Notes to the Consolidated Financial Statements

for the Financial Year 2022

General information

As parent company of the Group, ElringKlinger AG is filed in the commercial register of the local court of Stuttgart (Amtsgericht) under the number HRB 361242. The Company is domiciled in Dettingen/Erms (Germany). The address is ElringKlinger AG, Max-Eyth-Str. 2, 72581 Dettingen/Erms. The Articles of Association are dated May 19, 2022. The registered company name is ElringKlinger AG.

The financial year is the calendar year.

The object of ElringKlinger AG and its subsidiaries (the "ElringKlinger Group") is the development, manufacture and distribution of technical and chemical products, in particular of gaskets, sealing materials, plastic products and modules for the automotive sector and for the manufacturing industry in general. The Company also offers services relating to the technology used in its products. The corporate object also encompasses the administration and commercial exploitation of landed property.

Accounting principles

The consolidated financial statements of ElringKlinger AG as of December 31, 2022, have been prepared in accordance with the International Financial Reporting Standards (IFRSs) approved by the International Accounting Standards Board (IASB) as adopted by the European Union (EU), the interpretations of the International Financial Reporting Interpretations Committee (IFRS IC), the supplementary commercial law regulations pursuant to Section 315e (1) German Commercial Code (Handelsgesetzbuch, "HGB") and the provisions of German commercial and stock corporation law. ElringKlinger AG's Articles of Association contain regulations on profit appropriation. All IASs, IFRSs and IFRICs mandatory for the financial year 2022 have been observed.

On March 23, 2023, the Management Board of ElringKlinger AG submitted the consolidated financial statements for approval by the Supervisory Board, which also convenes on March 23, 2023.

The consolidated financial statements have been prepared in euros. Unless otherwise stated, all amounts are in thousands of euro (EUR k).

The income statement was prepared in accordance with the cost of sales method. In order to enhance the clarity of presentation, various items in the consolidated statement of financial position and in the consolidated income statement have been combined.

The following regulations and amendments to existing regulations were applied for the financial year 2022 for the first time:

IFRS pronouncement (published on)	Title	To be applied for financial years beginning on or after
Amendments to IFRS 3 (May 2020)	References to the Conceptual Framework	January 1, 2022
Amendment to IAS 16 (May 2020)	Property, plant and equipment – Proceeds before Intended Use	January 1, 2022
Amendment to IAS 37 (May 2020)	Onerous contracts – Costs to fulfill a contract	January 1, 2022
Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41 (May 2020)	Annual Improvements (2018–2020 Cycle)	January 1, 2022

The first-time application of the regulations listed in the table had no or no material effect on the presentation of financial performance, net assets and cash position of the ElringKlinger Group.

The following regulations or amendments of existing provisions are not yet mandatory and have not been applied by the ElringKlinger Group:

IFRS pronouncement (published on)	Title	To be applied for financial years beginning on or after
Incorporated in European law		
IFRS 17 Insurance Contracts and amendments to IFRS 17 (May 2017/June 2020)	Insurance Contracts and amendments to IFRS 17	January 1, 2023
Amendments to IAS 1 and IFRS Practice Statement 2 (February 2021)	Disclosure of Accounting Policies	January 1, 2023
Amendment to IAS 8 (February 2021)	Definition of Accounting Estimates	January 1, 2023
Amendment to IAS 12 (May 2021)	Deferred taxes related to assets and liabilities arising from a single transaction	January 1, 2023
Incorporation in European law still outstanding		**Endorsement expected**
Amendment to IAS 1 (January/July 2020)	Classification of Liabilities as Current or Non-current	January 1, 2024
Amendments to IFRS 16	Lease liability from sale and leaseback leases	January 1, 2024

ElringKlinger will adopt these standards and amendments as of the mandatory date for first-time application. For standards that are yet to be adopted by the EU, the initial date for first-time application is assumed to be the date approved by the IASB.

ElringKlinger, after performing a review, has come to the conclusion that the first-time application of the reporting requirements mentioned in the table will have no or no material effect on the presentation of financial performance, net assets and cash position of the ElringKlinger Group.

Scope of consolidated financial statements

The consolidated financial statements of ElringKlinger AG as of December 31, 2022, include the annual financial statements of 7 (2021: 7) domestic and 33 (2021: 31) foreign subsidiaries in which ElringKlinger AG holds, either directly or indirectly, more than 50% of the shares or is able to control the entity’s financial and business policy for other reasons. Inclusion begins at the time the control relationship comes into being and ends when control is deemed to no longer exist.

The 24.71% share in hofer AG, Nürtingen, Germany, is recorded as an associate in non-current group assets, as ElringKlinger has a significant influence on the business and financial policies. A significant influence in assumed for associates with voting rights ranging from 20% to 50%. As of December 31, 2022, the following companies made use of the exemption provisions provided by Section 264 (3) HGB:

- ElringKlinger Kunststofftechnik GmbH, Bietigheim-Bissingen,
- ElringKlinger Logistic Service GmbH, Rottenburg/Neckar,
- Kochwerk Catering GmbH, Dettingen/Erms,
- Elring Klinger Motortechnik GmbH, Idstein.

The shares in Elring Klinger Motortechnik GmbH, based in Idstein, Germany, have increased from 92.86% to 100% due to the acquisition of non-controlling interests.

With effect from June 22, 2022, ElringKlinger Abschirmtechnik (Schweiz) AG, with its registered office in Sevelen, Switzerland, was renamed ElringKlinger Switzerland AG, with its registered office in Sevelen, Switzerland.

By resolution of the Annual General Shareholders' Meeting from March 1, 2021, EK Fuel Cell Technologies GmbH, based in Dettingen/Erms, Germany, was renamed into EKPO Fuel Cell Technologies GmbH, based in Dettingen/Erms, Germany. In addition, the French automotive supplier Plastic Omnium, based in Levallois, France, acquired 40% of the shares as of March 1, 2021, reducing the shares held by ElringKlinger AG in the company from 100% to 60%. ElringKlinger also contributed its fuel cell technology portfolio to the company as part of a non-cash contribution. Plastic Omnium, in turn, agreed to contribute EUR 100,000 k to the company, EUR 30,000 k of which was paid at closing of the transaction. In the past financial year 2022, another EUR 30,000 k was paid, the unpaid contribution is recognized at present value in other assets.

With the exception of the new formation of EKPO Fuel Cell (Suzhou) Co., Ltd., based in Suzhou, China, and the spin-off of Elring Italia Srl, based in Settimo Torinese, Italy, from ElringKlinger Italia Srl, based in Settimo Torinese, Italy, there were no other changes in the basis of consolidation compared to the consolidated financial statements as of December 31, 2021.

An overview of the 40 companies included in the consolidated financial statements of the parent company is provided below.

Schedule of shareholdings and basis of consolidation
as of December 31, 2022

Name of company	Registered office	Share of capital in %
Parent company		
ElringKlinger AG	Dettingen/Erms	
Shares in affiliated companies (fully consolidated in the consolidated financial statements)		
Domectic (Germany)		
Gedächtnisstiftung KARL MÜLLER BELEGSCHAFTSHILFE GmbH	Dettingen/Erms	100.00
Elring Klinger Motortechnik GmbH	Idstein	100.00
ElringKlinger Logistic Service GmbH	Rottenburg/Neckar	96.00
ElringKlinger Kunststofftechnik GmbH	Bietigheim-Bissingen	77.50
hofer powertrain products GmbH	Dettingen/Erms	53.00
KOCHWERK Catering GmbH	Dettingen/Erms	100.00
EKPO Fuel Cell Technologies GmbH	Dettingen/Erms	60.00

Name of company	Registered office	Share of capital in %
Shares in affiliated companies (fully consolidated in the consolidated financial statements)		
Foreign		
ElringKlinger Switzerland AG	Sevelen (Switzerland)	100.00
Elring Klinger (Great Britain) Ltd.	Redcar (UK)	100.00
hofer powertrain products UK Ltd.	Warwick (UK)	53.00
ElringKlinger Italia Srl	Settimo Torinese (Italy)	100.00
Elring Italia Srl	Settimo Torinese (Italy)	100.00
ElringKlinger Hungary Kft.	Kecskemét-Kádafalva (Hungary)	100.00
Elring Parts Ltd.	Gateshead (UK)	100.00
Elring Klinger, S.A.U.	Reus (Spain)	100.00
ElringKlinger TR Otomotiv Sanayi ve Ticaret A.Ş.	Bursa (Turkey)	100.00
ElringKlinger Meillor SAS	Nantiat (France)	100.00
HURO Supermold S.R.L.	Timisoara (Romania)	100.00
ElringKlinger Canada, Inc.	Leamington (Canada)	100.00
ElringKlinger Holding USA, Inc.	Buford (USA)	100.00
ElringKlinger USA, Inc.[1]	Buford (USA)	100.00
ElringKlinger Automotive Manufacturing, Inc.[1]	Southfield (USA)	100.00
ElringKlinger Manufacturing Indiana, Inc.[1]	Fort Wayne (USA)	100.00
ElringKlinger Silicon Valley, Inc.[1]	Fremont (USA)	100.00
ElringKlinger Texas, LLC[1]	San Antonio (USA)	100.00
Elring Klinger México, S.A. de C.V.	Toluca (Mexico)	100.00
Elring Klinger do Brasil Ltda.	Piracicaba (Brazil)	100.00
ElringKlinger South Africa (Pty) Ltd.	Johannesburg (South Africa)	100.00
ElringKlinger Automotive Components (India) Pvt. Ltd.	Ranjangaon (India)	100.00
Changchun ElringKlinger Ltd.	Changchun (China)	88.00
ElringKlinger Korea Co., Ltd.	Gumi-si (South Korea)	100.00
ElringKlinger China, Ltd.	Suzhou (China)	100.00
ElringKlinger Chongqing Ltd.	Chongqing (China)	100.00
ElringKlinger Engineered Plastics North America, Inc.[2]	Buford (USA)	77.50
ElringKlinger Engineered Plastics (Qingdao) Co., Ltd.[2]	Qingdao (China)	77.50
ElringKlinger Marusan Corporation[3]	Tokyo (Japan)	50.00
Marusan Kogyo Co., Ltd.[4]	Tokyo (Japan)	23.45
PT. ElringKlinger Indonesia[5]	Karawang (Indonesia)	50.00
ElringKlinger (Thailand) Co., Ltd.[5]	Bangkok (Thailand)	50.00
EKPO Fuell Cell (Suzhou) Co., Ltd. [6]	Suzhou (China)	60.00

Shares in associates (accounted for using the equity method in the consolidated financial statements)		
Domectic (Germany)		
hofer AG	Nürtingen	24.71

[1] Wholly owned subsidiary of ElringKlinger Holding USA, Inc.
[2] Wholly owned subsidiary of ElringKlinger Kunststofftechnik GmbH.
[3] Consolidated due to contractual possibility of exercising control.
[4] 46.9% subsidiary of ElringKlinger Marusan Corporation, consolidated due to majority of voting rights.
[5] Wholly owned subsidiary of ElringKlinger Marusan Corporation.
[6] Wholly owned subsidiary of EKPO Fuel Cell Technologies GmbH.

Notes on non-controlling interests in subsidiaries

ElringKlinger AG holds controlling interests of 77.5% (unchanged) in ElringKlinger Kunststofftechnik GmbH, Bietigheim-Bissingen, Germany, with its two subsidiaries.

- ElringKlinger Engineered Plastics (Qingdao) Commercial Co., Ltd., Qingdao, China
- ElringKlinger Engineered Plastics North America, Inc., Buford, USA,

(together the EKT subgroup). The non-controlling interests amount to 22.5%.

The share in the earnings of this subgroup attributable to non-controlling interests for the financial year 2022 is EUR 2,657 k (2021: EUR 3,453 k).

A dividend of EUR 3,037 k (2021: EUR 4,500 k) was distributed to the subgroup's non-controlling interests in financial year 2022.

Cash flow of the subgroup
EUR k

	2022	2021
Operating activities	14,001	21,519
Investing activities	-4,443	-3,432
Financing activities	-8,035	-18,538
Changes in cash	**1,523**	**-451**
Effects of currency exchange rates on cash	**-62**	**314**

ElringKlinger Kunststofftechnik GmbH is integrated in the monetary transactions of the ElringKlinger Group. Cash and cash equivalents are continuously made available to or called from ElringKlinger AG. They are reported under cash flow from financing activities.

Summarized key financial information of the subgroup:
EUR k

	2022	2021
Non-current assets	58,824	62,251
Current assets	73,691	70,371
Non-current liabilities	13,531	17,100
Current liabilities	19,907	17,210
Sales revenue	125,289	116,955
Earnings before taxes (EBT)	16,572	20,118
Net income	**11,809**	**14,312**
Total comprehensive income	**14,264**	**15,629**

Further detailed information
EUR k

	2022	2021
Cash and cash equivalents	**4,978**	**3,517**
Cash in hand	6	8
Bank deposits	4,972	3,509
Non-current financial liabilities	**1,206**	**1,414**
Current financial liabilities	**382**	**381**
Interest income	**484**	**526**
Interest expenses	**183**	**57**
Depreciation and amortization	**6,698**	**6,317**

Furthermore, ElringKlinger AG continues to hold 60.0% of the controlling interests in EKPO Fuel Cell Technologies GmbH, Dettingen/Erms, Germany, with its subsidiary EKPO Fuel Cell (Suzhou) Co., Ltd. Suzhou, China (EKPO subgroup), which was formed in the financial year 2022. The non-controlling interests amount to 40.0%.

The share in the earnings of this subgroup attributable to non-controlling interests for the financial year 2022 is EUR -5,500 k (2021: EUR -3,195 k).

Cash flow of the subgroup

EUR k	2022	2021
Operating activities	-9,235	-795
Investing activities	-19,594	-15,416
Financing activities	29,076	29,278
Changes in cash	**247**	**13,067**
Effects of currency exchange rates on cash	**-3**	**0**

Summarized key financial information of the subgroup

EUR k	2022	2021
Non-current assets	86,085	89,446
Current assets	46,565	52,000
Non-current liabilities	14,578	14,220
Current liabilities	13,409	9,442
Sales revenue	11,327	10,200
Earnings before taxes (EBT)	-12,777	-5,612
Net income	**-13,750**	**-7,986**
Total comprehensive income	**-13,120**	**-8,162**

Further detailed information

EUR k	2022	2021
Cash and cash equivalents	**13,335**	**13,092**
Cash in hand	0	0
Bank deposits	13,335	13,092
Non-current financial liabilities	**7,217**	**7,399**
Current financial liabilities	**932**	**892**
Interest income	**345**	**442**
Interest expenses	**91**	**24**
Depreciation and amortization	**4,047**	**2,613**

Name changes 2022

With effect from June 22, 2022, ElringKlinger Abschirmtechnik (Schweiz) AG, with its registered office in Sevelen, Switzerland, was renamed ElringKlinger Switzerland AG, with its registered office in Sevelen, Switzerland.

Newly formed companies 2022

EKPO Fuel Cell (Suzhou) Co., Ltd., with its registered office in Suzhou, China, a wholly owned subsidiary of EKPO Fuel Cell Technologies GmbH, with its registered office in Dettingen/Erms, Germany was formed with effect from June 29, 2022. ElringKlinger AG holds 60% of the controlling interests in EKPO Fuel Cell Technologies GmbH, Dettingen/Erms, Germany, with its subsidiary EKPO Fuel Cell (Suzhou) Co., Ltd. (EKPO subgroup). The non-controlling interests amount to 40%.

Divestitures 2022

No divestitures were made.

Spin-offs 2022

As of July 1, 2022, assets and liabilities of ElringKlinger Italia Srl, with its registered office in Settimo Torinese, Italy, were partially spun-off to Elring Italia Srl, with its registered office in Settimo Torinese, Italy, as part of universal succession.

Newly formed companies 2021

ElringKlinger Holding USA, Inc. with its registered office in Buford, Georgia, USA, a wholly owned subsidiary of ElringKlinger AG, with its registered office in Dettingen/Erms, Germany, was founded with effect from July 1, 2021. ElringKlinger Texas, LLC, based in San Antonio, Texas, USA, a wholly owned subsidiary of ElringKlinger Holding USA, with its registered office in Buford, Georgia, USA, was also founded with effect from July 1, 2021.

Divestitures 2021

The Group’s strategic focus is primarily on areas of the future: lightweighting, electromobility, electric drive systems and fuel cell technology. Against this background, in the future the Group will work together with the French automotive supplier Plastic Omnium, based in Levallois, France, to further accelerate the hydrogen-based fuel cell technology. In October 2020, the Group reached an agreement with Plastic Omnium on the sale in full of the subsidiary ElringKlinger Fuelcell Systems Austria GmbH, based in Wels, Austria, which specializes in fuel cell technology solutions, for a purchase price of EUR 13,449 k. The acquisition agreement was signed on October 28, 2020 and the transaction was closed on March 1, 2021. The net gain on disposal of EUR 11,302 k is included in other operating income. As part of the agreement, the buyer also assumed a short-term group loan of EUR 1,376 k.

Mergers 2021

With effect from October 31, 2021, EKASER, S.A. de C.V., based in Toluca, Mexico, a wholly owned subsidiary of ElringKlinger AG, domiciled in Dettingen/Erms, Germany, was merged into ElringKlinger México, S.A. de C.V., based in Toluca, Mexico.

Summary of the principal accounting and measurement methods

The consolidated financial statements were prepared on the basis of historical acquisition and manufacturing costs with the exception of assets and liabilities for which measurement at fair value is mandatory in accordance with IFRS.

The fundamental accounting and measurement methods applied in preparing the consolidated financial statements are described below:

Consolidation methods

Assets and liabilities of the domestic and foreign companies included in the consolidated financial statements are recognized and measured according to the accounting policies that apply uniformly across the ElringKlinger Group.

Upon acquisition of a company, the assets and liabilities of the subsidiaries acquired are measured at their fair value at the time of acquisition. If the purchase price of the interest exceeds the identified assets and liabilities to be measured at fair value, the excess is capitalized as goodwill. If the difference is negative, the identifiable assets and liabilities are remeasured, as are the acquisition costs.

Any remaining negative difference is recorded in income.

Any hidden reserves and liabilities that have been uncovered are rolled forward, depreciated, or released together with the corresponding assets or liabilities. Goodwill is not amortized, but is subject to at least one annual impairment test.

If additional shares of an already fully consolidated subsidiary are acquired, the difference between the purchase price and carrying amount of non-controlling interests is recognized through other comprehensive income.

The minority interest in subsidiaries held by shareholders outside the Group must be shown as a separate line item under group equity.

Net income for the year for subsidiaries acquired or sold in the course of the year are included in the group income statement from the effective time of acquisition or until the effective time of divestment.

The financial year of all consolidated companies, except the Indian subsidiary (March 31), corresponds to the financial year of the parent company. If the reporting dates differ, interim financial statements are prepared as of the reporting date of the parent company.

All receivables, liabilities, sales revenue, other income and expenses within the scope of consolidation are eliminated. Accumulated gains and losses from intercompany supplies are eliminated from inventories or non-current assets.

Investments in associates

Associates are measured at their share of equity using the equity method and initially recognized along with their acquisition costs, including the transaction costs. The Group's share in the associate's net profit or loss for the period is recognized separately in the consolidated income statement as a share of the financial result. The share in other comprehensive income is recognized directly in group equity. The cumulative changes after the acquisition date increase or decrease the carrying amount of the investment in the associate.

The financial statements of the associate are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investment in its associates. At each reporting date, the Group determines whether there is any objective evidence of impairment of an investment in an associate. If so, the impairment loss is determined as the difference between the recoverable amount of the investment in an associate and its carrying amount, and the loss is recognized through profit or loss as "Share of result of associates."

Currency translation

The reporting currency of the ElringKlinger Group is the euro.

Foreign currency transactions are translated in the annual financial statements of ElringKlinger AG and its consolidated companies at the rates current as of the transaction date. As of the end of the reporting period, assets and liabilities in foreign currency are measured at the closing rate. Differences arising on translation are posted through profit or loss.

Currency translation differences from monetary items that form part of a net investment in a foreign operation are reported in equity under other comprehensive income until the disposal of the net investment.

The financial statements of the foreign companies are translated into euros since this is the functional currency of the parent company. Since the subsidiaries operate their businesses independently in financial, economic and organizational respects, the functional currency is generally identical to the relevant national currency of the company. The expenses and income from financial statements of entities included in the consolidated financial statements which were originally prepared in foreign currencies are translated at the average rate for the year. The average rate for the year is calculated on the basis of daily rates. Assets and liabilities are translated at the closing rate. Currency differences are reported in other comprehensive income and as a separate item in equity.

In the event of a disposal of a consolidated entity, accumulated currency differences are recorded as part of the gain or loss on sale.

The rates used for currency translation are shown in the table below:

		Closing rate		Average rate	
Currency	Abbr.	Dec. 31, 2022	Dec. 31, 2021	2022	2021
US dollar (USA)	USD	1.06660	1.13260	1.04998	1.18156
Pound sterling (UK)	GBP	0.88693	0.84028	0.85482	0.85840
Franc (Switzerland)	CHF	0.98470	1.03310	1.00170	1.07988
Canadian dollar (Canada)	CAD	1.44400	1.43930	1.37036	1.48039
Real (Brazil)	BRL	5.63860	6.31010	5.40514	6.37858
Peso (Mexico)	MXN	20.85600	23.14380	21.05364	24.05156
RMB (China)	CNY	7.35820	7.19470	7.07435	7.60685
WON (South Korea)	KRW	1,344.09000	1,346.38000	1,354.16083	1,354.65833
Rand (South Africa)	ZAR	18.09860	18.06250	17.21273	17.59221
Yen (Japan)	JPY	140.66000	130.38000	138.13917	130.32000
Forint (Hungary)	HUF	400.87000	369.19000	393.11083	358.60833
Turkish lira (Turkey)	TRY	19.96490	15.23350	17.45661	10.81043
Leu (Romania)	RON	4.94950	4.94900	4.93403	4.92511
Indian rupee (India)	INR	88.17100	84.22920	82.71542	87.31348
Indonesian rupiah (Indonesia)	IDR	16,519.82000	16,100.42000	15,639.00667	16,921.34667
Bath (Thailand)	THB	36.83500	37.65300	36.80008	37.89117
Swedish krona (Sweden)	SEK	11.12180	10.25030	10.65713	10.15623

Hyperinflation Turkey

Since June 2022, Turkey has been classified as a hyperinflationary economy in the meaning of IAS 29 "Financial Reporting in Hyperinflationary Economies". To reflect the change in the purchasing power, the financial statements prepared on the basis of acquisition or production costs of the Turkish subsidiary, whose functional currency is the Turkish lira, were adjusted for inflation. The applied consumer price index amounted to 1,128.45 as of December 31, 2022 (December 31, 2021: 686.95) and is published by the Turkish Statistical Institute (Tüik). The change in the index value for the financial year amounted to 1.643. The gain from the net monetary position is reported under other finance income.

In accordance with IAS 21.42, all items of the statement of financial position were translated into the reporting currency as of the reporting date December 31, 2022. Comparative figures of the previous year have not been restated.

Accounting policies

Goodwill

The goodwill is attributable to cash-generating units (segments) as follows:

EUR k	2022	2021
Original Equipment	72,789	157,186
Engineered Plastics	6,313	6,313
Aftermarket	1,658	1,658
Total	**80,760**	**165,157**

Testing for impairment

Goodwill is tested for impairment at least once a year as of December 31 and also during the year if there is an indication of impairment. An impairment is recognized in the consolidated income statement through profit or loss if the recoverable amount, which is the higher of fair value less costs of disposal and value in use, is lower than the carrying amount of the cash-generating units. Impairment of goodwill is not reversed, even if the impairment has ceased to apply.

The significant increase in the interest level in the second quarter of 2022 was a triggering event for an impairment test. This impairment test resulted in a need to recognize an impairment loss on goodwill of EUR 86,078 k in the Original Equipment segment, which was recognized under other operating expenses. The recoverable amount determined corresponds to the value in use of EUR 1,087.6 million. This is because the weighted average cost of capital (WACC) before taxes applied for discounting increased to 10.44% as of June 30, 2022 (December 31, 2021: 9.81%). Furthermore, the tense situation on the energy and commodities market which had been taken into account in the planning update affected the calculation of impairment.

The recoverable amount for impairment tests is determined using the respective value in use as present value of future cash inflows. For this purpose, the value in use of the cash-generating unit is determined by discounting future cash flows. A detailed plan of the cash flows for the cash-generating units taking into account the associated risks is established over the forecast period of five years. Subsequent periods are accounted for by a perpetual annuity (terminal value) determined on the basis of the last detailed planning year.

Planning is based on expectations and assumptions of the Management Board regarding future market developments, taking into consideration the business development to date. Significant assumptions relate to the future development of sales revenue and earnings after taxes. Sales revenue and cost planning at the ElringKlinger Group is performed at individual component level.

Both historical data as well as the expected market performance are taken into account for determining the value in use of the cash-generating units. With regard to short-term sales revenue planning, the current order backlog, information on the respective manufacturer and information from independent sources, such as advisory firms or automobile associations, is used. In its sales revenue planning for the medium term, ElringKlinger assumes that it will be able to outpace global growth in automotive production. The figures allocated to the key assumptions are generally in line with external sources of information, e.g., production and expected sales for the respective regional sales markets and customer-specific budgets.

Cost planning takes into account both efficiency gains as well as cost increases.
The cost of capital of the cash-generating units is calculated as the weighted average cost of equity and debt capital. Capital structure, equity and debt capital are based on the Company's peer group and are derived from the available capital market information. The WACC (weighted average cost of capital) applied in each case is determined on the basis of the risk-free rate according to the method of the IDW ["Institut der Wirtschaftsprüfer in Deutschland e. V.,": Institute of Public Auditors in Germany], the market risk premium and the beta factor. Beta represents the individual risk of a share as compared to a market index. It is calculated as the average value for the peer group. The credit spread, which expresses the premium over the risk-free rate, was derived from a rating of the peer group.

As in the previous year, the discount rate was used without applying a growth discount to determine the terminal value, i. e., a growth rate of 0% is applied in the model.

The discount factor applied as of December 31, 2022 was the weighted average cost of capital (WACC) before taxes of 10.40% (2021: 9.81%).

The following significant assumptions have been applied for the projections of individual segments:

Original Equipment

In the financial year 2022, the Original Equipment segment was directly affected particularly by the increase in material and energy prices, supply bottlenecks, inflation trends and the persistent effects of the coronavirus pandemic. The budget target was therefore not reached despite an increase in sales revenue compared to the previous year.

In addition to the historical development of the unit, the impairment test included the development of the peer group as well as the general market outlook. The strategy of the Management Board is still to capture further market share, to increase the sales revenue and to implement margin improvements. Therefore, in the planning period it was assumed that margin improvements can also be realized with rising sales and the margins will again be higher than the margins of the peer group. Furthermore, ElringKlinger is expecting changes in demand arising from the transformation of the automotive industry, which may prove beneficial. The impairment test of goodwill of the Original Equipment segment performed as of December 31, 2022 did not result in any need to recognize further impairment.

The value in use, determined on the basis of the abovementioned assumptions for the Original Equipment segment, exceeds the carrying amount as of December 31, 2022 by around EUR 280.0 million. The main reason for this is the consideration of more recent findings regarding a stronger orientation towards e-mobility, which were captured in the planning update between June 30, 2022 and December 31, 2022. Changes in cost of capital or profit margin can meanwhile lead to the situation where the carrying amount exceeds the recoverable amount. In the case of an isolated increase in cost of capital by around 1.61 percentage points, the recoverable amount would correspond to the carrying amount. An isolated reduction of the profit margin in the terminal value by around 1.31 percentage points would have the same effect.

Engineered Plastics

Among other things, due to a very positive market response and successful development in the past financial years, the Engineered Plastics segment in its planning still assumes an increase in sales revenue and a constant positive development in margin.

The impairment test of goodwill for the Engineered Plastics segment did not result in any need to recognize an impairment.

Aftermarket

The planning of the Aftermarket segment also assumes an increase in sales revenue and the related constant positive development in margin. The planned growth is to be realized through further expansion of business relationships with existing and new customers.

The impairment test of goodwill for the spare parts segment did not result in any need to recognize an impairment.

Intangible assets

Purchased intangible assets, mainly patents, licenses and software, are recognized at cost.

Internally generated intangible assets, with the exception of goodwill, are capitalized if it is sufficiently probable that use of the asset is associated with a future economic benefit, the costs of the asset can be determined reliably, and the technical and economic feasibility along with the ability and intent to market it are ensured.

The manufacturing costs of internally generated intangible assets are determined on the basis of directly attributable individual costs as well as their proportion of attributable overheads. The revaluation method, which is also permitted, is not applied.

All intangible assets in the Group – with the exception of goodwill – have determinable useful lives and are amortized over these useful lives using the straight-line method. Patents, licenses and software generally have useful lives of 10 years. Capitalized development costs and basic standard software have useful lives of five years. If the actual useful life is materially longer or shorter than ten or five years, this actual useful life is recognized.

For developments subsidized by the EU as an IPCEI (Important Project of Common European Interest), the capitalization is reduced by the subsidies received (net method).

Property, plant and equipment

Tangible assets used in business operations for a period longer than one year are measured as property, plant and equipment at cost less straight-line depreciation in accordance with their useful life as well as any necessary impairment. The manufacturing cost of self-constructed property, plant and equipment is determined on the basis of directly attributable individual costs and their proportion of attributable overheads. The revaluation method, which is also permitted, is not applied.

Depreciation is calculated throughout the Group based on the following useful lives:

Class of property, plant and equipment	Years
Buildings	15 to 40
Plant and machinery	10 to 15
Special tooling	3
Operating and office equipment	3 to 15

The useful lives and the depreciation methods and residual carrying amounts are reviewed regularly in order to ensure that the depreciation method and period are consistent with the expected consumption of the economic benefit.

Impairment of property, plant and equipment and intangible assets other than goodwill

Pursuant to IAS 36, property, plant and equipment and intangible assets are subjected to impairment testing at the end of each reporting period or if there are indications of impairment. Intangible assets that are not yet available for use are tested for impairment at least once a year. If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognized to the recoverable amount. The recoverable amount is the higher of the following two amounts: the net realizable value less anticipated costs to sell or the value in use. If the recoverable amount for an individual asset cannot be determined, an estimate of the recoverable amount is made at the next higher level cash-generating unit.

Impairment losses are generally allocated in proportion to the carrying amount to the non-current assets of the cash-generating unit.

In the event that the recoverable amount exceeds the carrying amount in subsequent periods, a reversal is recognized up to, at most, amortized cost.

Impairment losses and reversals of impairment losses are recognized in the income statement under cost of sales.

Assets and liabilities held for sale

Assets held for sale or asset and liability groups related to assets held for sale are classified as "held for sale" and recognized separately in the statement of financial position if the corresponding carrying amount is mostly realized by the sale transaction and not by its continued use. In this case, the sale must be concluded and its completion should be highly probable within one year. Assets held for sale and related liabilities are recognized at the lower of the carrying amount and fair value less costs to sell. Depreciation ceases when an asset is classified as held for sale.

Financial instruments

According to IFRS 9, financial assets are measured at either amortized cost or fair value, depending on the business model of the Group with regards to the control and on the cash flow characteristics of financial assets.

Debt instruments are measured **at amortized cost** if they meet two conditions. First, for a financial asset the business model determines collecting cash flows from the financial asset exclusively. Second, the contractual terms determine specified dates that are solely for payments of interest and principal on the principal amount outstanding. By contrast, if the business model does not exclusively provide for the collection of cash flows, but also the sale of financial assets, then a financial asset is measured **at fair value through other comprehensive income**. If these conditions are not fulfilled, it is measured **at fair value through profit or loss**. However, there is an option for first-time recognition to designate the financial asset as **at fair value through profit or loss**, provided this designation eliminates or significantly reduces the accounting mismatch. This option was not exercised in the Group.

In general, equity instruments are measured **at fair value through profit or loss**, as they do not give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding. An exception is formed by equity instruments that are not held for trading. In this context, there is an option for first-time recognition to designate equity instruments as measured at fair value through other comprehensive income. In this case, the changes in value recognized in other comprehensive income upon derecognition of the equity investment cannot be reclassified to profit or loss.

Financial instruments held within the Group are divided into the following categories:

- Financial assets measured at amortized cost
- Financial assets at fair value through profit or loss
- Financial assets at fair value through other comprehensive income
- Financial liabilities measured at amortized cost
- Financial liabilities measured at fair value through profit or loss

At their acquisition date, financial instruments are categorized on the basis of their intended use. Financial assets include cash and cash equivalents, trade receivables, financial investments, long-term securities, other loans granted and receivables as well as derivative financial assets held for trading.

The financial liabilities include trade payables, liabilities to banks, derivative financial liabilities held for trading as well as other financial liabilities.

Financial assets

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Groups' business model for managing them. With the exception of trade receivables that do not contain a significant financing component, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs.

In order for a financial asset to be classified and measured at amortized cost or at fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Derivatives are recognized on the trade date, all other regular way purchases and sales of financial assets are recognized in the statement of financial position on the settlement date.

The fair values recognized in the statement of financial position generally correspond to the market prices of the financial assets. If market prices are not available, the fair values are calculated using recognized measurement models and with recourse to current market parameters. The measurement methods include using the most recent transactions between knowledgeable, willing and independent business partners (i. e., at arm’s length), comparison with a current fair value of another, substantially identical, financial instrument and the analysis of discounted cash flows.

A financial asset is derecognized if the contractual rights to receive cash flows from this financial asset have expired or have been transferred. In the framework of the transfer, essentially all risks and rewards connected with ownership of the financial asset or the power of control over the asset must be transferred.

Financial assets resulting from money transfer, the rendering of services or the procurement of merchandise or services involving third parties are classified as **financial assets measured at amortized cost**. Current assets classified in this category are measured at acquisition cost, the non-current financial assets are measured at amortized cost in accordance with the effective interest method.

Financial assets acquired for the purpose of sale in the near future (financial instruments held for trading) are recognized **at their fair value through profit or loss**. Equity instruments not held for trading are also measured at fair value through profit or loss, provided the option to recognize at fair value through other comprehensive income is not exercised at the time of first-time recognition. Debt instruments, which do not pass the business model assessment or have the characteristics of cash flows, are also measured at fair value through profit or loss.

Debt instruments are measured **at fair value through other comprehensive income** if the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Upon initial recognition of equity instruments, it may also be elected to irrevocably classify them as at fair value through other comprehensive income if they fulfill the definition of equity according to IAS 32 and are not held for trading.

Cash and cash equivalents include cash in hand, bank deposits and short-term deposits with an original term of less than three months, and are measured at amortized cost.

Applying the expected credit loss model (ECL), the future expected credit loss is material for impairment losses in accordance with IFRS 9. Valuation allowances will be recognized for all financial assets measured at historical cost as well as for debt instruments measured at fair value through other comprehensive income. For the measurement, external measurement sources are consulted for the counterparties. IFRS 9 outlines a three-step model. A risk provision will either be recognized on the basis of the 12-month expected credit loss (step I) or on the basis of the lifetime expected credit loss, if the credit risk has significantly increased since the first-time recognition (step II) or if there is a deterioration in the credit rating (step III). The changes in measurement between the individual steps are determined according to external ratings and based on the model of established rating agencies: investment grade (step I), speculative grade (step II) and risk/default grade (step III).

The simplified procedure is applied to trade receivables. According to this, expected credit losses are calculated over the entire lifetime of receivables.

Impairments on doubtful receivables involve to a considerable extent estimates and judgments of the individual receivables based on the creditworthiness of the customer concerned. Should this not be possible or appropriate under certain circumstances, an average rating (which is based on the average of all the ratings obtained in the reporting period) is applied. ElringKlinger considers this estimate regarding ratings as appropriate.

If there is objective evidence of impairment of loans and receivables (e.g., major financial difficulties on the part of the debtor or negative changes in the market environment of the debtor), these are recognized through profit or loss. The expected credit loss methodology (ECL) in accordance with IFRS 9 applies forward-looking indicators. These not only consider the micro- and macroeconomic aspects, but also the expected development of the individual borrower. To determine risk provisions, ElringKlinger uses the assessment of recognized rating agencies (S&P, Moody's, Fitch, etc.). Impairments of trade receivables are initially recognized in an adjustments account. The impaired receivable is derecognized when it is considered unrecoverable. Receivables are deemed to be uncollectible in the case of a "D" rating (according to S&P), or insolvency of the debtor has become known or specific payment defaults have already occurred.

Financial liabilities

Financial liabilities comprise, in particular, trade payables, liabilities to banks, derivative financial liabilities and other liabilities.

Upon initial recognition, financial liabilities are measured according to fair value less any transaction costs directly attributable to borrowing.

Financial liabilities are derecognized when the liability on which the obligation is based is settled, terminated or has expired.

At ElringKlinger, **financial liabilities measured at amortized cost** include trade payables, liabilities to banks and other financial liabilities. They are measured at amortized cost using the effective interest method. Gains or losses are recognized through profit or loss when the liability is retired or has been redeemed.

Financial liabilities measured at fair value through profit or loss comprise the financial liabilities held for trading purposes, in this case, derivatives, including any embedded derivatives that have been separated from the host contract, if applicable, since these do not qualify for hedge accounting as a hedging instrument. Gains or losses are recognized through profit or loss.

Other current liabilities

ElringKlinger agreed on a call and put option with the non-controlling shareholders for their share as part of the agreements with minority interests of ElringKlinger Marusan Corporation, based in Tokyo, Japan. The obligation that results from this agreement is recognized at the fair value of the shares under other current liabilities with an effect on income. ElringKlinger Marusan Corporation is therefore fully consolidated in the ElringKlinger Group; non-controlling interests have not been disclosed.

Derivative financial instruments and hedge accounting

Under IFRS 9, all derivative financial instruments such as currency, price and interest swaps as well as forward exchange transactions, must be recognized at market values, independently of the purpose or the intent of the agreement under which they were concluded. Since hedge accounting is not applied in the ElringKlinger Group, the changes in the fair value of the derivative financial instruments are always recognized through profit or loss for the period.

The derivative financial instruments used in the ElringKlinger Group are price hedges. The purpose of derivative financial instruments is to reduce the negative effects of currency and price risks on the financial performance, net assets and cash position of the Group. As of the reporting date, there were forward contracts for nickel and currency derivatives at ElringKlinger AG, with its registered office in Dettingen/Erms, Germany, as well as for the commodities electricity and gas at ElringKlinger AG, ElringKlinger Kunststofftechnik GmbH, with its registered office in Bietigheim-Bissingen, Germany, ElringKlinger Hungary Kft., with its registered office in Kecskemét-Kádafalva, Hungary, and ElringKlinger South Africa (Pty) Ltd., with its registered office in Johannesburg, South Africa.

Since the hedging relationships are subject to a contractually agreed fixed interest rate, the Interest Rate Benchmark Reform does not have any significant effects.

Costs to fulfill a contract

According to IFRS 15, the costs that are not within the scope of another standard can be recognized as an asset, if the costs relate directly to a contract and generate or enhance resources that will be used in satisfying future performance obligations of a contract, and they are expected to be recovered as part of a contract.

Costs to fulfill a contract are determined on the basis of directly attributable individual costs and their proportion of attributable overheads.

The capitalized contract costs are amortized on a systematic basis that is consistent with the entity's transfer of control of the related goods or services to the customer. Amortization is recognized in cost of sales.

Furthermore, costs to fulfill a contract are amortized with effect on income if the carrying amount of an asset recognized exceeds the amount of consideration the entity expects to receive in exchange for providing the associated goods and services, less the remaining costs that relate directly to providing those goods and services.

Contract assets and contract liabilities

A contract asset is the conditional right to consideration in exchange for goods or services already transferred to the customer. Contract assets are reported as receivables when they have been billed.

Contract liabilities are recognized for prepayments received from customers before performing the contractually agreed service. On satisfying the performance obligations, these contract liabilities are recognized as revenue.

Inventories

Inventories are recognized at cost or the lower net realizable value. Raw materials, consumables and supplies as well as merchandise are measured at the average amortized cost. Cost of conversion of work in progress and finished goods is determined on the basis of directly attributable individual costs and their proportion of production overheads. The proportion of overhead cost attributable to these products is determined on the basis of normal staffing levels. Cost of conversion does not include selling expenses and borrowing cost. Administrative expenses are included in cost of conversion if related to production. Net realizable value represents the estimated sales price less all estimated costs through to completion as well as the cost of marketing, sales and distribution. Markdowns are recorded for detectable impairment due to lack of marketability and quality defects, and to account for declining sales prices.

In the majority of cases, the customers acquire beneficial ownership of tools. The tools are recognized under inventories until the transfer of beneficial ownership.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, checks and bank deposits available on demand. There are cash equivalents. Cash is recognized at amortized cost.

Provisions for pensions

Provisions for pensions are calculated on the basis of the projected unit credit method in accordance with IAS 19. The calculation considers not only the pensions and vested claims known at the end of the reporting period but also future anticipated increases in pensions and salaries, with appropriate estimates of the relevant factors, as well as biometric assumptions, Different discount rates are used for vested benefits and current pensions.

Actuarial gains and losses resulting from the difference between the expected and actual accounting changes in headcount, as well as differences arising from changes to accounting assumptions, are recognized in full in the period in which they occur. They are recognized outside of the income statement under other comprehensive income.

In determining the discount interest rates, the Company is guided by the interest rates observed in capital markets for corporate bonds with first class credit ratings (AA rating or better) which are denominated in the same currency and have similar terms.

Provisions

Provisions are recorded when a past event gives rise to a present legal or constructive obligation to a third party, utilization of the obligation is probable, and the anticipated amount of the obligation can be estimated reliably.

Provisions are recognized for risks arising from litigation if an entity of the ElringKlinger Group is the defendant and the weight of evidence supports a negative outcome. The provision is recognized in the amount that the entity will probably lose in the case of a negative outcome. This amount includes any payments to be made by the entity, particularly compensation and severance payments as well as the expected costs of the lawsuit. In litigation in which the entity itself is the plaintiff, provisions are set up for the cost of the lawsuit only. Provisions for restructuring are recognized in connection with measures that significantly change the scope or nature of performance of the business activity of a business unit. Provisions for restructuring (particularly for benefits relating to the termination of employment relationships) are recognized when the implementation of a detailed and formal plan commences or when it has already been communicated.

The measurement of these provisions is at the present best estimate of the expenses necessary to fulfill the obligation.

If appropriate, the amount of the provision corresponds to the present value of the expenditures expected to be necessary to meet the obligations.

Refund claims are capitalized separately, if applicable. If the Group expects at least a partial refund for a provision, the refund is recognized under other assets if the return of the refund is virtually certain.

Leases

IFRS 16 requires a uniform accounting model for lessees, according to which the lessee is required to recognize a right-of-use asset for all leases as well as a lease liability for the outstanding lease payments. The lease liability is recognized at the present value of the future lease payments, discounted with the term-based incremental rate because the interest rate implicit in the lease is not readily determinable, and reported under financial liabilities. Reference interest rates for a period of up to 15 years from the return on government bonds in the countries concerned is used to determine the incremental borrowing rate. The reference interest rates are extended by a lease risk premium on the basis of Euler Hermes assessment of the ElringKlinger Group.

The rights of use reported under property, plant and equipment are recognized at cost less accumulated amortization and any accumulated impairment losses necessary. The acquisition cost of the right-of-use asset is determined as the present value of all future lease payments plus the lease payments that are made at or before the beginning of the lease as well as the costs to conclude the contracts and the estimated costs for dismantling or restoring the lease asset. All lease incentives received are deducted.

Practical expedients provided by IFRS 16 are applied for low-value assets and short-term leases (with a term of up to 12 months). The lease payments associated with these leases are charged to profit or loss for the reporting period on a straight-line basis over the lease term. In the statement of cash flows, the payments are reported under cash flow from operating activities.

For sale and leaseback transactions with transfer of control to the buyer (lessor), the leaseback assets are recognized at the pro rata carrying amount which is derived from the leased back pro rata right of use. Accordingly, any gain or loss is only recognized to the extent it relates to the rights transferred to the lessor.

Recognition of income and expense

Sales revenue is measured at the fair value of the transaction price received or to be received and represents the amounts that are to be received for goods and services in the normal course of business. Sales revenue is shown net of sales deductions, discounts and value added taxes.

Sales revenue is recorded when the performances due have been rendered and the control has passed to the buyer and receipt of the payment can be reliably expected.

A portion of income from development services is recognized over time because the customer simultaneously receives and consumes the benefits provided by the ElringKlinger Group. The progress of development services is determined using the input method because there is a direct relationship between the effort of the ElringKlinger Group and the transfer of service to the customer. The Group recognizes sales revenue on the basis of the costs incurred relative to the total expected costs to complete the development service.

Revenue from licenses with which ElringKlinger grants customers the right to use its intellectual property (at the time of issuing the license) is recognized on the date the licenses are granted. Considerations that are dependent on certain milestones being reached are recognized in the income statement when it is highly likely that the milestones will be reached.

Interest income is recognized on an accrual basis using the effective interest method.
Dividend income from financial investments is recorded at the time the payment claim arises.

Other income is recognized on an accrual basis in accordance with the substance of the underlying contract. Operating expenses are recorded in the consolidated income statement at the time of performance or at the time of origination.

Research and development costs

Research costs are expensed at the time they are incurred. The costs for development activities are capitalized provided all of the following criteria are fulfilled:

- The development costs can be determined reliably.
- The product or the process can be realized technically and commercially.
- Future commercial benefits are likely.
- There is the intent and sufficient resources to complete the development and to use or sell the asset.

Capitalized costs are included under intangible assets. Other development costs are recognized as an expense when incurred. Capitalized development costs are amortized over five years.

Government grants

In accordance with IAS 20, government grants are recognized at fair value only when there is reasonable assurance that the Group will comply with any conditions attached to the grant and that the grant will be received.

Grants that relate to the acquisition or production cost of assets are generally recognized as deferred income and systematically released to income over the expected useful life of the related asset and reported as other operating income. The item is disclosed in other current and non-current liabilities.

Grants received as part of the European IPCEI initiative are deducted from the carrying amount of capitalized development costs (net method).

Public grants received for expenses incurred (primarily for development projects) are recognized in income in the period they are received and reported as other operating income.

Government grants in connection with the utilization of short-time work allowances and the associated reimbursement of social security contributions are reported in the corresponding personnel expenses of the relevant functional area.

Borrowing costs

Borrowing costs directly associated with the acquisition, construction, or production of qualifying assets are added to the production costs of these assets until the period in which the assets are largely available for their intended use or for their sale. Interest not capitalized pursuant to IAS 23 is recognized on an accrual basis as an expense using the effective interest method. The actual borrowing costs are capitalized if a financing loan can be definitively assigned to a specific investment. Unless a direct relationship can be established, the Group's average interest rate for borrowed capital for the current period is used. The Group's average interest rate for borrowed capital for the financial year 2022 was 2.76% (2021: 1.87%). Borrowing costs of EUR 431 k were capitalized in the financial year (2021: EUR 619 k).

Income taxes and deferred taxes

The income tax expense represents the sum of current tax expense and deferred tax expense.

Current tax expense is determined on the basis of the taxable income for the relevant year. Taxable income differs from earnings before taxes as shown in the income statement, since it excludes expenses and income which will be tax deductible in earlier or later years or those which will never become taxable or tax deductible. The liability of the Group for current tax expense is calculated on the basis of applicable tax rates or tax rates established by law as of the end of the reporting period.

Deferred taxes are the expected tax charges and benefits from the differences in the carrying amounts of assets and liabilities in the tax base of the individual companies compared with the valuations in the consolidated financial statements under IFRS. The balance sheet liability method is applied. Such assets and liabilities are not recognized if the temporary difference is the result of (i) the first-time recognition of goodwill or (ii) the first-time recognition of other assets and liabilities resulting from occurrences (not including business combinations) that do not affect taxable income or earnings before taxes according to the income statement. Deferred taxes are recorded on all deductible temporary differences when it is probable that taxable profits will be available against which the deductible temporary differences can be offset. Otherwise, deferred tax assets are recognized on loss carryforwards to the extent that their future use may be anticipated.

The carrying amount of deferred tax assets is reviewed every reporting date.
Deferred taxes are measured at the future tax rates, i. e., those that are expected to apply at the time of realization.

Changes in deferred tax assets are recognized in the income statement as tax income or expense unless they relate to other comprehensive income or items recognized directly in equity; in these cases, changes in deferred taxes are also reported under other comprehensive income or directly in equity.

Contingent liabilities and contingent receivables

Contingent liabilities are not recognized. They are disclosed in the notes, unless the possibility of an outflow of resources with economic benefit is remote. Contingent receivables are not recognized in the financial statements. If the inflow of economic benefits is probable, they are disclosed in the notes.

Use of estimates

Financial statements are prepared in accordance with the pronouncements of the IASB using estimates which influence valuations of items in the statement of financial position, the nature and the scope of contingent liabilities and contingent receivables as of the end of the reporting period and the amounts of income and expenses in the reporting period. At ElringKlinger, the assumptions and estimates relate mainly to the recognition and measurement of provisions, the measurement of financial liabilities from put options, the measurement of goodwill and the realization of future tax relief. Actual results may deviate from these estimates. Changes are recognized through profit or loss at the time better insights are available.

While updating the estimates and assumptions, the available information regarding the coronavirus pandemic and the war in Ukraine was taken into account in terms of the expected economic development as well as country-specific measures.

This information was considered when testing the identified cash-generating units and segments for impairment. The value in use determined includes estimates specifically with regard to the forecast of future cash flows. They in turn rely on projections regarding the future demand volume and selling prices as well as on cost forecasts.

Warranty obligations may arise by force of law, by contract or for policy reasons. Provisions are recognized for the expected claims arising from warranty obligations. A claim may be expected especially if the warranty period has not yet expired, if warranty expenses have been incurred in the past, or if there is concrete evidence of warranty incidents being imminent. The warranty risk is determined on the basis of the circumstances from individual estimates or from past experience, and appropriate provisions are recognized.

The measurement of provisions for restructuring is subject to estimates and assumptions, particularly in connection with the level of future severance payments. The estimates are base on historical data customary in the industry. Provisions for potential additional payments and penalties from US import duties stem from the assessment of lawyers and the Management Board on the basis of scenario analyses.

The estimates regarding the realization of future tax relief are based on calculations by external consultants. The use of estimates for other items in the group statement of financial position and the group income statement are described in the accounting principles for the respective items. This pertains in particular to the matters: Impairments of goodwill and the measurement of pension provisions.

Risks and uncertainties

The past financial year 2022 was also characterized by a high degree of uncertainty and volatility. The effects of the coronavirus pandemic were still lingering in Europe when the war in Ukraine began. The war and its political consequences also resulted in temporary supply-chain disruptions in the automotive industry. The result of this conflict is uncertain and the further escalation of the situation cannot be ruled out. Furthermore, the situation in many parts of the Middle East continues to be instable and the same applies for parts of North Africa. New conflicts can arise anytime, e.g., in the South China Sea. Some of the geopolitical hotspots are among ElringKlinger's sales regions which are exposed to certain risks. The spare parts segment, whose core regions include North Africa and the Middle East in addition to Europe, is exposed to the general risk of loss of sales revenue. As the currency used for invoicing there is the euro, limited access to foreign currency can lead to a delay or decrease in orders. These regions are not the core regions of the Original Equipment segment.

In addition to geopolitical risks, there are risks related to economic development, as the global vehicle markets will as a rule develop along the same lines. If economic development cools down considerably, this represents a risk for demand and ultimately for vehicle production. This could possibly result in lower demand for ElringKlinger products. This curve can be influenced by various factors. For example, high prices on the global markets – particularly for raw materials and energy – can make the central banks respond by raising the interest rates to contain inflation, however, this would also dampen economic growth. Therefore, there is a risk of recession in many regions around the world. Irrespective of this, it cannot be ruled out that the coronavirus pandemic will flare up again through new variants or it repeats itself in a similar form.

In addition to general sales risks there are customer and contract specific risks. They primarily reflect the status of various projects at individual locations. ElringKlinger is neither excessively dependent on individual markets nor on individual manufacturers or individual projects. The Group has a global presence with production and sales locations in 20 countries and, with this broad positioning, has largely protected itself against potential stagnation or waning demand in specific vehicle markets.

An economic slump in a particular region can be offset, at least to some extent, by other regions. Due to its cost structures, ElringKlinger would be able to respond immediately to the market conditions in the event of more severe economic turbulence. The instruments available include flextime accounts and flexible shift models as well as the option to apply for government-subsidized short-time work. Furthermore, it is possible to respond to changing market situations by adjusting the headcount to the demand situation and by combining the production quantities of individual plants. The central purchasing department works in close cooperation with suppliers for the purpose of continuously assessing and adjusting procurement volumes. In addition, the sales department continues to pursue its strategy to tap into new sales markets and further intensify its business with the existing customers.

ElringKlinger generally makes adequate provision for economic risks at the planning stage. A policy of using a cautious macro-economic scenario for budgeting purposes is applied.

In the course of the increasingly noticeable climate change, social as well as political initiatives have been formed in many countries, who put more emphasis on environmental protection and derive and demand appropriate measures from it. Therefore, legislative initiatives can be expected that may affect the automotive industry, including time limits for new registrations of vehicles with combustion engines as well as tighter emission laws. Accordingly, ElringKlinger's research and development activities focus on alternative drive systems and its portfolio is increasingly aligned toward e-mobility.

When preparing the consolidated financial statements, the possible effects of climate change and future regulatory requirements, especially those associated with the transformation to e-mobility, were taken into account. The estimate of future net cash inflows for the determination of the recoverable amount as part of impairment testing of goodwill based on the planning reflects a corresponding increase in sales revenue and capital expenditures in the strategic business fields.

The focus of Group capital expenditures is on the Company's strategic fields of future. Investments in the conventional business areas are managed actively and the Group very carefully reviews the necessity, the timeline of implementation and the financial requirements taking into account the group-wide useful lives of production plants of 10 to 15 years. This did not have any effects on the consolidated financial statements.

With the approval received in 2021 of grants of up to EUR 33,769 k as part of the IPCEI initiative, ElringKlinger AG is driving forward the development of battery products. This support presents a new opportunity for the Group to develop new technologies and thus tap into new markets. By December 31, 2022, ElringKlinger AG had received grants of EUR 3,292 k as part of this initiative. ElringKlinger AG has to fulfill certain conditions for the utilization of these funds. In case of non-compliance with the conditions, there is a risk that part will have to be repaid. A monitoring process is installed to track and manage this risk. This process helps in immediately identifying variances and initiating countermeasures.

Individual disclosures on the Group Income Statement

1. Sales revenue

EUR k	2022	2021
Lightweighting/Elastomer Technology	575,200	500,083
Metal Sealing Systems & Drivetrain Components	496,573	448,212
Shielding Technology	293,213	269,262
E-Mobility	42,372	58,670
Exhaust Gas Purification	4,023	4,061
Others	44	70
Segment Original Equipment	**1,411,425**	**1,280,358**
Segment Original Equipment	1,411,425	1,280,358
Segment Aftermarket	250,870	214,698
Segment Engineered Plastics	132,620	125,359
Sales of goods and licensing	**1,794,915**	**1,620,415**
Sale of goods	1,794,915	1,620,415
Proceeds from the rendering of services	3,496	3,956
Revenue from contracts with customers	**1,798,411**	**1,624,371**
Revenue from contracts with customers	1,798,411	1,624,371
Income from rental and leasehold	19	18
Total	**1,798,430**	**1,624,389**

Breakdown by geographical markets:

EUR k	2022	2021
Revenue from contracts with customers	365,907	346,694
Income from rental and leasehold	19	18
Total Germany	**365,926**	**346,712**
Revenue from contracts with customers	1,432,504	1,277,677
Income from rental and leasehold	0	0
Total other countries	**1,432,504**	**1,277,677**
Total	**1,798,430**	**1,624,389**

The location of the customer is used to determine allocation of sales revenue. The division of group sales revenue by segment and region is provided under note (33) Segment reporting.

Contract balances

EUR k	Dec. 31, 2022	Dec. 31, 2021
Trade receivables	264,854	233,478
Contract assets	8,912	9,396
Contract liabilities	14,938	16,736

A contract asset is the right to consideration in exchange for goods or services already transferred to the customer. This mainly takes place through sales revenue that is to be recognized over time. Contract assets are reported as receivables when billed. This is generally performed on a short-term basis within a month.

Contract liabilities include long-term prepayments for customer-specific provisions of additional production capacity and short-term prepayments for customer-specific tools.

Reconciliation of contract balances

The changes in contract assets and contract liabilities in the reporting period result from the following matters:

EUR k	Contract assets	Contract liabilities
As of Jan. 1, 2021	**10,442**	**38,768**
Revenue that was included in the contract liability balance at the beginning of the reporting period		31,159
Reclassification of contract assets reported at the beginning of the reporting period to trade receivables	9,725	
Additions from payments received less amounts reported as sales revenue in the reporting period		9,127
Additions from performance completed not yet billed in the reporting period	8,679	
As of Dec. 31, 2021	**9,396**	**16,736**
Revenue that was included in the contract liability balance at the beginning of the reporting period		16,024
Reclassification of contract assets reported at the beginning of the reporting period to trade receivables	8,591	
Additions from payments received less amounts reported as sales revenue in the reporting period		14,226
Additions from performance completed not yet billed in the reporting period	8,107	
As of Dec. 31, 2022	**8,912**	**14,938**

Performance obligations

The transaction price allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as of December 31, 2022 are as follows:

EUR k	Dec. 31, 2022	Dec. 31, 2021
Within one year	840	5,591
More than one year	0	0

Limited variable consideration is not taken into account in the disclosed amounts. Furthermore, no information is included for performance obligations from contracts with an expected original term of a maximum of one year. Similarly, no disclosures on performance obligations are included that are satisfied over a certain period and for which the entitlement of a consideration is equivalent to the amount that corresponds directly to the value of the performance already completed and for which revenue can be realized to that amount that can be billed.

2. Cost of sales

The cost of sales shows the costs incurred to obtain the sales revenue. Personnel expenses also include expenses for the discontinuation of production activities at two locations in Germany.

Cost of sales includes:

EUR k	2022	2021
Cost of materials	825,692	709,192
Personnel expenses	378,721	352,750
Depreciation and amortization	116,128	98,450
Amortization of costs to fulfill a contract	2,381	2,362
Other expenses	137,011	110,626
Total	**1,459,933**	**1,273,380**

3. Selling expenses

Compared to 2021, selling expenses increased by EUR 19,252 k to EUR 140,020 k. Selling expenses mainly include personnel expenses, material and marketing costs, as well as depreciation and amortization related to sales activities.

4. General and administrative expenses

General and administrative expenses primarily include personnel expenses and material costs as well as the depreciation and amortization related to the administrative area. Compared to 2021, general and administrative expenses increased by EUR 6,624 k to EUR 90,177 k.

5. Research and development costs

Research and development costs include the personnel expenses, amortization and depreciation and the cost of test materials and tools attributable to these activities, unless these are development costs that are required to be capitalized under the conditions set forth in IAS 38.57. Compared to 2021, research and development costs increased by EUR 4,874 k to EUR 69,729 k. Development costs of EUR 22,034 k (2021: EUR 17,241 k) were capitalized in the financial year 2022.

6. Other operating income

EUR k	2022	2021
Government grants	4,011	3,746
Reversal of impairments on receivables	2,697	5,741
Insurance reimbursements/claims reimbursements	2,488	2,117
Reimbursements from third parties	2,193	2,658
Income from the disposal of non-current assets	1,360	822
Other taxes (excl. income tax)	273	221
Income from deconsolidation	0	11,302
Other	5,195	6,048
Total	**18,217**	**32,655**

The reversal of impairments on receivables mainly contain reversals of bad debt allowances in the USA and China. In the previous year, they primarily related to reversals in Germany and China.

The insurance reimbursements primarily relate to claims from warranty incidents in China and Canada. The Other item also includes rental income and a reimbursement claim from a cooperation agreement.

7. Other operating expenses

EUR k	2022	2021
Impairment of intangible assets	86,078	0
Other taxes (excl. income tax)	5,783	5,327
Other fees	1,991	1,667
Expenditures for claims	1,327	383
Losses from the disposal of non-current assets	1,000	728
Defaults on receivables	395	829
Selling costs for machinery	167	10
Recognition of provisions/deferred liabilities	19	90
Impairment of receivables	-3	932
Other	2,262	2,492
Total	**99,019**	**12,458**

The item Impairment of intangible assets contains an impairment loss of EUR 86,078 k recognized on goodwill of the Original Equipment segment.

Among other things, the "Other" item includes the continuing involvement from receivables sold and scrapping of assets.

8. Associates

ElringKlinger holds a share of 24.71% in hofer AG, Nürtingen. The hofer Group is a systems developer for drive train systems in the automotive sector. ElringKlinger continues to use the equity method to account for its share in hofer AG in the consolidated financial statements. The following table provides summarized information of the Group's investment in hofer AG.

EUR k	2022	2021
Non-current assets	51,881	75,186
Current assets	53,398	77,441
Non-current liabilities	43,414	61,655
Current liabilities	27,387	50,227
Net assets	**34,478**	**40,745**
Group share 24.71%	8,520	10,068
Goodwill	13,432	13,432
Accumulated impairment previous years	-9,810	-9,810
Impairment current year	0	0
Carrying amount of the Group's share	**12,142**	**13,690**
Sales revenue	103,304	77,005
Comprehensive income for the financial year	**-7,414**	**-10,865**
thereof other comprehensive income	1,084	-1,680
Group share in profit/loss	**-1,832**	**-2,685**
Dividends received	**0**	**0**

As of December 31, 2022, the associate had contingent liabilities of EUR 508 k (2021: EUR 858 k) and liabilities to banks of EUR 11,342 k (2021: EUR 11,757 k).

9. Net finance costs

EUR k	2022	2021
Finance income		
Income from currency differences	30,522	28,629
Interest income	1,481	2,066
Other	2,485	8
Finance income, total	**34,488**	**30,703**
Finance costs		
Expenses from currency difference	-31,225	-16,700
Interest expenses	-16,041	-10,603
Other	-171	-1,600
Finance costs, total	**-47,437**	**-28,903**
Expenses from associates	-884	-3,074
Income from associates	0	0
Share of result of associates	**-884**	**-3,074**
Net finance costs	**-13,833**	**-1,274**

Of the interest expenses, an amount of EUR 1,592 k (2021: EUR 825 k) relates to interest portions of pension plans while the remainder relates to bank interest and interest expense from the unwinding of discounts on non-current provisions. Interest expenses of EUR 1,077 k (2021: EUR 972 k) resulted from the roll forward of lease liabilities in accordance with the effective interest method. Borrowing costs for qualifying assets in the amount of EUR 431 k were capitalized in the reporting year (2021: EUR 619 k); this represents a corresponding improvement in the result.

The expenses from associates contain the subsequent measurement of the carrying amount through profit or loss of EUR -884 k (2021: EUR -3,074 k).

Other financial income contains income of EUR 363 k (2021: other financial expenses of EUR 1,552 k) due to the subsequent measurement of a liability contained in other current liabilities resulting from the written put option on non-controlling interests of ElringKlinger Marusan Corporation, based in Tokyo, Japan.

Furthermore, other financial income includes the gains from the net monetary position from the hyperinflation in Turkey of EUR 2,119 k.

10. Income taxes

Income taxes break down as follows:

EUR k	2022	2021
Current tax expense	34,566	47,208
Deferred taxes	80	-1,007
Tax expense reported	**34,646**	**46,201**

The income taxes consist of corporation and municipal trade taxes including the solidarity surcharge of the domestic Group companies as well as comparable income taxes of the foreign Group companies.

The income tax rate calculated for the German companies is 29.1% (2021: 29.1%). Foreign taxation is calculated at the rates applicable in the countries concerned and lies between 9.0% and 34.7% (2021: between 9.0% and 34.7%). The average foreign tax rate is 24.3% (2021: 24.3%).

Deferred taxes are calculated by applying the applicable tax rates or tax ratios established by law in the different countries at the time of realization based on the accounting policies above.

The table below presents a reconciliation between the income tax expense that might theoretically be expected to arise for the Group under application of the current domestic rate of 25.2% (2021: 25.2%) and the income tax expense actually reported.

EUR k	2022	2021
Earnings before taxes	-56,064	100,756
Expected tax rate	**25.16%**	**25.18%**
Expected tax expenses	**-14,106**	**25,370**
Change in the expected tax rate due to:		
– Permanent differences	22,584	7,508
– Difference in basis of assessment of local taxes	-54	1,131
– Use of non-capitalized or forfeiture of capitalized tax loss carryforwards	2,754	-229
– Write-up/write-down of capitalized tax loss carryforwards (relating to other periods)	-2,926	-5,079
– Addition to uncapitalized tax loss carryforwards and write-down of temporary differences (relating to the period)	16,874	7,292
– Taxes relating to other periods	1,268	2,714
– Deferred taxes relating to other periods	-207	-2,150
– Deviations due to changes in tax rate	5,549	6,635
– Deviations on account of withholding taxes	3,010	3,130
– Other effects	-100	-121
Tax expense reported	**34,646**	**46,201**
Actual tax rate	**-61.8%**	**45.8%**

Retained earnings of EUR 53,277 k (2021: EUR 53,661 k) at domestic and foreign subsidiaries will be distributed to ElringKlinger AG in the coming years. The tax expense on distributions in Germany amounts to EUR 2,513 k (2021: EUR 2,587 k) and has been recorded as a deferred tax liability. Further retained earnings of domestic and foreign subsidiaries of EUR 42,302 k (2021: EUR 110,581 k) are intended to be permanently reinvested in those operations on the basis of current planning.

Deferred tax assets of EUR 10,307 k (2021: EUR 13,734 k) have been recognized on tax loss carryforwards. Deferred tax assets on tax loss carryforwards and deductible temporary differences are recognized to the extent that deferred tax liabilities exist or to the extent that business planning projects sufficient profits in subsequent years. As of the reporting date, deferred tax assets of EUR 43 k (2021: EUR 157 k) were recognized at those Group companies that incurred losses in the reporting or prior period. No deferred tax assets were recognized in respect of tax loss carryforwards amounting to EUR 329,259 k (2021: EUR 283,810 k on temporary differences of EUR 19,751 k (2021: EUR 5,812 k), since it was not expected that the tax claims would be realized in the foreseeable future.

Unused income tax loss carryforwards primarily relate to foreign subsidiaries. The loss carryforwards not recognized for tax purposes will be forfeited as follows:

EUR k	Dec. 31, 2022	Dec. 31, 2021
Loss carryforwards are forfeited within		
One year	0	1,108
Two years	8,951	17,191
Three years	11,436	12,732
Four years	15,462	10,726
Five years	23,347	17,266
More than five years	71,005	76,897
Non-forfeitable	199,058	147,890
Total	**329,259**	**283,810**

Tax deferrals relate to the following line items:

	Deferred tax assets		Deferred tax liabilities	
EUR k	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Intangible assets	677	732	20,095	15,208
Property, plant and equipment	10,299	6,335	56,066	50,685
Financial assets	278	136	0	0
Other non-current assets	5,635	2,956	515	798
Inventories	5,241	7,763	0	181
Current contract assets	0	0	1,731	1,678
Trade receivables	744	1,307	1,095	915
Other current assets	347	1,054	3,011	7,707
Cash and cash equivalents	0	1	0	0
Provisions for pensions	13,093	25,859	19	22
Non-current provisions	2,459	2,573	0	0
Non-current financial liabilities	11,031	12,915	27	1
Other non-current liabilities	1,348	645	6,593	4,178
Current provisions	8,837	7,136	3	3
Trade payables	2,933	117	132	3
Current financial liabilities	7,804	8,780	24	0
Other current liabilities	6,777	3,150	457	3,710
Deferred taxes associated with investments in subsidiaries	0	0	2,513	2,587
Tax loss carryforwards	10,307	13,734	0	0
Tax credits	212	281	0	0
Total	**88,022**	**95,474**	**92,281**	**87,676**
Offsetting deferred tax assets against deferred tax liabilities	-68,499	-63,724	-68,499	-63,724
Recognized in the statement of financial position	**19,523**	**31,750**	**23,782**	**23,952**

Deferred taxes totaling EUR -12,021 k (2021: EUR -3,483 k) were recognized in other comprehensive income. Of this amount, EUR -11,853 k (2021: EUR -3,437 k) relates to pension provisions and EUR -168 k (2021: EUR -46 k) to exchange rate differences.

11. Basic and diluted earnings per share

To obtain the basic earnings per share, the period profit attributable to the shareholders of the parent company is divided by the number of individual shares.

Diluted earnings per share correspond to basic earnings per share and are calculated as follows:

	2022	2021
Profit/loss attributable to the shareholders of ElringKlinger AG (EUR k)	-89,110	55,729
Average number of shares	63,359,990	63,359,990
Earnings per share in EUR	**-1.41**	**0.88**

Disclosures on the Group Statement of Financial Position

12. Intangible assets

EUR k	Development costs (internally developed)	Goodwill (purchased)	Patents, licenses, software and similar rights (purchased)	Intangible assets under construction (purchased)	Total
Acquisition/production cost as of Jan. 1, 2022	**69,139**	**178,737**	**54,187**	**327**	**302,390**
Adjustments from hyperinflationary economies (IAS 29)	0	0	1	0	1
Acquisition/production cost as of Jan. 1, 2022	**69,139**	**178,737**	**54,188**	**327**	**302,391**
Currency changes	959	1,853	74	0	2,886
Additions	22,034	0	515	-116	22,433
Reclassifications	0	0	110	-103	7
Disposals	3,952	0	718	0	4,670
As of Dec. 31, 2022	**88,180**	**180,590**	**54,169**	**108**	**323,047**
Write-downs as of Jan. 1, 2022	**26,993**	**13,580**	**46,233**	**0**	**86,806**
Adjustments from hyperinflationary economies (IAS 29)	0	0	1	0	1
Write-downs as of Jan. 1, 2022	**26,993**	**13,580**	**46,234**	**0**	**86,807**
Currency changes	960	172	68	0	1,200
Additions	3,507	0	1,904	0	5,411
Impairment	1,270	86,078	0	0	87,348
Reclassifications	0	0	0	0	0
Disposals	3,952	0	585	0	4,537
As of Dec. 31, 2022	**28,778**	**99,830**	**47,621**	**0**	**176,229**
Net carrying amount as of Dec. 31, 2022	**59,402**	**80,760**	**6,548**	**108**	**146,818**

EUR k	Development costs (internally developed)	Goodwill (purchased)	Patents, licenses, software and similar rights (purchased)	Intangible assets under construction (purchased)	Total
Acquisition/production cost as of Jan. 1, 2021	**55,971**	**175,245**	**53,368**	**537**	**285,121**
Currency changes	894	3,528	244	0	4,666
Additions	17,241	0	548	157	17,946
Reclassifications	0	0	424	-367	57
Disposals	4,967	0	397	0	5,364
Reclassification to assets held for sale	0	36	0	0	36
As of Dec. 31, 2021	**69,139**	**178,737**	**54,187**	**327**	**302,390**
Write-downs as of Jan. 1, 2021	**26,819**	**13,337**	**43,894**	**0**	**84,050**
Currency changes	893	243	202	0	1,338
Additions	2,730	0	2,459	0	5,189
Impairment	1,518	0	0	0	1,518
Reclassifications	0	0	21	0	21
Disposals	4,967	0	343	0	5,310
As of Dec. 31, 2021	**26,993**	**13,580**	**46,233**	**0**	**86,806**
Net carrying amount as of Dec. 31, 2021	**42,146**	**165,157**	**7,954**	**327**	**215,584**

In the 2022 financial year, as part of the IPCEI initiative, grants of EUR 1,858 k (2021: EUR 1,116 k) were deducted from the carrying amount of development costs (net method).

The impairment testing of intangible assets indicated a need to recognize impairment losses of EUR 87,348 k in the reporting year (2021: EUR 1,518 k). In an amount of EUR 86,078 k, this primarily related to the goodwill in the Original Equipment segment.

Impairment losses of EUR 1,270 k (2021: EUR 1,518 k) were recognized on discontinued development projects.

Purchase commitments to acquire intangible assets amounted to EUR 280 k as of December 31, 2022 (December 31, 2021: EUR 409 k). All amortization of intangible assets is contained under the following line items in the income statement:

EUR k	2022	2021
Cost of sales	3,896	3,270
Selling expenses	100	134
General and administrative expenses	1,149	1,461
Research and development costs	266	324
Total	**5,411**	**5,189**

13. Property, plant and equipment

EUR k	Land and buildings	Plant and machinery	Other equipment, furniture and fixtures	Property, plant and equipment under construction	Total
Acquisition/production cost as of Jan. 1, 2022	**595,194**	**1,272,587**	**232,560**	**65,935**	**2,166,276**
Adjustments from hyperinflationary economies (IAS 29)	2,589	1,756	409	0	4,754
Acquisition/production cost as of Jan. 1, 2022	**597,783**	**1,274,343**	**232,969**	**65,935**	**2,171,030**
Currency changes	6,034	16,832	444	172	23,482
Additions	9,741	22,336	15,491	34,639	82,207
Reclassifications	7,261	18,927	4,544	-30,738	-6
Disposals	6,718	24,603	12,344	42	43,707
As of Dec. 31, 2022	**614,101**	**1,307,835**	**241,104**	**69,966**	**2,233,006**
Depreciation as of Jan. 1, 2022	**181,720**	**879,383**	**166,592**	**0**	**1,227,695**
Adjustments from hyperinflationary economies (IAS 29)	440	946	230	0	1,616
Depreciation as of Jan. 1, 2022	**182,160**	**880,329**	**166,822**	**0**	**1,229,311**
Currency changes	1,723	8,899	186	0	10,808
Additions	23,470	66,970	17,292	0	107,732
Impairment	91	2,328	163	13,329	15,911
Reclassifications	0	0	0	0	0
Write-ups	0	0	0	0	0
Disposals	4,248	22,066	10,219	0	36,533
As of Dec. 31, 2022	**203,196**	**936,460**	**174,244**	**13,329**	**1,327,229**
Net carrying amount as of Dec. 31, 2022	**410,905**	**371,375**	**66,860**	**56,637**	**905,777**
Acquisition/production cost as of Jan. 1, 2021	**573,718**	**1,230,774**	**229,959**	**42,015**	**2,076,466**
Currency changes	14,078	36,022	3,884	878	54,862
Additions	11,471	22,947	12,639	37,708	84,765
Reclassifications	625	13,389	596	-14,666	-56
Disposals	4,698	30,545	14,518	0	49,761
As of Dec. 31, 2021	**595,194**	**1,272,587**	**232,560**	**65,935**	**2,166,276**
Depreciation as of Jan. 1, 2021	**157,882**	**819,014**	**159,617**	**0**	**1,136,513**
Currency changes	3,737	20,445	2,233	0	26,415
Additions	22,329	67,402	17,640	0	107,371
Reclassifications	4	-25	0	0	-21
Write-ups	281	7	0	0	288
Disposals	1,951	27,446	12,898	0	42,295
As of Dec. 31, 2021	**181,720**	**879,383**	**166,592**	**0**	**1,227,695**
Net carrying amount as of Dec. 31, 2021	**413,474**	**393,204**	**65,968**	**65,935**	**938,581**

The impairment testing of property, plant and equipment indicated a need to recognize impairment losses for individual items in an amount of EUR 15,911 k in the reporting year. The impairment losses mainly relate to customer projects that are not being pursued any further.

In November 2022, the Group generated a purchase price of EUR 2,330 k from the sale of a subdivision of ElringKlinger AG. The income from the disposal of non-current assets amounts to EUR 899 k.

Purchase commitments to acquire property, plant and equipment amounted to EUR 17,168 k as of December 31, 2022 (December 31, 2021: EUR 14,402 k).

As regards property, the ElringKlinger Group primarily rents production halls, office space as well as parking spaces. The rented technical equipment primarily comprises machines, which are deployed in production. The operating and office equipment comprises leased vehicles and forklifts. Lease contracts can include extension and termination options. All lease contracts are negotiated individually and contain a number of different conditions.

Right-of-use assets disclosed under property, plant and equipment break down as follows:

EUR k	Land and buildings	Plant and machinery	Other equipment, furniture and fixtures	Total
Acquisition/production cost as of Jan. 1, 2022	**74,563**	**1,509**	**16,653**	**92,725**
Adjustments from hyperinflationary economies (IAS 29)	0	0	14	14
Acquisition/production cost as of Jan. 1, 2022	**74,563**	**1,509**	**16,667**	**92,739**
Currency changes	1,958	1	210	2,169
Additions	6,240	14	6,698	12,952
Disposals	3,429	1,342	5,807	10,578
As of Dec. 31, 2022	**79,332**	**182**	**17,768**	**97,282**
Depreciation as of Jan. 1, 2022	**25,967**	**858**	**8,535**	**35,360**
Adjustments from hyperinflationary economies (IAS 29)	0	0	7	7
Depreciation as of Jan. 1, 2022	**25,967**	**858**	**8,542**	**35,367**
Currency changes	531	0	86	617
Additions	10,419	536	4,518	15,473
Disposals	2,483	1,304	4,318	8,105
As of Dec. 31, 2022	**34,434**	**90**	**8,828**	**43,352**
Net carrying amount as of Dec. 31, 2022	**44,898**	**92**	**8,940**	**53,930**

EUR k	Land and buildings	Plant and machinery	Other equipment, furniture and fixtures	Total
Acquisition/production cost as of Jan. 1, 2021	**65,703**	**1,598**	**15,720**	**83,021**
Currency changes	2,913	3	659	3,575
Additions	10,398	30	4,360	14,788
Disposals	4,451	122	4,086	8,659
As of Dec. 31, 2021	**74,563**	**1,509**	**16,653**	**92,725**
Depreciation as of Jan. 1, 2021	**17,160**	**252**	**6,821**	**24,233**
Currency changes	844	1	329	1,174
Additions	9,862	724	4,457	15,043
Disposals	1,899	119	3,072	5,090
As of Dec. 31, 2021	**25,967**	**858**	**8,535**	**35,360**
Net carrying amount as of Dec. 31, 2021	**48,596**	**651**	**8,118**	**57,365**

For further comments on leases, please refer to notes (28), (29) and (30) in the notes to the financial statements.

14. Financial assets

EUR k	Non-current securities	Other financial investments	Total
Acquisition cost as of Jan. 1, 2022	**1,603**	**14,008**	**15,611**
Currency changes	-4	0	-4
Additions	248	358	606
Changes in value	-111	-360	-471
Disposals	4	2,000	2,004
As of Dec. 31, 2022	**1,732**	**12,006**	**13,738**
Amortization, depreciation and impairment as of Jan. 1, 2022	**79**	**0**	**79**
Additions	0	0	0
Impairment	129	0	129
Write-ups	-3	0	-3
As of Dec. 31, 2022	**205**	**0**	**205**
Net carrying amount as of Dec. 31, 2022	**1,527**	**12,006**	**13,533**
Fair value Dec. 31, 2022	1,529	12,006	
Acquisition cost as of Jan. 1, 2021	**1,593**	**13,577**	**15,170**
Currency changes	-1	0	-1
Additions	243	431	674
Changes in value	15	0	15
Disposals	247	0	247
As of Dec. 31, 2021	**1,603**	**14,008**	**15,611**
Amortization, depreciation and impairment as of Jan. 1, 2021	**82**	**0**	**82**
Additions	5	0	5
Write-ups	8	0	8
As of Dec. 31, 2021	**79**	**0**	**79**
Net carrying amount as of Dec. 31, 2021	**1,524**	**14,008**	**15,532**
Fair value Dec. 31, 2021	1,533	14,008	

Of the non-current securities, EUR 1,070 k (2021: EUR 729 k) is pledged in full to secure pension claims. Other financial investments contain an investment in a minority interest of EUR 5,311 k (2021: EUR 4,200 k) in Aerostack GmbH, based in Dettingen/Erms, Germany. This is an expression of long-term partnership between ElringKlinger AG, based in Dettingen/Erms, Germany, and Airbus Operations GmbH, based in Hamburg, Germany, in the field of fuel cell technology with the aim of jointly developing and validating fuel cell stacks suitable for aviation. The investment constitutes an equity instrument in which ElringKlinger has invested in for strategic reasons. It has been allocated to the FVtPL (Fair Value through Profit and Loss) measurement category. The investment is measured at fair value through profit or loss, gains and losses from the fair value measurement are reported in the net income.

Furthermore, other financial assets contain a bullet, interest-free, non-tradable or non-transferable promissory note to this company. If any capital increases take place, these are allocated proportionally to the respective company's equity. A contribution of EUR 1,111 k was made in the financial year 2022. The promissory note represents a portion of the compensation that ElringKlinger receives for licensing. The fair value amounts to EUR 4,877 k (2021: EUR 6,347 k) as of the reporting date and is allocated to the FVtPL measurement category.

As part of a sale and leaseback transaction, one property was sold and leased back in 2020. The lessor was granted a lessee loan that accrues over the lease term and amounts to EUR 1,803 k as of the reporting date (2021: EUR 1,445 k). As the repayment is directly dependent on the residual value of the property, the lessee loan is to be considered as the residual value guarantee in accordance with IFRS 16 and is included in the lease liability in the amount of the expected utilization. At present, ElringKlinger does not expect it to be utilized. The repayment claim is recognized at fair value through profit or loss and is reported as other financial investment under non-current financial assets.

15. Non-current income tax assets and other non-current assets

Non-current income tax assets include an investment income tax credit carried by ElringKlinger Automotive Components (India) Pvt. Ltd., based in Ranjangaon, India, of EUR 431 k (2021: EUR 532 k) and refund claims from indirect taxes of ElringKlinger do Brasil Ltda., based in Piracicaba, Brazil, of EUR 932 k (2021: EUR 355 k).

Other non-current assets include the long-term outstanding contribution measured at present value from Plastic Omnium of EUR 19,786 k (2021: EUR 39,427 k).

16. Costs to fulfill a contract

In accordance with IFRS 15, costs associated with fulfilling contracts with customers are capitalized if certain requirements are satisfied. As of December 31, 2022, the carrying amount of costs to fulfill a contract decreased to EUR 6,137 k (December 31, 2021: EUR 7,944 k).

17. Non-current and current contract assets

As of December 31, 2022, the carrying amount of the contract assets decreased to EUR 8,912 k (December 31, 2021: EUR 9,395 k). No significant events for impairment pursuant to IFRS 9 were identified.

18. Inventories

EUR k	Dec. 31, 2022	Dec. 31, 2021
Raw materials, consumables and supplies	147,435	123,941
Work in progress	75,283	63,511
Finished goods and merchandise	186,144	159,636
Advance payments	5,090	7,233
Total	**413,952**	**354,321**

Impairments of EUR 21,412 k were recognized on inventories due to market risks and obsolescence (2021: EUR 23,777 k). Impairments of inventories are recognized in cost of sales.

19. Trade receivables, current income tax assets and other current assets

For trade receivables, valuation allowances of EUR 1,815 k (2021: EUR 4,799 k) were recognized for future credit risks.

The carrying amount of the trade receivables and other assets corresponds to their fair values. Trade receivables do not bear interest and are generally due in 30 to 120 days.

Movements in the bad debt allowance for trade receivables and current assets are presented in the table below:

EUR k	2022	2021
As of Jan. 1	4,799	9,443
Additions	398	932
Reversal/utilizations including change of risk parameters (IFRS 9)	-3,494	-6,149
Thereof change of risk parameters (IFRS 9)	*-2,883*	*421*
Exchange rate effects	112	573
As of Dec. 31	**1,815**	**4,799**

The reversal of the impairment loss is largely attributable to the change in the risk parameter of EUR -2,883 k (2021: EUR 421 k). In the past financial year, a risk provision of EUR 398 k was recognized for customers facing insolvency (2021: EUR 525 k). The previous year contained a reversal of impairment losses on impaired receivables of EUR 5,741 k, which primarily included reversals of impairments in Germany and China that were attributable to a change in the risk structure of individual matters.

As of December 31, 2022, trade receivables with a carrying amount of EUR 72,918 k (2021: EUR 66,355 k) were sold as part of an ABCP program (Asset Backed Commercial Papers). More information can be found in note (28) Hedging policy and financial instruments.

In the reporting period, receivables which are currently being enforced with a carrying amount of EUR 398 k (2021: EUR 525 k) were written off.

The impairment model takes into account the expected credit losses (expected credit loss model (ECL)), where mainly forward-looking information is used. ElringKlinger applies the simplified impairment model of IFRS 9 and considers the lifetime expected losses from all receivables and active contract items.

The ratings from Standard & Poor's (S&P) or other well-known rating agencies are used as the basis for the impairment model. Future impairments are determined using these ratings and with the help of probability of default, also published by S&P.

The risk categories used for the model are also used as internal risk categories:

Internal credit rating	**External rating by S&P**	**Probability of default**	**Basis of recognition of the risk provision**	**Gross carrying amount in EUR k**
High creditworthiness	AAA – A	0.0%	Lifetime expected credit loss	59,810
Medium creditworthiness	BBB – B	0.0% – 11.0%	Lifetime expected credit loss	206,461
Low creditworthiness	CCC – C	11.0% – 50.0%	Lifetime expected credit loss	0
Default	D	50.0% – 100.0%	Write-down of asset	398
Risk provision pursuant to IFRS 9				1,815
Total				**264,854**

Current income tax assets mainly contain the corporate income tax credits of ElringKlinger México, S.A. de C.V., based in Toluca, Mexico, of EUR 2,507 k (2021: EUR 3,620 k), ElringKlinger TR Otomotiv Sanayi ve Ticaret A.Ş., based in Bursa, Turkey, of EUR 943 k (2021: EUR 846 k) and ElringKlinger AG, with its registered office in Dettingen/Erms, Germany, of EUR 273 k (2021: EUR 10,788 k).

Other current assets contain tax receivables from VAT and other taxes of EUR 13,741 k (2021: EUR 13,706 k), time deposits and securities of EUR 19,310 k (2021: EUR 13,494 k) and other receivables from third parties including claims from the sale of receivables of EUR 72,013 k (2021: EUR 73,683 k). Other receivables from third parties contain the short-term portion of the outstanding contribution measured at present value from Plastic Omnium of EUR 19,943 k (2021: EUR 29,962 k), financial assets of EUR 4,228 k (2021: EUR 3,803 k), other assets from factoring of EUR 15,944 k (2021: EUR 15,285 k), prepaid expenses of EUR 8,393 k (2021: EUR 5,974 k) and prepayments of EUR 9,853 k (2021: EUR 4,298 k).

20. Cash and cash equivalents

The item cash and cash equivalents comprises cash and deposits held by the Group in current accounts. As in the previous year, there were no cash equivalents. No significant events for impairment pursuant to IFRS 9 were identified.

The carrying amount of these assets corresponds to their fair value.

21. Equity

The changes in individual items of equity in the Group are shown separately in the "Statement of changes in equity".

The share capital of ElringKlinger AG amounted to EUR 63,359,990 as of December 31, 2022 and is divided into 63,359,990 registered shares, each entitled to a single vote. The share capital is paid in full. Each registered share represents a theoretical interest of EUR 1.00 of the share capital. Profit is distributed in accordance with Section 60 German Stock Corporation Act (Aktiengesetz, AktG) in conjunction with Section 23 no. 1 of the Articles of Association.

The Management Board is authorized, subject to the approval of the Supervisory Board, to increase the Company's share capital by issuing new shares for cash and/or in-kind contributions on one or more occasions, however by no more than EUR 31,679,995, by May 19, 2027 (Authorized Capital 2022). As a rule, the shareholders are entitled to subscription rights. The shares may also be acquired by one or more banks subject to the provision that they offer them to the shareholders for subscription. However, the Management Board is authorized, subject to the approval of the Supervisory Board, to exclude shareholder subscription rights

- in order to eliminate fractional amounts;
- if the capital increase against in-kind contributions is implemented specifically for the purpose of acquiring companies, parts of companies, equity investments classified as fixed financial assets or other assets in connection with an intended acquisition or within the framework of business combinations and the shares issued excluding the subscription rights do not exceed 10% of the capital stock, either on the date on which this authorization takes effect or on the date on which it is exercised.
- if the new shares are issued against cash contributions and if the issue price per new share does not fall significantly below the quoted price of shares already listed, and the shares issued without subscription rights pursuant to Section 186 (3) sentence 4 AktG, do not represent more than 10% of the share capital, either on the date on which this authorization takes effect or on the date on which it is exercised. The upper limit of 10% of share capital includes any shares issued or sold during the term of this authorization excluding shareholders' subscription rights in direct or indirect application of Section 186 (3) sentence 4 AktG.

The terms and conditions of the implementation of capital increases from the approved capital 2022 are stipulated by the Management Board with the approval of the Supervisory Board.

The Management Board has not exercised the authorization to date.

The capital reserves were essentially created from the premium from the 2010 capital increase.

The revenue reserves contain the earnings generated by the group companies which have not yet been distributed. There is also an amount of EUR 26,181 k arising from the first application of IFRSs in 2005.

Other reserves contain remeasurements of defined benefit plans, equity impact of controlling interests and currency translation differences.

Under the AktG, the distributable dividend is measured by the sum of retained earnings and the profit or loss for the year, as shown in the annual financial statements of ElringKlinger AG that have been drawn up according to the provisions of the German Commercial Code (HGB). In financial year 2022, ElringKlinger AG distributed to its shareholders a dividend of EUR 9,504 k (EUR 0.15 per share carrying dividend rights) from the retained earnings reported in 2021.

Accumulated profit of EUR 9,504 k is reported in the financial year 2022. The Management Board and the Supervisory Board will propose to the Annual General Shareholders' Meeting on the 2022 financial statements on May 16, 2023, to distribute a dividend of EUR 9,504 k (EUR 0.15 per share carrying dividend rights).

22. Non-controlling interests in equity and net income

ElringKlinger AG holds less than 100% of the shares in some of the companies that have been included in the consolidated financial statements. In accordance with IFRS 10, the relevant non-controlling interests are reported under equity in the group statement of financial position, separately from the equity attributable to the shareholders of the parent company. Similarly, non-controlling interests in the net income and in total comprehensive income are reported separately in the group income statement and in the consolidated statement of comprehensive income.

23. Provisions for pensions

The pension obligations of most of the Group's foreign companies mainly take the form of defined contribution plans while in the case of domestic companies and the group company in Switzerland, pension obligations take the form of defined benefit and defined contribution plans.

Under the **defined contribution plans** the Company pays contributions to state or private pension schemes on the basis of statutory or contractual obligations or on a voluntary basis. Once the contributions are paid, the Company has no further obligations, such as follow-up contribution payments. Current contribution payments to the defined contribution plans are reported under personnel expenses in each reporting year; the Group's contribution payments totaled EUR 28,928 k (2021: EUR 27,255 k) and were allocated to the relevant function costs.

The Group accounts for **defined benefit plans** by creating provisions for pensions that are calculated using the projected unit credit method pursuant to IAS 19. Under the defined benefit plans, the employees receive life-long pension payments once they have reached a certain age or suffered disability. In addition, surviving dependents also receive benefits. The amount of the benefit is determined by the number of years with the Company and the final salary. For employees subject to collective bargaining, the eligible service period is limited to 30 years. For executive employees, the benefit is limited to 35% or 45% of the terminal salary, whereby in certain cases the benefits from prior commitments do not count towards this limit.

In the financial year 2011, the ElringKlinger AG's pension system was partially modified. In order to secure pension payments going forward, the obligations to certain executive employees were transferred to Allianz Pensionsfonds AG, Stuttgart, and a provident fund covered by plan assets, the Allianz Pensions-Management e. V., Stuttgart. This does not affect the amount of benefits. The assets held by the pension fund constitute plan assets as defined by IAS 19.8 and are thus netted with the obligation to the beneficiaries.

The pension plans of the Swiss Group company insure employees against the economic consequences of old age, disability and death. The pension benefits not covered by plan assets are covered by employer's pension liability insurance. No shortfall can arise from an agreement on an insured pension fund.

The obligations from the benefits granted are subject to certain risks. The main risks are interest rate risks, where falling market interest rates lead to a higher present value of the obligation in the future, inflation risks, which may lead to higher pension benefits and longevity risks where benefits are paid over a period longer than the one assumed in the mortality tables.

The following assumptions were used as a basis for measuring the Group's obligations.

Measurement as of	**Dec. 31, 2022**	**Dec. 31, 2021**
Discount rate (vesting period)	3.31%	0.97%
Discount rate (pension period)	3.30%	0.77%
Expected salary increases	3.03%	1.49%
Future pension increases	1.67%	1.45%

The changes in the present value of the defined benefit obligation are as follows:

EUR k	**2022**	**2021**
Present value of pension benefits as of Jan. 1	**173,620**	**187,963**
Current service cost	3,679	4,757
Plan participant contributions	1,927	1,627
Interest expense	1,592	825
Disbursements/utilization	-9,027	-7,547
Actuarial gains/losses	-42,682	-14,777
Past service cost	0	-526
Currency differences	1,167	1,405
Other changes	236	-107
Present value of pension benefits as of Dec. 31	**130,512**	**173,620**
of which (partially) covered by plan assets	33,156	48,223
of which not covered	97,356	125,397

The average weighted term of the defined benefit obligation is 14 years (2021: 18 years). Actuarial gains and losses arise from the following effects:

EUR k	2022	2021
Effects from changes in financial assumptions	-49,649	-12,655
Effects from changes in demographic assumptions	-5	-1,374
Effects from other experience-based adjustments	6,972	-748
Actuarial gains/losses	**-42,682**	**-14,777**

The table below shows the changes to the plan assets over the course of the financial year:

EUR k	2022	2021
Fair value as of Jan. 1	**32,924**	**31,028**
Interest income	220	103
Employer contributions	1,908	2,511
Plan participant contributions	1,927	1,627
Service costs	-5,049	-3,731
Actuarial gains/losses	188	363
Currency effects	1,038	1,023
Fair value as of Dec. 31	**33,156**	**32,924**

Plan assets comprise insurance claims. The plan assets and present values of defined benefit obligations are allocated to key countries as follows:

EUR k	2022	2021
Present value of pension benefits as of Dec. 31		
Germany	101,026	139,651
Switzerland	23,981	28,076
Other	5,505	5,893
Present value of pension benefits as of Dec. 31	**130,512**	**173,620**
Fair value of plan assets as of Dec. 31		
Germany	11,801	11,065
Switzerland	20,117	21,019
Other	1,238	840
Fair value of plan assets as of Dec. 31	**33,156**	**32,924**

The actual return on plan assets amounts to EUR 408 k (2021: EUR 466 k).

In 2023, liquidity is likely to be reduced due to contributions to plan assets and by direct Group benefit payouts, which are expected to amount to EUR 4,724 k (2022: EUR 4,101 k). The future payments from pension obligations are as follows:

EUR k	2022	2021
For the next 12 months	4,724	4,101
Between one and five years	17,807	15,935
More than five years	243,599	218,734

The following amounts are reported in the income statement for defined benefit plans:

EUR k	2022	2021
Current service cost	3,679	4,757
Net interest expenses	1,372	722
Past service cost	0	-526
Administrative expenses plan assets	14	15
Total pension expense	**5,065**	**4,968**

Net interest expenses comprise interest expenses of EUR 1,592 k (2021: EUR 825 k) as well as interest income from plan assets of EUR 220 k (2021: EUR 103 k).

The current service cost and past service cost are reported as part of the personnel expenses of the functional areas.

The full amount of actuarial gains and losses during the current year is reported under other comprehensive income. Changes are shown in the table below:

EUR k	2022	2021
Actuarial gains (–) and losses (+) recognized in other comprehensive income	-42,870	-15,140
Deferred taxes on actuarial gains (–) and losses (+) recognized under other comprehensive income	11,853	3,437

The amount of the Group's obligation as reported on the statement of financial position is derived as follows:

EUR k	2022	2021
Present value of the pension obligation	130,512	173,620
Fair value of plan assets	33,156	32,924
Reported pension provision	97,356	140,696

With regard to sensitivities, the key actuarial assumptions determined were the discount rate, salary increases and future pension developments. The sensitivity analyses are based on a change in an assumption in each case, keeping all other assumptions regarding the original calculation constant. Possible correlation effects between individual assumptions are not considered.

A 0.5% increase/decrease in the discount rate would lead to a decrease/increase in the DBO of EUR 8,239 k/EUR 9,189 k.

A 0.5% increase/decrease in future salary increases would lead to an increase/decrease in the DBO of EUR 1,698 k/EUR 1,740 k.

A change in future pension developments of +0.25%/-0.25% would lead to an increase/decrease in the DBO of EUR 3,415 k/EUR 3,271 k.

24. Other provisions

Other provisions can be broken down as follows:

EUR k	Dec. 31, 2022	Dec. 31, 2021
Current provisions	66,072	60,050
Non-current provisions	17,758	16,502
Total	**83,830**	**76,552**

Current provisions:

EUR k	Personnel obligations	Warranty obligations	Onerous contracts	Litigation costs	Other risks	Total
As of Dec. 31, 2021	**18,124**	**16,841**	**12,789**	**1,210**	**11,086**	**60,050**
Currency changes	89	-15	326	70	681	1,151
Utilization	7,119	5,725	6,714	46	220	19,824
Reversal	4,322	1,742	437	31	3,090	9,622
Unwinding of the discount/ discounting	-10	0	0	0	0	-10
Additions	11,533	10,506	9,865	1,442	505	33,851
Reclassifications	302	84	0	90	0	476
As of Dec. 31, 2022	**18,597**	**19,949**	**15,829**	**2,735**	**8,962**	**66,072**

Furthermore, in order to be able to successfully manage the transformation of mobility and the related challenges of change also in the future, provisions for obligations for personnel were recognized for the discontinuation of production activities at two German locations.

Current warranty obligations are counterbalanced by insurance reimbursement claims of EUR 362 k (2021: EUR 1,038 k). They are reported under other current assets. The addition to the provision of EUR 14,708 k in the financial year is attributable to the change in individual estimates of utilizations taking into account the contractual provisions in cooperation with the legal department and adjustments of the individual business unit-specific factor based on past experience for flat-rate provisions. Furthermore, specific individual matters were valued separately and additions made.

The increase in onerous contracts mainly results from the increase in commodity prices, particularly in Switzerland, the US and Spain.

Provisions for other risks cover, among other things, the risk of a customs duty audit in the US of EUR 7,197 k (2021: EUR 6,092 k). Provisions for other risks also include non-personnel-related obligations in connection with the discontinuation of production activities at two German locations.

Non-current provisions:

EUR k	Personnel obligations	Warranty obligations	Other risks	Total
As of Dec. 31, 2021	**14,443**	**206**	**1,853**	**16,502**
Currency changes	26	0	133	159
Utilization	541	13	0	554
Reversal	1,112	15	431	1,558
Unwinding of the discount/discounting	173	0	0	173
Additions	3,387	0	125	3,512
Reclassifications	-302	-174	0	-476
Held for sale	0	0	0	0
As of Dec. 31, 2022	**16,074**	**4**	**1,680**	**17,758**

Personnel provisions are recognized for phased retirement schemes, long-term service benefits and similar obligations.

The other risks relate to a variety of identifiable individual risks and uncertain obligations, which have been recognized as they are more likely than not to lead to an outflow of resources.

25. Non-current and current financial liabilities

EUR k	Domestic (Germany)	Foreign	Total Dec. 31, 2022	Domestic (Germany)	Foreign	Total Dec. 31, 2021
Overdrafts	44,901	1,412	46,313	25,350	1,546	26,896
Lease liabilities with a residual term of less than one year	5,690	11,215	16,905	5,913	10,418	16,331
Financial liabilities with a residual term of less than one year	3,230	6,975	10,205	85,571	6,723	92,294
Current financial liabilities	**53,821**	**19,602**	**73,423**	**116,834**	**18,687**	**135,521**
Lease liabilities with a residual term of more than one year and less than five years	7,588	14,177	21,765	8,159	16,382	24,541
Financial liabilities with a residual term of more than one year and less than five years	233,514	152,726	386,240	147,806	128,228	276,034
Lease liabilities with a residual term of more than five years	9,334	11,894	21,228	7,936	14,868	22,804
Financial liabilities with a residual term of more than five years	0	0	0	23,435	10,295	33,730
Non-current financial liabilities	**250,436**	**178,797**	**429,233**	**187,336**	**169,773**	**357,109**
Total	**304,257**	**198,399**	**502,656**	**304,170**	**188,460**	**492,630**

Lease liabilities from IFRS 16 are described in more detail in Note (28) Hedging policy and financial instruments.

The average interest rates were:

in %	Dec. 31, 2022	Dec. 31, 2021
Overdrafts:		
Domestic	5.42	1.07
Foreign	3.30	3.22
Financial liabilities:		
Domestic: less than one year	4.21	1.23
Domestic: more than one year and less than five years	1.39	1.25
Domestic: more than five years	0.65	1.66
Foreign: less than one year	5.04	1.96
Foreign: more than one year and less than five years	3.97	1.51
Foreign: more than five years	-	1.30

Fixed interest rates have been agreed for financial liabilities amounting to EUR 181,264 k (2021: EUR 287,449 k).

Land charges on company land with a carrying amount of EUR 126,528 k (2021: EUR 128,834 k) are recognized as collateral. The secured liabilities amounted to EUR 25,761 k (2021: EUR 16,755 k) as of December 31, 2022.

As of December 31, 2022, the Group had unused committed lines of credit amounting to EUR 232,644 k (2021: EUR 299,678 k).

On February 15, 2019, ElringKlinger AG concluded a syndicated loan with a banking syndicate of six national and international banks, which was joined by one more bank during 2019. The syndicate comprises Commerzbank, Landesbank Baden-Württemberg and Deutsche Bank, who have arranged the financing jointly. In addition, DZ Bank, HSBC, Banque Européenne du Crédit Mutuel and Credit Suisse (Schweiz) AG are also involved. The agreement comprises a group-wide volume totaling EUR 450,000 k and has a term until February 15, 2026.

An amount of EUR 244,300 k had been drawn as of December 31, 2022 (2021: EUR 171,523 k).

26. Current and non-current contract liabilities

Contract liabilities include long-term prepayments for customer-specific provisions of additional production capacity and short-term prepayments for customer-specific tools. As of December 31, 2022, the carrying amount of contract liabilities came to EUR 14,938 k (December 31, 2021: EUR 16,736 k). The decrease in current contract liabilities in the financial year 2022 was mainly due to the decrease in prepayments received on account of equipment of customer-specific systems and tools of EUR 4,466 k. Non-current contract liabilities increased by EUR 988 k.

27. Trade payables and other current and non-current liabilities

Trade payables and other non-current and current liabilities include open obligations from the exchange of goods and services.

The carrying amounts of trade payables approximate their fair value.

The trade payables and other current and non-current liabilities are not secured except for the retentions of title that are customary in trading relationships.

In addition to the ABCP program, ElringKlinger also uses the reverse factoring program to improve liquidity. As part of the reverse factoring program, suppliers can assign their receivables from the ElringKlinger Group's entities to the offering financing banks for a discount to receive the discounted invoice amount at an early stage. The ElringKlinger Group's entities settle the invoice amount at the originally agreed due date with the financing bank.

There are no civil law effects because a reclassification of trade payables to another type of liabilities in the statement of financial position is not required. Due to the relationship with the operating activities, the payments to the financing bank continue to be reported under cash flow from operating activities.

As of December 31, 2022, there were trade payables of EUR 224,102 k (2021: EUR 185,599 k). This included EUR 1,891 k (2021: EUR 0 k) for which the ElringKlinger Group has concluded reverse factoring agreements. EUR 1,800 k (2021: EUR 0 k) of this was actually utilized.

Other current liabilities to third parties contain financial liabilities of EUR 71,750 k (2021: EUR 57,387 k).

As of December 31, 2022, government grants of EUR 5,427 k (2021: EUR 5,632 k) were recognized as deferred income. This includes an investment allowance and a repayment allowance for a loan. These grants were provided for property, plant and equipment, particularly buildings and machinery at the locations in Dettingen/Erms, Germany, and Kecskemét-Kádafalva, Hungary. In the reporting period, a total of EUR 188 k (2021: EUR 204 k) of the deferred item was released through profit or loss. The release takes place in cost of sales.

28. Hedging policy and financial instruments

Risks and hedging policy

As a consequence of the international nature of the activities of the ElringKlinger Group, changes in exchange rates, interest rates and prices of raw materials impact the financial performance, net assets and cash position of the Group. The risks arise from currency and interest rate fluctuations in connection with business operations and financing. Further risks result from fluctuations in the market prices of raw materials. Additionally, there are liquidity risks which relate to credit and market risks or accompany a deterioration of business operations and financial market turmoil.

By concluding hedges, the Management Board of ElringKlinger AG aims to manage the risk factors that may adversely affect the financial performance, net assets and cash position and thus to minimize these influences. Within the ElringKlinger Group, derivative financial instruments may only be entered into with the consent of the Management Board. Hedge accounting in accordance with IFRS 9 was not applied.

Currency risk

Due to the international nature of its business, the ElringKlinger Group is exposed to currency risks in the normal course of business.

Exchange rate risk arises for the Group in relation to its operating business principally when sales revenue is generated in a currency other than that in which the related costs are incurred. Sales revenue is generally generated in the functional currency (which is the relevant local currency) of the Group entity concerned. In order to reduce currency risks from operating business, the purchases of goods, raw materials and services as well as investing and financing activities are generally accounted for in the functional currency of the group entity. The group also endeavors to minimize its foreign currency risk by manufacturing its products in the relevant local sales markets.

Furthermore, to reduce the exchange rate risk, the central treasury department uses hedging instruments depending on the requirement and the risk profile. Subsidiaries are not permitted to take out financing in foreign currency or to invest it for speculative reasons. Intercompany financing and investment is usually denominated in the relevant functional currency.

Several ElringKlinger AG subsidiaries are domiciled outside the euro area. Since the euro is the reporting currency of the ElringKlinger Group, the income and expenses of these subsidiaries are translated into euros upon consolidation. Changes in the closing rates and changes in the closing rates compared to the average rates and historical rates can give rise to currency translation effects that are reflected in the equity of the Group under other comprehensive income.

Due to the inclusion of subsidiaries, the group also recognizes assets and liabilities relating to these subsidiaries outside of the euro area that are denominated in national currencies. When these assets are translated into euros, exchange rate fluctuations can lead to changes in value. The changes in these net assets are reflected in group equity under other comprehensive income.

A sensitivity analysis has been conducted in order to quantify the potential effects of exchange rate changes on consolidated net income. This analysis illustrates the change in consolidated net income in the event that the relevant functional currency of the Group companies appreciates or depreciates by 10% as compared to the foreign currency.

Dec. 31, 2022
EUR k

Local currency	EUR	USD	CHF	GBP	MXN	Other	Total
Local currency +10%							
Consolidated net income/net loss for the year	-32,638	6,226	5,249	1,969	1,402	2,288	-15,504
Local currency -10%							
Consolidated net income/net loss for the year	34,613	-6,226	-5,249	-1,969	-1,402	-2,288	17,479

Dec. 31, 2021
EUR k

Local currency	EUR	USD	CHF	MXN	GBP	Other	Total
Local currency +10%							
Consolidated net income/net loss for the year	-7,727	4,495	3,608	2,688	1,616	2,205	6,885
Local currency -10%							
Consolidated net income/net loss for the year	5,576	-4,495	-3,608	-2,688	-1,616	-2,205	-9,036

Interest rate risk

Interest rate risk arises primarily from financial liabilities that are subject to a floating rate of interest. The Group manages interest rate risk with the objective of optimizing its interest income and expense.

Variable interest rates have been agreed for most of the financing liabilities of the ElringKlinger Group.

Had market interest rates been 100 basis points higher as of December 31, 2022 (2021: 30 basis points), earnings would have been EUR 2,758 k (2021: EUR 493 k) lower. Had market interest rates been 100 basis points lower, earnings would have been EUR 396 k (2021: EUR 77 k) lower. Compared to the previous year, the calculation basis was raised from 30 basis points to 100 basis points due to the increase in interest rates.

Risk arising from prices for raw materials

ElringKlinger is exposed to risks from changes in the prices for the raw materials it uses in production. Where necessary, it is possible to hedge reasonable procurement prices by means of derivative hedging transactions.

ElringKlinger processes a significant volume of high-grade stainless steels. This includes alloy surcharges, in particular for nickel, which is a listed metal subject to market price fluctuations. ElringKlinger uses derivative financial instruments to hedge portions of alloy surcharges assessed in cost calculations. A price corridor surrounding the average calculation cost is hedged. If the quoted exchange price of nickel exceeds the upper range of the corridor, ElringKlinger receives a compensatory payment. If the quoted exchange price of nickel falls below the lower range of the corridor, ElringKlinger has to pay a surcharge. In the previous year, there was a nickel hedging transaction totaling 30 mt nickel; this hedging transaction ended on March 31, 2022. There were no nickel hedging transactions as of the reporting date.

The Group manages the credit risk of derivatives by entering into derivative financial transactions exclusively with major banks of impeccable creditworthiness in accordance with uniform guidelines.

Credit risk

Credit risk defines the risk of economic loss arising from a counterparty's failure to satisfy contractual payment obligations.

Credit risk involves both the direct risk of default and the risk of a deterioration in creditworthiness as well as risks of a concentration of individual risks. The maximum risk exposures of financial assets generally subject to credit risk correspond to their carrying amounts and can be described as follows:

Liquid funds

Liquid funds comprise primarily bank deposits available on demand. The ElringKlinger Group is exposed to losses from credit risks in connection with the investment of liquid funds if financial institutions fail to meet their obligations (counterparty risk). In order to minimize this risk, care is taken in selecting the financial institutions at which deposits are made. The maximum risk exposure corresponds to the carrying amount of the liquid funds at the end of the reporting period.

Trade receivables

Trade receivables relate primarily to the global sales of gaskets, sealing materials, plastic products and modules for the automotive sector and for the manufacturing industry in general. Credit risk resides in the possibility of counterparty default, and is characterized by the Group's customer base, which includes a number of key accounts.

In domestic business, most receivables are secured by retention of title. In order to limit credit risk, credit checks in the form of inquiries with credit information services are performed for selected counterparties. Moreover, internal processes are in place to continually monitor receivables where partial or complete default may be anticipated.

As part of an ABCP program, the ElringKlinger Group sells a part of trade receivables to a structured entity. The receivables are sold on a revolving basis at the nominal value of the receivables less variable reserves. The financing volume committed under the ABCP program is EUR 100,000 k. The structured entity is not controlled and therefore not consolidated.

As of December 31, 2022, trade receivables with a carrying amount of EUR 72,918 k (2021: EUR 66,355 k) were sold. They were derecognized with the exception of the continuing involvement of EUR 2,039 k (2021: EUR 1,458 k). A corresponding liability was recognized in the same amount. In connection with the provisional withholding of variable reserves, other current assets of EUR 15,944 k (2021: EUR 15,275 k) are reported as of December 31, 2022. In addition, customer payments received for receivables sold, which have not yet been passed on to the purchaser of the receivables, of EUR 22,902 k (2021: EUR 24,574 k) are reported under other current liabilities.

In its export business, ElringKlinger also assesses the credit standing of its counterparties by submitting inquiries to credit information services and on the basis of the specific country risk. In addition, credit insurance policies are taken out or letters of credit are required in certain cases. Trade receivables of EUR 24,748 k (2021: EUR 24,276 k) are secured by credit insurance policies.

Allowances are also recognized in respect of identifiable individual risks. The maximum risk exposure from trade receivables corresponds to the carrying amount of these receivables at the end of the reporting period. The carrying amounts of trade receivables, together with disclosures on valuation allowances, can be found under Note (19).

In 2022, the two largest customers accounted for 9.3% and 7.8% of sales (2021: 9.3% and 7.7%).

Liquidity risk

The solvency and liquidity of the ElringKlinger Group is constantly monitored by liquidity planning. Furthermore, a cash liquidity reserve and guaranteed credit lines ensure solvency and liquidity. Reference is also made to the financing risks presented in the risk report as part of the Group management report of the ElringKlinger Group (Opportunity and risk report – Financial risks – Liquidity and financing risks).

Expected cash outflows

The following table shows all contractually fixed payments for redemptions, repayments and interest from financial liabilities recognized in the statement of financial position, including derivative financial instruments that have a negative market value.

EUR k	Trade payables	Financial liabilities	Liabilities from IFRS 16	Derivatives	Other current liabilities	Total
As of Dec. 31, 2022						
Carrying amount	**224,102**	**442,757**	**59,898**	**0**	**71,750**	**798,507**
Expected cash outflows:	**224,102**	**442,757**	**72,321**	**0**	**71,750**	**810,930**
– less than one month	139,243	45,651	1,322	0	0	186,216
– between one and three months	80,882	6,199	2,643	0	17,902	107,626
– between three months and one year	2,554	4,667	11,894	0	53,848	72,963
– between one and five years	1,271	386,240	28,809	0	0	416,320
– more than five years	152	0	27,653	0	0	27,805

EUR k	Trade payables	Financial liabilities	Liabilities from IFRS 16	Derivatives	Other current liabilities	Total
As of Dec. 31, 2021						
Carrying amount	**185,599**	**428,953**	**63,676**	**0**	**57,387**	**735,615**
Expected cash outflows:	**185,599**	**428,953**	**67,266**	**0**	**57,387**	**739,205**
– less than one month	121,405	25,531	1,242	0	0	148,178
– between one and three months	59,823	7,564	2,483	0	13,354	83,224
– between three months and one year	3,891	86,094	11,174	0	44,033	145,192
– between one and five years	316	286,329	27,200	0	0	313,845
– more than five years	164	23,435	25,167	0	0	48,766

Further disclosures on financial liabilities are provided under note (25).

29. Additional information on financial instruments

This section provides a comprehensive overview of the significance of financial instruments and offers additional information on line items of the statement of financial position containing financial instruments. No recognized financial instruments were offset.

The following table shows the carrying amounts (CA) and fair values (FV) of financial assets:

	Cash and cash equivalents	Trade receivables	Other current assets
EUR k	CA	CA	CA
As of Dec. 31, 2022			
Financial assets measured at amortized cost	119,103	264,854	23,538
Financial assets at fair value through profit or loss	0	0	19,943
Financial assets at fair value through other comprehensive income	0	0	0
Total	**119,103**	**264,854**	**43,481**
As of Dec. 31, 2021			
Financial assets measured at amortized cost	109,900	233,478	17,297
Financial assets at fair value through profit or loss	0	0	29,962
Financial assets at fair value through other comprehensive income	0	0	0
Total	**109,900**	**233,478**	**47,259**

The following table shows the carrying amounts (CA) and fair values (FV) of financial liabilities:

	Other current liabilities	Current financial liabilities	Short-term lease liabilities IFRS 16	Trade payables
EUR k	CA	CA	CA	CA
As of Dec. 31, 2022				
Financial liabilities measured at amortized cost	71,750	56,517	16,905	224,102
Financial liabilities measured at fair value through profit or loss	0	0	0	0
As of Dec. 31, 2021				
Financial liabilities measured at amortized cost	57,387	119,190	16,331	185,599
Financial liabilities measured at fair value through profit or loss	0	0	0	0

	Derivatives	Non-current securities		Other financial investments		Total
	CA	CA	FV	CA	FV	CA
	0	1,311	1,313	8	8	408,814
	172	0	0	11,990	11,990	32,105
	0	216	216	8	8	224
	172	**1,527**	**1,529**	**12,006**	**12,006**	**441,143**
	0	1,438	1,447	2,008	2,008	364,121
	79	0	0	11,992	11,992	42,033
	0	86	86	8	8	94
	79	**1,524**	**1,533**	**14,008**	**14,008**	**406,248**

	Derivatives		Non-current financial liabilities		Long-term lease liabilities IFRS 16	Total
	CA	FV	CA	FV	CA	CA
	0	0	386,240	243,542	42,993	798,507
	11,888	11,888	0	0	0	11,888
	0	0	309,764	271,462	47,345	735,616
	121	121	0	0	0	121

Management determined that the carrying amounts of cash, trade receivables, other current assets, trade payables, other current financial liabilities and other current liabilities are virtually the same as their fair value, primarily as a result of the short-term nature of these instruments.

Other current assets also contain time deposits and securities of EUR 19,310 k (December 31, 2021: EUR 13,494 k) as well as the short-term portion of the outstanding contribution measured at present value from Plastic Omnium of EUR 19,943 k (2021: EUR 29,962 k).

ElringKlinger determines the market value of non-current fixed-interest liabilities to banks and derivatives by discounting expected future cash flows with the current prevailing interest rates for similar financial liabilities with comparable residual terms and the company-specific risk rate.

Other current liabilities contain a liability of EUR 38,102 k (December 31, 2021: EUR 38,465 k) resulting from the written put option on non-controlling interests of ElringKlinger Marusan Corporation, Tokyo, Japan. The obligation that results from this agreement is measured at acquisition cost in the amount of its fair value. The fair value is calculated using internal estimates made when forecasting business development as well as when selecting the interest rate used regarding the liability recognized. A 10% change in the business value causes the put option to increase/decrease by approximately EUR 3,810 k (December 31, 2021: EUR 3,846 k).

Equity instruments of the measurement category **at fair value recognized through other comprehensive income**:

EUR k	Fair value Dec. 31, 2022	Fair value Dec. 31, 2021
Non-current securities	216	86
Other financial investments	8	8
Total	**224**	**94**

Financial assets and liabilities measured at fair value are classified into the following 3-level fair value hierarchy as of the valuation date December 31, 2022:

EUR k	Level 1	Level 2	Level 3
Dec. 31, 2022			
Financial assets			
Non-current securities	216	0	0
Other financial investments	8	0	11,990
Derivatives*	0	172	0
Total	**224**	**172**	**11,990**
Financial liabilities			
Derivatives*	0	121	0
Total	**0**	**121**	**0**

EUR k	Level 1	Level 2	Level 3
Dec. 31, 2021			
Financial assets			
Non-current securities	86	0	0
Other financial investments	8	0	11,992
Derivatives*	0	79	0
Total	**94**	**79**	**11,992**
Financial liabilities			
Derivatives*	0	121	0
Total	**0**	**121**	**0**

* These are derivatives which do not meet the prerequisites for hedge accounting.

The following table presents the allocation of financial assets and liabilities not measured at fair value, but for which fair value is disclosed, to the 3-level fair value hierarchy as of the measurement date December 31, 2022:

EUR k	Level 1	Level 2	Level 3
Dec. 31, 2022			
Financial assets			
Non-current securities	1,313	0	0
Other financial investments	0	0	8
Total	**1,313**	**0**	**8**
Financial liabilities			
Non-current financial liabilities	0	243,542	0
Purchase price liability from written put option	0	0	38,102
Total	**0**	**243,542**	**38,102**
Dec. 31, 2021			
Financial assets			
Non-current securities	1,447	0	0
Other financial investments	0	0	2,008
Total	**1,447**	**0**	**2,008**
Financial liabilities			
Non-current financial liabilities	0	271,462	0
Purchase price liability from written put option	0	0	38,465
Total	**0**	**271,462**	**38,465**

The levels of the fair value hierarchy are defined as follows:
Level 1: Measurement based on market prices.
Level 2: Measurement based on market prices for similar instruments on the basis of measurement models based on inputs that are observable on active markets.
Level 3: Measurement based on inputs for assets and liabilities not representing observable market data.

The fair value (equity value) of the minority interest in Aerostack GmbH, Dettingen/Erms, Germany of EUR 5,311 k (2021: EUR 4,200 k) is determined using a discounted cash flow model taking account of probability-weighted scenarios. The weighted average cost of capital (WACC) applied for the valuation is 10.40% (2021: 9.91%). Assuming a successful implementation of the business plan, the terminal value is determined by applying a terminal growth rate (TGR) of 2.0% (2021: 2.0%). The WACC and TGR sensitivities calculated for the parameters are presented in the following table:

		+0.5% points	-0.5% points
WACC	10.40%	10.90%	9.90%
Equity value	5,311	4,510	6,516
		+0.5% points	-0.5% points
TGR	2.00%	2.50%	1.50%
Equity value	5,311	5,694	5,190

The fair value of the bullet, interest-free, non-fungible or non-transferable promissory note to this company with a nominal amount of EUR 5,689 k (2021: EUR 6,800 k) is measured taking into account an expected successive contribution to the equity of the company in the course of capital increases in the years 2022 to 2024 and a risk-equivalent and maturity-specific cost of debt of 7.65% (2021: 2.9%). The fair value amounts to EUR 4,877 k (2021: EUR 6,347 k). An increase or decrease in cost of debt of 0.5% results, all other things being equal, in a fair value of EUR 4,830 k or EUR 4,923 k, respectively.

An assessment is made at the end of every reporting period as to whether the assets and liabilities accounted for at fair value have been transferred between the levels of the fair value hierarchy.

The liabilities of fair value level 3 developed as follows:

EUR k	2022	2021
As of Jan. 1	**38,465**	**36,913**
Change in fair value	-363	1,552
As of Dec. 31	**38,102**	**38,465**

Net gains/losses on financial instruments:

EUR k	2022	2021
At fair value recognized in profit or loss*	-11,718	-8,334
Financial assets measured at amortized cost	-578	11,655
Financial liabilities measured at amortized cost	8,540	6,468

* These are derivatives which do not meet the prerequisites for hedge accounting.

Net gains and losses from derivatives include the effects from changes in market values, which were recorded in full in profit or loss for the period.

Net gains and losses from financial assets measured at amortized cost primarily consist of currency effects. Net gains from financial liabilities measured at amortized cost include currency effects.

Total interest income and expenses for financial assets and financial liabilities not measured at fair value through profit or loss are as follows:

EUR k	2022	2021
Total interest income	1,140	1,576
Total interest expense	-13,662	-9,176

As in the previous year, total interest income does not contain any interest income from impaired financial assets.

30. Leases

The following amounts are reported in the income statement for leases:

EUR k	2022	2021
Cost of sales		
Expenses relating to short-term leases	1,498	1,557
Expenses from small ticket leases	196	114
Expenses from variable lease payments	0	5
Other expenses from leases (ancillary costs)	149	268
Depreciation		
Depreciation of right-of-use assets	15,473	15,043
Net finance costs		
Interest expenses from lease liabilities	1,077	972

Information on expected cash outflows is contained in note (28) Hedging policy and financial instruments.

31. Capital management

The Management Board believes that the Group's sound financial base is a prerequisite for further growth. The Group's solid capital resources render it possible to invest in future organic growth, as well as in external growth.

The Supervisory Board and the Management Board of the parent company have set a target equity ratio of 40% to 50% within the Group. ElringKlinger AG's Articles of Association do not define any capital requirements.

The Management Board is authorized to buy back company shares up to a total amount of 10% of share capital existing at the date on which this resolution was passed (July 7, 2020). The authorization is valid until July 7, 2025. There are no share option programs that impact the capital structure.

The following table presents changes in equity, debt and total capital as of December 31, 2022 as compared to December 31, 2021.

EUR million	2022	2021
Equity	**896.8**	**982.3**
as % of total capital	43.82%	47.00%
Non-current liabilities	579.9	546.2
Current liabilities	569.8	561.5
Liabilities	**1,149.7**	**1,107.7**
as % of total capital	56.18%	53.00%
Total capital	**2,046.5**	**2,090**

The change in equity from December 31, 2021 to December 31, 2022 was due primarily to the net loss for the period. Debt increased year on year by 3.18%.

At 43.82%, the Group equity ratio exceeded the 40% target equity ratio set by the Supervisory Board and Management Board.

For one loan at a subsidiary, financial covenants have been agreed upon. These affect the equity ratio and gearing factor. If these covenants are breached, the terms of the loan change and the loan becomes immediately callable.

As in the previous year, as of December 31, 2022 there were no issues prevailing that would have justified banks exercising their unilateral right of termination. The Management Board expects that the financial covenants agreed will be achieved in the financial year 2023.

32. Notes to the statement of cash flows

The group statement of cash flows shows how the liquidity of the ElringKlinger Group has changed as a result of cash inflows and outflows in the course of the financial year. In accordance with IAS 7, cash flows are categorized as cash flows from operating activities, investing activities or financing activities.

The cash reported in the statement of cash flows comprises the liquid funds reported in the statement of financial position.

Cash flows from investing and financing activities are determined by reference to payments. By contrast, cash flows from operating activities are derived indirectly from earnings before taxes for the year. For the indirect computation, effects from currency translation and changes to the basis of consolidation are eliminated from the changes to the items of the statement of financial position arising from operating activities. For this reason, it is not possible to reconcile the changes in the relevant items of the statement of financial position with the corresponding figures in the published group statement of financial position.

Change in liabilities from financing activities:

EUR k	Non-current financial liabilities	Current financial liabilities
Dec. 31, 2021	357,109	135,521
Changes in cash	72,423	-83,191
Exchange rate differences	9,199	130
Non-cash changes*	-9,498	20,963
Dec. 31, 2022	**429,233**	**73,423**
Dec. 31, 2020	391,920	205,257
Changes in cash	49,920	-179,525
Exchange rate differences	8,612	3,934
Non-cash changes*	-93,343	105,855
Dec. 31, 2021	**357,109**	**135,521**

*This primarily includes reclassifications between non-current and current financial liabilities and lease-related matters.

Cash outflows from leases are contained in the statement of cash flows as follows:

EUR k	2022	2021
Repayments for lease liabilities (cash flow from financing activities)	15,473	14,858
Interest paid (cash flow from operating activities)	1,077	972
Short-term or small ticket leases (cash flow from operating activities)	1,694	1,671
Expenses from variable lease payments	0	5
Total	**18,244**	**17,506**

33. Segment reporting

The organizational and internal reporting structure of the ElringKlinger Group is centered around its four business fields. Accordingly, the segments are defined as "Original Equipment", "Aftermarket", "Engineered Plastics" and "Other".

The activities in the "Original Equipment" and "Aftermarket" reporting segments relate to the manufacturing and distribution of parts and components for the engine, transmission and exhaust system and lightweight plastic components in motor vehicles (powertrain), as well as battery and fuel cell components and tools machining.

The "Engineered Plastics" segment manufactures and distributes technical products made of high-performance PTFE plastics for the vehicle and general industrial sectors.

The "Consolidation" column in the "Segment reporting" table below provides an overview of consolidation entries between the segments. Internal control and reporting are based on IFRS. With the exception of the Original Equipment segment's provision of supplies to the Aftermarket segment, the extent of trade between the individual segments is insignificant. The exchange of goods and/or services between the segments takes place at arm's-length prices.

The Original Equipment segment contains an impairment loss of EUR 103,388 k (2021: EUR 1,518 k).

9.3% or EUR 167,300 k of the Group sales revenue (2021: 9.3% or EUR 151,200 k) was generated with one customer in the Original Equipment segment.

Segment reporting

Segment	Original Equipment		Aftermarket		Engineered Plastics	
EUR k	2022	2021	2022	2021	2022	2021
External revenue	**1,411,425**	**1,280,358**	**250,870**	**214,698**	**132,620**	**125,359**
Intersegment revenue	27,616	27,674	0	0	155	110
Segment revenue	**1,439,041**	**1,308,032**	**250,870**	**214,698**	**132,775**	**125,469**
EBIT[1]	**-111,026**	**36,913**	**50,239**	**42,165**	**19,709**	**23,725**
Depreciation and amortization[2]	100,872	100,103	2,989	3,131	6,902	6,945
Capital expenditures[3]	92,421	92,333	6,046	3,024	5,040	6,585
Segment assets	1,759,216	1,828,165	156,920	133,253	142,918	141,828

Segment	Other		Consolidation		Group	
EUR k	2022	2021	2022	2021	2022	2021
External revenue	**3,515**	**3,974**	**0**	**0**	**1,798,430**	**1,624,389**
Intersegment revenue	11,560	9,696	-39,331	-37,480	0	0
Segment revenue	**15,075**	**13,670**	**-39,331**	**-37,480**	**1,798,430**	**1,624,389**
EBIT[1]	**-1,153**	**-773**	**0**	**0**	**-42,231**	**102,030**
Depreciation and amortization[2]	2,381	2,381	0	0	113,144	112,560
Capital expenditures[3]	1,132	771	0	0	104,639	102,713
Segment assets	29,755	32,856	-42,229	-46,102	2,046,580	2,090,000

[1] Earnings before interest and taxes
[2] Depreciation and amortization
[3] Investments in intangible assets and property, plant and equipment

Segment reporting by region

Region EUR k		Sales revenues[1]	Non-current assets	Investments
Germany	2022	365,926	442,807	56,961
	2021	346,712	543,672	66,949
Rest of Europe	2022	526,619	227,492	8,580
	2021	488,776	229,345	9,379
North America	2022	462,844	221,870	24,483
	2021	393,703	213,716	11,936
Asia-Pacific	2022	354,483	177,159	12,678
	2021	325,354	189,673	12,911
South America and rest of the world	2022	88,558	16,870	1,937
	2021	69,844	14,924	1,538
Group	**2022**	**1,798,430**	**1,086,198[2]**	**104,639**
	2021	**1,624,389**	**1,191,330[2]**	**102,713**

[1] The location of the customer is used to determine allocation of sales revenues to the regions.
[2] This includes financial assets of EUR 13,533 k (2021: EUR 15,532 k).

Other disclosures

Contingent liabilities

As in the previous year, the ElringKlinger Group does not have any contingent liabilities stemming from guarantees, performance bonds or bills of exchange issued.

Other financial commitments

Energy purchase commitments

EUR k	Dec. 31, 2022	Dec. 31, 2021
Less than one year	21,254	17,790
More than one year and less than five years	306	9,735
More than five years	336	373
Total	**21,896**	**27,898**

Proceeds from lease agreements

ElringKlinger acts as lessor in a number of business relationships. They are operating leases, for which the significant risks and opportunities associated with the ownership remain with ElringKlinger. They primarily include leasing out unused factory buildings and space. The lease income of EUR 1,068 k (2021: EUR 966 k) is included in other operating income. The future lease payments due to ElringKlinger from lease contracts from letting break down as follows:

EUR k	Dec. 31, 2022	Dec. 31, 2021
Less than one year	984	213
More than one year and less than five years	2,899	294
More than five years	8	0
Total	**3,891**	**507**

Contingent assets and liabilities

As of the reporting date, there were no contingent assets and liabilities.

Number of employees

The average number of employees during the year in the ElringKlinger Group was 9,480 (2021: 9,553) (excluding Management Board members). The figure for the previous year was restated accordingly because working students had been included.

Personnel expenses

Personnel expenses in the reporting year amounted to EUR 565,535 k (2021: EUR 526,579 k) and break down as follows:

EUR k	Dec. 31, 2022	Dec. 31, 2021
Wages and salaries	490,856	456,844
Social security contributions	66,100	61,512
Post-employment benefit	8,579	8,223
Total	**565,535**	**526,579**

Personnel expenses contain public grants related to income in Germany and Switzerland of EUR 177 k (2021: EUR 6,069 k) in connection with the utilization of government-subsidized short-time work allowances and the associated reimbursement of social security contributions.

Related-party disclosures

Transactions between the parent company, ElringKlinger AG, and its subsidiaries are eliminated in the course of consolidation and are therefore not discussed in this note. Other than these, the following business relationships exist between companies of the ElringKlinger Group and related parties and companies controlled by related parties:

Cooperation agreement between ElringKlinger AG and Lechler GmbH, Metzingen, concerning traineeships. ElringKlinger AG earned EUR 53 k during the reporting year (2021: EUR 29 k). There were no receivables as of the reporting date (2021: EUR 12 k).

Supply agreement between Lechler GmbH and KOCHWERK Catering GmbH, (EKKW), Dettingen/Erms, a wholly owned subsidiary of ElringKlinger AG. EKKW supplies Lechler GmbH with canteen food. The income of EKKW amounted to EUR 132 k in the reporting year (2021: EUR 101 k). As of the reporting date, outstanding receivables came to EUR 10 k (2021: EUR 9 k).

Agreement between ElringKlinger Logistic Service GmbH, Rottenburg-Ergenzingen (EKLS), and Lechler GmbH, Metzingen, regarding assembly activities and the storage of components. This agreement gave rise to EUR 559 k in sales revenue during the reporting year (2021: EUR 562 k). As of December 31, 2022, there were open receivables of EUR 49 k (2021: EUR 42 k).

Business relations between the ElringKlinger subsidiary, Changchun ElringKlinger Ltd., Changchun, China, (CEK), and Changchun Hongyu Automobile Parts Co., Ltd. (CHYAP), based in Changchun, China, controlled by Ms. Liu, a close relative of Mr. Huang, who is a joint partner in CEK. CEK procured EUR 39 k worth of services in these business relationships in 2022 (2021: EUR 15 k). As of December 31, 2022, there are liabilities of EUR 3 k (2021: EUR 2 k).

Relationships in the course of ordinary activities exist between various subsidiaries of hofer AG, Nürtingen, and the ElringKlinger subsidiary hofer powertrain products GmbH, Dettingen/Erms, as well as hofer powertrain products UK Ltd., Warwick, UK. The business relationships pertain to services received and other expenses of EUR 870 k (2021: EUR 4,121 k). Outstanding liabilities come to EUR 5,653 k as of December 31, 2022 (2021: EUR 6,157 k). At EUR 698 k (2021: EUR 3,873 k), the services received mainly relate to services for sales, project management and product development and an amount of EUR 82 k (2021: EUR 248 k) for a rent agreement which expires on April 30, 2022 between hofer powertrain products GmbH, Dettingen/Erms and the subsidiary of hofer AG, hofer Immobilien UG & Co. KG, Nürtingen, for the rent of office and production space in Nürtingen. The goods and services received and other expenses are counterbalanced by income from development services rendered or from the delivery of machines and tools of EUR 19,321 k (2021: EUR 25,129 k). Outstanding liabilities come to EUR 4,167 k (2021: EUR 20,356 k) as of December 31, 2022.

The salaries of the employee representatives to the Supervisory Board are in line with market conditions.

Corporate Bodies

Supervisory Board

Klaus Eberhardt Lindau, Chairman	Independent consultant, Lindau Former CEO of Rheinmetall AG, Düsseldorf **Governance roles:** a) n/a b) n/a
Markus Siegers* Nürtingen, Deputy Chairman	Chairman of the Works Council of ElringKlinger AG, Dettingen/Erms **Governance roles:** a) n/a b) n/a
Ingeborg Guggolz Dachsberg from May 19, 2022	General manager of Lechler- und Klaus-Lechler Beteiligungsgesellschaften, Neuhausen a.d.F. **Governance roles:** a) n/a b) n/a
Rita Forst Dörsdorf until May 19, 2022	Independent consultant, Dörsdorf Former member of the Management Board of Adam Opel AG, Rüsselsheim **Governance roles:** a) NORMA Group SE, Maintal b) AerCap Holdings N. V., Dublin, Ireland Iwis SE & Co. KG, Munich Westport Fuel Systems Inc., Vancouver, Canada Johnson Matthey plc, London, UK
Andreas Wilhelm Kraut Balingen	Chairman and CEO of Bizerba SE & Co. KG, Balingen **Governance roles:** a) n/a b) n/a
Helmut P. Merch Meerbusch	Member of the Management Board of Rheinmetall AG **Governance roles:** a) Rheinmetall Automotive AG, Neckarsulm b) 4iG, Hungary Rheinmetall Denel Munition (PTY) Ltd., Somerset, South Africa

Gerald Müller* Reutlingen	Second Authorized Representative and Treasurer of IG-Metall Reutlingen-Tübingen, Reutlingen **Governance roles:** a) n/a b) n/a
Paula Monteiro-Munz* Grabenstetten	Deputy Chairwoman of the Works Council of ElringKlinger AG, Dettingen/Erms **Governance roles:** a) n/a b) n/a
Barbara Resch* Stuttgart	Secretary of IG Metall Baden-Württemberg **Governance roles:** a) Schaeffler AG, Herzogenaurach Rheinmetall AG, Düsseldorf b) n/a
Gabriele Sons Berlin	Lawyer, Berlin Former member of the Management Board of thyssenkrupp Elevator AG, Essen **Governance roles:** a) Grammer AG, Ursensollen b) Accelleron Industries AG, Baden, Switzerland
Manfred Strauß Stuttgart	Managing Partner of M&S Messebau und Service GmbH, Neuhausen a.d.F. **Governance roles:** a) n/a b) Lechler GmbH, Metzingen Eroca AG, Basel, Switzerland
Bernd Weckenmann* Reutlingen	Vice President Procurement and Supply Chain Management of ElringKlinger AG, Dettingen/Erms **Governance roles:** a) n/a b) n/a
Olcay Zeybek* Bad Urach	Head of Accounting of ElringKlinger AG, Dettingen/Erms **Governance roles:** a) n/a b) n/a

* Employee representative
a) Membership in statutory Supervisory Boards as defined by Section 125 AktG
b) Membership in comparable domestic and foreign control bodies as defined by Section 125 AktG

Remuneration of the Supervisory Board

In the reporting period, total compensation for the Supervisory Board of ElringKlinger AG was EUR 868 k (2021: EUR 859 k). Additionally, travel expenses totaling EUR 1 k (2021: EUR 1 k) were reimbursed. The remuneration of the employee representatives on the Supervisory Board amounted to EUR 764 k in the financial year 2022 (2021: EUR 677 k) for their activities as employees.

Management Board

Dr. Stefan Wolf, Bad Urach, Chairman	until March 31, 2022: Responsible for Group companies, the corporate units of Legal Affairs, Human Resources, Global Strategy M&A and Innovations, Strategic Communications, Marketing & Communications and Sales as well as the Aftermarket business unit from April 1, 2022: Responsible for the corporate units Legal & Compliance, Human Resources, Strategic Communications, Marketing & Communications, Sales Original Equipment, the Aftermarket business unit and the Group entities (shared responsibility in the Management Board)
Theo Becker, Metzingen	until exit on March 31, 2022: Responsible for the business units Battery Technology & E-Mobility, Fuel Cell and Drivetrain as well as the corporate units Real Estate & Facility Management, Product Risk Management as well as Toolshop/Technology
Reiner Drews, Dettingen/Erms	until March 31, 2022: Responsible for the business units Lightweighting/Elastomer Technology, Shielding Technology, Metal Sealing Systems & Drivetrain Components as well as the corporate units of Production, Quality & Environmental Management as well as the German locations ElringKlinger AG from April 1, 2022: Responsible for the business units Lightweighting/Elastomer Technology, Metal Forming & Assembly Technology, Metal Sealing Systems & Drivetrain Components and the corporate units Production, Quality & Sustainability, Real Estate & Facility Management, Product Risk Management, Toolshop/Technology, the German locations of ElringKlinger AG and the Group entities (shared responsibility in the Management Board)

Thomas Jessulat, Stuttgart	until March 31, 2022: Responsible for the corporate units Finance, Controlling, IT and Procurement & Supply Chain Management from April 1, 2022: Responsible for the business units Battery Technology & E-Mobility, Drivetrain Technology and the corporate units Finance, Procurement & Supply Chain Management, Global Strategy, M&A & Innovations, IT, Digital Transformation and Group entities (shared responsibility in the Management Board)

Governance roles in supervisory boards and other supervisory bodies

Dr. Stefan Wolf, Bad Urach, Chairman	Member of the Supervisory Board of Duale Hochschule Baden-Württemberg (DHBW) KöR, Stuttgart
Theo Becker, Metzingen	Member of the Supervisory Board of BLANC & FISCHER Familienholding GmbH, Oberderdingen
Thomas Jessulat, Stuttgart	Chairman of the Supervisory Board of hofer AG, Nürtingen

Remuneration of the Management Board

The remuneration of the Management Board amounted to:

EUR k	2022	2021
Short-term fixed remuneration	2,619	2,971
Short-term variable performance-based remuneration	0	2,400
Share-based payments	3,600	786
Severance payments	834	0
Expenses from post-employment benefits	185	210
Total	**7,238**	**6,367**

In the financial year, total Management Board remuneration pursuant to Section 314 (1) no. 6a sentence 1 to 4 HGB came to EUR 7,053 k (2021: EUR 6,157 k). The present value (DBO) of the pension provisions amounted to EUR 3,105 k (2021: EUR 12,003 k).

Since the 2021 financial year, the members of the Management Board are entitled to an annual long term incentive. The individual grant value for each member is granted in annual rolling tranches, each at the beginning of a financial year ("grant date"). To determine the amount to be paid out, the grant value is multiplied by the overall target achievement for the short-term incentive of each financial year with the previous financial year. The pay-out amount, after deducting accrued taxes and other dues, must be invested completely in the Company's shares. These shares must be held over a period of four years. The accounting takes place in accordance with the requirements of IFRS 2 as equity-settled share-based payment. A total of EUR 3,600 k (2021: EUR 786 k) was recognized as personnel expenses in this regard in the reporting period. After deducting taxes, a total of 208,048 (2021: 39,026) shares at a price of EUR 8.97 (2021: EUR 10.43) with an overall value of EUR 1,866 k (2021: EUR 407 k) were acquired on behalf of and for the account of the members of the Management Board.

Provisions for pensions and remuneration for former members of the Management Board

Provisions of EUR 20,059 k (2021: EUR 16,140 k) were recognized for pension obligations to former members of the Management Board, the management of merged companies, and their surviving dependents. The total remuneration of former members of the Management Board – including remuneration of former members of corporate bodies of merged companies – came to EUR 1,011 k (2021: EUR 928 k) in the financial year 2022.

The auditor fees amounted to:

EUR k	2022	2021
Audit of the annual financial statements	874	851
Other assurance services	89	157
Tax services	2	9
Other services	61	31
Total	**1,026**	**1,048**

The audit services consist of the fees for auditing the separate financial statements and the consolidated financial statements as well as the formal audit of the remuneration report pursuant to Section 162 AktG. The other assurance services mainly comprise fees for review work in connection with the non-financial statement and assurance services related to the syndicated loan agreement and factoring. Tax services were rendered in connection with a project. Other services include a maturity level analysis of the internal control system.

Declaration of compliance with the German Corporate Governance Code

The Management Board and Supervisory Board issued a declaration of compliance pursuant to Section 161 AktG on the German Corporate Governance Code in the version dated April 28, 2022 and published it on the ElringKlinger AG website on December 1, 2022. This declaration of compliance will be available on the ElringKlinger AG website and therewith made permanently available to shareholders.

Events after the end of the reporting period

There were no significant events after the reporting date that would require additional disclosures.

Dettingen/Erms, March 23, 2023

The Management Board

Dr. Stefan Wolf
CEO

Reiner Drews

Thomas Jessulat