Report of the Executive Board on agenda item 9

In accordance with section 278 (3), 203 (2) second sentence, section 186 (4) second sentence AktG, the Executive Board is required to prepare a written report on the reasons for authorization to exclude subscription rights. The report will be available on the company's website as of the date on which the Annual General Meeting is convened (for more information see the section titled "Information and Documents for the Annual General Meeting; Company Website"). The report will be also available during the Annual General Meeting.

The report is issued as follows:

The Executive Board shall continue to have the possibility, with the approval of the Supervisory Board, of making use of financing options in the interests of the company in order to take advantage of business opportunities and to strengthen the company's equity capital base. It was authorized, by a resolution adopted by the Annual General Meeting on April 28, 2017, to increase the company's share capital (Grundkapital) with the approval of the Supervisory Board and of E. Merck KG, Darmstadt, Germany once or repeatedly up to and including April 27, 2022 by up to a total of \mathfrak{C} 56,521,124.19 by issuing new no-par value bearer shares against cash and/or non-cash contributions (Authorized Capital 2017). The Executive Board has thus far not made any use of the Authorized Capital 2017.

In the opinion of the Executive Board and the Supervisory Board, it makes good sense for the company to continue to be allowed to increase the share capital even at short notice, thereby excluding the subscription rights, in order to be able, also in the future, to quickly and flexibly adapt the equity base of the company to the financial requirements. In order to continue to safeguard the company's financing leeway for the long term, to provide the Executive Board with planning certainty and to ensure that authorized capital is readily available to the Executive Board, the existing Authorized Capital 2017 shall be cancelled at the Annual General Meeting in 2022 and replaced by new Authorized Capital 2022 in same amount, i.e. € 56,521,124.19.

For this reason, the Executive Board and the Supervisory Board propose to the Annual General Meeting under agenda item 9 that new authorized capital of up to a total of € 56,521,124.19 be created by the issuance of new no-par value bearer shares (Authorized Capital 2022). The Executive Board shall be authorized to increase the company's share capital (*Grundkapital*) once or repeatedly with the approval of the Supervisory Board and of E. Merck KG, Darmstadt, Germany, at any time up to and including April 21, 2027 on the basis of the Authorized Capital 2022. The Authorized Capital 2022 shall be available both for capital increases against cash and for capital increases against non-cash contributions.

By way of the proposed Authorized Capital 2022, the Executive Board of Merck KGaA, Darmstadt, Germany, will be enabled to align the equity base of the company with the business and legal requirements at any time within the specified limits and to act quickly and flexibly in the interests of the company. In order to be able to do so, the company must always have available the necessary instruments for procuring capital, regardless of the specific utilization plans. As decisions on the coverage of capital requirements normally need to be made at short notice, it is important that the

company does not have to wait for the next Annual General Meeting and does not have to call an extraordinary general meeting either. The instrument of authorized capital has been created by the legislator to address the need to procure capital at short notice. Common reasons for utilizing authorized capital include strengthening the equity capital base and financing the acquisition of equity interests.

If and when the Authorized Capital 2022 is utilized, the limited liability shareholders will generally have subscription rights. Pursuant to section 186 (5) AktG, the new shares may also be subscribed to by one or more credit institutions or an equivalent institute, which undertake to offer the shares for subscription to the limited liability shareholders (so-called indirect subscription right). The proposed authorization provides for the Executive Board to be allowed – in accordance with the legal provisions – to exclude the subscription rights of limited liability shareholders in whole or in part in the interests of the company with the approval of the Supervisory Board in the cases described below.

Exclusion of subscription rights in the case of capital increases against cash

In the case of capital increases against cash, the Executive Board shall be authorized to exclude subscription rights with the approval of the Supervisory Board in accordance with sections 278 (3), 203 (1) sentence 1 and (2) and 186 (3) sentence 4 AktG if the issue price of the new shares is not substantially lower than the stock exchange price of the shares that are already listed.

It may be expedient to make use of this statutory possibility of excluding subscription rights in order to enable the company to take advantage of favorable market situations quickly and flexibly and to satisfy any capital requirements arising in this regard, if necessary, even at very short notice. If the subscription rights were safeguarded, the establishment of terms and conditions that are close to market terms and conditions and a problem-free placement would not be possible. section 186 (2) AktG does permit publication of the subscription price up until the third last day of the subscription period. However, in view of the frequently present volatility on the stock markets, there is also a market risk - in particular the risk of price changes over several days - which generally results in safety margins when determining the issue price and thus to terms and conditions that are not close to market terms and conditions. Even where a subscription right exists, the successful placement with third parties is jeopardized or associated with additional expenses due to uncertainty about its exercise (subscription behavior). Finally, if subscription rights are granted, the company - due to the length of the subscription period - cannot react quickly to changes in the market situation but is instead exposed to possible falling share prices during the subscription period that can result in an unfavorable procurement of equity capital for the company. The exclusion therefore promotes practicability of the capital increase and facilitates the processing of a share issue.

The proportion of the share capital attributable to the shares issued by such exclusion of subscription rights must not exceed, in total, 10% of the share capital either at the time when this authorization takes effect or at the time of when this authorization is exercised. Within this limit, the legislator deems it reasonable for the (limited liability) shareholders to maintain the percentage of their shareholding by purchases on the market. This restriction to 10% of the share capital also includes the proportional amount of the share capital attributable to shares that are issued or sold during the term of the Authorized Capital 2022, with subscription rights being excluded on the basis of an authorization to issue new shares or sell own shares by direct or analogous application of section

186 (3) sentence 4 AktG. The proportional amount of the share capital that is attributable to shares which may or must be issued in order to service bonds carrying a conversion or option right or a conversion or option obligation shall also count towards this 10% limit if the bonds are issued during the term of the Authorized Capital 2022 by excluding the subscription rights of limited liability shareholders by analogous application of section 186 (3) sentence 4 AktG. This serves to protect the limited liability shareholders in order to keep the dilution of their shareholding as low as possible

This model allows for the limited liability shareholders' participation rate to be diluted by no more than 10% even when capital measures are combined with the issue of bonds and/or the sale of own shares of the company. Aside from this, the limited liability shareholders will be generally able, because the issue price of the new shares is close to the stock exchange price and because the volume of the capital increase with subscription rights being excluded is limited, to maintain their participation rate by acquiring the necessary shares on the stock exchange on approximately the same terms and conditions. It is therefore ensured that the financial and participation-related interests remain adequately protected, in line with the legal rationale of section 186 (3) sentence 4 AktG, when Authorized Capital 2022 is utilized with subscription rights being excluded, while giving the company a wider scope of action in the interests of all the limited liability shareholders.

Exclusion of subscription rights in the case of capital increases against contributions in kind

The Executive Board shall also be authorized to exclude the subscription rights of limited liability shareholders with the approval of the Supervisory Board in the case of capital increases against contributions in kind, in particular for the purpose of acquiring enterprises, parts of enterprises or interests in enterprises.

This shall enable Merck KGaA, Darmstadt, Germany, to offer shares of the company quickly and flexibly in suitable individual cases in order to satisfy claims arising from the preparation, implementation, closing, or settlement of contractual or statutory acquisition processes as well as company mergers without using the stock markets. Merck KGaA, Darmstadt, Germany, competes at a global level. It must be in a position at all times to act quickly and flexibly on the international and regional markets in the interests of its limited liability shareholders. This includes acquiring enterprises, businesses, parts of or interests in enterprises, or other assets or claims to the acquisition of assets, including claims against the company or its group companies, at short notice in order to improve its competitive position. In return, it may be expedient or even necessary to grant shares in order to preserve liquidity or to meet the sellers' expectations. The granting of shares instead of money may also be reasonable from the perspective of an optimum financing structure. This will not be disadvantageous to the company, as the issue of shares against a contribution in kind requires for the value of such contribution in kind to be in due proportion to the value of the shares. When determining the valuation ratio, the Executive Board will ensure that the interests of the company and of its limited liability shareholders are appropriately protected and that an adequate issue price is achieved for the new shares. Moreover, the company's listing on the stock exchange generally enables every limited liability shareholder to increase its participation rate by acquiring additional shares.

Exclusion of subscription rights to enable E. Merck KG, Darmstadt, Germany, to exercise its rights pursuant to sections 32 (3), 33 of the Articles of Association

In addition, the Executive Board with the approval of the Supervisory Board shall be authorized to exclude the subscription rights of limited liability shareholders in order – in the event that the share capital is increased – to create subscription rights for E. Merck KG, Darmstadt, Germany, in accordance with its share in the total capital of the company or in order to enable E. Merck KG, Darmstadt, Germany, to convert, in full or in part, its equity interest into limited partnership shares. By excluding subscription rights, the rights of E. Merck KG, Darmstadt, Germany, pursuant to sections 32 (3) and 33 of the Articles of Association to participate in a capital increase by issuing shares or freely transferable share subscription rights and to convert, in full or in part, its equity interest into limited partnership shares are thus secured. The exclusion of subscription rights is necessary in order to be able to also satisfy the rights of E. Merck KG, Darmstadt, Germany, arising from sections 32 (3) and 33 of the Articles of Association – as provided for in the Articles of Association – by utilizing the Authorized Capital.

Exclusion of subscription rights for bonds with detachable warrants and convertible bonds

Further, the Executive Board shall be authorized to exclude the subscription rights of limited liability shareholders with the approval of the Supervisory Board also to the extent that this is necessary to grant the holders or creditors of conversion or option rights and/or the holders or creditors of financing instruments carrying conversion or option obligations, which were or are issued by the company or by a domestic or foreign company in which the company directly or indirectly holds the majority of the votes and capital, a subscription right to the same extent to which they would be entitled after exercising the conversion or option rights or after performing a conversion or option obligation.

The reasons for this are as follows: The economic value of the aforementioned conversion or option rights or the bonds with conversion or option obligations depends not only on the conversion or option price but also and in particular on the value of the shares of the company to which the conversion or option rights or conversion or option obligations relate. In order to ensure a successful placement of the respective bonds or, rather, to avoid a corresponding markdown in the price during placement, it is therefore common practice to include so-called anti-dilution provisions in the terms and conditions of the bonds, which will protect the holders of the rights from a loss in the value of their conversion or option rights as a result of a dilution of the value of the shares to be subscribed; the inclusion of such antidilution provisions in the terms and conditions of the bonds is therefore also provided for in the authorization to issue bonds with warrants and/or convertible bonds, participation rights or participation bonds, as resolved under agenda item 8 by the Annual General Meeting on April 27, 2018. In the absence of such protection against dilution, the subsequent issuance of shares by granting the subscription rights to limited liability shareholders would typically result in such dilution of the value of the shares. The aforementioned anti-dilution provisions in the terms and conditions of the bonds regularly provide for a reduction of the conversion or option price in such a case, with the result that in the event of the subsequent conversion or exercise of the option or the subsequent performance of a conversion or option obligation, the funds accruing to the company are reduced and the number of shares to be issued by the company is increased, respectively.

As an alternative which makes it possible to avoid reducing the conversion or option price, the antidilution provisions usually permit the holders of rights under bonds with conversion or option rights or conversion or option obligations to be granted a right to subscribe to new shares to the extent to which they would be entitled after exercising their own conversion or option rights or after performing their conversion or option obligations. They are thus treated as if they had already become a (limited liability) shareholder prior to the offer to subscribe by exercising the conversion or option rights or by performing any conversion or option obligations, and would already be entitled to subscribe to that extent. Consequently, like all (limited liability) shareholders already holding shares, they are compensated for the dilution of value by the value of the subscription right. For the company, this second alternative for granting protection against dilution has the benefit that the conversion or option price need not be reduced; therefore, this alternative serves to ensure the largest possible inflow of funds in the event of a subsequent conversion or exercise of the option or the subsequent performance of any conversion or option obligation and reduces the number of shares to be issued in this case, respectively. This also benefits the participating limited liability shareholders so that this is at the same time compensation for the restriction of their subscription right. Their subscription right as such continues to exist and is merely reduced pro rata to the extent to which, in addition to the participating limited liability shareholders, the holders of the conversion or option rights or bonds with conversion or option obligations are also granted a subscription right. In case of an issue of subscription rights, the present authorization will enable the company to choose between one of the two aforementioned alternatives for granting protection against dilution, by weighing the limited liability shareholders' interests against those of the company.

Exclusion of subscription rights for fractional amounts

The Executive Board shall furthermore be authorized to exclude the subscription rights of limited liability shareholders for fractional amounts with the approval of the Supervisory Board. Such exclusion of subscription rights shall allow for a practicable subscription ratio and shall thus facilitate the technical implementation of a capital increase. The value of the fractional amounts is normally low, whereas the time and effort required to issue shares without excluding subscription rights for fractional amounts is regularly much higher. When it comes to fractional amounts, the costs associated with trading in subscription rights would not be proportional to the benefit for the limited liability shareholders. The new shares that will be excluded from the subscription rights of limited liability shareholders as so-called "non-allocable fractional amounts" will be used in the best possible way for the company. The exclusion of subscription rights in these cases will thus serve to make an issue and its implementation more practicable and feasible.

Further information

There are at present no specific plans to make use of the proposed authorizations. Each and every case of an exclusion of the subscription right, as proposed herein, will require the approval of the Supervisory Board. Moreover, the sum of shares issued on the basis of the Authorized Capital 2022 under the exclusion of subscription rights must not exceed a proportional amount of 10% of the share capital, by taking into account other shares of the company that, during the term of the Authorized Capital 2022, are sold or issued or are to be issued under the exclusion of subscription rights. In this way, the limited liability shareholders will be protected against dilution of their holdings to a greater degree than required by law.

Further, the Executive Board will carefully consider in each individual case whether it would be in the interests of the company to make use of the Authorized Capital 2022; the Executive Board will in particular also consider whether a possible exclusion of subscription rights is objectively justified in

a specific case. The Executive Board will report to the next Annual Ger of the authorization.	neral Meeting on any utilization
Merck KGaA	
Darmstadt, Germany, February 15, 2022	
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