Additional Information on Merck KGaA in Accordance with the German Commercial Code (HGB)

The management report of Merck KGaA has been combined with the Group management report. The Annual Financial Statements and the Combined Management Report of the Group and Merck KGaA for 2022 are filed with the electronic German company register and are available on its website.

Merck KGaA, headquartered in Darmstadt, Germany, is the parent company of the Group. In addition to its function as a holding company, Merck KGaA generates sales in the Life Science, Healthcare, and Electronics business sectors. Merck KGaA employs the majority of the 11,000-plus workforce in Darmstadt.

The financial statements of Merck KGaA have been prepared in accordance with the provisions of the German Commercial Code (HGB), as amended by the German Accounting Directive Implementation Act (BilRUG), and the German Stock Corporation Act (AktG). The full version of the Annual Financial Statements of Merck KGaA together with the unqualified auditor's opinion has been submitted to the electronic company register and published there.

Statement on Corporate Governance

For fiscal 2022, we exercise the option of publishing the Statement on Corporate Governance on the Group's website in accordance with section 315d HGB in conjunction with section 289f (1) sentence 2 of the HGB. It is available at **https://www.merckgroup.com/en/investors/corporate-governance/reports.html**.

Effects of material company agreements on the net assets, financial position, and results of operations

Hive-down of the operating activities of the business sectors and temporary leaseback of the hived-down business activities

As part of the strategic further development of Merck KGaA, the existing operating activities of the Life Science, Healthcare, and Electronics business sectors within Merck KGaA, together with the relevant assets and liabilities (hereinafter: "operating units"), were hived down at their carrying amounts into three separate legal entities (hereinafter: "OpCo" or plural "OpCos") with the legal form of a GmbH or German limited liability corporation and with economic effect from January 1, 2018 (operating hive-down).

Immediately after the operating hive-down took effect, all the shares held by Merck KGaA in the respective OpCos were transferred to holding companies via a further hive-down (holding company hive-down), as a result of which the OpCos are each held indirectly by Merck KGaA via an intermediate holding company (referred to individually as "HoldCo" irrespective of the business sector and jointly as "HoldCos").

Since the technical system requirements for the rollout of the business sector-specific enterprise resource planning systems (hereinafter "ERP") were not in place at the OpCos at the time of the hive-down, the business activities hived down to the OpCos have been temporarily leased back by the relevant OpCos to Merck KGaA. Under the terms of a business lease agreement, Merck KGaA leased the entire operations from the three OpCos with economic effect from January 1, 2018. In this context, it also leased all fixed assets and acquired the current assets as well as certain liabilities and provisions at their carrying amounts under German commercial law. Once the relevant ERP systems have been rolled out for the respective OpCo, the business lease with this OpCo will be terminated and the previously leased business will be transferred to the OpCo.

Termination of the temporary business lease of the Healthcare and Electronics business sectors

In 2018, the Healthcare OpCo changed its legal form to that of a German corporation with general partners (Kommanditgesellschaft auf Aktien) and has since been trading under the name of Merck Healthcare KGaA, Darmstadt. The business leasing contract under which the Healthcare business sector was leased back to Merck KGaA was terminated with economic effect from March 21, 2019. As a result of the termination of the business leasing contract, the leased objects allocated to the Healthcare business sector at the end of the lease – comprising current assets as well as certain liabilities and provisions – were transferred to Merck Healthcare KGaA at their carrying amounts under German commercial law.

With the introduction of the specific ERP system for the distribution and sales function of the Electronics business sector on January 1, 2020, the business leasing contract between Merck Performance Materials Germany GmbH and Merck KGaA for the Electronics business sector was terminated for this function with economic effect from December 31, 2019. The business leasing contract for the other functions of the Electronics business sector remains in place. Accordingly, the distribution and sales function of the Electronics business sector moved to Merck Performance Materials Germany GmbH with economic effect from January 1, 2020. As a result, the contractual, process, procedural, and working relationships allocated to the function and the leased objects allocated to the function at their carrying amounts under German commercial law – comprising current assets as well as certain liabilities and provisions – were transferred to Merck Performance Materials Germany GmbH.

As a result of the aforementioned spin-off and restructuring measures and the business leasing contract that remains in place, Merck KGaA still continues to manage the operating business of the Electronics business sector with the exception of part of the distribution and sales function. Furthermore, as a result of the business leasing contract, Merck KGaA also runs the operating business of the Life Science business sector.

Construction of the Gernsheim Science and Technology Park (“Fluxum Gernsheim”)

As part of the strategic development of the Gernsheim site into a science and technology park, various operations at the Gernsheim site have been bundled and transferred to separate subsidiaries domiciled in Gernsheim.

Firstly, this relates to the transfer of site management functions based in Gernsheim (hereinafter referred to as “SM Gernsheim”) from Merck KGaA to Merck Site Management GmbH, which will act as an infrastructure service provider at the site in the future, by way of contribution. The transfer was based on the contribution agreement concluded between Merck KGaA and Merck Site Management GmbH in notarized form on September 21/22, 2021, which took economic effect from the end of September 30, 2021. The agreement provided for the transfer of the assets and liabilities attributable to SM Gernsheim to Merck Site Management GmbH at their current carrying amounts. This primarily related to the balance sheet items of fixed assets, inventories, other receivables, and pension provisions, as well as the transfer of 96 employees along with the associated personnel provisions.

Secondly, this relates to the transfer of the Gernsheim-based production operations of the Surface Solutions business unit within the Electronics business sector, including the Gernsheim-specific Electronics shared functions and the Gernsheim logistics operation (hereinafter referred to collectively as “SSG Production”), by way of their separation and transfer to Merck Gernsheim Holding GmbH under transformation law and their subsequent spin-off to Merck Surface Solutions GmbH with economic effect from July 1, 2021.

As Merck Performance Materials Germany GmbH was leasing SSG Production to Merck KGaA under a business leasing contract at this time, the separation involved not only the transfer of the assets and liabilities of SSG Production held by Merck Performance Materials Germany GmbH to Merck Gernsheim Holding GmbH at their current carrying amount, but also the transfer of the rights and obligations of Merck Performance Materials Germany GmbH relating to SSG Production under the aforementioned business leasing contract (the separated portion of the business leasing contract relating to SSG Production being hereinafter referred to as the “SSG business leasing contract”).

Immediately after the separation took economic effect, all the assets and liabilities transferred to Merck Gernsheim Holding GmbH and the rights and obligations arising from the separated SSG business leasing contract were spun off to Merck Surface Solutions GmbH with economic effect from July 1, 2021.

As the technical system requirements for Merck Surface Solutions GmbH to commence operations were not yet fulfilled when the spin-off took place, the separated SSG business leasing contract between Merck Surface Solutions GmbH and Merck KGaA continued to be implemented as previously for a brief transitional period until the end of September 30, 2021. Merck Surface Solutions GmbH commenced operations via SSG Production with effect from October 1, 2021. As a result of the termination of the SSG business leasing contract, the leased objects allocated to SSG Production within the Electronics business sector at the end of the lease – largely comprising inventories as well as certain liabilities and provisions – were transferred to Merck Surface Solutions GmbH at their carrying amounts under German commercial law. The contractual, process, procedural, and working relationships (603 employees) allocated to SSG Production were also transferred to Merck Surface Solutions GmbH.

Transfer of Electronics production operations

To facilitate the implementation and operation of the new ERP systems for the LS OpCo and the EL OpCo, the EL OpCo transferred the Darmstadt-based “Organics” and “OLED” production operations, including the production-related Electronics shared functions (“EL Production”), to the LS OpCo on August 31, 2022, by way of a chain transformation pursuant to the German Transformation Act.

The first step of the chain transformation was the hive-down by absorption to Merck Electronics Darmstadt GmbH (Merck EL Darmstadt). The EL Production (ELP) hive-down became effective when it was entered in the commercial register of the EL OpCo on August 31, 2022. As ELP was leased to Merck KGaA as part of the operating unit Electronics before the hive-down from the EL OpCo became effective, the ELP hive-down involved not only the transfer of the assets and liabilities of ELP held by the EL OpCo to Merck EL Darmstadt, but also, with the approval of Merck KGaA, the transfer of the rights and obligations of the EL OpCo relating to ELP under the terms of the EL business lease agreement. The part of the contract that was hived down is referred to in the following as the ELP business lease agreement.

In the second step of the chain transformation, all the shares in Merck EL Darmstadt that were previously held by Merck Performance Materials Holding GmbH (EL HoldCo) were transferred to Merck Life Science Holding GmbH by way of a hive-down by absorption (“Merck EL Darmstadt hive-down”). The Merck EL Darmstadt hive-down became effective when it was entered in the commercial register of the EL HoldCo on August 31, 2022, immediately after the ELP hive-down became effective.

Lastly, the third step in the chain transformation involved the merger of Merck EL Darmstadt into the LS OpCo by way of a merger by acquisition (“Merck EL Darmstadt merger”). The Merck EL Darmstadt merger became effective when it was entered in the commercial register of the LS OpCo on August 31, 2022, immediately after the hive-down of the shares in Merck EL Darmstadt became effective. The ELP business lease agreement between Merck KGaA as the lessee and the LS OpCo as the lessor remained in place upon the Merck EL Darmstadt merger becoming effective. The chain transformation did not lead to any significant effects on the net assets, financial position and results of operations of Merck KGaA.

By way of entries in the commercial register on November 1, 2022 (LS OpCo) and December 29, 2022 (EL OpCo), the LS OpCo and the EL OpCo changed their legal form to that of a German corporation with general partners (Kommanditgesellschaft auf Aktien) and have since been operating under the names Merck Life Science KGaA, Darmstadt, and Merck Electronics KGaA, Darmstadt.

Termination of the business lease of the Life Science and Electronics business sectors

The LS OpCo is scheduled to go live on January 1, 2023. The power of operational management for the Life Science operating business and ELP (referred to jointly as the Leased Operations) will be assumed by Merck KGaA at this date. On October 31, 2022, Merck KGaA therefore terminated the business leasing contracts giving due and proper notice with effect from midnight on January 1, 2023, in accordance with the LS business leasing contract and the ELP business leasing contract. The termination resulted in the transfer of around 3,400 employees from Merck KGaA to the LS OpCo and around 1,000 employees to the EL OpCo. The remaining around 4,000 employees in Group functions remained with Merck KGaA.

Business development

Merck KGaA’s net sales decreased in 2022. The downturn of € 253 million was primarily attributable to the Healthcare and Electronics business sectors. The net sales of the Healthcare business sector relate to Group services oncharged to other companies in the Healthcare business sector.

			Change	
€ million	**2022**	2021	€ million	%
Life Science	1,591	1,537	54	3.5
Healthcare	445	531	-86	-16.2
Electronics	806	1,037	-232	-22.3
Other sales	338	327	11	3.2
Total	**3,180**	**3,433**	**-253**	**-7.4**

Other sales mainly included the intragroup oncharging of IT services, rent, and the umbrella brand, as well as other administrative services.

The share of sales with other Group companies (Group sales) amounted to 91.7% in the year under review (2021: 91.9%).

			Change	
€ million	**2022**	**2021**	€ million	%
Group internal product sales	1,548	1,944	-396	-20.4
Third party product sales	265	278	-13	-4.5
Group internal services	1,366	1,211	155	12.8
	3,180	**3,433**	**-253**	**-7.4**

At 68.7% (2021: 72.0%), the share of exports in 2022 was lower than in the previous year.

			Change	
€ million	**2022**	**2021**	€ million	%
Outside Germany	2,184	2,472	-288	-11.7
Germany	996	961	35	3.7
Total	**3,180**	**3,433**	**-253**	**-7.4**

Net sales in the Life Science business sector increased slightly compared with the previous year (+3.5%). This was primarily due to higher costs oncharged to subsidiaries in the Life Science business sector, especially in connection with IT services. On the other hand, product sales declined mainly as a result of the global business development of the Process Solutions business unit (-12.3%); further information can be found under "Course of Business and Economic Position". Increased net sales in the Life Science Services (+0.5%) and Science and Lab Solutions (+10.3%) business units were not sufficient to completely offset the downturn in product sales. The decrease affected the North America, Asia-Pacific and Europe regions, whereas sales growth was recorded in the regions of Latin America and the Middle East and Africa.

Net sales in the Electronics business sector declined substantially year-on-year (-22.3%). Despite the growth in OLED sales (+20.9%), net sales in the Display Solutions business unit fell by -37.6% on the back of weaker demand in end markets. The Surface Solutions business unit also recorded a double-digit downturn in sales (-44.5%). A large mid-eight-figure amount of the downturn in the Surface Solutions business unit was attributable to the transfer of the operations at the Gernsheim site to a separate company, Merck Surface Solutions GmbH, effective October 1, 2021. From a regional perspective, sales declined in Asia-Pacific and Europe in particular.

Results of operations

			Change	
€ million	**2022**	2021	€ million	%
Net sales	3,180	3,433	-253	-7.4
Other income	184	96	88	91.8
Cost of materials	-1,269	-1,412	143	-10.1
Personnel expenses	-1,256	-1,195	-61	5.1
Depreciation, amortization, and write-downs	-142	-144	1	-0.9
Other operating expenses	-1,150	-946	-204	21.6
Investment result	2,015	1,606	408	25.4
Financial result	-414	-294	-119	40.6
Profit before profit transfers and taxes	**1,148**	**1,145**	**3**	**0.3**
Profit transfers	-677	-743	65	-8.8
Taxes	-228	-113	-115	101.4
Profit after profit transfers and taxes	**242**	**289**	**-47**	**-16.2**

Profit after taxes and **profit transfers** decreased on the back of lower net sales, higher financial and tax expenses, and higher other operating expenses in particular. This was partially offset by an increase in investment income and a reduction in the cost of materials in particular.

The higher figure for **other income** resulted mainly from the increase in inventories.

The **cost of materials** decreased in line with net sales. The cost of materials in relation to sales remained largely unchanged at 39.9% (2021: 41.1%).

The higher level of **personnel expenses** was due in particular to increased pension expenses, which primarily resulted from adjustments to valuation parameters to reflect changes in interest rates and inflation, as well as salary increases for employees covered by and exempt from collective agreements. This was offset by a headcount reduction as a result of the employees transferred to Merck Site Management GmbH and Merck Surface Solutions GmbH in connection with the construction of the Gernsheim Science & Technology Park; see "**Effects of material company agreements on the net assets, financial position, and results of operations**".

Depreciation, amortization, and adjustments remained essentially unchanged as against the previous year.

The increase in **other operating expenses** was primarily due to higher sales and license expenses, expenses for IT services and consulting, research and development expenses, and expenses for fees, contributions and insurance premiums.

The **investment result** increased on the back of higher dividends from subsidiaries. This was offset by lower profit transfers from subsidiaries under existing profit and loss transfer agreements.

The higher level of interest expense in the **financial result** was due to higher interest expenses to the in-house bank Merck Financial Services GmbH, as well as losses on the fair value of the plan assets in connection with pension provisions. On the other hand, the repayment of bonds resulted in higher other interest and similar income in respect to third parties.

Net assets and financial position

Assets

			Change	
€ million	**Dec. 31, 2022**	Dec. 31, 2021	€ million	%
Fixed assets	**23,965**	**23,872**	**93**	**0.4**
Intangible assets	192	210	-18	-8.7
Tangible assets	969	857	112	13.1
Financial assets	22,804	22,805	-1	–
Current assets	**1,641**	**1,645**	**-4**	**-0.3**
Inventories	546	454	92	20.3
Trade accounts receivable	126	122	4	3.6
Other receivables and other assets	968	1,069	-101	-9.4
Cash and cash equivalents	0	0	–	–
Prepaid expenses	**74**	**53**	**21**	**40.3**
	25,680	**25,570**	**110**	**0.4**

Equity and liabilities

			Change	
€ million	**Dec. 31, 2022**	Dec. 31, 2021	€ million	%
Net equity	**5,479**	**5,576**	**-97**	**-1.7**
Provisions	**2,283**	**1,831**	**452**	**24.7**
Provisions for pensions and other post-employment benefits	1,509	1,187	321	27.1
Other provisions	774	643	131	20.3
Liabilities	**17,907**	**18,150**	**-243**	**-1.3**
Financial liabilities	2,751	3,000	-249	-8.3
Trade accounts payable	308	319	-11	-3.5
Other liabilities	14,848	14,831	17	0.1
Deferred income	**11**	**13**	**-1**	**-10.8**
	25,680	**25,570**	**110**	**0.4**

Net assets increased slightly by 0.4%. The main increase on the asset side of the balance sheet related to fixed assets (€ +93 million), while provisions saw the biggest increase on the equity and liabilities side (€ +452 million). On the other hand, liabilities declined by € -243 million and equity fell by € -97 million. The equity ratio decreased slightly to 21.3% (2021: 21.8%).

Fixed assets increased as a result of the investments in property, plant and equipment at the Darmstadt site in particular.

The growth in inventories was attributable to the higher volume as well as lower write-downs compared with the previous year.

Other receivables and other assets decreased mainly as a result of lower profit transfers from subsidiaries.

The increase in provisions was due in particular to the higher level of pension provisions, which primarily resulted from adjustments to valuation parameters to reflect changes in interest rates and inflation. The decline in financial liabilities was attributable to the repayment of bonds.

Research and development

In fiscal 2022, research and development expenditure increased by € 36 million (14.1%) year-on-year to € 289 million (2021: € 253 million). A large proportion of this figure was also incurred by companies outside the Merck Group.

Research and development expenses

€ million	2022	2021	Change € million	Change %
Life Science	73	66	7	10.9
Healthcare	4	6	-2	-27.2
Electronics	168	165	3	2.0
Other R&D spending that cannot be allocated to individual business sectors	43	17	27	162.9
Total	**289**	**253**	**36**	**14.1**

The ratio of research and development spending to sales was 9.1% (2021: 7.4%). Overall, the average number of employees working in research and development was 1,091.

Dividend

For fiscal 2022, we are proposing to the Annual General Meeting the payment of a dividend of € 2.20 per share.

Personnel

Merck KGaA had 8,485 employees as of December 31, 2022, representing an increase as against the previous year (2021: 8,081).

The average number of employees by functional area:

Personnel

Average number of employees during the year	2022	2021
Production	2,940	3,109
Administration	3,085	3,102
Research	1,091	1,098
Logistics	614	628
Marketing and sales	523	495
Other	122	36
Total	**8,375**	**8,468**

Risks and opportunities

Merck KGaA is largely subject to the same opportunities and risks as the Group. More information can be found in the **Report on Risks and Opportunities**.

Forecast for Merck KGaA

Deviations of actual business development in fiscal 2022 from the previously reported guidance

The Combined Management Report for 2021 initially stated that Electronics was expected to see a low nine-figure downturn in sales in fiscal 2022 as a result of the transfer of the Surface Solutions business unit to Merck Surface Solutions GmbH. The other business sectors were expected to see a similar level of sales to fiscal 2021. Net income was also expected to be the same as in the previous year.

Net sales in the Life Science business sector increased slightly compared with the previous year (+3.5%). This was primarily due to higher costs oncharged to subsidiaries in the Life Science business sector, especially in connection with IT services. On the other hand, product sales declined mainly as a result of the global business development of the Process Solutions business unit (-12.3%); further information can be found under “Course of Business and Economic Position”. Increased net sales in the Life Science Services (+0.5%) and Science and Lab Solutions (+10.3%) business units were not sufficient to completely offset the downturn in product sales. The year-on-year decrease affected the North America, Asia-Pacific and Europe regions, whereas sales growth was recorded in the regions of Latin America and the Middle East and Africa.

Net sales in the Healthcare business sector were down substantially on the previous year (-16.2%). This was due to lower costs oncharged to subsidiaries in the Healthcare business sector, especially in connection with IT services.

Net sales in the Electronics business sector declined substantially year-on-year (-22.3%). Despite the growth in OLED sales (+20.9%), net sales in the Display Solutions business unit fell by -37.6% on the back of weaker demand in end markets. The Surface Solutions business unit also recorded a double-digit downturn in sales (-44.5%). A large mid-eight-figure amount of the downturn in the Surface Solutions business unit was attributable to the transfer of the operations at the Gernsheim site to a separate company, Merck Surface Solutions GmbH, effective October 1, 2021. From a regional perspective, sales declined in Asia-Pacific and Europe in particular.

Net income was below the forecast level due to lower net sales, higher financial and tax expenses, and higher other operating expenses in particular. An increase in investment income and a reduction in the cost of materials were not sufficient to offset this.

Forecast for 2023

In light of the termination of the business leasing contracts with Merck Life Science KGaA and Merck Electronics KGaA and the continuation of the respective business operations in separate companies, these business sectors are expected to see a downturn in net sales as a result of the transfer of product-related sales. The other business sector is expected to see a similar level of sales to 2022.

As in the previous year, the financing costs of the Sigma-Aldrich acquisition and the Versum Materials acquisition will continue to adversely affect net income. Conversely, investment income will increase as a result of the transfer of the operating businesses to Merck Life Science KGaA and Merck Electronics KGaA in particular. Net income is forecast to be slightly higher than in 2022.

Merck Financial Services GmbH, Darmstadt, will provide the company with sufficient financial resources and thus ensure liquidity.

No risks that could jeopardize the continued existence of the company have been identified.