as quality control systems (e.g., automated optical inspection or AOI systems) or special process control systems (e.g., barcode readers).

## ***Important Technology Trends for our Business***

### ***Technology Trends***

The continuous demand for smaller, faster and cheaper semiconductor components drives the technology advances in the semiconductor manufacturing process. As the transistors in an integrated circuit become smaller, the cost-per-component decreases. Fortuitously, at the same time the operating speed of the transistor increases. Thus the minimum size of a single transistor in an integrated circuit is an extremely important parameter. This minimum size can be characterized by the so-called half-pitch, which is about equal to the smallest line width in the device. Today, our leading-edge high volume production systems support the manufacturing of semiconductor devices having a half-pitch as small as 65 to 32 nanometers (one nanometer is one billionth of a meter). At ASMI, and in close cooperation with our customers, we are qualifying and testing new critical process equipment for line widths at or below 32 to 22nm. Simultaneously, we are developing new 22 to 15nm technologies in our laboratories. Today, most of the newly installed semiconductor device fabrication capacity employs 300mm wafers. Accordingly, our system and process development and sales effort is concentrated in 300mm equipment.

In developing faster and smaller devices, our Front-end customers' major technology requirements are:

- new thin film materials and device designs that can reduce the amount of power consumed in the device, increase the speed and reliability of the circuit, and increase the amount of charge that can be stored;
- reliable manufacturing of taller three-dimensional structures in devices;
- lithography of ever smaller feature sizes, now much smaller than the wavelength of light; and
- new manufacturing processes that reduce device variability and increase yield.

Technological developments in the Front-end process have resulted in new requirements for the Back-end manufacturing process. The ability to place millions of transistors onto a thumbnail-size device with vastly increased functionality has created the first major trend: the need for more input/output terminals in the same or smaller space. The challenge for Back-end equipment suppliers is to connect this increasing number of terminals in a package that sometimes is barely larger than the chip. Wire bonding has been at the forefront of this transition, but for integrated circuits with very high terminal count, the industry has developed ball grid array ("BGA") and flip chip packaging that use the entire surface of a die, and not just the perimeter.

A second major trend in the Back-end market segment is driven by the strong growth in demand for hand held devices. There is an ongoing need to build ever smaller and more complex packages at lower cost for this market. Individual dies must be packaged in areas that are just slightly larger than the individual dies they contain. These chip scale packages minimize the amount of space occupied by the end product on the circuit board.

A third major trend relates to the industry demand for a much higher level of integration, but still at lower cost and optimized yield. This has resulted in a requirement to place multiple dies into the same package. The assembly of a combination of "known good dies" in a package can lead to higher yield than the combination of the same functionality blocks on a single chip. Such a System-in-Package ("SiP") is more than a simple collection of multiple dies: SiP products are fully functional systems or sub-systems. Moreover, devices from different supply chains, with sometimes entirely different feature sizes or technologies can be integrated this way. Dies can be placed next to and/or on top of each other, using stacked die bonding techniques and sometimes mixing flip chip and wire bonding techniques in the same package. It appears that in the near future an increasing fraction of the value of the device will be in the package, at the cost of the fraction that is for the die.

### ***Technology Trends in Electronics Assembly***

As a result of the above, new technological requirements for placement equipment arise from the component side as well as from downstream production processes and from the markets for end products.

The trend toward integrating ever more complex functions in the smallest amount of space continues unabated and will keep playing a significant role in the development of placement equipment and SMT production techniques. Examples of this trend include:

- More use of dies, which can be placed closer together because of their lack of packaging, and package-on-package (PoP) designs, which are placed one on top of the other
- More optical circuitry for faster transmission rates
- More component diversity

The market for LED placement equipment is a good example of some of these technological requirements: The setup processes and programs must be able to handle the different LED brightness categories and accommodate them with the addition of series resistors or by permitting only the placement of LEDs in the same brightness category. Since LED components are very fragile, they must be positioned with great care using special nozzle shapes. In addition, the placement machines and conveyor systems must be able to process extra-long boards, because the multiple clusters of backlight units are often very large.

These and other developments in the component and PCB field pose ever tougher demands on the precision and flexibility of the placement equipment – from drives and gantries to feeders and vision systems to placement heads and pick-up systems. And since producers are also subject to increasing pressure in terms of costs and efficiency, this level of precision must be delivered even for high placement speeds and over long periods of time. Another challenge is the feeding of components directly from the wafer, which is a way of eliminating time-consuming and expensive process steps such as the packaging of dies and flip-chips. Other challenges are posed by the growth in selected application fields such as LED placement.

New requirements arise also at the customer end. Shorter product life cycles and the rising number of product variants along with optimized logistics chains reduce the average lot sizes and make for shorter lead times. At the same time, today's lines run at much higher speeds. As a result, each shift must be able to handle more and more product changeovers, which means that the associated setup procedures reduce the productivity of traditional SMT lines.

In the process control area, customers want more features ranging from monitoring to full-fledged component traceability for sophisticated applications in medical technology, aerospace engineering and the automobile industry. But no matter which industry they serve, electronics manufacturers have to deal with huge competitive and cost pressures as well as a highly cyclical market environment.

As far as recent trends in LED packaging are concerned, the sapphire or silicon carbide substrate for LED chip fabrication is migrating from 2" to 4", some are moving to 6" substrates in production. Larger substrates can produce more LED chips in a wafer. With reference to chip sizes, High Power LED increases the chip size to 40 mils or above to increase the total output power for a single chip. Furthermore, as the LED efficiency increases, more chips move to 6 mils to reduce the cost for small power application such as indicators. For package substrates, more High Power LED packages employ ceramic and silicon substrates for better heat dissipation.

### ***Our Response to Technology Trends***

We develop and manufacture wafer processing systems and new thin film materials that enable our customers to produce devices that consume less power, are faster, show less variability, are more reliable and are able to store more electrical charge. In order to meet our customers' needs, we have developed, and are still developing many new materials. For example, in the FEOL, high-k dielectrics and novel metal electrodes can reduce the power consumption of a device, thereby enhancing battery life. This same class of materials can also lead to larger charge storage in a smaller capacitor, critical for memories and RF circuits. Whereas in the recent past much focus has been on the development of the high-k dielectric, today as much focus is on new technologies and materials for the metal electrode and the gate sidewall passivation. Another example of new materials in the FEOL is our silicon-germanium ("SiGe") and silicon-carbon ("SiC") epitaxial materials that can increase the switching speed of the transistors and the circuit in which they are embedded by so-called strain engineering. This can be done without negatively affecting the power these transistors consume.

In the BEOL or interconnect process, a continued demand to improve the speed at which signals travel through thin copper wires has led to the development of a full suite of low-k materials. These low-k materials can decrease the amount of delay in signal propagation, resulting in, for example, faster microprocessors. We have been one of the leaders in successfully introducing these low-k materials in the market.

We have also developed and sold new processes and wafer processing equipment to enable the creation of narrow lines having dimensions beyond the resolution of common lithography, and with low line width variability. For that purpose we have developed low temperature plasma enhanced ALD processes that are compatible with the photoresist processes that are common to lithography tools.

In addition to addressing the technology needs of our customers, the relentless drive of the industry to reduce cost corresponds to significant spending on development programs that further increase throughput and reliability, and lower the cost of the wafer processing systems.

For our Back-end customers, lead frame and wire bond technology continues to offer the most flexible method of connecting the die to the printed circuit board. Increasing pressure on the number of I/O terminals per unit area of silicon continues to drive down the distance between two adjacent interconnect points or pads, reducing the bond pad pitch and allowable wire diameter. The increasing I/O requirement has also resulted in the use of several rows of these pads on a single die. Production is now ongoing with a bond pad pitch of 30 microns. Wire bonding must not only address decreasing wire diameters and pitch, but also address the throughput to reduce the overall cost of the device. Future wire bonding platforms will be able to operate in an environment that requires the bond pad pitch to be at 25 microns. The increasing row count will require better control of the wire shapes and looping profiles to maintain signal integrity at high communication speeds. All of this must be achieved with the highest possible speed and reliability. In addition, semiconductor manufacturers are looking to automation and integration of Back-end equipment as ways to reduce costs and increase productivity.

Increasing pressure on the level of integration and reduction in size of handheld or mobile devices has given rise to several alternative assembly and bonding techniques and materials, such as flip chips and several chip-scale packaging methods. Stacked die packages, in which more than one die is stacked on top of another, to form a single device, play a major role in the handheld appliance market. We are responding

to the need of stacked die packages by developing better wire bonding techniques, for example, by controlling the shape of the wire loop. We are currently developing methods of working with insulated wires, which will allow for more crossed connections in a device.

The newly developed ASM Die Bonder AD8312 offers a wide range of benefits with the sole target of producing highest speed and quality at lowest cost per die placement. Special handling and operating aspects of stacked and thin die are incorporated in the revolutionary machine concept. The extremely fast vision system and the ultra-light pick and place head with his innovative linear motor technology offer an incredible increase in performance, product quality and yield.

### ***Response to Technology Trends in Electronics Assembly***

Under the industry-famous product brand SIPLACE and in close coordination with customers and other partners, innovative SMT placement machines are developed and manufactured which are able to process a broad spectrum of components with high speed, precision and reliability. With the modular machine designs and in connection with our SIPLACE software and SIPLACE services our customers are offered complete solutions which allow them to flexibly adapt their SMT lines to shorter lead times, fluctuating workloads, frequent product changes and ever smaller lot sizes.

Thus far, over 25,000 placement solutions have been installed successfully at more than 2,500 customers worldwide. SIPLACE employees support electronics producers and EMS providers in the telecommunication, automotive, IT, consumer electronics and automation industries as well as in other segments. For example, approx. half of all mobile phones worldwide are produced with SIPLACE placement equipment. This success results from the combination of excellent technical expertise with innovative strength and close customer orientation.

The SIPLACE X-Series is one of the most powerful high-end SMT platforms anywhere and was one of the first solutions able to handle 01005 components with no slowdown in high-volume environments. With its high precision and speed, the SIPLACE X-Series is the ideal solution for large EMS companies, mobile phone production and the growing LED placement market.

With the SIPLACE CA we developed and brought to market the first placement platform that can supply components directly from the wafer as well as with classic SMT feeder technologies. For the electronics manufacturer, this capability means maximum flexibility and guaranteed investment protection.

In 2010 the SIPLACE SX placement platform was launched, whose special interchangeable gantries, intelligent feeders and innovative setup concepts make it the ideal solution for high-mix environments. The key feature of this highly innovative solution is the "Capacity-on-Demand" function. The newly developed SIPLACE MultiStar placement head switches automatically between Collect & Place mode, Pick & Place mode and a special mixed mode, which is why it can be used for the fast placement of standard components as well as for the end-of-line placement of large components. Thanks to these properties, even high-mix lines can operate well balanced at all times for improved total line productivity.

With the digital SIPLACE D-Series, which combines high-tech innovations with proven technologies, an excellent price-performance ratio and cost of ownership, SIPLACE offers a platform for highly cost-sensitive users in the standard and high-performance segment who require lots of flexibility.

For 2011, ASM Assembly Systems has scheduled the launch of the SIPLACE DX, whose features and price-performance ratio were optimized especially for high-volume production environments in Asia and other parts of the world.

With their digital vision systems, intelligent SIPLACE X-feeders, head models, conveyor systems and linear drives, all current SIPLACE platforms use a shared pool of basic hardware modules to simplify the production and maintenance of the entire portfolio.

To put the performance and flexibility of its machines to the best possible use, ASM Assembly Systems has developed the extensive SIPLACE software suite, which ranges from production scheduling to line and process control to monitoring, setup verification and traceability. In addition, the SIPLACE FACTS materials management system and the SIPLACE LES line execution system for setup-optimized production synchronization provide customers with exceptionally powerful software solutions.

## Products

### Market Coverage

The table below indicates the major market segments of the semiconductor equipment industry. The principal market segments in which we participate are underlined.

	Major Market Segment <sup>1</sup>		
Market Segment <sup>1</sup>	Test and related Systems	IC Fabrication Equipment or Front-end	IC Assembly Equipment or Back-end
	Automated Test Systems	MicroLithography and Mask Equipment	Assembly Inspection Equipment
	Material Handling Systems	CMP Equipment	Dicing Equipment
		Ion Implanters	<u>Bonding Equipment</u>
		<u>Deposition and Related Tools <sup>2</sup></u>	<u>Packaging Equipment</u>
		Etching and Cleaning Tools	<u>Integrated Assembly Systems</u>
		Process Diagnostic Equipment	<u>Leadframes <sup>3</sup></u>

(1) Based on VLSI Research Industry Segmentation ([www.vlsiresearch.com](http://www.vlsiresearch.com), accessed February 1, 2011).

(2) This segment also includes diffusion and oxidation furnaces.

(3) While the materials segment is not included by VLSI Research in the Back-end segment, lead frames are a significant component of our revenues.

### Front-end Segment Products

ASMI's Front-end segment products come from a number of product platforms, with each platform designed to host and enable specified process technologies. The products in each product platform are linked through common technology elements of the platform, for example a common in-system software framework, common critical components, similar logistics (batch or single wafer processing), or a similar wafer processing environment (wet or dry). The following table lists our principal product platforms for the Front-end market, the main process technology that they enable, and the semiconductor device manufacturing solution for which the products from that platform are used.

Product Platform <sup>1</sup>	ASMI Process Technology <sup>1</sup>	Products <sup>1</sup>
Advance 400 Series	ALD, CVD, diffusion/oxidation, LPCVD	A400, A412, A4ALD, Vertical Furnace Systems
Eagle	PECVD	Eagle 10, Eagle 12 <sup>(2)</sup> , Dragon 2300 <sup>(2)</sup> Single Wafer Plasma Processing Systems
Eagle XP <sup>(3)</sup>	PECVD, PEALD, ALD	Pulsar 3000 and EmerALD ALD Products, PECVD Products, PEALD Products
Epsilon	Epitaxy, LPCVD	Epsilon 2000 and Epsilon 3200 <sup>(4)</sup> Single Wafer Epitaxy Systems
Polygon	ALD, PEALD	Polygon 8200, Polygon 8300 <sup>(5)</sup> , Pulsar 3000 <sup>(5)</sup> Single Wafer Atomic Layer Deposition Systems

(1) Advance, Epsilon, Polygon, PEALD, Eagle, Dragon, Pulsar, EmerALD, A400 and A412, are used, registered or pending ASMI trademarks. For a detailed list of trademarks we own please refer to the Intellectual Property section.

(2) The functionality of the Dragon and the Eagle 12 has merged with the Eagle XP platform starting in 2010.

(3) The Eagle XP is our standard single wafer processing platform designed to accommodate multiple process application modules with common platform standards.

(4) It is our plan to merge the functionality of the Epsilon with the Eagle XP platform starting in 2011.

(5) The functionality of the Polygon, Pulsar and EmerALD has merged with the Eagle XP platform starting in 2009.



## ***Description of our Front-end Segment's Product Platforms***

### ***Advance 400***

The Advance 400 is our Vertical Furnace, batch processing platform. Products built on this product platform are used for diffusion, oxidation, (LP)CVD and ALD. The product platform is used in many manufacturing steps, from the production of silicon wafers to the final anneal in interconnect. The A400 is a system for 150 and 200mm wafers, while the A412 is for 300mm wafers. The A412 systems feature two reactors above a rotating carousel, a dual-boat concept for high productivity, and a wide range of process applications with variable load sizes from 25 wafers for shortest cycle time requirements, up to 150 wafers for lowest cost requirements in a single run. In this series, we also offer the A4ALD, for atomic layer deposition of dielectrics and metals, targeted mainly for high volume applications of our memory customers.

### ***Eagle***

The Eagle is our single-wafer processing product platform for PECVD applications. While the Eagle 10 is a system for 150 and 200mm wafers, the Eagle 12 and Dragon 2300 are systems for 300mm wafers. The Eagle 10 and the Dragon 2300 have two PECVD reactors, while the Eagle 12 has three PECVD reactors. Different wafers are processed in parallel in the reactors to enhance the throughput. The processes available on the Eagle product platform include insulators (such as silicon oxide, silicon nitride, silicon oxo-nitride), Aurora low-k dielectrics for interconnect applications, as well as hardmask and antireflection layers that aid in the lithography of very fine features.

### ***Eagle XP***

First, the Eagle XP is our high productivity extension to the Eagle product platform, for 300mm. The Eagle XP has four PECVD reactors. Substantially all processes on the Eagle 12 and Dragon are or will be available on the Eagle XP.

Second, the Eagle XP is transitioning from a dedicated platform for PECVD to a common high volume platform for all 300mm single wafer processing in our addressed markets. The Eagle XP will also enable integration of sequential process steps on one platform. The Eagle XP is now available with PECVD, PEALD, Pulsar and EmerALD ALD modules. It is our plan to also merge the functionality of the Epsilon with the Eagle XP platform starting in 2011.

The Eagle XP common platform will benefit our customers through reduced operating costs since multiple ASM products now will use many of the same parts and consumables and a common control architecture improves ease of use. The Eagle XP common platform enables us to improve the coherency in our product portfolio.

### ***Epsilon***

The Epsilon is our platform for single wafer epitaxy. The Epsilon product platform offers a wide range of epitaxy products and materials for many applications, ranging from high temperature silicon used in silicon starting material manufacturing, to low temperature, selective or non-selective silicon, silicon germanium ("SiGe"), silicon-carbon ("SiC") used in CMOS devices and silicon germanium carbon ("SiGeC") used in bipolar devices. The Epsilon 2000 is a single wafer, single reactor system for 150mm and 200mm wafers. The Epsilon 3200 is a single wafer, single reactor system for 300mm wafers.

### ***Polygon***

The Polygon is a single wafer atomic layer deposition platform. It features a six-sided central vacuum handler, capable of hosting up to four reactors. The Polygon 8200 is used for 150 and 200mm wafers, and for magnetic head substrates. The Polygon 8300 is used for 300mm wafers. One or more Pulsar modules with ALD technology can be integrated onto the platform. Products built on this product platform are currently being used in, among others, ALD high-k gate dielectrics for high performance logic, metal-insulator-metal capacitors for system on a chip applications, and magnetic head gap fill.

## ***Description of our Front-end Segment's Process Technology Platforms***

Depending on application, a process technology can be used in more than one product platform. Process technologies that are intended for use across multiple product platforms are called a process technology platform. The technologies in a process technology platform share a common knowledge base and patent portfolio. ALCVD, for example, is enabled on both our single wafer and batch product platforms. This gives us the principal ability to provide a single wafer tool for a certain application early in the lifecycle,

when short development cycle times are needed, and later in the lifecycle switch to a batch tool for efficiencies in high volume production, using the same chemistry and maintaining basic materials properties.

#### *ALCVD: Atomic Layer Deposition and Plasma Enhanced Atomic Layer Deposition*

ALCVD is one of the newest technologies to deposit ultra-thin films of exceptional flatness and uniformity. This technology was brought into ASMI in 1999 with the acquisition of ASM Microchemistry, who first developed the thermal ALD technology. PEALD is an extension of this original ALD technology that uses plasma, which was brought into ASMI in 2001 through a partnership with Genitech and a subsequent acquisition in 2004. The use of plasma enables us to deposit high quality films at very low temperatures. Collectively ASMI refers to these two technologies as its ALCVD process technology platform. ALCVD is a very versatile technology platform that can be used to deposit high-k insulating materials, conductors, silicon oxide and silicon nitride. Selected ALCVD processes are released on our Polygon, Eagle, Eagle XP, and Advance 400 product platforms. We have hundreds of issued patents that relate to this process technology platform. In addition, ALCVD, Atomic Layer CVD, and PEALD are our trademarks. We expect that the trends of continued scaling, and evolution towards three dimensional device structures plays into the strength of our ALCVD position.

#### *LPCVD: novel chemistries*

On our LPCVD process technology platform we have developed processes with new chemistries (under the trademark Silcore) that enable the deposition of silicon and silicon containing materials at low temperatures. Processes are released on our Epsilon product platform for selective and non-selective epitaxy, single wafer LPCVD, and on our Advance 400 product platform for thin, smooth polycrystalline Si. Our strategy for the LPCVD process technology platform as a whole is to continue to qualify new chemistries developed by, and with, our chemical suppliers for all of our product platforms, well in advance of the development of our customers' needs. We have about 10 issued patents related to Silcore and other specialized LPCVD process chemistries.

#### **Back-end Segment Products**

The following table lists ASM Pacific Technologies ("ASMPT") principal products for Back-end market and the main technologies that they enable.

<b>Product Platform</b>	<b>ASMI Process Technology</b>	<b>Products <sup>1</sup></b>
<b>Die Attach Equipment</b>	Die Bonding	AD898/8912 epoxy/ eutectic, AD830, MCM12 multi chip, SD890A and SD832D soft solder, IS898 glass attach Systems
<b>Scanning and Sorting Equipment</b>	Die Sorting	WP808A WLP sorting Systems, , AS899, MS100 die sorting Systems
<b>Flip Chip Equipment</b>	Flip Chip Bonding	AD900A, AD9012A, AD900TS, AD9012TS, AD9212 dual head flip chip bonding Systems, AD9012TC, Hummingbird stud bumping Systems
<b>Wire Bonding Equipment</b>	Thermosonic Gold Wire Bonding	TwinEagleXtreme, HarrierXtreme, EagleXtreme, iHawkXtreme EagleXtreme X2L
<b>Wire Bonding Equipment</b>	Ultrasonic Aluminum Wedge Bonding	Heavy Aluminum Wire Bonder, AB530, AB559A rotating bond head
<b>Encapsulation Equipment</b>	Molding, Dispensing and Jetting system	IDEALmold and Osprey transfer molding Systems, IDEALcompress/IDEALab Silicone Liquid Molding, DS500 dam-and-fill Systems, DS520 Jetting System
<b>Post Encapsulation Equipment</b>	Ball Placement, Testing and Marking, Trim and Form, Singulation, Binning	BP2000 ball placement, CS8000-AP jig saw and sorting, MP209, MP-TAB trim form system, FT2030S, FT1000, FT2030WF Test and Finishing handler, FV2030 Vision Inspection, SLS230 LED Testing & Sorting, SLT400 LED Taping, IP360 SMD LED Taping

- (1) Eagle60, Harrier, Hummingbird, IDEALmold, Osprey, and TwinEagle are used, registered, or pending ASMPT trademarks. For a detailed list of trademarks ASMPT owns please refer to the Intellectual Property section.

### *Die and Flip Chip Bonding, and Die Sorting Products*

ASMPT manufactures several die bonding models as well as die sorting equipment to address various markets including semiconductors and light emitting diodes (LED). The latest epoxy die bonder platform for 300mm wafers continues the path undertaken by ASMPT to provide customers with the highest quality and best cost/performance systems on the market. With its capability of handling up to 300mm wafers, fully automatic operation, epoxy writer, pre and post bond inspection and wafer mapping, this platform is able to provide customers with exceptional operational results. Variations on this platform have been developed to address the requirements of the growing stacked die market. The ability to handle silicon devices down to 25 microns in thickness is a key feature for the future.

Packaged device performance is continually pushed to higher levels. In critical applications, devices are increasingly utilizing flip chip interconnect methods to provide higher levels of electrical performance. Our flip chip platform provides high speed flip chip die bonding for IC applications. Variations of this platform have evolved to provide for the use of ultrasonics, heat force or the combination of these to affect the process. There continues to be a very large market in which the die and wafer sizes are relatively small, under 30 mils square. A mil is 1/1000 of an inch. Many of these devices are attached directly to printed circuit boards (Chip on Board, "COB") or very large arrays. Therefore, many different handling methods are required. We have several systems addressing the various form factors represented in the market.

The LED business requires both high speed and high precision manipulation of very small devices. Many of these devices are assembled in arrays with a die attach process. In these arrays brightness and color must match. We have developed several platforms for sorting these devices and segregating them according to the customers' requirements. The high power LED market for general purpose illumination continues to grow. These devices have unique thermal and electrical requirements that must be met by the die attach process. We have a new platform that addresses the use of soft solder in a special atmosphere that facilitates this special process. Machines may be configured to operate stand-alone or connected to epoxy curing ovens and wire bonders.

### *Wire Bonding Products*

The Eagle Xtreme gold/Cu wire bonder has successfully completed field trials begun in late 2007 and revenue shipments began during the second half of 2008. This is the successor to our award-winning Eagle60AP generation bonder. The Eagle Xtreme and iHawk Xtreme gold wire bonders continue to extend the productivity of the process as well as exceed the industry roadmaps for required bond pad pitch. Additional features on the Eagle Xtreme allow it to deal with the complex wire geometries and extreme height variations that are prevalent in the stacked die packages being built today at higher productivity rates. The productivity envelope was enlarged with the introduction of our latest dual head platform, the TwinEagle Xtreme and Harrier Xtreme. This tool provides all the capabilities of our standard Xtreme but with higher output per floor space required. We also extended our product portfolio in the wedge bonder area with newer, faster, more flexible systems to address the consumer products market that focuses on cost effective solutions. The expansion of the flip chip process has also provided us with opportunities to take advantage of our wire bonder technology to provide platforms capable of applying gold or copper stud bumps on wafers up to 300mm in diameter.

### *Encapsulation Products*

Our auto molding product line continues to build on the success of our earlier automated multi-plunger molding systems. The IDEALmold serves the industry segment that requires very high throughput with production flexibility. The recent shift in lot sizes and package variability also required a new platform. We have met this requirement with our Osprey single strip molding system. With this platform, the emphasis is on quick material and package conversions for low volume, high mix situations. As with all ASMPT products, it can be configured for stand-alone or integrated in the IDEALine (see below) with many of our other Back-end products.

### *Post Encapsulation Products*

Ball placement systems have seen strong growth as the ball grid array ("BGA") package types continue to expand. These are the mainstream packages for microprocessors and other high performance chips found in computer systems today. Our early work in this area has allowed us to be the exclusive supplier of ball placement systems to the major provider of such components. As the number of package variants continues to increase along with the lead frame unit density, our post encapsulation products ("PEP") have also evolved. The variation requires systems that are more flexible and faster to convert. The increased density has reduced the need for press speed but increased the emphasis on precision. The decrease in package thickness has dictated a change in the tooling methodology to provide more support throughout the

trim, form, and singulation processes. Significant changes have been made in design to migrate to turret handling and offloading for small packages. These changes allow the incorporation of faster handling across more processes in a smaller footprint than the conventional linear approach. Significant inroads have been made in the incorporation of test heads into these lines so that units emerge ready to ship.

### *Automated Systems*

The IDEALine integrates Back-end assembly, packaging, and test handling equipment. Such lines can be fully controlled by computers minimizing operator intervention and providing better quality through more stringent process recipe control. We believe we are the only manufacturer of Back-end equipment capable of offering such an extensive integrated line using our own equipment. These lines integrate serial process steps with mechanical and software linkages. Offered in a modular format, customers may integrate some or all of the following processes that we supply: die bonding and inspection, epoxy curing, wire bonding and inspection, encapsulation, post mold curing, package singulation, test handling, inspection, laser marking, packing, and finishing.

### *Electronics Assembly Products (Hardware)*

Type of Production	Applications/Industries	Platforms
High-end/high-speed environments	Large EMS providers, telecommunication & IT products, LED placement	SIPLACE X SIPLACE CA
High-quality/high-mix environments	Small and medium-sized EMS providers, machine controls, automobile industry, aerospace	SIPLACE SX
Cost-sensitive high-volume environments	Medium-sized and large EMS providers	SIPLACE DX (as of Q3/2011) SIPLACE D

Within the platforms, machines with different gantry and head configurations are available (e.g., SIPLACE DX1, SIPLACE DX2, SIPLACE DX4, or SIPLACE SX1, SIPLACE SX2, SIPLACE SX 4 etc.)

### *Electronics Assembly Products (Software)*

Applications	Products
Production planning, optimization and line control	SIPLACE Pro SICluster / SICluster Pro SIPLACE EDM
Production monitoring, process control	SIPLACE OIS SIPLACE Feeder Manager SIPLACE Explorer
Setup verification, traceability	SIPLACE Setup Center SIPLACE Traceability
Order & materials management	SIPLACE FACTS
Line execution & process synchronization	SIPLACE LES

## **Intellectual Property and Trademarks**

### **Intellectual Property**

Because of the rapid technological advances in the microelectronics field, we believe that our products will be subject to continuing change and enhancement. Accordingly, we believe that our success will depend upon the technical competence and creative ability of our personnel as well as the ownership of and the ability to enforce our intellectual property rights.

We own and license patents that cover some of the key technologies, features and operations of our major Front-end products and are registered in the principal countries where semiconductor devices or equipment are manufactured or sold. The following table shows the number of patents for which we made an initial filing during the indicated year and the number of patents in force by us at the end of the indicated year. As part of a program to reduce cost, the patent portfolio was critically reviewed against the current business strategy in 2009. This review resulted in a decision to drop coverage on certain granted patents that did not align with current strategy, and a decrease in the initial patent filing rate in 2009. Cost control measures and stricter patent filing prioritization in 2010 resulted in a lower initial patent filing rate in 2010 compared to 2009.

<b>Segment</b>	<b>For year:</b>	<b>2006 <sup>1</sup></b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Front-end	Initial patent filings .....	94	93	79	47	33
	Patents in force at year end .....	722	793	872	830	931
Back-end	Initial patent filings .....	25	26	18	19	18
	Patents on force at year end .....	186	256	332	399	436

(1)

We have entered into worldwide, non-exclusive, non-transferable and non-assignable licenses with Applied Materials for patents related to epitaxy and certain chemicals used to deposit insulating layers for PECVD. We pay Applied Materials a royalty on sales of equipment that use the patented technology. A number of the licensed patents have already expired. The remaining royalty bearing patents that we use expire at various times through 2012. Upon expiration of the patents, the technology may be used royalty-free by the public, including us. For further information, see Item 3.D, “Risk factors—As of December 18, 2007, we ceased paying royalties under certain Applied Materials patent licenses in respect of patents that we no longer practice. If it is determined that we still practice these patents, we will owe royalty payments to Applied Materials on our sales of covered products since that time.”

We have licensed our intellectual property in our ALCVD process technology platform through non-exclusive, restricted field of use license agreements to a limited number of companies. In addition to generating revenue, licensing is expected to accelerate market acceptance of our ALCVD technology.

We have licensed our RTP portfolio of 58 issued patents and 20 pending patents to Levitech BV.

In the Back-end market, companies generally compete based on their cumulative expertise in applying well known technologies to improve productivity and cost-efficiency. As a result, we have historically filed fewer patents related to our Back-end operations. Due to increasing pressure on new technology development in the Back-end market, and the increasing fractional value of the package in the device, we expect the importance of patents in the Back-end market segment to increase over the following years. Wherever deemed necessary, ASM Pacific Technology will file for protection of its innovations.

### **Trademarks**

ASM, the ASM International logo, Advance, Aurora, Dragon, Eagle, EmerALD, Epsilon, Polygon, Pulsar, Silcore and Stellar are our registered trademarks. A400, A412, A4ALD, ALCVD, Atomic Layer CVD, NCP, PEALD, Pore Builder, SmartBatch, and Superfill CVD are our trademarks. “The Process of Innovation” and “The Switch Is On” are our service marks.

AB500B, DreamPAK, DRYLUB, EQUIPMANAGER, EQUIPMGR, IDEALine, IDEALsystem, IDEALab, IDEALNet, PGS, SMARTWALK, SOFTEC, SmartSurf, and Ultravac are registered trademarks of ASM Pacific Technology Ltd. Cheetah, Eagle60, Harrier, Hummingbird, IDEALCompress, IDEALmold, Osprey, TwinEagle, FAB Farming and SolarCSI are trademarks of ASM Pacific Technology.

### **Litigation**

There has been substantial litigation regarding patent and other intellectual property rights in semiconductor-related industries. Although we have been involved in significant litigation in the past, we are at present not involved in any litigation which we believe is likely to have a material adverse effect on our financial position. In the future, additional litigation may be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us or to defend ASMI against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others. Any such litigation could result in substantial cost and diversion of effort by us, which could have a material adverse effect on our business, financial condition, and earnings from operations. Adverse determinations in such litigation could result in our loss of proprietary rights, subject us to significant liabilities to third parties, require us to seek licenses from third parties or prevent us from manufacturing or selling our products, any of which could have a material adverse effect on our business, financial condition and earnings from operations.

### **Research and Development**

We believe that our future success depends to a large extent upon our ability to develop new products and add improved features to existing products. Accordingly, our global product development policies and local activities are for the most part directed toward expanding and improving present product lines to incorporate technology advances and reduce product cost, while simultaneously developing new products that can penetrate new markets. These activities require the application of physics, chemistry, materials science, electrical engineering, precision mechanical engineering, software engineering, and system engineering.

Our net research and development expenses were € 75.0 million, € 62.8 million and € 78.8 million in 2008, 2009 and 2010, respectively. We expect to continue investing significant resources in research and development in order to enhance our product offerings. Our research and development activities are chiefly conducted in the principal semiconductor markets of the world, which enables us to draw on innovative and technical capabilities on an international basis. Each geographic center provides expertise for specific products and/or technologies. This approach, combined with the interactions between the individual centers, permits efficient allocation of technical resources and customer interaction during development. In 2010, we formed a globally operating Platform Engineering group that addresses the needs for common platforms for the various products in our Front-end Segment. Selected resources in Belgium, Almere and Helsinki have been grouped under corporate R&D, addressing the common needs for advanced materials research and process integration work for the 15nm, 11nm and smaller nodes.

Segment	Location	Number of R&D employees as of December 31, 2010, exclusive of temporary workers
Front-end	Almere, the Netherlands	39
	Leuven, Belgium	18
	Helsinki, Finland	10
	Phoenix, Arizona, United States	77
	Cheonan, South Korea	30
	Singapore	3
	Tama, Japan	81
Back-end	Hong Kong, the People's Republic of China	407
	Singapore	272
	Chengdu, the People's Republic of China	82
Total		1,019

As part of our research and development activities, we are engaged in various formal and informal arrangements with customers and institutes. At December 31, 2010, our Front-end segment was engaged in several formal joint development programs with customers for 300mm applications of our products. As part of these efforts, we may sell new products to customers at a significantly reduced margin, and invest significant resources in the joint development and subsequent product qualification. We sometimes also cooperate with other semiconductor capital equipment suppliers in complementary fields, in order to gain knowledge on the performance of our own deposition processes, in cooperation with other processes, either in bilateral or in publicly funded projects. In addition to cooperating with customers and other capital equipment suppliers, we also enter into research projects with technical universities and institutes (*TNO*; *CNT*; *Fraunhofer Munich*).

We participate also in publicly funded programs, mainly in Europe, to develop the production technology for semiconductor devices with line widths of 32, 22 and 15nm and below and in More-than-Moore technologies. Among our current cooperative efforts are projects awarded under the Information Society Technologies (IST) seventh framework program. We are also a partner in several cluster development programs in the Eureka initiative by MEDEA+ (Micro Electronics Development for European Applications) and its successor CATRENE (Cluster for Application and Technology Research in Europe on Nano-Electronics). In one of the MEDEA+/CATRENE projects MaxCaps, we are the project leader. In addition, we are an active participant in the Catrene organization at several levels, member of AENEAS (Association for European Nano-Electronics Activities) and the Dutch Point-one (Pole of Innovation in Advanced Technologies) organization. In all three organizations ASM participates actively in roadmap and program discussions. We are partner in projects under ENIAC (European Nano-electronics Initiative Advisory Council), in one ENIAC project, which started in 2010, ASM is project coordinator. We also participate in Dutch national programs such as those funded by STW (Stichting Technologie en Wetenschap: Foundation for Technology and Science) and in the FES (Fonds Economische Structuurversterking – Fund Structural Enhancement of the Economy) program. Next to the mentioned European organizations in which we are actively participating, we are heading the Steering Committee of a European 450mm equipment and materials initiative, called EEMI450. As part of these projects we receive research and development grants or credits.

In October 2004, we commenced a strategic partnership with the Interuniversity MicroElectronics Center (IMEC) in Belgium for their 300mm FEOL technology development program. Our Epsilon, A412, and Polygon based products are involved in this partnership. In September 2005 we complemented this FEOL partnership with a partnership in BEOL for advanced on-chip interconnect which utilizes our Eagle based

products. This gives us the opportunity to investigate, both jointly and independently, the integration of individual process steps in process modules and electrically active devices. Although these partnerships have ended in 2010, we expect continued partnering with IMEC on a variety of topics. We have been partnering with IMEC since 1990.

In December 2003, we commenced a five-year partnership with University of Helsinki that aims at further development of atomic layer deposition processes and chemistries. This partnership was extended for a second quinquennial in December 2008.

### ***Manufacturing and Suppliers***

Our manufacturing operations consist of the fabrication and assembly of various critical components, product assembly, quality control and testing.

In the second half of 2004, in order to reduce manufacturing costs in our Front-end operations we established FEMS, a manufacturing facility in Singapore, to manufacture certain generic subsystems and subassemblies for our Vertical Furnaces that we previously outsourced. At the end of 2008, generic subassemblies for Vertical Furnaces, Epitaxy and Eagle systems are manufactured in this facility. In 2009 we started the transition of manufacturing of ASM products to be final assembled in Singapore, i.e. including final assembly and test. We closed down our manufacturing operations in Almere at the end of 2009. In August 2010 we closed our manufacturing facility in Phoenix (US), and in December 2010 we closed our manufacturing operations in Nagaoka (Japan). With this transition we have also implemented a global organization for our procurement activities. Further, we will move to a global quality system instead of the more regional oriented quality system we had in the past.

Our Back-end operations are vertically integrated. The manufacturing activities in Hong Kong and Singapore consist primarily of assembling and testing components and subassemblies manufactured at our main manufacturing facilities in the People's Republic of China and Malaysia.

### ***Marketing and Sales***

We market and sell our products with the objective of developing and maintaining an ongoing, highly interactive service and support relationship with our customers. Our marketing strategy includes advertising and participating in various industry trade shows. We provide prospective customers with extensive process and product data, provide opportunities for tests on demonstration equipment and, if required, install evaluation equipment at the customer's site. Once equipment has been installed, we support our customers with, among other things, extensive training, on-site service, spare parts and process support. All of this is further supported by in-house development to enhance the productive life of existing equipment. We make hardware improvements available in the form of retrofit kits as well as joint development of new applications with our customers.

Because of the significant investment required to purchase our systems and their highly technical nature, the sales process is complex, requiring interaction with several levels of a customer's organization and extensive technical exchanges, product demonstrations and commercial negotiations. As a result, the full sales cycle can be as long as 12 to 18 months for sales of Front-end equipment and 2 to 4 months for sales of Back-end equipment. Purchase decisions are generally made at a high level within a customer's organization, and the sales process involves broad participation across our organization, from senior executive management to the engineers who designed the product.

Our sales process usually starts with high-level introduction meetings. Early in the process we also meet with operational personnel to discuss the intended uses of our equipment, technical requirements, solutions, and the overall production process of the customer. Demonstrations and evaluation of test results take time. Once we agree upon the technology elements of the sale, the process continues with price and delivery negotiations and, when completed successfully, with the issuance by the customer of a letter of intent to secure a slot in the manufacturing and assembly planning schedule, followed by a purchase order.

To market our products, we operate demonstration and training centers where customers can examine our equipment in operation and can, if desired, process their wafers or individual dies for further in-house evaluation. Customers are also trained to properly use purchased equipment.

Each of our major product lines has a dedicated product manager, responsible for positioning the product in the market, its market share, developing it over time and evaluating its relative performance compared to the competition. Each product manager sets priorities in terms of technical development and sales support.

To execute the sales and service functions, we have established a global sales force, in which all regional units report directly into the global sales organization. We have sales offices located in Europe (in France, Ireland, Germany and Italy), Israel, Taiwan, Korea, the People's Republic of China, Singapore and Japan. At the end of 2010, 123 employees were employed in sales and marketing of Front-end products, representing 9% of total Front-end segment staff.

Sales of Back-end equipment and materials are provided by our principal offices in Hong Kong and Singapore, through direct sales offices in the People's Republic of China, Taiwan, the Philippines, Malaysia, Thailand, Japan, Europe and North America, and through sales representatives in South Korea and some parts of the United States. At the end of 2010, 338 employees were employed in sales and marketing of Back-end products, representing 2% of total Back-end segment staff.

### Customers

We sell our products predominantly to manufacturers of semiconductor devices and manufacturers of silicon wafers. Our customers include most of the leading semiconductor and wafer manufacturers. Our customers vary from independent semiconductor manufacturers that design, manufacture, and sell their products on the open market, to large electronic systems companies that design and manufacture semiconductor devices for their own use, to semiconductor manufacturers, known as foundries that manufacture devices on assignment of other companies, including "fabless" companies that design chips but do not have wafer processing factories.

Our largest customer accounted for approximately 13.8%, 9.1% and 5.2% of our net sales in 2008, 2009 and 2010, respectively. For our Front-end segment this was 31.7%, 30.6% and 21.6% of our net sales in 2008, 2009 and 2010, respectively. For our Back-end segment this was 4.4%, 6.0% and 4.3% of our net sales in 2008, 2009 and 2010, respectively. Our ten largest customers accounted for approximately 32.0%, 32.9% and 27.9% of our net sales in 2008, 2009 and 2010, respectively. For our Front-end segment this was 60.4%, 61.4% and 61.2% of our net sales in 2008, 2009 and 2010, respectively. For our Back-end segment this was 26.3%, 32.7% and 27.3% of our net sales in 2008, 2009 and 2010, respectively. Historically, a significant percentage of our net sales in each year has been attributable to a limited number of customers; however, the largest customers for our products may vary from year to year depending upon, among other things, a customer's budget for capital expenditures, timing of new fabrication facilities and new product introductions.

The following table shows the distribution of net sales, by segment and geographic destination of the product:

	SEGMENT	PERCENTAGE OF NET SALES	GEOGRAPHIC DESTINATION	PERCENTAGE OF NET SALES	
				Front-end	Back-end
2010					
	Front-end	24.0%	S.E. Asia	8.2%	68.9%
			Europe	5.6%	0.7%
	Back-end	76.0%	United States	7.5%	1.7%
			Japan	2.7%	4.7%
2009					
	Front-end	27.1%	S.E. Asia	6.5%	68.8%
			Europe	6.2%	0.6%
	Back-end	72.9%	United States	8.8%	2.5%
			Japan	5.6%	1.0%
2008					
	Front-end	39.7%	S.E. Asia	9.7%	55.3%
			Europe	9.8%	0.9%
	Back-end	60.3%	United States	13.0%	1.8%
			Japan	7.2%	2.3%



## **Customer Service**

We provide responsive customer technical assistance to support our marketing and sales. Technical assistance is becoming an increasingly important factor in our business as most of our equipment is used in critical phases of semiconductor manufacturing. Field engineers install the systems, perform preventive maintenance and repair services, and are available for assistance in solving customer problems. Our global presence permits us to provide these functions in proximity to our customers. We also maintain local spare part supply centers to facilitate quick support.

We provide maintenance during the product warranty period, usually one to two years, and thereafter perform maintenance pursuant to individual orders issued by the customer. In addition to providing ongoing service, our customer service operations are responsible for customer training programs, spare parts sales and technical publications. In appropriate circumstances, we will send technical personnel to customer locations to support the customer for extended periods of time in order to optimize the use of the equipment for the customer's specific processes. For our Front-end operations, where the availability of field support is particularly important for a sale, 441 employees were employed in customer service at the end of 2010, representing 30% of total Front-end segment staff. For our Back-end operations 651 employees were employed in customer service at the end of 2010, representing 4% of total Back-end segment staff

## **Competition**

The semiconductor equipment industry is intensely competitive, and is fragmented among companies of varying size, each with a limited number of products serving particular segments of the semiconductor process. Technical specifications of the individual products are an important competitive factor, especially concerning capabilities for manufacturing of new generations of semiconductor devices. As each product category encompasses a specific blend of different technologies, our competitive position from a technology standpoint may vary within each category. Customers are evaluating manufacturing equipment based on a mixture of technical performance and cost of ownership over the life of the product. Main competitive factors include overall product performance, yield, reliability, maintainability, service, support and price. We believe that we are competitive with respect to each of these factors, and that our products are cost effective.

As the variety and complexity of available machinery increases, some semiconductor manufacturers are attempting to limit their suppliers. In addition, semiconductor manufacturers are located throughout the world, and expect their equipment suppliers to have offices worldwide to meet their supply and service needs. Semiconductor equipment manufacturers with a more limited local presence are finding it increasingly difficult to compete in an increasingly global industry.

Our primary competitors in the Front-end market are from the United States, Japan and Korea. Our primary competitors in the Back-end market are from the United States, Europe and Japan. In each of our product lines, we compete primarily with two or three companies which vary from small to large firms in terms of the size of their net sales and range of products. Our primary competitors in the Front-end market include Applied Materials, Novellus Systems, Tokyo Electron, Kokusai, and Jusung. Our primary competitors in the Back-end market include Kulicke & Soffa, ESEC, Shinkawa, Apic Yamada, BE Semiconductor Industries, Towa, Shinko and Mitsui.

## **C. Organizational structure.**

The following chart presents the jurisdiction of incorporation of our significant subsidiaries and our percentage of ownership interest in those subsidiaries as of March 2, 2011:

<b>Subsidiary Name and Location</b>	<b>Country of Incorporation</b>	<b>Percentage Owned by ASM International N.V.</b>
ASM Europe B.V. Almere, the Netherlands	The Netherlands	100%
ASM America, Inc. Phoenix, Arizona, United States	United States	100%
ASM Japan K.K. Tama, Japan	Japan	100%
ASM Front-End Manufacturing Singapore Pte. Ltd., Singapore	Singapore	100%
ASM Pacific Technology Ltd. Hong Kong, the People's Republic of China	Cayman Islands	52.36%

#### D. Property, plants and equipment.

To develop and manufacture products to local specifications and to market and service products more effectively in the worldwide semiconductor market, our Front-end facilities are located in the Netherlands, the United States, Japan and Singapore and our Back-end facilities are located in Hong Kong, the People's Republic of China, Singapore and Malaysia. Our principal facilities are summarized below:

SEGMENT	LOCATION	PRIMARY USES	APPROXIMATE AGGREGATE SQUARE FOOTAGE
Front-end	Almere, the Netherlands	Executive offices of ASMI Marketing, research and offices	103,000
	Tama and Nagaoka, Japan	Wafer processing equipment marketing, research and offices	70,000
	Phoenix, Arizona, United States	Wafer processing equipment marketing, research and offices	130,000
	Singapore	Wafer processing equipment manufacturing and offices	169,000
	Cheonan, South Korea	Wafer processing equipment manufacturing, marketing, research and offices	33,000
	Helsinki, Finland	Wafer processing equipment research and offices	6,000
Back-end	Hong Kong, People's Republic of China	Semiconductor assembly and encapsulation equipment manufacturing, marketing, research and offices	278,000
	Shenzhen, People's Republic of China	Semiconductor assembly equipment parts and modules manufacturing, lead frame manufacturing and offices	1,695,000
	Chengdu, People's Republic of China	Semiconductor assembly equipment research and offices	199,000
	Singapore	Semiconductor assembly equipment and etched lead frame manufacturing, marketing, research and offices	333,000
	Johor Bahru, Malaysia	Semiconductor assembly equipment parts and modules manufacturing, etched lead frame manufacturing and offices	326,000

Our principal facilities in the Netherlands, the United States, Korea, Finland, Hong Kong, the People's Republic of China, Singapore and Malaysia are subject to leases expiring at various times from 2011 to 2024. Some facilities we own are subject to mortgages. We believe that our facilities are maintained in good operating condition and are adequate for our present level of operations.

Back-end's new manufacturing plant in Huizhou, China is now fully-operational, and is progressing into its second phase of expansion. A new casting centre and a fabrication centre will be ready by the first half of 2012. It will allow Back-end to further enhance its production capacity to cater for the growth of both the assembly and packaging equipment and SMT equipment businesses, and to facilitate new investments in casting technology. We will further supplement our etched lead frame capacity by setting up new etching facilities in Fuyong, China to capture the growing China market. The funding of these production capacity expansion activities will be through internal sources.

#### Item 4A. Unresolved Staff Comments

None.

#### Item 5. Operating and Financial Review and Prospects

##### Management's Discussion and Analysis of Financial Condition and Results of Operations

##### Overview

We design, manufacture and sell equipment and systems used to produce semiconductor devices, or integrated circuits. Our production equipment and systems are used by both the Front-end and Back-end segments of the semiconductor market. Front-end equipment performs various fabrication processes in which multiple thin films of electrically insulating or conductive material are grown or deposited onto a round slice of silicon, called a wafer. Back-end equipment separates these processed wafers into numerous

individual dies, each containing the circuitry of a single semiconductor device, and assembles packages and tests the dies in order to create semiconductor devices. We conduct our Front-end business, which accounted for 24.0% of our net sales in 2010, through our principal facilities in the Netherlands, the United States, Japan and Singapore. We conduct our Back-end business, which accounted for 76.0% of our net sales in 2010, through our principal facilities in Hong Kong, the People's Republic of China, Singapore and Malaysia. Our Back-end operations are conducted through our 52.36% majority-owned subsidiary, ASM Pacific Technology.

We sell our products to the semiconductor manufacturing industry, which is subject to sudden, extreme, cyclical variations in product supply and demand. After the dramatic and unprecedented decline in demand for semiconductor devices due to the worldwide economic downturn in late 2008 and first half of 2009, which has led to the announcement of significant layoffs, plant closings, reduced capital expenditures and other cost reduction measures by semiconductor manufacturers, the industry was experiencing a pick-up in demand in the second half of 2009. The year 2010 showed a further, and rather extraordinary, demand increase. This became visible in our sales and order book development. In 2009 we saw a sales decrease of 21% to a level of € 591 million, while in 2010 sales increased with 107% to a level of € 1,223 million. In the same period our order book, which were € 100 million at the end of 2008, increased at the end of 2009 to a level of € 200 million and were € 500 million at the end of 2010.

We implemented major restructuring plans in 2010. In particular, our PERFORM! program which was designed to streamline our Front-end global operations and reduce our cost base including a focused effort on lowering our working capital requirements demanded great efforts of the organization. This program involved the material restructuring of our significant Front-end operating, manufacturing and administrative units. By the end of 2010 we finalized our PERFORM! restructuring program in a shorter period and with substantially lower costs than earlier indicated. The total (cash) expenses were € 42 million against an earlier guidance of € 50-60 million, while total impairments (including inventories) were € 29 million against a guidance of € 30-35 million. Among others the program initiatives included the consolidation of our manufacturing operations in Singapore, the transition to a more global sales organization, a more centralized and cost efficient R&D function, the implementation of a global Enterprise Reporting Process (ERP) system, and the sharing of platforms among products. During 2009 we restructured our ASM Europe (ASME) operations by transferring all manufacturing in our Almere facility in the Netherlands to our FEMS operation in Singapore. This restructuring was completed and the Almere manufacturing facility was closed by the end of 2009. During 2010 we completed the transfer and closure of our production facilities in Nagaoka, Japan and Phoenix, Arizona. The goal of all those actions was to improve our cost-effectiveness and to strengthen our gross profit margin in our Front-end segment. The effect of those efforts are already becoming visible in our 2010 results.

For a discussion of our restructuring and the related impairment charges, see Note 23 of the Notes to our Consolidated Financial Statements included elsewhere in this report.

The year 2010 showed strong result improvements, in both Front-end and our Back-end operations. Sales in the Front-end segment increased with 83% as compared to 2009, to a level of € 293 million, while our Back-end segment showed a sales increase of 116% to a level of € 930 million. The gross margin for ASMI consolidated increased from 30.7% in 2009 to 44.9% in 2010. Adjusted for restructuring expenses and impairment charges these margins increased from 34.8% to 44.9%. Gross margin in our Front-end segment increased from 5.4% in 2009 to 39.1% in 2010, adjusted for restructuring expenses and impairment charges these margins increased from 20.5% in 2009 to 39.1% in 2010 while our Back-end segment showed an increase from 40.1% to 46.8% for the same period.

The result from operations as a percentage of sales increased from negative 4.3% in 2009 to 26.9% in 2010. Here we also saw impressive improvements in both our Front-end and our Back-end segments. While the Front-end segment for the year 2009 showed a negative operating margin of 75.0% (adjusted for restructuring expenses and impairment charges negative 35.9%), mainly due to higher activity levels and especially the effects of the restructuring, the operating margin improved to a positive 5.4% (adjusted for restructuring expenses and impairment charges 9.2%) for the year 2010. For the same period the operating margin of our Back-end segment improved from 22.1% to 33.6%.

Net earnings for 2010 were strongly affected by the revaluation of the conversion option included in the 4.25% Senior Subordinated Convertible notes. The valuation at fair value of this option resulted in a non-cash charge of € 19 million in 2010. In January 2011, we exercised our right to call these notes, resulting in conversion of all remaining notes. As a result the last effects of this revaluation will be included in our results for the first quarter of the year 2011.

## Sales

Our Front-end sales are concentrated in the United States, Europe, Japan and Southeast Asia and our Back-end sales are concentrated in Southeast Asia.

The following table shows the geographic distribution of our Front-end and Back-end sales for the years 2008, 2009 and 2010:

(amounts in millions)	Year ended December 31,					
	2008		2009		2010	
<b>Front-end:</b>						
United States .....	€ 96.7	32.6%	€ 51.9	32.4%	€ 91.7	31.3%
Europe .....	73.4	24.7	36.8	22.9	67.9	23.2
Taiwan .....	54.4	18.3	17.3	10.8	35.1	12.0
Japan .....	54.0	18.2	33.1	20.7	33.0	11.2
South Korea .....	6.0	2.0	9.2	5.7	37.3	12.7
China .....	7.7	2.6	7.8	4.9	21.5	7.3
Other .....	4.6	1.6	4.3	2.6	6.9	2.3
	€ 296.8	100%	€ 160.4	100%	€ 293.4	100%
<b>Back-end:</b>						
People's Republic of China .....	€ 159.4	35.4%	€ 144.6	33.6%	€ 350.0	37.6%
Taiwan .....	76.2	16.9	86.2	20.0	148.8	16.0
Malaysia .....	60.6	13.4	42.4	9.8	112.1	12.1
South Korea .....	26.4	5.9	63.9	14.9	97.8	10.5
Hong Kong .....	30.5	6.8	16.1	3.7	39.9	4.3
Thailand .....	23.7	5.3	24.4	5.7	42.1	4.5
Japan .....	16.9	3.8	5.7	1.3	57.4	6.2
Singapore .....	12.4	2.8	5.1	1.2	13.8	1.5
Philippines .....	20.5	4.5	21.6	5.0	34.4	3.7
United States .....	13.6	3.0	15.0	3.5	21.1	2.3
Other .....	10.4	2.2	5.4	1.3	12.1	1.3
	€ 450.6	100%	€ 430.4	100%	€ 929.5	100%

The sales cycle from quotation to shipment for our Front-end equipment generally takes several months, depending on capacity utilization and the urgency of the order. The acceptance period after installation may be as short as four to five weeks. However, if customers are unfamiliar with our equipment or are receiving new product models, the acceptance period may take as long as several months. The sales cycle is longer for equipment which is installed at the customer's site for evaluation prior to sale. The typical trial period ranges from six months to one year after installation.

The sales cycle for Back-end products is typically shorter than for Front-end products. Generally, the majority of our Back-end equipment is built in standard configurations. We build Back-end products that are approximately 85% complete in anticipation of customer orders. Upon receipt of a customer's order and specifications, the remaining 15% of the manufacturing is completed. This allows us to complete the assembly of our equipment in a short period of time. We therefore require between two to six weeks for final manufacturing, testing, crating, and shipment of our Back-end equipment. Our Back-end customers' acceptance periods generally are shorter than those for Front-end equipment. We provide installation, training and technical support to our customers with local staff in all of our major markets.

A substantial portion of our Front-end sales is for equipping new or upgraded fabrication plants where device manufacturers are installing complete fabrication equipment. As a result our Front-end sales tend to be uneven across customers and financial periods. Sales to our ten largest Front-end customers accounted for 60.4%, 61.4% and 61.2% of Front-end net sales in 2008, 2009 and 2010, respectively. The composition of our ten largest Front-end customers changes from year to year. The largest Front-end customer accounted for 31.7%, 30.6% and 21.6% of Front-end net sales in 2008, 2009 and 2010, respectively.

Back-end sales per customer tend to be more level over time than Front-end sales, because Back-end operations can be scaled up in smaller increments at existing facilities. Sales to our ten largest Back-end customers accounted for 26.3%, 32.7% and 27.3% of Back-end net sales in 2008, 2009 and 2010, respectively. Because our Back-end customers' needs are more level over time, the composition of our ten largest customers is more stable from year to year than in the Front-end. Our largest Back-end customer accounted for 4.4%, 6.0% and 4.3% of Back-end net sales in 2008, 2009 and 2010, respectively.

## Research and Development

We continue to invest in research and development at a high level. As part of our research and development activities, we are engaged in various development programs with customers and research institutes that allow us to develop products that meet customer requirements and to obtain access to new technology and expertise. Research and development costs are expensed as incurred. The costs relating to prototypes and experimental models, which we may subsequently sell to customers are charged to the cost of sales.

For a further discussion of research and development expenses see Item 4.B., “Business Overview—Research and Development” and Item 5 “Results of Operations,” below.

Our research and development operations in the Netherlands and the United States receive research and development grants and credits from various sources.

## Critical Accounting Policies

### Use of estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”). The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, net sales and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, warranty, long-lived assets, inventories, convertible bonds and conversion option, provisions, share-based compensation expenses and income tax. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. While we regularly evaluate our estimates and assumptions, actual results may differ from these estimates if these assumptions prove incorrect. To the extent there are material differences between actual results and these estimates, our future results of operations could be materially and adversely affected. We believe that the accounting policies described below require us to make significant judgments and estimates in the preparation of our consolidated financial statements.

### Revenue Recognition

We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller's price to buyer is fixed or determinable; and collectibility is reasonably assured. In general, we recognize revenue from sales of equipment upon shipment of equipment, only if testing at the factory has proven that the equipment has met substantially all of the customer's criteria and specifications. The outcome of the test is signed-off by the customer (“factory acceptance”). Instead of signing-off, the customer may choose to provide a waiver, e.g. with respect to repeat orders.

Our revenue includes revenue from contractual arrangements consisting of multiple deliverables, such as equipment and installation. The revenue from the undelivered element of the arrangement is deferred at fair value until delivery of the element. We recognize revenue from installation of equipment upon completion of installation at the customer's site. At the time of shipment, we defer that portion of the sales price related to the fair value of installation. The fair value of the installation process is measured based upon the per-hour amounts charged by third parties for similar installation services. Installation is completed when testing at the customer's site has proven that the equipment has met all of the customer's criteria and specifications. The completion of installation is signed-off by the customer (“final acceptance”). At December 31, 2009 and December 31, 2010 we have deferred revenues from fair value of installations in the amount of € 2.5 million and € 4.4 million respectively.

Our Front-end sales frequently involve sales of complex equipment, which may include customer-specific criteria, sales to new customers or sales of equipment with new technology. For each sale, the decision whether to recognize revenue is, in addition to shipment and factory acceptance, based on: the contractual agreement with a customer; the experience with a particular customer; the technology and the number of similarly configured equipment previously delivered. Based on these criteria we may decide to defer revenue until completion of installation at the customer's site and obtaining final acceptance from the customer.

At December 31, 2009 we had € 0.7 million deferred revenue from sales of equipment. At December 31, 2010 we had no deferred revenue from sales of equipment. We provide training and technical support service to customers. Revenue related to such services is recognized when the service is rendered. Revenue from the sale of spare parts and materials is recognized when the goods are shipped.

## Warranty

We provide maintenance on our systems during the warranty period, usually one to two years. Costs of warranty include the cost of labor, material and related overhead necessary to repair a product during the warranty period. We accrue for the estimated cost of the warranty on products shipped in a provision for warranty, upon recognition of the sale of the product. The costs are estimated based on actual historical expenses incurred and on estimated future expenses related to current sales, and are updated periodically. Actual warranty costs are charged against the provision for warranty. The actual warranty costs may differ from estimated warranty costs, as a result of which we adjust our provision for warranty accordingly. Future warranty costs may exceed our estimates, which could result in an increase of our cost of sales.

## Long-lived assets

Long-lived assets include goodwill, other intangible assets and property, plant and equipment.

Goodwill is tested for impairment annually on December 31 and whenever events or changes in circumstances indicate that the carrying amount of the goodwill may not be recoverable. Our Front-end impairment test and the determination of the fair value is based on a discounted future cash flow approach that uses our estimates of future revenues, driven by assumed market growth and estimated costs as well as appropriate discount rates. These estimates are consistent with the plans and estimated costs we use to manage the underlying business. Our Back-end impairment test is based on the market value of the listed shares of ASMPT. The material assumptions used by management for the annual impairment test performed per December 31, 2010 were:

- For Front-end external market segment data, historical data and strategic plans to estimate cash flow growth per product line have been used.
- Cash flow projections for the first four years; after these four years perpetuity growth rates are set based on market maturity of the products. For maturing product the perpetuity growth rates used are 1% or less and for enabling technology products the rate used is 3% or less.
- A discount rate of 20.5% (last year 13.5%) representing the pre-tax weighted average cost of capital. This relative high rate is a consequence of the current situation whereby certain production lines are in the early phase of the product lifecycle, hence reflecting a higher risk.
- For Back-end the market value of the listed shares of ASMPT on the Hong Kong Stock exchange has been used in our analysis.

Management believes that the fair value calculated reflects the amount a market participant would be willing to pay.

Based on this analysis management believes that the fair value of the reporting units substantially exceeded its carrying value and that, therefore, goodwill was not impaired as of December 31, 2010. For the year ended December 31, 2008 we recorded impairment charges of € 1.4 million with respect to goodwill resulting from the acquisition of NanoPhotonics.

The calculation of fair value involves certain management judgments and was based on our best estimates and projections at the time of our review. The value may be different if other assumptions are used. In future periods we may be required to record an impairment loss based on the impairment test performed, which may significantly affect our results of operations at that time. At December 31, 2010, a decrease in estimated cash flows of 10% and an increase of 10% of the discount rate used in calculating the fair value would not result in an impairment of the carrying value of goodwill.

Other intangible assets and property, plant and equipment are reviewed by us for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In performing the review for recoverability, we estimate the future undiscounted cash flows expected to result from the use of the asset and its eventual disposition. In 2008 we recorded an impairment charge of € 7.1 million related to the restructuring of ASM Europe. In 2009 we recorded impairment charges mainly related to certain demo tools which were as a result of the strategic reorientation determined end of life. Our cash flow estimates used include certain management judgments and were based on our best estimates and projections at the time of our review, and may be different if other assumptions are used. In future periods, however, we may be required to record impairment losses, which may significantly affect our results of operations at that time. At December 31, 2010, a decrease in estimated cash flows of 10% would not result in an impairment of the carrying value of long-lived assets.

## Inventories

Inventories are valued at the lower of cost (first-in, first out method) or market value. Costs include net prices paid for materials purchased, charges for freight and custom duties, production labor cost and factory overhead. Allowances are made for slow moving, obsolete or unsellable inventory and are reviewed on a quarterly basis.

We regularly evaluate the value of our inventory of components and raw materials, work in progress and finished goods, based on a combination of factors including the following: forecasted sales, historical usage, product end of life cycle, estimated current and future market values, service inventory requirements and new product introductions, as well as other factors. Purchasing requirements and alternative uses for the inventory are explored within these processes to mitigate inventory exposure. We record write downs for inventory based on the above factors and take into account worldwide quantities and demand into our analysis. In the year ended December 31, 2009 we have charged € 27.2 million to cost of sales as a result of our analysis of the value of inventory. Of this charge € 24.2 million was recognized as a result of the current prolonged contraction in the market and strategic refocusing of certain of our product configurations. At December 31, 2010 our allowance for inventory obsolescence amounted to € 41.3 million, which is 14.0% of our total inventory. If circumstances related to our inventories change, our estimate of the values of inventories could materially change. At December 31, 2010, an increase of our overall estimate for obsolescence and lower market value by 10% of our total inventory balance would result in an additional charge to cost of sales of € 29.6 million.

### **Convertible bonds and conversion option**

As per 1 January 2009, ASMI applies ASC 815 “Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity’s Own Stock”. All our convertible bonds due 2010, 2011 and 2014, include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company (“conversion option”). ASC 815 requires separate recognition of these components.

For the conversion options of the convertible bonds due 2010 and 2011 the accounting is different from that for the conversion option of the convertible bonds due 2014. As the convertible bonds due 2010 and 2011 are denominated in USD and the ASM International common shares in which they can be converted to are denominated in Euro, these conversion options are recognized as a liability measured at fair value. The conversion option is measured at fair value through the income statement, and for 2010 this revaluation at fair value resulted in a loss of € 19.0 million (2009: loss € 24.4 million). For the conversion options of the convertible bonds due 2014 the fixed-for-fixed principle is met as both the debt instrument (the bond) and the entity’s equity shares into which they can be converted are denominated in the functional currency (Euro). Based on the before mentioned criteria the conversion option qualifies as permanent equity.

The fair value of the liability component is estimated using the prevailing market interest rate at the date of issue, for similar non-convertible debt. Subsequently, the liability is measured at amortized cost. The interest expense on the liability component is calculated by applying the market interest rate for similar non-convertible debt at the date of issue to the liability component of the instrument. The difference between this amount and the interest paid is added to the carrying amount of the convertible subordinated notes, thus creating a non-cash interest expense. For 2010 this accretion interest was € 6.0 million (2009: € 4.3 million).

### **Provisions**

As a result of the implementation of our major restructuring plan PERFORM!, that started in 2009, significant restructuring expenses incurred. Distinction is made in one-time employee termination expenses, contract termination expenses and other associated expenses. For the accounting on the distinguished elements of restructuring expenses we apply to the policy as mentioned below. The expenses have been charged to “restructuring expenses”.

One-time termination expenses represent the payments provided to employees that have become redundant and are terminated under the terms and conditions of a restructuring plan.

A restructuring plan exists at the date the plan meets all of the following criteria and has been communicated to employees:

- Management commits to the plan.
- The plan identifies the number of employees that become redundant and the expected completion date.
- The plan sets out the terms and conditions of the arrangement in sufficient detail to enable employees to determine the type and amount of benefits they will receive.
- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.
- The timing of the recognition and measurement of a liability for one-time termination expenses depends on whether employees will be retained to render service beyond a minimum retention period.

- Contract termination expenses are related to the termination of an operating lease or another contract. These expenses are distinguished in:
- Expenses related to the termination of the contract before the end of its term. These expenses are recognized when the contract is terminated. The liability is measured at its fair value in accordance with the contract terms.
- Expenses related to contracts that will last for its remaining term without economic benefit to the entity. This is the case when a lease contract for premises is not terminated while the premises are not (completely) in use anymore. The liability is accrued for at the cease-use date, the date the company determined that it would no longer occupy the premises, which is conveyed to it under the contractual operating lease. The liability is measured at its fair value in accordance with the contract terms.

Other costs related to restructuring include costs to consolidate or close facilities and relocate employees. A liability for other expenses related to a restructuring such as transition costs is recognized and measured in the period in which the liability is incurred. The costs incurred are directly related to the restructuring activity. The definition of exit costs excludes expected future operating losses.

### Share-based compensation expenses

The cost relating to employee stock options is measured at fair value on the grant date. The fair value was determined using the Black-Scholes option valuation model with the following weighted average assumptions:

	December 31,	
	2009	2010
Expected life (years) .....	5 – 10	5 – 10
Risk free interest rate .....	3.0%	2,8%
Dividend yield .....	—	—
Expected volatility .....	52.1%	45.6%

When establishing the expected life assumption the Company takes into account the contractual terms of the option.

### Income Taxes

We currently have significant deferred tax assets, which resulted primarily from operating losses incurred in prior years as well as other temporary differences. We have established a valuation allowance to reflect the likelihood of the realization of deferred tax assets. Based on available evidence, we regularly evaluate whether it is more likely than not that the deferred tax assets will not be realized. This evaluation includes our judgment on the future profitability and our ability to generate taxable income, changes in market conditions and other factors. At December 31, 2010, we believe that there is insufficient evidence to substantiate recognition of substantially all net deferred tax assets with respect to net operating loss carry forwards, and we have established a valuation allowance in the amount of € 149.6 million. Future changes in facts and circumstances, if any, may result in a change of the valuation allowance to these deferred tax asset balances which may significantly influence our results of operations at that time. If our evaluation of the realization of deferred tax assets would indicate that an additional 10% of the net deferred tax assets as of December 31, 2010 is not realizable, this would result in an additional valuation allowance and an income tax expense of € 1.5 million.

A reconciliation of the beginning balance at January 1, 2010 and the ending balance at December 31, 2010 of the liability for unrecognized tax benefits is as follows:

(euro millions)	
Balance January 1, 2010 .....	15.7
Gross increases—tax positions in current year .....	3.2
Foreign currency translation effect .....	1.2
Balance December 31, 2010 .....	<u>20.1</u>

Unrecognized tax benefits mainly relate to transfer pricing positions, operational activities in countries where we are not tax registered and tax deductible costs. We estimate that no interest and penalties are related to these unrecognized tax benefits. Unrecognized tax benefits of € 20.1 million would, if recognized, impact the Company's effective tax rate. We estimate that the liability for unrecognized tax benefits will change with € 20.1 million within the next 12 months, following the expected outcome of investigations by local tax authorities.



The calculation of our tax positions involves dealing with uncertainties in the application of complex tax laws. Our estimate for the potential outcome of any uncertain tax position is highly judgmental. Settlement of uncertain tax positions in a manner inconsistent with our estimates could have a material impact on the Company's earnings, financial position and cash flows.

## Results of Operations

The following table shows certain Consolidated Statement of Operations data as a percentage of net sales for our Front-end and Back-end segments for the years 2008, 2009 and 2010:

	Year ended December 31,								
	Front-end			Back-end			Total		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Net sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	(68.4)	(94.6)	(60.9)	(60.9)	(59.8)	(53.2)	(63.8)	(69.3)	(55.1)
Gross profit	31.6	5.4	39.1	39.1	40.2	46.8	36.2	30.7	44.9
Selling, general and administrative expenses	(24.1)	(36.5)	(17.2)	(12.2)	(11.5)	(8.6)	(16.9)	(18.2)	(10.7)
Research and development expenses	(14.8)	(21.5)	(12.5)	(6.9)	(6.6)	(4.6)	(10.0)	(10.6)	(6.4)
Amortization of other intangible assets	(0.1)	(0.2)	(0.1)	—	—	—	(0.1)	(0.1)	—
Impairment of goodwill	(0.5)	—	—	—	—	—	(0.2)	—	—
Restructuring expenses	(2.4)	(22.3)	(3.8)	—	—	—	(1.0)	(6.0)	(0.9)
Earnings (loss) from operations	(10.3)	(75.0)	5.4	20.0	22.1	33.6	8.0	(4.3)	26.9
Net interest income (expense)	(1.6)	(5.0)	(5.1)	0.2	0.1	0.1	(0.6)	(1.3)	(1.2)
Accretion of interest convertible	—	(2.7)	(2.1)	—	—	—	—	(0.7)	(0.5)
Revaluation conversion option	—	(15.2)	(6.5)	—	—	—	—	(4.1)	(1.6)
Gain (expense) resulting from early extinguishment of debt	2.7	(1.1)	(1.2)	—	—	—	1.1	(0.3)	(0.3)
Foreign currency exchange gains (losses)	(0.2)	(0.4)	(0.6)	0.3	(0.1)	0.2	0.1	(0.2)	—
Earnings (loss) before income taxes and dilution	(9.4)	(99.4)	(10.1)	20.5	22.1	33.9	8.6	(10.9)	23.3
Income tax income / (expense)	(0.5)	4.9	(2.1)	(2.3)	(2.7)	(4.0)	(1.6)	(0.6)	(3.5)
Earnings (loss) before dilution	(9.9)	(94.5)	(12.2)	18.2	19.4	29.9	7.0	(11.6)	19.8
Gain on dilution of investment in subsidiary	—	—	—	—	—	—	0.6	—	—
Net earnings (loss)	(9.9)%	(94.5)%	(12.2)%	9.7%	19.4%	29.9%	7.6%	(11.6)%	19.8%
Allocation of net earnings (loss)									
Shareholders of the parent							2.5%	(18.3)%	9.0%
Minority interest							5.1%	6.7%	10.8%

### Year Ended December 31, 2010 Compared to Year Ended December 31, 2009

**Net Sales.** The following table shows net sales of our Front-end and Back-end segments for the full year 2010 compared to 2009:

(EUR millions)	2009	2010	% Change
Front-end	160.4	293.4	83%
Back-end	430.4	929.5	116%
Total net sales	590.7	1,222.9	107%

The increase of net sales for the full year of 2010 in our Front-end segment, compared to the same period last year, was driven by higher customer demand in all our equipment segments and in spares and service. In our Back-end segment record quarterly sales were realized in the first quarter, the second quarter and in the third quarter of 2010 due to the high continued strong demand for our traditional products and increasing demand for our LED related products.

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2010 as compared to the same period of 2009 impacted total net sales by 5%.

**Gross Profit Margin.** The following table shows gross profit and gross profit margin for the Front-end and Back-end segments for the full year 2010 compared to the same period in 2009. In order to improve comparability impairment charges have been disclosed separately in the table below.:

(EUR millions)	Gross profit		Gross profit margin		Increase or (decrease) percentage points
	2009	2010	2009	2010	
Gross profit before impairment of inventory charge .....	32.9	114.6	20.5%	39.1%	18.6pt
Impairment of inventory charge .....	(24.2)	—	(15.1)%	—	15.1pt
Gross profit Front-end .....	8.7	114.6	5.4%	39.1%	33.7pt
Gross profit Back-end .....	172.8	435.0	40.1%	46.8%	6.6pt
Total gross profit .....	181.5	549.6	34.8%	44.9%	10.1pt

The gross profit margin of both our Front-end segment and our Back-end segment strongly improved in 2010 compared to 2009, driven by significantly higher activity levels. The Front-end margin further improved due to the execution of our PERFORM! program which, among other things, resulted in a lower manufacturing overhead.

In 2009, as a result of the current prolonged contraction in the market and strategic focus of certain of our product configurations a write down of inventories was recorded of € 24.2 million.

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2010 as compared to the same period of 2009 negatively impacted gross profit by 6%.

**Selling, General and Administrative Expenses.** The following table shows selling, general and administrative expenses (including amortization of other intangible assets) for our Front-end and Back-end segments 2010 compared to 2009:

(EUR millions)	2009	2010	% Change
Front-end .....	58.9	51.0	(13)%
Back-end .....	49.3	79.9	62%
Total selling, general and administrative expenses .....	108.2	131.0	21%
Total selling, general and administrative expenses as a percentage of net sales .....	18%	11%	—

For 2010, selling, general and administrative expenses as a percentage of net sales of our Front-end segment, were reduced to 17% compared with 37% for 2009, reflecting our focus to reduce our fixed cost base as part of our restructuring program PERFORM!.

The selling, general and administrative expenses in the Back-end segment as a percentage of net sales decreased from 12% in 2009 to 9% in 2010.

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2010 as compared to the same period of 2009 increased selling, general and administrative expenses by 5%.

**Research and Development Expenses.** The following table shows research and development expenses for our Front-end and Back-end segments for the full year 2010 compared to 2009:

(EUR millions)	2009	2010	% Change
Front-end .....	34.4	36.5	6%
Back-end .....	28.4	42.3	49%
Total research and development expenses .....	62.8	78.8	25%
Total research and development expenses as a percentage of net sales .....	11%	6%	—

The decrease in research and development expense as a percentage of sales, in both our Front-end and Back-end segment, is the result of a further prioritisation of research and development projects in

combination with a substantial sales increase. In the course of 2010 we saw an increase in the absolute amount of development costs driven by those higher activity levels and related customer specific development activities.

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2010 as compared to the same period of 2009 increased research and development expenses by 6%.

*Restructuring Expenses.* In 2009 ASMI started the implementation of a major restructuring in the Front-end segment (PERFORM!) as announced on January 9, 2009 and on July 20, 2009. The main components of the Company's accelerated execution plans are:

- The consolidation of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore by the end of 2010. This will be achieved by completing the previously announced transfer from Almere, the Netherlands, which was finalized during 2009; the phasing out the manufacturing operation in Phoenix, Arizona, in the first half of 2010; and by transferring manufacturing from Nagaoka, Japan, no later than the fourth quarter of 2010.
- The reduction of selling, general and administration expenses by making fundamental changes in our global support infrastructure. This includes a significant simplification and streamlining of our warehousing operations and the further strengthening of the global sales & service organization which was created last year.
- The leveraging of research and development and our product portfolio by reprioritization of strategic programs in order to maximize their potential.

The following table summarizes the aggregated restructuring expenses by type:

	Year ended December 31,		
	2008	2009	2010
Employee related expenses .....	—	19.437	4.534
Contract termination related expenses .....	—	2.799	779
Impairment charges .....	7.068	4.623	—
Transition expenses .....	—	4.366	3.806
Expenses buy out RTP .....	—	3.940	—
Other expenses .....	—	522	2.082
Total restructuring expenses .....	<u>7.068</u>	<u>35.687</u>	<u>11.201</u>

Related to these execution plans, an amount of € 11.2 million in restructuring expenses was recorded for 2010. These expenses were mainly costs for severance packages, retention costs, provisions for vacancy and other costs related to the transition of activities to Singapore.

Related to these execution plans, an amount of € 35.7 million in restructuring expenses was recorded in 2009. These charges include:

- Employee related expenses of € 19.4 million. Included are unconditional one-time termination benefits of € 15.8 million, conditional one-time termination benefits subject to the final termination date of € 1.7 million and other employee related expenses of € 1.9 million.
- Contract termination related expenses of € 2.8 million. These expenses mainly relate to operational lease contracts and include both the valuating of the onerous contracts at fair value, the decommissioning expenses and impairments of leasehold improvements.
- Impairment charges of € 4.6 million mainly related to machinery and equipment. We impaired certain demo tools which were as a result of the strategic reorientation determined end of life. The impairment charges were determined based on the difference between the asset's estimated fair value and their carrying amount.
- Expenses of € 4.4 million resulting from the transition of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore.
- Expenses of € 3.9 million related to the management buy-out of our RTP.
- Other expenses of € 0.6 million.

*Result from Operations.* The following table shows earnings (loss) from operations for our Front-end and Back-end segments for the full year 2010 compared to the same period in 2009. In order to improve comparability, impairment and restructuring charges have been disclosed separately in the table below:

<u>(EUR millions)</u>	<u>2009</u>	<u>2010</u>	<u>Change</u>
Front-end:			
Before impairments and restructuring charges .....	(60.4)	27.1	87.5
Impairments and restructuring charges .....	(59.9)	(11.2)	48.7
After impairments and restructuring charges .....	(120.3)	15.9	136.1
Back-end .....	95.1	312.8	217.6
Total result from operations .....	(25.2)	328.6	353.8

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2010 as compared to the same period of 2009 impacted operating result by 6%.

*Net Interest Expense.* Net interest expense amounted to € 14.5 million in 2010 compared to the net interest expense of € 7.5 million in 2009. This increase in net interest expenses mainly resulted from a higher average debt, higher interest rates and a strengthening of the USD in 2010 against the Euro.

*Accretion interest expense convertible notes.* Both our convertible bonds due 2010, 2011 and 2014, include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company ("conversion option"). ASC 815 requires separate recognition of these components.

The fair value of the liability component is estimated using the prevailing market interest rate at the date of issue, for similar non-convertible debt. Subsequently, the liability is measured at amortized cost. The interest expense on the liability component is calculated by applying the market interest rate for similar non-convertible debt at the date of issue to the liability component of the instrument. The difference between this amount and the interest paid is added to the carrying amount of the convertible subordinated notes, thus creating a non-cash interest expense. For 2010 this accretion interest was € 6.0 million (2009: € 4.3 million).

*Revaluation conversion option.* All convertible bonds include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company ("conversion option"). ASC 815 requires separate recognition of these components.

For the conversion options of the convertible bonds due 2010 and 2011 the accounting is different from that for the conversion option of the convertible bonds due 2014. As the convertible bonds due 2010 and 2011 are denominated in USD and the ASM International common shares in which they can be converted to are denominated in Euro, these conversion options are recognized as a liability measured at fair value. The conversion option is measured at fair value through the income statement, for 2010 this revaluation at fair value resulted in a loss of € 19.0 million (2009: 24.4 million).

For the conversion options of the convertible bonds due 2014 the fixed-for-fixed principle is met as both the debt instrument (the bond) and the entity's equity shares in which they can be converted to are denominated in the functional currency (Euro). Based on the before mentioned criteria the conversion option qualifies as permanent equity.

*Gain (expense) resulting from early extinguishment of debt.* In 2010 US\$ 56.5 million convertible subordinated notes have been repurchased for a market value of US\$ 74.6 million. The loss from the early extinguishment of the notes of € 3,609, which includes the write-off of unamortized issuance costs and the amortization of unamortized interest expenses, has been recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2010.

In 2009 US\$ 4.0 million 5.25% convertible subordinated notes due 2010 and US\$ 26.3 million 4.25% convertible subordinated notes due 2011 were repurchased for a market value of US\$ 38.9 million. The loss from the early extinguishment of the notes of € 1.8 million, which includes the write-off of unamortized issuance costs, has been recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2009.

*Income Tax Expense.* Income tax expense increased from € 3.8 million in 2009 to € 42.9 million in 2010, resulting from the increase of result before tax in 2010.

*Net Earnings (Loss) allocated to the shareholders of the parent.* The following table shows net earnings (loss) for our Front-end and Back-end segments for the full year 2010 compared to the same period in 2009. In order to improve comparability, impairment and restructuring charges, results on early extinguishment of debt and the fair value changes of the conversion option have been disclosed separately in the table below:

<u>(EUR millions)</u>	<u>2009</u>	<u>2010</u>	<u>Change</u>
Front-end:			
Before impairments, restructuring charges, result on early extinguishment of debt and fair value change conversion option .....	(65.5)	(1.8)	63.7
Impairments and restructuring charges .....	(59.9)	(11.2)	48.7
Loss from early extinguishment of debt .....	(1.8)	(3.6)	(1.9)
Fair value change conversion options .....	(24.4)	(19.0)	5.3
Incomparable items .....	(86.0)	(33.8)	52.2
After impairments, restructuring charges result on early extinguishment of debt and fair value change conversion options .....	(151.5)	(35.7)	115.8
Back-end .....	44.0	146.3	102.3
Total net earnings (loss) allocated to the shareholders of the parent .....	(107.5)	110.6	218.1

Net earnings for the Back-end segment reflect our 52.36% ownership of ASM Pacific Technology (2009; 52.59%).

#### *Year Ended December 31, 2009 Compared to Year Ended December 31, 2008*

*Net Sales.* The following table shows net sales of our Front-end and Back-end segments and the percentage change for the full years 2009 and 2008:

<u>(EUR millions)</u>	<u>2008</u>	<u>2009</u>	<u>% Change</u>
Front-end .....	296.8	160.4	(46)%
Back-end .....	450.6	430.4	(4)%
Total net sales .....	747.4	590.7	(21)%

In 2009 net sales of wafer processing equipment (Front-end segment) represented 27% of total net sales and sales of assembly and packaging equipment and materials (Back-end segment) represented 73% of total net sales.

The market conditions in the semiconductor industry impacted the sales levels for the full year 2009 compared to 2008. Lower sales levels of 46% in our Front-end segment and 4% in our Back-end segment were recorded.

In our Front-end segment the decrease continued in the first two quarters, but recovered from the third quarter onwards. This pattern is noticed in all product lines.

In the Back-end segment 2009 started with weak sales levels which rebounded after the first quarter of 2009 as market conditions improved significantly in the assembly and packaging equipment industry due to the stimulus packages implemented by especially the Chinese government and the right product mix. The improvement in the second half of the year is more broad-based from a geographical perspective.

The strengthening of the Yen, U.S. dollar and U.S. dollar related currencies against the Euro in 2009 as compared to the same period of 2008 increased total net sales by 5%.

**Gross Profit Margin.** The following table shows the gross profit margin of our Front-end and Back-end segments for the full years 2009 and 2008. In order to improve comparability impairment charges have been disclosed separately in the table below.

(EUR millions)	Gross profit		Gross profit margin		Increase or (decrease) percentage points
	2008	2009	2008	2009	
Gross profit before impairment of inventory charge .....	97.8	32.9	33.0%	20.5%	(12.5)pt
Impairment of inventory charge .....	(3.9)	(24.2)	(1.4)%	(15.1)%	(13.7)pt
Gross profit Front-end .....	93.9	8.7	31.6%	5.4%	(26.2)pt
Gross profit Back-end .....	176.4	172.8	39.1%	40.1%	1.0pt
Total gross profit .....	270.3	181.5	36.7%	34.8%	(1.9)pt

The decrease in the gross profit margin before the impairment of inventories of our Front-end segment is the result of the low sales level, the mix of products sold and the absorption of our manufacturing overhead. As a result of the current prolonged contraction in the market and strategic focus of certain of our product configurations a write down of inventories was recorded of € 24.2 million. In 2008 an impairment charge of € 3.9 million on RTP inventory was charged to the cost of sales. In our Back-end segment gross margins decreased in the first quarter, but due to the industry dynamics rebounded in the remaining three quarters of 2009.

**Selling, General and Administrative Expenses.** The following table shows selling, general and administrative expenses for our Front-end and Back-end segments for 2009 and 2008:

(EUR millions)	2008	2009	% Change
Front-end .....	71.6	58.5	(18)%
Back-end .....	55.0	49.3	(10)%
Total selling, general and administrative expenses .....	126.6	107.8	(15)%

As a percentage of net sales, selling, general and administrative expenses were 18% for 2009 and 17% in 2008.

Selling, general and administrative expenses of our Front-end segment decreased for the full year 2009 as a result of our focus to reduce our expenses to address market circumstances, including the reduction of headcount of the Front-end segment.

The decrease in the Back-end segment compared with the same period in 2008 is the result of the implementation of cost reduction programs.

Headcount of the Front-end segment was reduced by 24% in 2009 while the headcount of the Back-end segment increased 7% in 2009.

**Research and Development Expenses.** The following table shows research and development expenses for our Front-end and Back-end segments for 2009 and 2008:

(EUR millions)	2008	2009	% Change
Front-end .....	43.8	34.4	(21)%
Back-end .....	31.2	28.4	(9)%
Total research and development expenses .....	75.0	62.8	(16)%

As a percentage of net sales, research and development expenses were 11% in 2009 and 10% in 2008.

The decrease in the Front-end segment is the result of the prioritization of research and development projects. The reduction in the Back-end segment is result of cost reduction efforts.

*Restructuring Expenses.* In 2009 ASMI started the implementation of a major restructuring in the Front-end segment as announced on January 9, 2009 and on July 20, 2009. The main components of the Company's accelerated execution plans are:

- The consolidation of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore by the end of 2010. This was to be achieved by completing the previously announced transfer from Almere, the Netherlands, which was finalized during 2009; the phasing out the manufacturing operation in Phoenix, Arizona, in the first half of 2010; and by transferring manufacturing from Nagaoka, Japan, no later than the fourth quarter of 2010.
- The reduction of selling, general and administration expenses by making fundamental changes in our global support infrastructure. This includes a significant simplification and streamlining of our warehousing operations and the further strengthening of the global sales & service organization which was created last year.
- The leveraging of research and development and our product portfolio by reprioritization of strategic programs in order to maximize their potential.

Related to these execution plans, an amount of € 35.7 million restructuring expenses was recorded for the full year of 2009. These charges include:

- Employee related expenses of € 19.4 million. Included are unconditional one-time termination benefits of € 15.8 million, conditional one-time termination benefits subject to the final termination date of € 1.7 million and other employee related expenses of € 1.9 million.
- Contract termination related expenses of € 2.8 million. These expenses mainly relate to operational lease contracts and include both the valuation of the onerous contracts at fair value, the decommissioning expenses and impairments of leasehold improvements.
- Impairment charges of € 4.6 million mainly related to machinery and equipment. We recorded an impairment charge for certain demonstration tools which were determined to be at the end of life as a result of the strategic reorientation. The impairment charges were determined based on the difference between the asset's estimated fair value and its carrying amount.
- Expenses of € 4.4 million resulting from the transition of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore.
- Expenses of € 3.9 million related to the management buy-out of our RTP.
- Other expenses of € 0.6 million.

*Net Interest Expense.* Net interest expense amounted to € 7.5 million in 2009 compared to the net interest expense of € 3.7 million in 2008. This increase in net interest expenses mainly results from decreased interest income.

*Accretion interest expense convertible notes.* As per 1 January 2009, ASMI applies ASC 815 "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock".

Our convertible bonds due 2010, 2011 and 2014, include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company ("conversion option"). ASC 815 requires separate recognition of these components.

The fair value of the liability component is estimated using the prevailing market interest rate at the date of issue, for similar, but non-convertible debt. Subsequently, the liability is measured at amortized cost. The interest expense on the liability component is calculated by applying the market interest rate for similar non-convertible debt at the date of issue to the liability component of the instrument. The difference between this amount and the interest paid is added to the carrying amount of the convertible subordinated notes, thus creating a non-cash interest expense. For 2009 this accretion interest was € 4.3 million.

*Revaluation conversion option.* As per 1 January 2009, ASMI applies ASC 815 "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock".

Our convertible bonds due 2010, 2011 and 2014, include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company ("conversion option"). ASC 815 requires separate recognition of these components.

For the conversion options of the convertible bonds due 2010 and 2011 the accounting is different from that for the conversion option of the convertible bonds due 2014. As the convertible bonds due 2010 and

2011 are denominated in USD and the ASM International common shares in which they can be converted to are denominated in Euro, these conversion options are recognized as a liability measured at fair value. The conversion option is measured at fair value through the income statement. For 2009 this revaluation at fair value resulted in a loss of € 24.4 million. For the conversion options of the convertible bonds due 2014 the fixed-for-fixed principle is met as both the debt instrument (the bond) and the entity's equity shares into which they can be converted are denominated in the functional currency (Euro). Based on the before mentioned criteria the conversion option qualifies as permanent equity.

*Gain (expense) resulting from early extinguishment of debt.* In 2009 US\$ 4.0 million 5.25% convertible subordinated notes due 2010 and US\$ 26.3 million 4.25% convertible subordinated notes due 2011 were repurchased for a market value of US\$ 38.9 million. The loss from the early extinguishment of the notes of € 1.8 million, which includes the difference between the nominal value and the higher market value and the write-off of unamortized issuance costs, has been recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2009.

In 2008, we repurchased US\$ 48.3 million in convertible debt at a lower market value than the nominal value of the outstanding convertible debt. The difference between the market value and the nominal value and the write off of unamortized issuance costs amounted to a gain of € 8.0 million.

*Income Tax Expense.* Income tax expense declined from € 12.1 million in 2008 to € 3.8 million in 2009, principally due to the reduction in operating income in 2009.

*Earnings (Loss) from Operations.* The following table shows earnings (loss) from operations for our Front-end and Back-end segments for 2009 compared to 2008. In order to improve comparability, impairment and restructuring charges have been disclosed separately in the table below.

<u>(EUR millions)</u>	<u>2008</u>	<u>2009</u>	<u>Change</u>
Front-end:			
Before impairments and restructuring charges	(19.5)	(60.4)	(40.9)
Impairments and restructuring charges	(11.0)	(59.9)	(48.9)
After impairments and restructuring charges	(30.5)	(120.3)	(89.8)
Back-end	90.2	95.1	4.9
Total earnings (loss) from operations	<u>59.7</u>	<u>(25.2)</u>	<u>(84.9)</u>

*Net Earnings (Loss) allocated to the shareholders of the parent.* The following table shows net earnings (loss) for our Front-end and Back-end segments for 2009 compared to 2008. In order to improve comparability, impairment and restructuring charges, results on early extinguishment of debt, accretion of interest on the convertible bonds and the fair value changes of the conversion option have been disclosed separately in the table below.

<u>(EUR millions)</u>	<u>2008</u>	<u>2009</u>	<u>Change</u>
Front-end:			
Before impairments, restructuring, result early extinguishment, accretion interest and fair value change conversion option	(26.2)	(61.1)	(34.9)
Impairments and restructuring	(11.0)	(59.9)	(48.9)
Gain / (loss) on early extinguishment of debt	8.0	(1.8)	(9.8)
Non cash accretion interest convertible bonds	—	(4.3)	(4.3)
Fair value change conversion option	—	(24.4)	(24.4)
Incomparable items	(3.0)	(90.4)	(87.4)
After impairments, restructuring and fair value change conversion option	(29.2)	(151.5)	(122.3)
Back-end	43.5	44.0	(0.4)
Gain on dilution of investment in ASMPT (Back-end)	4.1	—	(4.1)
Total net earnings (loss) <sup>1)</sup>	<u>18.4</u>	<u>(107.5)</u>	<u>(126.9)</u>

1) allocated to the shareholders of the parent

Net earnings for the Back-end segment reflect our 52.59% ownership of ASM Pacific Technology (2008; 52.87%).



## Backlog

Our backlog includes orders for which purchase orders or letters of intent have been accepted, typically for up to one year. Historically, orders have been subject to cancellation or rescheduling by customers. In addition, orders have been subject to price negotiations and changes in specifications as a result of changes in customers' requirements. Due to possible customer changes in delivery schedules and requirements and to cancellation of orders, our backlog at any particular date is not necessarily indicative of actual sales for any succeeding period.

The following table shows the level of new orders during 2009 and 2010, and the backlog and book-to-bill ratios at December 31, 2009 and 2010:

(EUR millions, except book-to-bill ratio)	Full year		
	2009	2010	% Change
Front-end:			
New orders	158.2	404.8	155%
Backlog at December 31	50.3	162.9	224%
Book-to-bill ratio (new orders divided by net sales)	1.0	1.4	
Back-end:			
New orders	543.9	1,113.3	105%
Backlog at December 31	146.4	336.9	130%
Book-to-bill ratio (new orders divided by net sales)	1.3	1.2	
Total			
New orders	702.1	1,518.1	116%
Backlog at December 31	196.7	499.8	154%
Book-to-bill ratio (new orders divided by net sales)	1.2	1.2	

## Liquidity and Capital Resources

Our liquidity is affected by many factors, some of which are related to our ongoing operations and others of which are related to the semiconductor and semiconductor equipment industries and to the economies of the countries in which we operate. Although our cash requirements fluctuate based on the timing and extent of these factors, we believe that cash generated by operations, together with the liquidity provided by our existing cash resources and our financing arrangements, will be sufficient to fund working capital, capital expenditures and other ongoing business requirements for at least the next twelve months.

*Net cash provided by operations* in 2010 was € 259.9 million as compared to € 62.7 million for 2009. This increase results mainly from the improved net earnings, partly offset by investments in working capital resulting from the increased level of activity.

*Net cash used in investing activities* in 2010 was € 100.6 million compared to € 15.5 million for 2009. The increase results mainly from increased capital expenditures in our Back-end segment.

*Net cash used in financing activities* in 2010 was EUR 123.0 million compared to proceeds of EUR 90.9 million for the same period in 2009. The increase mainly results from the increased payment of dividend to minority shareholders and the repurchase of convertible bonds during the year 2010. In November 2009 we received the net proceeds of the issued convertible bonds (EUR 144.5 million) and we repurchased a part of the outstanding convertibles (EUR 26.8 million)

In January 2010, we increased the standby revolving credit facility from € 65 million to € 90 million. The interest rate for the facility is based on EURIBOR.

In May 2010 the remaining outstanding US\$ 16.9 million of our 5.25% Convertible bonds due 2010 were converted into common shares.

In January, July and December 2010 respectively US\$ 39.4 million, US\$ 7.2 million and US\$ 9.9 million of our 4.25% Convertible bonds due 2010 were repurchased.

On January 3, 2011 we announced the redemption for all of the outstanding principal balance of our 4.25% Convertible Subordinated Notes due 2011, which resulted in the conversion of all remaining notes prior to the redemption date scheduled for February 15, 2011.

At December 31, 2010, the Company's principal sources of liquidity consisted of EUR 340 million in cash and cash equivalents and EUR 119 million in undrawn bank lines. Approximately EUR 198 million of the cash and cash equivalents and EUR 22 million of the undrawn bank lines are restricted to use in the

Company's Back-end operations. EUR 16 million of the cash and cash equivalents and EUR 6 million in undrawn bank lines are restricted to use in the Company's Front-end operations in Japan. The use of EUR 22 million of cash and cash equivalents is restricted in use for buy-back of outstanding convertible bonds due 2011.

For the most part, our cash and cash equivalents are not guaranteed by any governmental agency. We place our cash and cash equivalents with high quality financial institutions to limit our credit risk exposure.

Net working capital, consisting of accounts receivable, inventories, other current assets, accounts payable, accrued expenses, advance payments from customers and deferred revenue, increased from EUR 170 million December 31, 2009 to EUR 293 million at December 31, 2010. The number of outstanding days of working capital, measured based on quarterly sales, decreased from 77 days at December 31, 2009 to 76 days at December 31, 2010. For the same period, our Front-end segment increased from 79 days to 93 days and our Back-end segment decreased from 77 days to 70 days.

The net debt of ASMI, excluding Back-end, at December 31, 2010 was € 73.3 million (2009: € 83.8 million). This net debt is the balance of € 142.4 million cash and € 215.7 million debt. The debt of € 215.7 million consists of € 187.1 million convertible debt and € 28.6 million other debt. Furthermore, ASMI, excluding Back-end, has useable undrawn credit lines of € 97 million.

See notes 3, 12, 15, 16 and 21 to our consolidated financial statements for discussion of our funding, treasury policies and our long-term debt.

We are obligated to fund defined benefit pension plans for our employees in Japan. We expect that the amount of this funding in 2010 will be approximately € 651,000. Our employees in the Netherlands participate in a multi-employer plan. The plan monitors the risks of the entire investment portfolio, not by individual company or employee, and is subject to regulation by Dutch governmental authorities. By Dutch law, a multi-employer union plan must be monitored against specific criteria, including the coverage ratio of its assets to its obligations. This ratio includes a minimum coverage ratio of 105%. At December 31, 2010 the coverage ratio of the multi-employer plan was 96 % (December 31, 2009: 99%) This decrease is mainly the result of the implementation of up dated mortality tables. Consequently, the Board of the multi-employer plan decided that existing pension obligations will not be indexed for the year 2011. For a discussion of our pension obligations, see Note 18 of the Notes to our Consolidated Financial Statements included elsewhere in this report.

Our Back-end segment, which is conducted through ASM Pacific Technology, our 52.36%-owned subsidiary, is entirely self-financed and at December 31, 2010 had no long-term debt. The cash resources and borrowing capacity of ASM Pacific Technology are not available to our Front-end segment due to restrictions imposed by the Hong Kong Stock Exchange, on which the ASM Pacific Technology common shares are listed.

We historically relied on dividends from ASM Pacific Technology for a portion of our cash flow for use in our Front-end operations. Cash dividends received from ASM Pacific Technology during 2008, 2009 and 2010 were € 49.1 million, € 21.4 million and € 65.6 million, respectively. In November 2006, we announced our commitment that for at least the next three years we would not use these cash dividends to support our Front-end business, but instead would use such dividends to retire outstanding convertible debt, repurchase our common shares, pay dividends on our common shares or, in the event of dilution resulting from the exercise of employee stock options in ASM Pacific Technology, purchase shares of ASM Pacific Technology to maintain our percentage ownership at its current level.

At our Annual General Meeting of Shareholders in May 2010 we decided to extend this policy for at least the years 2010 and 2011.

The following table shows the dividends received from ASM Pacific Technology and the use of those dividends within the Front-end business:

(EUR millions)	Dividends received from ASM Pacific Technology	Repurchased common shares of ASM International	Repurchased Convertible bonds	Dividend paid to shareholders of ASM International	Balance of dividends received and the use of those dividends
2007 .....	49.1	—	(32.9)	(5.4)	10.8
2008 .....	49.1	(36.5)	(27.1)	—	(14.5)
2009 .....	21.4	—	(27.0)	—	(5.6)
2010 .....	65.6	—	(55.8)	—	9.8
Total .....	<u>185.2</u>	<u>(36.5)</u>	<u>(142.8)</u>	<u>(5.4)</u>	<u>0.5</u>

Although certain directors of ASM Pacific Technology are directors of ASM International, ASM Pacific Technology is under no obligation to declare dividends to shareholders or enter into transactions that are beneficial to us. As a majority shareholder, we can approve the payment of dividends, but cannot compel their payment or size.

The market value of our investment in ASM Pacific Technology at the end of 2010 was approximately € 1,962 million. At the end of 2009 this was approximately € 1,371 million.

### Outlook

We have developed forecasts and projections of cash flows and liquidity needs for the upcoming year taking into account the current market conditions, reasonably possible changes in trading performance based on such conditions, and our ability to modify our cost structure as a result of changing economic conditions and sales levels. We have also considered in the forecasts the total cash balances amounting to € 340.3 million as of December 31, 2010, available borrowings, the ability to renew debt arrangements and to access additional indebtedness and whether or not we will maintain compliance with our financial covenants. Based on this, we believe that our cash on hand at the end of 2010 is adequate to fund our operations, our investments in capital expenditures and to fulfill our existing contractual obligations for the next twelve months.

### Contractual Obligations, Contingent Liabilities and Commitments

We have contractual obligations, some of which are required to be recorded as liabilities in our consolidated financial statements, including long- and short-term debt. Other contractual arrangements, such as operating lease commitments and purchase obligations, are not generally required to be recognized as liabilities on our consolidated balance sheet, but are required to be disclosed.

The following table summarizes our contractual obligations as of December 31, 2010 aggregated by type of contractual obligation:

<b>Contractual obligations</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>More than 5 years</b>
Notes payable to banks <sup>1</sup>	8,532	8,532	—	—	—
Long-term debt <sup>1,2</sup>	20,684	16,292	4,392	—	—
Convertible subordinated debt <sup>1</sup>	221,149	43,524	19,500	158,125	—
Operating leases	30,167	10,061	13,023	4,693	2,390
Purchase obligations:					
Purchase commitments to suppliers	58,006	57,726	280	—	—
Capital expenditure commitments	22,359	22,359	—	—	—
Unrecognized tax benefits (FIN 48)	20,057	20,057	—	—	—
<b>Total contractual obligations</b>	<b>380,954</b>	<b>178,551</b>	<b>37,195</b>	<b>162,818</b>	<b>2,390</b>

(1) Including interest expense based on the percentages at the reporting date.

(2) Capital lease obligations of € 425 are included in long-term debt.

For a further discussion of our contractual obligations see Notes 12, 15, 16, 19, 21 and 24 to our Consolidated Financial Statements, which are incorporated herein by reference.

We outsource a substantial portion of the manufacturing of our Front-end operations to certain suppliers. As our products are technologically complex, the lead times for purchases from our suppliers can vary and can be as long as nine months. Generally contractual commitments are made for multiple modules or systems in order to reduce our purchase prices per module or system. For the majority of our purchase commitments, we have flexible delivery schedules depending on the market conditions, which allow us, to a certain extent, to delay delivery beyond originally planned delivery schedules.

### New Accounting Pronouncements

For information regarding new accounting pronouncements, see Note 1 to our Consolidated Financial Statements, which is incorporated herein by reference.

### Safe Harbor

Please refer to “Forward Looking and Safe Harbor Statement” on page 36 which is incorporated herein.

## Item 6. Directors, Senior Management and Employees

### A. Directors and senior management.

The members of our Supervisory Board and Management Board and our other senior manager are as follows:

Name	Position	Year of Birth	Term Expires
Gert-Jan Kramer <sup>2</sup>	Chairman of the Supervisory Board	1942	2013
Johan M.R. Danneels <sup>2</sup>	Member of the Supervisory Board	1949	2012
Heinrich W. Kreutzer <sup>1</sup>	Member of the Supervisory Board	1949	2014
Jan C. Lobbezoo <sup>1</sup>	Member of the Supervisory Board	1946	2013
Martin C.J. van Pernis <sup>2</sup>	Member of the Supervisory Board	1945	2014
Ulrich H.R. Schumacher <sup>1</sup>	Member of the Supervisory Board	1958	2012
Charles D. (Chuck) del Prado	Chairman of the Management Board, President and Chief Executive Officer	1961	2014
Peter A.M. van Bommel	Member of the Management Board and Chief Financial Officer	1957	2014
W.K. Lee	Chief Executive Officer of ASM Pacific Technology Ltd.	1954	—

(1) Member of Audit Committee

(2) Member of Nomination, Selection and Remuneration Committee

*Gert-Jan Kramer* was elected to the Supervisory Board in May 2009 and is currently Chairman of the Supervisory Board. Mr. Kramer served as President and Chief Executive Officer of Fugro N.V. for more than 20 years until his retirement in 2005. Mr. Kramer currently serves on the supervisory boards of Scheuten Solar (Chairman), Damen Shipyards Group (Vice-Chairman), Trajectum B.V., (Mammoet), Fugro N.V., Bronwaterleiding Doorn and Energie Beheer Nederland B.V., and IRO (Chairman). He is also Chairman of the Supervisory Board of Delft Technical University. Furthermore, Mr. Kramer serves on advisory boards of many cultural organisations such as the Royal Concertgebouw, several museums (Nieuwe Kerk/Hermitage, Frans Hals Museum, Museum Beelden aan Zee) and the Pieterskerk in Leiden.

*Johan M.R. Danneels* was elected a member of the Supervisory Board in May 2000. Currently Mr. Danneels serves as Chief Executive Officer at Essensium. In January 2005 Mr. Danneels founded Essensium N.V., a spin-off from the research institute IMEC of which he was chairman since 2000. Mr. Danneels served recently as Groups Vice President of STMicroelectronics. Prior to that, he was Corporate Executive Vice President of Alcatel NV and Chief Executive Officer of Alcatel Microelectronics. He spent 25 years in Alcatel in different management functions of all major product lines. Mr. Danneels holds a Ph.D. degree in engineering from the KULeuven, Belgium and a MBA degree from Boston University.

*Heinrich W. Kreutzer* was elected a member of the Supervisory Board in November 2006. Mr. Kreutzer is currently chairman of the Board of Directors of Micronas Semiconductor AG in Zurich, Switzerland, chairman of the Supervisory Board of Micronas Semiconductor GmbH in Freiburg, Germany and chairman of the Supervisory Board of BKTel communications GmbH, Germany. He worked at several companies, including General Telephone & Electronics in Waltham, USA, and Alcatel in Stuttgart, Germany. From 2004 to April 2006, he was Managing Director of Kabel Deutschland GmbH in Munich, Germany. From 1999 to 2003, Mr. Kreutzer was a member of the Management Board, and was the Chief Operating Officer and Chief Technology Officer of Alcatel SEL AG. Mr. Kreutzer is 'Diplom-Ingenieur' and 'Diplom-Ökonom'. He studied at the Technical University of Berlin and the University of Hagen.

*Jan C. Lobbezoo* was elected a member of the Supervisory Board in May 2009. Mr. Lobbezoo served as Executive Vice-President and Chief Financial Officer of Royal Philips Electronics semiconductor division from 1994 until 2005. He was a member of the board of Taiwan Semiconductor Manufacturing Company (TSMC) for 12 years until 2007, and remains its advisor, specifically in the areas of US corporate governance, international reporting and financial review. He is on the board of FEI, a US-based nano-technology equipment company and on the supervisory boards of TMC Group N.V. (Chairman), Smartrac N.V. (Chairman of the Audit Committee), Mapper Lithography (Chairman), Mutracx B.V. (Chairman), ALSI, and Point One Innovation Fund. Mr. Lobbezoo holds a master degree in Business economics from the Erasmus University Rotterdam, the Netherlands and the accountancy degree "Register Accountant".

*Martin C.J. van Pernis* was elected a member of the Supervisory Board in May 2010. Mr van Pernis retired from the Siemens Group in the end of 2009. In his last position as chairman of the management board of Siemens Nederland N.V. Mr van Pernis had the responsibility of oversight of all Siemens' activities in the Netherlands. Mr van Pernis joined Siemens in 1971 and his working experience has been mainly in

senior management positions. Mr van Pernis is chairman of the Supervisory Board of Dutch Space B.V., a subsidiary of EADS. He is also member of the Supervisory Boards of Aalberts Industries N.V., Feyenoord Rotterdam N.V. and Batenburg Beheer N.V.

*Ulrich H.R. Schumacher* was elected a member of the Supervisory Board in May 2008. Dr. Schumacher was the CEO & President and member of the Board of Grace Semiconductor Manufacturing Corporation in Shanghai from September 2007 till September 2010. From 2004 until September 2007, Dr. Schumacher was a partner of Francisco Partners, a private equity investment company based in the U.S. From 1986 through 1999, Dr. Schumacher served in various engineering and management roles at Siemens AG and was CEO and President of Siemens Semiconductor Group from 1996 until it was spun off in 1999 by Siemens as Infineon Technologies AG. He served as President and CEO of Infineon Technologies AG until 2004. Mr. Schumacher studied Electrical Engineering and Business Administration at the University of Aachen, Germany, and was awarded a Doctorate of Engineering.

*Charles D. (Chuck) del Prado* became a member of the Management Board in May 2006 and the President and Chief Executive Officer on March 1, 2008. From January 1, 2008 until February 29, 2008, he was the Executive Vice President Front-end Operations. He was President and General Manager of ASM America from February 2003 until August 2007. In March 2001, he was appointed Director Marketing, Sales & Service of ASM Europe. From February 1996 to 2001, he held various management positions at ASML in manufacturing and sales in Taiwan and in the Netherlands. Mr. del Prado worked at IBM Nederland N.V. from 1989 to 1996 in several marketing and sales positions. Mr. del Prado received a Master of Science degree in Industrial Engineering and Technology Management from the University of Twente, the Netherlands.

*Peter A.M. van Bommel* became a member of the Management Board per July 1, 2010 and Chief Financial Officer on September 1, 2010. Mr. van Bommel has more than twenty years of experience in the electronics and semiconductor industry. He spent most of his career at Philips, which he joined in 1979. From the mid-1990s until 2005 Mr. van Bommel acted as CFO of several business units of the Philips group. Between 2006 and 2008 he was CFO at NXP (formerly Philips Semiconductors) and was CFO of Odersun AG, a manufacturer of thin-film solar cells and modules until August 31, 2010. Mr. van Bommel holds a Master's degree in economics from the Erasmus University, Rotterdam, the Netherlands.

*W.K. Lee* became Chief Executive Officer of ASM Pacific Technology Ltd. effective January 1, 2007 and has been General Manager Southern Region of ASM Pacific Technology since 1990. He has been employed by ASM Pacific Technology for over 25 years. Prior to becoming in 1990 General Manager of ASM Pacific Technology's activities in Singapore, Mr. W.K. Lee was involved in product development. Mr. W.K. Lee studied at the Chinese University of Hong Kong (Bachelor of Science and Master of Philosophy in Electronics) and has a Master Degree in Business Administration from the National University of Singapore. Mr. Lee also served as a member of the ASMI Management Board until the expiration of his term on January 1, 2011.

## **B. Compensation.**

For information regarding remuneration of members of our Management Board and Supervisory Board, see Note 28 to our Consolidated Financial Statements, which is incorporated herein by reference.

For further information regarding remuneration of members of our Management Board, see our Remuneration Policy and Remuneration Report 2009, which are posted on our website ([www.asm.com](http://www.asm.com)). Our Remuneration Report 2010 is currently posted on our website as will future reports in accordance with applicable requirements under local law.

We have granted stock options to certain key employees. For information regarding such options see Note 18 to our Consolidated Financial Statements, which is incorporated herein by reference.

## **C. Board practices.**

Under Netherlands law, Supervisory Board members have the duty to supervise and advise the Management Board members. Persons nominated by the Supervisory Board to be appointed by the shareholders to the Supervisory Board are elected if they receive a majority of the votes cast at a meeting of shareholders. Nominees to the Supervisory Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at a meeting, which affirmative votes represent at least one third of our issued capital. A resolution to remove a member of the Supervisory Board, other than in accordance with a proposal of the Supervisory Board, shall require the affirmative vote of a majority of the votes cast, which affirmative votes represent at least one third of our issued capital. The Supervisory Board members serve a four year term and may be re-elected after each term. The Supervisory Board members may be re-elected twice.

The Management Board is entrusted with our management under the supervision of the Supervisory Board and has the general authority to enter into binding agreements with third parties. Persons nominated by the Supervisory Board to be appointed by the shareholders to the Management Board are elected if they receive a majority of the votes cast at a meeting of shareholders. Nominees to the Management Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at a meeting, if such affirmative votes represent at least one third of our issued capital. A Management Board member may at any time be suspended by the Supervisory Board. A Management Board member may, in accordance with a proposal of the Supervisory Board, be dismissed by the General Meeting of Shareholders with a majority of the votes cast. A resolution to suspend or to dismiss a member of the Management Board, other than in accordance with a proposal of the Supervisory Board, shall require the affirmative vote of a majority of the votes cast at a meeting, which affirmative votes represent at least one third of our issued capital.

The Audit Committee of the Supervisory Board has a supervisory task with regard to monitoring the integrity of our financial reports and risk management. The Audit Committee consists of Mr. Lobbezoo (Chairman), Mr. Kreutzer and Mr. Schumacher. The Audit Committee supervises the activities of the Management Board with respect but not limited to:

- the operation of the internal risk management and control systems, including supervision of the enforcement of the relevant legislation and regulations, and supervising the operation of codes of conduct;
- our release of financial information;
- compliance with recommendations and observations of external auditors;
- our policy on tax planning;
- relations with the external auditor, including, in particular, its independence, remuneration and any non-audit services performed for us;
- our financing and financial position; and
- the applications of information and communication technology (ICT).

The Audit Committee meets periodically to nominate a firm to be appointed as independent auditors to audit the financial statements and to perform services related to the audit, review the scope and results of the audit with the independent auditors, review with management and the independent auditors our annual operating results and consider the adequacy of the internal accounting procedures and the effect of the procedures relating to the auditor's independence.

The Nomination, Selection and Remuneration committee of the Supervisory Board advises the Supervisory Board on matters relating to the selection and nomination of the members of the Management Board and Supervisory Board. The committee further monitors and evaluates the remuneration policy for the Management Board. This committee consists of Mr. Kramer (Chairman), Mr. Danneels and Mr. van Pernis.

We have entered into indemnity agreements with each of our Supervisory Board and Management Board members in which we agree to hold each of them harmless, to the extent permitted by law, from damage resulting from a failure to perform or a breach of duties by our board members, and to indemnify each of them for serving in any capacity for the benefit of the Company, except in the case of willful misconduct or gross negligence in certain circumstances.

#### D. Employees.

As of December 31, 2010, we had 16,699 employees, including 1,019 employees primarily involved in research and development activities, 461 in marketing and sales, 1,092 in customer service, 746 in finance and administration, and 13,381 in manufacturing.

The following table lists the total number of our employees and the number of our employees in our Front-end and Back-end business at the dates indicated, exclusive of temporary workers:

Geographic Location	December 31, 2008			December 31, 2009			December 31, 2010		
	Front-end	Back-end	Total	Front-end	Back-end	Total	Front-end	Back-end	Total
<b>Europe</b>									
The Netherlands . . . .	341	8	349	193	8	201	148	10	158
EMEA . . . . .	168	10	178	132	5	137	136	5	141
<b>United States</b> . . . . .	455	14	469	353	11	364	361	10	371
<b>Japan</b> . . . . .	289	23	312	206	22	228	180	21	201
<b>Southeast Asia</b> . . . . .	414	9,992	10,406	410	10,727	11,137	625	15,203	15,828
<b>Total</b> . . . . .	<u>1,667</u>	<u>10,047</u>	<u>11,714</u>	<u>1,294</u>	<u>10,773</u>	<u>12,067</u>	<u>1,450</u>	<u>15,249</u>	<u>16,699</u>

Our Netherlands operations, which employed 148 persons as of March 2, 2011, is subject to standardized industry bargaining under Netherlands law, and is required to pay wages and meet conditions established as a result of negotiations between all Netherlands employers in their industry and unions representing employees of those employers. Additionally, management personnel in the Netherlands facilities meet as required by Netherlands law with a works council consisting of elected representatives of the employees to discuss working conditions and personnel policies as well as to explain major corporate decisions and to solicit their advice on major issues.

Many of our employees are highly skilled, and our continued success will depend in part upon our ability to continue to attract and retain these employees, who are in great demand. We believe that our employee relations are good.

#### **E. Share ownership.**

Information with respect to shares and options held by members of our Supervisory Board and Management Board is included in Item 7, "Major Shareholders and Related Party Transactions" and Notes 28 and 29 to our Consolidated Financial Statements, which are incorporated herein by reference. With the exception of Chuck del Prado, as of March 2, 2011, none of the members of our Supervisory Board or Management Board owned beneficially more than 1% of our outstanding common shares.

We maintain various stock option plans for the benefit of our employees. For information about our stock option plans, see Note 18 to our Consolidated Financial Statements, which is incorporated herein by reference.

### **Item 7. Major Shareholders and Related Party Transactions**

#### **A. Major shareholders.**

The following table sets forth information with respect to the ownership of our common shares as of March 2, 2011 by each beneficial owner known to us of more than 5% of our common shares:

	<u>Number of Shares</u>	<u>Percent <sup>1</sup></u>
Arthur H. del Prado <sup>2</sup> .....	11,342,878	20.66

- (1) Calculated on the basis of 54,893,106 Common Shares outstanding as of March 2, 2011, and without regard to options.
- (2) Includes 3,039 common shares owned by Stichting Administratiekantoor ASMI, a trust controlled by Arthur H. del Prado, and 713,000 common shares beneficially owned by Chuck D. del Prado, Arthur H. del Prado's son.

A "beneficial owner" of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares (i) voting power which includes the power to vote, or to direct the voting of, such security and/or (ii) investment power which includes the power to dispose, or to direct the disposition, of such security. In addition, a person shall be deemed to be the beneficial owner of a security if that person has the right to acquire beneficial ownership of such security, as defined above, within 60 days, including but not limited to any right to acquire: (i) through the exercise of any option, warrant or right; (ii) through the conversion of a security; or (iii) pursuant to the power to revoke, or pursuant to the automatic termination of, a trust, discretionary account, or similar arrangement.

On May 28, 1997, we entered into an agreement with Stichting Continuïteit ASM International (Stichting), pursuant to which Stichting was granted an option to acquire up to a number of our preferred shares corresponding with a total par value equal to 50% of the par value of our common shares issued and outstanding at the date of the exercise of the option. Stichting is a non-membership organization organized under Netherlands law. The objective of Stichting is to serve the interests of the Company. To that objective Stichting may, amongst others, acquire, own and vote our preferred shares in order to maintain our independence and/or continuity and/or identity. The members of the board of Stichting are:

Michael J.C. van Galen (chairman)	Retired Managing Director, Breevast N.V.
Rinze Veenenga Kingma	President Archeus Consulting B.V.
Jan Klaassen	Emeritus Professor, Vrije Universiteit Amsterdam

On May 14, 2008, Stichting exercised its right to acquire preferred shares in the Company and acquired 21,985 preferred shares representing 21,985,000 votes, which constituted 29.9% of the total voting power of our outstanding capital stock as of May 14, 2008. Stichting paid € 219,850, which constituted one-fourth of the nominal value of the preferred shares acquired, in accordance with the option agreement. This amount was paid by Stichting using an existing credit line. On May 14, 2009 the Annual Meeting of Shareholders resolved to cancel the outstanding preferred shares and to reissue an option to Stichting Continuïteit to acquire preferred shares.

The issuance of preferred shares to Stichting has since been the subject of litigation in the Enterprise Chamber of the Amsterdam court of appeal. This litigation was initiated by shareholders Hermes Focus Asset Management Ltd. and Fursa Alternative Investment Strategies LLC. In August 2009 the Enterprise Court ordered an inquiry in respect of the affairs of the Company. In July 2010 the Dutch Supreme Court annulled the order of the Enterprise Court and remanded the decision to the Enterprise Court to consider certain observations of the Supreme Court. The Enterprise Court has not yet rendered a new decision on whether an inquiry into the affairs of ASMI is to be held.

Except as described above regarding Stichting, we are unaware of any arrangement which we anticipate will result in a change in control of ASM International. All shares of our common stock (including shares held by major shareholders) entitle the holder to the same voting rights. Our preferred shares entitle the holder to 1,000 votes per share.

Of our 54,893,106 outstanding common shares at March 2, 2011, 2,142,039 are registered with us in the Netherlands, 42,883,621 are registered with our transfer agent in the Netherlands, ABN AMRO Bank N.V., and 9,867,446 are registered with our transfer agent in the United States, Citibank, N.A., New York. Our common shares registered with Citibank, N.A., New York are listed on the NASDAQ Global Select Market under the symbol "ASMI." As of March 2, 2011 there were approximately 150 record holders of our common shares registered with Citibank. The common shares registered with ABN AMRO Bank N.V., are in bearer form and are traded on Euronext Amsterdam under the symbol "ASM."

## **B. Related party transactions.**

For information regarding related party transactions, see Note 29 to our Consolidated Financial Statements, which is incorporated herein by reference.

## **C. Interest of Experts & Counsel.**

Not applicable.

## **Item 8. Financial Information**

### **A. Consolidated statements and other financial information**

#### **Consolidated financial statements**

See Item 18, "Financial Statements."

#### **Legal proceedings**

See Item 4.B., "Business Overview" and Note 20 to our Consolidated Financial Statements, which is incorporated herein by reference. See also Item 3.D, "Risk Factors—*We are subject to various legal proceedings and claims, the outcomes of which are uncertain. If we fail to accurately evaluate the probability of loss or the amount of possible losses, an adverse outcome may materially and adversely affect our financial condition and results of operations.*"



## Dividend policy

ASMI aims, as part of its financing policy, to pay a sustainable annual dividend. Annually the Supervisory Board, upon proposal of the Management Board, will assess the amount of dividend that will be proposed to the Annual General Meeting of Shareholders. The decision that a dividend be proposed to the Annual General Meeting of Shareholders will be subject to the availability of distributable profits as well as retained earnings and may be affected by our potential future funding requirements. Accordingly, dividend payments may fluctuate and could decline or be omitted in a certain future year.

In 2007, we paid an interim dividend of € 0.10 per common share. We have not paid dividends in 2008, 2009, 2010 and in any year prior to 2007. In 2011 we will propose to the forthcoming Annual General Meeting of Shareholders to declare a dividend of Euro 0.40 per share.

## B. Significant changes

No significant changes have occurred since the date of our Consolidated Financial Statements.

## Item 9. The Offer and Listing

### A. Offer and listing details.

The following table sets forth, for the periods indicated, the high and low closing prices of our common shares as reported on the NASDAQ Global Select Market and the high and low closing prices as reported on Euronext Amsterdam:

#### Price Range of Common Shares

	NASDAQ Closing Prices		Euronext Closing Prices	
	High	Low	High	Low
<b>Annual Information</b>				
2006 .....	\$21.34	\$13.72	€16.97	€10.95
2007 .....	30.32	20.94	21.08	15.08
2008 .....	32.66	6.60	20.96	5.00
2009 .....	25.75	6.30	17.80	4.92
2010 .....	35.09	19.10	26.50	15.32
<b>Quarterly Information</b>				
<b>2009:</b>				
First Quarter .....	\$10.47	\$ 6.30	€ 7.55	€ 4.92
Second Quarter .....	16.64	8.52	11.93	6.45
Third Quarter .....	19.38	13.88	13.49	9.80
Fourth Quarter .....	25.75	17.29	17.80	11.80
<b>2010:</b>				
First Quarter .....	\$26.90	\$20.98	€20.30	€15.33
Second Quarter .....	28.81	19.10	21.45	15.32
Third Quarter .....	26.31	19.37	19.98	15.48
Fourth Quarter .....	35.09	23.28	26.50	17.25
<b>Monthly Information</b>				
September 2010 .....	\$25.80	\$22.75	€18.86	€17.48
October 2010 .....	25.92	24.46	18.75	17.70
November 2010 .....	26.08	23.28	19.11	17.25
December 2010 .....	35.09	26.10	26.50	19.77
January 2011 .....	40.67	33.72	30.36	25.97
February 2011 .....	41.38	37.71	30.66	27.38
March 2011 <sup>1</sup> .....	41.64	40.01	30.27	29.35

(1) Through March 2, 2011.

### B. Plan of distribution.

Not applicable.

### C. Markets.

Our common shares are listed on the NASDAQ Global Select Market under the symbol "ASMI" and listed on Euronext Amsterdam under the symbol "ASM." See item 9.A. "Offer and listing Details".

**D. Selling shareholders.**

Not applicable.

**E. Dilution.**

Not applicable.

**F. Expenses of the issue.**

Not applicable.

**Item 10. Additional Information****A. Share capital.**

Not applicable.

**B. Memorandum and articles of association.**

The information required by Item 10.B. is incorporated by reference to Exhibit 1.1 in our Form 20-F filed with the United States Securities and Exchange Commission on March 16, 2007 and the Form 6-K filed on April 30, 2007. Our current Articles of Association are filed as Exhibit 1.1 hereto.

**C. Material contracts.**

We entered into a trust deed on November 6, 2009 with Citicorp Trustee Company Limited as trustee, under which we issued € 150 million aggregate principal amount of 6.5% senior unsecured convertible bonds due 6 November 2014. The terms of the bonds issued under the trust deed are summarized in Note 16 to our consolidated financial statements, which summary is incorporated herein by reference. A copy of the trust deed was filed as Exhibit 2.3 to our Form 20-F filed March 26, 2010.

As discussed in Item 4, ASMPT acquired the SEAS business from Siemens AG. In January 2011 nominal consideration was paid by ASMPT to Siemens for the business as well as certain loan and equity commitments were made by ASMPT to fund the ongoing acquired business. A copy of the acquisition agreement is filed as Exhibit 4.13 to this Form 20-F.

**D. Exchange controls.**

There are no foreign exchange controls or other governmental laws, decrees or regulations in the Netherlands restricting the import or export of capital or affecting the remittance of dividends, interest or other payments to non-resident shareholders. Neither the laws of the Netherlands nor the Articles of Association of ASM International restrict remittances to non-resident shareholders or the right to hold or vote such securities.

**E. Taxation.*****Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders***

The statements below briefly summarize the current Dutch tax laws, based on the laws as in force at January 1, 2009. The description is limited to the tax implications for shareholders who neither are nor are deemed to be a resident of the Netherlands for purposes of the relevant tax codes. The description does not address special rules that may apply to holders of special classes of shares and should not be interpreted as extending by implication to matters not specifically referred to in this document. As to individual tax consequences, shareholders are advised to consult their own tax advisors.

***Withholding Tax***

Dividends distributed by us generally are subject to a withholding tax imposed by the Netherlands at a rate of 15%. The expression "dividends distributed" includes, among other things:

- direct and indirect distributions in cash or in kind, deemed and constructive distributions and repayments of paid-in capital which is not recognized as such for Dutch dividend withholding tax purposes;
- liquidation proceeds, proceeds of redemption of ordinary shares or consideration for the repurchase of ordinary shares by us, or one of our subsidiaries, to the extent that such consideration exceeds the average paid-in capital which is recognized as such for Dutch dividend withholding tax purposes;

- the par value of ordinary shares issued to a holder of ordinary shares or an increase in the par value of ordinary shares, as the case may be, to the extent that it does not appear that a contribution, which is recognized as such for Dutch dividend withholding tax purposes, has been made or will be made; and
- partial repayments of paid-in capital, which is recognized as such for Dutch dividend withholding tax purposes, if and insofar as there are net profits (*zuivere winst*) unless the general meeting of our shareholders has resolved in advance to make such repayment and provided that the par value of the ordinary shares concerned has been reduced by an equal amount by way of an amendment to the articles of association.

If a holder of ordinary shares resides in a country that signed a double taxation convention with the Netherlands and such convention is in effect, such holder of ordinary shares may, depending on the terms of that double taxation convention, be eligible for a full or partial exemption from, reduction or refund of Dutch dividend withholding tax. The Netherlands has concluded such a convention with the United States, among other countries.

Under the Convention between the United States of America and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (the "US Tax Treaty") currently in effect, dividends we pay to a corporate holder of our common shares who is not, or is not deemed to be, a resident of the Netherlands for Dutch tax purposes but who is a resident of the United States as defined in the U.S. Tax Treaty may be eligible for a reduction of the 15% Netherlands withholding tax. In the case of certain U.S. corporate shareholders owning at least 10% of ASM International voting power, the Netherlands withholding tax may be reduced to 5%, provided that such shareholder does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or permanent representative in the Netherlands to which the dividends are attributable. A full exemption of Netherlands withholding tax is applicable for a U.S. corporate shareholder owning at least 80% of voting power in the Company for a period of at least twelve months prior to the distribution, provided that this shareholder meets specific tests of the limitation of benefits clause of the U.S. Tax Treaty. The U.S. Tax Treaty provides for complete exemption from tax on dividends received by exempt pension trusts and exempt organizations, as defined therein. Except in the case of exempt organizations, the reduced dividend withholding rate can be applied at the source upon payment of the dividends, provided that the proper forms have been filed prior to the payment. Exempt organizations remain subject to the statutory withholding rate of 15% and are required to file an application for a refund of such withholding.

A holder who is not, or is not deemed to be, a resident of the Netherlands may only claim the benefits of the U.S. Tax Treaty if:

- the holder is a resident of the United States as defined therein; and
- the holder's entitlement to such benefits is not limited by the provisions of Article 26 ("limitation on benefits") of the U.S. Tax Treaty.

Under current Dutch law, in situations where we distribute dividends which we received ourselves (flow through dividends) from subsidiaries established in countries with which the Netherlands has concluded a tax treaty, we may be permitted under limited circumstances to deduct and retain from the withholding a portion of the amount that otherwise would be required to be remitted to the Dutch Tax Authorities. That portion generally may not exceed 3% of the total dividend distributed by us during the calendar year and the two preceding calendar years. If we retain a portion of the amount withheld from the dividends paid, the portion (which is not remitted to the tax authorities) might not be creditable against your domestic income tax or corporate income tax liability. We will endeavor to provide you with information concerning the extent to which we have applied the reduction described above to dividends paid to you and advise you to check the consequences thereof with your local tax advisor.

A refund, reduction, exemption or credit of Dutch dividend withholding tax on the basis of Dutch tax law or on the basis of a tax treaty between the Netherlands and another state, will be granted only if the dividends are paid to the beneficial owner of the dividends. The Dutch Supreme Court has defined that a person is a beneficial owner if: (i) that person is the legal owner of the dividend coupons and (ii) is in the position to freely dispose of the dividends so received and (iii), not acting in the capacity of an agent or fiduciary for someone else. A receiver of a dividend is *not* considered to be the beneficial owner of a dividend in an event of "dividend stripping" in which he has paid a consideration related to the receipt of such dividend. In general terms, "dividend stripping" can be described as the situation in which a foreign or domestic person (usually, but not necessarily, the original shareholder) has transferred his shares or his entitlement to the dividend distributions to a party that has a more favorable right to a refund or reduction of Dutch dividend withholding tax than the foreign or domestic person. In these situations, the foreign or domestic person (usually the original shareholder), by transferring his shares or his entitlement to the dividend distributions, avoids Dutch dividend withholding tax while retaining his "beneficial" interest in the

shares and the dividend distributions. This regime may also apply to the transfer of shares or the entitlement to dividend distributions as described above, if the avoidance of dividend withholding tax is not the main purpose of the transfer.

### ***Income Tax and Corporate Income Tax on Dividends***

A nonresident individual or corporate shareholder will not be subject to Dutch income tax with respect to dividends distributed by us or with respect to capital gains derived from the sale, disposal or deemed disposal of our common shares, provided that:

- such holder is neither resident nor deemed to be resident in the Netherlands nor has made an election for the application of the rules of the Dutch 2001 Income Tax Act as they apply to residents of the Netherlands; and
- such holder does not have, and is not deemed to have, an enterprise or an interest in an enterprise which is, in whole or in part, carried on through a permanent establishment, a deemed permanent establishment, or a permanent representative in the Netherlands and to which enterprise or part of an enterprise the shares are attributable, nor does such holder carry out any other activities in the Netherlands that exceed regular asset management;
- such holder does not have a profit share in, or any other entitlement to the assets or income of an enterprise, other than by way of securities, which enterprise is effectively managed in the Netherlands and to which enterprise the shares are attributable;
- such holder does not carry out and has not carried out employment activities with which the holding of the shares is connected directly or indirectly; and
- such holder, individuals relating to such holder and some of their relations by blood or marriage in the direct line (including foster children) do not have a substantial interest or deemed substantial interest in us, or, if such holder has a substantial interest or a deemed substantial interest in us, it forms part of the assets of an enterprise.

Generally, a nonresident holder will have a substantial interest if he, his partner, certain other relatives (including foster children) or certain persons sharing his household, alone or together, directly or indirectly:

- hold shares representing 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of our shares);
- hold or have rights to acquire shares (including the right to convert notes or stock options into shares), whether or not already issued, that at any time (and from time to time) represent 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of our shares); or
- hold or own certain profit-participating rights that relate to 5% or more of our annual profit and/or to 5% or more of our liquidation proceeds.

The same criteria apply to a nonresident entity, save for the extension to partners, certain other relatives, and certain persons sharing the holder's household.

### ***Gift and Inheritance Tax***

In principle, liability for Dutch gift tax or inheritance tax arises in respect of any gifts of common shares by or inheritance of common shares from any person who resides in the Netherlands at the time of the gift or death.

A gift or inheritance of common shares from a nonresident shareholder will not be subject to Dutch gift and inheritance tax, provided that:

- the nonresident shareholder does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which or to whom the common shares are attributable;
- the nonresident shareholder is not entitled to a share in the profits of an enterprise that is effectively managed in the Netherlands other than by way of securities or through an employment contract, the common shares being attributable to that enterprise; and
- the nonresident shareholder makes a gift of shares and does not die within 180 days after the date of the gift, while being resident or deemed to be resident in the Netherlands at the time of his death.

For the purposes of Dutch gift and inheritance tax, a Dutch national is deemed to be a resident of the Netherlands if he resided in that country at any time during a period of ten years preceding the date of the gift or death, as the case may be. In addition, for the purposes of Dutch gift tax, a person not possessing Dutch nationality is also deemed to be a Dutch resident, irrespective of his nationality, if he was a Dutch

resident at any time during a period of twelve months preceding the time at which the gift was made. The Netherlands has concluded a treaty with the United States, based on which double taxation on inheritances may be avoided if the inheritance is subject to Netherlands and/or U.S. inheritance tax and the deceased was a resident of either the Netherlands or the United States.

### ***United States Federal Income Taxation***

The following is a general description of select U.S. federal income tax consequences of the ownership and disposition of our common shares by a U.S. Holder (as defined below). This summary only applies to “U.S. Holders” (as defined below) that hold their shares as capital assets. This discussion does not purport to be a comprehensive description of all U.S. federal income taxation considerations that may be relevant to holders of shares in view of their particular circumstances, and does not deal with holders subject to special rules, such as, but not limited to, the alternative minimum tax provisions of the Internal Revenue Code of 1986 (“Internal Revenue Code”) or the Internal Revenue Code’s provisions applicable to dealers in securities or foreign currencies, traders in securities that elect to use a mark-to-market method of accounting, certain financial institutions, tax-exempt organizations, tax-qualified employer plans and other tax-qualified accounts, insurance companies, persons that actually or constructively own 10% or more of our voting stock, persons holding common shares as part of a straddle, hedging, conversion or constructive sale transaction or holders of common shares whose “functional currency” is not the U.S. dollar.

This discussion is based on the Internal Revenue Code, as amended to the date hereof, final, temporary and proposed U.S. Treasury Department regulations promulgated thereunder, and administrative and judicial interpretations thereof, any or all of which could be changed subsequent to the date of this summary, possibly with retroactive effect. Any such change could affect the tax consequences described in this summary. We will not update this summary to reflect any such changes after the date of this annual report. In addition, there can be no assurance that the Internal Revenue Service will not challenge any tax treatment that is based upon or consistent with any discussion of tax consequences described in this summary, and we have not obtained, nor do we intend to obtain, a ruling from the Internal Revenue Service or an opinion of counsel with respect to the U.S. federal income tax consequences of acquiring or holding common shares. Prospective holders of shares should consult their own tax advisors as to the application of the U.S. federal income tax laws to their particular situation, as well as to any tax consequences that may arise under the U.S. federal estate or gift tax laws or under any state, local or foreign tax laws with respect to the ownership and disposition of our common shares.

The following discussion is a summary of the tax rules applicable to U.S. Holders of common shares and does not consider any U.S. federal income tax consequences to non-U.S. Holders. As used in this summary, “U.S. Holder” means a beneficial owner of common shares that is (i) an individual citizen or resident alien of the United States (as defined for U.S. federal income tax purposes), (ii) a corporation (or any other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any State, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if either (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (b) a valid election is in place to treat the trust as a U.S. person. A “non-U.S. Holder” is a beneficial owner of common shares that is not a U.S. Holder as so defined herein.

If a partnership (or other entity treated as a partnership for US federal income tax purposes) holds common shares, the tax treatment of a partner generally will depend upon the status and tax residency of the partner and the activities of the partnership. Partners in a partnership that holds common shares are urged to consult their own tax advisor regarding the specific tax consequences of the owning and disposing of such common shares by the partnership.

### ***Taxation of Dispositions***

A U.S. Holder will recognize gain or loss for U.S. federal income tax purposes upon a taxable sale or other disposition of common shares. The amount of such gain or loss will equal the difference between the amount realized by the U.S. Holder and the U.S. Holder’s adjusted tax basis in the common shares. For these purposes, a U.S. Holder’s adjusted tax basis in the common shares generally will equal the U.S. dollar cost of the common shares to the U.S. Holder. Subject to the passive foreign investment company rules described below, gain or loss realized by a U.S. Holder on a sale or other disposition of common shares generally will be treated as capital gain or loss, and will be long-term capital gain or loss if the common shares were held for more than one year as of the date of the sale or other disposition. Any such gain generally will be treated as U.S. source income for U.S. foreign tax credit purposes. Net long-term capital gain recognized by a U.S. Holder who is an individual generally is subject to reduced rates of taxation. The deduction of capital losses is subject to certain limitations. Prospective investors should consult their own tax advisors in this regard.

If we repurchase our common shares, the repurchase generally will be treated as a sale or exchange of the common shares subject to the rules discussed above. However, under certain circumstances as provided in Section 302 of the Internal Revenue Code, the repurchase may be treated fully or partially as a dividend taxable as described below under “Taxation of Distributions.” U.S. Holders should consult their own tax advisors concerning the U.S. federal income tax consequences of our repurchase of their common shares.

### ***Taxation of Distributions***

Subject to the anti-deferral tax rules described below, the gross amount (before reduction for Netherlands withholding taxes) of any distribution actually or constructively paid with respect to common shares will be included in the gross income of the U.S. Holder as foreign source dividend income to the extent the distributions are paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. The amount of any distribution of property other than cash will be the fair market value of such property on the date of distribution. To the extent that the amount of any distribution exceeds our current and accumulated earnings and profits, the distribution will first be treated as a tax-free return of capital to the extent of the U.S. Holder's adjusted tax basis in the common shares (thereby increasing the amount of gain or decreasing the amount of loss to be recognized on the subsequent disposition of the common shares), and to the extent that such distribution exceeds the U.S. Holder's adjusted tax basis in the common shares such excess will be taxed as capital gain. We do not maintain calculations of our earnings and profits under U.S. federal income tax principles, and therefore it may not be possible to determine whether or to what extent a distribution should be treated as a dividend. Distributions treated as dividends generally will not be eligible for the dividends received deduction allowed to corporations under the Internal Revenue Code. The availability of this deduction is subject to several complex limitations which are beyond the scope of this summary.

If a U.S. Holder receives a dividend in euros, the amount of the dividend for U.S. federal income tax purposes should be the U.S. dollar value of the dividend, determined at the spot rate in effect on the date of such payment, regardless of whether the payment is later converted into U.S. dollars. In the case of such later conversion, the U.S. Holder may recognize U.S. source ordinary income or loss as a result of currency fluctuations between the date on which the dividend is paid and the date the dividend amount is converted to U.S. dollars.

Dividends received by a U.S. Holder generally will be taxed at ordinary income rates. However, certain dividends received by individuals through taxable years beginning on or before December 31, 2012, may qualify to be taxed at capital gain rates (15% or less), provided (i) the recipient has held the underlying stock for more than 60 days during the 121 day period beginning 60 days before the ex-dividend date and (ii) the dividends are received from a “qualified foreign corporation.” A non-U.S. corporation (other than a passive foreign investment company) generally will be considered to be a “qualified foreign corporation” if (i) the shares of the non-U.S. corporation are readily tradable on an established securities market in the United States or (ii) the non-U.S. corporation is eligible with respect to substantially all of its income for the benefits of a comprehensive income tax treaty with the United States which contains an exchange of information program. We believe that we are, and will continue to be, a “qualified foreign corporation.” Individual U.S. Holders should consult their tax advisors regarding the impact of distributions paid with respect to their common shares in light of their particular situations.

### ***Foreign Tax Credit***

Dividends distributed by us generally are subject to a withholding tax imposed by the Netherlands at a rate of 15% (see “Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders – Withholding Tax”). Subject to certain conditions and limitations set forth in the Internal Revenue Code, foreign withholding tax paid with respect to dividends on common shares generally will be eligible for credit against a U.S. Holder's U.S. federal income tax liability. Alternatively, a U.S. Holder may claim a deduction for the amount of foreign withholding taxes, but only for a year for which the U.S. Holder elects to do so with respect to all foreign income taxes. Under current Dutch law, we may be permitted, under limited circumstances, to retain a portion of Netherlands taxes we withhold from dividends paid to our shareholders, rather than pay that portion of the withheld taxes to the taxing authorities in the Netherlands (see “Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders – Withholding Tax”). This amount generally may not exceed 3% of the total dividend distributed by us during the calendar year and the two preceding calendar years. If we retain a portion of the Netherlands withholding taxes, the retained amount in all likelihood will not qualify as a creditable tax for U.S. federal income tax purposes. We will endeavor to provide U.S. Holders with information concerning the extent to which we retain any Netherlands taxes on dividends paid to U.S. Holders.

Effective for tax years beginning after December 31, 2006, there will be two specific classes (passive and general) of income for purposes of calculating foreign tax credit limitations. Dividends will generally constitute "passive category income" but could, in the case of certain U.S. Holders, constitute "general category income." Gain from a sale, exchange or other disposition of our common shares will be treated as U.S. source income for foreign tax credit purposes unless the U.S. Holder makes an election pursuant to the U.S. tax convention with the Netherlands to treat any such gain as foreign source. The rules relating to the determination of the U.S. foreign tax credit are complex. U.S. Holders should consult their own tax advisors with respect to the availability of a foreign tax credit or deduction for foreign, including Netherlands, taxes withheld.

### ***Anti-Deferral Tax Rules***

The Internal Revenue Code contains various provisions that impose current U.S. federal income tax on certain foreign corporations or their U.S. shareholders if such corporations derive certain types of passive income and fail to make adequate distribution of profits to their U.S. shareholders. These provisions include the passive foreign investment company and controlled foreign corporation rules. While we do not believe that any of these rules should apply to us, we are not certain that we can avoid these tax rules because we cannot predict with any degree of certainty the amount and character of our future income or the amount of our common shares any particular U.S. Holder will own. Accordingly, we will only briefly summarize those provisions and then only the rules that we believe may have the greatest likelihood of applying to us in the future.

*Passive Foreign Investment Company.* As a foreign corporation with U.S. Holders, we could potentially be treated as a "passive foreign investment company" ("PFIC") as defined in the Internal Revenue Code.

The PFIC provisions of the Internal Revenue Code can have significant tax effects on U.S. Holders. In general, a foreign corporation will be a PFIC in a particular tax year and for all succeeding tax years if:

- 75% or more of its gross income (including the foreign corporation's pro rata share of the gross income of any U.S. or foreign company in which the corporation owns or is considered to own 25% or more of the shares by value) in a taxable year is passive income (which generally includes interest, dividends and certain rents and royalties); or
- at least 50% of the average value of the corporation's gross assets in a taxable year (average determined as of the end of each quarter of the corporation's taxable year and ordinarily determined based on gross fair market value, including the proportionate share of the assets of any U.S. or foreign company in which the corporation owns or is considered to own 25% or more of the shares by value) produce, or are held for the production of, passive income.

If we were a PFIC for a taxable year during which a U.S. Holder owned our shares, then a U.S. Holder would likely incur increased tax liabilities (possibly including an interest charge) upon the sale or other disposition of our common shares or upon receipt of "excess distributions." In other words, gain recognized by a U.S. Holder on a sale or other disposition of our common shares would be allocated ratably over the U.S. Holder's holding period for the common shares. The amounts allocated to the taxable year of the sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, and an interest charge would be imposed on the amount allocated to that taxable year. Further, any distribution in excess of 125 percent of the average of the annual distributions on common shares received by the U.S. Holder during the preceding three years or the U.S. Holder's holding period, whichever is shorter, would be subject to taxation as described above. Certain elections may be available (including a qualified electing fund election and a mark to market election) to U.S. Holders that may mitigate the adverse consequences resulting from PFIC status. In addition, if we were a PFIC in a taxable year in which we pay a dividend or the prior year, the 15% dividend rate discussed above with respect to dividends paid to certain U.S. Holders would not apply.

We believe that we are not a PFIC, and we do not expect to become a PFIC. However, we cannot assure that we will not qualify as a PFIC in the future. The PFIC rules are very complex and U.S. Holders should consult their own tax advisors on this issue. In the event we are determined to be a PFIC in the current or future taxable year we do not anticipate providing US Holders with the information necessary to support a qualified electing fund election.

*Controlled Foreign Corporation Rules.* If more than 50% of the voting power or total value of all classes of our common shares is owned, directly or indirectly, by U.S. Holders, each of which owns 10% or more of the total combined voting power of all classes of our common shares, we could be treated as a controlled foreign corporation ("CFC") under Subpart F of the Internal Revenue Code. This classification would result in many complex consequences, including the required inclusion into income by such 10% or greater shareholders of their pro rata shares of our "Subpart F Income," as defined in the Internal Revenue Code. In

addition, under Section 1248 of the Internal Revenue Code, gain from the sale or exchange of common shares by any U.S. Holder who is or was a 10% or greater shareholder at any time during the five-year period ending with the sale or exchange will be dividend income to the extent of our earnings and profits attributable to the common shares sold or exchanged and accumulated during the periods that we were a CFC. Under certain circumstances, a U.S. Holder that directly owns 10% or more of our voting common shares and is a corporation may be entitled to an indirect foreign tax credit for amounts characterized as dividends under Section 1248 of the Internal Revenue Code. We believe that we are not a CFC and we will not become a CFC, however, we can not assure you that we will not become a CFC in the future.

#### ***United States Backup Withholding Tax and Information Reporting***

Under certain circumstances, a U.S. Holder may be subject to information reporting and backup withholding with respect to certain payments made in respect of the common shares and the proceeds received on the disposition of the common shares paid within the U.S. (and in certain cases, outside the U.S.). Such amounts may be subject to a 28% U.S. backup withholding tax unless the U.S. Holder otherwise establishes an exemption. For example, backup withholding generally will not apply to a U.S. Holder who (1) is a corporation or comes within certain other exempt categories and, when required, demonstrates that fact, or (2) furnishes a correct taxpayer identification number and makes certain other required certifications as provided by the backup withholding rules.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle a U.S. Holder to a refund, provided that the required information is furnished to the Internal Revenue Service.

The discussion set forth above is included for general information only and may not be applicable depending upon a holder's particular situation. Holders should consult their tax advisors with respect to the tax consequences of the purchase, ownership and disposition of common shares including the tax consequences under state, local and other laws and the possible effects of changes in United States federal and other tax laws.

#### **F. Dividends and paying agents.**

Not Applicable.

#### **G. Statement by experts.**

Not Applicable.

#### **H. Documents on display.**

We are subject to certain reporting requirements of the U.S. Securities Exchange Act of 1934 (the "Exchange Act"). As a "foreign private issuer," we are exempt from the rules under the Exchange Act prescribing certain disclosure and procedural requirements for proxy solicitations, and our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchases and sales of shares. In addition, we are not required to file reports and financial statements with the Commission as frequently or as promptly as companies that are not foreign private issuers whose securities are registered under the Exchange Act. However, we are required to file with the Commission, within six months after the end of each fiscal year, an annual report on Form 20-F containing financial statements audited by an independent accounting firm and interactive data comprising financial statements in extensible business reporting language which, with respect to our annual report on Form 20-F for the year ended December 31, 2010, should be furnished within 30 days of filing our annual report on Form 20-F. We publish unaudited interim financial information after the end of each quarter. We furnish this quarterly financial information to the Commission under cover of a Form 6-K.

Documents we file with the Commission are publicly available at its public reference facilities at 450 Fifth Street, N.W., Washington, DC 20549, Woolworth Building, 233 Broadway, New York, New York 10048 and Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511. Copies of the documents are available at prescribed rates by writing to the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington DC 20549. The Commission also maintains a website that contains reports and other information regarding registrants that are required to file electronically with the Commission. The address of this website is <http://www.sec.gov>. Please call the Commission at 1-800-SEC-0330 for further information on the operation of the public reference facilities.



## I. Subsidiary information.

See Item 4.C. "Organizational Structure".

### Item 11. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks (including foreign exchange rate risk and interest rate risk), credit risk and liquidity risk. We use forward exchange contracts to hedge foreign exchange risk. We do not enter into financial instrument transactions for trading or speculative purposes.

#### *Foreign exchange rate risk management*

We conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of ASM International (euro) or one of our subsidiaries conducting the business. The purpose of the Company's foreign currency management is to manage the effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollars.

Our Front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which it has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive income in Shareholders' Equity, and is reclassified into earnings when the hedged transaction affects earnings.

The majority of revenues and costs of our Back-end segment are denominated in Hong Kong dollars, Chinese Yuan and U.S. dollars. The functional currency of our Back-end segment (Hong Kong dollar) is linked to the U.S. dollar. Since foreign currency exposure is not significant, no forward exchange contracts are used. The effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in foreign currencies is periodically reviewed.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. We record all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses.

We expect that substantially all of the € 13,000 unrealized gains included in accumulated other comprehensive income as of December 31, 2010 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Hedge ineffectiveness was insignificant for the years ended December 31, 2009 and December 31, 2010.

Furthermore, we manage the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

We do not use forward exchange contracts for trading or speculative purposes.

To the extent that foreign currency fluctuations affect the value of our investments in our foreign affiliates, they are not hedged. The cumulative effect of these fluctuations is separately reported in Consolidated Shareholders' Equity. For the year ended December 31, 2009, we recorded an unfavorable movement of € 1.9 million. For the year ended December 31, 2010, we recorded a favorable movement of € 30.6 million. See Note 17 to our Consolidated Financial Statements, which is incorporated herein by reference.

The following table summarizes our financial instruments as of December 31, 2010 and analyzes the sensitivity of the fair value of our financial instruments to an immediate change in foreign currency rates. Fair

values represent the present value of forecasted future cash flows at market foreign currency exchange rates. The sensitivity analysis assumes an immediate 10% favorable or unfavorable change in all foreign currency exchange rates against the euro from their levels as of December 31 with all other variables kept constant. A favorable 10% change indicates a strengthening of the currency in which our financial instruments are denominated, primarily the U.S. dollar, against the euro and an unfavorable change indicates a weakening of the currency in which our financial instruments are denominated, primarily the U.S. dollar, against the euro. The selection of 10% favorable or unfavorable change in foreign currency exchange rates should not be construed as a prediction by us of future market events, but rather, to illustrate the potential impact of such an event. The modeling technique used to calculate the exposure does not take into account correlation among foreign currency exchange rates, or correlation among various markets (i.e., the foreign exchange, equity and fixed-income markets). Even though we believe it to be possible that all of the foreign currency exchange rates to which we are exposed would simultaneously change by more than 10%, we find it meaningful to “stress test” our exposure under this 10% fluctuation scenario and other hypothetical adverse market scenarios. Our actual experience may differ from the results in the table below due to the correlation assumptions utilized, or if events occur that were not included in the methodology, such as significant liquidity or market events.

		Currency and notional amount	Carrying amount	Fair value	Sensitivity analysis	
		(in millions)			Favorable FX change of 10%	Unfavorable FX change of 10%
As of December 31, 2010:						
Notes payable to banks, due within twelve months	yen	775.0	7.1	7.1	6.4	7.8
	SG\$	2.0	1.2	1.2	1.1	1.3
Long-term debt with maturities:						
due from 2011—2012	yen	2,166.2	19.9	19.9	17.9	21.9
due from 2011	SG\$	0.6	0.3	0.3	0.3	0.4
Convertible subordinated debt:						
due December 6, 2011	US\$	44.9	33.6	57.9	30.2	37.0
due November 6, 2014	euro	150.0	150.0	255.4	150.0	150.0
Foreign exchange contracts:						
sale of currency contracts to be settled within twelve months:	US\$	2.3	1.7	1.7	1.6	1.9

For long-term debt, the estimated fair values of our long-term debt are based on current interest rates available to us for debt instruments with similar terms and remaining maturities. The fair values of our convertible subordinated debt borrowings are based on our estimates. For forward exchange contracts, market values based on external quotes from banks have been used to determine the fair value.

The following tables analyze our sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro as of December 31, 2010. This analysis includes foreign currency denominated monetary items and adjusts their translation at year end for a 10% increase and 10% decrease of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro.

A positive amount indicates an increase in equity. Recognized in equity is the revaluation effect of subsidiaries denominated in U.S. dollars, Hong Kong dollars and Japanese yen.

	2009 Impact on equity	2010 Impact on equity
10% increase of U.S. dollar versus euro	(79)	1,061
10% decrease of U.S. dollar versus euro	79	(1,061)
10% increase of Singapore dollar versus euro	NM	1,431
10% decrease of Singapore dollar versus euro	NM	(1,431)
10% increase of Hong Kong dollar versus euro	19,736	53,458
10% decrease of Hong Kong dollar versus euro	(19,736)	(53,458)
10% increase of Japanese yen versus euro	3,585	5,016
10% decrease of Japanese yen versus euro	(3,585)	(5,016)

A positive amount indicates a gain in net earnings.

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar, Hong Kong dollar or Japanese yen against the euro as of December 31, 2009 and December 31, 2010 would not result in a material impact on equity.

The following table analyzes our sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar and Hong Kong dollar against the euro at average exchange rates for the years 2009 and 2010. A positive amount indicates an increase in net earnings.

	<u>2009</u>	<u>2010</u>
	<u>Impact on</u> <u>net earnings</u>	<u>Impact on</u> <u>Net earnings</u>
10% increase of Japanese yen versus euro .....	(1,212)	617
10% decrease of Japanese yen versus euro .....	1,212	(617)
10% increase of U.S. dollar versus euro .....	(7,456)	(549)
10% decrease of U.S. dollar versus euro .....	7,456	549
10% increase of Hong Kong dollar versus euro .....	4,570	14,632
10% decrease of Hong Kong dollar versus euro .....	<u>(4,570)</u>	<u>(14,632)</u>

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar and the Hong Kong dollar against the euro at average exchange rates for the years 2009 and 2010 would not result in a material impact on net earnings.

#### *Interest risk*

We are exposed to interest rate risk primarily through our borrowing activities. The Company does not enter into financial instrument transactions for trading or speculative purposes or to manage interest rate exposure. At December 31, 2010 the Company had convertible subordinated debt borrowings outstanding of € 33,609 (US\$ 44,909) at a fixed interest rate, maturing in December 2011 (on January 3, 2011 we announced the redemption for all of the outstanding principal balance of our 4.25% Convertible Subordinated Notes due 2011, which resulted in the conversion of all remaining notes prior to the redemption date scheduled for February 15, 2011) and € 150,000 at a fixed rate, maturing in November 2014, € 20,266 in long-term debt at fixed interest rates and € 8,297 in other borrowings with variable short-term interest rates. A hypothetical change in the average interest rate by 10% on the portion of the Company's debt bearing interest at variable rates would not result in a material change in interest expense at December 31, 2009 and December 31, 2010 borrowing levels.

#### *Credit risk*

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and derivative instruments. These instruments contain a risk of counterparties failing to discharge their obligations. We monitor credit risk and manage credit risk exposure by type of financial instrument by assessing the creditworthiness of counterparties. We do not anticipate nonperformance by counterparties given their high creditworthiness.

Our customers are semiconductor device manufacturers located throughout the world. We generally do not require collateral or other security to support financial instruments with credit risk.

Concentrations of credit risk (whether on or off-balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

A significant percentage of our revenue is derived from a small number of large customers. Our largest customer accounted for approximately 5.2% of net sales in 2010 (2009: 9.1%; 2008: 13.8%) and the ten largest customers accounted for approximately 27.9% of net sales in 2010 (2009: 32.9%; 2008: 32.0%). Sales to these large customers also may fluctuate significantly from time to time depending on the timing and level of purchases by these customers. Significant orders from such customers may expose us to a concentration of credit risk and difficulties in collecting amounts due, which could harm our financial results. At December 31, 2010 one customer accounted for 6.0% of the outstanding balance in accounts receivable (2009: 7.8%; 2008: 12.3%).

We place our cash and cash equivalent and derivative instruments with high quality financial institutions to limit the amount of credit risk exposure.

The maximum credit exposure is equal to the carrying values of cash and cash equivalent and accounts receivable.

#### **Item 12. Description of Securities Other Than Equity Securities**

Not applicable.

## **PART II**

### **Item 13. Defaults, Dividend Arrearages and Delinquencies**

None.

### **Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds**

On May 14, 2008, Stichting Continuïteit ASM International (“Stichting”) exercised an option under a 1997 agreement with us and acquired 21,985 preferred shares representing 21,985,000 votes on matters to be acted on by our shareholders. All such preferred shares were cancelled in 2009 and an option was reissued to Stichting to acquire preferred shares. See the discussion of Stichting under Item 7.A., “Major Shareholders and Related Party Transactions—Major shareholders,” above.

### **Item 15. Controls and Procedures**

(a) Disclosure Controls and Procedures: Our CEO and CFO, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that as of December 31, 2010 our disclosure controls and procedures were effective.

(b) Management’s Annual Report on Internal Control Over Financial Reporting: Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting for external purposes in accordance with applicable generally accepted accounting principles. Internal control over financial reporting includes policies and procedures for maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of Company assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of Company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Management, including our CEO and CFO, conducted an evaluation of the effectiveness of our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on this evaluation, management concluded that the Company’s internal control over financial reporting was effective as of December 31, 2010. Deloitte Accountants B.V., an independent registered public accounting firm, has audited the Consolidated Financial Statements included in this annual report on Form 20-F and, as part of the audit, has issued an attestation report, included herein, on ASMI’s internal control over financial reporting.

(c) Attestation Report of the Registered Public Accounting Firm: The attestation report of Deloitte Accountants B.V. is included in this annual report on Form 20-F and is incorporated by reference herein.

(d) Changes in Internal Control Over Financial Reporting: There were no changes to our internal control over financial reporting that occurred during the period covered by this Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### **Inherent Limitations on Effectiveness of Controls**

All internal control systems no matter how well designed and implemented have inherent limitations. Even systems determined to be effective may not prevent or detect misstatements or fraud and can only provide reasonable assurance with respect to disclosure and financial statement presentation and reporting. Additionally, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changed conditions and the degree of compliance with the policies or procedures may deteriorate.

### **Item 16**

#### **Item 16A. Audit Committee Financial Expert**

The Supervisory Board has determined that Mr. Lobbezoo, an independent member of the Supervisory Board, qualifies as the Audit Committee Financial Expert. For Mr. Lobbezoo’s experience see Item 6 “Directors, Senior Management and Employees”.

## Item 16B. Code of Ethics

Our code of ethics applies to all of our employees worldwide, as well as our Supervisory Board and Management Board. The code of ethics is designed to promote honest and ethical conduct and timely and accurate disclosure in our periodic financial reports.

For further information, see the Code of Ethics and other related policies including our Rules Concerning Insider Trading, which are posted on our website ([www.asm.com](http://www.asm.com)).

## Item 16C. Principal Accountant Fees and Services

### Audit fees.

Deloitte Accountants B.V. ("Deloitte"), has served as our independent registered public accounting firm for each of the three financial years up to December 31, 2010. The following table sets out the aggregate fees for professional audit services and other services rendered by Deloitte Accountants B.V. and its members firms and/or affiliates in 2009 and 2010:

	EUR thousands		As a % of total fees	
	2009	2010	2009	2010
Audit fees .....	2,074	1,798	82%	68%
Audit-related fees .....	5	—	—	—
Tax fees .....	426	665	17	25
Other fees .....	36	197	1	7
Total .....	<u>2,541</u>	<u>2,660</u>	<u>100%</u>	<u>100%</u>

### Audit Committee pre-approval policies.

The Audit Committee has determined that the provision of services by Deloitte described in the preceding paragraphs is compatible with maintaining Deloitte's independence. All audit and permitted non-audit services provided by Deloitte during 2010 were pre-approved by the Audit Committee.

The Audit Committee has adopted the following policies and procedures for pre-approval of all audit and permitted non-audit services provided by our independent registered public accounting firm:

**Audit Services.** Management submits to the Audit Committee for pre-approval the scope and estimated fees for specific services directly related to performing the independent audit of our Consolidated Financial Statements for the current year.

**Audit-Related Services.** The Audit Committee may pre-approve expenditures up to a specified amount for services included in identified service categories that are related extensions of audit services and are logically performed by the auditors. Additional services exceeding the specified pre-approved limits require specific Audit Committee approval.

**Tax Services.** The Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total for identified services related to tax matters. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, require specific Audit Committee approval.

**Other Services.** In the case of specified services for which utilizing our independent registered public accounting firm creates efficiencies, minimizes disruption, or preserves confidentiality, or for which management has determined that our independent registered public accounting firm possesses unique or superior qualifications to provide such services, the Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, require specific Audit Committee approval.

## Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

## Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On May 20, 2010, the General Meeting of Shareholders authorized, for an 18-month period, to be calculated from the date of the General Meeting to cause the Company to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the acquisition date.

No shares were repurchased during 2010 under the authorization of May 20, 2010.

The maximum number of shares that may yet be purchased under the authorization takes into account any treasury shares held by the Company (at December 31, 2010 there are currently no treasury shares held by the Company) and the maximum number of common shares which the Company can hold is 10% of the number of common shares issued.

Of our treasury shares, 2,552,071 shares were held for our account by Lehman Brothers International (Europe) ("Lehman"), which was placed into administration on September 15, 2008. These shares were cancelled in 2009 by resolution of the 2009 Annual General Meeting of Shareholders.

During 2008, we engaged Lehman to repurchase ordinary ASMI shares on the Euronext and Nasdaq markets. As of September 15, 2008, Lehman had purchased and held 2,552,071 shares for our account. Lehman went into bankruptcy administration on September 15, 2008, and we subsequently filed a submission giving notice of our proprietary interest in the shares believed to be held in custody by Lehman. At our May 2009 AGM, our shareholders resolved to cancel all of these treasury shares and we so notified Lehman of the cancellation. However we were notified in September 2010 by the Lehman administrators that there is a possible shortfall in the number of shares held by Lehman as reflected in the statements of our accounts with Lehman. To the extent the number of treasury shares held by Lehman as of the date of their cancellation is lower than 2,552,071 only such lower number of shares have been cancelled and the shortfall of shares may still be considered outstanding. The Lehman administrators report that some time prior to its bankruptcy, Lehman put into a segregated client omnibus account a cash sum on our behalf of \$6,758,796, which the administrators apparently regard as money to which we have a proprietary right in lieu of some or all of the missing shares. We are uncertain at this time as to the accuracy of the shortfall of shares, the sufficiency of this cash sum to cover the value of any such discrepancy, and our entitlement to all or a portion of such sum when distributions are determined and made since there is likely to also be a shortfall in Lehman assets subject to proprietary rights. Given the magnitude of the overall Lehman administration, the timeline for clarity and resolution of this item is expected to be considerable, perhaps up to several years.

#### **Item 16F. Change in Registrant's Certifying Accountant.**

Not applicable.

#### **Item 16G. Corporate Governance**

Because we are a Netherlands public limited liability company, with principal executive offices outside of the U.S., some of our corporate practices vary from those required by the NASDAQ Listing Rules, as follows:

##### *(i) Listing Rule 5620(c): Quorum*

Pursuant to Dutch corporate law (section 2:120 sub 2 Dutch Civil Code) the validity of a resolution by the general meeting of shareholders does not depend on the proportion of the capital or shareholders represented at the meeting (i.e. quorum), unless the law or articles of association of a company otherwise provide. It is the generally accepted business practice for Dutch companies not to provide for a quorum requirement in their articles, and there is no contrary requirement in the Dutch securities laws or under the rules of Euronext Amsterdam. Accordingly, our Articles of Association provide that a resolution of the general or any extraordinary meeting of shareholders will be adopted upon the favorable vote of a majority of the votes cast at the meeting. With the exception as outlined below, our Articles of Association do not provide for a quorum other than for resolutions in relation to the limitation of pre-emptive rights of existing shareholders and the cancellation of outstanding shares, which quorum requirements correspond with mandatory Dutch law. Furthermore, our Articles of Association provide that in the case of a shareholder appointment of persons to, or dismissal of persons from, our Supervisory Board and Management Board not proposed by our Supervisory Board, such resolution requires the affirmative vote of a majority of the votes cast at an annual or extraordinary shareholders meeting, which affirmative votes represent at least one third of our issued capital. To this extent, our practice varies from the requirement of Listing Rule 5620(c), which requires an issuer to provide in its bylaws for a quorum, and that such quorum may not be less than one-third of the outstanding voting stock.

##### *(ii) Listing Rule 5620(b): Proxies*

The solicitation of proxies and the distribution of proxy statements for meetings of shareholders are not required under Dutch law or by the rules of Euronext Amsterdam. It is still business practice for Dutch companies not to solicit proxies or distribute proxy statements in respect of European shareholders. In part

this is because a substantial portion of shares held by these shareholders are held in bearer form. This is the case for our common shares traded on Euronext Amsterdam and, accordingly, it is impractical to solicit proxies as to these shares. As a result, our practice in respect of the holders of shares other than our common shares listed on the NASDAQ Global Select Market varies from that required by Listing Rule 5620(b), which provides that issuers shall solicit proxies and provide proxy statements for all meetings of shareholders.

As to our common shares listed on the NASDAQ Global Select Market, which we refer to as New York registry shares, we prepare a proxy statement and solicit proxies from the holders of such shares since there are procedures in place under the Securities Exchange Act of 1934, as amended, for soliciting proxies from beneficial owners. Our practice in this regard, however, differs from the typical practice of U.S. corporate issuers in that the advance record date for determining the holders of record entitled to attend and vote at our shareholder meetings may not be more than 30 days prior to the meeting under applicable Dutch corporate law (section 2:119 sub 2 of Dutch Civil Code). As an administrative necessity, we establish a mailing record date in advance of each meeting of shareholders for purposes of determining the shareholders to which the proxy statement and form of proxy, or the notice of Internet availability, will be sent. However, only shareholders of record on the specified record date are entitled to attend and vote, directly or by proxy, at the meeting.

### PART III

#### Item 17. Financial Statements

Not Applicable.

#### Item 18. Financial Statements

See pages F-1 through F-52, which are incorporated herein by reference.

#### Item 19. Exhibits (\*)

<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated by Reference to:</u>	<u>Included Herein:</u>
1.1	English Informal Translation of ASM International N.V.'s Articles of Association, as amended		X
2.1	Trust Deed dated November 6, 2009 for the 6.5 % Senior Unsecured Convertible Bonds	Exhibit 2.3 to the Registrant's Form 20-F filed on March 26, 2010	
4.1	2001 Stock Option Plan	Exhibit 99.1 to the Registrant's Form S-8 filed on April 30, 2002	
4.2	1994 Stock Option Plan	Exhibit 99.1 to the Registrant's S-8 filed October 25, 1999	
4.3	Trust Deed and Rules of The ASM Pacific Technology Employee Share Incentive Scheme, dated March 23, 1990	Exhibit 4.14 to the Registrant's Form 20-F filed on April 17, 2003	
4.4	Deed of Adherence Relating to Participation in the Employee Share Incentive Scheme of ASM Pacific Technology Limited, dated April 12, 1999	Exhibit 4.15 to the Registrant's Form 20-F filed on April 17, 2003	
4.5	Supplemental Deed Relating to the Employee Share Incentive Scheme of ASM Pacific Technology Limited	Exhibit 4.16 to the Registrant's Form 20-F filed on April 17, 2003	
4.6	Overview of Remuneration of Members of the Management Board, dated May 18, 2006	Exhibit 4.23 to the Registrant's Form 20-F filed on March 16, 2007	
4.7	Overview of Remuneration of Mr. Peter van Bommel		X
4.8	Form of Supervisory Board Member Indemnification Agreement	Exhibit 10.1 to the Registrant's Form 20-F filed on March 16, 2007	
4.9	Form of Management Board Member Indemnification Agreement	Exhibit 10.2 to the Registrant's Form 20-F filed on March 16, 2007	
4.10	Amended and Restated Settlement Agreement dated as of December 16, 1998 by and among ASM International N.V., ASM America, Inc. and Applied Materials, Inc. **	Exhibit 10.3 to the Registrant's Form 20-F filed on March 16, 2007	
4.11	Summary of the material elements of employment contract with Mr. C.D. del Prado (effective as of March 1, 2008)	Exhibit 99.9 to the Registrant's Form 6-K filed on May 20, 2008	
4.12	Overview of remuneration of Mr. W.K. Lee	Exhibit 4.24 to the Registrant's Form 20-F filed on March 16, 2007	
4.13	Master Sale and Purchase Agreement re SEAS acquisition dated July 28, 2010		X
8.1	Subsidiaries		X
12.1	Certification of CEO pursuant to Rule 13a-14(a)		X



<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated by Reference to:</u>	<u>Included Herein:</u>
12.2	Certification of CFO pursuant to Rule 13a-14(a)		X
13.1	Certification of CEO and CFO pursuant to Rule 13a-14(b) and 18 U.S.C. 1350		X
15.1	Consent of Independent Registered Public Accounting Firm		X
101.INS	XBRL Instance Document		
101.SCH	XBRL Taxonomy Extension Schema Document		
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document		
101.LAB	XBRL Taxonomy Extension Definition Linkbase Document		
101.PRE	XBRL Taxonomy Extension Label Linkbase Document		
101.DEF	XBRL Taxonomy Extension Presentation Linkbase Document		

\* Pursuant to Instruction 2(b)(ii), the Registrant has omitted certain agreements with respect to long-term debt not exceeding 10% of consolidated total assets. The Registrant agrees to furnish a copy of any such agreements to the Securities Exchange Commission upon request.

\*\* Redacted version, originally filed as an exhibit to Registrant's Form 6-K filed February 11, 1999. Portions of the Agreement have been omitted pursuant to a request for confidential treatment.

## **SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

ASM INTERNATIONAL N.V.

Date: March 25, 2011

\_\_\_\_\_  
/s/ CHARLES D. DEL PRADO

**Charles D. del Prado**  
**Chief Executive Officer**

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## Report of Independent Registered Public Accounting Firm

To the Supervisory Board and Shareholders of  
ASM International N.V.  
Almere, the Netherlands

We have audited the accompanying consolidated balance sheets of ASM International NV and subsidiaries (the "Company") as of December 31, 2010 and 2009, and the related consolidated statements of operations, total equity, comprehensive income and cash flows for each of the three years in the period ended December 31, 2010. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of ASM International NV and subsidiaries at December 31, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 25, 2011 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte Accountants BV  
Amsterdam, the Netherlands,

March 25, 2011

## Report of Independent Registered Public Accounting Firm

To the Supervisory Board and Shareholders of  
ASM International N.V.  
Almere, the Netherlands

We have audited the internal control over financial reporting of ASM International NV and subsidiaries (the "Company") as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2010 of the Company and our report dated March 25, 2011 expressed an unqualified opinion on those financial statements.

/s/ Deloitte Accountants BV  
Amsterdam, the Netherlands

March 25, 2011

## Consolidated Balance Sheets

(EUR thousands except per share data)	Notes	December 31,	
		2009	2010
<b>Assets</b>			
Cash and cash equivalents	3	293,902	340,294
Accounts receivable (less allowance for doubtful accounts of € 8,968 and € 9,304)	4	165,754	271,271
Inventories, net	5	150,645	254,557
Income taxes receivable		43	57
Deferred tax assets	24	6,893	8,567
Other current assets		31,129	59,405
<b>Total current assets</b>		648,367	934,149
Debt issuance costs	16	6,978	5,564
Deferred tax assets	24	8,545	5,807
Other intangible assets, net	6	8,936	6,804
Goodwill, net	7	47,223	50,815
Evaluation tools at customers	10	11,282	6,644
Investments	11	50	50
Property, plant and equipment, net	8	114,811	197,937
Assets held for sale	9	5,508	6,347
<b>Total assets</b>		851,700	1,214,117
<b>Liabilities and shareholders' equity</b>			
Notes payable to banks	12	17,008	8,297
Accounts payable		93,117	170,553
Provision for warranty	13	5,650	8,273
Accrued expenses and other	14	78,061	117,401
Income taxes payable		17,658	47,493
Current portion convertible subordinated debt	16	11,542	32,439
Current portion conversion option	16	—	23,875
Current portion of long-term debt	15	5,795	15,950
<b>Total current liabilities</b>		228,832	424,282
Pension liabilities	18	5,556	7,167
Deferred tax liabilities	24	314	321
Long-term debt	15	16,554	4,316
Convertible subordinated debt	16	192,350	130,804
Conversion option	16	22,181	—
<b>Total liabilities</b>		465,787	566,890
Commitments and contingencies	19,20		
Common shares:			
Authorized 110,000,000 shares, par value € 0.04, issued and outstanding 51,745,140 and 52,931,881 shares		2,070	2,117
Financing preferred shares:			
Authorized 8,000 shares, par value € 40, none issued		—	—
Preferred shares:			
Authorized 118,000 shares, par value € 40, none issued		—	—
Capital in excess of par value		287,768	311,841
Treasury shares at cost		—	—
Retained earnings		16,145	131,741
Accumulated other comprehensive loss		(64,754)	(34,239)
<b>Total shareholders' equity</b>	17	241,229	411,460
Non-controlling interest		144,684	235,767
<b>Total equity</b>		385,913	647,227
<b>Total liabilities and shareholders' equity</b>		851,700	1,214,117

See Notes to Consolidated Financial Statements.

## Consolidated Statements of Operations

(EUR thousands, except per share data)	Notes	Year ended December 31,		
		2008	2009	2010
<b>Net sales</b> .....	<b>25</b>	747,362	590,739	<b>1,222,900</b>
<b>Cost of sales</b> .....		(477,100)	(409,224)	<b>(673,322)</b>
<b>Gross profit</b> .....	<b>25</b>	270,262	181,515	<b>549,578</b>
Operating expenses:				
Selling, general and administrative .....		(126,591)	(107,777)	<b>(130,596)</b>
Research and development, net .....	<b>22</b>	(75,011)	(62,806)	<b>(78,785)</b>
Amortization of other intangible assets .....	<b>6</b>	(475)	(401)	<b>(357)</b>
Impairment of goodwill .....	<b>7</b>	(1,395)	—	—
Restructuring expenses .....	<b>23</b>	(7,068)	(35,687)	<b>(11,201)</b>
<b>Total operating expenses</b> .....		(210,540)	(206,671)	<b>(220,939)</b>
<b>Result from operations</b> .....	<b>25</b>	59,722	(25,156)	<b>328,640</b>
Interest income .....		4,047	1,018	<b>1,221</b>
Interest expense .....		(7,745)	(8,556)	<b>(15,677)</b>
Gain (loss) resulting from early extinguishment of debt .....	<b>16</b>	7,956	(1,759)	<b>(3,609)</b>
Accretion interest expense convertible notes .....	<b>16</b>	—	(4,286)	<b>(6,010)</b>
Revaluation conversion option .....	<b>16</b>	—	(24,364)	<b>(19,037)</b>
Foreign currency exchange gains (losses), net .....		785	(1,384)	<b>(65)</b>
Earnings (loss) before income taxes .....		64,765	(64,487)	<b>285,462</b>
Income tax expense .....	<b>24</b>	(12,144)	(3,786)	<b>(42,939)</b>
Earnings (loss) before dilution on investment in subsidiary .....		52,621	(68,273)	<b>242,523</b>
Gain on dilution of investment in subsidiary .....	<b>18</b>	4,088	—	—
<b>Net earnings (loss)</b> .....		<u>56,709</u>	<u>(68,273)</u>	<u><b>242,523</b></u>
Net earnings (loss) for allocation between shareholders of the parent and non-controlling interest				
<b>Allocation of net earnings (loss)</b>				
Shareholders of the parent .....		18,411	(107,517)	<b>110,639</b>
Non-controlling interest .....		38,298	39,244	<b>131,884</b>
<b>Net earnings (loss) per share:</b> .....	<b>27</b>			
Basic net earnings (loss) from continuing operations .....		0.35	(2.08)	<b>2.11</b>
Diluted net earnings (loss) from continuing operations .....		0.35	(2.08)	<b>2.09</b>
Weighted average number of shares used in computing per share amounts (in thousands):				
Basic .....		52,259	51,627	<b>52,435</b>
Diluted .....		<u>52,389</u>	<u>51,627</u>	<u><b>61,494</b></u>

See Notes to Consolidated Financial Statements.

## Consolidated Statements of Comprehensive Income

(EUR thousands)	Notes	Year ended December 31,		
		2008	2009	2010
Net earnings (loss) .....		56,709	(68,273)	242,523
Other comprehensive income (loss):				
Foreign currency translation effect .....		14,681	(4,939)	41,309
Unrealized gains (losses) on derivative instruments, net of tax ..		(99)	(170)	136
Reclassification transition obligation into retained earnings .....		—	877	—
Amortization unrecognized actuarial results .....		—	26	—
Result on curtailment and settlement unrecognized pension obligations .....		—	852	—
Actuarial loss .....		(936)	(370)	(87)
Amortization of transition obligation related to pensions (ASC 715) .....		67	—	—
<b>Total other comprehensive income (loss) .....</b>	<b>17</b>	<b>13,713</b>	<b>(3,724)</b>	<b>41,358</b>
Comprehensive income (loss)		70,422	(71,997)	283,881
<b>Allocation of comprehensive income (loss):</b> .....				
Common shareholders .....		27,228	(108,184)	141,154
Preferred shareholders .....		10	5	—
Non-controlling interest .....	<b>17</b>	<b>43,184</b>	<b>36,182</b>	<b>142,727</b>

See Notes to Consolidated Financial Statements.



# Consolidated Statements of Total Equity

EUR												
(thousands, except for share data)	Notes	Number of common shares	Number of preferred shares	Common shares	Preferred shares	Capital in excess of par value	Treasury shares at cost	Retained earnings	Accumulated other comprehens- ive income (loss)	Total share- holders' equity	Non- controlling interest	Total equity
Balance January 1, 2008		54,005,214	—	2,160	—	319,657	(3,985)	73,965	(72,919)	318,878	120,624	439,502
Compensation expense stock options	18	—	—	—	—	2,024	—	—	—	2,024	—	2,024
Purchase of common shares	17	—	—	—	—	—	(36,453)	—	—	(36,453)	—	(36,453)
Issuance of preferred shares	17	—	21,985	—	220	—	—	—	—	220	—	220
Conversion of debt into common shares	16	269,917	—	11	—	3,582	—	—	—	3,593	—	3,593
Conversion of debt into common shares out of treasury shares	16, 17	—	—	—	—	—	1,373	—	—	1,373	—	1,373
Exercise of stock options out of treasury shares	16, 17	—	—	—	—	(556)	1,850	(255)	—	1,039	—	1,039
Net earnings to common shareholders		—	—	—	—	—	—	18,401	—	18,401	38,298	56,699
Other comprehensive income	17	—	—	—	—	—	—	—	8,827	8,827	4,886	13,713
Other movements in non-controlling interest:												
Dividend paid		—	—	—	—	—	—	—	—	—	(43,398)	(43,398)
Dilution		—	—	—	—	—	—	—	—	—	4,729	4,729
Balance December 31, 2008		54,275,131	21,985	2,171	220	324,707	(37,215)	92,111	(64,092)	317,902	125,139	443,041
Compensation expense stock options		—	—	—	—	2,127	—	—	—	2,127	—	2,127
Withdrawal of common shares	17	(2,553,000)	—	(102)	—	(35,529)	35,631	—	—	—	—	—
Dividend tax paid on withdrawal of common shares	17	—	—	—	—	(3,399)	—	—	—	(3,399)	—	(3,399)
Withdrawal of preferred shares	17	—	(21,985)	—	(220)	—	—	—	—	(220)	—	(220)
Exercise of stock options out of treasury shares		—	—	—	—	(323)	1,584	(25)	—	1,236	—	1,236
Exercise stock options by issue of common shares	17	23,009	—	1	—	185	—	—	—	186	—	186
Reclassification transition obligation related to pensions (ASC 715)		—	—	—	—	—	—	(877)	—	(877)	—	(877)
Impact of initial adoption of ASC 815 regarding the accounting for the convertible notes	16	—	—	—	—	—	—	7,902	—	7,902	—	7,902
Recognition conversion option subsequent to issuance of convertible notes	16	—	—	—	—	—	—	23,601	—	23,601	—	23,601
Net earnings to common shareholders		—	—	—	—	—	—	(107,522)	—	(107,522)	39,244	(68,278)
Other comprehensive income	17	—	—	—	—	—	—	—	(662)	(662)	(3,062)	(3,724)
Other movements in non-controlling interest:												
Dividend paid		—	—	—	—	—	—	—	—	—	(19,099)	(19,099)
Dilution		—	—	—	—	—	—	956	—	956	2,462	3,418
Balance December 31, 2009		51,745,140	—	2,070	—	287,768	—	16,145	(64,754)	241,229	144,684	385,913
Compensation expense stock options		—	—	—	—	2,526	—	—	—	2,526	—	2,526
Conversion of debt into common shares	16	878,491	—	35	—	17,614	—	—	—	17,649	—	17,649
Exercise stock options by issue of common shares	17	308,250	—	12	—	3,932	—	—	—	3,944	—	3,944
Net earnings to common shareholders		—	—	—	—	—	—	110,639	—	110,639	131,884	242,523
Other comprehensive income	17	—	—	—	—	—	—	—	30,515	30,515	10,843	41,358
Other movements in non-controlling interest:												
Dividend paid		—	—	—	—	—	—	—	—	—	(58,162)	(58,162)
Dilution		—	—	—	—	—	—	4,957	—	4,957	6,518	11,475
Balance December 31, 2010		52,931,881	—	2,117	—	311,841	—	131,741	(34,239)	411,460	235,767	647,227

See Notes to Consolidated Financial Statements.

## Consolidated Statements of Cash Flows

(EURO thousands)	Note	Year ended December 31,		
		2008	2009	2010
<b>Cash flows from operating activities:</b>				
Net earnings (loss) .....		56,709	(68,273)	242,523
Adjustments to reconcile net earnings to net cash from operating activities:				
Depreciation .....	8	33,176	32,054	30,630
Depreciation evaluation tools at customers .....		—	2,032	2,477
Amortization of other intangible assets .....	6	1,484	2,335	2,735
Impairment of property, plant and equipment .....	8	7,068	4,628	—
Impairment of goodwill .....	7	1,395	—	—
Amortization of debt issuance costs .....	16	742	902	1,952
Accruals for restructuring expenses and onerous contracts .....		—	26,657	1,863
Compensation expense employee share incentive scheme				
ASMPT .....	18	7,524	3,685	11,375
Compensation expense employee stock option plan .....	18	2,024	2,127	2,526
Accretion interest convertible bonds .....	16	—	4,286	6,010
Change in fair value conversion option .....	16	—	24,364	19,037
Deferred income taxes .....		(514)	(9,081)	4,092
(Gain) loss resulting from early extinguishment of debt .....	16	(7,956)	1,759	3,609
Gain on dilution of investment in subsidiary .....	18	(4,088)	—	—
Increase (decrease) in allowance for doubtful receivables .....	4	1,927	1,667	(187)
Changes in assets and liabilities:				
Accounts receivable .....		73,159	1,338	(95,073)
Inventories .....		23,980	30,044	(77,236)
Other current assets .....		1,699	(5,449)	(31,478)
Accounts payable and accrued expenses .....		(54,471)	23,171	104,095
Advance payments from customers .....		(4,339)	11,052	9,646
Deferred revenue .....		(7,680)	(1,674)	1,100
Payments from provision restructuring expenses .....		—	(16,105)	(9,297)
Pension liabilities .....		743	(280)	390
Income taxes .....		4,820	(8,586)	29,096
<b>Net cash provided by operating activities</b>		<b>137,402</b>	<b>62,652</b>	<b>259,884</b>
<b>Cash flows from investing activities:</b>				
Capital expenditures .....	8	(31,450)	(12,718)	(102,974)
Purchase of intangible assets .....	6	(5,362)	(3,294)	(624)
Acquisition of business .....	7	(176)	(50)	—
Proceeds from sale of business .....	7	410	—	—
Proceeds from sale of property, plant and equipment .....	8	3,569	570	3,032
<b>Net cash used in investing activities</b>		<b>(33,009)</b>	<b>(15,493)</b>	<b>(100,566)</b>
<b>Cash flows from financing activities:</b>				
Notes payable to banks, net .....		(5,172)	966	(10,817)
Debt issuance costs for stand-by facility paid .....		—	(1,075)	—
Net-proceeds from long-term debt and subordinated debt .....		7,980	144,516	—
Repayments of long-term debt and subordinated debt .....		(45,754)	(32,246)	(57,994)
Purchase of treasury shares .....	17	(36,453)	—	—
Proceeds from issuance of common shares and exercise of stock options .....		1,039	1,447	3,944
Dividend tax paid on withdrawal of common shares .....		—	(3,399)	—
Proceeds from issuance of preferred shares .....	17	220	(220)	—
Dividends to minority shareholders ASMPT .....		(43,398)	(19,099)	(58,162)
<b>Net cash provided by / (used in) financing activities</b>		<b>(121,538)</b>	<b>90,890</b>	<b>(123,027)</b>
Foreign currency translation effect .....		6,499	(1,427)	10,096
<b>Net (decrease) increase in cash and cash equivalents</b>		<b>(10,646)</b>	<b>136,623</b>	<b>46,387</b>
Cash and cash equivalents at beginning of year .....	3	167,923	157,277	293,902
Cash and cash equivalents at end of year .....	3	157,277	293,902	340,294
<b>Supplemental disclosures of cash flow information</b>				
Cash paid during the year for:				
Interest .....		3,843	5,918	14,786
Income taxes .....		8,438	21,144	9,751
<b>Supplemental on cash investing and financing activities:</b>				
Subordinated debt converted .....	16	4,966	—	13,473
Subordinated debt converted into number of shares .....	16	372,946	—	878,491

See Notes to Consolidated Financial Statements.

## Notes to Consolidated Financial Statements

### 1- General information / Summary of Significant Accounting Policies

#### **General information**

ASM International N.V. ("ASMI" or "the Company") is a Netherlands public liability company domiciled in the Netherlands with its principal operations in Europe, the United States, Southeast Asia and Japan. The Company dedicates its resources to the research, development, manufacturing, marketing and servicing of equipment and materials used to produce semiconductor devices. The Company provides production solutions for the main areas of semiconductor production: wafer processing (Front-end), assembly and packaging (Back-end).

The Company's shares are listed for trading on the NASDAQ (symbol ASMI) and the Euronext Amsterdam Stock Exchange (symbol ASM).

The accompanying consolidated financial statements include the financial statements of ASM International N.V. headquartered in Almere, the Netherlands, and its consolidated subsidiaries (together referred to as "ASMI" or the "Company").

#### **Basis of preparation**

The Company follows accounting principles generally accepted in the United States of America ("U.S. GAAP") and applies the going concern basis in preparing its consolidated financial statements. Historical cost is used as the measurement basis unless otherwise indicated.

The accompanying consolidated financial statements are stated in thousands of Euros ("EUR") unless indicated otherwise. Amounts in these financial statements are rounded to the nearest thousand Euro; therefore amounts may not equal (sub) totals due to rounding.

#### **Use of estimates**

The preparation of the Company's consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities on the balance sheet dates and the reported amounts of revenue and expenses during the reported periods. While we regularly evaluate our estimates and assumptions, actual results may differ from these estimates if these assumptions prove incorrect.

#### **Consolidation**

The consolidated financial statements include the accounts of ASMI N.V. and all of its subsidiaries where ASMI holds a controlling interest. The non-controlling interest is disclosed separately in the consolidated financial statements. All intercompany profits, transactions and balances have been eliminated in consolidation.

Subsidiaries are all entities over which ASMI has the power to govern the financial and operating policies.

As further described in the Notes to Consolidated Financial Statements herein, from time to time, the consolidated subsidiary ASM Pacific Technology Ltd. ("ASMPT") will issue common shares pursuant to their Employee Share Incentive Scheme. The effect of these issuances is a dilution of the ownership in ASMPT. Following the adoption of ASC 810(-10 45-23) as per 2009 results on dilution of investments in subsidiaries are accounted for directly in equity.

Subsidiaries are fully consolidated from the date on which control is transferred to ASMI and are deconsolidated from the date on which ASMI's control ceases.

#### **Segment reporting**

The Company organizes its activities in two operating segments, Front-end and Back-end. Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer ("CEO"), which is the chief operating decision maker (according to ASC 280).

The Front-end segment manufactures and sells equipment used in wafer processing, encompassing the fabrication steps in which silicon wafers are layered with semiconductor devices. The segment is a

product driven organizational unit comprised of manufacturing, service, and sales operations in Europe, the United States, Japan and Southeast Asia. The Back-end segment manufactures and sells equipment and materials used in assembly and packaging, encompassing the processes in which silicon wafers are separated into individual circuits and subsequently assembled, packaged and tested. The segment is organized in ASM Pacific Technology Ltd., in which the Company holds a majority of 52.36% interest, whilst the remaining shares are listed on the Stock Exchange of Hong Kong.

### **Foreign Currency Translation**

Items included in the financial statements of each ASMI's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial information is presented in euro (EUR), which is the functional currency of the Company and the group's presentation currency.

In the preparation of ASMI's consolidated financial statements assets and liabilities of foreign subsidiaries, of which the functional currency is not the euro, are translated into euros at the exchange rate in effect on the respective balance sheet dates. Income and expenses are translated into euros based on the weighted average exchange rates for the corresponding period. Resulting translation adjustments are directly recorded in shareholders' equity. Currency differences on intercompany loans that have the nature of a long-term investment are also accounted for directly in shareholders' equity.

### **Reclassifications**

Following the adoption of ASC 810(-10 45-23) as per 2009 results on dilution of investments in subsidiaries are accounted for directly in equity. The 2009 results and changes in equity have been adjusted accordingly.

### **Derivative Financial Instruments**

ASMI and its subsidiaries conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of the Company (euro) or one of its subsidiaries conducting the business. The purpose of the Company's foreign currency management is to manage the effect of exchange rate fluctuations on income, expenses, cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollar.

The Company's Front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which the Company has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive income (loss) net of taxes in shareholders' equity, and is reclassified into earnings when the hedged transaction affects earnings.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. The Company records all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses and other.

Substantially all amounts, which are net of taxes, included in accumulated other comprehensive loss at December 31, 2010 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the consolidated statement of operations.

Furthermore, the Company manages the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the consolidated statement of operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the consolidated statement of operations.

The Company does not use forward exchange contracts for trading or speculative purposes.

### **Cash and Cash Equivalents**

Cash and cash equivalents comprise cash on hand, deposits held at call with banks, and other short-term highly liquid investments with original maturity of three months or less. Bank overdrafts are included within notes payable to banks in current liabilities on the consolidated balance sheet.

Cash and cash equivalents of the Company's subsidiaries ASMPT and ASM Japan are restricted to be used only in the operations of ASMPT and ASM Japan respectively. The use of the equivalent of 67% of the outstanding 2011 4.25% convertible bonds due is restricted in use under the credit facility agreement.

### **Accounts Receivable**

Accounts receivable are stated at nominal value less an allowance for doubtful accounts.

A significant percentage of our accounts receivable is derived from sales to a limited number of large multinational semiconductor device manufacturers located throughout the world. In order to monitor potential credit losses, we perform ongoing credit evaluations of our customers' financial condition. An allowance for doubtful accounts is maintained for potential credit losses based upon management's assessment of the expected collectability of all accounts receivable. The allowance for doubtful accounts is reviewed periodically to assess the adequacy of the allowance. In making this assessment, management takes into consideration any circumstances of which we are aware regarding a customer's inability to meet its financial obligations; and our judgments as to potential prevailing economic conditions in the industry and their potential impact on the Company's customers.

### **Inventories**

Inventories are valued at the lower of cost (first-in, first-out method) or market value. Costs include net prices paid for materials purchased, charges for freight and custom duties, production labor cost and factory overhead. Allowances are made for slow moving, obsolete or unsellable inventory.

Allowances for inventory are determined based on the expected demand as well as the expected market value of the inventory. We regularly evaluate the value of our inventory of components and raw materials, work in progress and finished goods, based on a combination of factors including the following: forecasted sales, historical usage, product end of life cycle, estimated current and future market values, service inventory requirements and new product introductions, as well as other factors. Purchasing requirements and alternative uses for the inventory are explored within these processes to mitigate inventory exposure. We record write downs for inventory based on the above factors and take into account worldwide quantities and demand into our analysis.

### **Evaluation tools at customers**

Evaluation tools at customers ("evaluation tools") are systems generally delivered to customers under evaluation or a conditional purchase order and include substantial customization by ASM engineers and ASM-R&D staff in the field. Evaluation tools are recorded at cost and depreciated over their useful life (5 years). The depreciation period may be shorter, depending on circumstances. The depreciation expenses are reported as Cost of sales.

On final acceptance of the system the purchase consideration is recognized as revenue. The carrying value of the evaluation system at that point in time is recognized as cost of sales. When the system is returned, at the end of the evaluation period, a detailed impairment review takes place, and future sales opportunities and additional costs are identified. Only when the fair value is below the carrying value of the evaluation tool an additional depreciation is recognized. The remaining carrying value is recognized as finished goods (inventory).

### **Long-lived assets**

Long-lived assets include goodwill, other intangible assets and property, plant and equipment. Property, plant and equipment are carried at cost, less accumulated depreciation and any impairment losses. Capital leased assets are recorded at the present value of future lease obligations. Depreciation is calculated using the straight-line method over the estimated useful lives. Leasehold improvements are depreciated over the lesser of the estimated useful life of the leasehold improvement or the term of the underlying lease.

Business combinations are accounted for under the purchase acquisition method. The Company tests its recorded goodwill and other intangible assets with indefinite lives for impairment each year on December 31 and whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Goodwill is allocated to reporting units for purposes of impairment testing and tested for impairment on a two step approach. The implied fair value of goodwill is determined. First the recoverability is tested by comparing the carrying amount of the goodwill with the fair value being the sum of the discounted future cash flows. If the carrying amount of the goodwill at reporting unit level is higher than the fair value of the goodwill, the second step should be performed. The goodwill impairment is measured as the excess of the carrying amount of the goodwill over its fair value.

Other intangible assets with finite lives are amortized over the estimated useful lives using the straight-line method.

### **Recoverability of Long-Lived Asset**

Long-lived assets (except those not being amortized) to be held and used by the Company are reviewed by the Company for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In performing the review for recoverability, the Company estimates the future undiscounted cash flows expected to result from the use of the asset. If the undiscounted future cash flow is less than the carrying amount of the asset, the asset is deemed impaired. The amount of the impairment is measured as the difference between the carrying value and the fair value of the asset. Long-lived assets and other intangibles (except those not being amortized) to be disposed of are reported at the lower of carrying amount or fair value less cost to sell.

### **Revenue Recognition**

The Company recognizes revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller's price to buyer is fixed or determinable; and collectability is reasonably assured. The Company's revenue includes revenue from contractual arrangements consisting of multiple deliverables, such as equipment and installation. The revenue from the undelivered element of the arrangement is deferred at fair value until delivery of the element.

A major portion of our revenue is derived from contractual arrangements with customers that have multiple deliverables, such as installation. The revenue relating to the undelivered elements of the arrangements, the installation, is deferred at fair value until delivery of these elements. The fair value is determined by vendor specific objective evidence ("VSOE"). VSOE is determined based upon the prices that the Company charges for installation on a stand-alone basis, which are subject to normal price negotiations.

In general, the Company recognizes revenue from sales of equipment upon shipment of equipment, only if testing at the factory has proven that the equipment has met substantially all of the customer's criteria and specifications. The outcome of the test is signed-off by the customer ("factory acceptance"). Instead of signing-off, the customer may choose to provide a waiver, e.g. with respect to repeat orders.

The Company recognizes revenue from installation of equipment upon completion of installation at the customer's site. At the time of shipment, the Company defers that portion of the sales price related to the fair value of installation. The fair value of the installation process is measured based upon the per-hour amounts charged by third parties for similar installation services. Installation is completed when testing at the customer's site has proven that the equipment has met all of the customer's criteria and specifications. The completion of installation is signed-off by the customer ("final acceptance").

We provide training and technical support service to customers. Revenue related to such services is recognized when the service is rendered. Revenue from the sale of spare parts and materials is recognized when the goods are shipped.

The Company's sales frequently involve complex equipment, which may include customer-specific criteria, sales to new customers or equipment with new technology. For each sale, the decision whether to recognize revenue is, in addition to shipment and factory acceptance, based on the contractual agreement with a customer, the experience with a particular customer, the technology and the number of similarly configured equipment previously delivered. Instead of recognizing revenue, the Company could decide to defer revenue recognition until completion of installation at the customer's site and obtaining final acceptance from the customer.

Freight charges billed to customers are recognized as revenue, the related costs are recognized as cost of sales.

Revenues are recognized excluding the taxes levied on revenues.

### **Cost of Sales**

Cost of sales comprise direct costs such as labor, materials, cost of warranty, depreciation, shipping and handling costs and related overhead costs. Cost of sales also includes third party commission, depreciation expenses of evaluation tools at customers, royalty payments and costs relating to prototype and experimental products, which the Company may subsequently sell to customers. Costs of warranty include the cost of labor, material and related overhead necessary to repair a product during the warranty period.

### **Warranty**

We provide maintenance on our systems during the warranty period, usually one to two years. Costs of warranty include the cost of labor, material and related overhead necessary to repair a product during the warranty period. We accrue for the estimated cost of the warranty on products shipped in a provision for warranty, upon recognition of the sale of the product. The costs are estimated based on actual historical expenses incurred and on estimated future expenses related to current sales, and are updated periodically.

### **Research and Development Costs**

Research and development costs are expensed as incurred. Costs, which relate to prototype and experimental models and are sold to customers, are charged to cost of sales. Subsidies and other governmental credits to cover research and development costs relating to approved projects are recorded as research and development credits in the period when such project costs occur. The research and development expenses are presented net of the development credits. Technical development credits received from the government of the Netherlands, to offset the costs of certain research and development projects, are contingently repayable to the extent sales of products developed in such projects occur within the agreed upon period. Such repayments are calculated as a percentage of sales and are charged to cost of sales. No such repayments are required if such sales do not occur within the agreed upon period. Reference is made to Note 22.

### **Share-based compensation expenses**

On January 1, 2006 ASMI adopted ASC 715 "Share-Based Payment" ("ASC 715"), using the modified prospective transition method. ASC 715 requires that the cost of all employee stock options, as well as other equity-based compensation arrangements, be reflected in the financial statements based on the estimated fair value of the awards.

The cost relating to employee stock options (compensation expense) are recognized based upon the grant date fair value of stock options. The fair value at grant date is estimated using a Black-Scholes option valuation model. This model requires the use of assumptions including expected stock price volatility, the estimated life of each award and the estimated dividend yield.

The grant date fair value of the stock options is expensed on a straight-line basis over the vesting period, based on the Company's estimate of stock options that will eventually vest. The impact of the true up of the estimates is recognized in the consolidated statement of operations in the period in which the revision is determined.

For further information on ASMI's employee stock option plans reference is made to Note 18.

### **Restructuring costs**

Restructuring expenses are recognized for exit or disposal activities when the liability arising from restructuring plans is incurred. In 2008, 2009 and 2010 restructuring expenses incurred, reference is made to Note 23. Distinction is made in one-time employee termination expenses, contract termination expenses and other associated expenses. For the accounting on the distinguished elements of restructuring expenses we apply to the policy as mentioned below. The expenses have been charged to "restructuring expenses".

One-time termination expenses represent the payments provided to employees that have become redundant and are terminated under the terms and conditions of a restructuring plan. A restructuring plan exists at the date the plan meets all of the following criteria and has been communicated to employees:

- Management commits to the plan.
- The plan identifies the number of employees that become redundant and the expected completion date.
- The plan sets out the terms and conditions of the arrangement in sufficient detail to enable employees to determine the type and amount of benefits they will receive.
- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The timing of the recognition and measurement of a liability for one-time termination expenses depends on whether employees will be retained to render service beyond a minimum retention period.

Contract termination expenses are related to the termination of an operating lease or another contract. These expenses are distinguished in:

- Expenses related to the termination of the contract before the end of its term. These expenses are recognized when the contract is terminated. The liability is measured at its fair value in accordance with the contract terms.
- Expenses related to contracts that will last for its remaining term without economic benefit to the entity. This is the case when a lease contract for premises is not terminated while the premises are not (completely) in use anymore. The liability is accrued for at the cease-use date, the date the company determined that it would no longer occupy the premises, which is conveyed to it under the contractual operating lease. The liability is measured at its fair value in accordance with the contract terms.

Other costs related to restructuring include costs to consolidate or close facilities and relocate employees. A liability for other expenses related to a restructuring such as transition costs is recognized and measured in the period in which the liability is incurred. The costs incurred are directly related to the restructuring activity. The definition of exit costs excludes expected future operating losses.

## **Income Taxes**

The Company recognizes deferred tax assets and liabilities for the estimated future tax consequences of events attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using currently enacted tax rates. The effect on deferred tax assets and liabilities of changes in tax rates is recognized in the Consolidated Statement of Operations in the period in which the enacted rate changes. Deferred tax assets are reduced through a valuation allowance at such time as, based on available evidence, it is more likely than not that the deferred tax assets will not be realized.

On January 1, 2007 the Company adopted Interpretation 48, "Accounting for Uncertainty in Income Taxes" ("ASC 740"). ASC 740 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with Statement of Financial Accounting Standard ASC 740, "Accounting for Income Taxes". ASC 740 prescribes a two-step approach for recognizing and measuring tax positions taken or expected to be taken in a tax return. Prior to recognizing the benefit of a tax position in the financial statements, the tax position must be more-likely-than-not of being sustained based solely on its technical merits. Once this recognition threshold has been met, tax positions are recognized at the largest amount that is more-likely-than-not to be sustained. ASC 740 also provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition.

## **Pensions**

The Company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the Company's operations in the Netherlands and Japan. The Company's employees in the Netherlands participate in a multi-employer plan. Payment to defined contribution plans and the multi-employer plan are recognized as an expense in the Consolidated Statement of Operations as they fall due.

The Company's employees in Japan participate in a defined benefit plan. Pension costs in respect of this defined benefit plan are determined using the projected unit credit method. These costs primarily



represent the increase in the actuarial present value of the obligation for pension benefits based on employee service during the year and the interest on this obligation in respect of employee service in previous years, net of the expected return on plan assets.

Actuarial gains and losses are recognized in income, spread over the average remaining service lives of employees, using the corridor approach. In accordance with ASC 715, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans the Company recognizes in its Consolidated Balance Sheet an asset or a liability for the plan's overfunded status or underfunded status respectively. Reference is made to Note 18.

### **Commitments and Contingencies**

The Company has various contractual obligations, some of which are required to be recorded as liabilities in the Company's consolidated financial statements, including long- and short-term debt. Others, namely operating lease commitments, purchase commitments and commitments for capital expenditure, are generally not required to be recognized as liabilities on the Company's balance sheet but are required to be disclosed. Reference is made to Note 19.

### **Comprehensive Income**

Comprehensive income consists of net earnings (loss) and other comprehensive income. Other comprehensive income includes gains and losses that are not included in net earnings, but are recorded directly in Shareholders' Equity.

### **New Accounting Pronouncements**

In April 2009, the FASB issued ASC 820-10-65-4, "Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly". This ASC provides guidance for making fair value measurements more consistent with the principles presented in ASC 820, "Fair Value Measurements". This ASC relates to determining fair values when there is no active market or where the price inputs being used represent distressed sales. It reaffirms the objective of fair value measurement—to reflect how much an asset would be sold for in an orderly transaction at the date of the financial statements under current market conditions. Specifically, it reaffirms the need to use judgment to ascertain if a formerly active market has become inactive and in determining fair values when markets have become inactive. The ASC is effective for financial statements issued for fiscal years and interim periods beginning after June 15, 2009 and should be applied prospectively. The implementation of this standard did not have any impact on the consolidated financial statements of the Company.

In June 2009, the FASB issued ASC 810 (Statement 167, "Amendments to FASB Interpretation No. 46(R)"). This ASC changes the way in which a company determines whether or not an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The determination of whether a company is required to consolidate an entity is based on, among other things, an entity's purpose and design and its ability to direct the activities of the entity that most significantly impact the entity's economic performance. This ASC is effective for fiscal years and interim periods beginning after November 15, 2009. The implementation of this standard did not have any impact on the consolidated financial statements of the Company.

In September 2009, the EITF reached final consensus on ASU 2009-13, "Revenue Arrangements with Multiple Deliverables". ASU 2009-13 amends the current guidance on arrangements with multiple deliverables (ASC 605-25) to (1) eliminate the separation criterion that requires entities to establish objective and reliable evidence of fair value for undelivered elements, (2) establish a selling price hierarchy to help entities allocate arrangement consideration to the separate units of account (i.e. separate elements of the sales agreement), (3) require the relative selling price allocation method for all arrangements (i.e., eliminate the residual method), and (4) significantly expand required disclosures. The final consensus is effective for financial years beginning after June 15, 2010. We anticipate that the adoption of ASU 2009-13 will not have a material impact on the Company's consolidated financial statements.

In September 2009, the EITF reached final consensus on ASU 2009-14, Certain Revenue Arrangements that include Software elements. ASU 2009-14 amends the scoping guidance for software arrangements (ASC 985-605) to exclude tangible products that contain software elements and non-software elements that function together to interdependently deliver the product's essential functionality. ASU 2009-14 also provides considerations and examples for entities applying this guidance. This issue will be

effective prospectively for new or materially modified agreements entered into in financial years beginning on or after June 15, 2010. We are currently assessing the impact that ASU 2009-14 may have on our consolidated financial statements.

In January 2010, the EITF reached final consensus on ASU 2010-06, "Improving Disclosures about Fair Value Measurements". This ASU amends ASC 820 to add new requirements for disclosures about transfers into and out of Levels 1 and 2 and separate disclosures about purchases, sales issuances and settlements relating to Level 3 measurements. The ASU also clarifies existing fair value disclosures about the level of disaggregation and about inputs and valuation techniques used to measure fair value. The ASU is effective for annual reporting periods beginning after December 15, 2009. Level 3 related amendments are effective for annual periods beginning after December 15, 2010. The adoption of the ASU did not have any impact on the Company's consolidated financial statements but resulted in some additional disclosures, see Note 2. We are currently assessing the impact of the Level 3 related amendments.

In 2010, the Company adopted ASU 2010-20, "Disclosures about the Credit Quality of Financing Receivables and the Allowance for Credit Losses". This ASU is intended to provide additional information to assist financial statement users in assessing an entity's credit risk exposures and evaluating the adequacy of its allowance for credit losses. The objective of the amendments is for an entity to provide disclosures that facilitate financial statement users' evaluation of the following: the nature of credit risk inherent in the entity's portfolio of financing receivables, how that risk is analyzed and assessed in arriving at the allowance for credit losses and the changes and reasons for those changes in the allowance for credit losses. The adoption of the ASU did not have any impact on the Company's consolidated financial statements.

In 2010, the Company adopted ASU 2010-09, "Amendments to Certain Recognition and Disclosure Requirements". This ASU amends ASC 855 to address certain implementation issues related to an entity's requirement to perform and disclose subsequent event procedures. The adoption of this ASU did not have any impact on the Company's consolidated financial statements.

## 2- List of Significant Subsidiaries

Name	Location	% Ownership December 31,	
		2009	2010
ASM Europe B.V. <sup>1</sup>	Almere, the Netherlands	100.00%	100.00%
ASM United Kingdom Sales B.V. <sup>1</sup>	Almere, the Netherlands	100.00%	100.00%
ASM Germany Sales B.V. <sup>1</sup>	Almere, the Netherlands	100.00%	100.00%
ASM Pacific Holding B.V. <sup>3</sup>	Almere, the Netherlands	100.00%	100.00%
Advanced Semiconductor Materials (Netherlands Antilles) N.V.	Willemstad, Curacao, Netherlands Antilles	100.00%	100.00%
ASM France S.A.R.L.	Montpellier, France	100.00%	100.00%
ASM Belgium N.V.	Leuven, Belgium	100.00%	100.00%
ASM Italia S.r.l.	Agrate, Italy	100.00%	100.00%
ASM Microchemistry Oy	Helsinki, Finland	100.00%	100.00%
ASM Services and Support Ireland Ltd.	Dublin, Ireland	100.00%	100.00%
ASM Services and Support Israel Ltd.	Tel Aviv, Israel	100.00%	100.00%
ASM America, Inc.	Phoenix, Arizona, United States	100.00%	100.00%
ASM Japan K.K.	Tokyo, Japan	100.00%	100.00%
ASM Wafer Process Equipment Ltd.	Quarry Bay, Hong Kong, People's Republic of China	100.00%	100.00%
ASM China Trading Ltd.	Shanghai, People's Republic of China	100.00%	100.00%
ASM Wafer Process Equipment Singapore Pte Ltd.	Singapore	100.00%	100.00%
ASM Far East Marketing Ltd.	Hsin-Chu, Taiwan	100.00%	100.00%
ASM Front-End Sales & Services Taiwan Co., Ltd.	Hsin-Chu, Taiwan	100.00%	100.00%
ASM Front-End Manufacturing Singapore Pte Ltd.	Singapore	100.00%	100.00%
ASM NuTool, Inc.	Phoenix, Arizona, United States	100.00%	100.00%
ASM Genitech Korea Ltd.	Cheonan, South Korea	100.00%	100.00%
ASM Pacific Technology Ltd.	Kwai Chung, Hong Kong, People's Republic of China	52.59%	52.36%
ASM Assembly Automation Ltd. <sup>2</sup>	Kwai Chung, Hong Kong, People's Republic of China	52.59%	52.36%
ASM Assembly Materials Ltd. <sup>2</sup>	Kwai Chung, Hong Kong, People's Republic of China	52.59%	52.36%
ASM Technology Singapore Pte Ltd. <sup>2</sup>	Singapore	52.59%	52.36%
ASM Technology (M) Sdn. Bhd. <sup>2</sup>	Johor Bahru, Malaysia	52.59%	52.36%
ASM Semiconductor Materials (Shenzhen) Co. Ltd. <sup>2</sup>	Shenzhen, People's Republic of China	52.59%	52.36%
Edgeward Development Ltd. <sup>2</sup>	Guernsey, Channel Islands	52.59%	52.36%
Shenzhen ASM Micro Electronic Technology Co. Ltd. <sup>2</sup>	Shenzhen, People's Republic of China	52.59%	52.36%

(1) For these subsidiaries ASM International N.V. has filed statements at the Dutch Chamber of Commerce assuming joint and several liability in accordance with Article 403 of Book 2, Part 9 of the Netherlands Civil Code.

(2) 100% subsidiaries of ASM Pacific Technology Ltd.

(3) Established in 2008, ASM Pacific Holding B.V. is holding 52.36% of the shares in ASM Pacific Technology Ltd.

The accounts of the above mentioned entities and of certain insignificant subsidiaries not mentioned above have been consolidated in the Consolidated Financial Statements.

## 3- Cash and Cash Equivalents

At December 31, 2010, cash and cash equivalents of the Company's subsidiaries ASMPT and ASM Japan amounted to € 197,865 and € 15,647 respectively, which are restricted to be used only in the operations of ASMPT and ASM Japan respectively. The use of € 22,406 (USD 29,939) of cash and cash equivalents is restricted in use under the credit facility agreement for the repurchase of outstanding convertible bonds due 2011. No further restrictions on usage of cash and cash equivalents exist. The carrying amount approximates their fair value.

#### 4- Accounts receivable

The carrying amount of accounts receivable is as follows:

	<u>Current</u>	<u>Overdue &lt; 30 days</u>	<u>Overdue 31 – 60 days</u>	<u>Overdue 61 – 120 days</u>	<u>Overdue &gt; 120 days</u>	<u>Total</u>
December 31, 2009 .....	127,409	19,712	11,195	4,627	2,811	165,754
December 31, 2010 .....	<b>213,059</b>	<b>28,684</b>	<b>15,814</b>	<b>10,368</b>	<b>3,346</b>	<b>271,271</b>

The changes in the allowance for doubtful accounts receivable are as follows:

Balance January 1, 2008 .....	(5,075)
Charged to selling, general and administrative expenses .....	(2,859)
Utilization .....	932
Foreign currency translation effect .....	(298)
Balance December 31, 2008 .....	(7,300)
Charged to selling, general and administrative expenses .....	(2,812)
Utilization .....	1,145
Foreign currency translation effect .....	(1)
Balance December 31, 2009 .....	<b>(8,968)</b>
Charged to selling, general and administrative expenses .....	<b>(461)</b>
Utilization .....	<b>648</b>
Foreign currency translation effect .....	<b>(522)</b>
Balance December 31, 2010 .....	<b><u>(9,304)</u></b>

The carrying amount of the accounts receivable approximates their fair value.

#### 5- Inventories

Inventories consist of the following:

	<u>December 31,</u>	
	<u>2009</u>	<u>2010</u>
Components and raw materials .....	92,352	<b>138,965</b>
Work in process .....	64,516	<b>128,728</b>
Finished goods .....	40,716	<b>28,165</b>
Total inventories, gross .....	197,584	<b>295,857</b>
Allowance for obsolescence .....	(46,939)	<b>(41,301)</b>
Total inventories, net .....	<u>150,645</u>	<u><b>254,557</b></u>

The changes in the allowance for obsolescence are as follows:

Balance January 1, 2008 .....	(27,493)
Charged to cost of sales .....	(11,711)
Utilization .....	8,299
Foreign currency translation effect .....	(1,710)
Balance December 31, 2008 .....	(32,615)
Charged to cost of sales .....	(27,236)
Utilization .....	11,818
Foreign currency translation effect .....	1,094
Balance December 31, 2009 .....	<b>(46,939)</b>
Charged to cost of sales .....	<b>(3,248)</b>
Utilization .....	<b>14,628</b>
Foreign currency translation effect .....	<b>(5,742)</b>
Balance December 31, 2010 .....	<b><u>(41,301)</u></b>

## 6- Other Intangible Assets

Other intangible assets include purchased technology from third parties and software developed or purchased (including licences) for internal use. The changes in the amount of other intangible assets are as follows:

	<b>Software</b>	<b>Purchased technology and other intangible assets</b>	<b>Total</b>
At cost:			
Balance January 1, 2009	10,111	2,754	12,865
Additions	3,294	—	3,294
Foreign currency translation effect	(81)	166	85
Balance December 31, 2009	<b>13,324</b>	<b>2,920</b>	<b>16,244</b>
Additions	624	—	624
Reclassification	131	—	131
Foreign currency translation effect	354	272	626
Balance December 31, 2010	<b>14,433</b>	<b>3,192</b>	<b>17,625</b>
Accumulated amortization:			
Balance January 1, 2009	3,042	1,905	4,947
Amortization for the year	1,934	401	2,335
Foreign currency translation effect	(89)	114	25
Balance December 31, 2009	<b>4,887</b>	<b>2,420</b>	<b>7,307</b>
Amortization for the year	2,376	358	2,735
Reclassification	240	—	240
Foreign currency translation effect	305	233	538
Balance December 31, 2010	<b>7,809</b>	<b>3,011</b>	<b>10,820</b>
Other intangible assets, net:			
December 31, 2009	8,437	500	8,936
December 31, 2010	<b>6,624</b>	<b>181</b>	<b>6,804</b>

Other intangible assets are amortized over useful lives of 3 to 7 years. Estimated amortization expenses relating to other intangible assets are as follows:

2011	2,433
2012	2,050
2013	1,640
2014	679
2015	3
	<b>6,804</b>

## 7- Goodwill

The changes in the carrying amount of goodwill are as follows:

	<b>Front-end</b>	<b>Back-end</b>	<b>Total</b>
Balance January 1, 2009	9,845	38,144	47,989
Foreign currency translation effect	550	(1,316)	(766)
Balance December 31, 2009	<b>10,395</b>	<b>36,828</b>	<b>47,223</b>
Foreign currency translation effect	798	2,794	3,592
Balance December 31, 2010	<b>11,193</b>	<b>39,622</b>	<b>50,815</b>

The allocation of the carrying amount of goodwill is as follows:

	December 31,	
	2009	2010
<i>Front-end segment:</i>		
ASM Microchemistry Oy .....	3,560	<b>3,560</b>
ASM Genitech Korea Ltd .....	6,835	<b>7,633</b>
<i>Back-end segment:</i>		
ASM Pacific Technology Ltd .....	36,828	<b>39,622</b>
Total .....	<u>47,223</u>	<u><b>50,815</b></u>

*NanoPhotonics AG*—In September 2008, the Company sold its entire 72.86% interest in NanoPhotonics AG. The Company recorded an impairment charge of € 1,395 related to goodwill of its investment in NanoPhotonics AG in June 2008.

The proceeds from the sale of NanoPhotonics AG and the impairment charge can be summarized as follows:

Carrying value of assets and liabilities:	
Intangible assets: .....	8
Goodwill .....	1,729
Property, plant & equipment .....	346
Other assets and liabilities .....	(278)
	<u>1,805</u>
Cash proceeds from sale of NanoPhotonics AG .....	<u>(410)</u>
Impairment charge .....	<u><u>1,395</u></u>

*ASM Genitech Korea Ltd.*—In 2004, the Company acquired 100% of the common shares in Genitech in exchange for 247,638 common shares of the Company, € 4,640 in cash and possible future variable cash payments of up to US\$ 9.2 million if certain financial performance targets are satisfied at various times from the acquisition date in 2004 through the year ended December 31, 2008. The total consideration at the date of the acquisition in 2004, including expenses, amounted to € 7,939, excluding variable cash payments that may be payable in the future based on certain financial performance targets.

The excess of the purchase price over the fair value of the identifiable net assets has been recorded as goodwill in the amount of € 6,917 in 2004. In 2006, 2007 and 2008 the Company recorded € 862, € 281 and € 176 respectively as additional purchase consideration as certain financial performance targets were satisfied.

We perform an annual impairment test at December 31 of each year or if events or changes in circumstances indicate that the carrying amount of goodwill exceeds its fair value. Our Front-end impairment test and the determination of the fair value is based on a discounted future cash flow approach that uses our estimates of future revenues, driven by assumed market growth and estimated costs as well as appropriate discount rates. Our Back-end impairment test is based on the market value of the listed shares of ASMPT.

The material assumptions used for the fair value calculation of the reporting unit are:

- A discount rate of 20.5% ( last year 13.0%) representing the pre-tax weighted average cost of capital. This relative high rate is a consequence of the current situation whereby certain production lines are in the early phase of the product lifecycle, hence reflecting a higher risk.
- For Front- end external market segment data, historical data and strategic plans to estimate cash flow growth per product line have been used.
- Cash flow calculations are limited to five years of cash flow; after these five years perpetuity growth rates are set based on market maturity of the products. For maturing product the perpetuity growth rates used are 1% or less and for enabling technology products the rate used is 3% or less.
- For Back-end the market value of the listed shares of ASMPT on the Hong Kong Stock exchange has been used in our analysis.

These estimates are consistent with the plans and estimated costs we use to manage the underlying business. Based on this analysis management believes that as per December 31, 2010 the fair value of the reporting units exceeded the carrying value.

## 8- Property, Plant and Equipment

The changes in the amount of property, plant and equipment are as follows:

	Land, buildings and leasehold improvements	Machinery, equipment, furniture and fixtures	Total
At cost:			
Balance January 1, 2009	104,860	327,783	432,643
Capital expenditures	1,849	10,869	12,718
Reclassification as held for sale	(6,634)	—	(6,634)
Impairment charges	(132)	(4,496)	(4,628)
Retirements and sales	(217)	(6,240)	(6,457)
Foreign currency translation effect	(3,251)	(10,981)	(14,232)
Balance December 31, 2009	<b>96,475</b>	<b>316,935</b>	<b>413,410</b>
Capital expenditures	<b>24,716</b>	<b>78,258</b>	<b>102,974</b>
Retirements and sales	<b>(1,612)</b>	<b>(18,787)</b>	<b>(20,399)</b>
Reclassification	<b>74</b>	<b>(206)</b>	<b>(132)</b>
Foreign currency translation effect	<b>11,778</b>	<b>33,690</b>	<b>45,468</b>
Balance December 31, 2010	<b>131,431</b>	<b>409,889</b>	<b>541,320</b>
Accumulated depreciation:			
Balance January 1, 2009	59,156	224,930	284,086
Depreciation for the year	6,778	25,276	32,054
Reclassification as held for sale	(1,126)	—	(1,126)
Retirements and sales	(213)	(5,427)	(5,640)
Foreign currency translation effect	(2,012)	(8,764)	(10,776)
Balance December 31, 2009	<b>62,583</b>	<b>236,016</b>	<b>298,599</b>
Depreciation for the year	<b>7,092</b>	<b>23,538</b>	<b>30,630</b>
Retirements and sales	<b>(1,607)</b>	<b>(15,757)</b>	<b>(17,364)</b>
Reclassification	<b>—</b>	<b>(240)</b>	<b>(240)</b>
Foreign currency translation effect	<b>6,147</b>	<b>25,609</b>	<b>31,756</b>
Balance December 31, 2010	<b>74,216</b>	<b>269,167</b>	<b>343,383</b>
Property, plant and equipment, net:			
December 31, 2009	33,893	80,919	114,811
December 31, 2010	<b>57,215</b>	<b>140,722</b>	<b>197,937</b>
Useful lives in years:			
- Buildings and leasehold improvements			10-25
- Machinery and equipment			2-10
- Furniture and fixtures			2-10

ASM Japan and ASM Front-End Manufacturing Singapore have pledged real estate with a carrying value of € 28,586 to secure loan facilities outstanding in Japan and Singapore.

In 2009 the Company recorded impairment charges of € 4,628 mainly related to machinery and equipment. The Company impaired certain demo tools which were as a result of the strategic reorientation determined end of life. Valuations of these assets are classified as Level 3 in the fair value hierarchy since their fair values were determined based on unobservable inputs. The impairment charges were determined based on the difference between the asset's estimated fair value and their carrying amount.

In 2009 the decision was made to dispose certain items of property, plant and equipment. These assets are reported as held for sale.

## 9- Assets held for sale

The changes in the carrying value of assets held for sale are as follows:

	Japan	The Netherlands	Total
Balance January 1, 2009	—	—	—
Assets reclassified as held for sale	5,231	277	5,508
Balance December 31, 2009	<b>5,231</b>	<b>277</b>	<b>5,508</b>
Foreign currency translation effect	<b>839</b>	<b>—</b>	<b>839</b>
Balance December 31, 2010	<b>6,070</b>	<b>277</b>	<b>6,347</b>

In 2009 the decision was made to dispose certain items of property, plant and equipment. These assets represent a carrying value as per December 31, 2010 of € 6,347. The assets held for sale are located in Japan and The Netherlands. In Japan (Tama) a building that was used for research and development activities was ceased to be used in December 2009. The carrying value of € 5.3 million is lower than the fair value less cost to sell. Also in Japan a piece of land that was purchased to build a research and development center has now been regarded as held for sale. The carrying value of € 0.8 million is below the expected selling price. In the Netherlands the former ASMI head office located in Bilthoven has been regarded as held for sale. The carrying value of € 0.3 million is lower than the fair value less cost to sell. The expected selling prices were determined, based on various inputs and considerations, including an appraisal from an outside firm performed during 2009. During 2010 both the Japanese and the Dutch properties were under the interest of the market, though the assets have not been sold yet, the outside firms maintain the expected selling prices.

## 10- Evaluation tools at customers

The changes in the amount of evaluation tools are as follows:

Balance as at January 1, 2009	6,693
Evaluation tools shipped	8,588
Depreciation	(2,032)
Evaluation tools sold	(1,776)
Foreign currency translation effect	(191)
Balance December 31, 2009	<b>11,282</b>
Evaluation tools shipped	<b>5,381</b>
Depreciation	<b>(2,477)</b>
Evaluation tools sold	<b>(8,526)</b>
Foreign currency translation effect	<b>984</b>
Balance December 31, 2010	<b>6,644</b>
Useful lives in years:	5

Evaluation tools are systems delivered to customers under evaluation agreements. Evaluation tools are recorded at cost and depreciated over their useful life (5 years). The depreciation period may be shorter, depending on circumstances. The depreciation expenses are reported as Cost of sales.

## 11- Investments

The investment of € 50 as per December 31, 2010 reflects the cost of the interest in Levitech B.V. Resulting from the management buy-out of the RTP business, ASM International N.V. obtained a 20% interest in Levitech B.V.

## 12- Notes Payable to Banks

Information on notes payable to banks is as follows:

	December 31,	
	2009	2010
Short-term debt outstanding in:		
Japan	13,518	<b>7,130</b>
Singapore	990	<b>1,167</b>
Overdraft in:		
The Netherlands	2,500	—
Total	<b>17,008</b>	<b>8,297</b>

Short-term debt outstanding in local currencies is as follows (in thousands):

	December 31,	
	2009	2010
Japanese yen	1,800,000	<b>775,000</b>
Singapore dollar	2,000	<b>2,000</b>

Short-term debt outstanding in Japan in the amount of € 7,130 is collateralized by real estate with a carrying value of € 8,780 of ASM Japan.



ASMI and its individual subsidiaries borrow under separate short-term lines of credit with banks in the countries where they are located. The lines contain general provisions concerning renewal and continuance at the option of the banks. The weighted average interest rate of the outstanding notes payable was 2.8% at December 31, 2010.

Total short-term lines of credit amounted to € 126,833 at December 31, 2010. The amount outstanding at December 31, 2010 was € 8,297 and the undrawn portion totaled € 118,536. The undrawn portion includes the Company's standby revolving credit facility of € 90,000 with a consortium of banks. The facility, available through November 6, 2012, is secured by a portion of the Company's shareholding in ASMPT. The undrawn portion further includes € 22,464 for ASMPT, which amount is restricted to be used only in the operations of ASMPT. The undrawn portion further includes € 6,072 for ASM Japan, which amount is restricted to be used only in the operations of ASM Japan.

The credit facility of € 90,000 bank includes two financial covenants: a minimum long-term committed capital and a total net debt/equity ratio. These financial covenants are measured twice each year, at June 30 and December 31. The Company is in compliance with these financial covenants as of June 30, 2010 and as of December 31, 2010.

Short-term line of credits of ASM Japan of € 1,610 include financial covenants, of which the most important covenants, measured at December 31 of each year are, no two loss making years in a row and no annual loss in excess of a certain percentage of the equity of ASM Japan. ASM Japan is in compliance with these financial covenants as of December 31, 2010.

ASMI is guarantor with respect to all short-term debt outstanding of ASM Front-End Manufacturing Singapore. ASMI is guarantor with respect to a credit line of € 13,202, with € 7,130 outstanding, of ASM Japan. ASMI does not provide guarantees for borrowings of ASMPT and there are no guarantees from ASMPT to secure indebtedness of ASMI. Under the rules of the Stock Exchange of Hong Kong, ASMPT is precluded from providing loans and advances other than trade receivables in the normal course of business, to ASMI or its non ASMPT subsidiaries.

### 13- Provision for Warranty

The changes in the amount of provision for warranty are as follows:

Balance January 1, 2009	9,913
Charged to cost of sales	2,082
Deductions	(6,153)
Foreign currency translation effect	(192)
Balance December 31, 2009	<b>5,650</b>
Charged to cost of sales	7,066
Deductions	(4,824)
Foreign currency translation effect	381
Balance December 31, 2010	<b><u>8,273</u></b>

### 14- Accrued Expenses and Other

Accrued expenses and other consist of the following:

	December 31,	
	2009	2010
Advance payments from customers	16,371	<b>28,272</b>
Accrual for employee contract termination benefits	9,236	<b>2,065</b>
Accrual for onerous contracts	1,396	<b>1,449</b>
Deferred revenue	3,254	<b>4,367</b>
Personnel related items	22,115	<b>47,060</b>
Interest payable	2,424	<b>2,102</b>
Other	23,265	<b>32,086</b>
	<b><u>78,061</u></b>	<b><u>117,401</u></b>

In 2009 ASMI started the implementation of a major restructuring in the Front-end segment as announced on January 9, 2009 and on July 20, 2009. The restructuring costs consisted among others of employee contract termination benefits and lease contract termination costs (onerous contracts).

The accrual for employee termination benefits relates to the benefits payable to employees that have become redundant and are terminated under the terms and conditions of a restructuring plan.

The accrual for onerous contracts relates to operating lease contracts for buildings for which no economic benefits are expected. The accrual for onerous contracts is expected to be utilized by 2013.

## 15- Long-term Debt

Long-term debt consists of the following:

	December 31,	
	2009	2010
Term loans:		
Japan, 1.3-2.4%, due 2011 – 2012 .....	16,898	<b>16,606</b>
Finland, 1.0%, due 2011 .....	214	—
Singapore, 4.5%, due 2011 .....	855	<b>337</b>
Mortgage loans:		
Japan, 2.1-2.2%, due 2012 .....	3,417	<b>2,898</b>
Capital lease commitments:		
Japan, 1.8%, due 2011 – 2012 .....	965	<b>425</b>
	22,349	<b>20,266</b>
Current portion .....	(5,795)	<b>(15,950)</b>
	<u>16,554</u>	<u><b>4,316</b></u>

Long-term debt, including current portion, in local currencies is as follows (in thousands):

	December 31,	
	2009	2010
Euro .....	214	—
Japanese yen .....	2,833,514	<b>2,166,175</b>
Singapore dollars .....	1,727	<b>578</b>

Aggregate annual principal repayments for years subsequent to December 31, 2010 are:

2011 .....	<b>15,950</b>
2012 .....	<b>4,316</b>
	<u><b>20,266</b></u>

Long-term debt outstanding in Japan in the amount of € 13,938 is collateralized by real estate with a carrying value of € 5,612 of ASM Japan.

Long-term debt outstanding in Singapore in the amount of € 337 is collateralized by real estate with a carrying value of € 14,269 and other assets with a carrying value of € 65,227 of ASM Front-End Manufacturing Singapore.

Long-term debt of ASM Japan of € 11,040 include financial covenants, of which the most important covenants, measured at December 31 of each year are as follows:

- no two loss making years in a row;
- no annual loss in excess of a certain percentage of the equity of ASM Japan.

ASM Japan is in compliance with these financial covenants as of December 31, 2010.

ASMI is guarantor with respect to all long-term debt outstanding of ASM Front-End Manufacturing Singapore and is guarantor with respect to € 5,152 long-term debt outstanding of ASM Japan.

Capital lease commitments relate to commitments for equipment and machinery.

## 16- Convertible Subordinated Debt

As per 1 January 2009, ASMI applies ASC 815 “Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity’s Own Stock”.

All our convertible bonds due 2010, 2011 and 2014, include a component that creates a financial liability to the Company and a component that grants an option to the holder of the convertible note to convert it into common shares of the Company ("conversion option"). ASC 815 requires separate recognition of these components.

For the conversion options of the convertible bonds due 2010 and 2011 the accounting is different from that for the conversion option of the convertible bonds due 2014. As the convertible bonds due 2010 and 2011 are denominated in USD and the ASM International common shares in which they can be converted to are denominated in Euro, these conversion options are recognized as a liability measured at fair value. The conversion option is measured at fair value through the income statement, for 2010 this revaluation at fair value resulted in a loss of € 19.0 million (2009 € 24.4 million). For the conversion options of the convertible bonds due 2014 the fixed-for-fixed principle is met as both the debt instrument (the bond) and the Company's equity shares, in which they can be converted to, are denominated in the same currency (Euro). Based on this criterion the conversion option qualifies as permanent equity.

The fair value of the liability component is estimated using the prevailing market interest rate at the date of issue, for similar non-convertible debt. Subsequently, the liability is measured at amortized cost. The interest expense on the liability component is calculated by applying the market interest rate for similar non-convertible debt at the date of issue to the liability component of the instrument. The difference between this amount and the interest paid is added to the carrying amount of the convertible subordinated notes, thus creating a non-cash interest expense. For the financial year 2010 this accretion interest expense was € 6,010 (2009; € 4,286).

The changes in the outstanding amounts of convertible subordinated debt are as follows:

	5.25% convertible subordinated notes, due 2010	4.25% convertible subordinated notes, due 2011	6.50% convertible unsecured notes, due 2014
Liability at redemption value at date of issuance . . .	79,267	111,682	150,000
Conversion component at date of issuance . . . . .	(13,653)	(18,329)	(23,601)
Liability component at date of issuance . . . . .	65,614	93,353	126,399
Balance January 1, 2009 . . . . .	15,037	91,756	—
Separation conversion option subsequent to the adoption of ASC 815 . . . . .	(825)	(9,684)	—
Issue of notes . . . . .	—	—	126,399
Accrual of interest . . . . .	595	3,135	556
Repurchasing of notes . . . . .	(2,647)	(16,208)	—
Foreign currency translation effect . . . . .	(619)	(3,605)	—
Balance December 31, 2009 . . . . .	<b>11,542</b>	<b>65,394</b>	<b>126,955</b>
Conversion of notes . . . . .	(12,677)	(5)	—
Accrual of interest . . . . .	181	1,560	3,849
Repurchasing of notes . . . . .	—	(38,276)	—
Foreign currency translation effect . . . . .	954	3,765	—
Balance December 31, 2010 . . . . .	<b>—</b>	<b>32,439</b>	<b>130,804</b>
Reported as non-current liabilities . . . . .	—	—	130,804
Reported as current liabilities . . . . .	—	32,439	—
	5.25% convertible subordinated notes, due 2010	4.25% convertible subordinated notes, due 2011	6.50% convertible subordinated notes, due 2014
Nominal value in US\$:			
December 31, 2009 . . . . .	16,880	101,387	—
December 31, 2010 . . . . .	—	<b>44,909</b>	—
Nominal value in €:			
December 31, 2009 . . . . .	11,718	70,383	150,000
December 31, 2010 . . . . .	—	<b>33,609</b>	<b>150,000</b>

#### **5.25% convertible subordinated notes, due 2010**

In May 2003, ASMI issued US\$ 90.0 million in principal amount of 5.25% convertible subordinated notes due in May 2010 in a private offering. Interest on the notes was payable on May 15 and November 15 of each year. The notes were subordinated in right of payment to all of the Company's existing and future senior indebtedness. The notes were convertible, at the option of the holder, into shares of the Company's common stock initially at a conversion rate of 52.0237 shares of common stock for each US\$ 1,000 principal amount of notes, subject to adjustment in certain circumstances. This was equivalent to an initial conversion price of US\$ 19.22 per share. On or after May 20, 2006, the Company could redeem any of the notes at a redemption price equal to 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if the closing price of the Company's common shares exceeded 150% of the conversion price for at least 20 trading days in any period of 30 consecutive trading days and if certain other conditions were satisfied. In the event of a change in control, the Company could be required to repurchase the notes.

In 2007, US\$ 20.8 million of the US\$ 90.0 million convertible subordinated notes were repurchased. The US\$ 20.8 million were repurchased for a market value of US\$ 29.0 million. The loss for the early extinguishment of the notes of € 6,309, which includes the premium paid above par and the write-off of unamortized issuance costs, was recorded as expense from early extinguishment of debt in the Consolidated Statement of Operations for the year 2007.

In 2008, US\$ 48.3 million convertible subordinated notes was repurchased. The US\$ 48.3 million was repurchased for a market value of US\$ 37.7 million. The gain from the early extinguishment of the notes of € 7,957, which includes the premium paid under par and the write-off of unamortized issuance costs, was recorded as a gain from early extinguishment of debt in the Consolidated Statement of Operations for the year 2008.

In 2008 US\$ 0.01 million in convertible subordinated notes were converted into 520 common shares out of the treasury shares, previously purchased by the Company.

In 2009 US\$ 4.0 million convertible subordinated notes was repurchased for a market value of US\$ 5.2 million. The loss from the early extinguishment of the notes of € 211, which includes the premium paid above par and the write-off of unamortized issuance costs, was recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2009.

In 2010 the remaining US\$ 16.9 million in convertible subordinated notes were converted into 878,154 common shares, newly issued by the Company.

#### **4.25% convertible subordinated notes, due 2011**

In December 2004, ASMI issued US\$ 150.0 million in principal amount of 4.25% convertible subordinated notes due in December 2011 in a private offering. Interest on the notes was payable on June 6 and December 6 of each year. The notes were subordinated in right of payment to all of the Company's existing and future senior indebtedness. The notes were convertible, at the option of the holder, into shares of the Company's common stock initially at a conversion rate of 48.0307 shares of common stock for each US\$ 1,000 principal amount of notes, subject to adjustment in certain circumstances. This was equivalent to an initial conversion price of US\$ 20.82 per share. Effective December 6, 2007, the conversion price was adjusted for the cash dividend paid in September 2007 to US\$ 20.71 per share. On or after December 6, 2007, the Company could redeem any of the notes at a redemption price equal to 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if the closing price of the Company's common shares exceeded 130% of the conversion price for at least 20 trading days in any period of 30 consecutive trading days. In the event of a change in control, the Company could be required to repurchase the notes.

In 2007, US\$ 14.6 million of the US\$ 150.0 million convertible subordinated notes were repurchased. The US\$ 14.6 million were repurchased for a market value of US\$ 19.4 million. The loss for the early extinguishment of the notes of € 3,740, which includes the premium paid above par and the write-off of unamortized issuance costs, was recorded as expense from early extinguishment of debt in the Consolidated Statement of Operations for the year 2007.

In 2008 US\$ 7.7 million in convertible subordinated notes were converted into 372,426 common shares of which 102,509 consisted of the treasury shares previously purchased by the Company and 269,917 newly issued common shares.

In 2009 US\$ 26.3 million convertible subordinated notes were repurchased for a market value of US\$ 33.7 million. The loss from the early extinguishment of the notes of € 1,548, which includes the write-off of unamortized issuance costs and the amortization of unamortized interest expenses, was recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2009.

In 2010 US\$ 56.5 million convertible subordinated notes was repurchased for a market value of US\$ 74.6 million. The loss from the early extinguishment of the notes of € 3,609, which includes the write-off of unamortized issuance costs and the amortization of unamortized interest expenses, was recorded as a loss from early extinguishment of debt in the Consolidated Statement of Operations for the year 2010.

In 2010 US\$ 7 thousand in convertible subordinated notes were converted into 337 common shares, newly issued by the Company.

On January 3, 2011 we announced that we initiated a full redemption for all of the outstanding principal balance of the 4.25% Convertible Subordinated Notes due 2011. The Notes which were not converted into common shares were redeemed on February 16, 2011, at a redemption price of 100.00% of the principal amount thereof, plus accrued and unpaid interest to February 15, 2011. The Notice of Redemption for the Notes was sent to all registered holders on January 3, 2011.

The 4.25% convertible subordinated notes ranked pari passu with the 5.25% convertible subordinated notes.

### 6.50% convertible subordinated notes, due 2014

In November 2009, ASMI issued € 150.0 million in principal amount of 6.50% convertible unsecured notes due in November 2014 in a private offering. Interest on the notes is payable on February 6, May 6, August 6 and November 6 of each year. The notes are subordinated in right of payment to all of the Company's existing and future senior indebtedness. The notes are convertible into shares of the Company's common stock only, initially at a conversion rate of 58.5851 shares of common stock for each € 1,000 principal amount of notes, subject to adjustment in certain circumstances. This is equivalent to an initial conversion price of € 17.09 per share. On or after November 27, 2012, the Company may redeem any of the notes at a redemption price equal to 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if the closing price of the Company's common shares has exceeded 130% of the conversion price for at least 20 trading days in any period of 30 consecutive trading days. In the event of a change in control, the Company may be required to repurchase the notes.

The 6.50% convertible subordinated notes rank pari passu amongst themselves and equally with all other unsecured and unsubordinated obligations of the Company.

### Conversion option

The conversion component of the subordinated notes qualifying as a liability is measured at fair value. The fair values for these options were determined using the Black-Scholes option valuation model with the following market data:

Valuation in US\$ per note of nominal US\$ 1,000	5.25% Convertible subordinated notes, due May 2010	4.25% Convertible subordinated notes, due December 2011
Valuation per 31 December 2008:		
Implied volatility	17.4%	10.0%
USD interest average	1.86%	1.86%
Stock price	€ 6.16	€ 6.16
Conversion price	US\$ 19.22	US\$ 20.71
Value of the option	US\$ 13.32	US\$ 29.99
Valuation per 31 December 2009:		
Implied volatility	32.0%	32.0%
USD interest average	0.37%	1.27%
Stock price	€ 17.76	€ 17.76
Conversion price	US\$ 19.22	US\$ 20.71
Value of the option	US\$312.97	US\$263.04
Valuation per 31 December 2010:		
Implied volatility	n/a	31.0%
USD interest average	n/a	0.78%
Stock price	n/a	€ 26.50
Conversion price	n/a	US\$ 20.71
Value of the option	n/a	US\$710.35

## Debt issuance costs

The fees incurred for the issuance of the convertible subordinated notes are included as debt issuance costs in the Consolidated Balance Sheet and amortized by the effective interest method as interest expense during the economic life of the debts. Debt issuance costs of € 1,234 are expected to be amortized in 2011.

## 17- Shareholders' Equity

### Common shares, preferred and financing preferred shares

The authorized capital of the Company amounts to 110,000,000 shares of € 0.04 par value common shares, 118,000 shares of € 40 par value preferred shares and 8,000 shares of € 40 par value financing preferred shares, of which 52,931,881 common shares, no preferred and no financing preferred shares were outstanding as at December 31, 2010. All shares have one vote per € 0.04 par value. Treasury shares held by the Company cannot be voted on.

Financing preferred shares are designed to allow ASMI to finance equity with an instrument paying a preferred dividend, linked to EURIBOR loans and government loans, without the dilutive effects of issuing additional common shares.

Preferred and financing preferred shares are issued in registered form only and are subject to transfer restrictions. Essentially, a preferred or financing preferred shareholder must obtain the approval of the Company's Supervisory Board to transfer shares. If the approval is denied, the Supervisory Board will provide a list of acceptable prospective buyers who are willing to purchase the shares at a cash price to be fixed by consent of the Supervisory Board and seller within two months after the approval is denied. If the transfer is approved, the shareholder must complete the transfer within three months, at which time the approval expires.

Preferred shares are entitled to a cumulative preferred dividend based on the amount paid-up on such shares. Financing preferred shares are entitled to a cumulative dividend based on the par value and share premium paid on such shares. The preferred dividend on the amount paid-up was € 5 for the year 2009.

In the event preferred shares are issued, the Management Board must, within two years after such preferred shares were issued, submit to the general meeting a proposal to annul the preferred shares. On May 14, 2008, 21,985 preferred shares were issued to Stichting Continuïteit ASM International ("Stichting"). The amount paid-up by Stichting was € 220, which is the equivalent of one-fourth of the nominal value of the preferred shares. On May 14, 2009 the Annual Meeting of Shareholders resolved to cancel the outstanding preferred shares and to reissue an option to Stichting Continuïteit to acquire preferred shares.

During 2008, ASM engaged Lehman Bros ("Lehman") to repurchase ordinary ASMI shares on the Euronext and Nasdaq markets on behalf of ASMI. As of September 15, 2008, at the time it went into bankruptcy administration, Lehman reported that it had purchased and held on our behalf 2,552,071 shares, which were accounted for as treasury shares accordingly. ASM filed a submission with the Lehman administrators giving notice of the shares held in custody by Lehman. At ASMI's May 2009 Annual General Meeting, our shareholders resolved to cancel all of these treasury shares which, accordingly, was accounted for in our 2009 Annual Report as a reduction of the number of outstanding shares. Lehman was notified of the cancellation of shares at the time.

In September 2010, Lehman's administrators notified us that there is a possible shortfall in the number of shares held by Lehman of 479,279 shares (out of the 2,552,071 shares), which cannot currently be accounted for by Lehman. The Lehman administrators also reported a segregated collateral cash account of US\$ 6,759, that ASMI may be entitled to in the absence of the shares. We have not been able to obtain additional information to confirm and understand the potential shortfall of shares or our ability to recover the US\$ 6,759 from the Lehman bankruptcy proceedings in lieu of the shares. Accordingly, we are uncertain at this time as to the accuracy of the shortfall of shares, our ability to claim the collateral cash sum to cover the value of any such discrepancy, and our entitlement to all or a portion of such sum when distributions are determined and made by the administrator since there is likely to also be a shortfall in Lehman assets subject to proprietary rights. Given the magnitude of the overall Lehman administration, we believe it may take several years to obtain clarity or resolution about the potential shortfall or claim to cash. ASMI is in the process of filing a claim with the Lehman administrators to safeguard our interests.

Considering the factual and legal uncertainties, it is premature to conclude that the 479,279 shares should still be considered as outstanding or that ASMI has a US\$ 6,759 receivable from Lehman. ASMI has, therefore, neither reversed the cancellation of these shares that we recorded in 2009, nor recorded a receivable from Lehman. If the shares would be considered as outstanding, the impact on our basic and diluted earnings per share as at December 31, 2010 would have been € (0.02) and € (0.01) respectively per share.

### Treasury shares at cost

The changes in the number and amount of treasury shares at cost is as follows:

	Number of treasury shares	Amount	Amount per share
Balance January 1, 2009 .....	2,666,491	37,215	13.96
Withdrawal of common shares .....	(2,553,000)	(35,631)	13.96
Issuance of treasury shares upon exercise of options ..	(113,491)	(1,584)	13.96
Balance December 31, 2009 .....	—	—	—
Balance December 31, 2010 .....	—	—	—

### Retained earnings

Distributions to common shareholders are limited to the extent the total amount of shareholders' equity exceeds the amounts of nominal paid-in share capital (exclusive any share premium) and any reserves to be formed pursuant to law or the Company's articles of association. The amounts are derived from the Statutory Financial Statements of ASM International N.V.

Following the adoption of ASC 810(-10 45-23) as per 2009 results on dilution of investments in subsidiaries are accounted for directly in equity. The 2009 results and changes in equity have been adjusted accordingly. For 2010 and 2009 these dilution gains were € 4,957 and € 956 respectively.

### Accumulated other comprehensive loss

The changes in the amount of accumulated other comprehensive loss are as follows:

	Foreign currency translation effects	Unrealized gains (losses) on derivative instruments, net of tax	Unrecognized pension obligations, net of tax	Total
Balance January 1, 2009 .....	(62,301)	47	(1,838)	(64,092)
Foreign currency translation effect on translation of foreign operations .....	(1,939)	—	62	(1,877)
Increase in fair value of derivative instruments, net of tax .....	—	81	—	81
Transfer to Consolidated Statement of Operations of derivative instruments, net of tax .....	—	(251)	—	(251)
Reclassification transition obligation into retained earnings .....	—	—	877	877
Result on curtailment and settlement unrecognized pension obligations .....	—	—	852	852
Actuarial loss .....	—	—	(370)	(370)
Amortization of unrecognized actuarial results .....	—	—	26	26
Total change in accumulated other comprehensive loss .....	(1,939)	(170)	1,447	(662)
Balance December 31, 2009 .....	(64,240)	(123)	(391)	(64,754)
Foreign currency translation effect on translation of foreign operations .....	30,553	—	(87)	30,466
Increase in fair value of derivative instruments, net of tax .....	—	136	—	136
Actuarial loss .....	—	—	(87)	(87)
Total change in accumulated other comprehensive loss .....	30,553	136	(174)	30,515
Balance December 31, 2010 .....	(33,687)	13	(565)	(34,239)

### Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On May 22, 2007, the General Meeting of Shareholders authorized the Company, for an 18-month period, to be calculated from the date of the General Meeting, to repurchase its own shares up to the

statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the purchase date.

The number of shares bought back under the authorization of May 22, 2007 was 2,655,100. Of this number, 249,071 were sold upon the exercise of options by employees of ASML, under the Employee Stock Option Plan, 103,029 were issued upon conversion of convertible subordinated debt and 2,553,000 were withdrawn in July 2009.

Reference is made to the paragraph "Common shares, preferred and financing preferred shares" of this note to the consolidated financial statements for the uncertainty about the shares held in custody by Lehman.

The following table summarizes shares repurchased under the authorization of May 22, 2007:

<b>Period</b>	<b>Total Number of Shares Purchased</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</b>	<b>Average Price Paid per Share</b>	<b>Maximum Number of Shares that May Yet be Purchased under the Programs</b>
August 2007 . . . . .	250,000	250,000	€18.67	—
March and April 2008 . .	2,405,100	2,405,100	€13.31	—

On May 21, 2008, the General Meeting of Shareholders authorized the Company, for an 18-month period, to be calculated from the date of the General Meeting, to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the purchase date.

The number of shares bought back under the authorization of May 21, 2008 was 250,000.

The following table summarizes shares repurchased under the authorization of May 21, 2008:

<b>Period</b>	<b>Total Number of Shares Purchased</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</b>	<b>Average Price Paid per Share</b>	<b>Maximum Number of Shares that May Yet be Purchased under the Programs</b>
September 2008 . . . . .	250,000	250,000	€17.74	2,758,656

The maximum of shares that may yet be purchased under the program takes into account the treasury shares held by the Company (at December 31, 2010 there were no treasury shares held) and the maximum number of common shares which the Company can hold according to its Articles of Association. This maximum is 10% of the number of common shares issued.

## 18- Employee Benefits

### Pension plans

The Company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the Company's operations in the Netherlands and Japan.

The Company's employees in the Netherlands participate in a multi-employer plan ("Bedrijfstakpensioenfond Metalektro"). The plan monitors the risks of the entire investment portfolio, not by individual company or employee, and is subject to regulation by Dutch governmental authorities. By Dutch law, a multi-employer union plan must be monitored against specific criteria, including the coverage ratio of its assets to its obligations. This ratio includes a minimum coverage ratio of 105%. Each company participating in the plan contributes a percentage of its total pensionable salaries and each company contributes the same percentage. The pension rights of individual employees are based on the employee's average salary during employment. The Company's net periodic pension cost for the multi-employer plan for a fiscal period is equal to the required contribution for that period. At December 31, 2010 the coverage ratio of the multi-employer plan was 96 (December 31, 2009: 99%). This decrease mainly resulted from the use of the latest mortality tables. The Board of the multi-employer plan decided that existing pension obligations will not be indexed for the years 2010 and 2011.



The Company's employees in Japan participate in a defined benefit plan. The funded status of the plan and the amounts not yet recognized in the Consolidated Statement of Operations and the amounts recognized in the Consolidated Balance Sheet are as follows:

	December 31,	
	2009	2010
Defined benefit obligations	(6,560)	<b>(8,805)</b>
Fair value of plan assets	2,119	<b>3,189</b>
Funded status deficit	(4,441)	<b>(5,617)</b>
Unrecognized actuarial loss	662	<b>954</b>
Net liabilities	<u>(3,779)</u>	<u><b>(4,663)</b></u>

The changes in defined benefit obligations and fair value of plan assets are as follows:

	December 31,	
	2009	2010
Defined benefit obligations		
Balance January 1	10,046	<b>6,560</b>
Current service cost	675	<b>629</b>
Interest on obligation	154	<b>139</b>
Actuarial losses (gains)	605	<b>795</b>
Benefits paid	(365)	<b>(819)</b>
Curtailment and settlement	(4,095)	—
Foreign currency translation effect	(461)	<b>1,502</b>
Balance December 31	<u>6,560</u>	<u><b>8,805</b></u>
Fair value of plan assets		
Balance January 1	4,973	<b>2,119</b>
Expected return on plan assets	98	<b>77</b>
Actuarial losses	(20)	<b>658</b>
Company contribution	629	<b>647</b>
Benefits paid	(365)	<b>(819)</b>
Settlement	(2,996)	—
Foreign currency translation effect	(201)	<b>507</b>
Balance December 31	<u>2,119</u>	<u><b>3,189</b></u>

The net periodic benefit cost consists of the following:

	December 31,		
	2008	2009	2010
Current service cost	739	675	<b>629</b>
Interest on obligation	160	154	<b>139</b>
Expected return on plan assets	(193)	(98)	<b>(77)</b>
Amortization deferred actuarial loss	—	44	<b>1</b>
Amortization of transition amount	113	—	—
Net periodic pension benefit cost	<u>819</u>	<u>775</u>	<u><b>692</b></u>

The actual return on plan assets was € (1,293), € 78 and € 734 for the years ended December 31, 2008, 2009 and 2010 respectively.

The assumptions in calculating the actuarial present value of benefit obligations and net periodic benefit cost are as follows:

	December 31,		
	2008	2009	2010
Discount rate for obligations	2.00%	1.70%	<b>1.25%</b>
Expected return on plan assets	3.00%	3.00%	<b>3.00%</b>
Future salary increases	2.94%	2.93%	<b>2.93%</b>

The allocation of plan assets is as follows:

	December 31,			
	2009		2010	
Shares .....	868	41.0%	<b>798</b>	<b>25.0%</b>
Bonds .....	1,010	47.6%	<b>1,965</b>	<b>61.6%</b>
Loans .....	126	5.9%	<b>235</b>	<b>7.4%</b>
Real estate .....	25	1.2%	<b>51</b>	<b>1.6%</b>
Other .....	91	4.3%	<b>140</b>	<b>4.4%</b>
	<u>2,119</u>	<u>100.0%</u>	<u><b>3,189</b></u>	<u><b>100.0%</b></u>

The plan assets do not include any of the Company's shares.

The Company expects to contribute € 651 to the defined benefit plan in 2011. The Company expects to pay benefits for years subsequent to December 31, 2010 as follows:

2011 .....	251
2012 .....	257
2013 .....	262
2014 .....	286
2015 .....	286
Aggregate for the years 2016-2020 .....	<u>1,897</u>
Total .....	<u><b>3,239</b></u>

Retirement plan costs consist of the following:

	December 31,		
	2008	2009	2010
Defined contribution plans .....	7,863	6,875	<b>10,423</b>
Multi-employer plans .....	2,792	2,089	<b>1,207</b>
Defined benefit plans .....	819	775	<b>673</b>
Total retirement plan costs .....	<u>11,474</u>	<u>9,739</u>	<u><b>12,303</b></u>

The Company does not provide for any significant post-retirement benefits other than pensions.

### Employee Stock Option Plan

The Company has adopted various stock option plans and has entered into stock option agreements with various employees. Under these plans, employees may purchase a specific number of shares of the Company's common stock. Options are priced at market value in euros or U.S. dollars on the date of grant, are generally vesting in equal parts over a period of five years and generally expire after five or ten years. Under the 2001 Stock Option Plan the Company is authorized to issue 4,000,000 shares. At December 31, 2010, options to purchase 3,838,320 shares have been issued under the 2001 Stock Option Plan. Under previous plans no more options to purchase shares can be issued. Under the various stock option plans a total of 1,445,523 options to purchase common stock were outstanding at December 31, 2010, expiring at various dates through 2019. The number of options outstanding at December 31, 2008 and 2009 were 1,460,730 and 1,750,158 respectively. In 2011, a new stock option plan will be adopted. In the new plan to limit potential dilution, the Supervisory Board will require that at any time the amount of outstanding (vested and non-vested) options granted to the Management Board and to other employees will not exceed 7.5% of the issued ordinary share capital of ASMI.

The following is a summary of changes in options outstanding:

	Number of options	Weighted average exercise price in US\$	Number of options	Weighted average exercise price in €
Balance January 1, 2008	442,797	16.43	747,000	15.10
Options granted	276,000	20.49	148,000	12.36
Options forfeited	(36,500)	16.43	(17,200)	17.55
Options exercised	(79,357)	15.07	(20,010)	13.85
Balance December 31, 2008	602,940	18.47	857,790	14.61
Options granted	358,400	17.83	381,600	14.76
Options forfeited	(68,740)	14.27	(245,332)	14.43
Options exercised	(69,700)	12.99	(66,800)	12.20
Balance December 31, 2009	<b>822,900</b>	<b>19.00</b>	<b>927,258</b>	<b>14.89</b>
Options granted	<b>42,000</b>	<b>35.01</b>	<b>64,500</b>	<b>22.53</b>
Options forfeited	<b>(35,700)</b>	<b>19.73</b>	<b>(67,185)</b>	<b>16.97</b>
Options exercised	<b>(143,140)</b>	<b>16.83</b>	<b>(165,110)</b>	<b>13.12</b>
Balance December 31, 2010	<b>686,060</b>	<b>20.40</b>	<b>759,463</b>	<b>15.74</b>

The weighted average fair values of employee stock options granted in U.S. dollars were US\$ 11.01 in 2008, US\$ 9.31 in 2009 and US\$ 17.02 in 2010. The weighted average fair values of employee stock option granted in Euro were € 5.55 in 2008, € 7.26 in 2009 and € 13.94 in 2010.

The weighted average remaining contractual life of the outstanding options granted in 2010 is 6.36 years at December 31, 2010.

The total intrinsic value of options exercised was € 818, € 684 and € 2,322 for the years ended December 31, 2008, 2009 and 2010 respectively. No new shares have been issued for the exercise of options in 2008. In 2009 and 2010 new shares have been issued for the exercise of 23,009 and 308,250 options respectively.

At December 31, 2010 options outstanding and options exercisable classified by range of exercise prices are:

Range of exercise prices	Options outstanding			Options exercisable	
	Number outstanding	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable	Weighted average exercise price
		In years	In US\$		In US\$
In US\$					
1.00-10.00	68,000	8.14	7.47	4,000	6.30
10.00-15.00	139,060	4.11	12.88	62,020	13.35
15.00-20.00	71,700	6.43	18.27	26,800	17.48
20.00-30.00	365,300	5.97	24.41	103,900	25.22
30.00-40.00	42,000	6.01	35.01	—	—
US\$1.00-40.00	686,060	5.85	20.40	196,720	20.04
In €		In years	In €		In €
1.00-10.00	14,800	2.92	7.95	400	7.79
10.00-15.00	145,380	4.11	12.33	11,800	12.11
15.00-20.00	559,783	4.47	16.07	210,623	17.38
20.00-30.00	39,500	6.01	26.50	—	—
€1.00-30.00	759,463	4.45	15.74	222,823	17.08
Total	1,445,523	5.12	17.95	419,543	18.47

At December 31, 2010, the aggregate intrinsic value of all options outstanding and all options exercisable is € 15,672 and € 4,302 respectively.

The cost relating to employee stock options is measured at fair value on the grant date. The fair value was determined using the Black-Scholes option valuation model with the following weighted average assumptions:

	December 31,	
	2009	2010
Expected life (years) .....	5 – 10	5 – 10
Risk free interest rate .....	3.0%	2.8%
Dividend yield .....	—	—
Expected volatility .....	52.1%	45.6%

The grant date fair value of the stock options is expensed on a straight-line basis over the vesting period, based on the Company's estimate of stock options that will eventually vest. The impact of the true up of the estimates is recognized in the consolidated statement of operations in the period in which the revision is determined. We recorded compensation expenses of € 2,127 and € 2,526 for 2009 and 2010 respectively.

### Employee Share Incentive Scheme ASMPT

In 1989, the shareholders of ASMPT approved a plan to issue up to 5.0 percent of the total issued shares of ASMPT to directors and employees. This plan was extended in 1999 for a term up to March 23, 2010. At the annual general meeting of the ASMPT held on 24 April 2009, the shareholders approved to extend the period of the Scheme for a term of a further 10 years up to 23 March 2020 and allow up to 7.5% of the issued share capital of ASMPT from time to time (excluding any shares subscribed for or purchased pursuant to the Scheme since 23 March 1990) to be subscribed for or purchased pursuant to the Scheme during such extended period and that no more than 3.5% of the issued share capital of ASMPT from time to time (excluding any shares subscribed for or purchased pursuant to the Scheme since 23 March 1990) to be subscribed for or purchased pursuant to the Scheme for the period from 24 March 2010 to 23 March 2015.

The directors annually may approve an amount of supplemental compensation to the designated directors and officers, which will be used to issue or purchase ASMPT's common shares for the designees at current market value. In December 2010, 1,726,900 common shares of ASMPT were issued, for cash at par value of HK\$ 0.10 per share, pursuant to the Employee Share Incentive Scheme of ASMPT. In 2009 and 2008, respectively 2,035,400 and 1,728,700 ASMPT shares were issued to certain directors and employees under the plan. The effect of this transaction on ASMI was a dilution of its ownership interest in ASMPT of 0.23% in 2010, 0.28% in 2009 and 0.23% in 2008. The shares issued under the plan in 2010 have diluted ASMI's ownership in ASMPT to 52.36% as of December 31, 2010. Total compensation expenses related to the Employee Share Incentive Scheme of respectively € 7,524 in 2008, € 3,685 in 2009, and € 11,375 in 2010 were charged to the Consolidated Statement of Operations.

### Dilution investment ASMPT

The dilution in ownership has resulted in a gain on the investment in ASMPT of € 4,088 in 2008, which gain has been separately included in the Consolidated Statement of Operations. Due to the participation exemption in the Netherlands no deferred income taxes have been provided for these gains. Following the adoption of ASC 810(-10 45-23) as per 2009 results on dilution of investments in subsidiaries are accounted for directly in equity. The 2009 results and changes in equity have been adjusted accordingly. For 2010 and 2009 these dilution gains were € 4,957 and € 956 respectively.

## 19- Commitments and Contingencies

Capital leases included in property, plant and equipment are as follows:

	December 31,	
	2009	2010
Machinery and equipment .....	4,305	3,644
Furniture and fixtures .....	739	359
	5,044	4,003
Less accumulated depreciation .....	(3,939)	(3,211)
	1,105	792

At December 31, 2010 minimum rental commitments under capital leases and operating leases having initial or remaining non-cancelable terms in excess of one year are as follows:

	<u>Capital leases</u>	<u>Operating leases</u>
2011 .....	299	10,061
2012 .....	131	7,871
2013 .....	—	5,152
2014 .....	—	2,854
2015 .....	—	1,839
Years thereafter .....	—	2,390
Total .....	430	30,167
Less amount representing interest .....	(5)	
Present value of net minimum lease payments .....	<u>425</u>	

Aggregate rental expense for operating leases was € 9,748 in 2008, € 10,719 in 2009 and € 10,173 in 2010. At December 31, 2010 the Company had entered into purchase commitments with suppliers in the amount of € 58,006 for purchases, of which € 57,726 for purchases within the next 12 months. Commitments for capital expenditures at December 31, 2010 were € 22,359.

### **Change of Control Transaction**

If the Company desires to effect a change of control transaction with a competitor of Applied Materials, Inc., (“Applied Materials”) the Company must, pursuant to a litigation settlement agreement in 1997, as amended and restated in 1998, first offer the change of control transaction to Applied Materials on the same terms as the Company would be willing to accept from that competitor pursuant to a bona fide arm’s-length offer by that competitor.

### **20- Litigation and Environmental Matters**

The Company is party to various legal proceedings generally incidental to its business and is subject to a variety of environmental and pollution control laws and regulations. As is the case with other companies in similar industries, the Company faces exposure from actual or potential claims and legal proceedings. Although the ultimate disposition of legal proceedings cannot be predicted with certainty, it is the opinion of the Company’s management that the outcome of any claim which is pending or threatened, either individually or on a combined basis, will not have a materially adverse effect on the financial position of the Company, its cash flows and result of operations.

Under our license agreement with Applied Materials, we pay royalties based upon our sales of equipment that employs technology covered by the licensed patents. We believe that we no longer practice patents applicable to certain equipment and ceased paying royalties on the sale of such equipment as of December 18, 2007 and gave written notice to Applied Materials in December 2007. The agreement provides a process to address royalty issues in a prescribed manner: the first step is written notice of a royalty matter to a party; the second step is amicable resolution with the participation of an expert if desired by Applied Materials; and the final step if not resolved by the parties is through binding arbitration. Initiation of this process is not considered a default event and the remedy is the payment of any unpaid royalties for equipment shipped after the written notice that are ultimately agreed to by the parties or determined by arbitration. Applied Materials is verifying our position through the review by an independent expert. While we consider the matter closed, Applied Materials notified us in late 2009 that they are continuing to evaluate the matter and will contact us if they require additional information. Although we believe our position is correct, the outcome of any possible arbitration is uncertain and, if we are not successful, we could be required to pay up to approximately US\$ 5.8 million (€ 4.3 million) for royalties as of December 31, 2010.

## 21- Financial Instruments and Risk Management

### Categories of Financial Instruments

Financial instruments include:

Financial assets:

	December 31,	
	2009	2010
Cash and cash equivalents .....	293,902	340,294
Accounts receivable .....	165,754	271,271
Derivative instruments designated in cash flow hedges .....	—	14
Derivative instruments designated in fair value hedges .....	94	—

Financial liabilities:

	December 31,	
	2009	2010
Notes payable to banks .....	17,008	8,297
Accounts payable .....	93,117	170,553
Current portion of long-term debt .....	5,795	15,950
Current portion of convertible subordinated debt .....	11,542	32,439
Long-term debt .....	16,554	4,316
Convertible subordinated debt .....	192,350	130,804
Conversion option .....	22,181	23,875
Derivative instruments designated in cash flow hedges .....	167	—
Derivative instruments designated in fair value hedges .....	28	31

Gains or losses related to financial instruments are as follows:

	Year ended December 31,	
	2009	2010
Interest income .....	1,018	1,221
Interest expense .....	(8,556)	(15,677)
Accretion interest expense convertible notes at amortized value .....	(4,286)	(6,010)
Loss resulting from early extinguishment of debt .....	(1,759)	(3,609)
Revaluation conversion option .....	(24,364)	(19,037)
Losses Foreign currency exchange, net .....	(1,384)	(65)
Addition to allowance for doubtful accounts receivable .....	(2,812)	(461)

We adopted ASC 820, *Fair Value Measurements*, on January 1, 2008, for financial assets and liabilities and for nonfinancial assets and liabilities that are remeasured at least annually. ASC 820 defines fair value as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. ASC 820 establishes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels.

- Level 1. Quoted prices in active markets that are accessible at the measurement date for identical assets and liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.
- Level 2. Observable inputs other than quoted prices in active markets.
- Level 3. Unobservable inputs for which there is little or no market data available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

The following table presents the Company's financial assets and financial liabilities that are measured at fair value on a recurring basis.

	<u>At carrying value</u>	<u>At fair value Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
December 31, 2009					
Assets:					
Derivative financial instruments .....	94	—	14,500	—	14,500
Total .....	94	—	14,500	—	14,500
Liabilities:					
Conversion options .....	22,181	—	22,181	—	22,181
Derivative financial instruments .....	195	—	421	—	421
Total .....	22,376	—	22,602	—	22,602
December 31, 2010					
Assets:					
Derivative financial instruments .....	14	—	1,743	—	1,743
Total .....	14	—	1,743	—	1,743
Liabilities:					
Conversion options .....	23,875	—	23,875	—	23,875
Total .....	<u>23,875</u>	<u>—</u>	<u>23,875</u>	<u>—</u>	<u>23,875</u>

## Financial Risk Factors

ASMI is exposed to a number of risk factors: market risks (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Company uses forward exchange contracts to hedge its foreign exchange risk. The Company does not enter into financial instrument transactions for trading or speculative purposes.

## Foreign Exchange Risk

ASMI and its subsidiaries conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of the Company (euro) or one of its subsidiaries conducting the business. The purpose of the Company's foreign currency management is to manage the effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollar.

The Company's Front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which the Company has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive loss in Shareholders' Equity, and is reclassified into earnings when the hedged transaction affects earnings.

The majority of revenues and costs of the Company's Back-end segment are denominated in Hong Kong dollars, Chinese Yuan and U.S. dollars. Since foreign currency exposure is not significant, no forward exchange contracts are used. The effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in foreign currencies is periodically reviewed.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. The Company records all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses.

The Company expects that substantially all of the € 13 unrealized gains included in accumulated other comprehensive loss as of December 31, 2010 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Unrealized

losses included in accumulated other comprehensive loss as of December 31, 2009 of € 123 were reclassified to earnings in 2010. Hedge ineffectiveness was insignificant for the years ended December 31, 2009 and December 31, 2010.

Furthermore, the Company manages the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

To the extent that exchange rate fluctuations impact the value of the Company's investments in its foreign subsidiaries, they are not hedged. The cumulative effect of these fluctuations is separately reported in Consolidated Shareholders' Equity. Reference is made to Note 17.

The outstanding forward exchange contracts are as follows:

	<u>Currency</u>	<u>Notional amount</u>	<u>Forward contract value</u>	<u>Fair value</u>	<u>Difference between forward value and fair value</u>	<u>Included in accumulated other comprehensive income (loss)</u>
			<u>Euro</u>	<u>Euro</u>	<u>Euro</u>	<u>Euro</u>
December 31, 2009:						
Assets:						
Cash flow hedge contracts:						
Short position . . . . .	US\$	(10,767)	(7,293)	(7,460)	(167)	(123)
Fair value hedge contracts:						
Short position . . . . .	US\$	(10,135)	(7,134)	(7,040)	94	—
Liabilities:						
Cash flow hedge contracts						
Long position . . . . .	—	—	—	—	—	—
Fair value hedge contracts:						
Long position . . . . .	US\$	607	449	421	(28)	—
December 31, 2010:						
Assets:						
Cash flow hedge contracts:						
Short position . . . . .	US\$	(452)	(350)	(336)	14	13
Fair value hedge contracts:						
Short position . . . . .	US\$	(1,881)	(1,376)	(1,407)	(31)	—
Liabilities:						
Cash flow hedge contracts						
Long position . . . . .	—	—	—	—	—	—
Fair value hedge contracts:						
Long position . . . . .	US\$	—	—	—	—	—

For forward exchange contracts, market values based on external quotes from banks have been used to determine the fair value.



The following table analyzes the Company's sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar, Hong Kong dollar and Japanese yen against the euro as of December 31, 2009 and December 31, 2010. This analysis includes foreign currency denominated monetary items and adjusts their translation at year end for a 10% increase and 10% decrease of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro. A positive amount indicates an increase in equity. Recognized in equity is the revaluation effect of subsidiaries denominated in U.S. dollar, Hong Kong dollar and Japanese yen.

	<b>Impact on equity</b>	
	<b>2009</b>	<b>2010</b>
10% increase of U.S. dollar versus euro	(79)	<b>1,061</b>
10% decrease of U.S. dollar versus euro	79	<b>(1,061)</b>
10% increase of Singapore dollar versus euro	NM	<b>1,431</b>
10% decrease of Singapore dollar versus euro	NM	<b>(1,431)</b>
10% increase of Hong Kong dollar versus euro	19,736	<b>53,458</b>
10% decrease of Hong Kong dollar versus euro	(19,736)	<b>(53,458)</b>
10% increase of Japanese yen versus euro	3,585	<b>5,016</b>
10% decrease of Japanese yen versus euro	(3,585)	<b>(5,016)</b>

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar, Hong Kong dollar and Japanese yen against the euro as of December 31, 2009 and December 31, 2010 would not result in a material impact on equity.

The following table analyzes the Company's sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar and Hong Kong dollar against the euro at average exchange rates for the years 2009 and 2010. A positive amount indicates an increase in net earnings.

	<b>Impact on net earnings</b>	
	<b>2009</b>	<b>2010</b>
10% increase of Japanese yen versus euro	(1,212)	<b>617</b>
10% decrease of Japanese yen versus euro	1,212	<b>(617)</b>
10% increase of U.S. dollar versus euro	(7,456)	<b>(549)</b>
10% decrease of U.S. dollar versus euro	7,456	<b>549</b>
10% increase of Hong Kong dollar versus euro	4,570	<b>14,632</b>
10% decrease of Hong Kong dollar versus euro	(4,570)	<b>(14,632)</b>

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar, Hong Kong dollar and the Japanese yen against the euro at average exchange rates for the years 2009 and 2010 would not result in a material impact on net earnings.

## Interest Risk

We are exposed to interest rate risk primarily through our borrowing activities. The Company does not enter into financial instrument transactions for trading or speculative purposes or to manage interest rate exposure. At December 31, 2010 the Company had convertible subordinated debt borrowings outstanding of € 33,609 (US\$ 44,909) at a fixed interest rate, maturing in December 2011 (on January 3, 2011 we announced the redemption for all of the outstanding principal balance of our 4.25% Convertible Subordinated Notes due 2011, which resulted in the conversion of all remaining notes prior to the redemption date scheduled for February 15, 2011) and € 150,000 at a fixed rate, maturing in November 2014, € 20,266 in long-term debt at fixed interest rates and € 8,297 in other borrowings with variable short-term interest rates. A hypothetical change in the average interest rate by 10% on the portion of the Company's debt bearing interest at variable rates would not result in a material change in interest expense at December 31, 2009 and December 31, 2010 borrowing levels.

## Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and derivative instruments. These instruments contain a risk of counterparties failing to discharge their obligations. The Company monitors credit risk and manages credit risk exposure by type of financial instrument by assessing the creditworthiness of counterparties. The Company does not anticipate nonperformance by counterparties given their high creditworthiness.

The Company's customers are semiconductor device manufacturers located throughout the world. The Company generally does not require collateral or other security to support financial instruments with credit risk.

Concentrations of credit risk (whether on or off-balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

The Company derives a significant percentage of its revenue from a small number of large customers. The Company's largest customer accounted for approximately 5.2% of net sales in 2010 (2009: 9.1%; 2008: 13.8%) and the ten largest customers accounted for approximately 27.9% of net sales in 2010 (2009: 32.9%; 2008: 32.0%). Sales to these large customers also may fluctuate significantly from time to time depending on the timing and level of purchases by these customers. Significant orders from such customers may expose the Company to a concentration of credit risk and difficulties in collecting amounts due, which could harm the Company's financial results. At December 31, 2010 one customer accounted for 6.0% of the outstanding balance in accounts receivable (2009: 7.8%; 2008: 12.3%).

The Company places its cash and cash equivalent and derivative instruments with high quality financial institutions to limit the amount of credit risk exposure.

The maximum credit exposure is equal to the carrying values of cash and cash equivalent and accounts receivable.

## Liquidity Risk

The following table summarizes the Company's contractual obligations as at December 31, 2010 aggregated by type of contractual obligation:

<b>Contractual obligations</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>More than 5 years</b>
Notes payable to banks <sup>1</sup> .....	8,532	8,532	—	—	—
Long-term debt <sup>1, 2</sup> .....	20,684	16,292	4,392	—	—
Convertible subordinated debt <sup>1</sup> .....	221,149	43,524	19,500	158,125	—
Operating leases .....	30,167	10,061	13,023	4,693	2,390
Purchase obligations:					
Purchase commitments to suppliers .....	58,006	57,726	280	—	—
Capital expenditure commitments .....	22,359	22,359	—	—	—
Unrecognized tax benefits (ASC 740) .....	20,057	20,057	—	—	—
<b>Total contractual obligations .....</b>	<b>380,954</b>	<b>178,551</b>	<b>37,195</b>	<b>162,818</b>	<b>2,390</b>

(1) Including interest expense based on the percentages at the reporting date.

(2) Capital lease obligations of € 425 are included in long-term debt.

Total short-term lines of credit amounted to € 126,833 at December 31, 2010. The amount outstanding at December 31, 2010 was € 8,297 and the undrawn portion totaled € 118,536. The undrawn portion includes the standby revolving credit facility of € 90,000 with a consortium of banks. The facility, available through November 6, 2012, is secured by a portion of the Company's shareholding in ASMPT. The undrawn portion includes € 22,464 for ASMPT, which amount is restricted to be used only in the operations of ASMPT. The undrawn portion includes € 6,072 for ASM Japan, which amount is restricted to be used only in the operations of ASM Japan.

The Company uses notes payable to banks to manage short term liquidity and uses long-term debt and convertible subordinated debt to manage long term liquidity.

For the majority of purchase commitments, the Company has flexible delivery schedules depending on the market conditions, which allows the Company, to a certain extent, to delay delivery beyond originally planned delivery schedules.

## 22- Research and Development

Research and Development consists of the following:

	Year ended December 31,		
	2008	2009	2010
Research and development expenses from continuing operations .....	75,650	63,934	<b>79,331</b>
Research and development grants and credits .....	(639)	(1,128)	<b>(546)</b>
Total research and development .....	<u>75,011</u>	<u>62,806</u>	<u><b>78,785</b></u>

The Company's operations in the Netherlands, Germany and the United States receive research and development grants and credits from various sources. The research and development grants and credits received from governmental sources in the Netherlands include a credit which is contingently repayable to the extent the Company recognizes sales of products to which the credit is related within an agreed upon period. The Company does not recognize a liability on the Consolidated Balance Sheet in respect of this credit until it recognizes sales of products to which the credit is related, within the agreed upon period and is then charged to cost of sales when such sales are recorded. The repayment amounts to 4.0% of the realized sales of these products. In 2008 the Company accounted for repayments with respect to such credits of € 86. Interest on the contingent repayments is accrued at an interest rate of 6.05% per annum. The contingent repayment, including accrued interest, was € 3,162 at December 31, 2008. This amount has not been recognized as a liability in the Consolidated Balance Sheet since the Company has not recognized sales of products to which the credit is related. With the disposal of our RTP business the liability has been transferred to Levitech B.V., the vehicle in which the management buy-out has been constructed. ASM International N.V. participates for 20% in Levitech B.V. With the disposal of our RTP business in 2009 we have licensed our RTP portfolio of 50 issued patents and 23 pending patents to Levitech BV.

## 23- Restructuring expenses

In 2009 ASMI started the implementation of a major restructuring in the Front-end segment (PERFORM!) as announced on January 9, 2009 and on July 20, 2009. The main components of the Company's accelerated execution plans are:

- The consolidation of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore by the end of 2010. This will be achieved by completing the previously announced transfer from Almere, the Netherlands, which was finalized during 2009; the phasing out the manufacturing operation in Phoenix, Arizona, in the first half of 2010; and by transferring manufacturing from Nagaoka, Japan, no later than the fourth quarter of 2010.
- The reduction of selling, general and administration expenses by making fundamental changes in our global support infrastructure. This includes a significant simplification and streamlining of our warehousing operations and the further strengthening of the global sales & service organization which was created last year.
- The leveraging of research and development and our product portfolio by reprioritization of strategic programs in order to maximize their potential.

The following table summarizes the aggregated restructuring expenses by type:

	Year ended December 31,		
	2008	2009	2010
Employee related expenses .....	—	19,437	4,534
Contract termination related expenses .....	—	2,799	779
Impairment charges .....	7,068	4,623	—
Transition expenses .....	—	4,366	3,806
Expenses buy out RTP .....	—	3,940	—
Other expenses .....	—	522	2,082
Total restructuring expenses .....	<u>7,068</u>	<u>35,687</u>	<u>11,201</u>

Related to these execution plans, an amount of € 11.2 million in restructuring expenses was recorded in 2010. These expenses were mainly costs for severance packages, retention costs, provisions for vacancy and other costs related to the transition of activities to Singapore.

Related to these execution plans, an amount of € 35.7 million in restructuring expenses was recorded for of 2009. These charges include:

- Employee related expenses of € 19.4 million. Included are unconditional one-time termination benefits of € 15.8 million, conditional one-time termination benefits subject to the final termination date of € 1.7 million and other employee related expenses of € 1.9 million.
- Contract termination related expenses of € 2.8 million. These expenses mainly relate to operational lease contracts and include both the valuating of the onerous contracts at fair value, the decommissioning expenses and impairments of leasehold improvements.
- Impairment charges of € 4.6 million mainly related to machinery and equipment. We impaired certain demo tools which were as a result of the strategic reorientation determined end of life. The impairment charges were determined based on the difference between the asset's estimated fair value and their carrying amount.
- Expenses of € 4.4 million resulting from the transition of our global Front-end manufacturing operations from Europe, the United States and Japan, into our Front-end manufacturing operations in Singapore.
- Expenses of € 3.9 million related to the management buy-out of our RTP.
- Other expenses of € 0.6 million

In 2008 the Company recorded an impairment charge related to the manufacturing plant at ASM Europe in the Netherlands of € 7,1 million. The impairment was the consequence of the announcement in January 2009 of the restructuring of the ASM Europe operations including the transfer of the manufacturing operations to the Company's subsidiary ASM Front-end Manufacturing Singapore. ASM Europe will cease using the manufacturing plant upon completion of the transfer. The impairment charges are included in the Consolidated Statements of Operations as restructuring expenses.

## 24- Income Taxes

The components of earnings (loss) before income taxes and Non-controlling interest consist of:

	Year ended December 31,		
	2008	2009	2010
The Netherlands .....	(32,287)	(92,945)	(48,177)
Other countries .....	97,052	28,458	333,639
Earnings (Loss) before income taxes and Non-controlling interest .....	64,765	(64,487)	285,462

The income tax expense consists of:

	Year ended December 31,		
	2008	2009	2010
Current:			
The Netherlands .....	(64)	(297)	(505)
Other countries .....	(12,594)	(12,570)	(38,342)
	(12,658)	(12,867)	(38,847)
Deferred:			
The Netherlands .....	—	—	—
Other countries .....	514	9,081	(4,093)
Income tax expense .....	(12,144)	(3,786)	(42,939)

The provisions for income taxes as shown in the Consolidated Statements of Operations differ from the amounts computed by applying the Netherlands statutory income tax rates to earnings before taxes. A reconciliation of the provisions for income taxes and the amounts that would be computed using the Netherlands statutory income tax rates is set forth as follows:

	Year ended December 31,		
	2008	2009	2010
Earnings (Loss) before income taxes and Non-controlling interest .....	64,765	(64,487)	<b>285,462</b>
Netherlands statutory income tax rate .....	25.5%	25.5%	<b>25.5%</b>
Income tax provision at statutory rate .....	(16,515)	16,444	<b>(72,793)</b>
Non-deductible expenses .....	(653)	(8,376)	<b>(8,250)</b>
Foreign taxes at a rate other than the Netherlands statutory rate .....	11,017	16,100	<b>24,198</b>
Valuation allowance .....	(10,604)	(32,087)	<b>(3,698)</b>
Non-taxable income .....	4,608	4,870	<b>18,536</b>
Other .....	3	(737)	<b>(932)</b>
Income tax expense .....	<u>(12,144)</u>	<u>(3,786)</u>	<u><b>(42,939)</b></u>

Included in non-taxable income for 2010 is € 13,793 regarding the Company's manufacturing operations in Singapore and other countries where income covering certain products is non-taxable under tax incentive schemes granted by the local tax authority (further describe). The majority of these tax exemption schemes have terms ending in 2010.

On 29 May 2006 and 8 June 2009 the Singapore Economic Development Board ("EDB") granted Pioneer Certificates to ASM Front End Manufacturing Singapore Pte Ltd ("FEMS", a principal subsidiary of the Group,) to the effect that profits arising from certain manufacturing activities by FEMS of Front End equipment will in principle be exempted from tax for a period of 10 years effective from dates ranging between 1 April 2005 and 1 July 2008, subject to fulfillment of certain criteria during the period.

On 12 July 2010, the EDB granted a Pioneer Certificate to ASM Technology Singapore Pte Limited ("ATS"), a principal subsidiary of the Group, to the effect that profits arising from certain products will be exempted from tax for a period of 10 years effective from dates ranging between 1 June 2010 and 1 January 2012 across specified products, subject to fulfillment of certain criteria during the period. EDB had also granted a 5 year Development and Expansion Incentive (DEI) to ATS to the effect that the profits arising from certain existing products shall be subject a concessionary tax rate of 10% for a period of 5 years from 1 January 2011, subject to the fulfillment of certain criteria during the period.

On the same date, the EDB also granted ATS an International Headquarters ("IHQ") Award to the effect that certain income arising from qualifying activities conducted by ATS, excluding income from business transactions with companies or end customers in Singapore, shall be subject to concessionary tax rate of 5% for a period of 10 years from 1 January 2011, subject to fulfillment of certain criteria during the period.

Manufacturing Headquarters ("MH") status granted to ATS previously :

- The Group's profit arising from the manufacturing of semiconductor equipment and materials by ATS in Singapore is non-taxable under a tax incentive covering certain new products under the Manufacturing Headquarters ("MH") status granted by the Singapore Government. The tax exemption applies to profits arising for a period of 10 years from 1 January 2001, subject to the fulfillment of certain criteria during the period."
- Income arising from activities not covered under the abovementioned incentives is taxed at the prevailing Singapore corporate tax rate.

The Netherlands statutory tax rate amounted to 25.5% in 2008, 2009 and 2010. Taxations for other jurisdictions is calculated at the rates prevailing in the relevant jurisdictions. The Company's deferred tax assets and liabilities have been determined in accordance with these statutory income tax rates.

Deferred income taxes consist of the following:

	December 31,	
	2009	2010
Deferred tax assets:		
Reserves and allowances .....	5,673	7,020
Net operating losses .....	147,551	153,407
Depreciation .....	1,801	2,331
Other .....	924	895
Gross deferred tax assets .....	155,949	163,653
Less: valuation allowance .....	(140,825)	(149,600)
Net deferred tax assets .....	15,124	14,053
Deferred tax liabilities .....	—	—
Net deferred income taxes .....	15,124	14,053

Deferred tax assets and liabilities are classified in the balance sheet as follows:

	December 31,	
	2009	2010
Deferred tax assets—current .....	6,893	8,567
Deferred tax assets—non-current .....	8,545	5,807
Deferred tax liabilities—non-current .....	(314)	(321)
	15,124	14,053

Based on tax filings, ASMI and its individual subsidiaries have net operating losses available at December 31, 2010 of € 550,469 for tax return purposes to reduce future income taxes, mainly in Europe and the United States. The Company believes that realization of its net deferred tax assets is dependent on the ability of the Company to generate taxable income in the future. Given the volatile nature of the semiconductor equipment industry, past experience, and the tax jurisdictions where the Company has net operating losses, the Company believes that there is currently insufficient evidence to substantiate recognition of substantially all net deferred tax assets with respect to net operating losses. Accordingly, a valuation allowance of € 140,825 in 2009 and € 149,600 in 2010 has been recorded.

The amounts and expiration dates of net operating losses for tax purposes are as follows:

Expiration year	
2011 .....	142,176
2012 .....	52,715
2013 .....	22,290
2014 .....	40,800
2015 .....	0
2016 .....	917
2017 .....	96,691
2018 .....	61,758
2019 .....	27,814
2020 .....	0
2021 .....	1,560
2022 .....	10,156
2023 .....	3,907
2024 .....	423
2025 .....	4,745
2026 .....	1,483
2027 .....	2,846
2028 .....	0
2029 .....	25,798
Unlimited .....	54,389
Net operating losses .....	550,469

The Company has not provided for deferred foreign withholding taxes, if any, on undistributed earnings of its foreign subsidiaries. At December 31, 2010 undistributed earnings of subsidiaries, subject to withholding taxes, were approximately € 19,928. These earnings could become subject to foreign

withholding taxes if they were remitted as dividends or if the Company should sell its interest in the subsidiaries. However, the Company believes that Netherlands tax credits would largely eliminate any foreign withholding tax that might otherwise be due.

On January 1, 2007 the Company adopted ASC 740 “Accounting for Uncertainty in Income Taxes”. The Company’s net operating losses for tax purposes decreased by € 5,369 as a result of the adoption of ASC 740. Since a valuation allowance was recorded against the net deferred tax assets with respect to these net operating losses, the adoption of ASC 740 did not impact the Company’s financial position and net earnings.

A reconciliation of the beginning and ending balance of the liability for unrecognized tax benefits is as follows:

Balance January 1, 2008 .....	12,908
Gross increases—tax positions in current year .....	1,044
Foreign currency translation effect .....	889
Balance December 31, 2008 .....	14,841
Gross increases—tax positions in current year .....	1,381
Foreign currency translation effect .....	(560)
Balance December 31, 2009 .....	<b>15,663</b>
Gross increases—tax positions in current year .....	<b>3,230</b>
Foreign currency translation effect .....	<b>1,164</b>
Balance December 31, 2010 .....	<b><u>20,057</u></b>

Unrecognized tax benefits mainly relate to transfer pricing positions, operational activities in countries where the Company is not tax registered and tax deductible costs.

The Company estimates that no interest and penalties are related to these unrecognized tax benefits.

In the year ended December 31, 2010, no settlement with tax authorities and no reduction as a result of a lapse of statute of limitations occurred.

Unrecognized tax benefits of € 20,057 would, if recognized, impact the Company’s effective tax rate. The Company estimates that the liability for unrecognized tax benefits will change with € 20,057 within the next 12 months, following the expected outcome of investigations by local tax authorities.

A summary of open tax years by major jurisdiction is as follows:

<u><b>Jurisdiction</b></u>	
Japan .....	2009—2010
Hong Kong .....	2000—2010
The Netherlands .....	2007—2010
Singapore .....	2006—2010
United States .....	1997—2010

The calculation of the Company’s tax liabilities involves dealing with uncertainties in the application of complex tax laws. The Company’s estimate for the potential outcome of any unrecognized tax benefits is highly judgmental. Settlement of unrecognized tax benefits in a manner inconsistent with the Company’s expectations could have a material impact on the Company’s financial position, net earnings and cash flows.

## **25- Disclosures about Segments and Related Information**

The Company organizes its activities in two operating segments, Front-end and Back-end. Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer (“CEO”), which is the chief operating decision maker (according to ASC 280).

The Front-end segment manufactures and sells equipment used in wafer processing, encompassing the fabrication steps in which silicon wafers are layered with semiconductor devices. The segment is a product driven organizational unit comprised of manufacturing, service, and sales operations in Europe, the United States, Japan and Southeast Asia.

The Back-end segment manufactures and sells equipment and materials used in assembly and packaging, encompassing the processes in which silicon wafers are separated into individual circuits and subsequently assembled, packaged and tested. The segment is organized in ASM Pacific Technology Ltd., in which the Company holds a majority of 52.36% interest, whilst the remaining shares are listed on the Stock Exchange of Hong Kong. The segment’s main operations are located in Hong Kong, the People’s Republic of China, Singapore and Malaysia.

<u>(euro thousands, except for headcount)</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>
Year ended December 31, 2008			
Net sales to unaffiliated customers	296,737	450,625	747,362
Gross profit	93,898	176,364	270,262
Result from operations	(30,445)	90,167	59,722
Interest income	3,002	1,045	4,047
Interest expense	(7,745)	—	(7,745)
Gain resulting from early extinguishment of debt	7,956	—	7,956
Foreign currency exchange gains (losses), net	(566)	1,351	785
Income tax expense	(1,486)	(10,658)	(12,144)
Net earnings (loss) before gain on dilution of investment in subsidiary	(29,284)	81,905	52,621
Gain on dilution of investment in subsidiary			4,088
Allocation of net earnings:			
Shareholders of the parent			18,411
Non-controlling interest			38,298
Capital expenditures	11,173	20,277	31,450
Purchase of other intangibles	4,994	368	5,362
Depreciation	14,440	18,736	33,176
Amortization of other intangible assets	985	499	1,484
Impairment of goodwill	1,395	—	1,395
Impairment of property, plant and equipment	7,068	—	7,068
Cash and cash equivalents	78,897	78,380	157,277
Capitalized goodwill	9,844	38,145	47,989
Other intangible assets	7,335	583	7,918
Other identifiable assets	282,340	272,274	554,614
Total assets	378,416	389,382	767,798
Total debt	153,682	—	153,682
Headcount in full-time equivalents <sup>1</sup>	1,667	10,047	11,714

(1) Headcount includes those employees with a fixed contract, and is exclusive of temporary workers.

<u>(euro thousands, except for headcount)</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>
Year ended December 31, 2009			
Net sales to unaffiliated customers	160,378	430,361	590,739
Gross profit	8,726	172,789	181,515
Result from operations	(120,269)	95,113	(25,156)
Interest income	541	477	1,018
Interest expense	(8,556)	—	(8,556)
Loss resulting from early extinguishment of debt	(1,759)	—	(1,759)
Accretion interest expense convertible notes	(4,286)	—	(4,286)
Revaluation conversion option	(24,364)	—	(24,364)
Foreign currency exchange gains (losses), net	(733)	(651)	(1,384)
Income tax expense	7,890	(11,676)	(3,786)
Net earnings (loss)	(151,535)	83,262	(68,273)
Allocation of net earnings (loss):			
Shareholders of the parent			(107,517)
Non-controlling interest			39,244
Capital expenditures	3,269	9,450	12,718
Purchase of other intangibles	2,934	360	3,294
Depreciation	11,436	20,619	32,054
Amortization of other intangible assets	1,884	451	2,335
Impairment of property, plant and equipment	4,628	—	4,628
Cash and cash equivalents	181,681	112,222	293,902
Capitalized goodwill	10,395	36,828	47,223
Other intangible assets	8,440	497	8,936
Other identifiable assets	187,194	314,445	501,638
Total assets	387,709	463,991	851,700
Total debt	265,430	—	265,430
Headcount in full-time equivalents <sup>1</sup>	1,294	10,773	12,067

(1) Headcount includes those employees with a fixed contract, and is exclusive of temporary workers.



<b>(euro thousands, except for headcount)</b>	<b>Front-end</b>	<b>Back-end</b>	<b>Total</b>
Year ended December 31, 2010			
Net sales to unaffiliated customers	293,356	929,544	1,222,900
Gross profit	114,624	434,954	549,578
Result from operations	15,954	312,686	328,640
Interest income	615	605	1,221
Interest expense	(15,677)	—	(15,677)
Loss resulting from early extinguishment of debt	(3,609)	—	(3,609)
Accretion interest expense convertible notes	(6,010)	—	(6,010)
Revaluation conversion option	(19,037)	—	(19,037)
Foreign currency exchange gains (losses), net	(1,809)	1,744	(65)
Income tax expense	(6,106)	(36,833)	(42,939)
Net earnings (loss)	(35,679)	278,202	242,523
Allocation of net earnings:			
Shareholders of the parent			110,639
Non-controlling interest			131,884
Capital expenditures	17,653	85,320	102,974
Purchase of other intangibles	43	582	625
Depreciation property, plant & equipment	8,930	21,700	30,630
Depreciation evaluation tools at customers	2,477	—	2,477
Amortization of other intangible assets	2,338	397	2,735
Cash and cash equivalents	142,420	197,874	340,294
Capitalized goodwill	11,193	39,622	50,815
Other intangible assets	6,089	715	6,804
Other identifiable assets	281,076	535,129	816,204
Total assets	440,777	773,340	1,214,117
Total debt	215,681	—	215,681
Headcount in full-time equivalents <sup>1</sup>	1,450	15,249	16,699

(1) Headcount includes those employees with a fixed contract, and is exclusive of temporary workers.

There are no inter-segment transactions, other than charges for management services, which are based on actual cost. The accounting policies used to measure the net earnings and total assets in each segment are identical to those used in the Consolidated Financial Statements. The measurement methods used to determine reported segment earnings are consistently applied for all periods presented. There were no asymmetrical allocations to segments.

Geographical information is summarized as follows:

	<b>Europe</b>	<b>United States of America</b>	<b>Japan</b>	<b>Southeast Asia</b>	<b>Corporate</b>	<b>Consolidated</b>
Year ended December 31, 2008						
Net sales to unaffiliated customers	80,237	110,264	70,948	485,913	—	747,362
Long-lived assets	5,809	9,679	26,050	106,763	256	148,557
Total assets	73,877	83,876	115,103	436,325	58,617	767,798
Capital expenditures	5,655	1,909	2,383	21,400	103	31,450
Purchase of intangible assets	—	142	—	386	4,834	5,362
Year ended December 31, 2009						
Net sales to unaffiliated customers	40,236	66,955	38,834	444,714	—	590,739
Long-lived assets	2,246	4,119	15,417	92,762	267	114,811
Total assets	36,073	49,350	95,350	518,344	152,583	851,700
Capital expenditures	49	401	953	11,309	6	12,718
Purchase of intangible assets	—	1	—	383	2,910	3,294
Year ended December 31, 2010						
Net sales to unaffiliated customers	<b>76,235</b>	<b>112,863</b>	<b>90,394</b>	<b>943,408</b>	<b>—</b>	<b>1,222,900</b>
Long-lived assets	<b>1,978</b>	<b>9,395</b>	<b>19,409</b>	<b>167,020</b>	<b>135</b>	<b>197,937</b>
Total assets	<b>40,470</b>	<b>85,065</b>	<b>92,547</b>	<b>839,720</b>	<b>156,315</b>	<b>1,214,117</b>
Capital expenditures	<b>186</b>	<b>7,059</b>	<b>5,388</b>	<b>90,279</b>	<b>62</b>	<b>102,974</b>
Purchase of intangible assets	<b>—</b>	<b>—</b>	<b>—</b>	<b>607</b>	<b>17</b>	<b>624</b>

Long-lived assets for the years ended December 31, 2008, 2009 and 2010 consist of the Company's property, plant and equipment.

## 26- Selected Operating Expenses and Additional Information

Personnel expenses for employees were as follows:

	December 31,		
	2008	2009	2010
Wages and salaries .....	184,371	157,789	<b>236,746</b>
Social security .....	18,050	14,314	<b>17,402</b>
Pension expenses .....	11,474	9,849	<b>12,303</b>
	<u>213,895</u>	<u>181,952</u>	<u><b>266,451</b></u>

The average number of employees, exclusive of temporary workers, by geographic area during the year was as follows:

	December 31,		
	2008	2009	2010
The Netherlands .....	352	288	<b>170</b>
Other European countries .....	197	154	<b>139</b>
United States of America .....	494	418	<b>358</b>
Southeast Asia .....	10,687	10,136	<b>13,389</b>
Japan .....	292	246	<b>197</b>
	<u>12,022</u>	<u>11,242</u>	<u><b>14,253</b></u>

## 27- Earnings per Share

Basic net earnings (loss) per common share is computed by dividing net earnings (loss) by the weighted average ordinary shares outstanding for that period. Diluted net earnings (loss) per ordinary share reflects the potential dilution that could occur if stock options under the ASMI Option Plan were exercised and if convertible notes were converted, unless potential dilution would have an anti-dilutive effect,

The following represents a reconciliation of net earnings (loss) and weighted average number of shares outstanding (in thousands) for purposes of calculating basic and diluted net earnings (loss) per share:

	December 31,		
	2008	2009	2010
Net earnings used for purpose of computing basic earnings per common share .....	18,401	(107,522)	<b>110,639</b>
After-tax equivalent of interest expense on convertible subordinated notes ..	—	—	<b>17,670</b>
Net earnings used for purposes of computing diluted net earnings per common share .....	18,401	(107,522)	<b>128,309</b>
Basic weighted average number of shares outstanding during the year used for purpose of computing basic earnings per share (thousands) .....	52,259	51,627	<b>52,435</b>
Dilutive effect of stock options .....	130	—	<b>282</b>
Dilutive effect of convertible subordinated notes .....	—	—	<b>8,777</b>
Dilutive weighted average number of shares outstanding .....	52,389	51,627	<b>61,494</b>
Net earnings per share:			
Basic net earnings from continuing operations .....	0.35	(2.08)	<b>2.11</b>
Diluted net earnings from continuing operations .....	0.35	(2.08)	<b>2.09</b>

For the year ended December 31, 2010, the effect of 2,630,113 conversion rights was anti-dilutive.

For the year ended December 31, 2009, the effect of 14,550,780 conversion rights and 80,777 option rights to acquire common stock was anti-dilutive.

During 2008, ASM engaged Lehman Bros ("Lehman") to repurchase ordinary ASMI shares on the Euronext and Nasdaq markets on behalf of ASMI. As of September 15, 2008, at the time it went into

bankruptcy administration, Lehman reported that it had purchased and held on our behalf 2,552,071 shares, which were accounted for as treasury shares accordingly. ASM filed a submission with the Lehman administrators giving notice of the shares held in custody by Lehman. At ASMI's May 2009 Annual General Meeting, our shareholders resolved to cancel all of these treasury shares which, accordingly, was accounted for in our 2009 Annual Report as a reduction of the number of outstanding shares. Lehman was notified of the cancellation of shares at the time.

In September 2010, Lehman's administrators notified us that there is a possible shortfall in the number of shares held by Lehman of 479,279 shares (out of the 2,552,071 shares), which cannot currently be accounted for by Lehman. The Lehman administrators also reported a segregated collateral cash account of US\$ 6,759, that ASMI may be entitled to in the absence of the shares. We have not been able to obtain additional information to confirm and understand the potential shortfall of shares or our ability to recover the US\$ 6,759 from the Lehman bankruptcy proceedings in lieu of the shares. Accordingly, we are uncertain at this time as to the accuracy of the shortfall of shares, our ability to claim the collateral cash sum to cover the value of any such discrepancy, and our entitlement to all or a portion of such sum when distributions are determined and made by the administrator since there is likely to also be a shortfall in Lehman assets subject to proprietary rights. Given the magnitude of the overall Lehman administration, we believe it may take several years to obtain clarity or resolution about the potential shortfall or claim to cash. ASMI is in the process of filing a claim with the Lehman administrators to safeguard our interests.

Considering the factual and legal uncertainties, it is premature to conclude that the 479,279 shares should still be considered as outstanding or that ASMI has a US\$ 6,759 receivable from Lehman. ASMI has, therefore, neither reversed the cancellation of these shares that we recorded in 2009, nor recorded a receivable from Lehman. If the shares would be considered as outstanding, the impact on our basic and diluted earnings per share as at December 31, 2010 would have been € (0.02) and € (0.01) respectively per share.

## 28- Board Remuneration

The following table sets forth as to all current and former members of the Management Board of the Company, information concerning all remuneration from the Company (including its subsidiaries) for services in all capacities:

	Base compensation	Bonuses <sup>6</sup>	Pensions	Year ended December 31,	
				2010 Total	2009 Total
Management Board:					
C.D. del Prado .....	529	—	84	613	497
P.A.M. van Bommel <sup>1</sup> .....	142	—	26	168	—
W.K. Lee <sup>2</sup> .....	365	223	21	609	513
R.A. Ruijter <sup>3</sup> .....	323	—	—	323	314
J.F.M. Westendorp <sup>4</sup> .....	148	—	7	155	333
A.J.M. van der Ven <sup>5</sup> .....	—	—	—	—	306
	<b>1,507</b>	<b>223</b>	<b>138</b>	<b>1,868</b>	<b>1,963</b>

- (1) For the period July 1, 2010 through August 31, 2010 at 40% and for the period September 1, 2010 through December 31, 2010 full time.
- (2) All remuneration relates to the compensation Mr. W.K. Lee received in his capacity as member of the Board of ASMPT.
- (3) For the period May 15, 2009 through December 31, 2009 and for the period January 1, 2010 through August 31, 2010.
- (4) For the period January 1, 2010 through May 20, 2010.
- (5) For the period January 1, 2009 through December 31, 2009. Mr van der Ven resigned from the Management Board as per May 14, 2009. Per December 31, 2009 Mr van der Ven resigned from the Company and subsequently received a termination benefit of € 141.
- (6) Bonuses paid in 2010 were calculated and paid in respect of performance in 2009.

The remuneration of members of the Management Board has been determined by the Supervisory Board, with the exception of Mr. W.K. Lee. His compensation has been determined by the Board of ASM Pacific Technology. The remuneration of members of the Supervisory Board has been determined by the General Meeting of Shareholders.

The following table sets forth as to all current and former members of the Supervisory Board of the Company information concerning all remuneration (base compensation, no bonuses or pensions were paid) from the Company (including its subsidiaries) for services in all capacities:

	Year ended December 31,	
	2010	2009
	Total	Total
Supervisory Board:		
G.J. Kramer <sup>1</sup>	54	31
J.M.R. Danneels	29	29
H.W. Kreutzer	30	31
J.C. Lobbezoo <sup>1</sup>	33	21
M.C.J. van Pernis <sup>2</sup>	18	—
U.H.R. Schumacher	28	25
E.A. van Amerongen <sup>3</sup>	15	35
P.C. van den Hoek <sup>4</sup>	—	23
L.P.E.M. van den Boom <sup>5</sup>	—	5
	<u>206</u>	<u>200</u>

(1) For the period May 15, 2009 through December 31, 2009.

(2) For the period May 20, 2010 through December 31, 2010.

(3) For the period January 1, 2010 through May 20, 2010.

(4) For the period January 1, 2009 through May 15, 2009.

(5) For the period January 1, 2009 through March 9, 2009.

No stock options have been issued to members of the Supervisory Board.

The following table shows the outstanding options to purchase ASM International N.V. common shares held by current and former members of the Management Board, and changes in such holdings during 2010:

	Year of grant	Outstanding January 1, 2010	Granted in 2010	Adjustment from vesting condition 2010 <sup>7</sup>	Exercised in 2010	Forfeited in 2010	Outstanding December 31, 2010	Exercise price	Remaining term, in years
Current members:									
C.D. del Prado <sup>2</sup>	2003	20,000	—	—	—	—	20,000	US\$11.35	3
C.D. del Prado <sup>1</sup>	2007	22,451	—	(2,806)	—	—	19,645	€ 19.47	5
C.D. del Prado <sup>1</sup>	2008	100,000	—	—	—	—	100,000	€ 12.71	6
C.D. del Prado <sup>1</sup>	2009	50,000	—	—	—	—	50,000	€ 15.09	7
P.A.M. van Bommel <sup>6</sup>	2010	—	25,000	—	—	—	25,000	€ 16.27	8
Former members:									
A.J.M. van der Ven <sup>3,5</sup>	2005	30,000	—	—	(20,000)	(10,000)	—	€ 11.18	—
A.J.M. van der Ven <sup>1,5</sup>	2006	17,500	—	—	(17,500)	—	—	€ 14.13	—
A.J.M. van der Ven <sup>1,5</sup>	2007	21,917	—	—	—	(21,917)	—	€ 19.47	—
A.H. del Prado <sup>1</sup>	2007	60,441	—	(7,555)	—	—	52,886	€ 19.47	1
J.F.M. Westendorp <sup>4</sup>	2006	56,000	—	—	—	—	56,000	€ 15.40	1
J.F.M. Westendorp <sup>1</sup>	2007	25,659	—	(3,207)	—	—	22,452	€ 19.47	5
J.F.M. Westendorp <sup>4</sup>	2009	40,000	—	—	—	—	40,000	€ 15.09	7
		<u>443,968</u>	<u>25,000</u>	<u>(13,568)</u>	<u>(37,500)</u>	<u>(31,917)</u>	<u>385,983</u>		

The fair value per option of options granted to current and former members of the Management Board was € 8.98 in 2009 and € 16.92 in 2010. The compensation expense recorded in the Consolidated Statements of Operations related to options held by current and former members of the Management Board was € 737 in 2009 and € 572 in 2010.

In 2010, 37,500 options to purchase ASM International N.V. common shares were exercised and new shares were issued for the exercise of these options.

The stock option grants to members of the Management Board have been determined by the Supervisory Board.

- (1) These options are conditional. A percentage—not exceeding 150%—of the options which have been granted conditionally will become unconditional after three years, based on the total return of the Company's shares for the three years after the options are granted compared to the average total return of the shares of a relevant number of companies which are similar to the Company during the same three-year period. The options are granted for a term of eight years. Upon the retirement of Mr. A.H. del Prado in 2008, the remaining term of his options has been shortened.
- (2) These options are granted for a term of ten years, and became exercisable in equal parts over a five year period.
- (3) These options were granted for a term of eight years, and became exercisable in equal parts over a three year period, starting 2008.
- (4) These options are granted for a term of five years, and become exercisable in equal parts over a five year period.
- (5) As a result of his resignation the options granted to Mr. A.J.M. van der Ven expired per the end of March, 2010.
- (6) These options are granted for a term of eight years and become exercisable after a 3 year vesting period.
- (7) As a result of the final ranking of ASM International in a predefined peer group the options granted in May 2007 to all members of the Management Board have vested at 87.5%.

In March 2010, Mr. W.K. Lee in his capacity of member of the Board of Directors of ASMPT was granted 110,000 shares in the share capital of ASMPT under the Employee Share Incentive Scheme of ASMPT. The shares were issued in December 2010. The fair value of the shares granted amounted to € 705. In March 2009, Mr. W.K. Lee in his capacity of member of the Board of Directors of ASMPT was granted 110,000 shares in the share capital of ASMPT under the Employee Share Incentive Scheme of ASMPT. The shares were issued in December 2009. The fair value of the shares granted amounted to € 199.

## 29- Share Ownership and Related Party Transactions

The ownership or controlling interest of outstanding common shares of ASM International N.V. by members of the Management Board and Supervisory Board or members of their immediate family are as follows:

	December 31, 2009		December 31, 2010	
	Shares owned	Percentage of Common shares outstanding	Shares owned	Percentage of Common shares outstanding
A.H. del Prado .....	9,275,839	17.93%	9,200,839	17.38%
C.D. del Prado (member of the Management Board) .....	132,945	0.26%	132,945	0.26%
J.F.M. Westendorp .....	6,000	0.01%	6,000	0.01%
Stichting Administratiekantoor ASMI .....	<u>2,142,039</u>	<u>4.14%</u>	<u>2,142,039</u>	<u>4.05%</u>

Stichting Administratiekantoor ASMI is a trust controlled by Mr. A.H. del Prado. The number of shares owned by Stichting Administratiekantoor ASMI includes 713,000 common shares which are beneficially owned by Mr. C.D. del Prado.

*NanoPhotonics AG*—In 1999, the Company acquired a 24.0% interest in NanoPhotonics, a German supplier of precision thin film metrology equipment, for € 407. In 1999, the Company's then Chief Executive Officer also purchased a 44.5% interest in NanoPhotonics. Due to the issuance of new shares by NanoPhotonics to third parties in 2003, the Company's interest diluted to 23.61% and the then Chief Executive Officer's interest diluted to 43.77%. In 2004 the then Chief Executive Officer purchased an additional 1.72% interest in NanoPhotonics from another shareholder. For all the shares purchased by the then Chief Executive Officer, the Company and the then Chief Executive Officer agreed that the Company could purchase such shares at the same price the officer paid to acquire the shares. The Company exercised this option in December 2005, for a total consideration of € 1,101. In 2006 the Company acquired an additional 2% interest in NanoPhotonics for a consideration of € 300. In September 2008, the Company

finalized the sale of its interest for a total consideration of € 410. Related to this sale, the Company recorded an impairment charge of € 1,395. At December 31, 2007 the Company has provided NanoPhotonics with intercompany loans of € 300. In 2007 and 2008 the Company purchased no equipment from NanoPhotonics.

### **30- Subsequent events**

On 28 July 2010, the ASM PT entered into an acquisition agreement (the "Acquisition Agreement") with Siemens Aktiengesellschaft (the "Seller") pursuant to which the Company has conditionally agreed to acquire the entire interest of 13 direct and indirect subsidiaries of the Seller operating the Siemens Electronics Assembly Systems Business (the "SEAS Business") in 11 countries, including Germany, the PRC, the United Kingdom, France, Austria, the United States of America, Mexico, Singapore, Sweden, Italy and Brazil.

An extraordinary general meeting of the ASM PT was held on 6 January 2011 ("EGM") for the purpose of considering and approval of the acquisition of the SEAS Business. The acquisition was approved by the shareholders of the ASM PT at the EGM. The acquisition of SEAS Business was completed on 7 January 2011.

Pursuant to the Acquisition Agreement, the ASM PT paid to Siemens Electronics Assembly Systems GmbH & Co. KG ("SEAS KG"), one of the 13 entities comprising the SEAS Business and an indirect wholly-owned subsidiary of the Company upon completion of the Acquisition Agreement, an amount of EUR 20 million (equivalent to approximately HK \$208 million) on 7 January 2011 by increasing SEAS KG's registered limited partnership interest and granted SEAS KG a revolving loan facility of up to € 20 million (equivalent to approximately HK \$208 million) for a period of at least three years from 7 January 2011 subject to the terms and conditions as set out in the Acquisition Agreement. The Company also provided a letter of support to SEAS KG amounting to € 120 million (equivalent to approximately HK \$1,246 million), valid as for a duration of six years following completion. The Company also provided the Seller with a bank guarantee in an amount of € 20 million (equivalent to approximately HK \$208 million) which shall secure certain obligations of the Group as set out in the Acquisition Agreement.

## SUBSIDIARIES

Advanced Semiconductor Materials (Netherlands Antilles) N.V.

ASM Pacific Holding B.V.

ASM Pacific Technology Limited (subsidiary of ASM Pacific Holding B.V.)

ASM Assembly Automation Limited (subsidiary of ASM Pacific Technology Limited)

ASM Assembly Materials Limited (subsidiary of ASM Pacific Technology Limited)

ASM Assembly Products B.V. (subsidiary of ASM Pacific Technology Limited)

ASM Assembly Technology Co. Limited (subsidiary of ASM Pacific Technology Limited)

ASM Pacific Assembly Products Inc. (subsidiary of ASM Pacific Technology Limited)

ASM Microelectronic Technical Services (Shanghai) Co. Limited (subsidiary of ASM Pacific Technology Limited)

ASM Pacific Technology Asia Limited (subsidiary of ASM Pacific Technology Limited)

ASM Pacific (Hong Kong) Limited (subsidiary of ASM Pacific Technology Limited)

ASM Assembly Equipment Bangkok Limited (subsidiary of ASM Pacific Technology Limited)

ASM Semiconductor Materials (Shenzhen) Co. Limited (subsidiary of ASM Pacific Technology Limited)

ASM Technology Singapore Pte. Limited (subsidiary of ASM Pacific Technology Limited)

ASM Technology (M) Sdn. Bhd. (subsidiary of ASM Pacific Technology Limited)

ASM Technology China Limited (subsidiary of ASM Pacific Technology Limited)

ASM Technology (Huizhou) Co. Limited (subsidiary of ASM Pacific Technology Limited)

Shenzhen ASM Micro Electronic Technology Co. Limited (subsidiary of ASM Pacific Technology Limited)

ASM Assembly Equipment (M) Sdn. Bhd. (subsidiary of ASM Pacific Technology Limited)

ASM Pacific (Bermuda) Limited (subsidiary of ASM Pacific Technology Limited)

ASM Asia Limited (subsidiary of ASM Pacific Technology Limited)

Edgeward Development Limited (subsidiary of ASM Pacific Technology Limited)

Edgeward Trading (Shenzhen) Limited (subsidiary of ASM Pacific Technology Limited)

ASM America, Inc.

ASM Front-End Manufacturing Singapore Pte Limited

ASM Japan K.K.

ASM Microchemistry Oy

ASM NuTool, Inc.

ASM Genitech Korea Ltd

ASM Europe B.V.

ASM France S.A.R.L. (subsidiary of ASM Europe B.V.)

ASM Belgium N.V. (subsidiary of ASM Europe B.V.)

ASM United Kingdom Sales B.V. (subsidiary of ASM Europe B.V.)

ASM Germany Sales B.V. (subsidiary of ASM Europe B.V.)

ASM Italia S.r.l. (subsidiary of ASM Europe B.V.)

ASM Services and Support Ireland Ltd. (subsidiary of ASM Europe B.V.)

ASM Services and Support Israel Ltd. (subsidiary of ASM Europe B.V.)

ASM China Trading Limited

ASM Wafer Process Equipment Limited

ASM Wafer Process Equipment Singapore Pte Limited

ASM Front-End Sales & Services Taiwan Co., Ltd.

ASM IP Holding B.V.



I, Charles D. del Prado, certify that:

1. I have reviewed this annual report on Form 20-F of ASM International N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America;
  - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 25, 2011.

/s/ CHARLES D. DEL PRADO

Charles D. del Prado  
Chief Executive Officer

I, Peter A.M. van Bommel, certify that:

1. I have reviewed this annual report on Form 20-F of ASM International N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America;
  - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 25, 2011.

/s/ PETER VAN BOMMEL

Peter A.M. van Bommel  
Chief Financial Officer

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report on Form 20-F of ASM International N.V. (the "Company") for the period ended December 31, 2010 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Charles D. del Prado, Chief Executive Officer of the Company, and Peter A.M. van Bommel, Chief Financial Officer of the Company, each certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ CHARLES D. DEL PRADO \_\_\_\_\_

**Charles D. del Prado**  
**Chief Executive Officer**  
**March 25, 2011**

By: /s/ PETER VAN BOMMEL \_\_\_\_\_

**Peter A.M. van Bommel**  
**Chief Financial Officer**  
**March 25, 2011**

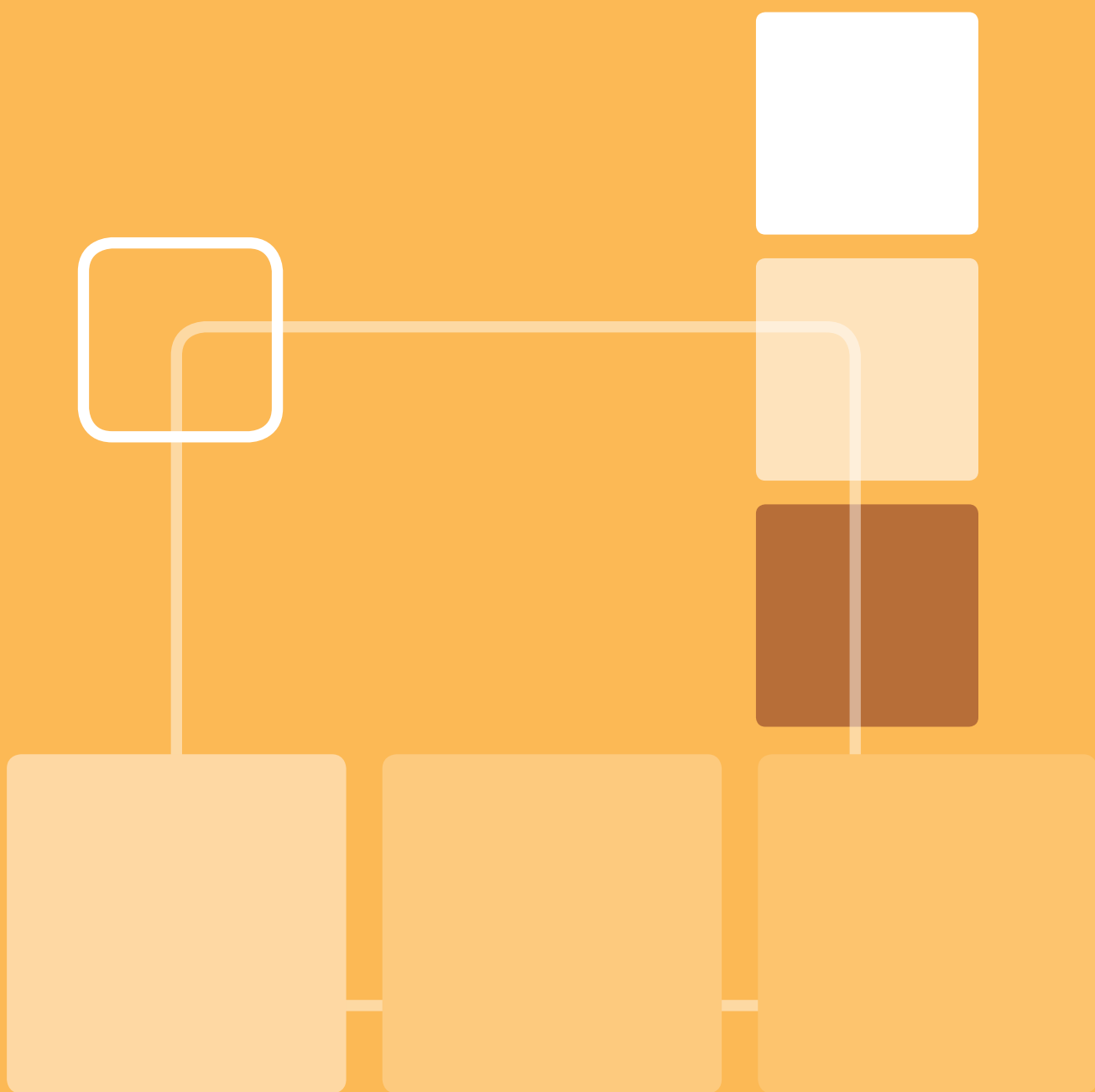
A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

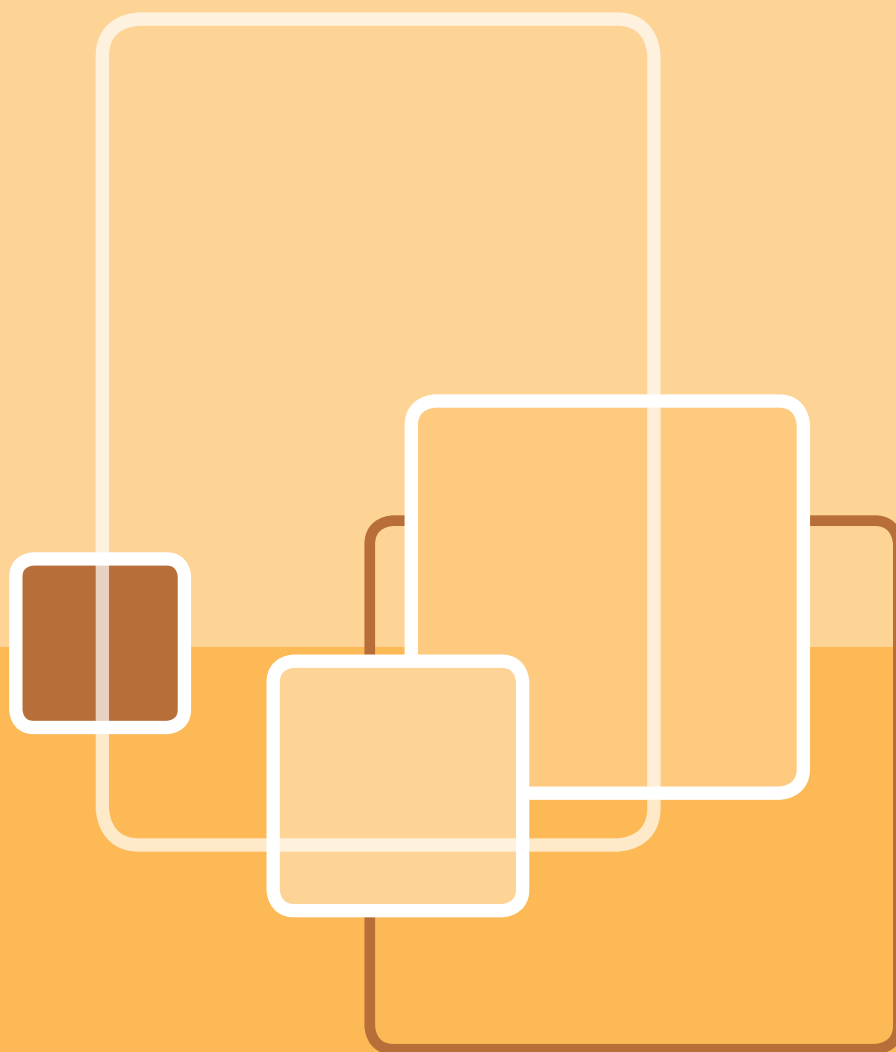
To the Supervisory Board and Shareholders of  
ASM International N.V.  
Versterkerstraat 8  
1322 AP  
Almere, the Netherlands

We consent to the incorporation by reference in the following Registration Statements on Form S-8 (Nos. 033-07111, 033-07109, 333-87262, 333-11060, 033-06184, 033-06185, 033-06186, 033-78628 and 033-93026) of our reports dated March 25, 2011, relating to the financial statements of ASM International N.V. and the effectiveness of ASM International N.V.'s internal control over financial reporting, appearing in this Annual Report on Form 20-F of ASM International N.V. for the year ended December 31, 2010.

/s/ Deloitte Accountants B.V.

Amsterdam, the Netherlands  
March 25, 2011





ASM  International

The Process of Innovation<sup>SM</sup>

ASM International N.V.  
Versterkerstraat 8  
1322 AP Almere  
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