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Vaillant GmbH	Accounting /	Consolidated financial statements for the financial	October 29, 2021
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Vaillant GmbH**Remscheid****Consolidated financial statements for the financial year from 01/01/2020 to 12/31/2020****01 COMBINED MANAGEMENT REPORT**

- Revenue increased to 2,733 million euros (compared to previous year +4.3 percent; currency-adjusted +8.1 percent)
- Operating profit (EBIT) of 260 million euros (compared to previous year +9.1 percent) and consolidated net income of 192 million euros (compared to previous year +12.9 percent) positively influenced by early fixed cost management
- Free cash flow of 223 million euros (previous year 187 million euros)
- Sales growth in heat pumps of +53 percent

OUTLOOK FOR THE YEAR 2021

We expect a moderate increase in sales and an operating result (EBIT) slightly below the level of the 2020 financial year due to increased expenses for our future projects in the areas of heat pumps and digitalization. In addition, the cost-saving measures implemented in the 2020 financial year will have a much smaller impact on the operating result in 2021.

Foundations of the group**BUSINESS MODEL**

The Vaillant Group has been a purely family business since the company was founded in 1874. To this day, the owners take responsibility for the successful alignment of the company with the goal of sustainable and profitable growth. This is traditionally in line with the consistent orientation towards social and ecological standards.

The Vaillant Group is a leading international provider of heating, ventilation and air conditioning technology. The company has eight international heating technology brands: Vaillant, Saunier Duval, AWB, Bulex, DemirDöküm, Glow-worm, Hermann Saunier Duval and Protherm. From development to production to sales and subsequent customer service, the Vaillant Group has a closed value chain.

The core business focuses on efficient and energy-saving heating devices based on natural gas as well as technologies for the use of renewable energies. The product portfolio includes all essential technologies for building supply.

These include condensing and heating value devices, heat pumps, ventilation systems, control technology, heat storage systems, thermal solar systems and photovoltaic systems, battery storage systems as well as gas and electric water heaters, air conditioning units and radiators. The Vaillant Group also offers coordinated systems that combine several energy sources and technical components from a single source. In addition to the product business, services are another focus of business activity.

Commissioning, repairs, maintenance and training, technical support from specialist partners and the guarantee of maximum availability of spare parts are just as much a part of this as warranty extensions, digitally networked services and internet-based applications. The business activity is mainly concentrated in Europe as well as the countries China, Russia and Turkey. The Vaillant Group has branches in more than 20 countries and exports products to over 60 countries.

The Vaillant Group generally distributes its products in three stages. Direct customers within the sales chain are wholesalers for plumbing and heating technology as well as plumbers and specialist tradesmen. Customers at further stages of the sales chain include companies in the construction and housing industry as well as private property owners.

The Vaillant Group manufactures products at seven locations in Europe, one in Turkey and one in China. The production includes the manufacture of all performance and quality-relevant core components as well as the final assembly of all devices with a full review of the technical performance characteristics. All production processes take place uniformly across all locations.

The Vaillant Group conducts product development at four locations within the EU as well as in Turkey and China. The development of high-efficiency technologies takes place at locations in Western Europe.

Based on the corporate vision "We ensure a better climate. In every home and our environment", the Vaillant Group has defined strategic goals to drive growth further.

Economic report**MACROECONOMIC AND SECTOR-RELATED FRAMEWORK CONDITIONS****Overall Economic Development**

Triggered by the COVID-19 pandemic, the global economy experienced a recession in 2020. According to forecasts by the International Monetary Fund (IMF), the decline in economic output last year was -3.5 percent worldwide. The development of the advanced economies was -4.9 percent (2019: 1.6 percent). In the group of leading emerging markets, economic output fell by -2.4 percent (2019: 3.6 percent).

Within the euro zone, Spain recorded -11.1 percent (2019: 2.0 percent), Italy -9.2 percent (2019: 0.3 percent) and France -9.0 percent (2019: 1.5 percent)) a severe economic downturn. In Germany, the economy contracted by 5.4 percent (2019: 0.6 percent).

In the major markets for the Vaillant Group outside the euro currency area, Great Britain recorded a negative economic development of -10.0 percent (2019: 1.4 percent). In Turkey, the decrease was -5.0 percent (2019: 0.9 percent). In China, the economy recovered over the course of the year and achieved growth of 2.3 percent (2019: 6.0 percent).

The following table shows the development of the average exchange rates of the currencies relevant to us against the euro:

Average rates

Based on 1

euro	2020	2019
Chinese Renminbi (CNY)	7.90	7.74
British Pound (GBP)	0.89	0.88
Russian ruble (RUB)	83.80	71.95
Turkish Lira (TRY)	8.22	6.38

Industry development (1)

The European heating technology markets - including Russia and Turkey - declined -1.7 percent in 2020 (2019: -0.9 percent). In the key volume segment of wall-mounted heat generators, the decline in the overall market was -0.6 percent year-on-year. Due to good funding conditions, the demand for heat pumps increased in 2020 despite the pandemic and the slump in general economic output. The growth amounted to 10.1 percent.

The German market for heat generators grew by 9.9 percent in 2020, significantly faster than in the previous year. However, Germany remained a positive exception with regard to the international markets. The market development in Spain was clearly negative (-16.9 percent). The decline in demand was less pronounced in Italy (-2.9 percent), Poland (-2.5 percent), France (-1.3 percent) and the Netherlands (-0.3 percent).

There were major slumps in the markets outside the EU in Russia (-7.8 percent), in Great Britain (-5.9 percent) and in China (-11.5 percent). In Turkey, the downward trend of the previous year turned into a surge in demand (26.7 percent) due to government economic stimulus programs.

Legal framework

According to the EU regulation on the governance system for the Energy Union and for climate protection (EU 2018/1999), all EU member states are obliged to draw up national energy and climate plans for the period from 2021 to 2030 and to update them regularly. The Vaillant Group is following the political discussion on the national climate protection plans for the most important markets.

Various European strategies and initiatives were adopted in 2020 in connection with the EU Commission's "Green Deal". Among them was the so-called wave of renovations for the building sector. The aim of this initiative is to at least double the annual number of energy-efficient buildings in the EU member states by 2030.

The EU Ecodesign Regulation for heating and hot water devices, which has been in force since 2015, is currently in the process of being revised. The results of the review studies and proposals for corresponding legislative changes have been available since October 2019. The revision of the legal requirements is expected to last until 2022.

In Germany, the political measures of the Climate Protection Plan 2030 were implemented in 2020. In January, improved funding conditions for the energetic renovation of buildings and an oil boiler replacement bonus were introduced. On November 1, 2020, the Building Energy Act came into force, which defines an energetic standard for future new buildings.

In November, certificate prices were passed under the Fuel Emissions Trading Act. This provides for the introduction of CO₂ pricing for fossil fuels from January 2021.

OVERALL STATEMENT ON BUSINESS DEVELOPMENT

We can look back on an overall successful 2020 financial year, which was shaped to a large extent by two factors: on the one hand, the effects of the COVID-19 pandemic and, on the other hand, sales growth of 53 percent for heat pumps. The latter was favored by the expansion of state subsidies for environmentally friendly heating technologies in Europe.

During the course of the year, the COVID-19 pandemic led to an economic recession in the countries that are essential for our business activities. The Vaillant Group has successfully mastered the associated challenges. The decisive success factor for effective crisis management was the early formation of a task force to ensure business operations. The health and protection of our employees has always been a top priority. During the first lockdown phase in April and May, we were able to largely secure supplies to our plants in close cooperation with our suppliers and logistics. As a result, the Vaillant Group was able to maintain production and delivery capabilities to its customers at all times. In response to an expected potential loss of revenue, we immediately initiated cost-cutting measures, from which we benefited significantly in terms of earnings in 2020.

⁽¹⁾ Source: BRG Enterprise Database.

The sales trend finally recovered faster than expected from June onwards. This positive trend continued well beyond the end of the year.

In a challenging economic environment for us, we were able to increase sales ² by a total of 4.3 percent to 2,733 million euros (2019: 2,621 million euros; currency-adjusted 8.1 percent). This means that the growth path taken in previous years could be continued - even in a market environment shaped by the effects of the COVID-19 pandemic.

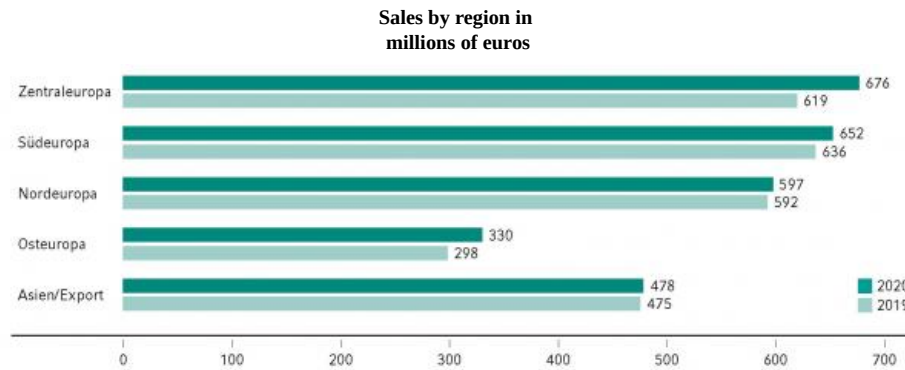
The operating result (EBIT) rose significantly by 9.1 percent to EUR 260 million (2019: EUR 239 million). Above all, the increase in sales as well as cost-saving measures introduced at an early stage, through which we were able to keep our fixed costs almost at the previous year's level, had a positive impact on EBIT. We were able to press ahead with our growth strategy in the heat pumps product segment with growth of 53 percent. We have advanced our strategic growth target in China by further developing sales and service structures; however, local sales development in China fell short of expectations due to the pandemic.

EARNINGS SITUATION OF THE VAILLANT GROUP

Sales revenue and operating profit (EBIT) in the Central Europe region (Germany, Austria, Switzerland), we were able to increase sales by 9.3 percent to 676 million euros (2019: 619 million euros). In Germany we recorded a significant increase in sales of 10.2 percent. This was largely due to higher heat pump sales. These benefited from government subsidies and the temporary VAT cut in the second half of the year. In the dynamically growing German heat pump market, we were able to further strengthen our market position and gain market share. In addition, it was possible to increase sales with circulation water heaters and to grow with the market. Also in Austria (5.1 percent) and Switzerland (7,

Despite the massive effects of the COVID-19 pandemic, especially during the lockdown phase in the second quarter, sales in the Southern Europe region (France, Italy and Spain) increased slightly to EUR 652 million (2019: EUR 636 million). In Spain, higher heat pump and service sales in particular led to a 2.6 percent increase in sales. In Spain, too, we were able to further expand our market position in a growing heat pump market and gain market share. In the service business, we succeeded in fully making up for corona-related backlogs in the processing of maintenance contracts in the second half of the year and also significantly increasing the number of maintenance contracts. In France, unfulfilled maintenance contracts from the lockdown in the first half of the year were only partially possible until the end of the year. However, the resulting slight decline in the service business was more than offset by higher heat pump sales. The Vaillant Group also gained market share in the French heat pump market over the course of the year. In Italy, sales initially declined due to the COVID-19 pandemic in the first half of the year. In the second half of the year, we

were able to increase sales in the course of a strong market recovery and through successful sales campaigns, so that we recorded an overall increase of 4.3 percent compared to the previous year.



² "Sales revenue" and "sales revenue" are used synonymously in the following.

In the Northern Europe region (Great Britain, Belgium, the Netherlands and Scandinavia), sales increased by 0.8 percent year-on-year to EUR 597 million (2019: EUR 592 million). In Great Britain, sales fell by a nominal -2.2 percent (currency-adjusted -0.9 percent). The reason for this was lower market volumes for circulating water heaters due to the COVID-19 pandemic. In the overall declining market, however, we were able to maintain our strong market position. In Belgium and the Netherlands, we recorded a significant increase in sales, which was mainly due to higher heat pump sales.

In the Eastern Europe region (Czech Republic, Russia, Croatia, Hungary, Poland, Romania, Slovakia, Ukraine), sales were 10.6 percent higher than the previous year at 330 million euros (2019: 298 million euros; adjusted for currency effects: 17.0 percent). In Poland, sales rose by 31.7 percent. Aided by government subsidies for efficient heating systems, there was a higher demand for circulation water heaters and heat pumps. In Russia, sales were - despite a significant devaluation of the ruble in the course of the financial year - at 64 million euros, at the previous year's level (2019: 65 million euros).

Sales in the Asia / Export region (China, Turkey, export) were up slightly on the previous year at EUR 478 million (2019: EUR 475 million; 16.8 percent adjusted for currency effects). In Turkey, the previous year's figure was exceeded by 9.6 percent (41.3 percent adjusted for currency effects). Above all, government incentives to buy had a positive effect on sales development in the past financial year, so that the massive decline in the Turkish lira could be overcompensated. In China, sales fell sharply in the first quarter as a result of a tough lockdown to contain the COVID-19 pandemic. From April onwards, the market began to recover gradually and with it a sustained positive development in sales. Loss of sales from the first quarter could only be partially made up in the course of the year. With sales of 198 million euros, the year as a whole was -8.5 percent below the previous year's level (2019: 216 million euros).

The development of the cost items compared to the previous year is explained below:

The cost of sales increased by 4.9 percent to 1,647 million euros and thus slightly more than sales (2019: 1,571 million euros). The gross margin decreased to 39.7 percent (2019: 40.1 percent). This was largely due to a decline in sales in China and Great Britain, but also to an overall higher share of heat pumps in sales compared to the previous year.

In the 2020 financial year, we recorded an increase in research and development expenses to 131 million euros (2019: 108 million euros), which was mainly due to a lower capitalization of development services. In relation to sales, the expense ratio rose to 4.8 percent (2019: 4.1 percent). The "Research and Development" chapter provides information on the main activities.

At 557 million euros, marketing and sales costs were slightly below the level of the previous year (2019: 563 million euros). The reasons for this are, on the one hand, lower marketing activities and, on the other hand, the cost savings initiated in the spring in connection with the COVID-19 pandemic. As a result, the share of marketing and sales costs in total sales decreased to 20.4 percent (2019: 21.5 percent).

Thanks to the cost savings introduced at an early stage, we were able to keep administrative costs at the previous year's level at EUR 143 million (2019: EUR 142 million).

The operating result (EBIT) increased by 9.1 percent year-on-year to EUR 260 million (2019: EUR 239 million).

Profit and Loss Account	2020		2019	
	Million Euro	%	Million Euro	%
Sales	2,733	100.0	2,621	100.0
Production cost of sales	-1,647	-60.3	-1,571	-59.9
Gross profit on sales	1,086	39.7	1,051	40.1
Research and development costs	-131	-4.8	-108	-4.1
Marketing and distribution costs	-557	-20.4	-563	-21.5
administrative expenses	-143	-5.2	-142	-5.4
Other operating result	5	0.2	1	0.0
Operating profit (EBIT)	260	9.5	239	9.1
Financial result	-9	-0.3	-15	-0.6
Earnings before taxes	251	9.2	223	8.5
Income taxes	-59	-2.2	-53	-2.0
Group profit for the year	192	7.0	170	6.5



Comparison of the actual with the forecast business development

On the basis of the forecasts for business and industry development in 2020 made at the end of the 2019 financial year and taking into account the opportunities and risk potentials known to us at the time, we have, subject to significant exchange rate fluctuations, a significant increase in sales and a slight increase in operating profit (EBIT) expected.

Actual sales growth was nominally 4.3 percent. The increase in sales forecast for 2020 was thus achieved.

In terms of operating profit (EBIT), we have significantly exceeded our target for 2020, primarily thanks to the cost savings introduced in spring.

The two key figures mentioned above represent the main financial control parameters.

Financial result and consolidated net income

The financial result improved to -9 million euros (2019: -15 million euros). The main relief was lower interest expenses for pension provisions and an average lower net debt.

Earnings before income taxes amounted to 251 million euros (2019: 223 million euros). After deducting a tax expense of 59 million euros (2019: 53 million euros), the consolidated net income for the 2020 financial year was 192 million euros (2019: 170 million euros).

ASSET AND FINANCIAL POSITION OF THE VAILLANT GROUP

Investments and divestments

In 2020, the company invested a total of 106 million euros (2019: 102 million euros) in property, plant and equipment and intangible assets.³

Most of this was due to manufacturing. The focus here was on the expansion of production, laboratory and test facilities as well as the construction of additional lines for heat pump production, especially at the Remscheid site. In addition, pipe production was expanded at the Trenčín plant and the production lines for the new generation of gas-adaptive heating devices were expanded.

In the area of sales, marketing and service, we invested, among other things, in the renovation and expansion of sales buildings and training centers.

With the development of a new platform for our enterprise resource planning system, internally generated intangible assets were capitalized. Further investments related to the infrastructure at the company's headquarters in Remscheid. Here we have invested, among other things, in the construction of a new parking garage for our employees.

Financial position

The balance sheet total increased year-on-year by 245 million euros to 2,446 million euros (2019: 2,201 million euros).

At 1,282 million euros, non-current assets were slightly above the previous year (2019: 1,268 million euros). In particular, the intangible assets increased due to the capitalization of internally generated assets in connection with the development of a new platform for our enterprise resource planning system as part of our digitization strategy. Property, plant and equipment remained at the previous year's level at 451 million euros (2019: 451 million euros). Goodwill decreased to EUR 539 million (2019: EUR 551 million) due to currency translation as of the reporting date.

³ Investments before capitalization of research and development services.

Current assets increased to 1,164 million euros (2019: 933 million euros). On the balance sheet date, the Group had significantly higher cash and cash equivalents of EUR 471 million (2019: EUR 285 million) compared to the previous year, which corresponds to an increase of EUR 186 million. The reasons for this were the high free cash flow in the financial year as well as the additional use of bilateral credit lines at the beginning of the COVID-19 pandemic for the purpose of providing liquidity. In expectation of a sustained positive sales development, also at the beginning of the new financial year, the inventory level increased to 377 million euros (2019: 347 million euros).

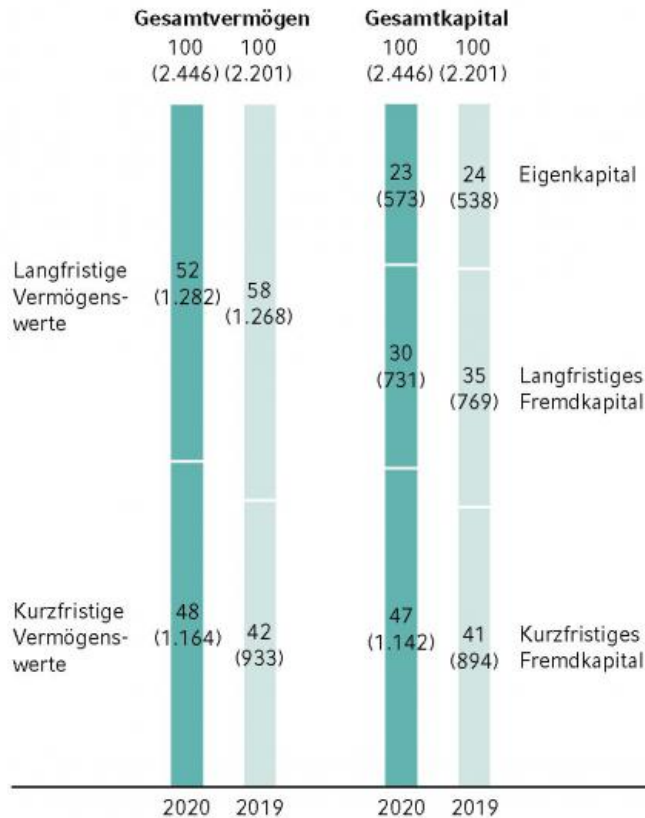
We recorded a significant increase in equity to EUR 573 million (2019: EUR 538 million). The consolidated net income of 192 million euros (2019: 170 million euros) had a particularly positive effect. In the 2020 financial year, a dividend of EUR 99 million (2019: EUR 97 million) was distributed for the previous year. Negative effects from the revaluation of pension obligations of EUR -31 million (2019: EUR -56 million) and currency translation effects of EUR -28 million (2019: EUR -17 million) continued to have a negative impact.

The balance sheet total increased significantly due to the liquidity provision in the pandemic environment as well as due to the above-average sales level at the end of the year, which was also reflected in an increased level of liquid funds. As a result, the equity ratio decreased to 23.4 percent as of December 31, 2020 despite the increase in equity (2019: 24.4 percent).

Long-term borrowed capital decreased by 39 million euros to 731 million euros (2019: 769 million euros) - mainly as a result of the reclassification of the US private placement (USPP) tranche of 58 million euros due in mid-2021 in the amount of 58 million euros. In addition, there are still two promissory notes issued in the previous year for a total of 140 million euros. As in the previous year, there was an unused credit line from the revolving credit facility of EUR 250 million as of the balance sheet date, which would have expired at the end of 2021. Since January 2021, this has replaced a new syndicated credit facility with a volume of EUR 300 million and a term until at least 2024.

Balance sheet structure

In%, absolute values in brackets in million euros



Current debt increased by EUR 248 million to EUR 1,142 million (2019: EUR 894 million). This was mainly due to the use of bilateral credit lines to further strengthen liquidity in the context of the COVID-19 pandemic. In addition, the reclassification of the USPP described above resulted in an increase in short-term debt.

Since the year-end typical decline in inventories in the wake of a persistently high level of production - due to higher sales expectations at the beginning of the 2021 financial year - did not materialize, trade payables increased accordingly to EUR 349 million (2019: EUR 291 million).

Financial condition

In the 2020 reporting year, the cash flow from operating activities was EUR 382 million, 7.0 percent above the previous year (2019: EUR 357 million). The main reasons for this were the positive development in operating business and the resulting higher operating result. In addition, an improvement in net working capital had a positive effect on the cash flow from operating activities - despite the persistently above-average level of production and sales at the end of the year. The temporary business-related increase in inventories and receivables was more than offset by a correspondingly higher level of trade payables and temporary sales tax deferrals.

At -125 million euros, the cash outflow in cash flow from investing activities was 8.8 percent below the previous year (2019: -137 million euros). This is due in particular to the completion of larger projects in the 2019 financial year and the delays in development projects.

The cash flow from financing activities was EUR -50 million (2019: EUR -165 million). The reason for this was the temporary borrowing of additional funds for liquidity provision. The dividend payment to the shareholders was EUR -99 million (2019: EUR -97 million).

At 223 million euros, free cash flow⁴ was above the previous year's level (2019: 187 million euros).

The net cash flow increased to 207 million euros (2019: 54 million euros).

Compared to the previous year, cash and cash equivalents increased significantly to EUR 471 million (2019: EUR 285 million).

The financial liabilities of the Vaillant Group rose to 386 million euros due to the liquidity provision (2019: 313 million euros).

In addition to the existing liquid funds, the Vaillant Group can ensure liquidity at all times through unused credit lines in the amount of 258 million euros (2019: 250 million euros).

RESEARCH AND DEVELOPMENT OF THE VAILLANT GROUP

The development activities within the Vaillant Group in 2020 focused primarily on the continuation of the multi-year development programs launched in previous years.

The focus in the area of gas wall-mounted heaters in 2020 was on the development of a new, cross-brand, standardized and cost-effective generation of gas-adaptive devices.

In the area of heat pumps, our activities focused on converting the entire modular product platform for air-to-water heat pumps and brine-to-water heat pumps to environmentally friendly refrigerants with a low global warming potential.

For future-oriented projects, the Vaillant Group capitalized development costs of 19 million euros in the 2020 reporting year (2019: 34 million euros). The reasons for the lower capitalization volume compared to the previous year are the completion of larger projects at the end of 2019 and project delays.

Explanations to the individual financial statements of Vaillant GmbH according to HGB

The individual financial statements of Vaillant GmbH are prepared in accordance with the provisions of the German Commercial Code (HGB). This results in deviations from the International Financial Reporting Standards (IFRS) that apply in the Vaillant Group, in particular in the accounting and valuation methods for intangible assets and provisions.

Cash flow statement

Million Euro	2020	2019
EBITDA	376	354
Increase (-) / decrease (+) long-term assets and liabilities	-10	-37
Increase (-) / decrease (+) in net working capital	60	76
Income taxes paid	-43	-36

Cash flow statement		
Million Euro	2020	2019
Cash flow from operating activities	382	357
Investments and acquisitions	-127	-140
Divestment	2	2
Cash flow from investing activities	-125	-137
Dividends paid to owners	-99	-97
Dividends received	-	-
Borrowing	101	151
Loan repayment	-9	-180
Interest balance	-3	-6
Payment from (+) / to (-) minority shareholders	-10	-7
Repayment (-) / increase (+) liabilities from leasing	-31	-26
Cash flow from financing activities	-50	-165
Net cash flow	207	54
Free cash flow	223	187

⁴ Net cash flow before changes in debt and dividends.

BUSINESS ACTIVITIES OF VAILLANT GMBH

In addition to the reporting on the Vaillant Group, the development of Vaillant GmbH is explained below. Vaillant GmbH is the parent company of the Vaillant Group and is based in Remscheid.

In its function as the parent company of the Vaillant Group, Vaillant GmbH is responsible for its own operational activities and production in addition to defining and pursuing corporate goals. It also performs central group and service functions, including research and development, and controls the delivery and service traffic within the group. She is responsible for the management, steering and control instruments including risk management.

The earnings, asset and financial position of Vaillant GmbH is shaped by its own operational activities as well as by the operational activities of its subsidiaries, as their business success has a direct impact through profit and loss transfer agreements or in the form of investment income with a time delay in accordance with the profit appropriation resolutions. The economic situation of Vaillant GmbH thus basically corresponds to that of the Vaillant Group. Accordingly, we refer to our statements in the chapter "Overall statement on business development", which also reflect the overall statement on business development for the parent company.

As of December 31, 2020, Vaillant GmbH held direct and indirect investments in 110 companies and employed 2,113 people including 57 trainees. The average number of employees in the financial year was 2,084, 77 percent of whom are male. 10 percent of the workforce at Vaillant GmbH work part-time.

Vaillant GmbH is a company in the metal and electrical industry that is bound by collective bargaining agreements. The collective bargaining agreement means that employees are subject to the collective wage agreement. The positions are assessed by a collective wage commission (employer and employee representatives [works council]) with equal representation and divided into remuneration classes. Even in the non-tariff area, the positions are assessed independently and the remuneration is determined according to salary bands. With regard to the specifications (content and responsibility-oriented), it is irrelevant who holds the respective position or which person is newly filling the respective position. This procedure ensures

Corporate governance statement

Vaillant GmbH is striving to further expand the proportion of female managers. The Supervisory Board had set target quotas for this until 2022.

The management should include at least one woman. This has not yet been achieved as a suitable candidate has not yet been found. The target quota on the Supervisory Board, where two women are represented on the twelve-person committee, has already been achieved. The target quota of 14 percent women on the first two management levels under the management has not yet been fully achieved. The quota is 3 percent below the target quota, as no candidates have yet been found in sufficient numbers for the corresponding positions. Vaillant GmbH is aware of its responsibility and created a position for "Diversity Management" back in 2018. The topic "Diversity & Inclusion"

EARNINGS, ASSETS AND FINANCIAL POSITION OF VAILLANT GMBH

Sales and operating profit (EBIT)

At 1,096 million euros, sales in the 2020 financial year were above the level of the previous year (2019: 1,024 million euros).

All companies in the German-speaking region (Germany, Austria, Switzerland) recorded sales increases. Overall, sales with these companies rose to 407 million euros (2019: 371 million euros). The largest increase in sales resulted from the sale of products from the Renewable Energies segment to the German sales company.

Sales with the sales company in Great Britain declined, while sales increased in particular with the Belgian, but also with the Dutch and Danish sales companies. Overall, sales with the companies mentioned increased to 232 million euros (2019: 225 million euros).

Sales with the sales companies in France, Italy and Spain rose to 141 million euros (2019: 131 million euros). The main reason for this was the increased sales of products based on renewable energies.

In most Eastern European countries, especially in Poland, we were able to increase sales with the sales companies. Overall, sales rose to 146 million euros (2019: 132 million euros).

Declining sales revenues with the sales companies in China contrasted with an increase in sales revenues with the sales companies in Turkey. Overall, sales with these sales companies decreased to 85 million euros (2019: 92 million euros).

Other sales amounted to 85 million euros and were thus higher than in the previous year (2019: 73 million euros). This was primarily due to higher license income from our foreign production units, particularly in France.

In addition to the sales development described above, the development of the cost items compared to the previous year is as follows:

Manufacturing costs rose largely in proportion to sales to 847 million euros (2019: 797 million euros). The gross margin rose to 23 percent (2019: 22 percent). The gross profit on sales increased to 248 million euros (2019: 227 million euros).

Research and development costs increased to 127 million euros (2019: 114 million euros). For information on the main activities, please refer to the "Research and Development" chapter in the group section.

Selling costs were kept at the previous year's level at EUR 62 million (2019: EUR 63 million) and administrative costs at EUR 136 million (2019: EUR 137 million). This was achieved with the cost-saving measures introduced at the beginning of the COVID-19 pandemic. In addition, there was a waiver of wage increases in the collective bargaining agreement for the metal and electrical industry as well as in the non-tariff area.

The other operating result rose from EUR 59 million in the previous year to EUR 66 million in 2020. This increase resulted mainly from higher group charges for services provided by Vaillant GmbH for its subsidiaries.

The operating result (EBIT) increased year-on-year by 18 million euros to -10 million euros (2019: -28 million euros).

The sales revenues and the operating result exceeded the values forecast for the 2020 financial year.

Financial result and profit for the year

The financial result amounted to 141 million euros and was therefore below the previous year's level (2019: 191 million euros). Income from investments fell by EUR 50 million to EUR 142 million (2019: EUR 192 million). The comparatively high figure in the 2019 financial year was partly due to the distribution of retained earnings from previous years. The net income from profit and loss transfer agreements remained almost unchanged at EUR 14 million. The interest result was at the previous year's level.

Income taxes rose to 7 million euros (2019: 2 million euros).

The net income for the year fell from 161 million euros in the 2019 financial year to 125 million euros in the 2020 financial year, mainly due to lower investment income.

Assets and financial position

As of the balance sheet date, the net assets and financial position of Vaillant GmbH was essentially characterized by a total assets, which increased by EUR 139 million to EUR 1,707 million compared to the previous year (2019: EUR 1,568 million).

Property, plant and equipment rose significantly by 20 million euros to 153 million euros (2019: 133 million euros), largely due to the completion of the Johann Vaillant Technology Center in Remscheid.

Inventories increased by 20 million euros to 120 million euros (2019: 100 million euros). The inventory of finished products increased primarily due to the sustained high demand for our products, especially in the area of heat pumps. In addition, the inventory of critical raw materials, consumables and supplies was increased in order to guarantee security of supply.

In contrast, receivables from affiliated companies decreased by 4 million euros to 69 million euros (2019: 73 million euros). This is due to the slightly lower receivables from intra-group deliveries and services to the sales and production companies of the Vaillant Group as of the reporting date.

Cash and cash equivalents increased by 107 million euros compared to the previous year and amounted to 136 million euros (2019: 29 million euros). This increase resulted primarily from the profit distribution from subsidiaries, a positive operating liquidity development and the use of bilateral credit lines in the amount of 85 million euros. The latter took place at the beginning of the COVID-19 pandemic as a precautionary measure against the background of the possible negative effects of the pandemic on the business performance of the Vaillant Group. The company ensures its solvency at all times through group-wide cash pooling and the financing measures described below.

Taking into account the dividend payment made in 2020 and taking into account the net income, equity increased by EUR 25 million to EUR 856 million in the reporting year (2019: EUR 831 million). Due to the higher total assets, the equity ratio fell by 2.8 percentage points to 50.2 percent (2019: 53.0 percent).

The obligations from pension commitments amounted to 97 million euros as of the reporting date (2019: 91 million euros). The EUR 6 million increase is mainly due to the further decrease in interest rates.

Financial liabilities continued to total EUR 168 million (2019: EUR 168 million). For information on the main financing components, please refer to the section entitled "Assets and financial position of the Vaillant Group".

Due to the borrowing described above at the beginning of the COVID-19 pandemic, liabilities to banks increased to EUR 85 million (2019: EUR 0 million). For information on the main financing components, please refer to the section entitled "Assets and financial position of the Vaillant Group".

Trade payables increased year-on-year, corresponding to inventories, by 15 million euros to 79 million euros (2019: 64 million euros).

Liabilities to affiliated companies increased by 7 million euros to 377 million euros (2019: 370 million euros). This resulted mainly from changes in the volumes of outstanding delivery and service invoices as of the balance sheet date as well as intra-group loans with affiliated companies.

RISKS AND OPPORTUNITIES REPORT OF VAILLANT GMBH

The business development of Vaillant GmbH is subject to the same risks and opportunities as the business development of the Vaillant Group. In principle, Vaillant GmbH participates in the opportunities and risks of its subsidiaries in accordance with its respective participation quota.

Accordingly, we refer to our statements in the "Risks and opportunities report" section, which also reflect the expectations for the parent company.

FORECAST REPORT OF VAILLANT GMBH

In line with the development in the Group, we also expect sales growth for Vaillant GmbH and, associated with this, a higher gross profit. However, in order to secure the future of our company, we are also planning higher expenditures for our development activities. In addition, we expect an increase in personnel costs. In addition, we refer to our statements in the "Forecast report" section, which in particular also reflect the expectations for the parent company. This also includes statements on the development of sales and the development of the operating result (EBIT) in the Vaillant Group.

The forecast of the financial result of Vaillant GmbH is largely determined by the development of its subsidiaries, as their business successes have a direct impact on Vaillant GmbH through profit and loss transfer agreements or in the form of investment income with a time delay in accordance with the profit appropriation resolutions. Not least due to unforeseeable developments in the corporate environment, the actual business results may differ from our expectations.

Risks and opportunities report

RISKS AND OPPORTUNITIES

In the course of its business activities, the Vaillant Group is exposed to a large number of risks that are inextricably linked to entrepreneurial activity. Entrepreneurial activity also consists of seizing opportunities and thus strengthening the company's competitiveness. With its risk and opportunity management system (RCMS), the Vaillant Group aims to identify, evaluate and monitor risks and opportunities at an early stage. Taking suitable measures is intended to avert negative effects on the short-term operational or long-term strategic corporate goals. This also enables potential opportunities to be exploited. In this way, a possible threat to the company's continued existence is to be recognized and prevented in good time. The RCMS also aims to improve business decisions, ensure competitiveness and achieve growth targets.

RISK AND OPPORTUNITY MANAGEMENT SYSTEM

The RCMS is integrated into all planning, controlling and reporting processes, in the individual companies, the corporate divisions and at group level.

Risks are defined as all events and possible developments within and outside the Vaillant Group that could have a negative impact on the achievement of operational or strategic corporate goals. Opportunities are understood to mean all internal and external events and possible developments that contribute to the company's success beyond the planned operational or strategic goals.

The basis of the RCMS is a monthly operational as well as a quarterly structural opportunity and risk inventory.

The control and monitoring of risks and opportunities takes place in the subsidiaries of the Vaillant Group, in the corporate divisions and at group level. This provides a group-wide, integrative management tool for the systematic handling of risks and opportunities, which is checked annually as part of the annual audit to determine whether it is suitable for identifying risks that could jeopardize the continued existence of the company.

The scope of consolidation for risk and opportunity management corresponds to the scope of consolidation in the consolidated financial statements of the Vaillant Group.

The reporting of risks and opportunities in the management report covers the 2021 financial year. However, should significant new risks or opportunities arise or the significance of existing ones change beyond this period, this will be taken into account and addressed. The sequence of the risks and opportunities described reflects the current assessment of the relative degree of risk and opportunity. More significant topics are given priority. This presentation shows the current overall situation of the risks and opportunities for the Vaillant Group.

PRESENTATION OF THE SIGNIFICANT AREAS OF RISK AND OPPORTUNITY

Legal and regulatory framework

Legal and regulatory framework conditions, which result from climate policy requirements as well as environmental and safety regulations, have a significant influence on the future business success of the Vaillant Group.

Against the background of the Paris Climate Agreement of 2015 and the EU's Green Deal of 2019, many countries are planning to convert their energy supply to renewable energies and to reduce the use of coal, oil and gas. For the Vaillant Group, this means a market shift from gas appliances to technologies that are operated with electricity, and thus represents a key challenge for further business development. As an additional pillar of the energy transition, "green" gas obtained from renewable energy sources could play a greater role in the future play. In the long term, this could represent an opportunity for the Vaillant Group if the relevant devices can be made available to the market and "

There are a large number of national and regional funding programs for the energetic modernization of heating systems and the use of renewable energy, which can have a positive effect on our sales development. These programs are often limited in time and the product requirements are subject to regular adjustment. In the medium term, however, the "wave of renovations" proposed by the EU Commission for buildings could result in a stabilization of funding programs.

Market and competitive environment

The Vaillant Group's market environment remains uncertain. Risks with regard to the development of demand for our products cannot be ruled out, as can possible bottlenecks in our procurement and production processes and the resulting delivery bottlenecks.

The trade conflict between the USA and China is still ongoing. Relations between the EU and the Russian and Turkish governments remain tense. The final consequences of the completed Brexit in the context of the preliminary free trade agreement also remain to be seen. Great Britain's exit from the EU is accompanied by a higher level of bureaucratization of business processes, which, for example, can lead to a cost risk with regard to customs clearance.

Added to this are the difficult to assess economic and social consequences of the COVID-19 pandemic. Persistent uncertainty among the population could both lead to a general reluctance to spend on consumer spending and change consumer behavior in the long term. In the already strong trend towards digital products and business models, we see not only risks but also attractive growth opportunities for the Vaillant Group. A positive effect on the renovation markets in our core countries is also expected. Financial reserves from withheld expenses (e.g. for leisure and vacation) could be used for house and apartment modernization.

The ongoing flexibilization of our process environment enables us to react quickly to risks and to take advantage of growth opportunities through further and new development of business models. Intensive market and customer observations are also intended to identify disruptive business models and technologies at an early stage and enable them to be integrated into the Vaillant Group's business processes and product portfolio. The expansion of our core business to include digital business models is particularly important here.

The intense competition and price wars within the moderately growing European heating technology market continue and are intensified by the fact that non-European players have already overcome market entry barriers. In order to maintain its leading position, the Vaillant Group relies on targeted sales initiatives, on the continuous expansion of the product portfolio and on a market-specific brand strategy. Market position and sales growth are additionally strengthened by focusing on the service business and developing service solutions to increase customer satisfaction and loyalty.

The European market for heat pumps is growing dynamically, benefiting from EU-wide climate policy regulations and country-specific subsidies. The expansion of a strong market position is a high priority here and is managed by a separate business unit. This ensures that bundles of measures initiated across the group are efficiently implemented in the individual countries.

Outside of Europe, the focus is particularly on the Chinese market. Here we want to strengthen our leading position in the heating technology market by further expanding our regional presence and the range of solutions offered.

Research and Development

In research and development (R&D) there is a risk that the developed products do not meet customer needs or future regulatory requirements. The changes in customer needs in the course of regional and global trend developments as well as increasing price pressure increase this risk. In order to best meet customer requirements, the development department works closely with marketing and sales, program management and the business unit for heat pumps. In addition, regular market studies and customer surveys are carried out to ensure the assessment of trends as well as customer and market needs. Findings from market observations flow into a technology and pre-development roadmap as well as the product roadmap. Every market launch is preceded by field and laboratory tests, which ensure the functions, robustness, safety and longevity of the products.

A risk in development projects is a deviation from the agreed project goals or a time delay. We counter this with cross-functional steering and control bodies, which guarantee ongoing monitoring of project progress and fast decision-making processes.

Digitization offers a special opportunity in the field of research and development. New products with networked components and service solutions expand the portfolio in addition to the core business.

procurement

The Vaillant Group, its suppliers and the international supply chains are also affected by the effects of the COVID-19 pandemic. An interruption in the supply chain would have a direct negative impact on production and sales. The economic situation of suppliers on the procurement markets is largely dependent on the macroeconomic and industry-specific environment.

We counter procurement risks, among other things, through intensive cooperation with our suppliers in the context of requirements planning. The diversification of our supplier base, which enables a better adjustment to possible shifts in demand, is a strategic measure that we have consistently pursued for years. We also use internet-based risk management software, which helps to identify, evaluate and reduce delivery risks at an early stage. The supply chains are monitored continuously. With the measures described, our supply chain was able to successfully cope with the challenges of the COVID-19 pandemic.

As the pandemic lasts longer, the associated risks may worsen. The consequences for important procurement markets cannot therefore be reliably assessed at this point in time. The existing processes will continue to be used and will be further developed in accordance with future requirements.

production

The Vaillant Group's production network is closely interlinked. Due to cross-location production processes, longer disruptions or failures of individual production systems can impair the ability of the entire group of companies to deliver. In order to reduce the risk of business interruption, our Business Continuity Management (BCM) will be continued in the future. Crisis team members are regularly trained at all locations and made familiar with the BCM process instructions. Critical machines are regularly examined with regard to their risk of failure. In addition, the Vaillant Group maintains global property and business failure insurance based on the industry standard.

With advancing digitization in production, the risk of IT-related production downtime increases. This is counteracted with our BCM strategy for production IT and an expansion of the IT service organization and infrastructure.

Significantly higher demand in the markets harbors both risks and opportunities. Higher production volumes and more complex products can lead to capacity bottlenecks. Regular analyzes of capacities and requirements within the production network make it possible to react quickly to changes.

quality

The group-wide quality management system is geared towards ensuring the quality of both new and existing products and services in the market for the benefit of the customer. The derived process and organizational structure leads to a continuous increase in quality and a reduction in the costs for guarantee and goodwill.

Existing processes, methods and procedures in quality assurance ensure that customer requirements are taken into account in the early stages of the creation of mechanical and digital products. This avoids rework and reduces customer service calls. With the commissioning of the new test center at the Remscheid site, the framework conditions for the qualification and certification of products have improved sustainably.

Analogous to the established process for product safety, an equivalent process for data and information security of products and services has proven itself.

By avoiding possible liability and warranty risks in this way, we ensure a high level of customer satisfaction and cost efficiency.

PRODUCTION AND R&D LOCATIONS



Finances

Due to its international business relationships, the Vaillant Group is exposed to the risks of exchange rate fluctuations. The British pound, the Turkish lira, the Russian ruble and the Chinese renminbi are the currencies with the greatest individual risks. We counter these risks, as far as economically feasible and possible, either by concluding currency forwards or through so-called natural hedges. We counter raw material risks, mainly due to price fluctuations in copper, by using derivative hedging instruments.

Derivatives transactions are carried out on the basis of the central decisions of the Exposure Committee, which meets on a regular basis, and is used exclusively to hedge operational business. The cash flows of the underlying transactions are hedged at the level of micro-hedges. These hedging transactions are set up in such a way that they meet the criteria of so-called effective hedging transactions.

There is also a risk from defined benefit pension obligations and the cover pool set up in Great Britain for this purpose. The valuation of the pension obligations, the plan assets and the determination of the net pension expenses are based on assumptions. Even minor changes to these assumptions, in particular a change in the discount rates, could have a negative or positive effect on the Group's equity for the current financial year. In addition, they could lead to a change in the period-related net pension expense in the following financial year (further information can be found in the Notes to the Consolidated Financial Statements).

The Vaillant Group is subject to the usual bad debt risk. We counter this risk with a holistic approach to credit and receivables management. This includes monitoring the entire process for all of the Vaillant Group's stores. A creditworthiness monitoring of the borrower and thus the potential bad debt risk takes place at both local and central level. In the main markets, the Vaillant Group is protected against bad debts through trade credit insurance or equivalent credit collateral. However, there are risks due to unstable political and economic developments. The Vaillant Group counters this risk with intensive market and customer observation,

Information technology

With the increase in IT systems and software in all company areas and products, the topic of IT security is becoming increasingly important. The increasing dependence on the Internet, the need for secure information processing and an increased number of external cyber attacks also pose particular challenges for the Vaillant Group. To increase information security and protect against cyber attacks, extensive technological and organizational measures are taken as part of a company-wide cybersecurity program continued.

When building the new Internet of Things platform, the implementation of secure systems and services has the highest priority. In order to meet the quality standards of the Vaillant Group, these systems and the associated processes are subject to safety certification.

Law and insurance

Legal risks that have a significant impact on the earnings, financial and asset position of the Vaillant Group are currently neither pending nor threatened.

In addition, potential liability risks and claims are adequately covered by provisions or insurance policies.

The risk awareness of the workforce is constantly trained and promoted through compliance rules and a compliance management system. This reduces compliance risks.

steer

Vaillant GmbH and its subsidiaries operate worldwide and are subject to a wide range of local tax laws and regulations. The companies of the Vaillant Group are continuously audited by tax authorities in various countries. Any changes in legal provisions, case law and different legal interpretations by the respective tax authorities - especially in the area of cross-border transactions - can lead to higher tax expenses and payments. In addition, they can influence the amount of tax receivables and liabilities as well as the deferred tax assets and liabilities. The tax department identifies, evaluates and monitors corresponding changes or appeals by the tax authorities in order to take risk-avoiding measures if necessary. In addition, both the tax compliance management system and management and reporting processes are continuously monitored and continuously improved.

staff

Qualified and committed employees are an important success factor for the Vaillant Group. Only as an attractive employer can you succeed in attracting talented staff and retaining them in the long term. Increasing competition for specialists and executives in numerous markets and demographic change also pose major challenges for the Vaillant Group.

Due to these risks, the recruiting, development and retention of specialists and managers at the company have high priority. Employer branding initiatives are being promoted in a targeted manner - for example, the image as an employer brand was modernized and standardized in October 2020. Employees work in the recruiting center who know the company, individual departments and their needs exactly and can therefore address the right candidates. We use feedback systems to retain employees. These include regular employee surveys, global talent and succession programs, and competitive and attractive compensation packages. Also a modern, digital work environment and the possibility of

SUMMARY PRESENTATION OF THE RISKS AND OPPORTUNITIES

At the time this report was prepared, there were no known risks which, individually or in their entirety, could jeopardize the continued existence of the Vaillant Group. We classify all identified risks as manageable. It is pointed out, however, that risks with a currently lower estimated risk level can possibly develop more serious damage effects than risks with a currently higher estimated risk level. There may also be negative effects on business development from risks that are not currently known or that are currently not classified as significant.

Our business development in the individual markets (e.g. Great Britain, Turkey, Russia, China) is still closely related to the economic and / or political development there. Estimating these for the future is made even more difficult by the economic effects of the COVID-19 pandemic. The influence of regulatory framework conditions (e.g. from climate policy requirements) on our business activities is steadily increasing. This requires continuous observation and consideration when making company decisions.

We expect further positive market impulses from government subsidies for environmentally friendly and efficient heating systems. Nonetheless, we anticipate persistent sales and revenue risks in various countries in the coming years. These are related to the ongoing intensification of price competition on the European heating, ventilation and air conditioning technology markets. In addition, there is also the risk of disruptive business models and technologies that endanger existing sales and distribution channels and the product portfolio, especially in the course of digitization.

There are also exchange rate risks. The expectations for the coming years are based on exchange rates, which are based on the exchange rate fluctuations of the reporting year as well as the trend forecasts of possible exchange rate developments. Nevertheless, there is the possibility of an additional, unplanned burden on future business results due to negative share price developments for the Vaillant Group.

Digitization represents both a risk and a significant opportunity that we use by adapting and expanding our existing organizational and sales structures. This opens up opportunities to further strengthen our competitive position.

Forecast report**OVERALL ECONOMIC DEVELOPMENT**

A statement on global economic development for the year 2021 is only possible as an estimate at the time of reporting and on the basis of the available forecasts and is subject to numerous imponderables. For 2021, the IMF currently expects an economic recovery in all major economies, characterized by catch-up effects. However, this forecast is based on the assumption that the COVID-19 pandemic can be contained sufficiently over the course of the year to allow economic activity to gradually normalize.

INDUSTRY DEVELOPMENT

After the slight market decline in 2020, industry analysts expect the heat generator market in Europe to stagnate in 2021. However, the projections assume significantly different sales developments for the individual markets. A moderate recovery is expected for several of the larger international heating technology markets, which fell sharply in 2020. The positive outlook for the future industry trend in the individual countries is based on the assumption of low growth in the gas condensing technology segment as well as persistently good market conditions and a significant increase in demand for heat pumps.

OUTLOOK OF THE VAILLANT GROUP ON THE DEVELOPMENT OF SALES REVENUE AND OPERATING RESULTS (EBIT) FOR 2021

The basis for future sales increases is our competitive position in what is sometimes a difficult environment in the heating, ventilation and air conditioning market. We have consolidated these in recent years with our innovative strength, our strong brands and the quality of our portfolio.

With the growth initiatives initiated and continued in previous years and the consistent implementation of our strategy, we want to achieve sustainable growth in our core markets.

For the 2021 financial year - subject to significant exchange rate fluctuations and the difficult-to-predict future course of the COVID-19 pandemic - we are planning a significant increase in sales.

We expect the operating result (EBIT) in the 2021 financial year to be slightly below the level of the 2020 financial year. This is mainly the result of higher planned expenses for the further implementation of our growth initiatives and strategic projects, especially in the areas of heat pumps and digitalization. In addition, the cost-saving measures taken in spring 2020 will have a much smaller impact on earnings in the 2021 financial year. Due to unforeseeable developments in the corporate environment (including, among other things, unforeseeable developments in the wake of the COVID-19 pandemic and geopolitical tensions), the actual business results may differ from our expectations.

On the basis of the business and industry development described in this report and weighing up the potential risks and opportunities, we expect the market recovery that began in mid-2020 to continue in the 2021 financial year.

02 CONSOLIDATED FINANCIAL STATEMENTS**CONSOLIDATED INCOME STATEMENT**

2020

2019

	Appendix	Million Euro	2020	%	Million Euro	2019	%
	Appendix	Million Euro		%	Million Euro		%
Sales	5.1	2,733.4		100.0	2,621.3		100.0
Production cost of sales	5.2	-1,647.2		-60.3	-1,570.7		-59.9
Gross profit on sales		1,086.2		39.7	1,050.6		40.1
Research and development costs	5.3	-130.7		-4.8	-107.6		-4.1
Marketing and distribution costs	5.4	-557.1		-20.4	-562.8		-21.5
administrative expenses	5.5	-142.5		-5.2	-142.2		-5.4
Other company income	5.6	21.8		0.8	16.7		0.6
Other operating expenses	5.6	-17.2		-0.6	-16.1		-0.6
Operating profit (EBIT)		260.4		9.5	238.7		9.1
Result from other financial assets	5.7	0.0		0.0	0.0		0.0
Interest income and similar income	5.8	5.2		0.2	4.5		0.2
Interest expense and similar expenses	5.8	-14.4		-0.5	-19.9		-0.8
Earnings before taxes		251.2		9.2	223.3		8.5
Income taxes	5.9	-58.9		-2.2	-52.9		-2.0
Result after taxes		192.3		7.0	170.4		6.5
Group profit for the year		192.3		7.0	170.4		6.5
Allocation of the annual surplus to the							
Shareholder of the parent company		186.2		6.8	164.1		6.3
Minority interests		6.1		0.2	6.2		0.2

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Appendix	2020	2019
		million euros	million euros
Group profit for the year		192.3	170.4
Components that cannot be reclassified to the income statement			
Change in the revaluation reserve from defined benefit pension commitments		-31.1	-55.9
Components that can be reclassified to the income statement			
Currency differences from the translation of the financial statements of foreign subsidiaries		-27.9	-16.6
Profits and losses from hedging instruments used to hedge cash flows		11.0	-3.0
Other result	5.11	-47.9	-75.5
Overall result		144.4	94.8
Allocation of the overall result to the			-
Shareholder of the parent company		138.2	88.6
Minority interests		6.1	6.2

GROUP CASH FLOW STATEMENT

	Appendix	2020	2019
		million euros	million euros
Annual surplus		192.3	170.4
Financial result		9.1	15.4
Income taxes		58.9	52.9
Depreciation on intangible assets and property, plant and equipment		115.1	114.9
Other non-cash expenses and income (-)		-	-0.1
Increase / decrease (-) long-term provisions and liabilities		-10.0	-36.5
Increase (-) / decrease in long-term receivables and assets		-0.1	0.1
Book gains / losses from the disposal of property, plant and equipment and intangible assets		-0.0	-0.3
Increase (-) / decrease in inventories		-30.6	4.9
Increase (-) / decrease in current receivables and other assets		-14.5	34.7
Increase / decrease (-) current liabilities		67.2	8.6
Increase / decrease (-) in short-term provisions and other liabilities		37.6	27.8
Operating cash flow		425.0	392.8
Income taxes paid		-43.3	-36.2
Cash flow from operating activities		381.7	356.7
Payment for the acquisition of intangible assets and property, plant and equipment		-125.2	-136.7
Proceeds for the sale of intangible assets and property, plant and equipment		1.1	1.9
Payments for financial assets and for the acquisition of subsidiaries		-1.5	-2.9
Deposits for financial assets		0.5	0.6
Cash flow from investing activities		-125.0	-137.1
Dividends paid to the shareholders of the parent company		-99.0	-97.0
Borrowing		101.4	150.8
Loan repayment		-8.7	-180.2
Interest Paid		-7.9	-10.3

	Appendix	2020 million euros	2019 million euros
Interest received		5.2	4.4
Repayment of lease liabilities		-30.7	-26.5
Payments to minority shareholders from the change in the participation rate		-4.5	-0.6
Dividends paid to minority shareholders		-5.5	-5.9
Cash flow from financing activities		-49.7	-165.3
Net cash flow		206.9	54.3
Cash funds at the beginning of the period		285.3	228.6
Currency-related change in financial resources		-20.9	2.5
Cash funds at the end of the period	6th	471.4	285.3

CONSOLIDATED BALANCE SHEET

	Appendix	December 31, 2020		December 31, 2019	
		Million Euro	%	Million Euro	%
Long-term assets					
Company Value	7.1	539.1	22.0	551.1	25.0
Other intangible assets	7.1	167.6	6.9	148.8	6.8
Property, plant and equipment	7.2	451.4	18.5	451.3	20.5
Companies accounted for using the equity method		0.0	0.0	0.0	0.0
Other financial assets	7.3	10.2	0.4	6.8	0.3
Other claims	7.5	5.8	0.2	5.7	0.3
Deferred tax assets	5.9	108.3	4.4	104.6	4.8
		1,282.4	52.4	1,268.4	57.6
Short-term assets					
Stocks	7.6	377.3	15.4	346.6	15.7
Requests from deliveries and services	7.4	251.5	10.3	240.2	10.9
Other financial assets	7.3	6.7	0.3	1.2	0.1
Other claims	7.5	55.5	2.3	52.2	2.4
Tax Refund Claims		1.5	0.1	7.4	0.3
Cash and cash equivalents	6th	471.4	19.3	285.3	13.0
		1,164.0	47.6	933.0	42.4
Total assets		2,446.4	100.0	2,201.4	100.0
equity capital					
December 31, 2020					
	Appendix	Million Euro	%	Million Euro	%
Subscribed capital		60.0	2.5	60.0	2.7
Capital reserve		75.0	3.1	75.0	3.4
Retained earnings		1,111.9	45.5	1,030.0	46.8
Other equity components		-680.8	-27.8	-633.0	-28.8
Equity of the shareholders of the parent company		566.1	23.1	532.0	24.2
Minority interests		7.3	0.3	6.1	0.3
	7.7	573.4	23.4	538.1	24.4
Long-term liabilities					
Provisions for pensions	7.8	388.0	15.9	367.6	16.7
Other provisions	7.9	56.3	2.3	55.4	2.5
Financial liabilities	7.10	197.1	8.1	266.5	12.1
Other liabilities	7.12	85.6	3.5	76.2	3.5
Deferred tax liabilities	5.9	3.7	0.2	3.7	0.2
		730.8	29.9	769.5	35.0
short-term borrowed capital					
Other provisions	7.9	283.3	11.6	271.3	12.3
Financial liabilities	7.10	188.5	7.7	46.7	2.1
liabilities from goods and services	7.11	349.1	14.3	290.6	13.2
Other liabilities	7.12	284.8	11.6	250.5	11.4
Income tax liabilities	5.9	36.5	1.5	34.8	1.6
		1,142.3	46.7	893.9	40.6
Total capital		2,446.4	100.0	2,201.4	100.0

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Equity attributable to the shareholders of the parent company

Equity attributable to the shareholders of the parent company

Other equity components

Million Euro	Equity attributable to the shareholders of the parent company			Equity attributable to the shareholders of the parent company	
	Subscribed capital	Reserve	Retained earnings	Other equity components	Currency conversion
As of 01/01/2019	60.0	75.0	963.3		-196.1
Overall result	-	-	164.1		-16.6
Distributions	-	-	-97.0		-
Changes in the participation rate without loss of control	-	-	0.4		-
Total December 31, 2019	60.0	75.0	1,030.0		-212.7
As of 01/01/2020	60.0	75.0	1,030.0		-212.7
Overall result	-	-	186.2		-27.9
Distributions	-	-	-99.0		-
Changes in the participation rate without loss of control	-	-	-3.8		-
Rest	-	-	-1.4		-
As of December 31, 2020	60.0	75.0	1,111.9		-240.6

Equity attributable to the shareholders of the parent company

Other equity components

Million Euro	Other equity components	
	Revaluation reserve from defined benefit pension commitments	Time valuation of hedging instruments
As of 01/01/2019	-362.5	0.1
Overall result	-55.9	-3.0
Distributions	-	-
Changes in the participation rate without loss of control	-	-
Total December 31, 2019	-418.5	-2.8
As of 01/01/2020	-418.5	-2.8
Overall result	-31.1	11.1
Distributions	-	-
Changes in the participation rate without loss of control	-	-
Rest	-	-
As of December 31, 2020	-449.5	8.2

Equity attributable to the shareholders of the parent company

Other equity components

Million Euro	Other equity components		Minority interests	Total equity
	Others	total		
As of 01/01/2019	1.1	540.8	6.0	546.8
Overall result	-	88.6	6.2	94.9
Distributions	-	-97.0	-5.9	-102.9
Changes in the participation rate without loss of control	-	-0.4	-0.2	-0.6
Total December 31, 2019	1.1	532.0	6.1	538.1
As of 01/01/2020	1.1	532.0	6.1	538.1
Overall result	-	138.3	6.1	144.4
Distributions	-	-99.0	-5.5	-104.5
Changes in the participation rate without loss of control	-	-3.8	-0.8	-4.6
Rest	-	-1.4	1.4	-0.0
As of December 31, 2020	1.1	566.1	7.3	573.4

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**1 GENERAL PRINCIPLES**

The consolidated financial statements and the group management report of Vaillant GmbH, based in Remscheid (Register Court: Wuppertal District Court, HRB 11775) for the financial year ending December 31, 2020 were prepared by the management on February 22, 2021 and approved for submission to the Supervisory Board. The consolidated financial statements are submitted to the Supervisory Board for approval. In addition, it requires the approval of the shareholders' committee. Both bodies have the option of changing the consolidated financial statements after approval by the management.

Vaillant GmbH is the lead company of the Vaillant Group. Vaillant GmbH is based in Remscheid, Germany.

The actual business activity corresponds to the entry in the commercial register. The main activities of the Vaillant Group are in the development and production as well as the sales and service support of products from the field of heating, ventilation and air conditioning technology.

The consolidated financial statements of Vaillant GmbH are included in the consolidated financial statements of Joh. Vaillant GmbH & Co KG, Remscheid, as the largest possible scope of consolidation. This conclusion is published in the Federal Gazette.

2 ACCOUNTING METHODS**2.1 Basis for preparing the financial statements**

With the exception of certain financial instruments, which are shown at fair value, the consolidated financial statements are generally prepared using the cost principle. The consolidated financial statements are prepared in euros. Unless otherwise stated, all amounts are given in millions of euros. Due to rounding, there may be slight deviations in the form of totals and the calculation of percentages in these financial statements.

In order to improve the clarity of the presentation, various items in the income statement and balance sheet have been combined. These items are shown and explained separately in the notes.

The income statement is prepared using the cost of sales method. The balance sheet is broken down according to the maturity of the assets and liabilities.

2.1.1 Statement of Compliance with IFRS

The consolidated financial statements of the Vaillant Group were prepared in accordance with the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB), as applicable in the European Union (EU), and the additional commercial law provisions to be applied in accordance with Section 315e (1) HGB and was supplemented by a group management report. Due to the regulation of Section 315e (3) HGB, these consolidated financial statements prepared in accordance with IFRS exempt from the obligation to prepare consolidated financial statements in accordance with HGB.

2.1.2 Consolidation principles

The consolidated financial statements of the Vaillant Group include the financial statements of Vaillant GmbH and the financial statements of the companies it controls (subsidiaries) as of December 31, 2020. The Vaillant Group gains control if it:

- Can exercise power of disposal over the investee,
- is exposed to fluctuating returns from its participation and
- can influence the amount of returns due to their power of disposal.

The Vaillant Group will reassess whether it controls an investee or not if facts and circumstances indicate that one or more of the above-mentioned control criteria have changed.

There is a rebuttable presumption that control generally exists when the Vaillant Group has the majority of the voting rights in an associated company. If there is no majority of voting rights, the Vaillant Group still controls the investee if its voting rights give it the practical ability to unilaterally determine the relevant activities of the investee. When assessing whether its voting rights are sufficient for the power of determination, the Vaillant Group takes into account all facts and circumstances, including

- the scope of the voting rights held by the Vaillant Group in relation to the scope and distribution of the voting rights of other voting right holders;
- potential voting rights of the Vaillant Group, other holders of voting rights and other parties;
- Rights from other contractual agreements; and
- further facts and circumstances that indicate that the Vaillant Group has or does not currently have the ability to determine the relevant activities at the times at which decisions have to be made, taking into account the voting behavior at previous shareholders' meetings.

Subsidiaries are fully consolidated from the time of acquisition, i.e. from the time at which the Vaillant Group gains control. The consolidation ends as soon as the parent company no longer has control. The financial statements of the subsidiaries as well as the financial statements of the parent company are prepared using uniform accounting methods for the same reporting period. The business year corresponds to the calendar year. All intra-group balances, income and expenses as well as unrealized gains and losses and dividends from intra-group transactions are eliminated in full.

A change in the level of participation in a subsidiary without loss of control is accounted for as an equity transaction.

Losses are allocated to minority interests (interests without a controlling influence) even if this leads to a negative balance.

If the parent company loses control over a subsidiary,

- it deregisters the assets (including goodwill) and debts of the subsidiary,
- it books off the book value of all minority interests in the former subsidiary,
- it records the fair value of the consideration received,
- it records the fair value of the remaining investment,
- it records surpluses or deficits in the income statement,
- it reclassifies the components of the other comprehensive income attributable to the parent company to the income statement or, if required, to retained earnings.

2.2 Accounting regulations applied for the first time

All IFRS binding for the 2020 financial year, as applied in the EU, have been complied with. The IFRS include the new IFRS issued by the IASB, the International Accounting Standards (IAS), the interpretations of the International Financial Reporting Standards Interpretations Committee (IFRS IC) and the Standing Interpretations Committee (SIC).

The accounting methods applied are basically the same as those applied in the previous year with the exceptions listed below.

The first-time application of the innovations or changes to existing pronouncements listed below had no or only insignificant effects on the asset, financial and earnings position of the Vaillant Group.

Announcement	title	Changes	Impact on the asset, financial and earnings position
Change to the 2018 financial reporting framework	Financial reporting framework	The changes primarily concern the definition criteria for assets and liabilities as well as the elimination of separate recognition criteria, which could lead to an expansion of the group of assets and liabilities to be recognized in the balance sheet. However, this only applies insofar as no specific recognition and measurement regulations are applied in the individual IFRS. It also contains new guidelines on valuation and derecognition as well as identification and information.	The initial application had no effect on the VFE position of the Vaillant Group.

Announcement	title	Changes	Impact on the asset, financial and earnings position
Changes to IAS 1 and IAS 8	Definition of "materiality"	The IASB has issued a definition of "material" in order to sharpen the definition of "material" and to harmonize the various definitions in the Conceptual Framework and in the standards themselves.	The initial application had no effect on the VFE position of the Vaillant Group.
Changes to IFRS 3	Definition of a business operation	The narrowly outlined changes to IFRS 3 aim to solve the problems that arise when an entity determines whether it has acquired a business or a group of assets. The problems result from the fact that the accounting rules for goodwill, acquisition costs and deferred taxes when acquiring a business are different than when acquiring a group of assets.	The initial application had no effect on the VFE position of the Vaillant Group.
Changes to IFRS 9, IAS 39 and IFRS 7	Reform of LIBOR and other reference interest rates (IBOR reform); Phase 1	The IASB has published amendments to IFRS 9, IAS 39 and IFRS 7, which provide for certain simplifications in connection with the IBOR reform. Phase 1 of the project dealt with issues relating to financial reporting in the period before an existing reference interest rate was replaced by an alternative interest rate.	The initial application had no effect on the VFE position of the Vaillant Group.
Changes to IFRS 16	Accounting for rental concessions due to the COVID-19 pandemic	The changes grant lessees an exemption from assessing whether rental concessions granted due to the COVID-19 pandemic (e.g. rent-free periods or temporary rent reductions) constitute a lease modification. If the exemption is used, the rental concessions are to be accounted for as if they were not a modification of the leasing contract. The changes apply to rental concessions that reduce rental payments due on or before June 30, 2021.	The application of the exemption had no effect on the VFE situation of the Vaillant Group.

2.3 Accounting regulations that have been published but not yet applicable in the 2020 financial year

The following standards and interpretations that are potentially relevant for the Vaillant Group and published by the IASB and IFRS IC are not mandatory in the past financial year due to the fact that they have not yet been recognized by the EU or that they have not yet been applied for the first time. If recognition by the EU is already available, the Vaillant Group did not apply it early.

Adopted by the EU:

Announcement	title	Application time	Changes anticipated	Impact on the asset, financial and earnings position (VFE)
Changes to IFRS 9, IAS 39, IFRS 4, IFRS 7 and IFRS 16	Reform of LIBOR and other reference interest rates (IBOR reform); Phase 2	01/01/2021	Applications for the changes to the relevant standards arise in particular if the contracting parties to financial instruments agree on the replacement of a reference interest rate with another reference interest rate due to the IBOR reform. With the amendment to IFRS, the IASB limited undesirable accounting effects that would otherwise have resulted under IFRS 9 when accounting for changes to securities or loan agreements indicated by the IBOR reform. For this purpose, simplifications have been included in IFRS 9, which are aimed in particular at a simplified mapping of IBOR reform-related modifications of financial instruments, and simplifications,	The Vaillant Group does not expect any effects on the VFE situation.

Announcement	title	Application time	Changes anticipated	Impact on the asset, financial and earnings position (VFE)
Amendment to IFRS 4	Extension of the temporary exemption from the application of IFRS 9	01/01/2021	The changes postpone the specified expiry of the temporary exemption from the application of IFRS 9 in IFRS 4 to fiscal years beginning on or after January 1, 2023.	The Vaillant Group does not expect any effects on the VFE situation.
Not yet adopted by the EU:				
Announcement	title	Application time	Changes anticipated	Impact on the asset, financial and earnings position (VFE)
Changes to IAS 16	Property, plant and equipment revenue before intended use	01/01/2022	The amendments make it inadmissible to deduct from the cost of an item of property, plant and equipment the income from the sale of goods that are produced while an item of property, plant and equipment is being brought to management's intended location and operational condition. Instead, a company recognizes the income from such disposals and the cost of producing those goods in profit or loss. The cost of test runs to verify that the property, plant and equipment is functioning properly continues to be an example of directly attributable costs.	The Vaillant Group does not expect any effects on the VFE situation.
Changes to IAS 37	Onerous contracts - the cost of performing a contract	01/01/2022	The amendments stipulate that the "costs of contract performance" are made up of the "costs that are directly related to the contract". This can either be additional costs for the performance of this contract (for example, direct labor costs, materials) or an allocation of other costs that are directly related to the performance of contracts (for example, the allocation of depreciation for an item of property, plant and equipment used in the performance of the contract).	The Vaillant Group does not expect any effects on the VFE situation.
Changes to IFRS 3	Reference to the 2018 framework	01/01/2022	The changes update IFRS 3 so that the standard now refers to the 2018 framework and no longer to the 1989 framework. In addition, two additions were made. When identifying debts that an acquirer has assumed in a business combination for business transactions and similar events within the scope of IAS 37 or IFRIC 21, these same provisions (instead of the framework) must be applied. In addition, the express statement has been included that contingent claims acquired in a business combination are not to be recognized.	The Vaillant Group does not expect any effects on the VFE situation.
AIP 2018-2020	Annual improvements to IFRS 2018-2020	01/01/2022	On May 14, 2020, the IASB issued "Annual Improvements to IFRS 2018-2020", which resulted in minor changes or clarifications to IFRS 1, IFRS 9, IFRS 16 and IAS 41.	The Vaillant Group does not expect any effects on the VFE situation.

Announcement	title	Application time	Changes anticipated	Impact on the asset, financial and earnings position (VFE)
Changes to IAS 1	Classification of liabilities as short or long term	01/01/2023	The amendments to IAS 1 are intended to clarify the criteria for classifying debts as short or long term. Accordingly, a liability is to be classified as long-term if the company has the right on the balance sheet date to postpone the fulfillment of the debt by at least twelve months after the balance sheet date. The mere existence of a right is sufficient; the company does not have to intend to exercise it. In the case of rights that depend on the existence of certain conditions, it is important to determine whether the conditions are met on the reporting date.	The Vaillant Group does not expect any effects on the VFE situation.
IFRS 17	Insurance contracts	01/01/2023	The standard replaces the previously applicable transitional standard IFRS 4 and regulates the principles relating to the approach, valuation, disclosure and information for insurance contracts within the scope of the standard. The scope of application includes insurance contracts, reinsurance contracts and investment contracts with discretionary participation in profits. The most important changes that IFRS 17 brings with it relate to the methodology according to which contracts and policies are valued. So far, they have mainly been assessed on the basis of past developments and on the basis of the data available at the beginning of the contracts,	The Vaillant Group does not expect any effects on the VFE situation.

2.4 Summary of Significant Accounting Policies

2.4.1 Business Combinations and Goodwill

Business combinations are accounted for using the purchase method. The acquisition costs of a company acquisition are measured as the sum of the consideration transferred, valued at the fair value at the time of acquisition, and the minority interests in the acquired company. In every business combination, the Vaillant Group measures the minority interests in the acquired company either at fair value or at the corresponding share of the identifiable net assets of the acquired company. Costs incurred as part of the business combination are recognized as an expense.

If the Vaillant Group acquires a company, it assesses the appropriate classification and designation of the financial assets and liabilities assumed in accordance with the contractual terms, economic circumstances and the conditions prevailing at the time of acquisition. This also includes a separation of the derivatives embedded in host contracts.

Goodwill is initially valued at acquisition cost, which is measured as the excess of the consideration transferred over the identifiable assets acquired and liabilities assumed.

After initial recognition, the goodwill is valued at cost less any accumulated impairment losses. For the purpose of the annual impairment test, the goodwill acquired as part of a business combination is allocated to the Vaillant Group from the time of acquisition of the cash-generating unit or the groups of cash-generating units (both subsumed under CGU) that are expected to benefit from the business combination. This applies regardless of whether the assets or liabilities of the acquired company are assigned to these CGUs.

If goodwill has been allocated to a CGU and a business area of this unit is sold, the goodwill attributable to the sold business area is taken into account as part of the book value of the business area when determining the result from the sale of this business area. The value of the sold portion of the goodwill is determined on the basis of the relative values of the sold business area and the remaining part of the CGU, provided that another method does not provide a better allocation of the proportional goodwill to the sold business area.

2.4.2 Shares in associated companies / other investments

The shares of the Vaillant Group in an associated company are generally accounted for using the equity method.

An associated company is a company over which the Vaillant Group has significant influence. Significant influence is the opportunity to participate in the financial and business policy decisions of the company in which the investment is held. This applies to direct or indirect voting shares of 20 percent to 50 percent.

According to the equity method, shares in the associated company are to be included in the consolidated balance sheet at their acquisition costs, which are adjusted for changes in the Group's share of the profit or loss and other income of the associated company after the date of acquisition. Losses incurred by an associated company that

exceed the Vaillant Group's stake in this associated company are not recorded. They are only recorded if the Group has entered into legal or factual obligations to absorb losses or makes payments in place of the associated company.

After applying the equity method, it is determined whether it is necessary to record an additional impairment loss for the shares of the Vaillant Group in associated companies. On each balance sheet date, the Vaillant Group determines whether there are objective indications that the share in an associated company may be impaired. If this is the case, the difference between the recoverable amount of the stake in the associated company and the book value of the stake is recognized in profit or loss as an impairment loss.

Shares in non-consolidated affiliated companies and other insignificant investments of the Vaillant Group are classified as financial assets that are measured at fair value through profit or loss. For the sake of simplicity, they are valued at amortized cost, unless a lower fair value can be determined.

2.4.3 Non-current assets held for sale

Non-current assets and disposal groups classified as held for sale are valued at the lower of the carrying amount and fair value less costs to sell. Long-term assets or disposal groups are classified as held for sale if the associated book value is primarily realized through a sale and not through continued use. This is only the case if the sale is highly probable and the asset or disposal group can be sold immediately in its current condition. Management must have decided to sell

2.4.4 Foreign currency conversion 2.4.4.1 Foreign currency transactions and balances

In the individual financial statements of the consolidated subsidiaries, transactions in foreign currencies are converted into the functional currency at the rate on the day of the transaction. On the balance sheet date, monetary items are converted at the closing rate, non-monetary items are converted at the transaction rate. Exchange differences are recognized in profit or loss.

2.4.4.2 Conversion of the financial statements of companies included in the consolidated financial statements

The annual financial statements of companies outside the euro area are converted using the functional currency concept. The functional currency of these companies is currently the respective national currency in all cases, as these companies conduct their business independently from a financial, economic and organizational point of view. Accordingly, the assets and liabilities of these companies are converted using the exchange rate on the reporting date. In principle, expenses and income are converted at the annual average rate. Anything in connection with the acquisition of a foreign business operation after the 1st Goodwill arising from January 1, 2005 and any adjustments to the fair value of assets and liabilities in connection with acquisitions of companies outside the euro area are regarded as assets and liabilities of the reporting company and translated using the exchange rates at the time of the business transactions and in subsequent periods using the closing rate. Exchange rate differences from the translation of the financial statements of integrated foreign units are generally recognized directly in equity.

The exchange rates of the most important currencies for the Vaillant Group to the euro changed as follows:

	currency	Closing rate		Average rate	
1					
euro		December 31, 2020	December 31, 2019	2020	2019
China	CNY	8.02	7.82	7.90	7.74
Great Britain	GBP	0.90	0.85	0.89	0.88
Russia	RUB	91.47	69.96	83.80	71.95
Turkey	TRY	9.01	6.65	8.22	6.38

2.4.5 Intangible Assets

Intangible assets with a determinable useful life that are not acquired as part of a business combination are recognized at cost less accumulated depreciation and impairment. The depreciation is recognized in profit or loss on a straight-line basis over the expected useful life. The expected useful life is checked on each balance sheet date and possible changes in estimates are taken into account prospectively.

The cost of intangible assets acquired in a business combination corresponds to their fair value at the time of acquisition.

The respective depreciation is recorded in the income statement under the respective functional area that the intangible asset serves. The useful lives of the intangible assets are between 2 and 15 years.

Research costs are always recorded as an expense in the period in which they are incurred. Development costs of individual projects - which in addition to product developments increasingly also include development services to support business processes - are only capitalized as an intangible asset if the Vaillant Group can cumulatively demonstrate the following:

- the technical feasibility of completing the intangible asset that enables internal use or sale of the asset;
- the intention to complete the intangible asset and the ability to use or sell it;
- how the asset will generate future economic benefits;
- the availability of resources for the purpose of completing the asset;
- the ability to reliably determine the expenditure attributable to the intangible asset during its development.

The amount with which an internally generated intangible asset is capitalized is the sum of the expenses incurred from the day on which the intangible asset first meets the above conditions. After initial recognition, development costs are reported at acquisition or production costs less accumulated depreciation and accumulated impairment losses. If material and if the prerequisites are met, the long-term development projects (> 12 months) include borrowing costs. The capitalization of development costs ends when the benefit intended by management is achieved and depreciation begins when the asset is used. The depreciation period is based on the life cycle or the economic useful life of the respective product or development service. An impairment test is carried out annually from the development phase onwards.

2.4.6 Property, plant and equipment

Tangible assets are valued at acquisition or production cost, reduced by scheduled depreciation and, if necessary, impairments. In addition to the incidental acquisition costs, the acquisition or production costs include the costs of replacing part of a property, plant and equipment as well as borrowing costs, if material, for long-term construction projects (> 12 months) if the recognition criteria are met. Scheduled depreciation is spread over the useful life on a straight-line basis.

The useful lives listed in the table are the mostly used useful lives for each property, plant and equipment class in the Vaillant Group.

Property, plant and equipment are either derecognized when they are disposed of or when no further economic benefits are expected from the continued use or sale of the asset. The gains or losses on disposal resulting from the derecognition of the asset are determined as the difference between the net sales proceeds and the book value of the asset and recognized in other operating income or other operating expenses in the income statement in the period in which the asset is located is booked out.

The residual values, useful lives and depreciation methods of the assets are checked at least at the end of each financial year; If expectations differ from previous estimates, the corresponding changes are treated as changes in estimates in accordance with IAS 8.

Useful life of property, plant and equipment	years
Buildings on their own land	10 to 50
Technical equipment and machinery	5 to 22
Other equipment, factory and office equipment	3 to 23

In addition, assets from rights of use that are accounted for in accordance with the requirements of IFRS 16 are reported under property, plant and equipment. For further details we refer to the explanations under 2.4.7.

2.4.7 Leases

A lease within the meaning of IFRS 16 is a contract that grants the right to control the use of an identified asset (the underlying leased item) for a determinable period in return for payment.

The Vaillant Group acts primarily as a lessee, particularly when it comes to renting land and buildings as well as vehicles. For lessees, with a few exceptions, a right of use to the underlying asset (RoU asset) and a corresponding lease liability must be recognized for all leases.

The amount of the RoU asset at the time of addition corresponds to the amount of the lease liability plus

- any initial direct costs,
- at or before the provision of lease payments made less lease incentives received, and
- the estimated costs of the dismantling to be borne by the Vaillant Group.

In the following periods, the right of use is valued at amortized cost.

The lease liability includes the following lease payments:

- fixed payments, less leasing incentives to be provided by the lessor,
- variable payments, the amount of which is linked to the development of an index or price,
- expected payments from residual value guarantees,
- the exercise price of a call option if the exercise was assessed as sufficiently certain and
- Contractual penalties for terminating the lease if its term takes into account that a termination option is used.

The lease liability is valued at the present value of the lease payments not yet made. The lease payments are discounted using the interest rate on which the lease is based, provided this can be easily determined. Otherwise, the corresponding marginal borrowing rate is used. In the following, the book value of the lease liability is compounded using the effective interest method and reduced by the lease payments made. If the scope of the lease or the remuneration to be paid for the lease changes and this was not provided for in the original terms of the lease, the amended contract will be reviewed to ensure that:

Exceptions are short-term leases with a maximum term of twelve months and lease agreements for low-value assets, which the Vaillant Group makes use of and only recognizes expenses in the amount of the lease payments paid in the consolidated income statement. Furthermore, the provisions of IFRS 16 are not applied to leases for intangible assets. In the case of real estate and vehicle leases that contain both leasing and non-leasing components, these components are treated separately from one another.

A number of leasing contracts, particularly real estate leasing contracts, contain extension and termination options. When determining the contract period, all facts and circumstances are taken into account that offer an economic incentive to exercise extension options or not exercise termination options. Changes to the term from the exercise or non-exercise of such options are only taken into account in the contract period if they are sufficiently certain and there is no unilateral termination option on the part of the lessor.

Lessors, on the other hand, have to classify a leasing agreement as either a finance lease or an operating lease, depending on the extent to which the opportunities and risks associated with ownership are transferred to the lessee. The classification takes place at the beginning of the lease.

If the lessor bears the main opportunities and risks (operating leasing), the leased item is recognized by the lessor in the balance sheet. The valuation of the leased item is based on the accounting regulations applicable to this item. The lessor collects the leasing installments through profit or loss.

If the lessee bears the main opportunities and risks associated with ownership of the leased item (finance lease), the lessor must derecognize the leased item and recognize a claim in the amount of the net investment in the lease. The lease payments are divided into repayments of the lease receivable and finance income. The receivable from the lease is repaid and updated using the effective interest method.

The Vaillant Group has concluded subleases with external third parties for various leases. These essentially relate to the subletting of buildings. From the perspective of the Vaillant Group as the lessor, the subleases represent operating leases.

2.4.8 Impairment of non-financial assets

The Vaillant Group does not test financial assets for impairment if events or changed circumstances indicate that the book value of an asset may not be recoverable. In addition, the Vaillant Group checks property, plant and equipment and development projects that are not yet ready for use for impairment every year. The Vaillant Group estimates the recoverable amount of the respective asset or, if the individual asset does not generate cash inflows that are largely independent of other assets, of the cash-generating unit (CGU). For the purposes of the impairment test, the recoverable amount is determined as the higher of the fair value less costs to sell and the value in use and compared with the book value. If the book value exceeds the recoverable amount, an impairment loss in the amount of the difference is recognized in profit or loss. When testing non-financial assets for impairment, the determination of the recoverable amount of the assets is associated with estimates. This can have a significant impact on the respective values as well as on the amount of possible impairment. an impairment in the amount of the difference is recognized in profit or loss. When testing non-financial assets for impairment, the determination of the recoverable amount of the assets is associated with estimates. This can have a significant impact on the respective values as well as on the amount of possible impairment.

2.4.9 Inventories

Inventories are valued at acquisition or production cost or at the lower net realizable value. The net realizable value is the estimated sales proceeds that can be achieved in the normal course of business less the estimated costs up to completion and the estimated sales costs. Devaluations to a lower net realizable value, if applicable, represent impairment losses that are recognized in profit or loss and shown in the cost of sales. If the reason for the devaluation no longer applies, the value is reversed up to a maximum of the original acquisition or production costs.

Raw materials, consumables and supplies and merchandise are capitalized at weighted moving average costs. The unfinished and finished goods are valued at production cost or at the lower current or market price. The production costs are made up of the individual material and production costs plus production-related variable and fixed overheads. Risks that arise either from reduced usability or from lower realizable sales prices of inventories are taken into account by means of value adjustments.

2.4.10 Measurement of the fair value

The Vaillant Group values financial instruments (e.g. derivatives) on each balance sheet date at fair value. In addition, the fair value of financial instruments is stated, which is valued at amortized cost. For details on the fair values of financial instruments, please refer to section 7.15. The fair value is the price that would be received for the sale of an asset or paid for the transfer of a liability in an orderly business transaction between market participants on the measurement date.

All financial instruments for which a fair value is recorded or disclosed are classified as follows in the measurement hierarchy, based on the input factor of the lowest level that is significant for the measurement of the fair value as a whole:

Level 1 - Quoted (unadjusted) prices in active markets for like assets or liabilities

Level 2 - valuation methods in which the lowest input parameter that has a significant effect on the valuation at fair value can be observed either directly or indirectly

Level 3 - valuation methods in which the lowest input parameter, which has a significant effect on the valuation at fair value, is not observable

For the purposes of fair value information, the Vaillant Group has determined appropriate classes of assets and liabilities based on the nature, characteristics and risks of the asset or liability and the level of the measurement hierarchy.

2.4.11 Non-derivative financial instruments

2.4.11.1 Initial approach and evaluation

Financial instruments are accounted for and valued in accordance with IFRS 9. According to this, financial instruments are recognized in the consolidated balance sheet if the Vaillant Group has a contractual right to receive cash or other financial assets from another party, or if it has a contractual obligation to another company Surrender cash or other financial assets. The Vaillant Group does not make use of the option to classify financial assets or financial liabilities upon initial recognition as at fair value through profit or loss or equity instruments as not affecting profit or loss at fair value (fair value options).

- Financial assets that are measured at amortized cost (Financial Assets Measured at Amortized Cost) are assets whose expected cash flows consist solely of principal and interest payments on the outstanding principal. This assessment is also known as the cash flow condition check and is performed at the financial instrument level. For the purpose of checking the cash flow conditions, the capital amount corresponds to the fair value of the financial asset at the time of acquisition. In addition to the cash flow condition, the classification also depends on the business model,
- Financial liabilities that are measured at amortized cost (Financial Liabilities Measured at Amortized Cost - FLAC) are recognized upon addition at their fair value, which generally corresponds to the expected future cash outflow using the effective interest method. This category includes trade payables, loans, and other miscellaneous financial liabilities.
- Financial instruments that are measured at fair value with no effect on income (Financial Instruments Measured at Fair Value Through OCI - FAFVOCI, FLFVOCI) are generally held as part of a dual business model, the objective of which is met if contractual cash flows are regularly received and financial instruments are sold will. In addition, the cash flow condition must be met.
- Financial instruments that are measured at fair value through profit or loss (Financial Instruments Measured at Fair Value Through Profit or Loss - FAFVPL, FLFVPL) are generally held within the framework of a business model, the objective of which is met if the cash flows are realized through the sale of the assets will. For example, business models in which the financial assets are held for trading purposes or managed on a fair value basis lead to an FVPL valuation. Financial liabilities are classified as for trading purposes,

Customary purchases and sales of financial assets are generally accounted for on the settlement date. A financial instrument is initially recognized at fair value. The Vaillant Group only takes transaction costs into account when determining acquisition costs if it does not measure the financial instruments at fair value through profit or loss. Long-term interest-free or low-interest financial instruments are initially recognized at the present value of the expected future cash flows. With regard to the impairment of financial assets, the Vaillant Group follows the simplified approach in accordance with IFRS 9.5.5.15: Financial assets, those that are valued at amortized cost, and those that are valued at fair value with no effect on income, are valued at the initial recognition and on each subsequent balance sheet date with the total expected credit loss over the term (lifetime expected credit loss model). For this purpose, the assets are summarized in groups of financial assets with comparable default risk profiles and jointly examined for impairment. The Vaillant Group defines the classification of its financial instruments when they are first recognized. are valued at the initial recognition and on each subsequent balance sheet date with the total expected credit loss over the term (lifetime expected credit loss model). For this purpose, the assets are summarized in groups of financial assets with comparable default risk profiles and jointly examined for impairment. The Vaillant Group defines the classification of its financial instruments when they are first recognized. are valued at the initial recognition and on each subsequent balance sheet date with the total expected credit loss over the term (lifetime expected credit loss model). For this purpose, the assets are summarized in groups of financial assets with comparable default risk profiles and jointly examined for impairment. The Vaillant Group defines the classification of its financial instruments when they are first recognized. For this purpose, the assets are summarized in groups of financial assets with comparable default risk profiles and jointly examined for impairment. The Vaillant Group defines the classification of its financial instruments when they are first recognized.

2.4.11.2 Follow-up evaluation

The subsequent valuation of the financial instruments depends on their classification.

Financial assets that are valued at amortized cost are recognized using the effective interest method and less any impairments that correspond to the expected credit default over the life of the asset when it is added. If there are objective indications of further impairment of an individual asset, the amount of the impairment loss results from the difference between the book value of the asset and the present value of the expected future cash flows.

The group of financial instruments measured at fair value through profit or loss includes derivative financial instruments concluded by the Vaillant Group that are not designated as hedging instruments in hedging relationships in accordance with IFRS 9, trade receivables that are later sold as part of the ABS program, as well as investments in equity instruments of other companies.

The subsequent valuation of other financial liabilities, which are valued at amortized cost, is carried out using the effective interest method. Effects on profit or loss for the period only occur when the liabilities are written off or in the context of subsequent valuation using the effective interest method. Amortized cost is calculated taking into account a premium or discount on acquisition as well as fees or costs that represent an integral part of the effective interest rate. The amortization using the effective interest method is included in the income statement as part of interest expenses.

The Vaillant Group only derecognizes financial assets if the contractual rights to the cash flows from the financial asset expire or if it transfers the financial asset and essentially all the opportunities and risks associated with ownership to a third party.

If the Vaillant Group neither essentially transfers nor retains all of the opportunities and risks associated with ownership, but still has power of disposal over the transferred asset, the Vaillant Group recognizes an asset in the amount of its ongoing commitment and a corresponding liability in the amount that may be payable Amounts.

A financial liability is derecognized when the obligation on which this liability is based has been fulfilled, canceled or has expired.

Financial assets and liabilities are only shown in the balance sheet as a net amount if there is currently a legal right to offset the recorded amounts and the intention is to settle on a net basis or to redeem the associated liability at the same time as the asset in question is realized .

2.4.12 Derivative financial instruments and hedging relationships

The Vaillant Group uses derivative financial instruments to hedge against exchange rate, interest rate and raw material price risks.

Derivatives are initially recognized at their fair value at the time the contract is concluded and then measured at fair value on each reporting date. If material, the credit default risk is appropriately taken into account in the valuation in accordance with the requirements of IFRS 13. The profit or loss resulting from the valuation is immediately recognized in profit or loss, unless the derivative is designated and effective as a hedging instrument within the framework of a hedge accounting.

As part of its hedging strategy and by designing it as an effective hedging instrument, the Vaillant Group uses forward exchange transactions to hedge against exchange rate risks, interest rate hedges to hedge against the risk of changes in interest rates, and commodity futures contracts to hedge the purchase price of goods. The hedging instruments used by the Vaillant Group basically serve to hedge payment flows (cash flow hedge). All hedging instruments are always designated in their entirety, that is, in addition to the spot rate component, the forward component is also designated (forward-to-forward method). The Vaillant Group reports the effective part of the changes in the fair value of these instruments after taking deferred income taxes into account in other comprehensive income. The ineffective part is immediately recognized in profit or loss in the consolidated income statement. The amounts accumulated in equity are reported in the consolidated income statement in the same periods in which the hedged underlying transaction is reflected in the consolidated income statement. If the expected transaction or firm commitment is no longer expected to occur, the cumulative gains or losses previously recorded in equity are transferred to the income statement. If the hedging instrument expires, sold, terminated or exercised without the hedging instrument being replaced or rolled over to another hedging instrument or the criteria for hedge accounting are no longer met, the cumulative gains or losses previously recognized in other comprehensive income remain in other comprehensive income until the expected transaction or firm commitment affects the result.

During the valuation, the fair values of the currency forwards are determined on the basis of the respective reference rates on the balance sheet date of the European Central Bank (ECB) plus the corresponding forward premiums or discounts. The value of the commodity futures is determined on the basis of the forward prices determined by the London Metal Exchange. If the fair value cannot be derived from active and liquid markets, the net present value of future cash flows represents the fair value. Derivative financial instruments are shown as financial assets or liabilities if their fair value is positive or negative.

2.4.13 Taxes

Income taxes include both actual income taxes and deferred taxes. Current and deferred taxes are recognized in the income statement, unless they are related to items that are recognized either in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity.

The actual tax refund claims and tax liabilities for the current and previous periods are measured at the amount of which a refund or payment to the tax authorities is expected. The calculation of the amount is based on the tax rates and tax laws that apply on the reporting date in the countries in which the Vaillant Group operates and generates taxable income.

In cases in which the Vaillant Group considers it probable that the tax authorities could assess a tax situation differently, an associated tax risk is taken into account in the balance sheet as a provision. The assessment of this risk is based on the expected value.

According to the liability method, deferred tax assets and liabilities are recognized with the future tax effect resulting from the differences between the balance sheet and tax values of asset and liability items. There is an exception for differences that arise from the initial recognition of goodwill and that do not lead to any recognition of deferred taxes. Deferred tax assets are recognized if sufficient taxable income is available in the future. Among other things, the planned results from operating activities, the effects on earnings from the reversal of taxable temporary differences and possible tax strategies are included.

Deferred tax claims and deferred tax liabilities are offset against each other if the Vaillant Group has an actionable claim to offset the actual tax refund claims against actual tax liabilities and these relate to income taxes of the same taxable entity that are levied by the same tax authority.

2.4.14 Pension commitments

The Vaillant Group's expenses from defined contribution plans are recognized within the operating result. The Vaillant Group evaluates the benefit entitlements from defined benefit plans using the regular single premium method, which reflects the actuarial present value of the entitlement already earned. The present value of the defined benefit obligation (DBO) is calculated by the Vaillant Group, taking into account future salary and pension trends, as the benefit entitlement that can be achieved up to the regular retirement age depends on these. The pension obligations are determined on the basis of an actuarial report. Revaluations, consisting of actuarial gains and losses, for example from the adjustment of the discount rate, and from the difference between the expected and actual return on plan assets, are recognized directly in other comprehensive income. The revaluations recorded in other comprehensive income will not be reclassified to the consolidated income statement in subsequent periods. The assumptions on which the calculation of the DBO is based on the balance sheet date of the previous year apply to the determination of the current service cost as well as the calculated interest income and interest expenses for the following financial year. The current and past service costs for post-employment benefits and other administrative costs that are not related to the management of plan assets are charged to the operational functional areas. Past service cost is recognized in profit or loss when the plan change occurs.

If the acquired benefit entitlements are not covered by plan assets, the Vaillant Group recognizes a liability from post-employment benefits in the amount of the DBO. If the benefit entitlements are covered by assets, the Vaillant Group offsets the fair value of the plan assets against the DBO. The net amount is shown in the item "Provisions for pensions" or in the item "Long-term assets".

2.4.15 Other provisions

Provisions are recognized if there is a current, legal or constructive obligation towards a third party due to a past event, the outflow of resources with economic benefit to fulfill the obligation is probable and a reliable estimate of the amount of the obligation is possible. These provisions are recognized at the expected settlement amount, taking into account all identifiable risks. The settlement amount reflects the best possible estimate of the expense that is required to meet the current obligation as of the balance sheet date. If individual obligations are assessed, the most likely outcome is the best possible estimate of the liability.

If the Vaillant Group expects a reimbursement, at least in part, for a provision recognized as a liability, the reimbursement is recognized as a separate asset, provided that the receipt of the reimbursement is virtually certain. The expense from the formation of the provision is shown in the income statement less this reimbursement. Long-term provisions are discounted if the resulting effect is significant.

2.4.16 Cash and cash equivalents

Cash and cash equivalents mainly consist of cash and sight deposits at banks and are valued at face value.

2.4.17 Government grants

Government grants are only recognized if there is reasonable assurance that the conditions attached to them will be met and that the grants will be received. Investment grants are recorded as a reduction in the acquisition or production costs of the assets concerned and lead to a corresponding reduction in scheduled depreciation in subsequent periods. Grants that are not related to investments are shown in the functional areas in the consolidated income statement in which the underlying expenses were recorded.

2.4.18 Revenue recognition

The Vaillant Group is an international company in the heating, ventilation and air conditioning industry. The focus is on the sale of heating devices based on natural gas as well as technologies for the use of renewable energies. In addition to the product business, the service business is another focus of business activity. Commissioning, repairs and maintenance are just as much a part of this as warranty extensions, connective services and internet-based applications.

Revenues from the sale of goods and products are recognized as soon as the power of disposal over the goods has passed to the buyer. This is the case when the products have been shipped to the customer and the customer has taken on the opportunities and risks associated with ownership of the goods.

In addition to the sale of products, the Vaillant Group also generates revenue from the provision of services. Revenues from commissioning and maintenance are recorded when the service has been performed. Income for services that are rendered through several partial services within a certain period of time are recognized on a straight-line basis within this period. This primarily relates to sales from extended warranty services as well as the realization of sales from remote monitoring and diagnostics in the context of connective services.

Revenue from contracts that contain several service promises (e.g. sales of goods in combination with services) are recognized when the respective contractual element has been delivered or performed. The allocation of the transaction price to the individual services is based on their relative individual selling prices. In particular, the "expected cost plus margin approach" is used throughout the group. Depending on the respective country-specific business practices, customer contracts can also contain implicit performance promises.

Sales of goods and products that lead to the granting of bonus points to customers in accordance with the Group's loyalty point program are accounted for as multi-component contracts and the fair value of the consideration received or to be received is divided between the goods sold and the bonus points granted in accordance with the relative individual selling prices. The consideration for the bonus points granted is determined on the basis of the discount granted upon redemption, taking into account the probability of redemption. Such consideration is not realized as sales at the time of the original sales transaction, but is initially deferred as a liability under the contractual liabilities. The Vaillant Group acts largely as a principal within the framework of the customer loyalty programs it has issued. Sales are recorded when the bonus points have been redeemed and the Vaillant Group has fulfilled its performance obligations.

When determining the transaction price, financing components are only taken into account if they have a significant impact on the asset, financial and earnings position of the Vaillant Group. If the Vaillant Group grants its customers long-term payment terms and the implicit financing effect is material, the transaction price is determined by discounting the promised consideration. The present value determined in this way is compounded over the term agreed with the customer using the effective interest method, whereby the amount from the compounding is shown within the interest income. A major financing component is generally not taken into account for the amount and time of revenue recognition,

In connection with long-term service contracts in particular, customers may make advance payments. However, in accordance with IFRS 15.62 (c), these do not contain any financing components and are therefore recognized as contractual liabilities under other liabilities in the amount of the consideration received.

Directly attributable costs of contract initiation in connection with the conclusion of long-term service contracts are only recognized as other assets and released through profit or loss over the term of the underlying contracts if the resulting effects are material and the Vaillant Group also expects these costs to exceed the Returns from the service contract can be earned again. Here, too, the Vaillant Group makes use of the option of not capitalizing the costs of contract initiation, provided that the depreciation period that would otherwise be used does not exceed twelve months.

The Vaillant Group receives cash inflows from the sale of goods and products as well as the provision of services in accordance with the payment modalities agreed with the customer, which basically correspond to the usual market conditions. With regard to the sale of products, invoicing usually takes place upon delivery of the goods, taking into account the contractually agreed payment terms. In connection with the provision of services, the billing takes place either immediately after the provision of the service or in advance, especially in the case of long-term service contracts, which then leads to the delimitation of contractual obligations. Variable remuneration components primarily relate to bonus agreements, price reductions and other reimbursements. They apply to both direct and indirect customers of the Vaillant Group and are only taken into account when determining the transaction price to the extent that it is highly probable that there will be no significant adjustment to sales in future periods. The Vaillant Group uses several methods to estimate the scope of obligations from variable reimbursements to direct and indirect customers as of the balance sheet date;

For obligations from warranties in the first 24 months after the goods have been placed on the market, provisions are made at the time of sale, which are recognized within the cost of sales. Guarantee agreements that go beyond this period are recognized as independent performance promises with their own revenue recognition.

Within the Vaillant Group, there are no material take-back or buy-back obligations from the sale of goods. The Vaillant Group basically acts as the principal in its customer relationships.

3 DISCRETIONAL DECISIONS AND ESTIMATION UNCERTAINTIES

When preparing the consolidated financial statements, management makes certain assumptions and estimates that can have a significant impact on the presentation of the Vaillant Group's net assets, financial position and results of operations. These assumptions and estimates are based, among other things, on global macroeconomic developments in particular. This was heavily influenced by the COVID-19 pandemic in the past financial year. Contrary to the generally negative expectations from the first half of 2020, it became apparent in the further course of the financial year that the business activities of the Vaillant Group were not affected by this crisis to the extent that the degree of uncertainty in the assumptions and estimates of management would have increased. However, should the COVID-19 pandemic have any effects, even if they were not based on estimates or judgments, these will be presented in the corresponding chapters.

The assumptions and estimates of the management essentially relate to the following issues:

The premises and the underlying methodology for carrying out impairment tests can have a significant impact on the respective values and ultimately on the amount of possible impairment of goodwill, capitalized development costs and property, plant and equipment. In particular, the determination of discounted cash flows is subject to extensive planning assumptions that are sensitive to changes and can thus significantly influence the value. We refer to our explanations in chapters 7.1 to 7.2.

When determining the transaction price in accordance with IFRS 15 as the basis for revenue recognition, the Vaillant Group regularly makes estimates of expected variable consideration in the form of bonuses, other price reductions and other reimbursements to direct and indirect customers. In addition to bonuses and discounts, these primarily concern performance-based reimbursement models with customers based on annual target agreements that are linked to the achievement of certain targets (e.g. sales volumes). Even if variable consideration is only taken into account to the extent that it is highly likely that they will exist, subsequent adjustments can in principle always be made.

The individual selling prices, which form the basis of the sales allocation in multi-component contracts, are reviewed annually for appropriateness and - if necessary - adjusted with prospective effect from the time of the change. If stand-alone selling prices cannot be observed directly, they are estimated using the cost surcharge method. In these cases, the determination is associated with uncertainties and requires business judgment.

Depending on the respective country-specific business practices, customer contracts can also contain implicit performance promises. These are derived from the historical empirical values available in each case and taken into account when determining the sales-relevant performance promises.

The determination of the term of leases in accordance with IFRS 16 can be associated with uncertainties. This applies in particular to long-term agreements with extension or termination options on the part of the Vaillant Group as the lessee. These are only taken into account when determining the term if it appears sufficiently certain that the option will be exercised.

Since the lessor's internal discount rate cannot usually be determined without further ado, the term-equivalent and currency-equivalent marginal borrowing rate is usually determined with regard to the discount rate relevant for discounting purposes. Its determination is generally associated with assumptions and estimates.

The determination of the impairment of financial assets, in particular for trade receivables and other receivables, includes to a considerable extent assessments and assessments of individual receivables and receivables with comparable default risk profiles with regard to the creditworthiness of customers, current economic developments and the analysis of historical bad debts. For further information we refer to chapter 7.4.

In terms of income taxes, there are uncertainties regarding the interpretation of complex tax regulations and the amount and timing of future taxable results. This applies to both actual and deferred taxes. The current income taxes in the Vaillant Group are calculated taking into account the legal requirements applicable in the respective

countries. Insofar as legal discretion has been exercised in the recognition and valuation of the tax items presented in the financial statements, the local tax authorities can generally position themselves differently. Deferred tax assets are recognized to the extent that it is probable that they can be used. The use of deferred tax assets depends on the possibility of generating sufficient taxable income within the framework of the respective tax type and tax jurisdiction. For this purpose, the planned operating business results and the effects on earnings from the reversal of taxable temporary differences are taken into account. However, since future business developments are uncertain and in some cases cannot be influenced by the Vaillant Group, the valuation of deferred taxes is associated with uncertainties. Uncertain income tax items on the balance sheet are valued at the expected value. Further information can be found in Chapter 5.9. 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Obligations for pensions and related expenses are determined in accordance with actuarial valuations. These valuations are based on assumptions, including discount rates, expected inflation rates, and mortality rates. The discount rates used are determined on the basis of the yields that are achieved at the end of the reporting period for high-quality fixed-income corporate bonds with a corresponding term and currency. If such yields are not available, the discount rates are based on market yields on government bonds. Sensitivity analyzes of the key actuarial assumptions made can be found in Section 7.8.

The contingent liabilities and the recognition and measurement of provisions are largely subject to estimates by the Vaillant Group. In addition to assessing the likelihood of an outflow of resources to meet the obligation, this also applies to a reliable estimate of the amount of the obligation. These assessments may change if more recent information becomes available, and this may affect the Vaillant Group's net assets, financial position and results of operations. More detailed information can be found in chapters 7.9 and 7.13.

4 SCOPE OF CONSOLIDATION

In the consolidated financial statements of the Vaillant Group as of December 31, 2020, including Vaillant GmbH as the parent company, 16 domestic (2019: 16) and 91 foreign (2019: 94) companies were fully consolidated.

The scope of consolidation changed as follows in the past fiscal year:

Reconciliation	inland	abroad	total
Fully consolidated companies 01/01/2020	16	94	110
Accesses	0	1	1
Departures	0	4th	4th
Fully consolidated companies December 31, 2020	16	91	107

In the 2020 financial year, the Vaillant Group increased its shares in the following Spanish service companies to 100 percent:

- Dicomán Vizcaya Servicio de Asistencia Técnica SL, based in Basauri
- Sematec Burgos Servicio de Asistencia al Cliente SL based in Burgos
- Sematec Guipúzcoa SL based in San Sebastian
- Vaillant Servi Tecnic Girona SL based in Girona

Since the Vaillant Group had already exercised control before acquiring the additional shares, the transaction was treated as an equity transaction. Therefore, the difference between the consideration and the fair value of the shares acquired in the amount of EUR 3.8 million was shown as a reduction in retained earnings. Subsequently, with the exception of Vaillant Servi Tecnic Girona, the other three companies within the group were merged into Red Ofisat SLU, based in Zamudio.

In addition, a total of 100 percent of the Spanish service company E. Graupera I Fills SLU, based in Barcelona, was acquired. The acquisition was classified as a business combination in accordance with the provisions of IFRS 3. The acquisition of the company is of minor importance for the consolidated financial statements of the Vaillant Group with a purchase price of around EUR 1 million.

In addition, Vaillant Dutch Holdings BV, based in Amsterdam, was liquidated on December 29, 2020.

Further information on the scope of consolidation:

In the case of the fully consolidated subsidiaries in which the Vaillant Group holds 50 percent of the voting rights, control also results from the ability to determine the relevant operational and financial activities of the companies concerned when the substantial rights are exercised. In addition to voting rights, the possibility of control is based in particular on existing contractual agreements between the Vaillant Group and other investors and the economic dependence of the subsidiaries on the Vaillant Group.

The Vaillant Corporation, Cinnaminson, USA, and Vaillant Ltd., Hong Kong, China are not included in the consolidated financial statements, as these companies ceased their operating activities several years ago and are therefore used for assessing the asset, financial and earnings position of the Group are of minor importance.

As of December 31, 2020, there were restrictions in the Vaillant Group for various Group companies in the form of prohibitions on disposal, obligations and burdens, which were agreed in connection with the existing defined benefit pension plans in Great Britain (so-called negative pledge subgroup). The aim of the agreement is basically to preserve the value of the companies concerned to secure the claims from the plan. This results in numerous restrictions, for example with regard to the taking out of loans, the issuing / taking up of guarantees and the transfer of participations and other assets.

For assets from rights of use that are accounted for in accordance with the requirements of IFRS 16, there are fundamentally restrictions on disposal (see Section 7.2). No assets were pledged as security for debts. With regard to the minority interests, there are no property rights or restrictions on disposal that go beyond the usual extent. The following table contains details on the directly and indirectly associated companies of the Vaillant Group.

Name of the company	Seat	Head office / country of establishment	Participation and voting rights quota		Type of relationship	Valuation method
			(in%)			
Tianjin Vaillant Gas Water Heater Ltd.	Tianjin	CN	47		Sales company	At amortized cost
Manuel J. Monteiro & Co. Lda.	Barcarena	PT	26th		Sales company	Equity method

If shares in subsidiaries or associated companies are of minor importance from a group perspective, they are accounted for using the cost method.

The balance sheet date of all companies included in the consolidated financial statements is December 31, 2020.

The following companies included in the consolidated financial statements in the form of full consolidation are exempt from the application of the provisions for corporations pursuant to Sections 264 ff. Of the German Commercial Code (HGB) based on Section 264 (3) and Section 264b of the German Commercial Code:

- Vaillant Verwaltungs-GmbH, Remscheid
- Vaillant Group International GmbH, Remscheid
- Vaillant Group Business Services GmbH, Remscheid
- Vaillant Deutschland GmbH & Co. KG, Remscheid
- tecbytel GmbH, Gelsenkirchen
- PowerPlus Technologies GmbH, Wilsdruff
- HKR GmbH & Co. KG, Roding
- TechnoCargo Logistik GmbH and Co. KG, Neuss

The following information on shareholdings meets the requirements of Section 313 of the German Commercial Code (HGB).

The following table shows the fully consolidated, direct and indirect affiliated companies of Vaillant GmbH:

Fully consolidated holding companies

society	Seat	country	Share in%
Cogenon GmbH	Remscheid	DE	100
Heiztechnik Roding Verwaltungs GmbH	Roding	DE	100
HKR GmbH & Co. KG	Roding	DE	100
OB Bergsicherung GmbH	Remscheid	DE	100
PowerPlus Technologies GmbH	Wilsdruff	DE	100
tecbytel GmbH	Gelsenkirchen	DE	100
TechnoCargo Logistik GmbH and Co. KG	Neuss	DE	100
TechnoCargo Logistik Beteiligungsgesellschaft mbH	Neuss	DE	100
Vaillant Germany GmbH & Co. KG	Remscheid	DE	100
Vaillant Group Business Services GmbH	Remscheid	DE	100
Vaillant Group International GmbH	Remscheid	DE	100
Vaillant Marketing GmbH	Remscheid	DE	100
Vaillant North America Holding GmbH	Remscheid	DE	100
Vaillant Verwaltungs-GmbH	Remscheid	DE	100
Vesta GmbH	Remscheid	DE	100
Vaillant Group Austria GmbH	Vienna	AT	100
Vaillant doo	Sarajevo	BA	100
Bulex Services NV	Drug abuse	BE	100
Saunier Duval Belgique SA	Destelbergen	BE	100
Vaillant NV	Drug abuse	BE	100
Globes SA Global Energy Solutions	Cadenazzo	CH	100
Vaillant GmbH	Dietikon	CH	100
Tianjin Demrad International Trading Co. Ltd.	Tianjin	CN	100
Vaillant Group (China) Heating, Cooling and Environmental Technology Co. Ltd.	Shanghai	CN	100
Vaillant (Beijing) Heating Equipment Co. Ltd.	Beijing	CN	100
Vaillant (Wuxi) Heating Equipment Co. Ltd.	Wuxi	CN	100
Vaillant Group Czech sro	Chrátstany	CZ	100
Vaillant A / S	Karlsunde	DK	100
Astursat Servicio Técnico de Asturias SLU (Astursat)	Tremañes-Gijón	IT	100
Asistencia Técnica Calefacción SLU (Ateca)	Albacete	IT	100
Avisat SLU	Zamudio	IT	100
Centro de Asistencia Técnica y Mantenimientos Programados SL (Catemanp)	Toledo	IT	50
E. Graupera I Fills SLU	Barcelona	IT	100
Red Ofisat SLU	Zamudio	IT	100
Red Ofisat Eliosat SLU	Zamudio	IT	100
Red Ofisat La Rioja SLU	Logroño	IT	100

	Seat	country	Share in%
society			
Red Ofisat Zaragoza SLU	Zaragoza	IT	100
Satastur SLU	Gijón	IT	100
Servicio de Asistencia Técnica Especialista en Calderas SA (Satec)	Madrid	IT	50
SAT Etxeiru SLU	Pamplona	IT	100
Servicio de Asistencia Técnica Suministros y Reparaciones SL (SATSURE)	Palencia	IT	70
Saunier Duval Clima SAU	Vitoria	IT	100
Saunier Duval Dicoso SAU	Zamudio	IT	100
Sauniersat Alacant, Servicio de Asistencia al Cliente SLU (Sauniersat Alacant)	Alicante	IT	100
Sauniersat Tarragona Servicio de Asistencia al Cliente SL (Sauniersat Tarragona)	Tarragona	IT	50
Saunier Tec Mantenimientos de Calor y Frío SL (Saunier Tec)	Madrid	IT	60
Sematec Pealber Servicio de Asistencia Técnica SL (Sematec Pealber)	Lleida	IT	60
Sematec Zaragoza SLU Técnica de Servicios (Sematec Zaragoza)	Zaragoza	IT	100
Serviat SL	Madrid	IT	50
Vaillant SLU	Vitoria	IT	100
Vaillant Saunier Duval Iberica SL	Vitoria	IT	100
Vaillant Servi Tecnic Girona SLU	Girona	IT	100
Vaillant Servicio Técnico Levante 2009 SLU	Zamudio	IT	100
Vatec Valladolid Asistencia Técnica SL (Vatec)	Valladolid	IT	75
Garanka Ile de France SAS	Fontenay-sous-Bois	FR	100
Garanka Center Ouest SAS	Chambray-lès-Tours	FR	100
Garanka Holding SAS	Nantes	FR	100
Garanka Nord Ouest SAS	Le Mans	FR	100
Garanka Sud Est SAS	Chavanod	FR	100
Garanka Sud Ouest SAS	Toulouse	FR	100
Saunier Duval Eau Chaude Chauffage SAS	Fontenay-sous-Bois	FR	100
Saunier Duval Eau Chaude Chauffage Industrie SAS	Nantes	FR	100
Saunier Duval Pièces De Rechange SAS	Nantes	FR	100
Societe Financiere Saunier Duval SAS	Nantes	FR	100
Vaillant Group France Gestion SARL	Fontenay-sous-Bois	FR	100
DD Heating Ltd.	Belper	GB	100
TechnoCargo Logistics Ltd.	Ripley	GB	100
Vaillant Ltd.	Belper	GB	100
Vaillant European Holdings Ltd.	Belper	GB	100
Vaillant Group UK Ltd.	Belper	GB	100
Vaillant Holdings Ltd.	Belper	GB	100
Vaillant Home Products Ltd.	Belper	GB	100
Vaillant Industrial UK Ltd.	Belper	GB	100
Vaillant Management Ltd.	Belper	GB	100
Vaillant Netherlands Holdings Ltd.	Belper	GB	100
Vaillant R&M Ltd.	Belper	GB	100
Vaillant doo	Zagreb	MR	100
Vaillant Saunier Duval Kft.	Budapest	HU	100
Vaillant Group Italia SpA	Milan	IT	100
Vaillant Group Korea Ltd.	Seoul	KR	100
Vaillant Group Norge AS	Vestby	NO	100
Vaillant Group Netherlands BV	Amsterdam	NL	100
Center Serwis Dariusz Ciupak Sp.K.	Rzeszów	PL	50
Partner Serwis Cezary Mielczrek Sp.K.	Szczecin	PL	50
Przedsiębiorstwo Usłogo-Handlowe Feston Waldemar Królski Sp.K.	Obernigk	PL	50
Regional Center Serwisowe Wojciech Besz Sp.K.	Wroclaw	PL	50
SEBIK Piotr Kuklinski Sp.K.	Białystok	PL	50
Serwis partner Antoni Kita Sp.K.	Krakow	PL	50
Serwis Pomorskie Eugeniusz Słowik Sp.K.	Sopot	PL	50
Serwis System Eugeniusz Słowik Sp.K.	Koenigshütte	PL	50
Serwis Warszawa Dariusz Klos Sp.K.	Kobyłka	PL	50
Thermoserwis Szymon Wozniak Sp.K.	Zielona Góra	PL	50
Vaillant Saunier Duval Sp. Z oo	Warsaw	PL	100
Vaillant Group Romania Srl	Bucharest	RO	100
Vaillant doo	Belgrade	RS	100
Vaillant Group Rus Ltd.	Moscow	RU	100
Protherm Production sro	Skalica	SK	100
TechnoCargo Logistik Slovakia sro	Trenčianske Stankovce	SK	100
Vaillant Group Slovakia sro	Skalica	SK	100

society	Seat	country	Share in%
Vaillant Industrial Slovakia sro	Skalica	SK	100
Vaillant Group Gaseres AB	Svedala	SE	100
Vaillant doo	Ljubljana	SI	100
Panel Radyatör Sanayi ve Ticaret A.Ş.	Istanbul	TR	100
Türk Demir Döküm Fabrikalari A.Ş.	Istanbul	TR	100
Vaillant Isı Sanayi ve Ticaret Limited Şirketi	Istanbul	TR	100
Daughter Enterprise "Vaillant Group Ukraine"	Kiev	UA	100

The general partner of HKR GmbH & Co. KG, based in Roding, Germany, is Heiztechnik Roding Verwaltungs GmbH, Roding, Germany. Vaillant Marketing GmbH, based in Remscheid, Germany, is the general partner of Vaillant Deutschland GmbH & Co. KG, Remscheid, Germany. TechnoCargo Logistik Beteiligungsgesellschaft mbH is the general partner of TechnoCargo Logistik GmbH u.Co. KG.

Subsidiaries of minor importance

society	Seat	country	Share in%
Vaillant Corporation	Cinnaminson	US	100
Vaillant Ltd.	Hong Kong	CN	100

The following tables contain details of the Group's subsidiaries in which there are minority interests. In terms of materiality, the presentation focuses on the Spanish service companies (hereinafter referred to as the Red Ofisat Group):

Name of the company	Head office / country of establishment	Ownership share held by the Vaillant Group (in%)	Main business activities
Red Ofisat Group			
Centro de Asistencia Técnica y Mantenimientos Programados SL (Catemanp)	IT	50	Customer service
Servicio de Asistencia Técnica Especialista en Calderas SA (Satec)	IT	50	Customer service
Servicio de Asistencia Técnica Suministros y Reparaciones SL (SATSURE)	IT	70	Customer service
Sauniersat Tarragona Servicio de Asistencia al Cliente SL (Sauniersat Tarragona)	IT	50	Customer service
Saunier Tec Mantenimientos de Calor y Frío SL (Saunier Tec)	IT	60	Customer service
Sematec Pealber Servicio de Asistencia Técnica SL (Sematec Pealber)	IT	60	Customer service
Serviat SL	IT	50	Customer service
Vatec Valladolid Asistencia Técnica SL (Vatec)	IT	75	Customer service

The summarizing financial information regarding the subsidiaries of the group in which there are significant minority interests is given below. These correspond to the amounts before internal eliminations.

Million Euro	Red Ofisat Group	
	December 31, 2020	December 31, 2019
Short-term assets	90.2	83.7
Short term debt	70.3	65.9
Short-term net worth	19.9	17.8
Long-term assets	19.3	18.9
Long term debt	4.5	4.1
Long-term net worth	14.8	14.7
Net worth	34.7	32.6
Share of equity attributable to the shareholders of the parent company	28.2	27.2
Share without controlling influence	6.5	5.3
Sales	126.2	121.1
expenditure	-99.6	-97.1
Annual surplus / deficit (-)	26.5	24.0
Share attributable to the shareholders of the parent company	21.0	18.3
Share without controlling influence	5.5	5.7
Overall result	26.5	24.0
Share attributable to the shareholders of the parent company	21.0	18.3
Share without controlling influence	5.5	5.7
Dividends paid to minorities	5.5	5.4
Cash flow from operating activities	33.8	31.4
Cash flow from investments	-7.5	-2.9
Cash flow from financing activities	-26.8	-26.4
Net increase / decrease (-) in cash funds	-0.4	2.0

Significant associated companies no longer existed as of December 31, 2020; As of the reporting date, there were no restrictions on the ability of the remaining funds to transfer funds to the Vaillant Group in the form of cash dividends or loan repayments.

5 EXPLANATIONS TO THE CONSOLIDATED INCOME STATEMENT

The main items in the income statement are explained below.

5.1 Sales

Sales in the 2020 financial year amounted to EUR 2,733.4 million (2019: EUR 2,621.3 million) and were made up as follows:

Million Euro	2020	2019
Central Europe	676.2	619.0
Southern Europe	651.9	636.4
Northern Europe	597.4	592.5
Asia / export	478.3	475.3
Eastern Europe	329.6	298.1
total	2,733.4	2,621.3

The balances of the trade receivables still open on the balance sheet date (including contractual assets) and contractual liabilities are as follows:

Million Euro	December 31, 2020	December 31, 2019
Trade accounts receivable (including contractual assets)	251.5	240.2
Contractual Liabilities	-213.0	-197.4

The Vaillant Group receives cash inflows from the sale of goods and products as well as the provision of services in accordance with the terms and conditions of the contracts and payment methods. Trade accounts receivable represent the right to receive the agreed consideration for services already provided by the Vaillant Group. In addition to accounts receivable from supplies and services already billed in the amount of EUR 250.6 million (2019: EUR 239.5 million), this includes Items also include contractual assets from services rendered in the amount of EUR 0.9 million (2019: EUR 0.7 million) for which an invoice has not yet been issued. Contractual liabilities relate to the Vaillant Group's existing performance obligations, for which it has already received or has yet to receive consideration from the customer. Changes in trade receivables and contractual liabilities result from the fulfillment of the respective contractual obligations. With regard to the development of value adjustments on trade receivables, we refer at this point to the explanations in Section 7.4. Obligations to take back or buy back products sold to wholesalers only exist to such an insignificant extent that no provisions have been made in the balance sheet for them.

In the financial year, sales of EUR 121.5 million (2019: EUR 104.6 million) were recognized from contractual liabilities that were included in the balance of liabilities at the beginning of the financial year. In the year under review, no subsequent changes to existing contracts were agreed with customers that would have led to a reassessment of the contractual liabilities and thus to a revision of the associated sales. Adjustments to expected variable consideration in the form of bonuses, other price reductions and other reimbursements based on sales in the previous year resulted in an overall increase in sales of EUR 5.0 million in the reporting year (2019: EUR 10.3 million).

As in the previous year, there were no significant financing components from existing customer contracts as of the balance sheet date.

As in the previous year, as of December 31, 2020, there were no assets from directly attributable costs of contract initiation in connection with the conclusion of long-term customer contracts.

The contractual liabilities from services still to be provided as of December 31, 2020 are broken down as follows:

Million Euro	December 31, 2020	December 31, 2019
Due within one year	127.6	121.5
Due in 1 to 5 years	78.4	71.8
Due after 5 years	6.9	4.1
Contractual Liabilities	213.0	197.4

The contractual liabilities relate to outstanding services in connection with the bonus point programs as well as to service contracts. Deliveries and services from the bonus point programs are expected within twelve months of the balance sheet date, the remaining term of the service contracts ranges from 1 month to 120 months (2019: 1 to 120 months). Contractual liabilities from long-term service contracts result from customer prepayments, which are offset by outstanding performance obligations of the Vaillant Group. Over time, these liabilities are reduced in accordance with the proportionate performance progress of the respective performance obligation.

5.2 Production cost of sales

The cost of sales in the financial year was 1,647.2 million euros (2019: 1,570.7 million euros). This item includes the manufacturing costs of the products sold, the purchase costs of the merchandise sold and the costs that can be allocated to service sales. In addition to the directly attributable costs such as material and personnel costs, they also include production-related variable and fixed overheads. In addition, the cost of sales includes income from government grants for personnel measures in the amount of EUR 1.1 million (2019: EUR 1.0 million).

5.3 Research and Development Costs

Research and development costs amounted to 130.7 million euros in the financial year (2019: 107.6 million euros); This included government grants of EUR 2.3 million (2019: EUR 2.4 million).

Research costs are generally recognized as an expense in the period in which they are incurred. Development costs are capitalized as soon as the criteria listed in Section 2.4.5 have been met cumulatively. The development costs did not include any impairment losses on capitalized development costs (2019: 4.0 million euros) (see section 7.1.2).

5.4 Marketing and Distribution Expenses

Marketing and sales costs fell to EUR 557.1 million in the financial year (2019: EUR 562.8 million). This resulted primarily from lower marketing activities in the pandemic environment on the one hand and from the cost-saving measures introduced in spring in response to the increasing global spread of COVID-19 on the other. In addition to the costs of sales promotion measures, marketing costs also include costs for advertising measures and external training. Selling costs include the costs of the sales-related units of the Vaillant Group as well as the logistics costs including customs duties for the physical distribution and warehousing of the salable products.

5.5 Administration costs

Administrative costs amounted to 142.5 million euros in the financial year (2019: 142.2 million euros) and, thanks to the cost-saving measures introduced at the beginning of the COVID-19 pandemic, could be kept at the previous year's level. The administrative costs generally include the personnel and material costs of the central administrative organization. These staff functions mainly include the management, strategy department, legal department, human resources department, corporate communication, quality and the central finance department as well as group-wide supported projects that cannot be assigned to any of the other areas. Also included are those expenses of the Group's manufacturing units that are neither product-related, This means that research and development expenses incurred in connection with the production are still included. Administrative costs include government grants for personnel measures in the amount of EUR 40 thousand (2019: EUR 21 thousand).

5.6 Other operating result

Million Euro	2020	2019
Other company income	21.8	16.7
Other operating expenses	-17.2	-16.1
total	4.5	0.7

The other operating income amounted to 21.8 million euros and was thus above the previous year's level, mainly due to higher income from foreign currency valuation of 5.5 million euros (2019: 2.5 million euros) and income from a won legal dispute. Other operating income also included income from the disposal of property, plant and equipment in the amount of EUR 0.4 million (2019: EUR 0.7 million) and government grants of EUR 1.5 million (2019: EUR 0.9 million) Euro) included.

At a total of 17.2 million euros, other operating expenses were slightly higher than the corresponding expenses in the previous year. The losses from the disposal of fixed assets included in other operating expenses amounted to 0.1 million euros (2019: 0.1 million euros) and the expenses from foreign currency valuation amounted to 1.9 million euros (2019: 2.8 million euros).

5.7 Result from other financial assets and investments accounted for using the equity method

As in the previous year, the result from other financial assets was immaterial.

5.8 Interest income

Million Euro	2020	2019
Interest income and similar income	5.2	4.5
Interest expense and similar expenses	-14.4	-19.9
total	-9.1	-15.4

Interest expenses included the net interest expense for the defined benefit pension plans (see section 7.8) at 4.8 million euros (2019: 7.5 million euros). The application of the effective interest method resulted in interest expenses of EUR 0.3 million (2019: EUR 1.5 million). These are due to the compounding of provisions. A further 1.6 million euros resulted from the compounding of lease liabilities (2019: 1.9 million euros).

In connection with the implementation of the ABS program (see Section 7.4), interest expenses and fees totaling EUR 0.2 million (2019: EUR 0.3 million) were recorded.

The interest income includes 0.1 million euros (2019: 0.2 million euros) from the application of the effective interest method.

5.9 Income taxes

Million Euro	2020	2019
Actual tax expense	51.0	40.4
Deferred tax expense	7.9	12.5
total	58.9	52.9

The taxes on earnings before taxes differ from the theoretical taxes using the tax rates applicable in Germany as follows:

Million Euro	2020	2019
Earnings before taxes	251.2	223.3
Tax calculation at the rate of 32.55% (2019: 32.55%)	81.8	72.7
Effect from different tax rates in other countries	-17.2	-17.0
Effect of change in tax rate on deferred taxes	4.7	-0.4
Tax effects from tax-free income	-4.3	-5.8
Tax effects from tax goodwill write-ups	0.3	0.7
Tax effects from non-tax-deductible expenses	4.1	6.2
Tax effects from losses for which no deferred taxes are / have been recognized	-4.4	0.8
Tax effect from interest expense (not tax deductible)	0.6	0.8
Tax previous years	-3.9	-6.0
Deferred taxes from previous years	-2.8	1.1
Income tax expense according to the income statement	58.9	52.9

The applicable tax rate in the reconciliation of 32.55 percent (2019: 32.55 percent) consists of corporation tax (15.0 percent), solidarity surcharge (0.8 percent) and trade tax (16.75 percent).

Of the total income tax liabilities of 36.5 million euros (2019: 34.8 million euros) reported in the balance sheet, 18.4 million euros (2019: 21.7 million euros) relate to uncertain tax obligations.

The development of the netted items of deferred tax assets and liabilities was as follows:

Million Euro	2020	2019
As of 01.01.	100.9	93.5
Currency differences	-2.6	1.2
Expense in the income statement	-7.9	-12.5
Taxes recognized directly in other comprehensive income	14.1	18.7
Accesses	-	-0.0
As at 31.12.	104.6	100.9

The tax effects on the components of other comprehensive income are as follows:

Million Euro	2020			2019		
	Before tax	Tax share	After tax	Before tax	Tax share	After tax
Currency differences from the translation of the financial statements of foreign subsidiaries	-27.9	-	-27.9	-16.6	-	-16.6
Change in the revaluation reserve from defined benefit pension commitments	-49.0	18.0	-31.1	-74.2	18.3	-55.9
Profits and losses from hedging instruments used to hedge cash flows	14.8	-3.8	11.0	-3.5	0.5	-3.0
total	-62.1	14.1	-47.9	-94.3	18.7	-75.5

Deferred taxes are recognized for tax loss carryforwards for which the realization of the corresponding tax advantage is probable due to future taxable income. On this basis, 13.4 million euros (2019: 18.3 million euros) have been capitalized in deferred taxes for tax losses of various companies in the Vaillant Group. The deferred tax assets include an amount of 5.2 million euros (2019: 6.2 million euros), which relates to loss carryforwards from Vaillant GmbH. For tax losses generated in the past, the company has created deferred tax assets on the basis of a three-year tax planning calculation. Management assumes that in the future there will be sufficient offsettable income against which the loss carryforwards can be offset. The Vaillant Group also has unrecognized tax loss carryforwards of 14.7 million euros (2019: 42.9 million euros), which can be offset against future taxable income. Of the total tax loss carryforwards of the Vaillant Group, 1.8 million euros will expire in 2024 or 2025 and 33.0 million euros in 2044 at the latest (2019: 45.9 million euros in the period between 2044 and 2047). The Vaillant Group also has unrecognized tax loss carryforwards of 14.7 million euros (2019: 42.9 million euros), which can be offset against future taxable income. Of the total tax loss carryforwards of the Vaillant Group, 1.8 million euros

will expire in 2024 or 2025 and 33.0 million euros in 2044 at the latest (2019: 45.9 million euros in the period between 2044 and 2047). The Vaillant Group also has unrecognized tax loss carryforwards of 14.7 million euros (2019: 42.9 million euros), which can be offset against future taxable income. Of the total tax loss carryforwards of the Vaillant Group, 1.8 million euros will expire in 2024 or 2025 and 33.0 million euros in 2044 at the latest (2019: 45.9 million euros in the period between 2044 and 2047).

In addition, the Group has tax loss carryforwards that have not been offset, mainly from the sale of company shares, amounting to EUR 110.6 million (2019: EUR 116.9 million). These tax loss carryforwards can only be offset against certain future profits from the sale, for example of intangible assets or land, and have not resulted in deferred tax assets. The tax loss carryforwards can be carried forward indefinitely.

No deferred tax liabilities were recognized for temporary differences in connection with affiliated companies and investments in the amount of EUR 4.4 million (2019: EUR 4.0 million), as it is not likely that these temporary differences will reverse in the foreseeable future and the Vaillant Group is able to control the reverse.

The development of deferred tax assets and liabilities (before offsetting the balances within the same tax jurisdiction) in the reporting period was as follows:

	Provisions / inventories / receivables	pensions	Loss carryforwards	Intangible assets / derivatives	total	
Deferred tax assets						
Million Euro						
As of 01/01/2020	66.3	70.1	18.4	2.2	156.9	
Reduction / increase in net income	2.1	-8.2	-4.9	2.1	-8.9	
Currency conversion	-2.0	-1.5	-0.0	-0.1	-3.6	
Success-neutral change	-	18.0	-	-3.8	14.1	
As of December 31, 2020	66.4	78.3	13.4	0.3	158.6	
Deferred tax liabilities	Intangible assets / property, plant and equipment	Reassessment	Provisions / inventories / receivables	Capital gain	pensions	total
Million Euro						
As of 01/01/2020	48.8	-	7.1	-	-	55.9
Reduction / increase in net income	-2.7	-	1.8	-	-	-0.9
Currency conversion	-1.0	-	-	-	-	-1.0
As of December 31, 2020	45.0	-	8.9	-	-	53.9

The following amounts for deferred tax assets and liabilities are shown in the consolidated balance sheet after proper offsetting:

Million Euro	December 31, 2020		December 31, 2019	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Status before settlement	158.6	53.9	156.9	55.9
billing	-50.2	-50.2	-52.3	-52.3
Balance sheet approach	108.3	3.7	104.6	3.7
Of which in the long term	70.9	1.9	65.8	2.0

5.10 Personnel expenses / employees

The following personnel expenses were included in the expense items in the consolidated income statement:

Million Euro	2020	2019
Löhne und Gehälter	608,1	573,0
Soziale Abgaben und Aufwendungen für Altersversorgung und Unterstützung	130,5	128,8
Davon für leistungsorientierte Altersversorgungssysteme	8,8	5,4
Davon für beitragsorientierte und sonstige Altersversorgungssysteme	34,7	32,5
Personalaufwand gesamt	738,7	701,8
Anzahl der Mitarbeiter (Jahresdurchschnitt ohne Leiharbeiter)	13.664	13.039
Davon in der Produktion beschäftigt	3.746	3.493

In den sozialen Abgaben und Aufwendungen für Altersversorgung und Unterstützung sind Arbeitgeberbeiträge zu staatlichen Pensionsplänen in Höhe von 31,4 Mio Euro (2019: 30,1 Mio Euro) enthalten.

The expense from defined contribution pension plans was distributed across all functional areas of the Group. With regard to the increase in expenses from defined benefit pension schemes in the reporting year, we refer to the explanations in Section 7.8.

In the course of the COVID-19 pandemic, on the one hand, wages and salaries as well as social security contributions and expenses were each subsidized by the state with 0.8 million euros, and on the other hand, related payment obligations with regard to wages and salaries were set at 2.3 Million euros and with regard to social security contributions in the amount of 0.8 million euros taken directly from government agencies.

5.11 Other result

In addition to the income statement, the other result is the second component of the statement of comprehensive income. The table shows the values recognized directly in equity in 2020 and 2019 and the amounts reclassified to the income statement.

Million Euro	2020	2019
Currency differences from the translation of the financial statements of foreign subsidiaries	-27.9	-16.6
Changes not affecting profit	-27.9	-16.6
Change in the revaluation reserve from defined benefit pension commitments	-31.1	-55.9
Profits and losses from hedging instruments used to hedge cash flows	11.0	-3.0
Changes not affecting profit	10.4	-5.4
Changes from reclassification affecting net income	0.6	2.4
Other result	-47.9	-75.5

6 INFORMATION ON THE GROUP CASH FLOW STATEMENT

The financial resources included in the consolidated cash flow statement include liquid funds and cash equivalents. These include cash and sight deposits at banks as well as short-term, highly liquid financial investments with a remaining term of no more than three months, which can be converted into fixed amounts of cash at any time and are only subject to insignificant fluctuations in value. The returns on such short-term deposits were 0.00 percent (2019: 0.00 percent) for EUR deposits and 0.40 percent for GBP deposits (2019: 0.60 percent).

The financial resources are made up as follows:

Million Euro	2020	2019
Liquid funds	416.2	238.3
Cash equivalents	55.2	47.0
Cash and cash equivalents	471.4	285.3

The cash inflows and outflows shown for the individual areas of activity resulted in cash and cash equivalents of EUR 471.4 million (2019: EUR 285.3 million).

Compared to the previous year, the portfolio increased by EUR 186.1 million. This increase included currency translation differences of 20.9 million euros that reduce financial resources (2019: increasing currency translation differences of 2.5 million euros). Cash with restricted availability does not include cash. These are accounted for as other receivables (see also Section 7.5).

The reconciliation of financial debts, the cash flows of which are shown as financing activities in the consolidated cash flow statement, is as follows:

Million Euro	01/01/2020	Cash change	Changes not affecting payment	
			Change in the scope of consolidation	Currency conversion
Lease liabilities	96.1	-32.2	0.0	-2.7
Long-term lease liabilities	67.6	-	-	-1.8
Short-term lease liabilities	28.5	-32.2	0.0	-0.9
Financial liabilities	210.1	92.7	0.0	-4.5
longterm financial obligations	198.8	0.4	-	-
Short-term financial liabilities	11.3	92.4	0.0	-4.5
total	306.2	60.5	0.0	-7.2

Changes not affecting payment

Million Euro	Others	December 31, 2020
Lease liabilities	23.4	84.6
Long-term lease liabilities	-8.6	57.2
Short-term lease liabilities	32.0	27.4
Financial liabilities	1.7	300.0
longterm financial obligations	-59.4	139.8
Short-term financial liabilities	61.1	160.2
total	25.1	384.6

Million Euro	01/01/2019	Adjustment through IFRS 16	01/01/2019 adjusted	Cash change
Lease liabilities	3.9	76.0	79.9	-28.3
Long-term lease liabilities	1.6	58.8	60.4	0.0
Short-term lease liabilities	2.3	17.2	19.5	-28.3
Financial liabilities	238.7	-	238.7	-29.3
longterm financial obligations	144.6	-	144.6	52.6
Short-term financial liabilities	94.1	-	94.1	-81.9
total	242.6	76.0	318.5	-57.6

Changes not affecting payment

Million Euro	Change in the scope of consolidation	Currency conversion
Lease liabilities	8.9	0.1
Long-term lease liabilities	7.1	0.0
Short-term lease liabilities	1.8	0.0
Financial liabilities	-	0.8
longterm financial obligations	-	1.6
Short-term financial liabilities	-	-0.8
total	8.9	0.9

Changes not affecting payment

Million Euro	Others	December 31, 2019
Lease liabilities	35.6	96.1
Long-term lease liabilities	0.1	67.6
Short-term lease liabilities	35.5	28.5
Financial liabilities	-	210.1
longterm financial obligations	-	198.8
Short-term financial liabilities	-	11.3
total	35.6	306.2

The financial liabilities listed in the table are valued at amortized cost. The liabilities from derivatives with a hedging relationship are generally non-cash and are therefore not listed in the table above. The other non-cash changes in short-term lease liabilities mainly relate to additions in the current year of EUR 22.9 million (2019: EUR 33.7 million) and the compounding of liabilities of EUR 1.6 million (2019: EUR 1.9 million) Euro).

7.1 Goodwill and other intangible assets

The intangible assets developed as follows in the 2020 reporting year:

2020	Million Euro	Company Value	Other intangible assets			total
			acquired Concessions, Industrial Rights and Similar Rights	Business process- related development projects	self-made Product-related development projects	
Acquisition and production costs						
As of 01.01.	771.4		93.7	29.2	238.3	1,132.8
Change in the scope of consolidation	-		1.4	-	-	1.4
Currency conversion	-12.2		-4.7	-	-1.2	-18.1
Accesses	-		5.5	27.9	19.1	52.5
Departures	-		6.2	-	-	6.2
Rebooking	-		0.1	0.1	-	0.2
As at 31.12.	759.3		89.8	57.2	256.3	1,162.6
Depreciation						
As of 01.01.	220.3		54.5	5.4	152.7	432.9
Currency conversion	-0.1		-1.8	-	0.4	-1.5
Accesses	-		8.4	2.0	21.0	31.4
according to plan	-		7.6	1.9	21.0	30.5
unscheduled	-		0.8	0.1	-	1.0
Departures	-		6.1	-	-	6.1
Rebooking	-		0.0	-	-	0.0
As at 31.12.	220.2		55.0	7.4	174.1	456.7
Book value December 31, 2019	551.1		39.2	23.9	85.6	699.9
Book value 31.12.	539.1		34.8	49.9	82.9	706.7
2019						
2019	Million Euro	Company Value	Other intangible assets			total
			acquired Concessions, Industrial Rights and Similar Rights	Business process- related development projects	self-made Product-related development projects	
Acquisition and production costs						
As of 01.01.	776.1		84.6	17.9	204.2	1,082.7
Change in the scope of consolidation	-		3.5	-	-	3.5
Currency conversion	-4.6		-1.6	-	-0.2	-6.4
Accesses	-		9.3	11.2	34.3	54.9
Departures	-		2.3	0.0	-	2.3
Rebooking	-		0.3	-	-	0.3
As at 31.12.	771.4		93.7	29.2	238.3	1,132.8
Depreciation						
As of 01.01.	220.2		49.4	2.6	130.0	402.2
Currency conversion	0.1		-0.5	-	0.1	-0.3
Accesses	-		7.7	2.8	22.8	33.3
according to plan	-		7.5	1.9	18.8	28.2
unscheduled	-		0.2	0.9	4.0	5.2
Departures	-		2.3	0.0	-	2.3
Rebooking	-		0.1	-	-	0.1
As at 31.12.	220.3		54.5	5.4	152.9	433.1
Book value December 31, 2018	555.9		35.2	15.4	74.2	680.7
Book value 31.12.	551.1		39.2	23.9	85.6	699.9

7.1.1 Concessions, Commercial Rights and Similar Rights

A key component of this item is the DemirDöküm brand, which was capitalized in 2007 with 61.6 million euros. This is amortized on a straight-line basis over 40 years and was still valued at 7.8 million euros at the end of 2020 (2019: 10.9 million euros). In addition to the scheduled depreciation, which was recorded in marketing and selling expenses, the book value changed due to the exchange rate.

The impairment of the concessions, commercial rights and similar rights in the amount of 0.8 million euros (2019: 0.2 million euros) related to licenses, half of which was attributable to sales and research and development costs.

In the reporting period, there was an order commitment for intangible assets in the amount of EUR 0.4 million (2019: EUR 1.7 million).

7.1.2 Business process and product-related development projects

No impairment was determined for the product-related development projects in the past financial year (2019: 4.0 million euros). The impairment of the business process-related development projects in the amount of 0.1 million euros (2019: 0.9 million euros) was recognized in administrative costs.

The useful life of all product-related development projects capitalized in 2020 was five years, and business process-related projects between five and ten years.

7.1.3 Goodwill

The goodwill essentially consists of the goodwill arising from the British Hepworth acquisition in the amount of EUR 448.6 million and the goodwill arising from the Turkish Türk-Demir-Döküm acquisition in the amount of 34.2 million euros (2019: 46.0 million euros). While the goodwill from the British acquisition is fixed in euros, the goodwill from the Turkish acquisition decreased by 11.8 million euros in the reporting year due to exchange rate effects (2019: decrease by 5.0 million euros).

The following table provides an overview of the book values of the goodwill and their allocation to the CGU:

Million Euro	2020	2019
ZGE heating technology	519.6	531.6
CGU service activities France	19.5	19.5
total	539.1	551.1

For all CGUs, the recoverable amount was determined based on the value in use. The Vaillant Group generally determines this value using valuation methods based on discounted cash flows. These discounted cash flows are based on forecasts based on financial plans approved by management. The forecasts take into account past experience and are based on management's best estimate of future developments. The most important assumptions on which the determination of the value in use is based include the assessment of the future development of sales and margins as well as the amount of the discount rates used:

Discount rate (before taxes)	2020	2019
%		
ZGE heating technology	10.1	8.7
CGU service activities France	8.8	7.8

The discount rates were determined based on the average, weighted cost of capital customary in the industry. These interest rates were further adjusted to reflect the market assessment with regard to all CGU-specific risks for which the estimates of future cash flows were not adjusted. When extrapolating the future cash flows beyond the detailed planning period of five years, a growth rate of 1.4 percent (2019: 1.4 percent) for the CGU heating technology and a growth rate of 0.8 percent (2019: 0, 8 percent).

The impairment test for the goodwill did not reveal an impairment requirement for any CGU (2019: EUR 0.0 million). In addition to the impairment test, two sensitivity analyzes were carried out for both CGUs. In the first sensitivity analysis, the expected future cash flows were reduced by 10 percent. As part of the second sensitivity analysis, the discount rate was increased by 10 percent. None of these sensitivity analyzes showed a need for impairment.

7.2 Property, plant and equipment

Property, plant and equipment (excluding the assets from usage rights in accordance with IFRS 16) developed as follows in the 2020 financial year:

	Land, leasehold rights and buildings	Technical equipment and machinery	Other equipment, factory and office equipment	Payments on account and assets under construction	total
2020					
Million Euro					
Acquisition and production costs					
As of 01.01.	297.6	221.1	359.7	68.5	947.0
Change in the scope of consolidation	-	-	0.0	-	0.0
Currency conversion	-5.2	-6.5	-6.2	-0.5	-18.4
Accesses	10.2	5.5	19.2	37.9	72.7
Departures	2.0	9.6	14.6	0.4	26.6
Rebooking	20.7	15.7	16.3	-53.1	-0.3
As at 31.12.	321.3	226.4	374.3	52.4	974.4
Depreciation					
As of 01.01.	148.3	165.2	278.5	-	591.9
Currency conversion	-2.9	-3.6	-4.5	-	-10.9
Accesses	11.1	14.2	26.8	-	52.2
according to plan	10.6	14.1	26.3	-	51.0
unscheduled	0.5	0.1	0.5	-	1.2
Departures	1.9	9.4	14.3	-	25.6
Rebooking	-0.0	-0.1	0.1	-	-0.0
As at 31.12.	154.5	166.4	286.6	-	607.5
Book value December 31, 2019	149.4	56.0	81.2	68.5	355.1
Book value 31.12.	166.8	59.9	87.7	52.4	366.8
2019					
Million Euro					
Acquisition and production costs					
As of 01.01.	293.8	212.6	351.9	75.4	933.7
Change in the scope of consolidation	0.0	0.2	1.5	-	1.7
Currency conversion	-0.7	-1.3	0.5	-0.0	-1.6
Accesses	12.1	10.8	21.5	37.4	81.8
Departures	31.5	8.0	24.7	0.9	65.1
Rebooking	23.9	6.8	9.0	-43.4	-3.6
As at 31.12.	297.6	221.1	359.7	68.5	947.0
Depreciation					

2019	Land, leasehold rights and buildings	Technical equipment and machinery	Other equipment, factory and office equipment	Payments on account and assets under construction	total
Million Euro					
As of 01.01.	170.1	158.8	273.6	-	602.5
Currency conversion	-0.3	-0.6	0.3	-	-0.6
Accesses	9.8	14.7	28.6	-	53.1
according to plan	9.8	13.5	26.4	-	49.7
unscheduled	-	1.2	2.2	-	3.5
Departures	31.3	7.8	22.0	-	61.1
Rebooking	-0.1	0.1	-2.0	-	-2.0
As at 31.12.	148.3	165.2	278.5	-	591.9
Book value December 31, 2018	123.7	53.9	78.3	75.4	331.3
Book value 31.12.	149.4	56.0	81.2	68.5	355.1

In 2020, property, plant and equipment was impaired in the amount of 1.2 million euros (2019: 3.5 million euros); of this, 0.5 million euros (2019: 0.0 million euros) was attributable to the land, leasehold rights and buildings, 0.1 million euros (2019: 1.2 million euros) to the technical equipment and 0.5 million euros (2019: 2.2 million euros) on operating and office equipment. These impairments were mainly taken into account in the cost of sales with EUR 0.8 million and administration costs with EUR 0.3 million.

At the reporting date, there was an order commitment for property, plant and equipment in the amount of EUR 23.4 million (2019: EUR 21.3 million).

In the financial year, payments of EUR 0.5 million (2019: EUR 0.7 million) were received from building-related operating leases with third parties outside the Group, in which the Vaillant Group acts as the lessor. The minimum lease payments to be expected as income in the future are as follows:

Million Euro	December 31, 2020	December 31, 2019
Operating lease income	0.5	0.7
Due within one year	0.4	0.3
Due in 1 to 5 years	0.0	0.2
Due after 5 years	-	0.2

As in the previous year, no property, plant and equipment were pledged as collateral for debts.

The assets from rights of use, which are accounted for in accordance with the requirements of IFRS 16, developed as follows:

2020	Rights of use to real estate, rights equivalent to real estate and buildings	Rights of use to technical systems and machines	Rights of use to other systems, operating and office equipment	total
Million Euro				
Acquisition and production costs				
As of 01.01.	80.3	0.1	46.1	126.5
Change in the scope of consolidation	-	-	0.0	0.0
Currency conversion	-2.4	-0.0	-1.0	-3.4
Accesses	8.0	0.1	15.0	23.1
Departures	4.2	0.1	7.2	11.6
As at 31.12.	81.6	0.1	52.9	134.6
Depreciation				
As of 01.01.	14.9	0.1	15.3	30.3
Currency conversion	-0.6	-0.0	-0.6	-1.2
Accesses	15.6	0.1	15.9	31.5
according to plan	15.6	0.1	15.8	31.4
unscheduled	-	-	0.1	0.1
Departures	3.5	0.1	7.0	10.6
As at 31.12.	26.2	0.0	23.7	50.0
Book value December 31, 2019	65.4	0.0	30.8	96.2
Book value December 31, 2020	55.4	0.1	29.1	84.6

2019	Rights of use to real estate, rights equivalent to real estate and buildings	Rights of use to technical systems and machines	Rights of use to other systems, operating and office equipment	total
Million Euro				
Acquisition and production costs				
As of 01.01.	-	-	-	-
Change in the scope of consolidation	6.9	-	2.0	8.9
Accesses	73.4	0.1	40.9	114.4
Departures	-	-	0.1	0.1
Rebooking	-	-	3.3	3.3
As at 31.12.	80.3	0.1	46.1	126.5
Depreciation				
As of 01.01.	-	-	-	-
Currency conversion	0.0	-0.0	0.1	0.1
Accesses	14.8	0.1	13.5	28.4

	Rights of use to real estate, rights equivalent to real estate and buildings	Rights of use to technical systems and machines	Rights of use to other systems, operating and office equipment	total
2019				
Million Euro				
according to plan	14.8	0.1	13.4	28.3
unscheduled	-	-	0.1	0.1
Departures	-	-	0.1	0.1
Rebooking	-	-	1.9	1.9
As at 31.12.	14.9	0.1	15.3	30.3
Book value December 31, 2018	-	-	-	-
Book value December 31, 2019	65.4	0.0	30.8	96.2

In the area of land, leasehold rights and buildings, the Vaillant Group primarily rents production and warehouse buildings as well as office buildings. The rights of use reported under other equipment and factory and office equipment relate in particular to rented vehicles.

Expenses of EUR 0.6 million (2019: EUR 2.3 million) were incurred for short-term leases with a maximum term of twelve months and a further EUR 2.1 million (2019: EUR 2.0 million) for leasing agreements for low-value assets recorded in the consolidated income statement. The effort corresponds to the payments made.

For the 2021 financial year, the Vaillant Group expects expenses of EUR 0.7 million (in 2019 for 2020: EUR 0.0 million) from short-term leases.

Expenses from variable lease payments that were not included in the carrying amount of the lease liabilities were recognized in the financial year in the amount of EUR 0.0 million (2019: EUR 0.1 million).

In the financial year, the Vaillant Group received payments of EUR 0.0 million (2019: EUR 0.7 million) from building-related subleases with third parties outside the Group.

With regard to the interest expenses recorded in connection with accounting for lease liabilities, we refer to the explanations in Section 5.8 of these notes. Details on the payments made in connection with leases can be found in Chapter 6 and information on the expected maturity profile of the lease liabilities in Chapter 7.10.

7.3 Other financial assets

The other financial assets are made up as follows:

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Financial assets that are measured at fair value through profit or loss	0.2	-	0.2	-
Loans to affiliated, non-consolidated companies	3.4	-	3.4	-
Financial assets at amortized cost	2.1	0.1	2.3	0.1
Receivables from derivatives with a hedging relationship	11.2	6.7	2.2	1.2
total	16.9	6.7	8.1	1.2

The "financial assets at amortized cost" are in particular loans to employees and third parties; these are essentially held without any collateral.

7.4 Trade accounts receivable

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Trade accounts receivable from third parties	272.2	272.1	266.2	266.1
Cumulative value adjustment	-20.8	-20.8	-26.1	-26.1
Book value	251.4	251.3	240.0	240.0
Trade accounts receivable from:				
a) affiliated companies	0.0	0.0	0.0	0.0
b) Companies with which there is a participation relationship	0.1	0.1	0.2	0.2
total	251.5	251.5	240.2	240.2

The trade receivables contain contractual assets from sales transactions in the amount of 0.9 million euros (see Section 5.1).

The Vaillant Group has been selling trade accounts receivable as part of an ABS program since 2007. As of December 31, 2020, the nominal volume of the receivables sold was EUR 50.4 million (2019: EUR 50.2 million). The sales of receivables associated with the ABS program are - insofar as all opportunities and risks have been transferred - to be treated as a partial disposal, as the Vaillant Group is obliged to pass on the payments from the respective receivables (pass-through arrangements). The obligations from the pass-through arrangements are reported under other liabilities.

Since some risks (e.g. bad debt risks) remain in the Vaillant Group, this leads to a pro rata write-off of the receivables (continuing involvement). The remaining financial assets as of December 31, 2020 amounted to EUR 1.2 million (2019: EUR 1.2 million). These are shown under other receivables. The continuing involvement corresponds to the fair values and reflects the maximum default risk. The execution of the program resulted in expenses totaling EUR 0.3 million in the financial year (2019: EUR 0.2 million).

The value adjustments on trade receivables developed as follows:

Million Euro	2020	2019
As of 01.01.	26.1	34.6
Exchange rate effects on the opening balance	-5.3	-1.9
Feed	1.7	0.9
consumption	-1.1	-5.8
resolution	-0.6	-1.7
As at 31.12.	20.8	26.1

Maturity analysis of trade receivables:

Million Euro	Gross book value 12/31/2020	Value adjustment December 31, 2020	Net book value December 31, 2020
Requests from deliveries and services	272.3	-20.8	251.5
Age analysis			
0 - 30 days	242.1	-0.2	241.9
31-60 days	4.2	-0.0	4.2
61 - 90 days	1.6	-0.0	1.6
91-120 days	0.5	-0.0	0.4
over 120 days	23.9	-20.5	3.4

The non-impaired receivables portfolio was considered valuable based on established credit management processes and individual assessment of the individual customer risks. The existing default risk of the receivables was adequately taken into account in the value adjustments. Enforcement measures on written-off claims are carried out until they are finally written off. In principle, the contractually outstanding amounts correspond to the gross book values of the relevant receivables.

7.5 Other claims

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Sales tax receivables	25.6	25.6	23.5	23.5
Prepaid expenses	10.3	10.2	7.5	7.5
other demands	25.4	19.7	26.9	21.3
Including non-financial claims	9.3	4.5	11.3	11.3
total	61.3	55.5	57.9	52.2

The other receivables mainly include creditors with debit balances and restricted cash equivalents. This includes EUR 0.2 million (2019: EUR 0.2 million) pledged as security for liabilities. The other receivables also include valuation allowances of EUR 0.3 million (2019: EUR 0.3 million), which are made up as follows:

Million Euro	2020	2019
As of 01.01.	0.3	0.8
Exchange rate effect on the opening balance	-0.0	0.0
Feed	-	0.1
consumption	0.0	0.6
resolution	-	0.0
total	0.3	0.3

Maturity analysis of other financial receivables:

Million Euro	Gross book value 12/31/2020	Value adjustment December 31, 2020	Net book value December 31, 2020
Other financial receivables	16.1	-	16.1
Age analysis			
0 - 30 days	15.0	-	15.0
31-60 days	0.0	-	0.0
61 - 90 days	0.1	-	0.1
91-120 days	0.1	-	0.1
over 120 days	0.8	-	0.8

7.6 Inventories

Million Euro	December 31, 2020			December 31, 2019		
	Gross	devaluation	net	Gross	devaluation	net
Raw materials and supplies	118.9	-2.3	116.6	107.0	-1.8	105.1
Unfinished products	43.9	-3.2	40.7	36.8	-2.0	34.8
Finished products and goods	244.3	-25.1	219.2	232.5	-26.3	206.2
Prepayments made	0.8	-	0.8	0.5	-	0.5
total	407.9	-30.7	377.3	376.7	-30.1	346.6

Inventories of EUR 1,310.0 million (2019: EUR 1,274.9 million) were recognized as an expense in the reporting period. In 2020, the impairment loss amounted to EUR 6.0 million (2019: EUR 6.5 million). This was counteracted by reversals of impairment losses due to changed risk assessments with regard to assumptions about the net selling price as well as due to a better inventory structure in the sense of an increased inventory turnover rate of 4.0 million euros (2019: 2.4 million euros).

As of December 31, 2020, as in the previous year, no inventories were pledged for security purposes.

7.7 Equity

The development of equity is shown in the consolidated statement of changes in equity.

By a resolution of the shareholders' meeting, part of the net profit of the parent company Vaillant GmbH can be transferred to the retained earnings as part of the appropriation of profits.

The subscribed capital of the parent company Vaillant GmbH remained unchanged at EUR 60.0 million on the balance sheet date; it was paid in full. The shareholders Joh. Vaillant GmbH & Co KG, Remscheid, with 6 percent, and VBV Vaillant Beteiligungsverwaltung GmbH, Remscheid, with 94 percent, hold shares in the subscribed capital. The shares held by VBV Vaillant Beteiligungsverwaltung GmbH, Remscheid, do not grant any voting rights.

The capital reserve of the Vaillant Group comprises the capital reserve of Vaillant GmbH, which remained unchanged at EUR 75.0 million. It was added to the company by a shareholder resolution of November 15, 2006.

The revenue reserves contain the net result for the financial year as well as the results achieved in the past, insofar as they were not distributed.

The other equity components show the differences from the currency translation of the annual financial statements of foreign subsidiaries that do not have the euro as their functional currency, as well as the valuation effects of hedging instruments that are included in cash flow hedge accounting. Furthermore, the revaluation effects in the context of accounting for defined benefit pension plans are shown here.

The minority interests are mainly attributable to the non-group shareholders in the Spanish Red Ofisat Group.

7.8 Provisions for pensions

The defined benefit plans comprised 18,555 beneficiaries (2019: 18,153), including 7,543 active employees (2019: 7,209), 4,260 former employees with vested benefits (2019: 4,260) and 6,752 retirees and surviving dependents (2019: 6,684). The characteristics and associated risks of the defined benefit plans vary depending on the legal, tax and economic framework in the respective country. The features of the defined benefit plans that are essential for the Vaillant Group are described below.

Great Britain

Vaillant Holdings Ltd. in Great Britain, together with the Vaillant Group UK Ltd. and Vaillant Industrial UK Ltd. the Vaillant Group Pension Scheme.

This pension plan has been closed for new entrants after April 5, 2013, and after consultation between the company, the trustees and the employees concerned, the entitlements from the Vaillant Group pension plan were frozen with effect from April 5, 2015. Active employees cannot earn any further claims beyond this point in time. After this date, the company's employees will be offered membership in a defined contribution pension plan.

The plan is administered by the Vaillant Trust UK, whose board of trustees is solely committed to the benefit of the beneficiaries by law and the trust agreement. Based on local regulations, a so-called actuarial assessment must be carried out at least every three years to determine any funding deficit. If necessary, a plan to compensate for the funding deficit must be coordinated with the Board of Trustees on the basis of this actuarial assessment.

Germany

In Germany, the companies listed below grant pension benefits either in accordance with the general pension scheme or in accordance with individual commitments:

society	Seat
Vaillant GmbH	Reimscheid
Vaillant Germany GmbH & Co. KG	Reimscheid
HKR GmbH & Co. KG	Roding
tecbytel GmbH	Gelsenkirchen
Vaillant Group Business Services GmbH	Reimscheid
Vaillant Group International GmbH	Reimscheid
TechnoCargo Logistik GmbH and Co. KG	Neuss

The majority of Vaillant's active employees in Germany participate in the general pension scheme introduced in the 1980 financial year. The amount of the performance-oriented pension commitment essentially corresponds to a fixed amount commitment, since the benefit amount depends on the salary level applicable at the time.

In addition, Vaillant grants selected executives individual commitments that provide a lifelong pension. The amount of individual pension benefits is based on the labor value of the position.

The general pension scheme as well as the respective individual commitments are defined benefit plans that are exclusively financed by provisions. In both pension plans, the company bears the actuarial risks such as financing risk, inflation risk, interest rate risk and longevity risk.

For the entire Vaillant Group, the defined benefit plans for post-employment benefits resulted in the following amounts in the consolidated financial statements:

Million Euro	Performance-Based Obligation (DBO)		Fair value of plan assets		Net balance from defined benefit plans	
	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
Great Britain	969.3	931.9	802.3	771.8	166.9	160.0
Germany	182.5	170.8	-	-	182.5	170.8
Others	65.0	59.3	26.5	22.6	38.6	36.7
total	1,216.8	1,162.0	828.8	794.4	388.0	367.6

The net balance sheet from defined benefit plans of 388.0 million euros (2019: 367.6 million euros) consisted of a net liability of 388.0 million euros (2019: 367.6 million euros) and a net asset value of 16 thousand euros (2019: 2 thousand euros) together.

The expenses for the net obligation from defined benefit plans are made up as follows:

Million Euro	2020	2019
Ongoing service cost	7.7	5.7
Past service costs	1.1	-0.3
Net interest expense	4.8	7.5
Obligation-related administrative costs	0.0	0.0
Expenses recognized in the income statement	13.6	12.9
Actuarial losses	122.6	121.4
Return on plan assets (excluding amounts included in net interest expense and income)	-73.6	-47.1
Revaluations recorded in the statement of comprehensive income	49.0	74.2
Expense / Income (-) for defined benefit plans	62.7	87.1

A court ruling by the Supreme Court in Great Britain on November 20, 2020 on the issue of compensation payments for guaranteed minimum pension schemes (GMP) led to an increase in the commitment volume of GBP 1.3 million for the defined benefit pension plan in Great Britain as of December 31, 2020. The addition was recorded under past service cost.

The actuarial result results in particular from the adjustment of the financial assumptions when assessing the scope of the obligation.

The pension expenses for defined benefit plans recognized in the income statement are distributed across the functional areas as follows:

Million Euro	2020	2019
Production cost of sales	2.3	2.0
Research and development costs	1.0	0.7
Marketing and distribution costs	3.1	2.2
administrative expenses	2.0	0.2
Other operating result	0.4	0.3

Million Euro	2020	2019
Financial result	4.8	7.5
Expenses recognized in the income statement	13.6	12.9

The transition from the financing status to the provisions for pensions shown in the consolidated balance sheet was as follows:

Million Euro	December 31, 2020	December 31, 2019
DBO of the pension plans	1,216.8	1,162.0
Fair value of plan assets for pension plans	828.8	794.4
Funding status of the pension plans	388.0	367.6

The company's defined benefit plans are described in more detail in the following sections:

- Reconciliation of the DBO and plan assets
- Actuarial Assumptions
- Sensitivity analysis
- Asset-liability matching strategies
- Breakdown of plan assets
- Future cash flows

a. Reconciliation of the DBO and plan assets

The following tables show the development of the DBO in detail:

Million Euro	December 31, 2020	December 31, 2019
DBO at the beginning of the financial year	1,162.0	1,009.7
Ongoing service cost	7.7	5.7
Past service costs	1.1	-0.3
Interest expenses	20.0	27.7
Reassessment		
Actuarial losses due to changes in financial assumptions	121.4	146.5
Actuarial losses due to changes in demographic assumptions	1.0	12.7
Profits (-) / losses based on experience	0.2	-37.9
Contributions from beneficiary employees	0.9	0.9
Payment of benefits directly by the company	-5.1	-4.8
Benefit payments from plan assets	-41.1	-42.0
Exchange rate changes	-51.3	43.8
DBO at the end of the financial year	1,216.8	1,162.0

A detailed reconciliation of the change in the fair value of plan assets can be found in the following table:

Million Euro	December 31, 2020	December 31, 2019
Fair value of plan assets at the beginning of the financial year	794.4	695.8
Interest income	15.2	20.2
Reassessment		
Return on plan assets excluding amounts included in net interest expense and income	73.6	47.1
Employer contributions	27.4	36.7
Contributions from beneficiary employees	0.9	0.9
Benefit payments from plan assets	-41.1	-42.0
Obligation-related administrative costs	-0.0	-0.0
Exchange rate changes	-41.5	35.7
Fair value of plan assets at the end of the financial year	828.8	794.4

b. Actuarial Assumptions

The assumptions on which the calculation of the DBO is based on discount rates, salary and pension trends and mortality rates vary depending on the economic and other framework conditions of the country in which the plans exist.

The weighted average discount rate and the mortality tables on which the actuarial calculation of the main DBO was based on the balance sheet date are as follows:

Calculation bases and parameters	Great Britain		Germany	
	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
%				
Discount rate	1.4	2.1	0.5	0.8
inflation rate	2.5	2.1	2.0	2.0
Life tables	S3PMA (men) and S3PFA_M (women)	S3PMA (men) and S3PFA_M (women)	Heubeck mortality tables 2018 G	Heubeck mortality tables 2018 G

In addition, the DBO is influenced by assumptions about future wage trends, pension trends and fluctuation rates. These effects are taken into account in the above assumptions (if applicable).

c. Sensitivity analysis

A change in the above assumptions used to determine the DBO as of December 31, 2020 would increase or decrease the DBO as follows:

Million Euro	Change in the DBO as of December 31, 2020		Change in DBO as of December 31, 2019	
	(+ = Increase, - = decrease)		(+ = Increase, - = decrease)	
Discount rate variation (+ / - 0.5 percent)	-100.0	110.9	-90.4	99.7
Inflation rate variation (+ / - 0.5 percent)	38.1	-36.6	35.0	-33.7

Million Euro	Change in the DBO as of December 31, 2020		Change in DBO as of December 31, 2019	
	(+ = Increase, - = decrease)		(+ = Increase, - = decrease)	
Life expectancy + / - 1 year	53.8	-55.7	48.6	-51.2

For example, the increase in the actuarial interest rate by half a percentage point results in a reduction in the DBO of 100.0 million euros, while a decrease in the actuarial interest rate by half a percentage point results in an increase in the DBO of 110.9 million euros.

The sensitivities specified here only take into account the DBO and not any plan assets brought in to cover. When calculating the sensitivity of the DBO for the relevant actuarial assumptions, the same method was used (determination of the present value according to the method of recurring single premiums) as for the calculation of the DBO in the amount of 1,216.8 million euros, which is recorded in the consolidated balance sheet. Increases and decreases in the discount rate, the inflation rate and the mortality rate do not have the same absolute value when determining the DBO - mainly due to the compound interest effect when calculating the present value of future benefits. If several assumptions are changed at the same time, the overall effect does not necessarily have to correspond to the sum of the individual effects due to the changes in the assumptions. In addition, the sensitivities only reflect a change in the DBO for the respective specific magnitude of the change in assumptions (e.g. 0.5 percent). If the assumptions change by any other magnitude, this does not necessarily have a linear effect on the DBO.

d. Asset-liability matching strategies

A strategic asset allocation has been defined for the UK final salary pension plan. The final salary plan is financed and administered by the Vaillant Trust UK. The direct responsibility for the financing and administration of the Vaillant Trust lies with the trustees of the Vaillant Trust UK.

The Vaillant Group has identified the deterioration in the financing status due to an unplanned development of plan assets and / or the liability side as a major risk from the final salary pension plan financed by the Vaillant Trust UK. As part of the ongoing risk adjustment, the development of the liability side is regularly compared with the development of the related plan assets. Significant risks on the obligation side can be seen in the development of the discount rate, inflation and life expectancy. To counteract this, discount rate and inflation risks in the trust are largely hedged using hedging instruments.

With a view to suitable risk minimization, the trustees coordinate with the fiduciary manager, the actuaries and the Vaillant Group. The primary goal is to restore a balanced financing status as quickly as possible and thereby maximize the return on investments with the lowest possible risk. A broadly diversified investment of assets can be guaranteed on the basis of the management principles and frameworks agreed between the trustees and the Vaillant Group. A concentration of investments in certain areas, sectors or branches can be avoided. Derivatives are only used to the extent that

The Vaillant Group expects the investments of the final salary pension plan to generate a return in the medium to long term in line with the actuarial assumptions under which the financing plan was agreed. The Vaillant Group is aware of the fact that short-term success can differ significantly from long-term goals.

e. Breakdown of plan assets

The breakdown of the plan assets of the pension plans is as follows:

Asset category Million Euro	Fair values to	
	December 31, 2020	December 31, 2019
Debt instruments	494.5	456.2
Equity instruments	227.1	207.7
property	55.1	55.0
Cash and cash equivalents	24.5	37.1
Structured Debt Instruments	15.5	15.7
Qualifying Insurance Policies	10.9	22.6
Asset-backed securities	0.7	-
Derivatives	0.6	-
total	828.8	794.4

With the exception of the qualifying insurance policies, all asset categories had price quotations on an active market. In addition, most of the cash and cash equivalents are intended for investment in corporate bonds.

The plan assets did not include any of the Vaillant Group's own transferable financial instruments, and the properties contained in the plan assets were not used by the Vaillant Group itself.

f. Future cash flows

On March 31, 2020, the trustees of the Vaillant Trust in Great Britain and the Vaillant Group adopted a revised plan to cover the existing funding deficit (recovery plan). The basis for determining the amount of the recovery plan payments is the actuarial assessment of April 5, 2019. According to this, the Vaillant Group is obliged to make contributions from May 2019 to October 2023 to compensate for existing underfunding amounts totaling 112.4 Million GBP. Funds of GBP 23.3 million (2019: GBP 30.0 million) were made available in the past financial year.

The total expected employer contributions to the Vaillant Group's defined benefit plans for post-employment benefits in the 2021 financial year amount to EUR 25.0 million (payments expected in 2019 for 2020: EUR 28.2 million).

From the perspective of the balance sheet date, future payments to the service recipients were as follows:

Expected benefit payments Million Euro	December 31, 2020	
2021		47.1
2022		48.2
2023		49.4
2024		51.5
2025		52.6
Expected benefit payments Million Euro	December 31, 2019	
2020		47.1
2021		48.0
2022		49.1
2023		50.9
2024		51.9

The weighted average duration of the DBO for the Vaillant Group's defined benefit plans was 17.6 years (2019: 16.7 years).

7.9 Other provisions

Million Euro	Overall 01/01/2020	Currency conversion	Feedings	Consume	Resolutions	Rebooking
Provisions for						
Discounts / bonuses	120.9	-4.2	121.7	101.6	5.2	-
staff	77.6	-1.0	60.7	52.4	2.2	1.0
Other provisions	128.2	-4.2	62.8	51.1	10.3	-1.0
total	326.7	-9.4	245.1	205.1	17.7	-
				Total December 31, 2020		Of which in the short term
Provisions for						
Discounts / bonuses					131.5	131.5
staff					83.7	62.5
Other provisions					124.4	89.3
total					339.6	283.3

The provisions for personnel include obligations from severance payments, from partial retirement, from remaining vacation wages and salaries and other personnel obligations. The additions to the other provisions in the year included interest expense of EUR 0.3 million (2019: EUR 1.5 million). The other provisions essentially contain risks from warranties and possible impending losses.

The provisions were offset by reimbursement claims in the amount of 0.1 million euros (2019: 0.0 million euros).

For the other long-term provisions recognized in the financial year, the following cash outflows are expected:

Million Euro	2020	Expected cash outflows (present values)				
Provisions for		2022	2023	2024	2025	2026 ff.
staff	21.2	5.9	2.5	1.6	1.6	9.7
Other provisions	35.1	23.5	3.4	2.2	1.8	4.2
total	56.3	29.4	5.9	3.8	3.4	13.8

7.10 Financial Liabilities

Million Euro	Final maturity	Book values	
		December 31, 2020	December 31, 2019
US private placement (total EUR 27.5 million)	08/15/2021	27.7	-
US private placement (total GBP 27.1 million)	08/15/2021	30.4	-
Lease liabilities	December 31, 2021	27.4	28.5
Other liabilities to banks	December 31, 2021	102.1	11.3
Liabilities from derivatives		1.0	7.0
Of which derivatives with a hedging relationship		1.0	7.0
Total short-term financial liabilities		188.5	46.7
Promissory note loan	11/30/2026	80.0	80.0
Promissory note loan	11/30/2024	60.0	60.0
US private placement (total EUR 27.5 million)	08/15/2021	-	27.5
US private placement (total GBP 27.1 million)	08/15/2021	-	31.9
Lease liabilities	12/31/2035	57.2	67.6
Other liabilities to banks		-0.2	-0.6
Liabilities from derivatives		0.0	0.2
Of which derivatives with a hedging relationship		0.0	0.2
Total long-term financial liabilities		197.1	266.5
Total financial liabilities	-	385.6	313.3

The syndicated revolving credit facility in the amount of EUR 250.0 million, which has existed since November 2011, bears interest on the basis of EURIBOR plus a margin, whereby the interest margins are based on the ratio of net debt to EBITDA. In 2016, the revolving credit facility was prematurely extended by a further year until December 15, 2021 and adjusted to the current market situation. As in the previous year, the credit facility was not drawn upon at the end of the reporting year. On January 28, 2021, Vaillant GmbH replaced this syndicated credit facility with a new syndicated credit facility with a volume of EUR 300.0 million and a term until at least January 2024.

In August 2006, the Vaillant Group issued a US private placement in USD, GBP and EUR. These papers were acquired by institutional investors. These are seven series with terms of 10, 12 and 15 years, with the tranches with terms of 10 and 12 years being redeemed in August 2016 and August 2018, respectively.

In May 2019, Vaillant GmbH took out two promissory notes, one for 60.0 million euros (due in November 2024) and one for 80 million euros (due in November 2026).

At the beginning of the COVID-19 pandemic, the Vaillant Group took out loans of around 101 million euros from banks for the purpose of providing liquidity. These cash and cash equivalents should enable the Vaillant Group to absorb possible negative effects of the pandemic on the course of business. The loans are shown under other liabilities to banks and are due in 2021.

The cash flows from the Vaillant Group's financial liabilities are as follows:

Million Euro	Book value December 31, 2020	Cash flows 2021 interest + repayment	Cash flows 2022 interest + repayment	Cash flows 2023-2028 interest + repayment	Cash flows 2029 ff. Interest + repayment
Original financial liabilities					
liabilities from goods and services	349.1	349.1	0.0	0.0	-
Liabilities to banks	102.0	102.4	-	-	-
Promissory note loan	80.0	0.8	0.8	83.1	-
Promissory note loan	60.0	0.4	0.4	60.7	-
US private placement	58.0	59.9	-	-	-

Million Euro	Book value December 31, 2020	Cash flows 2021 interest + repayment	Cash flows 2022 interest + repayment	Cash flows 2023-2028 interest + repayment	Cash flows 2029 ff. Interest + repayment
Lease liabilities	84.6	28.7	22.9	36.4	0.2
Other liabilities	63.6	63.5	0.1	-	-
Liabilities from derivatives					
Liabilities from derivatives with gross settlement	1.0	1.0	-	-	-
Cash outflow	-	96.9	-	-	-
Cash inflow	-	-96.0	-	-	-
Liabilities from derivatives with net settlement	0.0	-	-	0.0	-

Million Euro	Book value December 31, 2019	Cash flows 2020 interest + repayment	Cash flows 2021 interest + repayment	Cash flows 2022-2027 interest + repayment	Cash flows 2028 ff. Interest + repayment
Original financial liabilities					
liabilities from goods and services	290.6	290.5	0.1	-	-
Liabilities to banks	10.7	12.0	-	-	-
Promissory note loan	80.0	0.8	0.8	83.9	-
Promissory note loan	60.0	0.4	0.4	61.1	-
US private placement	59.4	3.1	62.5	-	-
Lease liabilities	96.1	29.4	23.2	47.4	0.9
Other liabilities	61.0	60.8	0.2	-	-
Liabilities from derivatives					
Liabilities from derivatives with gross settlement	6.5	7.4	-	-	-
Cash outflow	-	157.8	-	-	-
Cash inflow	-	-150.3	-	-	-
Liabilities from derivatives with net settlement	0.6	0.4	0.2	-	-

The tables show all financial liabilities that were in existence on December 31 and for which payments are contractually agreed. In addition to the repayment, the cash flows also contain the interest component.

The Vaillant Group controls the financing risk on the one hand using the key figure net debt to EBITDA, as this is decisive for the debt capacity of the corporate group. On the other hand, attention is paid to a balanced maturity structure with external debt. The remaining terms of the individual financing instruments are spread over a period of one to six years. To cover short-term financing requirements, in addition to cash and cash equivalents of EUR 471.4 million (2019: EUR 285.3 million), unused, committed credit lines of EUR 250.0 million (2019: EUR 250.0 million) were available at the end of the year. Under the syndicated credit facility and EUR 8.1 million (2019: 0, 0 million euros) within the framework of committed local credit lines. In addition, the Vaillant Group takes care to avoid concentrating on individual lenders. The main financing instruments are the revolving credit facility with seven banks, the promissory note loan, the US private placement and bilateral loan agreements. Liquidity planning is carried out in the long term as part of the business plan, in the medium term as part of budget planning and the related interim updates, and in the short term as part of the liquidity requirement calculation to determine short-term borrowings or investments. In addition, the Vaillant Group takes care to avoid concentrating on individual lenders. The main financing instruments are the revolving credit facility with seven banks, the promissory note loan, the US private placement and bilateral loan agreements. Liquidity planning is carried out in the long term as part of the business plan, in the medium term as part of budget planning and the related interim updates, and in the short term as part of the liquidity requirement calculation to determine short-term borrowings or investments. In addition, the Vaillant Group takes care to avoid concentrating on individual lenders. The main financing instruments are the revolving credit facility with seven banks, the promissory note loan, the US private placement and bilateral loan agreements. Liquidity planning is carried out in the long term as part of the business plan, in the medium term as part of budget planning and the related interim updates, and in the short term as part of the liquidity requirement calculation to determine short-term borrowings or investments. In addition, the Vaillant Group takes care to avoid concentrating on individual lenders. The main financing instruments are the revolving credit facility with seven banks, the promissory note loan, the US private placement and bilateral loan agreements. Liquidity planning is carried out in the long term as part of the business plan, in the medium term as part of budget planning and the related interim updates, and in the short term as part of the liquidity requirement calculation to determine short-term borrowings or investments.

7.11 Trade payables

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Trade payables to third parties	349.1	349.1	290.6	290.5
Trade payables to:				
a) affiliated, non-consolidated companies	0.0	0.0	0.0	0.0
b) Companies with which there is a participation relationship	-	-	0.0	0.0
total	349.1	349.1	290.6	290.5

7.12 Other liabilities

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Liabilities from accepting bills of exchange	-	-	0.0	0.0
Payments received	14.8	14.8	11.0	11.0
Accruals and deferrals	214.5	129.0	200.0	123.9
Tax liabilities	10.0	10.0	9.7	9.7
Social security liabilities	13.8	13.8	12.9	12.9

Million Euro	December 31, 2020		December 31, 2019	
	total	Of which in the short term	total	Of which in the short term
Other miscellaneous liabilities	63.6	63.5	61.0	60.8
Sales tax liabilities	53.7	53.7	32.3	32.3
total	370.5	284.8	326.8	250.5

The contractual performance liabilities from sales transactions included in the accruals and deferrals amount to EUR 213.0 million (2019: EUR 197.4 million) (see section 5.1), the other other liabilities include liabilities in connection with the pass-through arrangement from the ABS program in the amount of 25.3 million euros (2019: 23.8 million euros). The increase in sales tax liabilities at the end of the financial year resulted in particular from deferrals of 19.9 million euros granted as part of the COVID-19 pandemic.

7.13 Contingent Liabilities and Other Financial Obligations

Million Euro	December 31, 2020	December 31, 2019
Other financial obligations	52.8	21.1
Contingent liabilities from guarantees	39.6	15.6
Other contingent liabilities	6.6	5.3

As of the balance sheet date, there are future financial obligations in the amount of EUR 52.8 million (2019: EUR 21.1 million). This includes obligations from renting IT infrastructure and related services in the amount of EUR 29.6 million (2019: EUR 6.7 million). The increase results from the conclusion of a new multi-year contract in the past financial year. These services will be paid evenly over the period up to December 31, 2023. Furthermore, the future financial obligations include EUR 23.1 million (2019: EUR 14.4 million) arising from contractually agreed purchase obligations for steel in Turkey result. Payment for these benefits will be made by September 30, 2021. The contingent liabilities from guarantees in the amount of 39.6 million euros (2019: 15.6 million euros) relate to those to banks in the amount of 27.8 million euros (2019: 0.0 million euros) that are used as collateral for the establishment of Credit lines for various subsidiaries were given as a precautionary measure to deal with the possible effects of the COVID-19 pandemic. These local credit lines (of which: 8.1 million euros committed, see Section 7.10) had not been used as of the balance sheet date. In addition, guarantees in the amount of 11.8 million euros (2019: 15.6 million euros) were given in the context of procurement transactions with suppliers.

7.14 Contingent Claims

There are contingent claims in the amount of 9.0 million euros (2019: 12.1 million euros), which relate to possible claims for damages from defective deliveries.

7.15 Additional information on financial instruments

Financial assets and liabilities are valued either at (amortized) cost or at fair value in the balance sheet.

The following tables contain information on book values, measurement categories of IFRS 9 and fair values:

December 31, 2020	Valued at amortized cost		Measured at fair value through profit or loss	Measured at fair value with no effect on income	Not assigned to any evaluation category	Book value in the balance sheet
	Book value	Informational: fair value	Book value	Book value	Book value	
Requests from deliveries and services	251.5	251.0	-	-	-	251.5
Other financial assets	5.5	5.5	0.2	11.2	-	16.9
Other financial receivables	5.5	5.5	-	-	-	5.5
Investments in equity instruments	-	-	0.2	-	-	0.2
Derivatives with a hedging relationship	-	-	-	11.2	-	11.2
Other claims	16.1	16.1	-	-	45.2	61.3
Other financial receivables	16.1	16.1	-	-	-	16.1
Non financial assets	-	-	-	-	45.2	45.2
Cash and cash equivalents	471.4	471.4	-	-	-	471.4
Total financial assets	744.5	744.0	0.2	11.2	-	755.9
December 31, 2020	Valued at amortized cost		Measured at fair value with no effect on income	Valued in accordance with IFRS 16	Not assigned to any evaluation category	Book value in the balance sheet
Million Euro	Book value	Informational: fair value	Book value	Book value	Book value	
Financial liabilities	300.0	300.5	1.0	84.6	-	385.6
Other financial liabilities	300.0	300.5	-	84.6	-	384.6
Derivatives with a hedging relationship	-	-	1.0	-	-	1.0
liabilities from goods and services	349.1	349.1	-	-	-	349.1
Other liabilities	63.6	63.6	-	-	306.8	370.5
Other financial liabilities	63.6	63.6	-	-	-	63.6
Non-financial liabilities	-	-	-	-	306.8	306.8
Total financial liabilities	712.8	713.3	1.0	84.6	-	798.4

The reconciliation of the previous year's figures is as follows:

December 31, 2019	Valued at amortized cost	Measured at fair value through profit or loss	Measured at fair value with no effect on income	Not assigned to any evaluation category
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December 31, 2019	Book value at amortized cost	Informational: fair value	Measured at fair value through profit or loss	Measured at fair value with no effect on income	Not assigned to any evaluation category	Book value in the balance sheet
Million Euro	Book value	Informational: fair value	Book value	Book value	Book value	Book value in the balance sheet
Requests from deliveries and services	240.2	239.9	-	-	-	240.2
Other financial assets	5.7	5.7	0.2	2.2	-	8.0
Other financial receivables	5.7	5.7	-	-	-	5.7
Investments in equity instruments	-	-	0.2	-	-	0.2
Derivatives with a hedging relationship	-	-	-	2.2	-	2.2
Other claims	15.6	15.6	-	-	42.3	57.9
Other financial receivables	15.6	15.6	-	-	-	15.6
Non financial assets	-	-	-	-	42.3	42.3
Cash and cash equivalents	285.3	285.3	-	-	-	285.3
Total financial assets	546.8	546.5	0.2	2.2	-	549.1
December 31, 2019	Valued at amortized cost		Measured at fair value with no effect on income	Valued in accordance with IFRS 16	Not assigned to any evaluation category	Book value in the balance sheet
Million Euro	Book value	Informational: fair value	Book value	Book value	Book value	Book value in the balance sheet
Financial liabilities	210.1	217.5	7.1	96.1	-	313.3
Other financial liabilities	210.1	217.5	-	96.1	-	306.2
Derivatives with a hedging relationship	-	-	7.1	-	-	7.1
liabilities from goods and services	290.6	290.6	-	-	-	290.6
Other liabilities	61.0	61.0	-	-	265.8	326.8
Other financial liabilities	61.0	61.0	-	-	-	61.0
Non-financial liabilities	-	-	-	-	265.8	265.8
Total financial liabilities	561.6	569.1	7.1	96.1	-	664.9

A fair value measurement of open trade receivables that can still be sold in subsequent months under the existing ABS program would have resulted in a reduction in the book value of EUR 0.5 million (2019: 0, 3 million euros). The effect was not recorded on the basis of materiality considerations.

If a measurement is made at fair value or is provided for information purposes, these financial instruments must be assigned to one of the three levels of the fair value hierarchy (for the fair value hierarchy, see also Section 2.4.10).

Financial assets	December 31, 2020		
	Fair value classified in		
Million Euro	Level 1	Level 2	Level 3
Non-derivative financial assets			
Investing in Equity Instruments - Exchange Traded	0.2	-	-
Derivative financial assets with a hedging relationship			
Commodity futures - copper	-	9.7	-
Foreign Currency Forwards - GBP	-	1.5	-
Foreign Currency Forwards - Other	-	0.0	-
Assets for which the fair value is given for information only			
Valued at amortized cost	-	251.0	-
Financial liabilities			
	December 31, 2020		
	Fair value classified in		
Million Euro	Level 1	Level 2	Level 3
Derivative financial liabilities with a hedging relationship			
Commodity futures - copper	-	0.0	-
Foreign Currency Forwards - GBP	-	1.0	-
Foreign Currency Forwards - Other	-	-	-
Liabilities for which the fair value only needs to be stated			
Valued at amortized cost	-	300.5	-
The previous year's figures are as follows:			
Financial assets	December 31, 2019		
	Fair value classified in		
Million Euro	Level 1	Level 2	Level 3
Non-derivative financial assets			
Investing in Equity Instruments - Exchange Traded	0.2	-	-
Derivative financial assets with a hedging relationship			

Financial assets	December 31, 2019		
	Fair value classified in		
Million Euro	Level 1	Level 2	Level 3
Commodity futures - copper	-	2.2	-
Foreign Currency Forwards - GBP	-	-	-
Foreign Currency Forwards - Other	-	-	-
Assets for which the fair value is given for information only			
Valued at amortized cost	-	239.9	-
Financial liabilities	December 31, 2019		
Million Euro	Level 1	Level 2	Level 3
Derivative financial liabilities with a hedging relationship			
Commodity futures - copper	-	0.6	-
Foreign Currency Forwards - GBP	-	6.5	-
Foreign Currency Forwards - Other	-	0.1	-
Liabilities for which the fair value only needs to be stated			
Valued at amortized cost	-	217.5	-

For some financial instruments, such as cash, short-term trade receivables and payables, the carrying amount is a reasonable approximation of the fair value. In accordance with IFRS 7.29 (a), disclosure of the fair value is not required for such financial instruments.

Evaluation process

The DCF method was used to determine the fair value of the liabilities from the US private placement and the promissory note loan. Possible refinancing rates for the Vaillant Group were used as discount factors.

The other long-term liabilities are non-interest-bearing and - if material - have been discounted according to their remaining term at the current market interest rate.

The financial assets are either short-term assets (trade receivables) or variable-interest values or assets for which the agreed nominal interest rate differs only insignificantly from the interest rates of the corresponding remaining terms. For outstanding trade receivables that will be sold in subsequent months under the ABS program, the fair value is only given for information. This is based on the purchase price discount agreed with the program partner on the book value of the items in question.

There were no changes to the carrying amounts for any of the other financial liabilities, as these are either short-term (trade payables) or variable interest rates. In some cases, the market interest rates for the corresponding remaining terms differed only insignificantly from the agreed nominal interest rates.

The determination of the fair values recognized in the balance sheet for derivative financial instruments depends on the type of instrument:

The fair value of currency derivatives is determined on the basis of the current ECB reference rates plus a premium or discount based on the interest rate differentials.

The fair values of commodity derivatives are determined on the basis of quotations from the LME (London Metal Exchange).

If material, the credit risk of the contractual partner is taken into account in the application of valuation techniques for derivative financial instruments by calculating credit and debit valuation adjustments.

The net gains (+) and net losses (-) from financial instruments resulted as follows:

Million Euro	Valuation categories according to IFRS 9	2019	
		2020	2019
Trade accounts receivable from the ABS program	FAFVPL	-0.3	-0.2
Financial assets valued at amortized cost	FAAC	-0.4	0.9
Financial liabilities valued at amortized cost	FLAC	-2.0	1.2

Net gains and losses from "financial assets valued at amortized cost" and "financial liabilities valued at amortized cost" contain changes in value adjustments as well as incoming payments and reversals of impairment losses on loans and receivables previously written off. It also includes gains or losses from foreign currency translation and the sale of assets.

With regard to the interest expenses or income resulting from the application of the effective interest method, we refer to the corresponding comments on the interest result in section 5.8.

8 RISK AND CAPITAL MANAGEMENT AND SECURITY INSTRUMENTS

8.1 Risk management policy (general)

The globalization of marketplaces forces the economy to react flexibly to changes in financial and other market parameters such as exchange rates, interest rates or metal prices. As an international company, the Vaillant Group is also exposed to these risks. The Vaillant Group uses over-the-counter derivative financial instruments to eliminate or reduce the risks resulting from operational business and its financial support. Interest rate, metal price and exchange rate risks are hedged through the use of compensatory derivatives for direct relationships between the underlying and the hedging transaction (micro-hedges).

The conclusion, processing and control of the use of financial derivatives are centrally controlled by the Group Treasury department on the basis of a group-wide treasury guideline. The use of foreign exchange and non-ferrous metal derivatives is limited exclusively to the hedging of operational business.

The maximum default risk of the derivative financial instruments recognized in the balance sheet is reflected by their book values, which correspond to their fair values.

8.2 Capital management

Sustainable profitable growth is the central goal of the long-term strategy of the Vaillant Group. This ensures the continuation of the company so that dividends can continue to be paid to the shareholders and benefits can also be generated for other interest groups. In addition, an adequate return for the shareholders is ensured in accordance with the company's risk situation.

Sales and EBIT are the key figures with which the Vaillant Group measures and controls the company's growth.

The primary goal of the Vaillant Group's capital management is to ensure that the Group's ability to repay debt and its financial substance is maintained in the future and that sufficient free cash flow is available so that dividends can be distributed to shareholders on a regular basis. The Vaillant Group's capital management is therefore geared in particular to safeguarding the equity on the balance sheet.

A stable financial structure is therefore essential. In order to be able to continuously achieve this objective, a consistent and systematic control of the debt capital in the balance sheet is necessary. Financial covenants serve as a control parameter for this. Failure to comply with the financial covenants leads, in the worst case, to an immediate maturity of the loan.

The Group Treasury therefore continuously monitors the following two financial covenants, the components of which are determined according to the definitions of the agreed loan agreement clauses and which must be met cumulatively:

- Net debt ratio, defined as the quotient of net debt to EBITDA (operating profit before depreciation on property, plant and equipment and intangible assets) and the
- Interest coverage ratio, defined as the quotient of EBITDA to net interest expense.

As in previous years, the financial covenants were fulfilled as of the reporting date (December 31, 2020).

8.3 Market Risks

8.3.1 Currency Risks

The Vaillant Group's exchange rate risks result from its operating business (transaction risks).

The underlying transactions on which the currency hedging considerations are based are defined as the balance of receivables and liabilities as well as expected sales and costs for the next twelve months. The Vaillant Group attaches particular importance to the natural hedge, which means that sales revenues in individual currencies should, if possible, also offset expenses (costs for materials, personnel, etc.) in the same currency. The cash flows from foreign currency transactions are due in 2020 and have a nominal value of EUR 314.5 million as of the balance sheet date (2019: EUR 317.0 million). Of this nominal amount, around 52 percent (2019: 47 percent) were secured by forward exchange transactions in hedging relationships as of the balance sheet date.

The most important currency relation for the Vaillant Group is EUR / GBP. The fair value of these currency forwards was EUR 0.6 million as of the balance sheet date (2019: EUR -6.5 million).

The currency sensitivity analysis is based on the following assumption:

For the hedged part of the cash flow, changes in exchange rates do not affect the result. The sensitivity analysis in accordance with IFRS 7 to determine the market risk results in a theoretical fair value of - 15.3 million euros (2019: - 16.3 million euros) based on GBP forward sales for a GBP 10 percent stronger. For the unsecured part of the foreign currency transactions, an average devaluation of the GBP by 10 percent would have burdened the 2020 annual result with an additional approximately 4.1 million euros (2019: 3.9 million euros).

8.3.2 Raw material risks

As an industrial company, the Vaillant Group is also exposed to the risk of price changes for raw materials. In the case of unlisted raw materials, attempts are made to hedge the price risk through long-term purchase contracts. Of the raw materials listed on the stock exchange, copper is mainly used. The Vaillant Group has concluded corresponding purchase futures contracts (OTC swaps) here. The fair values of the raw material contracts with a hedge as of December 31, 2020 amounted to EUR 9.6 million (2019: EUR 1.6 million).

The table below shows the expected cash flows for copper purchases:

Nominal values of the cash flows	Million Euro
Due in 2021	25.9
Due in 2022	17.1
Due 2023	9.3

The raw material sensitivity analyzes are based on the assumption that non-ferrous metals of consistent quality can be bought in advance on the commodity futures exchanges. Although there is no physical delivery of the metals here, the profit or loss resulting from these transactions is offset against the cost of sales when due. Fluctuations in metal prices do not affect the results of the hedged transactions.

The sensitivity analysis shows that if the market price had been 10 percent lower, the fair value of the corresponding contracts would have been EUR 3.4 million (2019: EUR -5.0 million).

8.3.3 Interest rate risks

Interest rate risks can result from floating-rate financial debts. Fixed-interest financial debts, such as the US private placement, are recognized at amortized cost and not at fair value, so that a change in the market interest rate did not have any effect on the profit or loss for the period. The interest rate risks relate primarily to the variable-interest liabilities to banks, if any. The sensitivity analysis carried out resulted in an increase in interest expense of EUR 0.0 million (2019: EUR 0.3 million) for liabilities to banks with an interest rate higher by 1 percentage point. As of 31

8.3.4 Ausfallrisiken

Die Vaillant Group ist insbesondere aus ihrem operativen Geschäft einem Ausfallrisiko ausgesetzt. Im operativen Geschäft werden die Außenstände aus Lieferungen und Leistungen dezentral überwacht. Ausfallrisiken wird mittels Einzelwertberichtigungen und pauschalierter Einzelwertberichtigungen gemäß dem Lifetime-Expected-Credit-Loss-Modell Rechnung getragen. Die Vaillant Group hat einen Teil der Forderungen aus Lieferungen und Leistungen im Rahmen eines ABS-Programms veräußert und in Höhe der übertragenen Risiken und Chancen ausgebucht. Es verbleibt ein Ausfallrisiko in Höhe der angesetzten finanziellen Vermögenswerte.

In order to minimize the default risk of trade receivables, non-cash collateral (mainly trade credit insurance, bank guarantees and letters of credit as well as mortgages) has been taken out to cover part of the default risk.

The maximum default risk of the financial assets recognized in the balance sheet (including derivative financial instruments with a positive fair value) is reflected in the book values.

8.4 Additional information on derivatives in hedging relationships

The following overview contains information about the cash flows of the derivative financial instruments used in hedging relationships:

2020	Commodity futures		Forward foreign exchange transactions	
	Nominal volume million euros	Ø secured price per ton (in euros)	Nominal volume million euros	Ø forward rate *
Due in 2021	25.9	5,285	158.8	0.90
Due in 2022	17.1	5,235	-	-
Due 2023	9.3	5,495	-	-

* The indication of the average forward rate relates to the hedging of the GBP exchange rate risk as the only essential currency hedging component.

2019	Commodity futures		Forward foreign exchange transactions	
	Nominal volume million euros	Ø secured price per ton (in euros)	Nominal volume million euros	Ø forward rate
Due in 2020	26.2	5,311	147.0	0.89
Due in 2021	16.2	5,228	-	-
Due in 2022	8.0	5,158	-	-

The hedging instruments that the Vaillant Group had designated in hedging relationships had the following effects on the consolidated balance sheet and the consolidated statement of comprehensive income (in million euros, unless otherwise stated):

2020	Book value of the hedging instruments used		Change in fair value to measure ineffectiveness in the year under review	Amount recorded in other result (+ = profit, - = loss)
	Other financial assets	Financial liabilities		
Million Euro				
Forward foreign exchange transactions	1.5	1.0	7.0	4.6
Commodity futures	9.7	-	8.1	5.8
	Amount reclassified from other income to the income statement (+ = profit, - = loss)			Item in the consolidated income statement
2020				
Million Euro				

Forward foreign exchange transactions			-0.7	Sales revenue / production cost of sales
Commodity futures			0.1	Production cost of sales

2019	Book value of the hedging instruments used		Change in fair value to measure ineffectiveness in the year under review	Amount recorded in other result (+ = profit, - = loss)
	Other financial assets	Financial liabilities		
Million Euro				
Forward foreign exchange transactions	-	6.5	-6.7	-7.8
Commodity futures	2.2	0.6	3.5	2.4
	Amount reclassified from other income to the income statement (+ = profit, - = loss)			Item in the consolidated income statement

2019				
Million Euro				
Forward foreign exchange transactions			-2.5	Sales revenue / production cost of sales
Commodity futures			0.1	Production cost of sales

The profits from hedging transactions recognized in other comprehensive income in the financial year totaled EUR 10.4 million. The amount of EUR 4.6 million attributable to foreign currency forwards will, as expected, largely be released to income within the next twelve months and the amount attributable to commodity futures contracts within the next 36 months.

Results from the currency forwards were shown in the sales revenue, insofar as the underlying transactions concerned the sale of goods. If, on the other hand, it was a purchase transaction, it was shown in the cost of sales. Amounts for commodity futures were also included in the cost of sales.

Since the underlying transactions designated in hedging relationships for ongoing hedges are only expected transactions with a high probability of occurrence, which are pending in nature as of the balance sheet date, they have no impact on the consolidated balance sheet. There were also no inefficiencies from the hedging relationships affecting net income in the reporting period. Remaining balances from hedging relationships, in which the accounting treatment of hedging transactions is no longer used, result exclusively from hedges of net investments in foreign businesses at the time and are included in the currency translation reserve with a total of - 75.3 million euros,

The development of the reserve for the time valuation of hedging instruments contained in the other equity components and their influence on the other result in the reporting period are shown as follows:

2020	Forward foreign exchange transactions	Commodity futures	total
	Million Euro		
As of 01.01.	-4.4	1.5	-2.9
Amount recorded in other result (+ = profit, - = loss)	4.6	5.8	10.4
Amounts that were transferred to the income statement because the secured underlying transaction was entered in the income statement (- = profit, + = loss)	0.7	-0.1	0.6
As at 31.12.	0.9	7.2	8.1
2019	Forward foreign exchange transactions	Commodity futures	total
	Million Euro		
As of 01.01.	0.9	-0.8	0.1
Amount recorded in other result (+ = profit, - = loss)	-7.8	2.4	-5.4
Amounts that were transferred to the income statement because the secured underlying transaction was entered in the income statement (- = profit, + = loss)	2.5	-0.1	2.4
As at 31.12.	-4.4	1.5	-2.9

9 RELATIONSHIPS WITH AFFILIATED COMPANIES AND PERSONS

Related companies and persons within the meaning of IAS 24 are legal and natural persons who can exert influence on Vaillant GmbH and its subsidiaries or who are controlled or subject to significant influence by Vaillant GmbH or its subsidiaries. These include, in particular, non-consolidated subsidiaries, joint ventures and associated

companies, pension plans and also the members of the executive bodies of Vaillant GmbH and their close relatives. The remuneration of the members of the governing bodies can be found in the following chapter 10, the information on the payment obligations in defined benefit plans can be found in chapter 7.8.

Transactions with these related companies result from the normal exchange of supplies and services; the scope of business relationships is shown in the following table:

Million Euro	Type of relationship		Services to related companies	Services from related companies	Receivables from related companies	Liabilities to related companies
Manuel J. Monteiro & Co. Lda.	Sales of finished products	2020	1.0	0.0	0.1	-
		2019	1.3	0.0	0.2	0.0
Vaillant Cooperation	Handling of warranty claims	2020	-	-	-	0.3
		2019	-	-	-	0.4
Joh. Vaillant GmbH & Co KG	Real estate management, accounting	2020	0.1	1.2	3.4	0.0
		2019	0.1	1.2	3.4	0.0

Transactions with related parties occurred only to a very insignificant extent in the past financial year.

Vaillant GmbH had received interest income of 14 thousand euros (2019: 0.1 million euros) from the Vaillant Group's loan receivable from Joh. Vaillant GmbH & Co KG.

10 TOTAL REMUNERATION OF THE MANAGEMENT, THE SHAREHOLDERS' COMMITTEE AND THE SUPERVISORY BOARD

The remuneration of the management in key positions of the Vaillant Group, which must be disclosed in accordance with IAS 24, includes the remuneration of the management, the shareholders' committee and the supervisory board.

The members of the management were remunerated as follows:

Million Euro	2020	2019
Short-term benefits	5.4	3.7
Benefits on the occasion of / after the end of the employment relationship	2.2	0.5
total	7.7	4.2

Temporary continued salary payments and expenses for pension commitments earned in the current year are reported as benefits on the occasion of / after the end of the employment relationship. As of December 31, 2020, as in the previous year, no loans or advances were granted to the management; As in the previous year, no contingent liabilities were entered into in favor of members of the management.

The total remuneration of former members of the management and their surviving dependents from pensions amounted to 0.4 million euros (2019: 0.5 million euros). A provision of 12.9 million euros (2019: 12.8 million euros) was set aside for pension obligations to active and former members of the management, of which 9.4 million euros (2019: 9.8 million euros) relate to former members of the management and their surviving dependents.

In the 2020 financial year, the Shareholders' Committee received total remuneration of EUR 0.6 million (2019: EUR 0.6 million) and the Supervisory Board received total remuneration of EUR 0.1 million (2019: EUR 0.1 million).

As of December 31, 2020, as in the previous year, no loans or advances were granted to members of the Supervisory Board or the Shareholders' Committee; As in the previous year, no contingent liabilities were entered into in favor of these bodies.

11 AUDITOR FEES AND SERVICES

The following fees (including expenses) were recorded as expenses for the services provided by the group auditor in the 2020 financial year:

Million Euro	2020	2019
Audit services	0.5	1.0
Tax advisory services	0.0	0.0
Other services	0.1	0.8
total	0.6	1.8

In the previous year, the other services included expenses from cross-project consulting services in connection with existing digitization initiatives.

12 EVENTS AFTER THE BALANCE SHEET DATE

Beyond this, no other events of major importance for the net assets, financial position and results of operations of the Vaillant Group have occurred that would have required separate disclosure outside of the information in the notes above.

Remscheid, February 22, 2021

Vaillant GmbH *

The Board

Dr.-Ing. Schiedeck, chairman

Dr. Borchers

Dr. Groos

INDEPENDENT AUDITOR'S REPORT

To Vaillant GmbH, Remscheid

AUDIT OPINIONS

We have prepared the consolidated financial statements of Vaillant GmbH, Remscheid, and its subsidiaries (the Group) - consisting of the consolidated balance sheet as of December 31, 2020, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from December 1, 2020 January 2020 to December 31, 2020 as well as the notes to the consolidated financial statements, including a summary of significant accounting methods.

In addition, we have audited the combined management report for the financial year from January 1, 2020 to December 31, 2020.

We have not checked the content of the corporate governance declaration in accordance with Section 289f (4) of the German Commercial Code (information on the quota of women) in accordance with German legal regulations.

According to our assessment based on the knowledge gained during the audit

- the attached consolidated financial statements comply in all material respects with the IFRS as they are to be applied in the EU and the additional German legal regulations to be applied according to § 315e Abs. 1 HGB and give a true and fair view of the asset and financial situation in compliance with these regulations of the group as of December 31, 2020 and its earnings position for the financial year from January 1, 2020 to December 31, 2020 and
- the attached combined management report gives an overall accurate picture of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and accurately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of the components named under "Other information" of the combined management report.

In accordance with Section 322, Paragraph 3, Clause 1 of the German Commercial Code (HGB), we declare that our audit has not led to any objections to the correctness of the consolidated financial statements and the combined management report.

BASIS FOR THE AUDIT OPINIONS

We have performed our audit of the consolidated financial statements and the combined management report in accordance with Section 317 of the German Commercial Code (HGB), taking into account the generally accepted German auditing principles established by the Institut der Wirtschaftsprüfer (IDW).

Our responsibility under these regulations and principles is described in more detail in the section "Responsibility of the auditor for the audit of the consolidated financial statements and the combined management report" of our auditor's report. We are independent of the group companies in accordance with the German commercial and professional regulations and have fulfilled our other German professional obligations in accordance with these requirements. We are of the opinion that the audit evidence we have obtained is sufficient and suitable to serve as a basis for our audit opinions on the consolidated financial statements and the combined management report.

OTHER INFORMATION

The legal representatives are responsible for the other information. The other information includes the declaration on corporate governance in accordance with Section 289f (4) of the German Commercial Code (information on the quota of women).

Our audit opinions on the consolidated financial statements and the combined management report do not cover the other information, and accordingly we do not issue an audit opinion or any other form of audit conclusion thereon.

In connection with our audit of the consolidated financial statements, it is our responsibility to read the other information and, in doing so, to assess whether the other information

- have material inconsistencies with the consolidated financial statements, the combined management report or our knowledge obtained during the audit, or
- otherwise appear materially misrepresented.

RESPONSIBILITY OF THE LEGAL REPRESENTATIVES AND THE SUPERVISORY BOARD FOR THE CONSOLIDATED FINANCIAL STATEMENTS AND THE COMBINED MANAGEMENT REPORT

The legal representatives are responsible for the preparation of the consolidated financial statements, which comply with the IFRS as they are to be applied in the EU, and the additional German legal regulations to be applied according to § 315e Abs. 1 HGB in all essential respects, and for that the consolidated financial statements under Compliance with these regulations provides a true and fair view of the Group's asset, financial and earnings position. Furthermore, the legal representatives are responsible for the internal controls that they have determined to be necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether intended or not.

When preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group's ability to continue as a going concern. Furthermore, they are responsible for disclosing matters relating to the going concern of the company, if relevant. In addition, they are responsible for reporting on a going concern basis unless the intention is to liquidate the group or to cease operations or there is no realistic alternative to doing so.

In addition, the legal representatives are responsible for the preparation of the combined management report, which as a whole provides a suitable view of the Group's position and is consistent with the consolidated financial statements in all material respects, complies with German legal requirements and applies the opportunities and risks of future development represents. Furthermore, the legal representatives are responsible for the precautions and measures (systems) that they have deemed necessary. The Supervisory Board is responsible for monitoring the Group's accounting process for the preparation of the consolidated financial statements and the combined management report.

RESPONSIBILITY OF THE AUDITOR FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND THE COMBINED MANAGEMENT REPORT

Our aim is to obtain sufficient certainty as to whether the consolidated financial statements as a whole are free of material - intended or unintentional - misrepresentation and whether the combined management report as a whole gives an accurate picture of the Group's position and, in all material matters, with the consolidated financial statements as well is in line with the findings of the audit, complies with German legal requirements and accurately presents the opportunities and risks of future development, and issues an auditor's report that includes our audit opinions on the consolidated financial statements and the combined management report.

Sufficient security is a high level of security, but no guarantee that an audit carried out in accordance with Section 317 of the German Commercial Code (HGB) and in compliance with the German principles of proper auditing established by the Institute of Auditors (IDW) will always reveal a material misrepresentation. Misrepresentations can result from violations or inaccuracies and are regarded as material if it could reasonably be expected that, individually or as a whole, they would influence the economic decisions of the addressees made on the basis of these consolidated financial statements and the combined management report.

During the examination, we exercise our due discretion and maintain a critical attitude. Furthermore

- We identify and assess the risks of material - intentional or unintentional - misrepresentations in the consolidated financial statements and the combined management report, plan and carry out audit procedures in response to these risks and obtain audit evidence that is sufficient and suitable to serve as a basis for our audit opinions. The risk that material misrepresentations are not detected is higher in the case of violations than inaccuracies, since violations can involve fraudulent cooperation, forgeries, intentional incompleteness, misleading representations or the overriding of internal controls.
- We gain an understanding of the internal control system relevant to the audit of the consolidated financial statements and the precautions and measures relevant to the audit of the combined management report in order to plan audit procedures that are appropriate under the given circumstances, but not with the aim of obtaining an audit opinion on effectiveness of these systems.
- we assess the appropriateness of the accounting methods used by the legal representatives as well as the acceptability of the estimated values presented by the legal representatives and the related information.
- we draw conclusions about the appropriateness of the going concern accounting principle applied by the legal representatives and, on the basis of the audit

evidence obtained, whether there is any material uncertainty in connection with events or circumstances, the significant doubts about the ability of the group to continue business operations can raise. If we come to the conclusion that there is material uncertainty, we are obliged to draw attention to the relevant information in the consolidated financial statements and in the combined management report in the auditor's report, or if this information is inappropriate, to modify our respective audit opinion. We draw our conclusions based on the audit evidence obtained up to the date of our auditor's report. Future events or circumstances can, however, mean that the Group can no longer continue its business activities.

- We assess the overall presentation, structure and content of the consolidated financial statements, including the information, as well as whether the consolidated financial statements present the underlying business transactions and events in such a way that the consolidated financial statements take into account the IFRS, as they are to be applied in the EU, and the supplementary according to § 315e Paragraph 1 of the German Commercial Code (HGB) provides a true and fair view of the Group's asset, financial and earnings position.
- We obtain sufficient suitable audit evidence for the accounting information of the companies or business activities within the group in order to issue audit opinions on the consolidated financial statements and the combined management report. We are responsible for the direction, supervision and execution of the group audit. We are solely responsible for our audit opinions.
- We assess the consistency of the combined management report with the consolidated financial statements, its compliance with the law and the picture it provides of the Group's position.
- we perform audit procedures on the future-oriented information presented by the legal representatives in the combined management report. On the basis of sufficient, suitable audit evidence, we particularly review the significant assumptions on which the future-oriented information is based on the legal representatives and assess the appropriate derivation of the future-oriented information from these assumptions. We do not issue an independent audit opinion on the future-oriented information or the underlying assumptions. There is a significant unavoidable risk

Among other things, we discuss with those responsible for monitoring the planned scope and timing of the audit as well as significant audit findings, including any deficiencies in the internal control system that we discover during our audit.

Essen, February 22, 2021

BDO AG
auditing company
signed Fritz, auditor
signed Dr. Falk, auditor

SUPERVISORY BOARD REPORT

In the 2020 calendar year, the Supervisory Board met on March 27, 2020, December 11, 2020 and December 22, 2020. The meetings took place as online video conferences due to the corona. The Supervisory Board performed the duties incumbent on it according to the law and the Articles of Association and was informed of the development of the Vaillant Group through verbal and written reports from the management. The Supervisory Board dealt in particular with the 2019 annual financial statements, the business development of the current year (particularly with regard to the effects of the pandemic), key company projects and the personnel matters of the management as well as the appointment of the Labor Director.

The auditor elected by the shareholders' meeting and commissioned by the supervisory board, BDO AG Wirtschaftsprüfungsgesellschaft, Essen, has prepared the annual financial statements (according to HGB) as well as the consolidated financial statements (according to IAS / IFRS) and the combined management report for the financial year from 1. January 2020 to December 31, 2020. The examination did not reveal any objections. In its unqualified auditor's report, the auditor declared that the individual financial statements and the consolidated financial statements give a true and fair view of the assets, financial and earnings position of Vaillant GmbH and the Group, taking into account the statutory provisions.

Representatives of the auditor attended the meeting of the Supervisory Board on April 16, 2021, at which the audited financial statements were presented to the Supervisory Board. They presented key findings from the audit and answered questions put by the Supervisory Board in this context. The audit reports were made available to all members of the Supervisory Board. The Supervisory Board took note of the audit result. After the final result of its examination, the Supervisory Board raised no objections and approved the financial statements. The Shareholders' Committee adopted the annual financial statements and approved the consolidated financial statements.

The Supervisory Board thanks all employees, the elected representatives of the workforce and the management for the work they have done and their successful commitment in the interests of the company and its customers.

Remscheid, April 2021

The board of directors
Dr. Matthias Blaum, chairman

TAKING CARE
 OF A BETTER CLIMATE
 INSIDE EACH HOME
 AND THE WORLD AROUND IT

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pressure

The annual report is also available in German.
