

AGENDA

for ASM International N.V.'s Annual General Meeting of Shareholders, to be held on Monday 22 May 2017, at 2:00 p.m. CET at the Hilton Hotel, Apollolaan 138, Amsterdam, the Netherlands.

1. Opening / Announcements
2. Report on the financial year 2016
3. Execution of the Remuneration Policy in 2016
4. Adoption of the Annual Accounts 2016*
5. Adoption of dividend proposal*
6. Discharge of the members of the Management Board*
7. Discharge of the members of the Supervisory Board*
8. Composition of the Supervisory Board*
9. Appointment of the Company's auditors for the financial year 2017*
10. Designation of the Management Board as the competent body to issue common shares and rights to acquire common shares and to set aside any pre-emptive rights*
11. Authorization of the Management Board to repurchase common shares in the Company*
12. Withdrawal of treasury shares*
13. Agenda item request from Eminence Capital:
Discussion of the policy of the Management Board and the Supervisory Board in relation to ASMI's shareholding in ASM Pacific in 2016 and thereafter and the risks and benefits of a full divestiture of it
14. Any other business
15. Closure

* = voting item(s)

EXPLANATORY NOTES TO THE AGENDA

for ASM International N.V.'s Annual General Meeting of Shareholders, to be held on Monday 22 May 2017, at 2:00 p.m. CET at the Hilton Hotel, Apollolaan 138, Amsterdam, the Netherlands.

Agenda Item 2 Report on the financial year 2016

This item will be discussed.

The Management Board will report on the business and results of operations for the financial year 2016.

Agenda Item 3 Execution of the Remuneration Policy in 2016

This item will be discussed.

In accordance with section 2:135(5a) of the Dutch Civil Code, the execution of the remuneration policy during the year 2016 is discussed on the basis of the information provided by the Company on pages 151 - 153 of the Statutory Annual Report 2016. The Statutory Annual Report 2016, which includes the information required pursuant to section 2:383c up to and including 2:383e of the Dutch Civil Code on pages 151 - 153, is available at the Company's website (www.asm.com).

Agenda Item 4 Adoption of the Annual Accounts 2016

This item will be voted on.

The Statutory Annual Report 2016 (which includes the Annual Report 2016 and the Annual Accounts 2016, as well as the information to be added under section 2:392(1) of the Dutch Civil Code, insofar as applicable to the Company), is available for inspection by the shareholders at the Company's offices at Versterkerstraat 8 in Almere, the Netherlands and at the offices of ABN AMRO Bank N.V., Gustav Mahlerlaan 10, in Amsterdam, the Netherlands. The Statutory Annual Report 2016 is also available at the Company's website (www.asm.com).

The Annual Accounts 2016 have been audited by the Company's accountant, KPMG Accountants N.V. The Statutory Annual Report 2016 is in English.

Agenda Item 5
Adoption of dividend proposal

This item will be voted on.

A dividend in cash of € 0.70 per ordinary share is proposed. Once the dividend has been declared, the dividend will be made available within 14 days after the declaration of the dividend.

Agenda Item 6
Discharge of the members of the Management Board

This item will be voted on.

In accordance with Article 30.4 of the Articles of Association, it is proposed to the General Meeting of Shareholders to discharge the members of the Management Board from liability in relation to the exercise of their duties in the financial year 2016.

Agenda Item 7
Discharge of the members of the Supervisory Board

This item will be voted on.

In accordance with Article 30.4 of the Articles of Association, it is proposed to the General Meeting of Shareholders to discharge the members of the Supervisory Board from liability in relation to the exercise of their duties in the financial year 2016.

Agenda Item 8
Composition of the Supervisory Board

These items will be voted on.

Agenda Item 8 (a) Appointment of Mrs. S. Kahle - Galonske to the Supervisory Board

- 8 (a) In accordance with Article 22.3 of the Articles of Association and section 2:133 of the Dutch Civil Code, the Supervisory Board has drawn up a binding nomination to appoint Mrs. Kahle - Galonske to the Supervisory Board with effect from the date of this Annual General Meeting for a four-year period expiring at the date of the Annual General Meeting in 2021.

Mrs. Stefanie Kahle – Galonske, age 48, currently holds the position of Chief Financial Officer at Egon Zehnder, the Swiss based privately held executive search and leadership consultancy firm. Before that she was the Chief Financial Officer at Markem Imaje AG at Dover Corporation, a global manufacturer of industrial printers and consumables for the packaging sector.

Mrs. Kahle – Galonske has extensive experience in the semiconductor industry as she worked for many years in different roles at NXP Semiconductors N.V., where she, inter alia, served as Vice President and Chief Financial Officer of several business units.

Mrs. Stefanie Kahle – Galonske was also a non-executive board member of Micronas Semiconductors AG in Switzerland and Nu-Tune Singapore PTE Ltd.

She holds a masters degree in Finance from the Ruhr-Universität, Bochum, Germany.
Mrs. Stefanie Kahle – Galonske holds no shares in the Company.

Agenda Item 8 (b) Reappointment of Mr. J.C. Lobbezoo to the Supervisory Board

8 (b) Mr. Lobbezoo was initially elected as member of the Supervisory Board in May 2009 and was reappointed in May 2013 for a period of four years. He became chairman in July 2013. In accordance with the applicable rotation scheme, the term of Mr. Lobbezoo's mandate expires on the date of this Annual General Meeting and it is proposed by the Supervisory Board to reappoint Mr. Lobbezoo for an additional four-year period expiring on the date of the Annual General Meeting in 2021. The Supervisory Board has therefore drawn up a binding nomination in accordance with Article 22.3 of the Articles of Association and section 2:133 of the Dutch Civil Code to re-appoint Mr. Lobbezoo to the Supervisory Board.

Mr. Jan Lobbezoo, age 70, retired in the beginning of 2007 from the Royal Philips Group. He served last as Executive Vice-President Philips International with the responsibility of financial oversight of several minority shareholdings. Mr. Lobbezoo joined the Philips Group in May 1970 and his working experience has been mainly in senior financial management positions. Between May 1994 and September 2005 he served as Executive Vice-President and Chief Financial Officer of Philips Semiconductors N.V. (now NXP Semiconductors N.V.). He served until March 2007 for over 12 years on the Board of Taiwan Semiconductor Manufacturing Company (TSMC). He remains an advisor to TSMC, specifically in the area of US governance, international reporting and financial review.

Mr. Lobbezoo is currently on the Supervisory Board of 5BY2 B.V., a Dutch based automatic parking systems company, and on the one-tier Board of Time Acquisition B.V., formerly TMC (non-executive member). He is also Chairman of the Supervisory Board of Point One Innovation Investment Fund.

Mr. Lobbezoo holds a masters degree in Business Economics from the Erasmus University, Rotterdam, the Netherlands and obtained a post-graduate accountancy degree (registered accountant) at that University. Mr. Lobbezoo currently holds no shares in the Company.

With reference to Article 22.9 of the Articles of Association the Supervisory Board is pleased to confirm that Mr. Lobbezoo has more than adequately fulfilled his duties as a Supervisory Board member over the past years.

Agenda Item 9
Appointment of the Company's auditors for the financial year 2017

This item will be voted on.

The external auditor is appointed by the General Meeting of Shareholders each time in respect of one financial year. On the advice of the Audit Committee and Management Board, the Supervisory Board proposes to appoint the current accountant, KPMG Accountants N.V., as the Company's external auditor for the financial year 2017. A representative of KPMG Accountants N.V. will be present at the General Meeting of Shareholders.

Agenda Item 10
Designation of the Management Board as the competent body to issue common shares and rights to acquire common shares and to set aside any pre-emptive rights

These items will be voted on.

- 10 (a) In accordance with Articles 5.1 and 5.6 of the Articles of Association, it is proposed that the General Meeting of Shareholders appoints the Management Board, for an 18-month period, to be calculated from the date of the Annual General Meeting of Shareholders, as the body of the Company which, subject to the Supervisory Board's approval, is authorized to issue common shares – including granting the right to subscribe for common shares – at such a price, and on such conditions as determined for each issue by the Management Board, subject to the Supervisory Board's approval as may be required.

The number of common shares including rights to subscribe for common shares which the Management Board shall be authorized to issue shall be: (i) in normal cases, no more than 10% of the total currently issued capital of the Company in the form of common shares, or (ii) in the case of an issue related to a merger or acquisition, or to financing instruments regarding which issuing shares or granting rights to subscribe for common shares is desirable, no more than 20% of the total currently issued capital of the Company in the form of common shares.

- 10 (b) In accordance with Article 7.5 of the Articles of Association, it is proposed that the General Meeting of Shareholders appoints the Management Board, for an 18-month period, to be calculated from the date of the Annual General Meeting of Shareholders, as the body of the Company which, subject to the Supervisory Board's approval, is authorized to limit or exclude any pre-emptive rights of existing shareholders when common shares or rights to subscribe for common shares are issued.

Pursuant to section 2:96a(7) of the Dutch Civil Code and in accordance with Article 7.6 of the Articles of Association, a resolution of the general meeting of shareholders to designate the Management Board as the competent body to limit or exclude any pre-emptive rights of existing shareholders, requires a majority vote of at least two thirds of the votes cast if less than 50% of the issued share capital of the Company is represented at the general meeting.

Agenda Item 11

Authorization of the Management Board to repurchase common shares in the Company

This item will be voted on.

In accordance with Article 8.1 of the Articles of Association, it is proposed that the General Meeting of Shareholders authorizes the Management Board, subject to the Supervisory Board's approval, for an 18-month period, to be calculated from the date of the Annual General Meeting of Shareholders to cause the Company to repurchase common shares in the Company up to a maximum of 10% of the issued capital at a price at least equal to the shares' nominal value and at most 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.

Agenda Item 12

Withdrawal of treasury shares

This item will be voted on.

In accordance with Article 9 of the Articles of Association and the requirements of section 2:99 and 2:100 of the Dutch Civil Code, it is proposed to the General Meeting of Shareholders to reduce the issued share capital of the Company by withdrawing 1,500,000 (one million five hundred thousand) common shares with a nominal value of EUR 0,04 which the Company currently owns in its own capital.

Agenda Item 13

Agenda item request from Eminence Capital:

Discussion of the policy of the Management Board and the Supervisory Board in relation to ASMI's shareholding in ASM Pacific in 2016 and thereafter and the risks and benefits of a full divestiture of it

This item will be discussed.

In accordance with Article 25.3 of the Articles of Association and section 2:114a of the Dutch Civil Code, any shareholder holding at least 3% in the Company's issued capital may request the inclusion of items in the agenda of the Annual General Meeting of Shareholders at least 60 days in advance of the meeting. With respect to the request of our shareholder Eminence Capital, these conditions are satisfied and hence ASMI has included this item on the agenda.

Eminence Capital's explanation to the agenda item:

Over the past two and a half years Eminence has engaged in a dialogue with both the Management Board and the Supervisory Board relating to the significant undervaluation of the Front End business of ASMI, the stake in ASMPT. For nearly the past decade, the Front End business has created no value for the stakeholders. Since March 2015, the implied Front End stock price has materially lagged its peers. Over the past five years ASMI has lagged its peers in total shareholder returns. ASMPT represents approximately 70% of ASMI's market value. ASMPT trades at a premium valuation multiple versus its back end semiconductor capital equipment peers. By continuing to keep this stake in ASMPT at these valuations ASMI shareholders are taking on significant stock price risk in a business in which ASMI has limited visibility and little or no influence. The stake in ASMPT is creating poor capital allocation decisions by ASMI. In the current corporate structure, stock buy backs by ASMI effectively become purchases of ASMPT stock at very elevated prices. Eminence believe it is in the interest of ASMI and all its stakeholders if Eminence's views are made available to all shareholders, and an open discussion between and amongst all shareholders and the board of ASMI can take place on this topic in the appropriate forum, the AGM.

Reaction from the Company:

ASMI views long-term value creation as very important. Over the last decade our company has built a leading position in the single wafer ALD (atomic layer deposition) market. During that period we have achieved a strong presence with all of the top-10 chip manufacturers, many of whom weren't traditional ASM customers. ALD, in the meantime, has become a critical technology for our industry to transition to the next nodes. This development has created substantial shareholders value whereby in the period 2009 - 2017 ASMI's market capitalization increased from Euro 350 million to Euro 3.300 million.

The significant holding in ASMPT has been a key element in ASMI's success. It provides our company with a stronger industrial presence and additional financial strength and stability, which have been – and still are - important factors in our successful business expansion with key customers. Regularly the Management Board reviews its strategy and, as part of that, the position it holds in ASMPT. The Management Board remains of the opinion that, at this moment, a significant stake in ASMPT is of strategic value to the Company.

**Agenda Item 14
Any other business**
