

Compensation Report

This compensation report describes the structure and application of the compensation system for the Executive Board of Merck KGaA, Darmstadt, Germany, in the fiscal year 2022. It provides a transparent overview of the relationship between compensation and performance, and presents the compensation awarded or due to the members of the Executive Board and the Supervisory Board in the 2022 fiscal year. The compensation report has been jointly prepared by the Supervisory Board and the Executive Board in accordance with the provisions of Section 162 of the German Stock Corporation Act (AktG) and the recommendations of the German Corporate Governance Code in the version dated April 28, 2022. It has formally and materially been audited by KPMG AG Wirtschaftsprüfungsgesellschaft in line with the requirements of Section 162 (3) AktG as part of the combined management report. The compensation report and the corresponding audit opinion as part of the audit opinion on the annual financial statements of Merck KGaA, Darmstadt, Germany, can be found on our website.

The legislation and regulations relating to the compensation report are geared toward the situation at a German stock corporation ("Aktiengesellschaft" or "AG") and do not take into consideration the special characteristics of a corporation with general partners ("Kommanditgesellschaft auf Aktien" or "KGaA"), such as our company. Major differences between the two legal forms exist in terms of liability and management. In the case of an AG, only the AG is liable as a legal entity, whereas the general partners of a KGaA also have unlimited personal liability for the company's obligations (Section 278 (1) AktG). Unlike the management board members of an AG, the members of the Executive Board of our company are personally liable partners of both Merck KGaA, Darmstadt, Germany, and the general partner E. Merck KG, Darmstadt, Germany, and not merely employed members of a corporate board. Given the structural differences between an AG and a KGaA, several recommendations of the German Corporate Governance Code apply to a KGaA only in a modified form.

Review of the 2022 fiscal year

The fiscal year 2022 was a year of continued growth, both financially and in terms of value creation for patients, customers, and investors. At the same time, the market environment was characterized by tensions due to the war in Ukraine, Covid-19, the progressive effects of climate change and geopolitical tensions. This was also reflected on the stock markets. Our share price has been influenced by major fluctuations over the fiscal year 2022.

All three business sectors, Life Science, Healthcare and Electronics, contributed significantly to our success in the fiscal year 2022. Our "Big 3", Process Solutions and Life Science Services, new Healthcare products, and Semiconductor Solutions, were key to growth, combined with the strong performance of established portfolio products. Thanks to the strong growth, we now have excellent financial flexibility, enabling the implementation of our very ambitious investment and growth plans.

In addition to commercial success, we strongly focused on sustainability as integrated component of our strategy in 2022. We set clear sustainability goals, which were linked to the LTIP 2022 by the sustainability factor. In 2022, the independent Science Based Targets Initiative (SBTi) confirmed that our 2030 emissions targets are in line with the current state of climate science. We are thus contributing to limiting global warming to 1.5 °C and thus fulfilling the requirements of the Paris Climate Agreement.

In the fiscal year 2022, severe inflation, the energy crisis and ongoing disruptions to global supply chains were a major challenge for us. Rising costs impacted our business, our customers, and our employees. Regarding employee compensation, we continuously monitor the markets and take appropriate targeted action as needed to ensure that our compensation remains competitive. We are aware of the pressures and significant social impacts on our employees –particularly those with lower incomes. We closely monitored inflation and wage trends and took proactive measures in selected markets by adjusting salaries during the year. We also introduced other supportive benefits for our employees. This is an ongoing process, and we will continue to ensure that we provide appropriate salary adjustments to all employees. We will look for ways to protect our lower-income employees who are most affected by the rising cost of living.

In the fiscal year 2022 there was no increase of the contractually agreed compensation of the Executive Board. We have met the challenges with strong economic performance which is reflected in the payouts of the variable compensation components. This follows the “pay for performance” principle of the compensation system, which means that excellent performance is rewarded while missed targets are taken into account accordingly. Further details can be found in the Compensation System approved by the Annual General Meeting 2021 and published on our [website](#).

Furthermore, during the fiscal year 2022 the composition of the Executive Board remained unchanged and stable. There were no personnel changes. In the Supervisory Board there was one change of mandate. Effective May 15, 2022, Edeltraud Glänzer left the Supervisory Board and as of July 14, 2022 Birgit Biermann took over.

Approval of the Compensation Report 2021

At the Annual General Meeting 2022, the Compensation Report 2021 was approved with a voting result of 84.73%. Only shares traded in the free float are entitled to vote at the Annual General Meeting.

In relation to the Annual General Meeting 2022 and in ten investor meetings after the Annual General Meeting, We obtained feedback from investors and all relevant shareholder associations and proxy advisors regarding the compensation of the Executive Board and its presentation in the Compensation Report 2021. Similar to the voting results, we received mostly positive feedback to last year’s revision of the Compensation Report. In particular, the increasingly transparent presentation was positively highlighted.

We have implemented the suggestion to present the individual maximum amount of the profit sharing and to explain the adjustment factor for increasing or reducing the profit sharing in this compensation report. While the criteria of the adjustment factor are already described in the Compensation System, we are additionally including them again in this Compensation Report to increase transparency even more. With this in mind, this year we are also publishing the target corridor of the respective indicators of the sustainability factor in the Long-Term Incentive Plan (LTIP) already at the beginning of the performance period for the first time.

We received further suggestions related to the LTIP. Regarding the performance indicator, which measures the relative performance of the share price compared to the DAX®, a more ambitious definition of the targets and, in isolated cases, a longer performance period overall are desired. The current tranches show a strong share performance, which according to the system leads to a performance-related payout. Furthermore, the current plan design reflects common market practice in Germany. However, we will consider such advice in the regular review of the compensation system and discuss them as part of a possible adjustment to the LTIP.

It was also made clear that potential adjustments of the Executive Board compensation as well as payments compensating forfeited compensation from a previous employment (sign-on payment) should be explained appropriately. In this regard, we will ensure an even more transparent explanation in the future. In the fiscal year 2022 there were no compensation adjustments.

Concerning the compensation tables, we follow the same approach as last year with the same interpretation of Section 162 (1) of the German Stock Corporation Act (AktG). In this context, we observe the practice of other companies and actively follow the decisions in connection with possible model tables of the EU Commission.

Involving our investors is an important and ongoing process. We will continue to maintain dialogue with investors in relation to the Annual General Meeting 2023 and beyond. Consequently, we can ensure that we receive constructive and valuable feedback which can be incorporated into both the design of the compensation system and the decisions of the Personnel Committee. Accordingly, we will report on the feedback received in the next Compensation Report.

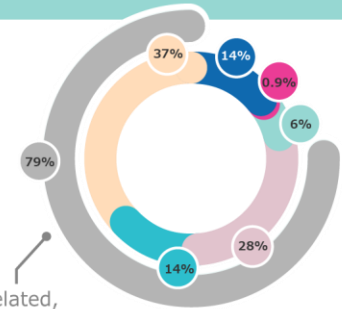
Compensation for fiscal year 2022 – Summary

Summary of the compensation for the Executive Board members' performance up to December 31, 2022 – voluntary disclosure

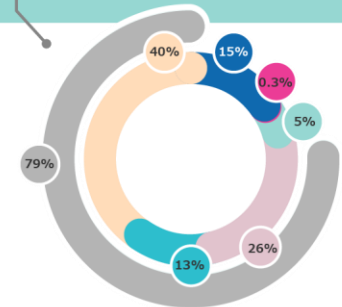
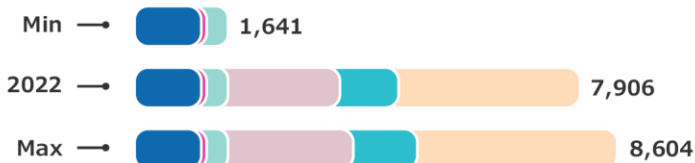
Belén Garijo



Around 80% from performance-related, long-term compensation elements



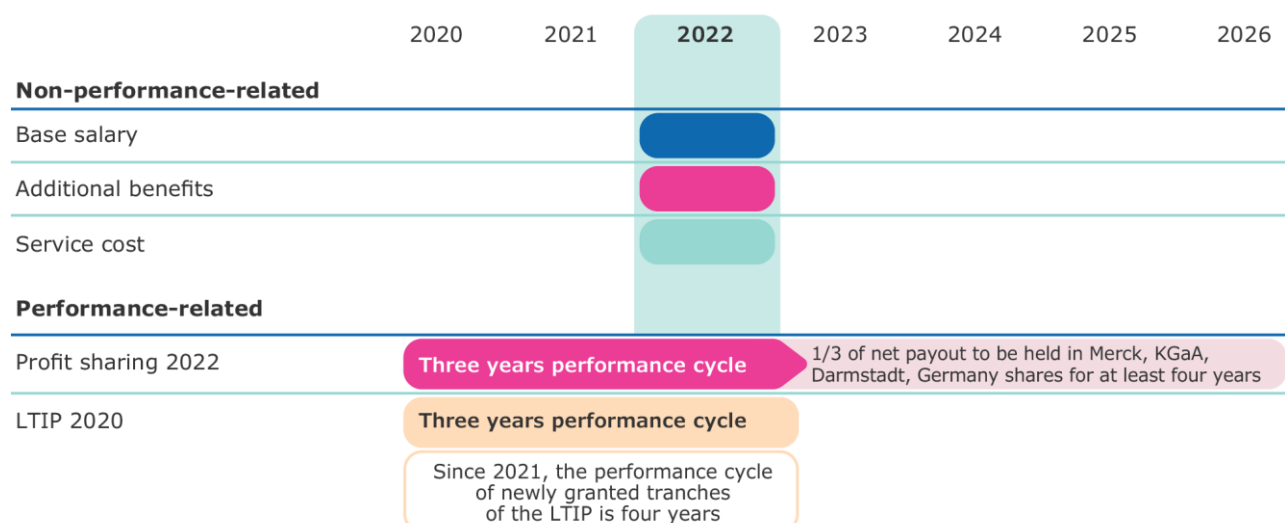
Ø further EB members¹



- Base salary
- Additional benefits
- Service cost
- 2/3 of profit sharing 2022 (free disposal)
- 1/3 of profit sharing 2022 (to be held in shares for 4 years)
- LTIP 2020

¹ The compensation of Kai Beckmann and Marcus Kuhnert is included in the average calculation of the further members of the Executive Board. Peter Guenter and Matthias Heinzel joined the Executive Board in the fiscal year 2021 and therefore did not receive any compensation from the LTIP 2020. Taking their compensation into account would therefore lead to a distorted presentation.

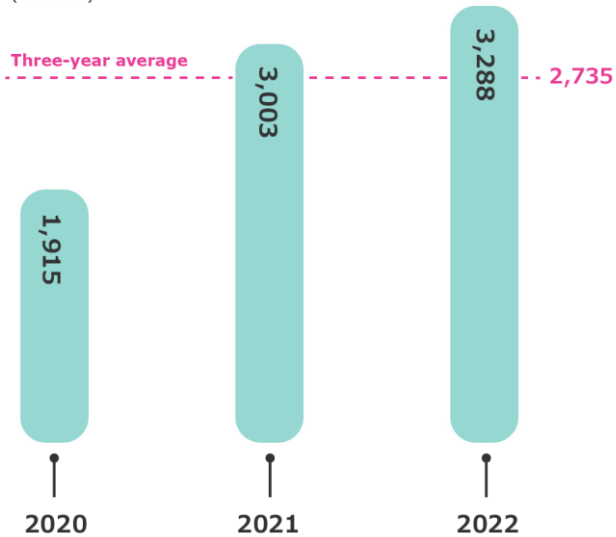
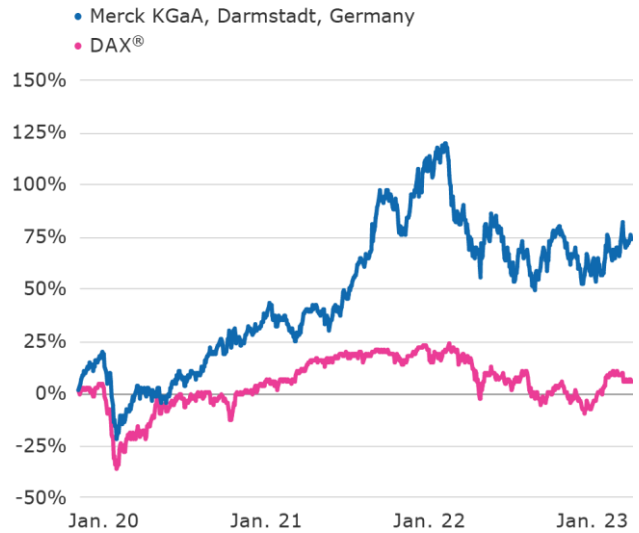
Compensation for fiscal year 2022 – Chronological overview



Relevant key performance indicators for profit sharing and Long-Term Incentive Plan (LTIP)

**Profit after tax of
E. Merck KG, Darmstadt, Germany**

(€ million)

**Share price development****LTIP 2020**

Performance indicator	Target corridor	Actual value	Target achievement
Share price performance relative to DAX® (Weighting: 50%)	Lower limit: -20% Target value: 0% Upper limit: 50%	58.6%	150.0%
EBITDA pre margin (Weighting: 25%)	Lower limit: 25.6% Target value: 28.6% Upper limit: 31.6%	30.5%	131.7%
Organic sales growth (Weighting: 25%)	Lower limit: 5.1% Target value: 8.1% Upper limit: 11.1%	8.7%	110.0%
● Actual value Total target achievement: 135.4%			

Determining the compensation of the Executive Board

At our company, unlike at publicly listed German stock corporations, it is not the Supervisory Board but the Board of Partners of E. Merck KG, Darmstadt, Germany, that is responsible for designing and reviewing the compensation system and deciding on the amount and composition of compensation received by the Executive Board members. The Board of Partners has assigned this task to its Personnel Committee. As a result, the Personnel Committee is responsible for the development and regular review of the compensation system, i.e., for the structure and examination of the performance-independent and performance-related compensation elements. The Personnel Committee also considers the compensation system for managers and employees below Executive Board level to ensure consistency and a uniform steering effect between the compensation systems. Furthermore, the Personnel Committee is responsible for defining the annual targets and thresholds of the key performance indicators for the performance-related compensation elements.

In addition to the structure of the Executive Board compensation system, the Personnel Committee is responsible for defining the specific amounts of compensation paid to the members of the Executive Board. The compensation paid to the members of the Executive Board considers the responsibilities and duties of the individual Executive Board members, and in particular their status as personally liable partners, their individual performance, and the economic situation, as well as the performance and future prospects of the company.

Furthermore, Executive Board compensation is oriented toward the external peer environment of our company, which comprises the DAX® companies as well as a group of selected international competitors:



The international peer group was defined considering the size, business area and geographic location of the headquarters of the respective competitors. Overall, the peer group offers an appropriate ratio of companies headquartered in Europe and the United States as well as a balanced coverage of the Life Science, Healthcare and Electronics business sectors. Based on the size criteria of sales, number of employees and market capitalization, the Group positions itself around the median of this international peer group.

The relationship between Executive Board compensation and the compensation of top management and the workforce as a whole continues to be taken into account, also in a multi-year assessment. Top management is defined as encompassing the senior levels of management below the Executive Board. The compensation of the remaining workforce as a whole is based on typical employee compensation.

The Personnel Committee reviews the amount and structure of the Executive Board compensation by reference to the peer groups described and with the assistance of an independent compensation consultant.

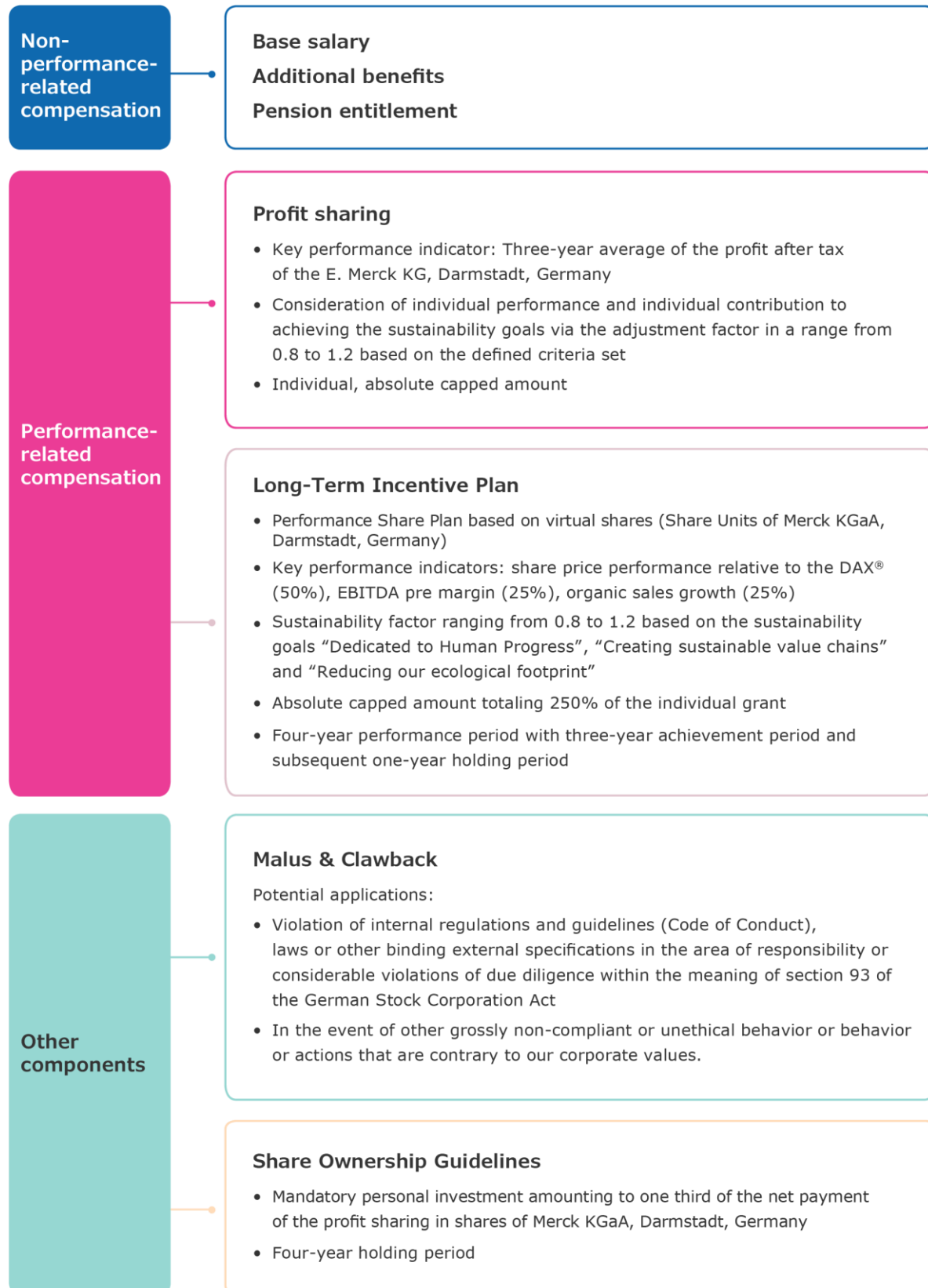
Overview of the structure of the compensation system

Compensation components

Executive Board compensation fundamentally comprises three main components: base salary, profit sharing, and the Long-Term Incentive Plan. This is complemented by contributions to the company pension plan as well as additional benefits. There are also additional compensation arrangements for the members of the Executive Board, in particular malus and clawback provisions and a Share Ownership Guideline.

The performance-related compensation elements – profit sharing and the Long-Term Incentive Plan – are based on a multiyear performance period and are completely oriented toward the company's long-term development. In addition, the two variable compensation components are designed to be tied to the company's share price to a large extent, thereby ensuring that our shareholders' interests are particularly considered. The key performance indicators selected for variable compensation are derived from the corporate strategy and form part of our central controlling system. Like this, the variable compensation of the Executive Board members is used as a strong controlling tool in order to ensure a focus on our objective of long-term profitable growth accompanied by strong cost discipline.

The following diagram shows an overview of all the elements of the compensation system for the Executive Board members:



Executive Board compensation for 2022

The performance-related and performance-independent compensation components of the compensation system of the Executive Board in the fiscal year 2022 are fully consistent with the Executive Board compensation system approved by the 2021 Annual General Meeting with a voting result of 87.08%. Compliance with the compensation system is ensured by the Personnel Committee. The compensation system for the Executive Board is published on our [website](#). The Personnel Committee decides by resolution about the parameter of the compensation elements (e.g. setting of targets, determination of target achievement, etc.) as well as about the amounts to be paid out.

The following section reports on the compensation awarded or due in accordance with Section 162 (1) AktG. Accordingly, the following sections contain all amounts received by the individual members of the Executive Board (active and former members) in the fiscal year (compensation awarded) as well as all amounts legally due but not yet received (compensation due).

In addition, compensation is disclosed on a voluntary basis for which the members of the Executive Board have provided the underlying service completely by December 31, 2022, but for which payment will be made in the following year. This relates to the profit sharing for fiscal year 2022, as well as the 2020 LTI tranche, whose performance period ended on December 31, 2022. These amounts have been provisionally determined by the Personnel Committee by way of a resolution and subsequently communicated to the members of the Executive Board. The final amount will be paid to the members of the Executive Board after the preparation of the consolidated financial statements of E. Merck KG, Darmstadt, Germany. This enables transparent information and ensures the link between performance and compensation in the fiscal year.

Performance-independent compensation

Base salary

As base salary, the members of the Executive Board receive contractually fixed performance-independent amounts that are paid in the form of 12 equal monthly installments.

Additional benefits

The additional benefits mainly include company cars with private use, contributions to insurance policies and expenses for personal protection.

In addition, as compensation for the loss of entitlements to variable compensation from his previous employment, Peter Guenter received upon the initial appointment in the fiscal year 2021 a commitment to compensation totaling € 1,500,000.00 as a sign-on payment. The entitlement has been verified in the context of his initial appointment on the basis of supporting documents, and the amount has been determined accordingly. The compensation is to be paid in cash in four equal installments. The first installment was paid on July 1, 2021, and the second installment on July 1, 2022. The further installments will be paid on July 1, 2023, and July 1, 2024, provided the employment relationship continues.

Pension entitlement

The members of the Executive Board are granted a pension obligation as a direct commitment.¹ A fixed amount is paid into a benefit account every year, and interest is paid at the applicable statutory maximum technical interest rate for the life insurance industry in accordance with Section 2 (1) of the Regulation on the Principles Underlying the Calculation of the Premium Reserve (DeckRV). Once a member retires, the amount in the

¹ For accounting purposes, this corresponds to a defined-benefits obligation within the meaning of IAS 19.8.

benefit account is paid out either in ten annual installments or as a one-time payment. In the fiscal year 2022 there was no increase of any pension contribution.

Pension obligations

		IAS 19			
		Service cost		Present value of the pension obligation as of December 31	
€ thousand	Contribution level	2022	2021	2022	2021
Belén Garijo ¹	650	638	572	7,057	6,308
Kai Beckmann	450	439	441	6,309	5,823
Peter Guenter	450	437	452	893	451
Matthias Heinzel	450	462	387	832	376
Marcus Kuhnert	400	401	406	4,717	4,290
Total	2,400	2,377	2,258	19,808	17,248

¹On appointment as Chair of the Executive Board effective May 1, 2021, the annual pension contribution for Belén Garijo was increased to € 650 thousand.

Performance-related compensation

Performance-related compensation comprises profit sharing as well as the Long-Term Incentive Plan (LTIP). Both compensation elements are based on multi-year performance periods and are tied to the company's share price to a large extent.

Profit sharing

Regarding the profit sharing, an individual profit-sharing rate is defined for the members of the Executive Board as a per mille rate of the three-year average of the consolidated profit after tax of E. Merck KG, Darmstadt, Germany. The fiscal year 2022 and the two preceding fiscal years are included in the calculation.

The use of profit after tax as the key performance indicator, which also serves as the basis for dividend payments, ensures very close alignment with shareholder interests.

To appropriately consider the individual performance of the Executive Board members, the Personnel Committee may modify the payment by applying a factor ranging from 0.8 to 1.2. In determining the level of this factor, the Personnel Committee applies the following criteria that also include ambitious sustainability targets.

Bonus criteria for increasing profit sharing

- Extraordinary contributions to the Sustainability goals and performance criteria "Human Progress", "Creating sustainable value chains" and "Reducing our ecological footprint" (e.g. CO₂ reduction, employee satisfaction, customer satisfaction, Corporate Social Responsibility, diversity)
- Extraordinary success in connection with M&A activities of the Group
- Extraordinary success in the sustainable strategic, technical, product-related or structural further development or reorganization of the Group
- Extraordinary performance in the execution of especially important projects or the achievement of other exceptionally important objectives in the area of responsibility
- Extraordinary performance leading to a clear overachievement of targets for relevant key performance indicators in the area of responsibility

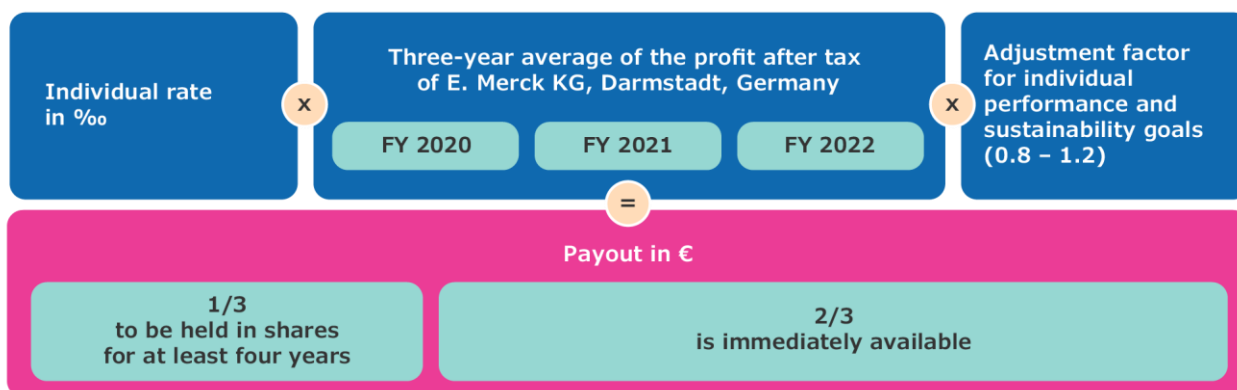
Malus criteria for decreasing profit sharing

- Significantly failing to meet the Sustainability goals and performance criteria "Human progress", "Creating sustainable value chains" and "Reducing our ecological footprint" (e.g. CO₂ reduction, employee satisfaction, customer satisfaction, Corporate Social Responsibility, diversity)
- Violations of internal rules and regulations (for instance our Code of Conduct), laws or other binding external requirements in the area of responsibility
- Significant breaches of duty of care within the meaning of Section 93 of the German Stock Corporation Act or other grossly non-compliant or unethical behavior
- Behaviors or actions that are contradictory to our company values
- Failure to execute especially important projects or failing to achieve other exceptionally important objectives in the area of responsibility
- Clear failure to achieve targets for relevant key performance indicators in the area of responsibility

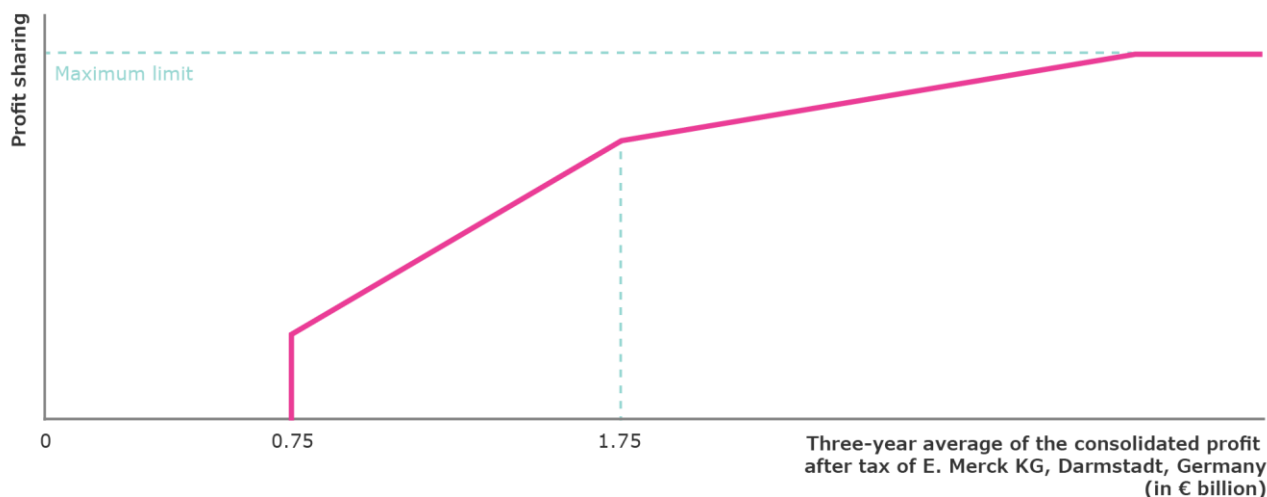
The performance factor makes it possible to recognize outstanding performance by a member of the Executive Board by multiplying profit sharing by a value greater than 1.0 up to 1.2. Similarly, multiplying by a value less than 1.0 down to 0.8 can reduce profit sharing if the circumstances call for it.

The members of the Executive Board are obligated to hold one-third of the yearly total net amount from profit sharing in shares of Merck KGaA, Darmstadt, Germany, for at least four years. Further details are provided under the heading “[Share Ownership Guideline](#)”.

The following illustration shows the profit sharing for the 2022 fiscal year:



An average profit of at least € 0.75 billion must be generated for the profit-sharing payment to be made. This minimum threshold reflects the “pay-for-performance” approach of the compensation system. If the profit exceeds such threshold, the individual profit sharing rates are staggered. The maximum profit-sharing payment is capped individually. It amounts to € 4,810 thousand for Belén Garijo, € 3,500 thousand for Kai Beckmann, € 3,900 thousand for Peter Guenter, € 3,900 thousand for Matthias Heinzl and € 3,300 thousand for Marcus Kuhnert.



The three-year average that is relevant for the 2022 fiscal year was based on the profit after tax generated by E. Merck KG, Darmstadt, Germany, in 2020, 2021 and 2022:

Profit after tax of the Group of E. Merck KG, Darmstadt, Germany

€ million	2019	2020	2021	2022
Profit after tax of E. Merck KG, Darmstadt, Germany	1,255	1,915	3,003	3,288
Three-year average profit after tax of E. Merck KG, Darmstadt, Germany (2019-2021)	2,058			
Three-year average profit after tax of E. Merck KG, Darmstadt, Germany (2020-2022)	2,735			

The Personnel Committee has set the adjustment factor at 1.0 for all members of the Executive Board, taking into account individual performance as well as the contribution to the sustainability targets based on the agreed criteria. This recognizes the performance of the members of the Executive Board which resulted in the successful fiscal year 2022.

The Executive Board faced the many challenges resulting from the war in Ukraine, Covid-19, and geopolitical tensions. The Personnel Committee recognizes that through the efforts of the Executive Board members, fiscal year 2022 was successfully concluded both in financial terms and value creation. All three business sectors, Life Science, Healthcare and Electronics, contributed significantly to our success in fiscal 2022. In addition to economic success, an equally strong focus was placed on sustainability. In this context, the decisions and actions of the Executive Board members were positively acknowledged.

Taking into account the relevant three-year average of the profit after tax of E. Merck KG, Darmstadt, Germany, the individual sharing rates and the performance factor, the profit sharing for fiscal year 2022 is as follows:

Profit sharing 2022 summary

	Three-year average profit after tax of E. Merck KG, Darmstadt, Germany (€ million)	Average profit-sharing rate 2022 (in per mill)	Performance factor for individual performance	Payout amount (€ thousand)	thereof mandatory personal investment (1/3) (€ thousand) ¹
Belén Garijo	2,735	1.60	1.0	4,390	1,463
Kai Beckmann		1.17	1.0	3,193	1,064
Peter Guenter		1.30	1.0	3,552	1,184
Matthias Heinzel		1.30	1.0	3,552	1,184
Marcus Kuhnert		1.09	1.0	2,993	998

¹ Gross amount - investment is based on net amount.

The profit-sharing payout will be made in cash in April 2023. One-third of the net payout amount must be held in shares of Merck KGaA, Darmstadt, Germany, for at least four years. Further details of the investment obligation can be found in the “[Share Ownership Guideline](#)” section.

In the fiscal year 2022, the profit sharing for the fiscal year 2021 already explained in detail in the Compensation Report 2021 was paid out, which was thus reported as compensation awarded or due in the fiscal year 2022 in accordance with Section 162 of the German Stock Corporation Act (AktG). Further details can be found in the following table from the previous year:

Profit sharing 2021 summary

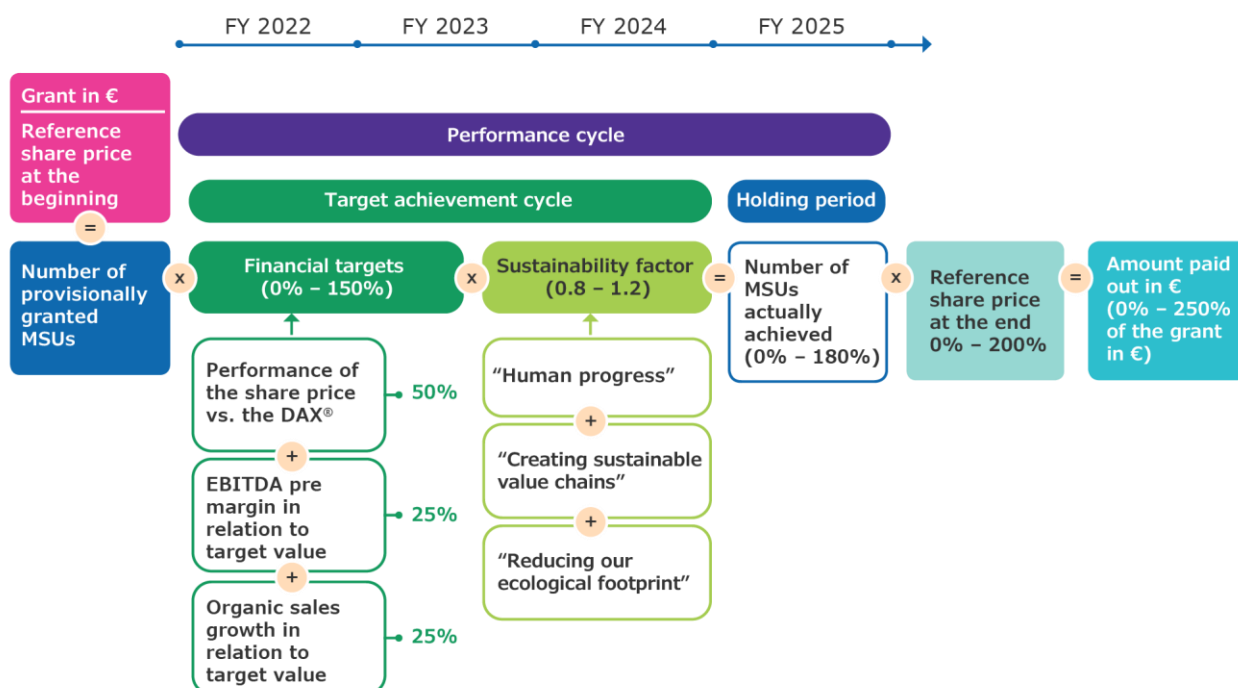
	Three-year average profit after tax of E. Merck KG, Darmstadt, Germany (€ million)	Average profit-sharing rate 2021 (in per mill)	Performance factor for individual performance	Payout amount (€ thousand)	thereof mandatory personal investment (1/3) (€ thousand) ¹
Belén Garijo (Chair since May 1, 2021)	2,058	1.78	1.0	3,671	1,224
Stefan Oschmann (until April 30, 2021)		0.63	1.0	1,287	429
Kai Beckmann		1.39	1.0	2,854	951
Peter Guenter (since January 1, 2021)		1.54	1.0	3,165	1,055
Matthias Heinzel (since April 1, 2021)		1.16	1.0	2,385	795
Marcus Kuhnert		1.29	1.0	2,654	885

¹ Gross amount - investment is based on net amount.

Long-Term Incentive Plan (LTIP)

Long-Term Incentive tranche for the fiscal year 2022

The Long-Term Incentive Plan is designed as a virtual performance share plan. It is based on a four-year future-oriented performance cycle that is composed of a three-year target achievement cycle and, since the 2021 tranche, a subsequent one-year holding period. As of fiscal year 2022, sustainability targets are taken into consideration by supplementing the LTIP by a sustainability factor in addition to three financial performance indicators. The sustainability factor has a range of 0.8 to 1.2 and can increase or reduce the target achievement resulting from the financial key performance indicators by up to 20%. The following graphic illustrates the calculation of the Share Units of Merck KGaA, Darmstadt, Germany (MSUs) as well as the functionality of the sustainability factor.



Calculation of the MSUs

The members of the Executive Board are provisionally granted a certain number of virtual shares, so-called share units of Merck KGaA, Darmstadt, Germany ("MSUs"). The number of MSUs is calculated as follows: An individual grant in Euros is set for each Executive Board member. Every year, this grant is divided by the definitive reference share price at the beginning of the performance cycle, resulting in the number of MSUs that the respective member is provisionally entitled to receive.

In fiscal year 2022, the allocation of the LTIP tranche 2022 was made on the basis of the following parameters:

LTIP Tranche 2022 allocation

	Grant amount (€ thousand)	Reference Group share price at the beginning (in €)	Number of provisionally granted MSUs	Maximum payout (€ thousand)
Belén Garijo	2,300	212.16	10,841	5,750
Kai Beckmann	1,715		8,084	4,288
Peter Guenter	1,900		8,956	4,750
Matthias Heinzl	1,900		8,956	4,750
Marcus Kuhnert	1,400		6,599	3,500

The number of MSUs actually allocated to the Executive Board members after the end of the target achievement cycle depends on the development of the financial performance indicators and the sustainability factor during the three-year target achievement period.

Based on the three financial performance indicators, the number of MSUs allocated may be between 0% and 150% of the provisionally granted MSUs. The resulting number of MSUs will then be multiplied by the sustainability factor.

The sustainability factor target achievement can range between 0.8 and 1.2 and is determined by the predefined sustainability key indicators. Thus, the total number of MSUs actually allocated can amount to a maximum of 180% of the provisionally granted MSUs.

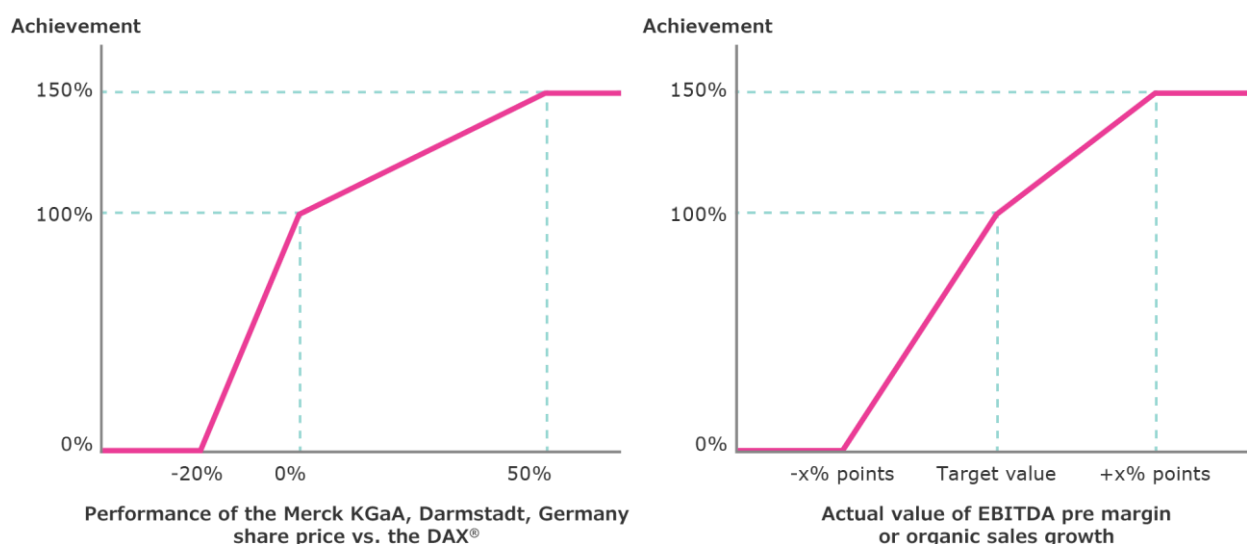
The target achievement period is followed by a one-year holding period. The final payout amount may be between 0% and a maximum of 250% of the amount originally granted and depends on the number of MSUs actually allocated and the reference share price at the end of the performance cycle.

Financial key performance indicators

The relevant financial key performance indicators are:

- The performance of the share price of Merck KGaA, Darmstadt, Germany, compared with the performance of the DAX® with a weighting of 50%,
- The EBITDA pre margin as a proportion of a defined target value with a weighting of 25%, and
- The organic sales growth of the Group as a proportion of a defined target value with a weighting of 25%.

The number of MSUs actually allocated after the end of the target achievement cycle is based on the following target achievement curves. The targets and thresholds for the key performance indicators of EBITDA pre margin and organic sales growth are defined by the Personnel Committee at the start of the performance period and subsequently published in the compensation report.



Non-financial key indicators of the sustainability factor

As a result of implementing the sustainability factor starting from fiscal year 2022, our sustainability strategy will be even more firmly incorporated into the compensation system for the members of the Executive Board. On the basis of the sustainability goals ("Human Progress" "Creating sustainable value chains" and "Reducing our ecological footprint"), the Personnel Committee defines corresponding concrete and measurable sustainability key indicators as well as associated target and threshold values at the beginning of each tranche of the LTIP. These values are used to calculate target achievement at the end of the relevant target achievement cycle. The following criteria were defined for the selection of the sustainability key indicators:

- Relevance and influence of the sustainability key indicators on the three overarching sustainability goals of the sustainability strategy
- Internal and external influence of the sustainability key indicators by management
- Good measurability and operationalization
- Sustained impact to support long-term solutions and not incentivize short-term actions

In addition, the Personnel Committee determines the weighting of the individual sustainability goal for each tranche of the LTIP in order to emphasize priorities.

The Personnel Committee has defined the following sustainability key indicators and weightings for the 2022 tranche of the LTIP:

Sustainability Goal	Weighting	Sustainability Key Indicator
Dedicated to Human Progress	20%	People treated with our Healthcare products
Creating sustainable value chains	40%	Percentage of relevant suppliers (in terms of number and supplier spend) that are covered by a valid sustainability assessment
Reducing our ecological footprint	40%	Greenhouse gas emissions Scope 1+2

The following table shows the target corridor ex ante for the respective sustainability key indicators of the three overarching goals for the 2022 LTI tranche.

Sustainability Goal/Key Indicator	Minimum	Target	Maximum
Human Progress			
Number of people treated with our HC products (in million)	165.5	189.0	200.5
Number of people treated as part of the schistosomiasis program (in million)			
Creating sustainable value chains			
Relevant suppliers with a valid sustainability assessment (% of all relevant suppliers)	60%	70%	80%
Relevant suppliers with a valid sustainability assessment (% of supplier spend)	80%	90%	100%
Reducing our ecological footprint			
Greenhouse gas emissions in Scope 1+2 worldwide (in kt)	1,200.0	1,000.0	800.0

- “Dedicated to Human Progress”

We are convinced that, with the help of science and technology, we can make a contribution to solving many global challenges. In our Healthcare business sector, we measure the number of people worldwide who can be treated with our company’s medical products. This includes measuring the number of people who can be treated with Healthcare products in general and particularly with praziquantel against schistosomiasis as part of our donation program. We plan to continuously increase this number and thus contribute to a significant improvement in medical care and the health status of as many people as possible. It is planned to also include a sustainability key indicator for the Life Science business sector for the LTIP 2023. This is intended to cover patients treated with medical products that are enabled by our key Life Science technologies.

- “Creating sustainable value chains”

We measure our progress in embedding sustainability in our supply chains. We achieve this by increasing the transparency of our supply chains and subjecting more suppliers to a sustainability assessment. We are focusing particularly on suppliers where we see a sustainability risks in the supply chain and those suppliers who cover a relevant share of our supplier spend. In connection with this sustainability assessment, it is important for us to increase the number of suppliers audited.

- “Reducing our ecological footprint”

On our path to climate neutrality, we have already joined the Science Based Targets Initiative and aim to reduce both direct (Scope 1) and indirect emissions (Scope 2) by 50% by 2030 compared to 2020. This target is to be achieved through the reduction of process-related emissions, energy efficiency measures, and the increased purchase of electricity from renewable sources. Particularly in the case of process emissions (Scope 1), we aim to significantly reduce emissions through the use of new technologies.

LTIP tranches allocated prior to fiscal year 2021

The tranche allocated in fiscal year 2021 is already designed with the one-year holding period but still without the sustainability factor introduced with the 2022 LTIP tranche. Accordingly, the performance period is four years and comprises the target achievement period of three years and the holding period of one year. Consequently, the performance period of the LTIP 2021 runs from January 1, 2021 to December 31, 2024, with payment in April 2025.

The 2019 and 2020 tranches were structured according to the former model without a one-year holding period and without a sustainability factor. Accordingly, the performance period of the 2019 and 2020 tranches is still three years without a subsequent one-year holding period. This means that the 2019 LTIP was paid out in April of fiscal year 2022, with the performance period running from January 1, 2019, to December 31, 2021. The performance period of the 2020 LTIP ended in fiscal year 2022, with the performance period running from January 1, 2020 to December 31, 2022. It will be paid out in April 2023.

The targets and thresholds, the actual amounts, and the resulting target achievement for the 2019 and 2020 tranches can be summarized as follows:

LTIP 2019 target achievement

	Lower target corridor limit	Target	Upper target corridor limit	Actual achieved value	Target achievement ¹
Share price performance relative to the DAX® (weighting: 50%)	-20.0%	0.0%	50.0%	87.6%	150.0%
EBITDA pre margin (weighting: 25%)	24.5%	27.5%	30.5%	29.2%	128.4%
Organic sales growth (weighting: 25%)	4.3%	7.3%	10.3%	8.0%	111.7%
Total target achievement					135.0%

¹ Cap of relative share price development was reached.

LTIP 2020 target achievement

	Lower target corridor limit	Target	Upper target corridor limit	Actual achieved value	Target achievement ¹
Share price performance relative to the DAX® (weighting: 50%)	-20.0%	0.0%	50.0%	58.6%	150.0%
EBITDA pre margin (weighting: 25%)	25.6%	28.6%	31.6%	30.5%	131.7%
Organic sales growth (weighting: 25%)	5.1%	8.1%	11.1%	8.7%	110.0%
Total target achievement					135.4%

¹ Cap of relative share price development was reached.

The resulting payouts are as follows:

LTIP 2019 summary

	Grant amount (€ thousand)	Reference share price of Merck KGaA, Darmstadt, Germany, at the beginning (in €)	Number of provisionally granted MSUs	Total target achievement	Final number of MSUs	Reference share price of Merck KGaA, Darmstadt, Germany, at the end (in €)	Payout amount (€ thousand) ¹
Stefan Oschmann (until April 30, 2021)	2,255		24,054		32,479		4,377
Udit Batra (until July 13, 2020)	1,705	93.75	18,187	135.0%	24,557	212.16	2,131
Kai Beckmann	1,530		16,320		22,036		3,825
Belén Garijo	1,870		19,947		26,933		4,629
Marcus Kuhnert	1,320		14,080		19,012		3,300

¹ Payout capped at 250% of the grant value. A pro-rata payout has been made for Stefan Oschmann and Udit Batra. The payout for Belén Garijo was reduced to ensure compliance with the cap on direct compensation.

LTIP 2020 summary

	Grant amount (€ thousand)	Reference share price of Merck KGaA, Darmstadt, Germany, at the beginning (in €)	Number of provisionally granted MSUs	Total target achievement	Final number of MSUs	Reference share price of Merck KGaA, Darmstadt, Germany, at the end (in €)	Payout amount (€ thousand) ¹
Stefan Oschmann (until April 30, 2021)	2,255		21,371		28,942		2,226
Udit Batra (until July 13, 2020)	1,705	105.53	16,159	135.4%	21,883	173.46	633
Kai Beckmann	1,530		14,500		19,637		3,406
Belén Garijo	1,970		18,670		25,284		3,910
Marcus Kuhnert	1,320		12,510		16,942		2,939

¹ Payout for Stefan Oschmann and Udit Batra is based on a pro-rate basis. The payout for Belén Garijo will be reduced to ensure compliance with the cap on direct compensation.

Share Ownership Guideline

Since 2017, the members of the Executive Board are obliged to invest in and hold shares of Merck KGaA, Darmstadt, Germany, as part of the Share Ownership Guideline (SOG) valid until fiscal 2021. Since the introduction of the new compensation system at the beginning of fiscal 2021, the share ownership obligation has been linked to the variable compensation element of profit sharing. Under the revised SOG, members of the Executive Board are required to hold one-third of the net profit-sharing payout in shares for at least four years. The shareholding obligation thus builds up gradually over the first four fiscal years after the introduction of the new compensation system. A corresponding investment was made for the first time after payment of the 2021 profit sharing in the fiscal year 2022 as part of an automated purchase via an external provider.

The following table illustrates the investment volume of the members of the Executive Board in accordance with the revised SOG. The numbers are the gross investment amounts from the corresponding profit sharing payout. No conclusions can be drawn as to the actual individual shareholdings.

Share Ownership Guideline

	Mandatory personal investment based on SOG (in € thousand) ¹				Total	In % of Base Salary
	From profit sharing 2021	From profit sharing 2022 ²	From profit sharing 2023	From profit sharing 2024		
Belén Garijo (Chair since May 1, 2021)	1,224	1,463	Investment is made after payout of profit sharing for fiscal year 2023 and 2024		2,687	179%
Kai Beckmann	951	1,064			2,015	168%
Peter Guenter (since January 1, 2021)	1,055	1,184			2,239	187%
Matthias Heinzl (since April 1, 2021)	795	1,184			1,979	165%
Marcus Kuhnert	885	998			1,883	157%

¹ Gross amounts of mandatory investment from profit sharing. Investment is made on net amounts.

² Investment is made after payout of the profit sharing for the fiscal year 2022 in 2023.

The Share Ownership Guideline promotes an even stronger alignment of the interests of the members of the Executive Board with the sustainable interests of our shareholders and additionally increases the corporate responsibility of the members of the Executive Board in addition to their status as general partners.

Malus and clawback provisions

Through their status as personally liable general partners of Merck KGaA, Darmstadt, Germany, and E. Merck KG, Darmstadt, Germany, the Executive Board members bear a unique entrepreneurial responsibility. This is also reflected by the penalty criteria set forth in profit sharing and by the German statutory regulations on liability for damages stipulated in section 93 AktG. In order to take even greater account of the prominent position of entrepreneurial responsibility in compensation, a clawback provision is implemented for the LTIP. Cases in which the clawback provision may be applied include violations of internal rules and regulations (Code of Conduct), legislation, other binding external requirements in responsibility, significant breaches of duty of care within the meaning of section 93 AktG, and other grossly non-compliant or unethical behavior or actions that are contradictory to our company values. In these cases, amounts that have already been allocated under the Long-Term Incentive Plan may be retained. The Personnel Committee is entitled to demand the repayment of profit sharing and LTIP payouts from a member of the Executive Board if it subsequently transpires that the payout was made wrongfully, either in full or in part. For example, this is the case when targets are not actually met or are not met to the extent assumed when the payout was calculated due to incorrect information being applied. The extent of these claims for restitution is based on section 818 of the German Civil Code (BGB). The Personnel Committee may agree deadlines for the assertion of claims for restitution with the members of the Executive Board.

Neither the malus provision nor the clawback provision were exercised in the fiscal year 2022.

Compensation-related transactions

Contracts with the members of the Executive Board are usually concluded for a period of five years. When an employment contract begins or ends during the year, the fixed compensation, profit sharing and individual LTIP tranches are paid on a pro rata basis. In fiscal year 2022 no adjustments or changes have been made to the contracts of the members of the Executive Board.

Should members of the Executive Board be held liable for financial losses while executing their duties, this liability risk is covered by a D&O insurance policy under certain circumstances. The D&O insurance policy has a deductible in accordance with the legal requirements.

Post-contractual non-competition clause

Post contractual non-competition clauses have been agreed with all Executive Board members except for Marcus Kuhnert. With him it has been agreed to conclude an agreement about a post-contractual non-competition clause if required. The post-contractual non-competition clause involves the payment of compensation amounting to 50% of the member's average compensation within the last twelve months and is paid for a period of two years. Other earnings, pension payments and any severance payments are offset against this amount.

A post-contractual non-competition clause was agreed with Stefan Oschmann. As compensation there is a monthly payment of € 343,184 in the period from May 1, 2021, to April 30, 2023. His monthly pension of € 46,667 was taken into account in determining the amount of this compensation. During the period of the non-competition clause, further income of other work is offset against this amount.

Obligations in connection with the cessation of Executive Board membership

The contracts of the Executive Board members do not provide for ordinary termination. The right to extraordinary termination for good cause in accordance with section 626 BGB is available to both parties without observing a notice period.

The contracts of the Executive Board members may provide for the continued payment of fixed compensation to surviving dependents for a limited period in the event of death. Above and beyond existing pension obligations, no further obligations are provided for in the event of the termination of the contractual relationships of the Executive Board members.

There is a cap on the amounts payable to Executive Board members in the event of the early termination of the contract without good cause justifying such termination. Pursuant to this, payments in connection with the termination of an Executive Board member's duties shall not exceed twice the annual total compensation or constitute compensation for more than the remaining term of the employment contract (severance cap). If an Executive Board member's duties cease due to the termination of the employment contract either by the company or the Executive Board member before the four-year performance cycle of an open tranche in the Long-Term Incentive Plan expires, the obligations resulting from the plan continue to apply if there are specific grounds for the termination, e.g., if the employment contract is not renewed after it expires or if the Board of Partners determines this to be appropriate at its own discretion; otherwise, the obligations no longer apply. Should obligations resulting from the plan continue to apply any early payout is excluded. If the compensation in the fiscal year in which the Executive Board member's duties cease is expected to be significantly higher or lower than in the previous fiscal year, the Board of Partners may decide to adjust the amount applied as the member's total compensation at its own discretion.

Loans, advances, payments by affiliates of the Group

None of the members of the Executive Board received any loans or advances, nor any payments by affiliates of the group in fiscal year 2022.

Payments to former Executive Board members and their surviving dependents

Payments to former members of the Executive Board and their surviving dependents are made as pension payments, as temporary continuation of basic compensation in the event of death, as part of the profit-sharing and the LTIP, and as compensation for a post-contractual non-competition clause. They amounted to € 21.7 million in the fiscal year 2022 (previous year: € 30.7 million). Provisions for defined benefit pension commitments in accordance with IAS 19 amounted to € 123.1 million as of December 31, 2022 (December 31, 2021: € 155.1 million).

Individual disclosure of the compensation of the Executive Board

Compensation awarded or due to current members of the Executive Board in the fiscal year 2022

In accordance with the revised section 162 (1) of the German Stock Corporation Act (AktG), the compensation awarded or due to each member of the Executive Board in fiscal year 2022 and the respective relative share of total compensation are presented transparently in the tables below. This includes all compensation elements which were paid out or became legally due in fiscal year 2022.

To ensure a transparent presentation of the relation between business performance and the resulting compensation, compensation for fiscal year 2022 is also disclosed on a voluntary basis, with the variable compensation components being allocated to the year in which the final performance was rendered, irrespective of the actual date of payment or the legal due date.

In order to provide a complete picture of the total compensation of the Executive Board members, pension expense is also reported on a voluntary basis.

The compensation of the current members of the Executive Board is shown in the following tables.

In fiscal year 2022 pursuant to Section 162 AktG	For fiscal year 2022 as voluntary disclosure
Base salary	
Additional benefits	
Profit sharing for fiscal year 2021, payout in fiscal year 2022: - Payout in cash - Investment (in shares; 4-year holding period according to Share Ownership Guideline)	Profit sharing for fiscal year 2022, payout in fiscal year 2023: - Payout in cash - Investment (in shares; 4-year holding period according to Share Ownership Guideline)
LTIP tranche 2019 (Jan 1, 2019-Dec 31, 2021), payout was in fiscal year 2022	LTIP tranche 2020 (Jan 1, 2020-Dec. 31, Dec 2022), payout will be in fiscal year 2023 ¹
Other compensation	
Service cost as voluntary disclosure	

¹ Subject to verification of compliance with the maximum compensation

The figures presented in the table have been rounded in accordance with standard commercial practice. This may lead to the consequence that individual values cannot be added to the totals.

Compensation awarded or due

Belén Garijo
Chair of the Executive Board
(since May 1, 2021; previously member of the Executive Board)

	In the fiscal year (pursuant to Section 162 AktG)		For the fiscal year (voluntary disclosure)	
	2022	2021	2022	2021
	€ thousand	in %	€ thousand	€ thousand
Base salary	1,500	15%	1,433	1,433
Additional benefits	91	1%	169	169
Profit sharing				
Profit sharing 2020	-		3,299	-
Profit sharing 2021				
Payout in cash	2,447	25%	-	2,447
Investment (in shares; 4-year holding period)	1,224	12%	-	1,224
Profit sharing 2022				
Payout in cash	-	-	2,927	-
Investment (in shares; 4-year holding period)	-	-	1,463	-
LTIP ¹				
LTI 2018 (2018 to 2020)	-		3,196	-
LTI 2019 (2019 to 2021)	4,629	47%	-	4,629
LTI 2020 (2020 to 2022)	-		3,910	-
Others	-	-	-	-
Compensation awarded or due pursuant to § 162 AktG	9,891	100%	8,097	-
Compensation for the fiscal year	-	-	9,891	9,902
Service cost	638	-	572	572
Total compensation incl. service cost	10,529	-	10,529	10,474

¹ Reduction of LTI 2019 and LTI 2020 payout due to maximum amount of direct compensation.

Kai Beckmann
Member of the Executive Board

	In the fiscal year (pursuant to Section 162 AktG)		For the fiscal year (voluntary disclosure)	
	2022		2021	
	€ thousand	in %	€ thousand	€ thousand
Base salary	1,200	15%	1,200	1,200
Additional benefits	16	0%	30	30
Profit sharing				
Profit sharing 2020	–	–	2,640	–
Profit sharing 2021				
Payout in cash	1,903	24%	–	1,903
Investment (in shares; 4-year holding period)	951	12%	–	951
Profit sharing 2022				
Payout in cash	–	–	–	2,128
Investment (in shares; 4-year holding period)	–	–	–	1,064
LTIP				
LTI 2018 (2018 to 2020)	–		2,444	–
LTI 2019 (2019 to 2021)	3,825	48%	–	3,825
LTI 2020 (2020 to 2022)	–		–	3,406
Others	–	–	–	–
Compensation awarded or due pursuant to § 162 AktG	7,895	100%	6,314	–
Compensation for the fiscal year	–	–	–	7,815
Service cost	439	–	441	439
Total compensation	8,334	–	6,755	8,254

Peter Guenter
Member of the Executive Board
(since January 1, 2021)

	In the fiscal year (pursuant to Section 162 AktG)		For the fiscal year (voluntary disclosure)	
	2022		2021	
	€ thousand	in %	€ thousand	€ thousand
Base salary	1,200	25%	1,200	1,200
Additional benefits ¹	21	0%	95	21
Profit sharing				
Profit sharing 2020	–	–	–	–
Profit sharing 2021				
Payout in cash	2,110	44%	–	2,110
Investment (in shares; 4-year holding period)	1,055	22%	–	1,055
Profit sharing 2022				
Payout in cash	–	–	–	2,368
Investment (in shares; 4-year holding period)	–	–	–	1,184
LTIP				
LTI 2018 (2018 to 2020)	–		–	–
LTI 2019 (2019 to 2021)	–	–	–	–
LTI 2020 (2020 to 2022)	–		–	–
Others	375	8%	375	375
Compensation awarded or due pursuant to § 162 AktG	4,761	100%	1,670	–
Compensation for the fiscal year	–	–	–	5,148
Service cost	437	–	452	437
Total compensation	5,198	–	2,122	5,585

¹ In fiscal year 2021, Peter Guenter received the amount of € 62,168 connected to his relocation to Germany.

Matthias Heinzel
Member of the Executive Board
(since April 1, 2021)

	In the fiscal year (pursuant to Section 162 AktG)		For the fiscal year (voluntary disclosure)	
	2022	2021	2022	2021
	€ thousand	in %	€ thousand	€ thousand
Base salary	1,200	33%	900	1,200
Additional benefits	12	0%	25	25
Profit sharing				
Profit sharing 2020	-	-	-	-
Profit sharing 2021				
Payout in cash	1,590	44%	-	1,590
Investment (in shares; 4-year holding period)	795	22%	-	795
Profit sharing 2022				
Payout in cash	-	-	2,368	-
Investment (in shares; 4-year holding period)	-	-	1,184	-
LTIP				
LTI 2018 (2018 to 2020)	-	-	-	-
LTI 2019 (2019 to 2021)	-	-	-	-
LTI 2020 (2020 to 2022)	-	-	-	-
Others	-	-	-	-
Compensation awarded or due pursuant to § 162 AktG	3,597	100%	925	-
Compensation for the fiscal year	-	-	4,764	3,310
Service cost	462	-	387	387
Total compensation	4,059	-	5,226	3,697

Marcus Kuhnert
Member of the Executive Board

	In the fiscal year (pursuant to Section 162 AktG)		For the fiscal year (voluntary disclosure)	
	2022	2021	2022	2021
	€ thousand	in %	€ thousand	€ thousand
Base salary	1,200	17%	1,200	1,200
Additional benefits	26	0%	42	42
Profit sharing				
Profit sharing 2020	-	-	2,640	-
Profit sharing 2021				
Payout in cash	1,769	25%	-	1,769
Investment (in shares; 4-year holding period)	885	12%	-	885
Profit sharing 2022				
Payout in cash	-	-	1,995	-
Investment (in shares; 4-year holding period)	-	-	998	-
LTIP				
LTI 2018 (2018 to 2020)	-	-	2,256	-
LTI 2019 (2019 to 2021)	3,300	46%	-	3,300
LTI 2020 (2020 to 2022)	-	-	2,939	-
Others	-	-	-	-
Compensation awarded or due pursuant to § 162 AktG	7,180	100%	6,138	-
Compensation for the fiscal year	-	-	7,157	7,196
Service cost	401	-	406	406
Total compensation	7,581	-	7,558	7,602

Compensation awarded or due to former members of the Executive Board in the fiscal year

The compensation awarded or due to former members of the Executive Board during the fiscal year is also presented below. Tranches of the LTIP already allocated before a member of the Executive Board left the company continue to run until the end of the originally contractually agreed term and are settled and paid out after the end of the performance period. In addition, some members who have already left the Executive Board receive fixed payments from pension plans.

The following tables show the compensation awarded or due to former members of the Executive Board in fiscal year 2022 in accordance with section 162 (1) of the German Stock Corporation Act (AktG) and the respective relative share of total compensation. For former members of the Executive Board who left the Executive Board in the last ten years, the information is given by name. In accordance with the provisions of Section 162 (5) of the German Stock Corporation Act (AktG), no personal information is provided on former members of the Executive Board who left the Executive Board more than ten years ago, i.e. before December 31, 2012.

Compensation awarded or due

Stefan Oschmann Chair of the Executive Board (until April 30, 2021)			
	2022		2021
	€ thousand	in %	€ thousand
Base salary	–	–	500
Additional benefits	–	–	13
Profit sharing			
Profit sharing 2020	–	–	4,069
Profit sharing 2021			
Payout in cash	858	8%	–
Investment (in shares; 4-year holding period)	429	4%	–
LTIP			
LTI 2018 (2018 bis 2020)	–		3,854
LTI 2019 (2019 bis 2021)	4,377	43%	–
Others	3,953	39%	2,745
Pensions	572	6%	373
Compensation awarded or due pursuant to § 162 AktG	10,189	100%	11,554

Udit Batra
Member of the Executive Board
(until July 13, 2020)

	2022		2021
	€ thousand	in %	€ thousand
Base salary	–	–	–
Additional benefits	–	–	–
Profit sharing	–	–	–
Profit sharing 2020	–	–	1,364
Profit sharing 2021	–	–	–
Payout in cash	–	–	–
Investment (in shares; 4-year holding period)	–	–	–
LTIP	–	–	–
LTI 2018 (2018 to 2020)	–	–	2,428
LTI 2019 (2019 to 2021)	2,131	100%	–
Others	–	–	–
Pension	–	–	–
Compensation awarded or due pursuant to § 162 AktG	2,131	100%	3,792

Walter Galinat
Member of the Executive Board
(until September 30, 2018)

	2022		2021
	€ thousand	in %	€ thousand
LTIP	–	–	–
LTI 2018 (2018 to 2020)	–	–	998
LTI 2019 (2019 to 2021)	361	52%	–
Others	–	–	–
Pension	334	48%	313
Compensation awarded or due pursuant to § 162 AktG	695	100%	1,311

Former members of the Executive Board who only received pension payments in the 2022 fiscal year are shown in the following table. The compensation granted and owed in the 2022 fiscal year in accordance with section 162 (1) AktG consists entirely of non-performance-related compensation elements.

Pension payments

€ thousand	2022	2021
Karl-Ludwig Kley	695	630
Bernd Reckmann	443	459

Compliance with the defined maximum compensation

The maximum compensation limits the compensation awarded or due in the fiscal year, i.e., the total of all non-performance-related and performance-related compensation elements awarded or due in a fiscal year. Pension payments are not included in the maximum compensation.

The maximum compensation for the fiscal year is € 11,500,000 for the Chair of the Executive Board and € 9,500,000 each for ordinary members of the Executive Board. The sum of the compensation awarded or due in accordance with Section 162 of the German Stock Corporation Act (AktG) less any pension payments and plus pension expenses is below the defined maximum compensation in accordance with section 87a of the German Stock Corporation Act (AktG) for all members of the Executive Board.

In addition to the maximum compensation, there is a separate payment cap for each of the performance-related compensation elements. A maximum amount has been set for the amount of profit sharing for all members of the Executive Board (please find more details in the paragraph “profit sharing”). The payout from the Long-Term Incentive Plan cannot exceed 2.5 times the individual award value, even in the case of exceptional performance.

In addition, there is a contractually agreed maximum limit on the direct compensation, i.e. the sum of base salary, profit-sharing, and LTI. In this context, it is stipulated that capping, if necessary, shall be applied first to the LTI and then to profit sharing. To ensure compliance with this cap, the 2019 LTIP payment for Belén Garijo was reduced by € 46 thousands accordingly.

Compliance with the defined maximum compensation is ensured by the Personnel Committee setting the amounts of the variable compensation components by resolution. The defined maximum compensation and the maximum limit for the direct compensation of the members of the Executive Board are shown in the following table.

Overall compensation limit

€ thousand	Maximum limit for Direct Compensation	Maximum compensation pursuant to Section 87a AktG
Belén Garijo	9,800	11,500
Kai Beckmann	8,000	9,500
Peter Guenter	8,000	9,500
Matthias Heinzl	8,000	9,500
Marcus Kuhnert	8,000	9,500

Compensation for the Supervisory Board members in fiscal year 2022

The compensation of the Supervisory Board members is defined by article 20 of the Articles of Association of Merck KGaA, Darmstadt, Germany, and corresponds to the compensation system for the Supervisory Board that was adopted by the 2022 Annual General Meeting with 99.64% of the votes cast.

Accordingly, the members of the Supervisory Board receive fixed compensation of € 47,000 per year. The Chairman receives double, and the Vice Chairman receives one and a half times this amount. In addition to their fixed compensation, Supervisory Board members who are also members of the Audit Committee, which has been established in the meeting of the Supervisory Board on February 26, 2021, receive annual compensation of € 15,000. The Chair of the Audit Committee receives an additional annual compensation of € 30,000. Moreover, the members receive an additional compensation of € 750 per meeting they attend.

The compensation awarded or due and the respective relative share of the total compensation for the current members of the Supervisory Board is presented in the following table. During the fiscal year, Edeltraud Glänzer resigned from the Supervisory Board effective May 15, 2022, and Birgit Biermann joined the Supervisory Board effective July 14, 2022. There were no payments to former members of the Supervisory Board in the fiscal year.

Compensation awarded or due

	2022							2021						
	Fixed compensation		Compensation for committee duties		Meeting fees		Total compensation	Fixed compensation		Compensation for committee duties		Meeting fees		Total compensation
	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand	€ thousand	in %	€ thousand	in %	€ thousand	in %	€ thousand
Wolfgang Büchele	94.0	84%	15.0	13%	3.0	3%	112.0	94.0	86%	12.7	12%	3.0	3%	109.7
Sascha Held	70.5	80%	15.0	17%	3.0	3%	88.5	70.5	82%	12.7	15%	3.0	4%	86.2
Gabriele Eismann	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Edeltraud Glänzer (until May 15, 2022)	17.4	71%	5.5	23%	1.5	6%	24.4	47.0	75%	12.7	20%	3.0	5%	62.7
Birgit Biermann (since July 14, 2022)	22.0	94%	–	–	1.5	6%	23.5	–	–	–	–	–	–	–
Jürgen Glaser	47.0	79%	9.5	16%	3.0	5%	59.5	47.0	95%	–	–	2.3	5%	49.3
Michael Kleinemeier	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Renate Koehler	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Anne Lange	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Peter Emanuel Merck	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Dietmar Oeter	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Alexander Putz	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Christian Raabe	47.0	72%	15.0	23%	3.0	5%	65.0	47.0	75%	12.7	20%	3.0	5%	62.7
Helene von Roeder	47.0	59%	30.0	38%	3.0	4%	80.0	47.0	62%	25.4	34%	3.0	4%	75.4
Helga Rübsamen-Schaeff	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0
Daniel Thelen	47.0	72%	15.0	23%	3.0	5%	65.0	47.0	75%	12.7	20%	3.0	5%	62.7
Simon Thelen	47.0	94%	–	–	3.0	6%	50.0	47.0	94%	–	–	3.0	6%	50.0

Supervisory Board member Wolfgang Büchele received an additional € 140,000 (2021: € 140,000) for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany.

Supervisory Board member Helga Rübsamen-Schaeff received an additional € 150,000 (2021: € 150,000) for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany, and an additional € 6,000 (2021: € 6,000) for 2022 as a member of the Supervisory Board of Merck Healthcare KGaA, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany.

Supervisory Board member Michael Kleinemeier received an additional € 140,000 (2021: € 140,000) as a member of committees of E. Merck KG, Darmstadt, Germany, for 2022 in this function.

Supervisory Board member Helene von Roeder received an additional € 150,000 (2021: € 150,000) for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany.

Supervisory Board member Peter Emanuel Merck received an additional € 80,000 (2021: € 80,000) for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany.

Supervisory Board member Daniel Thelen received an additional € 140,000 for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany (2021: € 140,000).

Supervisory Board member Simon Thelen received an additional € 140,000 (2021: € 140,000) for 2022 in this function as a member of the corporate bodies of E. Merck KG, Darmstadt, Germany, and an additional € 3,000 (2021: € 3,000) for 2022 as a member of the Supervisory Board of Merck Healthcare KGaA, Darmstadt, Germany, a subsidiary of Merck KGaA, Darmstadt, Germany.

Comparative presentation of compensation and earnings development

The comparative presentation in accordance with Section 162 (1) no. 2 of the AktG shows the annual change in the compensation of the members of the Executive Board and the members of the Supervisory Board, the development of earnings of the Group as well as the development of the average compensation of a full-time employee of Merck KGaA, Darmstadt, Germany, over the last five years.

For employee compensation, the average personnel expenses excluding company pension costs are used. This reflects the total compensation of employees worldwide.

For members of the Executive Board, the compensation awarded or due in fiscal years 2020, 2021 and 2022 is used in accordance with Section 162 of the German Stock Corporation Act (AktG). For the years 2019 and 2018, the allocated compensation is used excluding the service costs according to the German Corporate Governance Code (DCGK) sample table in the compensation report of the respective fiscal year.

Comparative presentation

in € thousand/change in %	2022	2021	Change 2022/2021	Change 2021/2020	Change 2020/2019	Change 2019/2018
Member of the Executive Board						
Belén Garijo (Chair since May 1, 2021)	9,891	8,097	22.20%	43.30%	-6.90%	7.20%
Kai Beckmann	7,895	6,314	25.00%	37.90%	-11.00%	26.20%
Peter Guenter (since January 1, 2021)	4,761	1,670	185.10%	–	–	–
Matthias Heinzel (since April 1, 2021)	3,597	925	288.90%	–	–	–
Marcus Kuhnert	7,180	6,138	17.00%	43.20%	-9.70%	27.40%
Former Member of the Executive Board						
Stefan Oschmann (until April 30, 2021)	10,189	11,554	-11.80%	41.80%	-11.30%	58.90%
Udit Batra (until July 13, 2020)	2,131	3,792	-43.80%	-19.40%	-16.30%	34.90%
Walter Galinat (until September 30, 2018)	695	1,311	-47.00%	22.30%	-10.10%	-59.30%
Karl-Ludwig Kley (until August 31, 2016)	695	630	10.30%	–	67.10%	-25.50%
Bernd Reckmann (until April 29, 2016)	443	459	-3.50%	6.70%	-43.00%	184.50%
Further former members	6,999	20,572	-66.00%	85.00%	0.50%	-0.30%
Member of the Supervisory Board						
Wolfgang Büchele	112.0	109.7	2.10%	13.10%	–	–
Sascha Held	88.5	86.2	2.70%	17.30%	110.00%	–
Gabriele Eismann	50.0	50.0	–	–	-1.60%	1.60%
Edeltraud Glänzer (until May 15, 2022)	24.4	62.7	-61.10%	25.40%	–	–
Birgit Biermann (since July 14, 2022)	23.5	–	–	–	–	–
Jürgen Glaser	59.5	49.3	20.70%	-1.40%	42.00%	–
Michael Kleinemeier	50.0	50.0	–	–	45.30%	–
Renate Koehler	50.0	50.0	–	–	42.00%	–
Anne Lange	50.0	50.0	–	–	45.30%	–
Peter Emanuel Merck	50.0	50.0	–	–	42.00%	–
Dietmar Oeter	50.0	50.0	–	–	-1.60%	1.60%
Alexander Putz	50.0	50.0	–	70.10%	87.30%	-68.60%
Christian Raabe	65.0	62.7	3.70%	25.40%	42.00%	–
Helene von Roeder	80.0	75.4	6.10%	50.80%	42.00%	–
Helga Rübsamen-Schaeff	50.0	50.0	–	–	–	–
Daniel Thelen	65.0	62.7	3.70%	25.40%	42.00%	–
Simon Thelen	50.0	50.0	–	–	42.00%	–
Personnel expenses without pension expenses	6,184,000	5,572,000	11.00%	3.90%	8.90%	4.70%
Average number of employees	62,552	58,706	6.60%	2.00%	7.40%	-0.30%
Average compensation of an employee	99	95	4.20%	1.90%	1.40%	5.00%
Earnings development						
Profit after tax of Merck KGaA, Darmstadt, Germany (HGB)	241,958	288,600	-16.20%	59.40%	7.30%	4.30%
Profit after tax of E. Merck KG, Darmstadt, Germany (IFRS)	3,288,000	3,003,000	9.50%	56.80%	52.60%	-62.20%