Annual General Meeting of Shareholders

2018 PROXY - Annual General Meeting of Shareholders

ASM International N.V.

ASM International N.V. (the "Issuer")

This proxy card must be received by Citibank, N.A., at the address indicated below, prior to 1:00 P.M. (EDT) on May 21, 2018 for action to be taken.

> ASM International N.V., a company organized under the laws of the Netherlands **Common Shares - Proxy**

Annual General Meeting of Shareholders - May 28, 2018 at 2:00 P.M. (CET) at the Hilton Hotel, Apollolaan 138, Amsterdam, 1077 BG, the Netherlands.

THIS PROXY IS SOLICITED ON BEHALF OF THE MANAGEMENT BOARD OF ASM INTERNATIONAL N.V. FOR THE 2018 ANNUAL GENERAL MEETING OF SHAREHOLDERS

The undersigned, who is the holder or beneficial owner of record of the Common Shares of New York Registry of ASM International N.V. identified on the reverse side of this proxy card, hereby appoints Charles D. (Chuck) del Prado and Peter A.M. van Bommel, and each of them, proxies and attorneys-in-fact, with full power to each of substitution, on behalf and in the name of the undersigned to represent the undersigned at the 2018 Annual General Meeting of Shareholders to be held on Monday, May 28, 2018, at 2:00 P.M. (CET) at the Hilton Hotel, Apollolaan 138, Amsterdam, 1077 BG, the Netherlands, and at any adjournment or adjournments thereof, and to vote all Common Shares of New York Registry which the undersigned would be entitled to vote if then and there present on the matters and in the manner set forth on the reverse of this proxy card hereby revoking any proxy previously given.

The agenda plus explanatory notes and annexes are available on the Issuer's website at http://www.asm.com/investors/corporate-governance/agm. The Annual Report 2017 (which includes the Directors Report 2017 and the Annual Accounts 2017) is also available on the Issuer's website at http://www.asm.com/investors/corporate-reports.

Please indicate on the reverse side of this proxy card how your shares are to be voted. This proxy card must be marked, signed and returned to Citibank, N.A. prior to 1:00 P.M. (EDT) on

May 21, 2018, in order to be counted.

If this proxy card is signed and timely returned to Citibank, N.A., but no specific direction as to voting is marked as to a Proposal, the undersigned shall be deemed to have given a proxy to vote "FOR" all Proposals and as said proxies deem advisable on such other matters as may come before the Meeting.

The following proposals relate to, and are numbered to correspond to, the numbered agenda items in the Convocation for the 2018 Annual General Meeting of Shareholders: 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 Composition of the Management Board 9(a) Reappointment of Mr. C.D. del Prado to the Management Board 9(b) Reappointment of Mr. P.A.M. van Bommel to the Management Board Composition of the Supervisory Board 10(a) Appointment of Mr. M.J.C. de Jong to the Supervisory Board 10(b) Reappointment of Mr. M.C.J. van Pernis to the Supervisory Board 11 Remuneration of the Supervisory Board Appointment of the Company's auditors for the financial year 2018 12 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 preemptive rights 13(a) Designation of the Management Board as the competent body to issue common shares and rights to acquire common shares 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 Authorization of the Management Board to repurchase common shares in the Company 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(b) Authorization of the Management Board to repurchase common shares in the Company up to an additional maximum of 10% of the issued capital 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) A Proposals ASM International N.V. The Management Board recommends a vote "For" all Proposals. Against Abstain Against Abstain Against Abstain Proposal 5 Proposal 10(b) Proposal 15 Proposal 6 Proposal 11 Proposal 16 Proposal 7 Proposal 12 Proposal 17 Proposal 8 Proposal 13(a) Proposal 9(a) Proposal 13(b) Proposal 9(b) Proposal 14(a) Proposal 10(a) Proposal 14(b) Authorized Signatures - Sign Here - This section must be completed for your instructions to be executed. If these Voting Instructions are signed and timely returned to the Depositary but no specific direction as to voting is marked above as to a Proposal, the undersigned shall be deemed to have directed the Depositary to give

voting instructions "FOR" all unmarked Proposals.

If these Voting Instructions are signed and timely returned to the Depositary but multiple specific directions as to voting are marked above as to a Proposal, the undersigned shall be deemed to have directed the Depositary to give an "ABSTAIN" voting instruction for such issue.

Please be sure to sign and date this Voting Instruction Card.

Please sign your name to the Voting Instructions exactly as printed. When signing in a fiduciary or representative capacity, give full title as such. Where more than one owner, each MUST sign. Voting Instructions executed by a corporation should be in full name by a duly authorized officer with full title as such.

Signature 1 - Please keep signature within the line Signature 2 - Please keep signature within the line Date (mm/dd/yyyy)