

AGENDA

for ASM International N.V.'s Annual General Meeting, to be held on 28 May 2018, at 2:00 p.m. CET at the Hilton Hotel, Apollolaan 138, Amsterdam, the Netherlands.

1. Opening / Announcements
2. Report on the financial year 2017
3. Execution of the Remuneration Policy in 2017
4. Compliance Corporate Governance Code
5. Adoption of the Annual Accounts 2017 *
6. Adoption of dividend proposal *
7. Discharge of the members of the Management Board *
8. Discharge of the members of the Supervisory Board *
9. Composition of the Management Board *
10. Composition of the Supervisory Board *
11. Remuneration of the Supervisory Board *
12. Appointment of the Company's auditors for the financial year 2018 *
13. 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 *
14. Authorization of the Management Board to repurchase common shares in the Company *
15. Withdrawal of treasury shares *
16. Amendment of the Articles of Association (I) relating to the increase and the decrease of the par value of the common shares in the capital of the Company and proposed extraordinary distribution of € 4.00 per common share by way of repayment of capital *
17. Amendment of Articles of Association (II) *
18. Any other business
19. Closure

* = voting item(s)

EXPLANATORY NOTES TO THE AGENDA

for ASM International N.V.'s Annual General Meeting, to be held on 28 May 2018, at 2:00 p.m. CET at the Hilton Hotel, Apollolaan 138, Amsterdam, the Netherlands.

Agenda Item 2 Report on the financial year 2017

This item will be discussed.

The Management Board will report on the business and results of operations for the financial year 2017.

Agenda Item 3 Execution of the Remuneration Policy in 2017

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 2017 is discussed on the basis of the information provided by the Company in the Annual Report 2017. The Annual Report 2017, which includes the information required pursuant to section 2:383c up to and including 2:383e of the Dutch Civil Code on pages 147-149, is available at the Company's website (www.asm.com).

Agenda Item 4 Compliance Corporate Governance Code

This item will be discussed.

On 8 December 2016 the Monitoring Committee Corporate Governance Code published a revised version of the Dutch Corporate Governance Code, which subsequently came into force as of 1 January 2017. Upon recommendation of the Monitoring Committee Corporate Governance Code, the implementation of and compliance with the Dutch Corporate Governance Code is discussed on the basis of the information provided by the Company in the Annual Report 2017, including the Corporate Governance Chapter. The Annual Report 2017 is available at the Company's website (www.asm.com).

Agenda Item 5 Adoption of the Annual Accounts 2017

This item will be voted on.

The Annual Report 2017 (which includes the Directors Report 2017 and the Annual Accounts 2017, 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 Annual Report 2017 is also available at the Company's website (www.asm.com).

The Annual Accounts 2017 have been audited by the Company's accountant, KPMG Accountants N.V. The Annual Report 2017 is in English.

Agenda Item 6
Adoption of dividend proposal

This item will be voted on.

A dividend in cash of € 0.80 per common 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 7
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 to discharge the members of the Management Board from liability in relation to the exercise of their duties in the financial year 2017.

Agenda Item 8
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 to discharge the members of the Supervisory Board from liability in relation to the exercise of their duties in the financial year 2017.

Agenda Item 9
Composition of the Management Board

These items will be voted on.

Agenda Item 9 (a) Reappointment of Mr. C.D. del Prado to the Management Board

- 9 (a) In accordance with Article 18.1 of the Articles of Association, it is proposed by the Supervisory Board to reappoint Mr. C.D. del Prado (56) for an additional four-year period expiring on the date of the Annual General Meeting in 2022. The Supervisory Board has therefore drawn up a binding nomination in accordance with Article 18.1 of the Articles of Association and section 2:133 of the Dutch Civil Code to re-appoint Mr. C.D. del Prado to the Management Board. Upon his reappointment to the Management Board, the Supervisory Board will reappoint Mr. C.D. del Prado as chairman of the Management Board, President and Chief Executive Officer.

Mr. Del Prado was appointed as a member of the Management Board in May 2006 and President and Chief Executive Officer on 1 March 2008. Mr. Del Prado was reappointed on 21 May 2014 for a period of four years. Between 1989 and 1996, Mr. Del Prado held several marketing and sales positions at IBM Nederland NV. From 1996 to 2001, he worked in various management positions at ASML, in manufacturing and sales in Taiwan and the Netherlands. He was appointed as Director Marketing, Sales & Service of ASM Europe in March 2001. From 2003 to 2007, he was President and General Manager of ASM America. From 1 January 2008 to 29 February 2008, he acted as Executive Vice President Front-end Operations at ASM America. Mr. Del Prado is currently non-executive director at ASM Pacific Technology Ltd.

He holds a Master's of Science degree in Industrial Engineering and Technology Management from the University of Twente, the Netherlands. Mr. Del Prado is a Dutch national.

Agenda Item 9 (b) Reappointment of Mr. P.A.M. van Bommel to the Management Board

- 9 (b) In accordance with Article 18.1 of the Articles of Association, it is proposed by the Supervisory Board to reappoint Mr. P.A.M. van Bommel (61) for an additional four-year period expiring on the date of the Annual General Meeting in 2022. The Supervisory Board has therefore drawn up a binding nomination in accordance with Article 18.1 of the Articles of Association and section 2:133 of the Dutch Civil Code to re-appoint Mr. P.A.M. van Bommel to the Management Board. Upon his reappointment to the Management Board, the Supervisory Board will reappoint Mr. P.A.M. van Bommel as Chief Financial Officer of the Management Board.

Mr. Van Bommel was appointed as a member of the Management Board on 1 July 2010 and became Chief Financial Officer on 1 September 2010. Mr. Van Bommel was reappointed on 21 May 2014 for a period of four years. 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, he acted as CFO of several business units of the Philips Group. Between 2006 and 2008, he was CFO at NXP, formerly Philips Semiconductors. He was CFO of Odersun AG, a manufacturer of thin-film solar cells and modules until 31 August 2010. On 13 April 2016, Mr. Van Bommel was reappointed for a period of four years as a member of the Supervisory Board of Royal KPN NV. He also became the Chairman of the Audit Committee as per that day. On 16 April 2015, Mr. Van Bommel was appointed as a member of the Supervisory Board of Neways Electronics International NV. Since May 2017, Mr. Van Bommel is Executive Director of Stichting Bernhoven. Mr. Van Bommel is currently also non-executive director at ASM Pacific Technology Ltd.

He holds a Master's degree in Economics from the Erasmus University Rotterdam, the Netherlands. Mr. Van Bommel is a Dutch national.

Agenda Item 10 Composition of the Supervisory Board

These items will be voted on.

Agenda Item 10(a) Appointment of Mr. M.J.C. de Jong to the Supervisory Board

- 10 (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 Mr. M.J.C. de Jong 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 2022.

Mr. De Jong started his career with Philips Electron Optics and started working for Philips Lighting in 1994. Having fulfilled different roles, he became in the year 2000 an executive manager of Philips Lighting responsible for the business unit Special Lighting & UHP. From 2003 until 2005 he was the executive general manager of the business unit Lamps Europe. After which he became a member of the Executive Management Team of NXP Semiconductors N.V. until 2009, responsible for the business unit Automotive and Identification. From then on until 2013 he was the executive responsible for the Professional Lighting Solutions business group of Philips Lighting and was also a member of the Group Management Committee of Royal Philips. From 2013 until 2015 Mr. De Jong was executive general manager of InnoMarket B.V. Mr. De Jong is currently Chief Executive Officer at LM Wind Power A/S which produces and sells worldwide state of the art wind turbine blades. LM Wind Power A/S was acquired by General Electric in April 2017 and has been integrated into GE's Renewable Energy division, as a result of this integration Mr. De Jong has decided to leave LM Wind Power A/S as per April 30, 2018.

Mr. De Jong has extensive experience in the semiconductor industry as he worked for years at NXP Semiconductors N.V. and has both a technical and commercial background which will add value to the Supervisory Board of the Company.

Mr. De Jong is currently member of the Supervisory Boards of Nissens A/S based in Denmark, First Sensor AG, based in Germany and Sioux B.V., based in the Netherlands. Mr. De Jong is furthermore independent as per the Corporate Governance Code.

Mr. De Jong holds a Master's degree in Physics and Mathematics from the University of Amsterdam, the Netherlands, and a Master's degree in Business Administration (executive program) from the Erasmus University Rotterdam, the Netherlands and Rochester, USA. Mr. De Jong is a Dutch national.

Mr. De Jong currently holds 3,450 shares in the Company.

Agenda Item 10 (b) Reappointment of Mr. M.C.J. van Pernis to the Supervisory Board

- 10 (b) Mr. M.C.J. van Pernis was initially elected as member of the Supervisory Board in May 2010 and was reappointed on 21 May 2014 for a period of four years. In accordance with the applicable rotation scheme, the term of Mr. Van Pernis' mandate expires at the end of this Annual General Meeting and it is proposed by the Supervisory Board in order to attain

adequate continuity and experience within the Supervisory Board to reappoint Mr. Van Pernis for an additional two-year period expiring on the date of the Annual General Meeting in 2020. 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. Van Pernis to the Supervisory Board.

Mr. van Pernis joined Siemens in 1971 and retired from the Siemens Group at the end of 2009 as Chairman of the Management Board of Siemens Nederland NV. Mr. van Pernis is Chairman of the Supervisory Boards of Batenburg Techniek NV, Aalberts Industries NV, CM Payments, Optixolar BV, Sacon Architects, the Rotterdams Philharmonic Orchestra and Member of the Advisory Board of G4S Netherlands.

Mr. van Pernis holds a Master's degree in Electrical Engineering from the Technical University Delft and Technical High School The Hague, the Netherlands, and a Master's degree in Law and Economics from the Erasmus University Rotterdam, the Netherlands. Mr. van Pernis is a Dutch national. Mr. Van Pernis is furthermore independent as per the Corporate Governance Code.

Mr. Van Pernis 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. Van Pernis has more than adequately fulfilled his duties as a Supervisory Board member over the past years.

Agenda Item 11 Remuneration of the Supervisory Board

This item will be voted on.

In accordance with Article 22.10 of the Articles of Association, the General Meeting grants the members of the Supervisory Board a remuneration. The current remuneration has been granted by the Annual General Meeting in 2011.

The current base remuneration of the Supervisory Board is as follows:

- a member of the Supervisory Board (other than the chairman) € 45,000
- the chairman of the Supervisory Board € 60,000

The current additional remuneration for committee membership is as follows:

- a member of the Audit Committee (other than the chairman) € 5,000
- the chairman of the Audit Committee € 7,500
- a member of the Nomination, Selection and Remuneration Committee (other than the chairman) € 5,000
- the chairman of the Nomination, Selection and Remuneration Committee € 7,500

The Supervisory Board has considered whether the current remuneration levels are appropriately reflecting the responsibilities of the members of the Supervisory Board given the current size and scope of the Company and how the current remuneration levels relate to current market practice and developments. A market comparability study was conducted in order to determine a robust and relevant market reference group. Based on the market reference group a benchmark analysis was conducted. The benchmark analysis and the considerations that: (i) the market capitalization of the Company has increased significantly (increase from € 1.3bn in 2011 to more than € 3bn now), and (ii) the scope and complexity of the Front-end activities have changed significantly, with clear impact on the responsibilities of the Supervisory Board, has led to the proposal to adjust the current remuneration.

Proposed adjusted base remuneration of the Supervisory Board:

- a member of the Supervisory Board (other than the chairman) € 50,000
- chairman of the Supervisory Board € 70,000

Proposed adjusted additional remuneration for committee membership:

- a member of the Audit Committee (other than the chairman) € 7,500
- the chairman of the Audit Committee € 10,000
- a member of the Nomination, Selection and Remuneration Committee (other than the chairman) € 6,000
- the chairman of the Nomination, Selection and Remuneration Committee € 8,500

Agenda Item 12

Appointment of the Company's auditors for the financial year 2018

This item will be voted on.

The external auditor is appointed by the General Meeting 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 2018. A representative of KPMG Accountants N.V. will be present at the General Meeting.

Agenda Item 13

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.

Agenda Item 13(a) Designation of the Management Board as the competent body to issue common shares and rights to acquire common shares

13 (a) In accordance with Articles 5.1 and 5.6 of the Articles of Association, it is proposed that the General Meeting appoints the Management Board, for an 18-month period, to be calculated

from the date of the Annual General Meeting, 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 acquire 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 acquire 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 acquire common shares is desirable, no more than 20% of the total currently issued capital of the Company in the form of common shares.

Agenda Item 13(b) Designation of the Management Board as the competent body to set aside any pre-emptive rights with respect to the issue of common shares and rights to acquire common shares

13 (b) In accordance with Article 7.5 of the Articles of Association, it is proposed that the General Meeting appoints the Management Board, for an 18-month period, to be calculated from the date of the Annual General Meeting, 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 if common shares or rights to acquire 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 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 14

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

These items will be voted on.

Agenda Item 14(a) Authorization of the Management Board to repurchase common shares in the Company up to a maximum of 10% of the issued capital

14 (a) In accordance with Article 8.1 of the Articles of Association, it is proposed that the General Meeting 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 to cause the Company to repurchase common shares in the Company on the stock exchange or otherwise up to a maximum of 10% of the issued capital as at the date of the Annual General Meeting 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.

Because the Company will retain a number of treasury shares following the withdrawal of common shares as proposed in agenda item 15 it is possible that the Company would temporarily hold in excess of 10% of its own capital if the full repurchase authority as requested hereby would be utilized by the Company. However, at the Annual General Meeting in 2019 the Company will propose to withdraw any and all treasury shares, including the common shares to be repurchased under this authorization 14 (a), save for such number of treasury shares as may be necessary to fund ongoing share and option programs for employees and board members which shall in any case represent less than 10% of the issued capital.

Agenda Item 14(b) Authorization of the Management Board to repurchase common shares in the Company up to an additional maximum of 10% of the issued capital

14 (b) In accordance with Article 8.1 of the Articles of Association, it is proposed that the General Meeting 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 to cause the Company to repurchase additional common shares in the Company on the stock exchange or otherwise up to a maximum of 10% of the issued capital on the same conditions as set out under agenda item 14(a). The common shares acquired by the Company following this authorization under agenda item 14(b) will be proposed to be withdrawn at the Annual General Meeting in 2019.

**Agenda Item 15
Withdrawal of treasury shares**

This item will be voted on.

In order to optimize the Company's capital structure and 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 to decrease the issued share capital of the Company by withdrawing 6,000,000 common shares with a par value of EUR 0.04 which the Company currently owns in its own capital.

Pursuant to section 2:99(6) of the Dutch Civil Code, a resolution of the General Meeting to decrease the capital of the Company 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.

Pursuant to section 2:100(3) of the Dutch Civil Code, a resolution of the General Meeting to decrease the capital of the Company must be deposited at the Trade Register of the Dutch Chamber of Commerce and a notice of such deposition must be published in a national daily newspaper. Within two months after such publication creditors of the Company may oppose to the resolution to reduce the capital of the Company. Pursuant to section 2:100(5) of the Dutch Civil Code, the resolution to reduce the capital of the Company shall only be effective after the expiry of the two month period or, in the event of any creditors' opposition, after all objections are withdrawn or removed.

Agenda Item 16

Amendment of the Articles of Association (I) relating to the increase and decrease of the par value of the common shares in the capital of the Company and proposed extraordinary distribution of € 4.00 per common share by way of repayment of capital

This item will be voted on.

As announced on 2 November 2017, the Company has placed a total of 37,000,000 common shares of ASMPT at a price of HK\$ 111.00 per share to institutional and other professional investors through a partial secondary share placement representing a stake of approximately 9% in ASMPT. The offering generated cash proceeds for the Company of a total amount of approximately HK\$ 4.1 billion (approximately €450 million).

The Company proposes to distribute € 4.00 per common share to its shareholders (the "Distribution"). To effect the Distribution in a tax efficient way, it is proposed that the Distribution is effected as a repayment to the shareholders pursuant to a capital reduction by way of a reduction of the par value of the common shares. The Distribution will be in addition to the proposed dividend of € 0.80 per common share as proposed under agenda item 6.

In order to effect the Distribution it is proposed under this agenda item to first increase the issued capital of the Company by increasing the par value of all common shares from € 0.04 to € 4.04 by amending Article 3 of the Articles of Association and subsequently to decrease the issued capital of the Company by decreasing the par value of all common shares from € 4.04 to € 0.04 by amending Article 3 of the Articles of Association, to be effected by the execution of the deed of amendment of the Articles of Association relating to the capital increase ("Proposal I(a)") respectively the deed of amendment of the Articles of Association relating to the capital decrease ("Proposal I(b)").

In accordance with Article 34 of the Articles of Association, the Management Board and the Supervisory Board propose amending the Articles of Association in accordance with Proposal I(a) and Proposal I(b) which have been available for inspection at the Company's offices and at the offices of ABN AMRO Bank N.V., from the day of the notice convening this Annual General Meeting. Proposal I(a) and Proposal I(b) have also been posted on the Company's website (www.asm.com). Proposal I(a) and Proposal I(b) should be read in conjunction, and the implementation of each proposal is conditional upon approval of the other proposal by the General Meeting.

By a vote in favour of the proposed amendments the General Meeting shall be deemed to have authorized each member of the Management Board as well as each civil-law notary (*notaris*) and prospective civil-law notary (*kandidaat-notaris*) of Stibbe N.V. in Amsterdam to make any adjustments that are necessary as well as to sign and execute the relevant deeds of amendment of the Articles of Association and to undertake all other activities as the authorized person deems necessary or useful.

Initially, the capital of the Company shall be increased and the increase shall be charged against the Company's share premium reserves and general reserves in a proportion to be determined in general on the basis of the measure by which shareholders of the Company qualify for an exemption from being subject to dividend withholding tax. Subsequently, the capital of the Company shall be decreased and the Distribution shall be effected.

Pursuant to section 2:99(6) of the Dutch Civil Code, a resolution of the General Meeting to decrease the capital of the Company 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.

Pursuant to section 2:100(3) of the Dutch Civil Code, a resolution of the General Meeting to decrease the capital of the Company must be deposited at the Trade Register of the Dutch Chamber of Commerce and a notice of such deposition must be published in a national daily newspaper. Within two months after such publication creditors of the Company may oppose to the resolution to reduce the capital of the Company. Pursuant to section 2:100(5) of the Dutch Civil Code, the resolution to reduce the capital of the Company shall only be effective after the expiry of the two month period or, in the event of any creditors' opposition, after all objections are withdrawn or removed.

Once the resolution to reduce the capital of the Company has become effective in accordance with section 2:100(5) of the Dutch Civil Code, the following shall occur immediately in succession: (i) the execution of Proposal I(a) and (ii) the execution of Proposal I(b). Hence, the execution of Proposal I(a) and Proposal I(b) shall be conditional upon the resolution to reduce the capital of the Company being effective.

Subject to the condition that no creditor's opposition has been made and that interim accounts evidence that the Distribution is permitted, Proposal I(a) and Proposal I(b) are envisaged to be executed on or shortly after 2 August 2018. Following the execution of Proposal I(a) and Proposal I(b), the indicative record date for the Distribution will be on or around 8 August 2018, and the Distribution is expected to become payable on or around 10 August 2018.

Agenda Item 17

Amendment Articles of Association II

This item will be voted on.

In accordance with Article 34 of the Articles of Association, the Management Board and the Supervisory Board propose amending the Articles of Association relating to certain changes pursuant to Dutch law ("Proposal II").

The proposed amendments are related to: (i) amendments to legislation and regulations and (ii) other general textual amendments and clarifications. A more detailed explanation for the proposed amendments is included in Proposal II.

Proposal II has been available for inspection at the Company's offices and at the offices of ABN AMRO Bank N.V., from the day of the notice convening this Annual General Meeting. Proposal II has also been posted on the Company's website (www.asm.com).

By a vote in favour of the proposed amendment the General Meeting shall be deemed to have authorized each member of the Management Board as well as each civil-law notary (*notaris*) and prospective civil-law notary (*kandidaat-notaris*) of Stibbe N.V. in Amsterdam to make any adjustments that are necessary as well as to sign and execute the relevant deed of amendment of the Articles of Association and to undertake all other activities as the authorized person deems necessary or useful.

Agenda Item 18
Any other business
