VONOVIA SE
ANNUAL REPORT 2022

Act reliably

VONOVIA

Key Figures

Financial Key Figures* in € million	**2018**	**2019**	**2020**	**2021**	**2022**
Total Segment Revenue	3,610.7	4,111.7	4,370.0	5,216.6	6,256.9
Adjusted EBITDA Total	1,554.8	1,760.1	1,909.8	2,254.4	2,763.1
Adjusted EBITDA Rental	1,315.1	1,437.4	1,554.2	1,778.5	2,233.5
Adjusted EBITDA Value-add	121.2	146.3	152.3	153.8	126.7
Adjusted EBITDA Recurring Sales	79.1	91.9	92.4	113.2	135.1
Adjusted EBITDA Development	39.4	84.5	110.9	185.4	183.2
Adjusted EBITDA Nursing Business	–	–	–	23.5	84.6
Group FFO	1,132.0	1,218.6	1,348.2	1,694.4	2,035.6
thereof attributable to Vonovia shareholders	1,069.7	1,165.6	1,292.0	1,624.4	1,944.3
thereof attributable to Vonovia hybrid capital investors	40.0	40.0	40.0	30.0	–
thereof attributable to non-controlling interests	22.3	13.0	16.2	40.0	91.3
Group FFO after non-controlling interests	1,109.7	1,205.6	1,332.0	1,654.4	1,944.3
Group FFO per share in €**	2.04	2.11	2.23	2.18	2.56
Income from fair value adjustments of investment properties	3,517.9	4,131.5	3,719.8	7,393.8	-1,269.8
EBT	3,874.3	3,138.9	5,014.4	5,092.0	-732.7
Profit for the period	2,402.8	1,294.3	3,340.0	2,440.5	-669.4
Cash flow from operating activities	1,132.5	1,555.9	1,430.5	1,823.9	2,084.3
Cash flow from investing activities	-3,892.5	-2,505.7	-1,729.9	-19,115.8	938.2
Cash flow from financing activities	3,041.5	902.8	402.6	18,125.0	-3,145.1
Total cost of maintenance, modernization and new construction	1,569.4	1,971.1	1,935.9	2,185.6	2,300.7
thereof for maintenance expenses and capitalized maintenance	430.4	481.6	592.0	753.3	856.2
thereof for modernization	904.7	996.5	908.4	792.4	837.4
thereof for new construction	234.3	493.0	435.5	639.9	607.1
LTV (%)		43.1	39.4	45.4	45.1
Net Debt/EBITDA				14.3x	15.8x
ICR				5.8x	5.5x

Key Balance Sheet Figures in € million	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2022**
Fair value of the real estate portfolio	44,239.9	53,316.4	58,910.7	97,845.3	94,694.5
EPRA NTA		29,762.2	35,488.6	48,640.8	45,744.5
EPRA NTA per share in €**		51.44	58.78	62.63	57.48

Non-financial Key Figures*	**2018**	**2019**	**2020**	**2021**	**2022**
Number of units managed	480,102	494,927	489,709	636,507	621,303
thereof own apartments	395,769	416,236	415,688	565,334	548,524
thereof apartments owned by others	84,333	78,691	74,021	71,173	72,779
Number of units bought	63,706	23,987	1,711	155,145	969
Number of apartments sold	15,102	4,784	3,677	6,965	19,760
thereof Recurring Sales	2,818	2,607	2,442	2,803	2,710
thereof Non Core/other	12,284	2,177	1,235	4,162	17,050
Number of new apartments completed	1,108	2,092	2,088	2,200	3,749
thereof own apartments	638	1,301	1,442	1,373	2,071
thereof apartments for sale	470	791	646	827	1,678
Vacancy rate (in %)	2.4	2.6	2.4	2.2	2.0
Monthly in-place rent in €/m²				7.33	7.49
Organic rent increase (in %)				3.8	3.3
Sustainability Performance Index (in %)***				109.0	103.0
Carbon intensity achieved in Germany (in kg CO_2e/m^2)	48.8	47.2	39.5	38.4	33.0
Number of employees (as of Dec. 31)	9,923	10,345	10,622	15,871	15,915

* Figures 2018–2020 as reported, previous year's figures 2021 comparable according to current key figure definition/segmentation 2022.
** Based on the shares carrying dividend rights on the reporting date, 2018–2020 prior-year values TERP-adjusted (1.067).
*** Excl. Deutsche Wohnen.

Contents

REFERENCES

→ to further contents in the report

to the website

NOTE

For computational reasons, rounding differences may occur in tables and in explanations compared to the precise values recorded (euros, percent, etc.).

The Company and its Shares

Positive development in 2022 in an extremely challenging macroeconomic development with an adjusted investment strategy.

Full occupancy with high satisfaction values.

Integration work to realize synergy potential with Deutsche Wohnen successfully under way.

Dear Shareholders, Dear Employees, Dear Readers,

I want to start my letter to you today by addressing the topic of expectations. They are very important in terms of our course of action and provide the framework for it: Housing that is affordable in the long term and reliable support in everyday life. Stable value development and an appropriate dividend policy. Building new apartments and contributing to the energy revolution. Helping to solve social issues and being reliable as a state-of-the-art employer. All of these aspects are legitimate expectations that you, as our stakeholders, have placed on us. The past year has, however, demonstrated just how much macroeconomic changes impact this framework. We see it as our responsibility to deliver an active entrepreneurial response to these changes that is also in the interest of society.

And this is something we have already done: The decision we made in November 2022 to scale back our investments for 2023 triggered a heated public debate. This only goes to show, yet again, that as a leading real estate company, we are a particular focus of attention. It also makes it clear to me: people are counting on us.

Vonovia achieved positive development in 2022. Our company remains an anchor of stability. We were there for our tenants and did a good job of running our business. We built apartments and improved energy efficiency within our portfolio. We contributed to social issues – in our local neighborhoods, within the sector and also as part of the political discourse. And we want to show that, for all the overall situation might have changed: Vonovia is a company you can rely on.

This stable situation for Vonovia is not intended to obscure the fact that the world has been turned upside down since Russia launched its war of aggression on Ukraine. We are all feeling the consequences in the form of high energy prices and inflation. Our policymakers are taking appropriate and courageous action in this area. But as far as the topic of housing is concerned, the major challenges within society are still ahead of us.

Let me take this opportunity to set out our own expectations. After all, the housing industry will not be able to solve the tasks that lie ahead of us operating in isolation, not in the conditions we are faced with at the moment. We need everyone to do their bit, including policymakers. If Germany is to be able to build the 400,000 new homes a year that the government has set as a target, someone will have to invest € 100 billion every year. And even that is unlikely to be enough to meet the requirements. Current estimates predict that up to 700,000 new apartments are required. If the statutory climate path is to remain within reach, another € 50 billion will have to be invested in energy-efficient modernization measures every year. That is simply impossible without private investment.

It is high time for policymakers to take action. We need an appropriate level of construction standards. We need faster construction processes. We need binding overall conditions instead of more stringent tenancy law. We need subsidy programs that are set up for the long term. This is how the state creates a stable environment in which private capital helps to tackle the tasks facing our societies.

If we have made the decision not to launch any new investment projects at the moment, this is not because we did not want to launch them, but rather because we cannot ignore the development in construction prices and interest rates. When we decide to invest, we always have to consider the triad of construction costs, affordable rent and subsidies. At the moment, it is virtually impossible to implement new construction and modernization projects at reasonable conditions. Construction costs are rising dramatically, due in particular to financing costs. A large part of the population is unable to pay rising rents. Subsidy programs have been drastically cut back. In this environment, forging ahead with our large-scale investment programs would be the wrong approach.

from left: **Arnd Fittkau** Member of the Management Board (CRO); **Helene von Roeder** Member of the Management Board (CTO); **Rolf Buch** Chairman of the Management Board (CEO); **Daniel Riedl** Member of the Management Board (CDO); **Philip Grosse** Member of the Management Board (CFO)

At this point, it is very important for me to stress that the **adjustments made to our investment strategy are temporary.** We are not abandoning our long-term climate targets. By 2030, we want to achieve CO_2 intensity of less than 25 kg CO_2e/m^2 and make our portfolio virtually climate-neutral by 2045.

One thing that will benefit us in this regard is the fact that we have been making investments on a huge scale in recent years. This has given us a head start when it comes to refurbishment, with our refurbishment rate three times higher than the national average. This has improved the quality of our housing stock significantly. The fact that we have exceeded our sustainability targets is also testimony to this. Today, only just under 1.6% of our buildings have an energy efficiency rating of "H". Incidentally, this actually benefits our tenants considerably through low energy consumption.

The cost of capital has increased threefold within the space of only a few months. An increase at this rate is unprecedented and has raised the question among financial market players of to what extent this is affecting the **value development of our portfolio.** The figures leave no room for doubt: The impact is limited. Our portfolio is worth around € 95 billion. The year-on-year drop of 3% is due primarily to the sale of around 10,600 apartments in Berlin to the federal state's own housing companies. The sale of the Berlin subportfolio is part of the “Future and Social Pact for Housing”, an agreement reached with the Berlin State Government in which we are contributing to a socially responsible, sustainable housing industry.

It is important to understand that the German real estate market cannot be compared with the Anglo-Saxon markets. The real estate market in Germany is very stable: There are stringent lending standards and high transaction costs. Loans have long terms and interest rates are fixed accordingly. There are tax advantages to holding a property for longer. These overall conditions create an environment in which owners tend not to sell their properties in the short term. This is confirmed by the current calm activity on the transaction market. If we look at the German residential real estate market, we can see that demand in conurbations is higher than it probably ever has been.

I am much more concerned about the implications that could emerge from this unpredictable environment for day-to-day life within society. Many tenants in our country are reliant on affordable housing. They cannot be expected to live with the constant worry about whether they will still be able to afford their apartment in two years’ time. The construction sector is the same: Only a year ago, its order books were bursting at the seams. And here at Vonovia, we had to be very creative in order to be able to realize our projects. The market has, however, been turned on its head within a very short space of time. Because they are smart entrepreneurs, construction companies will be thinking very carefully about whether they want to ramp up their capacities to the same extent the next time there is a surge in demand. And this ultimately brings us back to the same point: We need policymakers to ensure a predictable and reliable environment.

But I now want to turn our attention back to the tasks that Vonovia is responsible for. Let’s take a look at **economic development last year**: At the end of the year, we were able to complete the preparatory work for the integration of Deutsche Wohnen and lay the foundation that will allow us to leverage the planned synergy potential. This synergy potential will be more extensive than expected. By 2024, it will amount to a figure of € 105 million as planned, and from 2025 onwards, another € 30 million in synergy potential can be exploited every year. Together with the Deutsche Wohnen management team, we will implement the integration process in 2023 and turn it into a success story.

Our combined **income values** have shown a marked improvement. Our revenue – total segment revenue – rose by 20% and our Adjusted EBITDA Total by as much as 23%. Group FFO, the key figure for the sustained earnings power of our business, increased by 20% to € 2,035.6 million.

Our **vacancy rate** is lower than ever before at 2.0%. We hardly have any vacant apartments – but demand remains high, especially in major cities. To help meet this demand, we once again built a significant number of apartments in 2022: more than 3,700.

Our net tangible assets **NTA** fell slightly as against 2021 to € 45,744.5 million. The NTA per share came to € 57.48. This also reflects the increased number of shares from the scrip dividend.

We expect the demand trend to remain positive, particularly for our market segment, which we understand as being the segment for affordable housing. We will continue to give you the security you need in the future by having our portfolio valued by independent property appraisers twice a year.

The loan-to-value ratio **(LTV)** is more or less on a par with the previous year at 45.1%. By making a commitment not to raise any additional debt capital, to suspend acquisitions and to restructure our investments in a way that makes sense, we have already laid an important foundation for appropriate capital allocation.

So our financing profile is also a reflection of our stability. Against this backdrop, it is only logical that the renowned **rating agencies** have confirmed our high credit rating. Both Moody’s and Standard & Poor’s have highlighted our diversified financing sources, balanced maturity profile and adequate liquidity.

They know that we do not just manage our business based on financial key figures. Our Sustainability Performance Index **(SPI)** is equally important to us and reached a value of 103% in 2022. This means that we have once again outstripped our targets – particularly when it comes to reducing carbon emissions. Our new decarbonization tool allows us to calculate current and future greenhouse gas emissions for each of our buildings today. This means that we can identify the ideal modernization measures for each individual building, allowing us to set a new standard within our sector.

Satisfaction among our customers is at the highest level seen since we started measuring it via an independent institute, up by 1.3%. This is something that makes me particularly happy and serves as motivation for all of us to keep improving.

Dear Shareholders,

what does the current environment mean in terms of dividends? And what is our outlook for the year that lies ahead?

The consequences of Russia's war of aggression meant that central banks across the globe had to raise interest rates at an unprecedented speed. In a regulated market, our business model, which is stable in the long run, reacts to changes like these with a time delay. This also has an impact on some of our key figures.

In the medium and long term, however, the new environment reinforces the megatrends driving our business: increasingly unmet demand for homes and the focus on climate protection.

The decision on the dividend is your intrinsic right. We have identified two different sets of expectations from the various discussions we have had with you. One group of shareholders would like to see continuity with regard to dividends, while the other is calling for particular cost discipline. Both aspects are equally important to us.

We want to strike the right balance between your requirements and feel that it is appropriate to adjust the distribution ratio for the 2022 fiscal year and retain a bigger share of liquidity. On May 17, 2023, together with the Supervisory Board, we will be proposing a dividend of € 0.85 per share. Shareholders will once again be able to choose between a scrip dividend and a conventional cash dividend this year.

In general, the Management Board and the Supervisory Board are sticking to the company's established distribution policy, which remains unchanged with a distribution ratio of around 70% of our Group FFO after minority interests. Going forward, it will continue to ensure that the income from Recurring Sales and the part of the dividend that will remain in the company provide sufficient funds to finance the investment program.

Our business model is intact. We still expect to see stable development in terms of both earnings and value development. The demand for housing will continue to rise this year, but the market environment will remain challenging. We expect that, while our revenue will increase. EBITDA and FFO are likely to be on a par with, or slightly below, the prior-year level, respectively. As far as the Development segment is concerned, we expect EBITDA to fall considerably due to the lower new construction activity.

We will be spending around € 850 million on modernization and new construction. When it comes to our investments, you will be used to rather different amounts. We genuinely hope that we can return to the sort of figures you are used to in the near future for the sake of everyone involved and society at large. We will need reliable overall conditions to be able to do so.

I would like to thank you, our shareholders, and also our partners, for supporting Vonovia on its journey. Of all the things I have learned during my time at Vonovia, which now spans a period of ten years, there are two things I would like to highlight in particular: the huge challenges facing the housing sector can only be mastered as a joint effort. And in order to be successful, we need to think far beyond short-term cycles.

Let me take this opportunity to come back to a recent event: The authorities conducted investigations on our premises in March 2023. It would seem that some employees of our subsidiaries accepted bribes with a detrimental impact on Vonovia. You can rest assured that we will be clarifying these incidents in full.

Dear employees,

many of you have been supporting our tenants for much longer than ten years. Your awareness of the situation, your decisions and the fact that you all voluntarily go that extra mile enable us, as a company, to be reliable in meeting the diverse expectations of our stakeholders year in, year out. On behalf of my colleagues on the Management Board, I would like to take this opportunity to assure you that your efforts do not go unnoticed. Thank you for your exceptional commitment!

Bochum, March 2023

Sincerely,

Rolf Buch
Chairman of the Management Board

Rolf Buch (CEO)

Report of the Supervisory Board

Dear readers,

2022 was far more than a year of crisis in both global and economic policy terms. Russia's attack on Ukraine in February plunged the population of an up-and-coming European state into war. More than 17 million people abandoned their homes, many of them also heading for Germany. The conflict forced numerous countries to adopt a new stance – with what were sometimes serious implications for economic development in Europe and Germany as well.

Rising prices and a dramatic increase in energy costs sent inflation soaring and also prompted the European Central Bank to take significant countermeasures by raising key rates. This resulted in fundamental changes on the capital market within only a very short space of time.

Despite this challenging environment, Vonovia can once again look back on a successful fiscal year in 2022. Vonovia's business model remains intact. The Management Board has verified which measures the company can take to counteract negative developments.

Interest rate developments, price increases for construction materials and supply chain disruption are currently making it impossible to implement new investment projects in a cost-effective manner. Construction and modernization work that has already started was, and will be, continued.

Here on the Supervisory Board, we provided in-depth advice to the Management Board on these issues and support the approach it has taken. The aim is to steer this adjusted investment policy back to the previous course as soon as possible. Vonovia remains committed to doing its best to support the achievement of climate targets by implementing energy-efficient refurbishment measures in its portfolio, and to take further pressure of the housing market in urban areas by building new homes.

Over the past year, the Management Board and Vonovia's employees again took responsibility in a difficult environment and advocated resolutely for the interests of the company's stakeholders – first and foremost for the concerns and well-being of our tenants. At the same time, they forged ahead successfully with the internal integration of the two real estate companies, Vonovia and Deutsche Wohnen.

In the 2022 fiscal year, the Supervisory Board continuously monitored the Management Board's management activities and provided the Management Board with regular advice concerning the running of the company. We were able at all times to establish that their actions were lawful, expedient and regular. The Management Board notified us regularly, promptly and comprehensively, both in writing and verbally, of all circumstances and measures that were relevant to the company. The Management Board fulfilled its information obligations to an appropriate extent at all times.

At our plenary meetings and in our committees, we always had ample opportunity to critically appraise the reports and proposals submitted by the Management Board and to contribute our own suggestions. We discussed and tested the plausibility of all business occurrences of significance to the company, as communicated to us by the Management Board in written and verbal reports, in detail. Where required by law or the Articles of Association, we granted our consent to individual business transactions.

Meetings of Supervisory Board and Committees in the 2022 Fiscal Year

Member	Supervisory Board	Audit Committee	Executive and Nomination Committee	Finance Committee	Participation rate in %
Jürgen Fitschen	7/7	–	10/10	5/6	96
Burkhard Ulrich Drescher	1/2	1/1	–	–	67
Vitus Eckert	7/7	4/4	–	–	100
Prof. Dr. Edgar Ernst	7/7	4/4	–	–	100
Jürgen Fenk	4/5	2/3	–	–	75
Dr. Florian Funck	7/7	3/4	–	–	91
Dr. Ute Geipel-Faber	7/7	–	–	6/6	100
Matthias Hünlein	5/5	–	6/6	–	100
Daniel F. Just	7/7	–	–	6/6	100
Hildegard Müller	7/7	–	10/10	–	100
Prof. Dr. Klaus Rauscher	2/2	–	4/4	–	100
Dr. Ariane Reinhart	6/7	–	9/10	–	88
Clara-Christina Streit	7/7	–	10/10	6/6	100
Christian Ulbrich	4/7	–	–	5/6	69

Cooperation Between the Management Board and the Supervisory Board

In the last fiscal year, our Supervisory Board consisted of twelve members. We were on hand to support the Management Board in the various meetings held and also in its key decisions. We also kept a close eye on the company's business development outside of meetings. The Management Board regularly informed us about key events and the company's strategic direction as part of a collaboration based on trust.

As Chairman of the Supervisory Board, I maintained regular and close dialogue with the Chairman of the Management Board in particular, but also with the other Management Board members, even outside of the Supervisory Board meetings. The employee representative bodies were involved in communications on key company matters via the Management Board. The Chairman of the Management Board informed me on company-related topics emerging from the Management Board's discussions with representatives of the Group works council, going into an appropriate level of detail. Other members of the Supervisory Board were notified of any important findings promptly, or at the latest by the next board meeting. In the fiscal year, conflicts of interest involving Management Board or Supervisory Board members, which are to be reported immediately to the Supervisory Board, were reported once at the meeting of the Supervisory Board held on December 8, 2022. The Supervisory Board member did not participate in this meeting of the Supervisory Board, but granted a voting proxy for the topics not affected by the conflict of interest.

Main Remit

In line with the duties assigned to the Supervisory Board by law, the Articles of Association and the rules of procedure, we once again closely scrutinized the Group's operational, economic and strategic progress in the 2022 fiscal year. The main issues covered included the development of overall conditions on the markets, changes in the capital market environment and their impact on portfolio and new investments. We also discussed the topics of digitalization and portfolio strategy with the Management Board in detail.

Once again, the topic of governance was a key issue for the Supervisory Board. At a further training event, we addressed the Corporate Sustainability Reporting Directive (CSRD) as the new framework for sustainability reporting within the EU. The regulatory requirements also require us to analyze our business activities and the corresponding implementation. We will be providing close support in this matter. We will continue to focus on governance topics in further training events in the current fiscal year.

We also took an in-depth look at the future structure of the Supervisory Board and the Management Board. As far as the Management Board is concerned, we discussed the management structure, including possible succession arrangements. In 2023, the Supervisory Board will be (re)appointing candidates for numerous Supervisory Board mandates. This was intensively discussed and prepared in detail by the Executive and Nominating Committee as part of strategic succession planning. To implement the "Staggered Board", we have set up a nomination process with the involvement of an independent HR consulting firm to ensure that succession planning takes account of the Board's skills profile. Onboarding measures already in place ensure that new Board members are introduced to the company quickly and effectively.

The Supervisory Board and the committees again worked together efficiently in the past year. An efficiency review is planned for the end of the year, taking into account this year's restructuring of the Board with the assistance of an experienced moderator.

The Chairman of the Supervisory Board maintains dialogue with the relevant investors on governance issues as part of a regular governance roadshow, which was last held at the end of February 2023.

Meetings

In the 2022 fiscal year, the easing of the COVID-19 pandemic meant that meetings could once again be held as face-to-face events or in hybrid format. The Supervisory Board met a total of seven times to consult and pass resolutions – once in a face-to-face meeting (September) and four times by means of video conference (twice in March, and in October and December). Two meetings were held as hybrid events (July and December). The Supervisory Board made decisions using the written procedure in three cases (twice in January and in May).

Any individual members absent from the seven meetings had always been excused and, especially in the case of the extraordinary committee meetings, were absent for work-related reasons. The absent members reviewed the meeting documents in detail and participated in the decisions met by issuing voting instructions to the Chairman of the Supervisory Board.

The attendance rate for Supervisory Board and committee meetings averaged 92%. No member of the Supervisory Board took part in less than half of the meetings during their term of office. The same applies to participation in committee meetings. In preparation for the meetings, the Management Board submitted timely, comprehensive and valid written reports and resolution proposals to us.

Information on the Individual Meetings and Their Content as well as Written Resolutions

At the beginning of 2022, the ongoing pandemic meant that it appeared to make sense to hold the Annual General Meeting on April 29, 2022 as a virtual event in order to protect everyone involved. On **January 18, 2022**, the Supervisory Board approved this decision by the Management Board using the written procedure.

On **January 24, 2022**, the Supervisory Board made a decision, using the written procedure, to nominate Jürgen Fenk and Matthias Hünlein for election to the Supervisory Board at the Annual General Meeting on April 29, 2022.

On **March 1, 2022**, the Supervisory Board passed a resolution reappointing Rolf Buch as Chairman of the Management Board for a further five years with effect from March 1, 2023. The extraordinary meeting was held as a video conference.

On **March 17, 2022**, the Supervisory Board met to adopt the balance sheet. It approved the company's annual and consolidated financial statements as of December 31, 2021. The agenda and the resolution proposals for the Annual General Meeting were discussed and adopted. The Supervisory Board approved the proposal for the appropriation of profit to be made to the Annual General Meeting as well as the proposal that the dividend be paid either in cash or in the form of shares. Furthermore, the Supervisory Board approved the Non-financial Declaration. It passed a resolution engaging KPMG to conduct the business audit of the Non-financial Declaration for the 2022 fiscal year, the ESG report as well as the 2022 Sustainability Report. The Supervisory Board approved the proposed resolution to appoint KPMG as auditor for the annual financial statements and consolidated financial statements for the 2022 fiscal year, as well as to appoint PricewaterhouseCoopers as auditor of the interim financial report for the first quarter of the 2023 fiscal year. The Supervisory Board approved the remuneration report for the 2021 fiscal year prepared by the Management Board and the Supervisory Board, and decided to publish it on the company's website with the audit report issued by KPMG.

The Supervisory Board approved the fundamental resolution of the Management Board on the partial use of authorized capital 2021 in connection with the scrip dividend and transferred to the Finance Committee the powers required to take further steps. The update of the EMTN prospectus, involving an increase from € 30 billion to € 40 billion, and the issue of euro-denominated bonds with ESG elements (Green, Social or Sustainable) as part of the EMTN program in the amount of € 2.0 was also approved by Supervisory Board.

The consultations also focused on the report submitted by the Management Board on the process involved in integrating Deutsche Wohnen, and the reports by the Management Board members on the course of business in individual segments.

Under the "HR-related matters" agenda item, the Supervisory Board discussed remuneration issues relating to the Management Board (including target agreements, short-term and long-term incentive plans, the target achievement level under the 2021 short-term incentive plan, payment of the 2018 long-term incentive plan tranche) and passed corresponding resolutions. The Supervisory Board also addressed HR matters relating to the Management Board.

After the Annual General Meeting held on April 29, 2022, the Supervisory Board appointed the newly elected Supervisory Board members Jürgen Fenk, as member of the Audit Committee, and Matthias Hünlein, as member of the Executive and Nomination Committee, on **May 3, 2022** using the written procedure.

At the hybrid meeting held on **July 13, 2022** the Management Board provided the members of the Supervisory Board with information on current developments on the capital market and the resulting effects on the cost of capital for the company, among other things. The Supervisory Board also addressed the issue of succession planning for the Supervisory Board. The Supervisory Board's current skills profile was also discussed in this context.

The Management and Supervisory Boards were able to consult on the further corporate strategy at a face-to-face meeting on **September 8, 2022**. We discussed the decision made by the Management Board to suspend acquisitions and new investment projects in new construction and modernization for the time being given the new financing conditions and the associated industry-specific effects. Our Supervisory Board supported the Management Board in its decision to continue with the business model and the associated investment strategy as soon as the overall conditions allow again. We also supported the Management Board's plans to attract equity partners for subportfolios, also via joint ventures. The Supervisory Board approved the Management Board's decision to hold the Annual General Meeting as a virtual event again in 2023. This was prompted by the positive experience from recent years. We also addressed the issue of succession planning in the Supervisory Board.

At the extraordinary Supervisory Board meeting held as a video conference on **October 1, 2022**, we approved the issue of bonds with maturities of up to five years based on the recommendation put forward by the Finance Committee. The proceeds are to be used to repay financing that will reach final maturity in 2024.

At a hybrid meeting held on **December 8, 2022**, we took a detailed look at the budget for 2023. We discussed the plans presented by the Management Board in response to the special overall conditions in depth. We support the Management Board in the measures presented and approved the budget for the 2023 fiscal year. We also discussed the five-year plan, again taking the new overall conditions into account. The Management Board informed us of the operating business performance in the individual segments, financial performance and capital market performance, as well as the status of the process involved in integrating Deutsche Wohnen into the Vonovia Group.

In our discussions on HR-related matters, we looked at the remuneration paid to the Management Board and found it to be in line with market practice. As a result, we confirmed the appropriateness of the remuneration paid to the Management Board members.

We resumed the discussions on the future orientation and skills profile as well as the staffing of the Supervisory Board that had already been raised at the September meeting, and followed the recommendations made by the Executive and Nomination Committee in our decisions. In connection with the upcoming (re)appointments to the Supervisory Board in 2023, we made a decision on a successor for Jürgen Fitschen due to the latter's departure from the Supervisory Board. The Supervisory Board intends to elect Clara-Christina Streit as Chairperson of the Supervisory Board following the Annual General Meeting – subject to her being reelected.

We also decided to propose to the Annual General Meeting that the Articles of Association be amended so as to reduce the number of members from twelve to ten. In the context of the upcoming (re)appointments to the Supervisory Board, a "Staggered Board" is to be introduced. The staggered terms of the Supervisory Board mandates are to be proposed to the Annual General Meeting along with the nominations of candidates for election as members of the Supervisory Board in 2023.

Amendments to the German Corporate Governance Code (GCGC) meant that the rules of procedure for the Supervisory Board and the Management Board had to be updated. The Supervisory Board approved these updates. We also passed a resolution on the submission of an updated Declaration of Conformity with the GCGC.

At an extraordinary meeting held as a video conference on **December 22, 2022**, we discussed the targets for the variable Management Board remuneration. Based on a recommendation made by the Executive Committee, we adopted the corporate targets for the 2023 fiscal year for the STIP (short-term incentive plan) Management Board remuneration component and also defined the target values for the Management Board members in the 2023-2026 performance period for the purposes of the LTIP (long-term incentive plan). We also decided to agree on an individual performance criterion in the 2023 STIP. We also addressed HR-related matters regarding the Boards.

Duties of the Committees

The Supervisory Board made use of the existing committees (Audit Committee, Finance Committee and Executive and Nomination Committee) to effectively perform its work. The committees prepare subjects which are to be discussed and/or resolved by the Supervisory Board. In addition, the committees passed further resolutions that we had delegated to them instead of passing them on the Supervisory Board as a whole.

In addition to regular dialogue between the Audit Committee and the auditors at the quarterly meeting, there is also regular communication between the Chairman of the Audit Committee and the auditors, particularly before the quarterly meetings of the Audit Committee.

Audit Committee

The Audit Committee had four members in the reporting year. The Chairman was Prof. Dr. Edgar Ernst. The other members were Burkhard Ulrich Drescher (until April 29, 2022), Vitus Eckert, Jürgen Fenk (as of May 3, 2022) and Dr. Florian Funck. In 2022, the Audit Committee met four times (March, May, August and November).

At the hybrid meeting held on **March 17, 2022**, the Committee assessed the annual and consolidated financial statements as of December 31, 2021, as well as the combined management report for the 2021 fiscal year. The Committee's review took account of both the company's reports and the reports prepared by the auditor KPMG. The auditor audited the presentation of the consolidated financial statements in ESEF format (European Single Electronic Format), which has been required since 2021, and confirmed that it is legally compliant. The main points of the audit of the consolidated financial statements were the valuation of investment properties located in Germany, Sweden and Austria and the value of goodwill. The acquisition and the associated inclusion of the Deutsche Wohnen SE Group into Vonovia's consolidated financial statements was another focal point.

KPMG also reported on the audit certificate issued for the Non-financial Declaration (NFD). The Committee recommended that the Supervisory Board approve the Non-financial Declaration. The Audit Committee approved the Management Board's proposal for the appropriation of profit and made a recommendation for a resolution to be passed by the Supervisory Board regarding the approval and adoption of the annual financial statements.

The Committee approved the proposal for the selection of KPMG as auditor for the 2022 fiscal year and for the audit of the condensed consolidated interim financial statements and interim Group management reports for 2022. The Audit Committee also approved the recommendation to appoint PwC as auditor for the interim financial report for the first quarter of 2023.

The Committee also examined the 2022 annual report of Internal Audit. Other topics of discussion included the compliance report and the Internal Audit status report, which confirmed the effectiveness of the internal control system (ICS), among other things.

In a video conference on **May 4, 2022** with some members attending in person, the Audit Committee looked at the condensed consolidated interim financial statements as of March 31, 2022. The Committee acknowledged and approved the auditor's report and the condensed consolidated interim financial statements and interim statement as of March 31, 2022. The Committee discussed the new overall conditions in the construction industry and the effects of higher construction and energy costs with the Management Board. The Committee also addressed the risk management and compliance reports, as well as the Internal Audit status report. The Audit Committee also acknowledged the report on the company's tax situation and the information on the status of the ongoing company tax audits.

In a video conference with some members attending in person held on **August 2, 2022**, the Audit Committee acknowledged and approved the consolidated half-year financial statements, including the interim financial report, as of June 30, 2022. The Audit Committee approved the audit focal points for 2022 presented by KPMG, as well as the audit budget. Other topics of discussion included the Internal Audit and compliance management status reports. The Audit Committee acknowledged the certificate issued by KPMG on the audit of the EMIR (European Market Infrastructure Regulation) system.

On **November 3, 2022**, the Audit Committee discussed the condensed consolidated interim financial statements as of September 30, 2022 at a hybrid meeting, acknowledging and approving them. The discussions covered topics including the reports of the company and the auditor. The Committee looked at the risk report, the compliance report and the report on the major legal disputes. The Committee's members discussed the report prepared by the Internal Audit department on the status of its audits and set the audit plan for the Internal Audit department for the 2023 fiscal year.

Finance Committee

In 2022, the Finance Committee comprised five members. The Chairperson was Clara-Christina Streit. The other members were Jürgen Fitschen, Dr. Ute Geipel-Faber, Daniel Just and Christian Ulbrich. The Finance Committee met five times via video conference and once at a hybrid meeting during the reporting year (March, April, July, September, October and November). The Committee made decisions using the written procedure in one case (in May). The Finance Committee had been previously authorized by the Supervisory Board to make all decisions on matters outside the scope of the topics for which it is generally responsible.

In a video conference held on **March 17, 2022**, the Finance Committee discussed the Management Board's plans to increase the EMTN prospectus volume by € 10 billion (from € 30 billion to € 40 billion), as well as a bond issue (euro-denominated bonds with ESG elements) as part of the EMTN program in the amount of € 2 billion. The Finance Committee decided to make a corresponding recommendation to the Supervisory Board that the measures be implemented. The Finance Committee also discussed the possible granting of a scrip dividend at the Annual General Meeting.

In a video conference on **April 28, 2022**, the Finance Committee approved the fundamental resolution of the Management Board on the partial use of authorized capital 2021 in connection with the 2022 scrip dividend and, using the written procedure on **May 20, 2022**, granted its consent to the Management Board's more detailed resolution on the performance of the non-cash capital increase.

At a face-to-face meeting with some members joining by video held on **July 12, 2022**, the Management Board provided the Finance Committee with information on possible effects and key aspects of a capital allocation strategy given the changes in the overall conditions, especially with regard to the cost of capital.

In a video conference held on **September 5, 2022**, the Management Board provided the Finance Committee with information on strategic considerations regarding the realignment of Vonovia's capital allocation and growth strategy.

At an extraordinary meeting held as a video conference on **October 1, 2022**, the Finance Committee discussed the Management Board's plans to issue bonds in an amount of up to € 2 billion with maturities of up to five years and the repayment of financing. The Committee made a corresponding recommendation to the Supervisory Board.

At an extraordinary meeting held via video conference on **November 25, 2022**, the Management Board provided the Finance Committee with information on the status of the company's financing and capital structure in light of current developments, as well as on the status of the company's sales activities.

Executive and Nomination Committee

In the fiscal year under review, the Executive and Nomination Committee consisted of five members. The Committee was headed up by Jürgen Fitschen as Chairman of the Supervisory Board. The other members were Matthias Hünlein (as of May 3, 2022), Hildegard Müller, Prof. Dr. Klaus Rauscher (until April 29, 2022), Dr. Ariane Reinhart and Clara-Christina Streit. The Executive and Nomination Committee met ten times by video conference in 2022 (twice in January, twice in February, in July, August, October, November and twice in December). The Committee made one decision using the written procedure (February).

At meetings held as video conferences on **January 10 and 26, 2022** and on **February 17 and 25, 2022**, the Executive and Nomination Committee mainly dealt with personnel matters relating to the Management Board and personnel matters relating to Supervisory Board committees. Discussions centered on the further development and focus of the Management Board with regard to the future challenges the company is facing. The Committee addressed the skills profile of the Management Board and the Chairman of the Management Board. In the course of its discussions, the Executive and Nomination Committee made a recommendation to the Supervisory Board that Rolf Buch be reappointed for a further five years. The Committee adopted the relevant resolution using the written procedure on February 25, 2022.

In video conferences held on **July 11, 2022** and **August 24, 2022**, the Executive and Nomination Committee dealt with personnel matters relating to the Management Board and the HR decisions to be addressed at the 2023 Annual General Meeting regarding the (re)appointment of Supervisory Board members and the appointment of a Chairperson for the Supervisory Board. The committee members prepared the upcoming personnel matters relating to the Management Board, as well as the Supervisory Board's discussions on possible adjustments relating to the future number of Supervisory Board members and the introduction of a "Staggered Board". The Committee also addressed governance issues, also regarding diversity within the Boards.

On **October 21, 2022** and **November 17, 2022**, the Executive and Nomination Committee dealt with personnel matters relating to the Management Board and the further development of the Management Board in video conferences. The Committee members also discussed the skills profiles within the Supervisory Board, measures to ensure a continuous nomination process for Supervisory Board members and corresponding onboarding measures. The Committee adopted recommendations to be made to the Supervisory Board on structural adjustments to the Board (introduction of a "Staggered Board" and reduction in the number of members) as well as on the appointment of the Chairperson of the Supervisory Board after the 2023 Annual General Meeting.

In a video conference held on **December 5, 2022**, the Executive and Nomination Committee reviewed the appropriateness of Management Board remuneration based on market data, and recommended to the Supervisory Board that the appropriateness of the remuneration be confirmed, as it does not exceed the remuneration that is standard in the market. The Committee also recommended that an individual performance criterion be provided for in the STIP 2023 target agreement. The Committee also discussed personnel matters relating to the Management Board and strategic succession planning within the Supervisory Board.

On **December 19, 2022**, the Executive Committee discussed the corporate targets for the variable remuneration to be paid to the Management Board for the 2023-2026 tranche of the long-term incentive plan and the 2023 short-term incentive plan. The Committee approved corresponding recommendations to be made to the Supervisory Board. The Executive Committee also discussed personnel matters relating to the Management Board and the Supervisory Board.

Corporate Governance

The Management Board and Supervisory Board of Vonovia SE are committed to the principles of good corporate governance. As a result, the members of the Supervisory Board once again looked at the German Corporate Governance Code in the reporting year. On December 8 and 9, 2022, the Management Board and the Supervisory Board issued a Declaration of Conformity pursuant to Section 161 of the German Stock Corporation Act (AktG). The Management Board also reports, including on behalf of the Supervisory Board, on corporate governance at Vonovia in the declaration on corporate governance. Both declarations will be permanently published by the company on its website for perusal.

Audit

After being appointed at the Annual General Meeting on April 29, 2022 to audit financial statements for the 2022 fiscal year, KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, has duly audited the annual financial statements and consolidated financial statements of Vonovia SE as of December 31, 2022, and the combined management report for the 2022 fiscal year and has expressed an unqualified opinion thereon. The → **Non-financial Group Declaration**, which is included in a separate section in the combined management report, has been subjected to a separate limited assurance engagement in accordance with ISAE 3000 by KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin. In accordance with Section 317 (4) of the German Commercial Code (HGB), KPMG also assessed the risk early warning system of Vonovia SE.

The auditor had affirmed its independence to the Chairman of the Audit Committee and duly declared that no circumstances exist that could give grounds for assuming a lack of impartiality on its part. The audit assignment was awarded to KPMG AG Wirtschaftsprüfungsgesellschaft by the Chairman of the Audit Committee in line with the Committee's resolution and the choice of auditor made by the shareholders at the Annual General Meeting.

The annual financial statements were prepared by the Management Board in accordance with the German commercial law and stock corporation law provisions, including the generally accepted accounting practice. The consolidated financial statements were prepared by the Management Board in accordance with the International Financial Reporting Standards (IFRS), as applied in the European Union, as well as the supplementary provisions applicable pursuant to Section 315e (1) HGB.

For the annual financial statements and the consolidated financial statements, Vonovia SE prepared a combined management report based on the requirements set out in Sections 315, 298 (2) HGB.

Every member of the Supervisory Board received copies of the annual financial statements, the consolidated financial statements, the combined management report and the auditor's report in good time. On the basis of the preliminary examination and assessment by the Audit Committee, about which the Audit Committee Chairman reported to the Supervisory Board, the Supervisory Board has scrutinized in detail the annual financial statements, consolidated financial statements and combined management report of Vonovia SE for the 2022 fiscal year and also considered the Management Board's proposal for the appropriation of profit. With regard to the Non-financial Declaration to be published pursuant to the CSR Directive Implementation Act, the Supervisory Board complied with its review obligation.

At both the joint meeting on March 15, 2023 with the Audit Committee and the Supervisory Board meeting on March 16, 2023, the auditors reported on their findings, including the strategic audit objectives and key audit matters. The strategic audit objectives and the key audit matters set out in the auditor's report had been defined by the auditor within the context of his independent mandate in the second half of 2022, and had already been discussed and agreed upon with the Audit Committee in advance.

In the 2022 fiscal year, with regard to the consolidated financial statements, particularly key audit matters included the valuation of investment properties and the value of goodwill. A particularly important audit matter for the separate financial statements is the measurement of the carrying amounts of investments in view of the increased interest rate environment. In addition, among other key areas, business relations with related parties and the economic impact of the Russian war of aggression on Ukraine on the annual and consolidated financial statements were subjected to an in-depth review.

The auditors gave detailed answers to our questions. After an in-depth review of all documentation, we found no grounds for objection. As a result, we concurred with the auditors' findings.

On March 16, 2023, we followed the Audit Committee's recommendation and approved the annual financial statements and consolidated financial statements of Vonovia SE, as well as the combined management report. The annual financial statements are thus duly adopted.

Remuneration Report

The Management Board and Supervisory Board prepared a report on the remuneration granted and owed to the members of the Management Board and the Supervisory Board in the 2022 fiscal year. The remuneration report was reviewed by the auditor to check that it included the disclosures required by law under Section 162 (1) and (2) AktG. As well as checking the statutory requirements, KPMG also audited the content of the report.

The remuneration report, including KPMG's audit report, was published on the company's website.

Dividend

The Supervisory Board considered the Management Board's proposal for the appropriation of profit. It gave particular consideration to the liquidity of the company/the Group, tax-related aspects and financial and investment planning. Following its audit, the Supervisory Board agrees with the proposal for the appropriation of profit set out by the Management Board, namely the proposal that, from the profit for the 2022 fiscal year, a dividend of € 0.85 per share or € 676,472,497.45 in total on the shares of the share capital as of December 31, 2022, be paid to the shareholders and the remaining amount be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual General Meeting that go beyond those as of December 31, 2022.

As in the previous fiscal years from 2018 to 2021, the dividend for the 2022 fiscal year, payable after the Annual General Meeting in May 2023, will again include the option of a non-cash dividend in shares, to the extent that the Management Board and the Supervisory Board consider this to be in the interests of the company and its shareholders.

Personnel

Philip Grosse joined the Management Board as Chief Financial Officer (CFO) at the beginning of 2022. Ms. Helene von Roeder assumed the duties of Chief Transformation Officer (CTO) in January 2022. The Supervisory Board members Burkhard Ulrich Drescher and Prof. Dr. Klaus Rauscher will step down from the Supervisory Board after the Annual General Meeting on April 29, 2022. Jürgen Fenk and Matthias Hünlein were appointed members of the Supervisory Board at the Annual General meeting.

Concluding Remarks

We would like to thank the Management Board for what remained successful management of the company in the challenging 2022 fiscal year. We would like to thank the company's employees for their considerable commitment, for being there for the company and for the company's tenants and business partners in the third year of the COVID-19 pandemic. We would like to thank the employee representative bodies for another year of constructive collaboration.

Bochum, March 16, 2023

On behalf of the Supervisory Board

Jürgen Fitschen

Management Board

The Management Board of Vonovia SE consisted of five members as of December 31, 2022.

Rolf Buch, Chairman of the Management Board

As Chief Executive Officer (CEO), Rolf Buch is responsible for sustainability/strategy, transactions, general counsel, investor relations, HR management, auditing and corporate communications.

Rolf Buch joined the company in 2013 and led Vonovia to its listing on the stock exchange. Prior to his move to the company, he spent 22 years in various leadership positions at Bertelsmann, ultimately as a Management Board member at Bertelsmann SE and Chairman of the Management Board at Arvato AG. He is a member of the executive board of the German Association of German Housing and Real Estate Companies (GdW), vice president of the German central real estate committee Zentraler Immobilien Ausschuss (ZIA) and the German Association for Housing, Urban and Spatial Development, and member of the Board of Directors of the European Public Real Estate Association (EPRA) in Brussels. He has also been a moderator for the Initiative for the Ruhr region (Initiativkreis Ruhr) since January 2021. After training as a bank clerk, he studied mechanical engineering and business management at RWTH Aachen University.

Arnd Fittkau, Member of the Management Board

In his role as Chief Rental Officer (CRO), Arnd Fittkau is responsible for the property management business in the North, East, South and West business areas, as well as for customer service and portfolio and tenant management.

Following completion of a management training program at MAN Gutehoffnungshütte AG (1992–1996), Arnd Fittkau started his career in various controlling functions. After holding positions at MAN AG in Munich and Hochtief AG in Essen, he joined the company now known as Vonovia in 2002. He spent three years as Head of Controlling for the GAGFAH Group starting in 2005. Since 2008, Arnd Fittkau has held several managing directorships at Vonovia subsidiaries in various locations such as Bochum, Munich, Frankfurt and Gelsenkirchen. Most recently, he held the position of chief representative of Vonovia SE from the beginning of March 2018 and chaired the regional management teams.

Philip Grosse, Member of the Management Board

Since January 1, 2022, Philip Grosse has been responsible, in his role as Chief Financial Officer (CFO), for accounting, controlling, finance, valuation and portfolio controlling as well as taxes.

After studying business management at the Universities of Würzburg and Swansea, Philip Grosse started his career in investment banking, most recently as Head of Equity Capital Markets for Germany and Austria at Credit Suisse. From 2013 onwards, Philip Grosse held managerial positions in corporate finance and investor relations at Deutsche Wohnen SE, being appointed to the Management Board as CFO in 2016.

Daniel Riedl, Member of the Management Board

In his role as Chief Development Officer (CDO), Daniel Riedl is responsible for the development business in Austria, development in Germany and the operating business in Austria.

Daniel Riedl is a graduate in business administration from Vienna University of Economics and Business and a Fellow of the Royal Institution of Chartered Surveyors. Daniel Riedl has more than 20 years' experience in property management, more than 14 of them at Management Board level. He served on the Executive Board of IMMOFINANZ AG from 2008 to 2014. He led BUWOG AG to a successful stock exchange listing in April 2014 and was the company's CEO until its delisting at the end of 2018.

Helene von Roeder, Member of the Management Board

Since January 1, 2022, Helene von Roeder has been responsible for the new Innovation and Digitalization executive division as Chief Transformation Officer (CTO), including the areas Value-add (incl. insurance), Innovation & Business Building, IT and purchasing as well as condominium administration and the management of properties for third parties.

She is a member of the Government Commission on the German Corporate Governance Code. Before being appointed Chief Financial Officer of Vonovia SE in May 2018, she headed Credit Suisse's business in Germany, Austria and Central and Eastern Europe (CEE) as CEO Germany from 2014. She began her career at Deutsche Bank in London in 1995 after studying theoretical physics in Munich and theoretical astrophysics in Cambridge. She worked for UBS AG in Frankfurt and London from 2000 to 2004, before moving to Morgan Stanley Bank AG in Frankfurt, where her most recent role was Head of Global Capital Markets for Germany and Austria, Member of the Management Board of Morgan Stanley Bank AG.

Supervisory Board

The current Supervisory Board consists of twelve members. The Annual General Meeting of May 9, 2018, elected ten members for a statutory term of office, and the Annual General Meeting of April 29, 2022, elected two members for a three-year term of office.

Jürgen Fitschen
Chairman
Senior Advisor at Deutsche Bank AG

Prof. Dr. Edgar Ernst
Deputy Chairman
Self-employed management consultant

Burkhard Ulrich Drescher (until April 29, 2022)
Managing Director of Innovation City Management GmbH

Vitus Eckert
Attorney, Partner in Wess Kux Kispert & Eckert Rechtsanwalts GmbH

Jürgen Fenk (since April 29, 2022)
Chief Executive Officer of Primonial REIM, Paris
Self-employed management consultant as of January 31, 2023

Dr. Florian Funck
Chief Financial Officer of Franz Haniel & Cie. GmbH

Dr. Ute Geipel-Faber
Self-employed management consultant

Matthias Hünlein (since April 29, 2022)
Managing Director of Tishman Speyer Properties Deutschland GmbH

Daniel Just
Chairman of Bayerische Counterargument

Hildegard Müller
President of the German Association of the Automotive Industry V.

Prof. Dr. Klaus Rauscher (until April 29, 2022)
Self-employed management consultant

Dr. Ariane Reinhart
Member of the Management Board of Continental AG

Clara-Christina Streit
Member of Supervisory/Administrative Boards

Christian Ulbrich
President and Chief Executive Officer of Jones Lang LaSalle Incorporated

Supervisory Board Committees

Executive and Nomination Committee
Jürgen Fitschen, Chairman
Matthias Hünlein (since May 3, 2022)
Hildegard Müller
Prof. Dr. Klaus Rauscher (until April 29, 2022)
Dr. Ariane Reinhart
Clara-Christina Streit

Audit Committee
Prof. Dr. Edgar Ernst, Chairman
Burkhard Ulrich Drescher (until April 29, 2022)
Vitus Eckert
Jürgen Fenk (since May 3, 2022)
Dr. Florian Funck

Finance Committee
Clara-Christina Streit, Chairwoman
Jürgen Fitschen
Dr. Ute Geipel-Faber
Daniel Just
Christian Ulbrich

Corporate Governance

In the corporate governance declaration (also known as the Corporate Governance Report), we report on the principles of management and corporate governance for the last fiscal year in accordance with Sections 289f and 315d of the German Commercial Code (HGB) and Principle 23 of the German Corporate Governance Code (GCGC, in the current version published on April 28, 2022).

The declaration contains the Declaration of Conformity, information on corporate governance practices, a description of how the Management Board and Supervisory Board work and key corporate governance structures. The declaration is also available to the public on our **website**. Pursuant to Section 317 (2) (6) HGB, the disclosures pursuant to Sections 289f and 315d HGB are not included in the audit performed by the auditor of the annual financial statements.

Fundamental Information

Fundamental Understanding

In order for a company to be successful, its business model has to be accepted by all relevant stakeholder groups, from its customers through to civil society and the public, investors or business partners. Managing with integrity, the sustainability of business models and the extent to which a company is perceived as living up to its social responsibilities are playing an increasingly important role. This applies no less to the real estate sector.

Any misconduct by a company's management also tends to result in the corporate governance regulations being tightened up, as was the case with the Financial Market Integrity Strengthening Act (FISG). The government's stated aim is to use the FISG to ensure that confidence in the German financial market is strengthened.

This objective is to be achieved, among other things, by the statutory obligation to establish an appropriate and effective internal control system (ICS) as well as a corresponding risk management system (RMS) for listed stock corporations and by mandating the establishment of an audit committee for public interest entities. The aim is also to strengthen the impartiality of the auditor, to tighten up the rules governing the auditor's liability and to considerably expand the auditing powers granted to the Federal Financial Supervisory Authority (BaFin).

This is why, here at Vonovia, we see corporate governance as the responsible management and supervision of a company. The Management Board and the Supervisory Board have made a comprehensive commitment to the principles of corporate governance as set out in the German Corporate Governance Code and in the Code of Conduct of the Institute for Corporate Governance in the German Real Estate Industry.

Standards of Corporate Governance

These principles are the basis for the sustainable success of the company and therefore serve as guidelines for conduct in the company's daily management and business. Good corporate governance strengthens the trust of our shareholders, business associates, customers, employees and the general public in Vonovia SE. It increases the company's transparency and strengthens the credibility of our group of undertakings.

With balanced corporate governance, the Management Board and the Supervisory Board wish to safeguard Vonovia SE's competitiveness, strengthen the trust of the capital market and the general public in the company and sustainably increase the company's value. Corporate governance, acting in accordance with the principles of responsible management aimed at increasing the value of the business on a sustainable basis, is an essential requirement for the Vonovia Group, embracing all areas of the business.

As a major real estate company, we are aware of the particular significance of our entrepreneurial actions for society at large. As a result, we are committed not only to the general principles of corporate governance but also to all the main aims and principles of the Institute for Corporate Governance in the German Real Estate Industry, which we have been a member of since November 14, 2003. The institute supplements the corporate governance principles to include housing-specific aspects and is committed to even greater transparency, an improved image and a more competitive real estate sector.

Our corporate culture is founded on transparent reporting and corporate communications, on corporate governance aimed at the interests of all stakeholders, on fair and open dealings between the Management Board, the Supervisory Board and employees as well as on compliance with the law.

The Code of Conduct provides the ethical and legal framework within which we act and want to ensure our commercial success. The focus is on dealing fairly with each other but also in particular on dealing fairly with our customers, business partners and investors. The Code of Conduct specifies how we assume our ethical and legal responsibility as a company and is the expression of our company values.

Information on the Company's Governing Constitution

The designation Vonovia comprises Vonovia SE and its Group companies. Vonovia is a European company (SE) in accordance with the German Stock Corporation Act (AktG), the SE Act and the SE Regulation. Its registered headquarters are in Bochum. It has three governing bodies: the Annual General Meeting, the Supervisory Board and the Management Board. The duties and authority of those bodies derive from the SE Regulation (SE-VO), the German Stock Corporation Act (AktG) and the Articles of Association. Shareholders, as the owners of the company, exercise their rights at the Annual General Meeting.

According to the two-tier governance system, Vonovia SE has a Management Board and a Supervisory Board. In the two-tier governance system, the management of business and the monitoring of business are strictly separated from each other, meaning that individuals cannot be members of both bodies at the same time. The duties and responsibilities of the bodies are clearly specified by law in the German Stock Corporation Act. In accordance with the governing laws, in particular the SE Regulation and the German SE Employee Participation Act (SEBG), the Supervisory Board is only made up of representatives of the shareholders. The highest representative body of the employees is the Group works council. An SE works council was also set up at the level of Vonovia SE.

The Management Board and Supervisory Board of a company listed in Germany are obliged by law (Section 161 of the German Stock Corporation Act) to report once a year on whether the officially published and relevant recommendations issued by the government commission German Corporate Governance Code, as valid at the date of the declaration, have been, and are being, complied with. Companies affected are also required to state which of the recommendations of the Code have not been, or will not be, applied and, if not, why. The most recent Declaration of Conformity is valid for at least the next five years and the Declarations of Conformity that are no longer valid can be found on the company's website. If the auditor finds the Declaration of Conformity to be incorrect, the Supervisory Board is informed and this is also noted in the audit report.

The Management Board reports in its declaration, also on behalf of the Supervisory Board, on important aspects of corporate governance pursuant to Section 289f of the German Commercial Code (HGB) and Principle 23 of the German Corporate Governance Code (GCGC) 2022.

Declaration of Conformity to the GCGC Pursuant to Section 161 of the German Stock Corporation Act (AktG)

On December 9, 2022, the Management Board and the Supervisory Board of Vonovia SE declared that, since the last Declaration of Compliance was issued on 1 December 2021, with the exception of G.13 sentence 1 and sentence 2, the company has complied with all the recommendations of the Government Commission on the German Corporate Governance Code as amended on 20 March 2020, published by the German Federal Ministry of Justice in the official section of the Federal Gazette, and will comply in future with all the recommendations of the Government Commission on the German Corporate Governance Code as amended on 27 June 2022 (the "Code"), with the exception of G.13 sentence 2.

According to G.13 sentence 1 of the Code, any payments made to a Management Board member due to early termination of their Management Board activity shall not exceed twice the annual remuneration (severance cap) and shall not constitute remuneration for more than the remaining term of the employment contract. All Management Board employment contracts comply with the recommendation in G.13 sentence 1 of the Code. However, when extending existing contracts and concluding future contracts, the Supervisory Board reserved the right to conclude contracts providing for a severance pay of up to 150% of the severance cap upon a change of control (as it had been recommended in Section 4.2.3 para. 5 of the 2017 Code), so that it can consider any grandfathering rights as well as any specific circumstances of individual cases. When concluding future Management Board employment contracts or extending existing ones, the Supervisory Board intends to limit severance payments upon a change of control to two annual remunerations.

G.13 sentence 2 of the Code specifies that, if post-contractual non-compete clauses apply, the severance payments shall be taken into account in the calculation of any compensation payments. Even before the 2020 Code came into force, post-contractual non-compete clauses were partly agreed in a way that does not provide for such an offset regulation. When extending existing contracts and concluding future contracts, the Supervisory Board continues to decide on a case-by-case basis whether to offset severance payments against compensation payments; this may be required in the interest of flexibility and/or due to grandfathering rights. We therefore declare that Vonovia SE will not comply with the recommendation in G.13 sentence 2 of the 2022 Code.

Shareholders and Annual General Meeting

Shareholder Information: Shareholders can obtain full and timely information about our company on our website and can access current as well as historical company data. Among other information on its website, Vonovia regularly posts all financial reports, important information on the company's governing bodies (including current resumes), its corporate governance documentation (declaration of conformity and governance-related guidelines and voluntary commitments), information requiring ad hoc disclosure and press releases.

Directors' Dealings: Information on directors' dealings/managers' transactions notifiable pursuant to Article 19 of the Market Abuse Regulation is published by Vonovia without delay in accordance with the Regulation and is made available on the company's website, with information also being provided on the shares held by each member of the company's executive bodies.

Financial Calendar: Shareholders and interested members of the financial community can use the regularly updated financial calendar on the website to obtain information on publication, conference and information dates, roadshows and the timing of the Annual General Meeting early on.

Annual General Meeting and Voting: The Annual General Meeting decides in particular on the appropriation of profit, the ratification of the acts of the members of the Management Board and of the Supervisory Board, the appointment of the external auditor, amendments to the Articles of Association as well as specific capital measures and individually elects the shareholders' representatives to the Supervisory Board.

Our shareholders can exercise their voting rights at the meeting or instruct a proxy of their choice or one of the proxies provided for that purpose by the company. Our shareholders are also able to submit a postal vote. The details regarding the postal voting procedure are in the respective shareholder's invitation to the Annual General Meeting.

The entire documentation for the Annual General Meeting and opportunities to authorize, and issue instructions to, the company's proxies as well as to submit a postal vote are available to shareholders at all times on the Vonovia website.

Due to the coronavirus pandemic, the 2022 Annual General Meeting was held as a virtual event, as was the case in 2021. Vonovia believes that this concept has proven to be very successful. In the spirit of digitalization and sustainability, the legislator also considers this Annual General Meeting format to have future potential, as is evidenced by the amendment to the German Stock Corporation Act.

Remuneration Paid to Executive Bodies: In line with the German Stock Corporation Act and the GCGC, the Supervisory Board presented the remuneration system it had adopted for the Management Board members to the 2021 Annual General Meeting for approval, which was granted with 87.75% of the votes cast.

The Management Board also presented the remuneration report required under the Act Implementing the Second Shareholders' Rights Directive (ARUG II) at the 2022 Annual General Meeting for the first time. The remuneration report for the 2021 fiscal year, which was audited by the auditor, was approved by 84.4% of the votes cast before being published on Vonovia SE's website.

The remuneration system of the Supervisory Board of Vonovia SE is governed by the Articles of Association. It was confirmed by a 99.34% majority by the 2021 Annual General Meeting in accordance with ARUG II. The Annual General Meeting held in the reporting year approved an amendment to the Articles of Association to adjust the remuneration, which had remained unchanged since 2013.

The Supervisory Board

Duties and Responsibilities

The Supervisory Board appoints, supervises and advises the Management Board and is directly involved in decisions of fundamental importance to the company. The Supervisory Board performs its work in accordance with the legal provisions, the Articles of Association, its rules of procedure and its resolutions. It consists of twelve members, ten of whom were elected for four fiscal years by the 2018 Annual General

Meeting and two of whom were elected for three years by the 2022 Annual General Meeting.

The Supervisory Board examines and adopts the annual financial statements and the combined management report, which also includes the Non-financial Group Declaration. It assesses and confirms the proposal for the appropriation of profit as well as the consolidated financial statements and the combined management report on the basis of the report prepared by the Audit Committee. The Supervisory Board reports in writing to the shareholders at the Annual General Meeting on the result of its examination.

The Chairman of the Supervisory Board is an independent member. The same applies to the chairs of the committees which the Supervisory Board has set up.

The Chairman of the Supervisory Board chairs the meetings and coordinates communications. The members of the Supervisory Board generally have the same rights and obligations. Supervisory Board resolutions are above all passed in the Supervisory Board meetings but also, if necessary, using the written procedure or by other communication means. At least two meetings are held every six months. In addition, if necessary and on the basis of the rules of procedure of the Supervisory Board, a meeting of the Supervisory Board or its committees can be convened at any time at the request of a member or the Management Board.

The Supervisory Board is composed in such a way that its members as a group have the knowledge, ability and specialist experience, also in those sustainability matters that are significant to the company, required to properly complete its tasks. All of them are familiar with the real estate sector as the segment in which the company operates. At least one member of the Supervisory Board has expertise in the field of accounting and another member has expertise in the field of auditing.

Each Supervisory Board member shall ensure that they have enough time to carry out their mandate.

At the time at which this declaration was prepared, no Supervisory Board members exercised directorships or advisory tasks for important competitors of the company (see → **Avoidance of Conflicts of Interest**).

Since 2020, a standard process for related party transactions has been firmly established within the company. This includes reporting on a regular basis to the Annual General Meeting as part of the Supervisory Board report. The Supervisory Board receives information twice a year in the compliance report on the recording of related party transactions in accordance with the German Stock Corporation Act. Members of the Supervisory Board, for their part, immediately report any transactions that they or parties related to them conclude with the company. The relevant data is also collected at the end of the fiscal year. The Supervisory Board reserves the right to make a decision itself on any transaction requiring approval or to delegate the decision to one of its committees in line with the statutory requirements. No such transactions were recorded in the reporting period.

Supervisory Board Self-Assessment

The Supervisory Board performs regular efficiency reviews that are performed, in alternation, as self-evaluations using a written survey conducted among the members and with the involvement of an independent and experienced moderator in the form of personal interviews. The most recent regular evaluation, supported by a moderator and conducted in the fourth quarter of 2019, revealed that the Supervisory Board performs its work efficiently (see → **Report of the Supervisory Board**).

Supervisory Board Committees

The Supervisory Board sets up an Executive and Nomination Committee, an Audit Committee and a Finance Committee from among its members. Further committees are formed as required. Committees are made up of at least four members of the Supervisory Board (see → **Report of the Supervisory Board**). The committees prepare subjects which are to be discussed and/or resolved by the Supervisory Board. In addition, they pass resolutions on behalf of the entire Supervisory Board. The basis for committee work was the transfer of tasks and responsibilities within the scope of the legal provisions.

The Executive and Nomination Committee is made up of the Chairman of the Supervisory Board and at least three other members to be elected by the Supervisory Board. The Chairman of the Supervisory Board is the Chairman of the Executive and Nomination Committee. The tasks of this committee are, in particular, to prepare the appointment of Management Board members and propose candidates for election as Supervisory Board members, to advise on the remuneration system, to assign responsibilities and to decide in cases of legal and loan transactions with members of the Management Board and conflicts of interest.

The Supervisory Board appoints one of the members of the Audit Committee as the Chairman of the Audit Committee. When electing the committee members, the Supervisory Board shall ensure that the Chairman of the Audit Committee has specialist knowledge and experience in the application of accounting principles and internal control and risk management systems and/or in audits. The Committee Chairman should be independent and not be a former member of the company's Management Board whose appointment ended less than two years before their appointment as Chairman of the Audit Committee. The Supervisory Board Chairman should not be the Chairman of the Audit

Committee. As a result of the FISG provisions, one committee member must have experience in accounting and the other in auditing. With Prof. Dr. Edgar Ernst as the long-standing President of the German Financial Reporting Enforcement Panel and Dr. Florian Funck as the Chief Financial Officer of Haniel & Cie GmbH responsible, among other things, for accounting, the Audit Committee is composed of experts in the areas of auditing and accounting (see table → **Supervisory Board Qualifications Profile**). The Audit Committee handles, in particular, the monitoring of the accounting process, the effectiveness of the internal control system, risk management system and internal audit system, the audit of the annual financial statements and – unless another committee is entrusted therewith – compliance. Accounting and auditing also include the sustainability report and the auditing of this report. Each member of the Audit Committee can obtain information directly from the heads of those central departments that are relevant to the Audit Committee via the Committee's Chairman.

The Audit Committee prepares the resolutions of the Supervisory Board on the annual financial statements (and, if applicable, the consolidated financial statements), and, in place of the Supervisory Board, reaches the agreements with the auditor (in particular the issuing of the audit mandate to the auditor, the determination of strategic audit objectives and the fee agreement). The Audit Committee takes suitable action to assess and monitor the independence of the auditor and the audit quality and is responsible for discussing the assessment of the audit risk, audit strategy, planning and results with the auditor. The Audit Committee also makes decisions on behalf of the Supervisory Board on the approval of contracts with auditors for non-assurance services.

The **Finance Committee** consists of the Supervisory Board Chairman or the latter's Deputy Chairman and at least three other members. The Finance Committee prepares the resolutions of the Supervisory Board on the following matters:

> Financing and investment principles, including the capital structure of the Group companies and dividend payments.
> Principles of the acquisition and disposal policies, including the acquisition and disposal of individual shareholdings of strategic importance.

In place of the Supervisory Board, the Finance Committee adopts resolutions in particular on general guidelines and principles for the implementation of this financial strategy, including the handling of currency risks, interest, liquidity and other financial risks, the handling of credit risks and the implementation of external financing principles, and also on important transactions regarding the acquisition and disposal of properties and shares in companies as well as corporate financing.

The Management Board

Duties and Responsibilities

The Management Board members are jointly accountable for independently managing the company in the company's best interests while complying with the applicable laws and regulations, the Articles of Association and the rules of procedure. In doing so, they must take the interests of the shareholders, the employees and other stakeholders into account.

The Management Board is monitored and advised by the Supervisory Board. It has adopted the rules of procedure in consultation with the Supervisory Board. The Management Board has a Chairman who coordinates the work of the Management Board and represents it in dealings with the Supervisory Board.

The Management Board informs the Supervisory Board regularly, in due time and comprehensively in line with the principles of diligent and faithful accounting in accordance with the law and the reporting duties specified by the Supervisory Board.

The Management Board develops the company's strategy, coordinates it with the Supervisory Board and implements it. It ensures that all statutory provisions and the company's internal policies are complied with. The Management Board also ensures appropriate risk management and risk controlling in the company. The Chief Executive Officer is responsible for the social and environmental factors to be taken into account in this process, as well as for the associated risks, opportunities and impacts.

The CEO submits the corporate planning for the coming fiscal year to the Supervisory Board as well as the midterm and strategic planning, which also includes sustainability targets. The Chairman of the Management Board informs the Supervisory Board Chairman without delay of important events that are essential for the assessment of the situation and the development of the company or for the management of the company as well as of any shortcomings that occur in the monitoring systems.

The Management Board requires the approval of the Supervisory Board for certain important transactions. Transactions and measures that require Supervisory Board approval are submitted in good time to the Supervisory Board, or to one of its committees where particular powers are delegated to them. The Management Board members are obliged to disclose any conflicts of interest to the Supervisory Board without delay and to inform the other Management Board members accordingly.

The Management Board members are subject to a comprehensive non-competition obligation. Management Board members may only take up sideline activities, in particular positions on supervisory boards in companies outside the Group, with the approval of the Supervisory Board.

Important transactions between the company, on the one hand, and the Management Board members as well as persons they are close to or companies they have a personal association with, on the other, require the approval of the Supervisory Board. The internal procedure put in place by the Supervisory Board to evaluate these transactions is set out in the section entitled → **The Supervisory Board**.

Recruitment of Members of Executive Bodies

In accordance with the German Corporate Governance Code, the Supervisory Board and the Management Board must be composed in such a way that these bodies/their members as a group have the knowledge, ability and specialist experience required to properly complete their tasks. The requirements were extended and set out by law with the entry into force of the CSR Directive Implementation Act. The Supervisory Board has adopted the following criteria and objectives for recruiting individuals to the Management and Supervisory Boards, taking the above-mentioned requirements into account:

Recruitment of Members of the Supervisory Board

Composition: As a listed company that is not subject to codetermination, the Supervisory Board of Vonovia SE is to include twelve members, an appropriate number of whom are to be independent within the meaning of the Code. All members should have sufficient time available to perform the duties associated with their mandate with due regularity and care.

When proposing candidates to fill new Supervisory Board positions to the Annual General Meeting, the Supervisory Board should have performed an extensive review to ensure that the candidates standing for election meet the corresponding professional and personal requirements (see table → **Supervisory Board Qualifications Profile**) and must disclose the candidates' personal and business-related relationships with the company, the governing bodies of the company and any shareholders with a material interest in the company. Shareholders are deemed to hold a material interest if they hold more than 10% of the voting shares in the company, either directly or indirectly. The proposals are not based on the candidate's affiliation to any particular party that is interested in the company.

Other general criteria, and criteria defined in the GCGC that applied in the fiscal year under review, governing composition include:

> No more than two former members of the Management Board shall be members of the Supervisory Board.
> Supervisory Board members shall not exercise directorships or similar positions or advisory tasks for important competitors of the company.
> If a (designated) member belongs to the management board of a listed company, this member shall not accept more than a total of two supervisory board mandates in non-Group listed companies or on supervisory bodies of non-Group entities that make similar requirements.
> The age limit has been set at 75 at the time of election to the Supervisory Board.

Skills profile: The Supervisory Board of Vonovia SE should be composed so as to ensure qualified supervision of, and provision of advice to, the Management Board. The candidates nominated for election to the Supervisory Board should be able, on the basis of their knowledge, skills and professional experience, to perform the duties of a Supervisory Board member of a listed real estate company that is active on the international capital market. In terms of their personality, the candidates nominated for election should show integrity, professionalism and commitment. The aim is to ensure that the Supervisory Board as a whole offers all of the knowledge and experience that the Group considers to be important for ensuring Vonovia's operational and financial further development, also from a sustainability perspective.

Independence: The Supervisory Board shall only include members that it considers to be independent. Material conflicts of interest that are not merely of a temporary nature, e.g., arising from functions on executive bodies or advisory roles performed at the company's major competitors, should be avoided. A Supervisory Board member is, in particular, not to be considered independent if they have personal or business relations with the company, its bodies, a controlling shareholder or a company associated with such a shareholder that may cause a substantial and not merely temporary conflict of interest.

Diversity: When nominating candidates for election, the Supervisory Board should also take diversity into account. In accordance with the German Act on the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in Privatwirtschaft und im öffentlichen Dienst), the Supervisory Board should comprise at least 30% women and 30% men. Vonovia intends for the Nomination Committee to continue to have at least one female member. Vonovia's Supervisory Board should meet both criteria in the current target period leading up to the end of 2026. When assessing potential candidates for reelection or to fill a Supervisory Board position that has become vacant, qualified women are to be included in the selection process and given appropriate consideration when the nominations are made.

Target achievement: The objectives regarding the composition of the Supervisory Board set out above have been met. There are four female members of the Supervisory Board (33%). Hildegard Müller, Clara-Christina Streit and Dr. Ariane Reinhart are members of the Executive and Nomination Committee. All twelve members of the Supervisory Board are considered by the latter to be independent within the meaning of C. 6 and C. 7 of the GCGC. No member of the Supervisory Board was a member of the company's Management Board or has a personal relationship with a significant competitor of the company as defined by C. 12 of the GCGC. The Chairman of the Audit Committee is an expert in the fields of auditing and accounting. The main knowledge, skills and professional experience of the Supervisory Board members are summarized in the table below.

Supervisory Board Qualifications Profile

					Key skills & areas of experience*							
Name	Independent	Year of birth	Year appointed	Nationality	Finance, accounting, financial planning and analysis	Real estate	Strategy	Legal and regulation	International experience, M&A, capital markets	Investment expertise	Digitalization	Sustainability
Jürgen Fitschen (Chairman)	yes	1948	2018	German	x		x	x	x	x		
Prof. Dr. Edgar Ernst	yes	1952	2013	German	x		x	x	x	x		
Vitus Eckert	yes	1969	2018	Austrian		x	x	x	x	x		
Jürgen Fenk	yes	1966	2022			x	x		x	x		x
Dr. Florian Funck	yes	1971	2014	German	x		x	x	x	x		
Dr. Ute Geipel-Faber	yes	1950	2015	German	x	x	x		x	x		x
Matthias Hünlein	yes	1961	2022			x	x		x	x		x
Daniel Just	yes	1957	2015	German	x	x	x			x		x
Hildegard Müller	yes	1967	2013	German	x		x	x			x	x
Dr. Ariane Reinhart	yes	1969	2016	German			x	x	x		x	x
Clara-Christina Streit	yes	1968	2013	German/U.S.	x		x		x	x	x	
Christian Ulbrich	yes	1966	2014	German		x	x		x	x	x	

* The members of the Supervisory Board can specify up to 5 areas of experience.

Recruitment of Members of the Management Board

Composition: In accordance with the Articles of Association, the Management Board of Vonovia SE consists of at least two members. The Supervisory Board appoints the Management Board members in accordance with the Articles of Association and the law. The Supervisory Board can appoint a Chairman of the Management Board and a Deputy Chairman of the Management Board. The decisions made by the Supervisory Board on the composition of the Management Board should be based on a careful analysis of the existing and future challenges facing the company. The Management Board of Vonovia SE should be composed so as to ensure that, as the management body, it can perform the duties set out above reliably and in full. When taken as a whole, it should combine all of the knowledge and experience required to ensure that the Group can pursue its operational and financial objectives in an effective and sustainable manner in the interests of the shareholders and other stakeholders. While membership of the Management Board is not limited to a certain period of time, the contract of employment of a Management Board member ends when the member turns 67 at the latest.

Skills profile: Newly appointed Management Board members should be able, on the basis of their knowledge, skills and professional experience, to reliably perform the duties assigned to them in a listed real estate company that is active on the international capital market. In addition to having good professional and fundamental general qualifications, they should also show integrity, professionalism and commitment.

Independence: The Management Board should perform its management duties in a manner that is free of any conflicts of interest. Functions on executive bodies or advisory roles performed at major competitors of the company should be avoided.

Diversity: When looking for candidates to fill a Management Board position that has become vacant, the Supervisory Board should include qualified women in the selection process and give them appropriate consideration. Gender should be irrelevant when it comes to filling Management Board positions. The Supervisory Board has adopted a target of at least 20% women on the Management Board for the current period, which is set to run until December 31, 2026. For the two levels of management below the Management Board, the target for the proportion of women is 30%, to be achieved by December 31, 2026.

Target achievement: The objectives regarding the composition of the Management Board set out above have been met in full. The Management Board consists of one female and four male members who are able to manage the Group appropriately on the basis of their experience and skills. At the time at which this declaration was made, the first two levels of management below Vonovia's Management Board comprises 25.1% women. Achieving the target of 30% women by December 31, 2026, for both management levels will continue to require even more systematic succession planning in order to actively support women and open up opportunities for them to assume technical management roles against the backdrop of the planned expansion of technical services at Vonovia.

Succession planning: The Management Board and the Supervisory Board address long-term succession planning for the Management Board on an ongoing basis. Last year, the Supervisory Board once again discussed positions to be filled in the Management Board and long-term workforce planning, taking the ideas explored by the Management Board into account.

Cooperation Between the Management Board and the Supervisory Board

The Management and Supervisory Boards vote on the strategic direction of the company and discuss the current status of implementation of the corporate strategy, which also includes sustainability topics (see → **Strategy**) at regular intervals. Furthermore, the Management Board regularly informs the Supervisory Board in written or verbal reports of topics including the development of business and the situation of the company. In this way, the Supervisory Board receives detailed documents from the Management Board regularly and in a timely manner on the economic development and the company's current situation as well as the half-yearly risk management and compliance reports that deal with the most important risks for the business as well as compliance management at Vonovia SE. On the basis of these reports, the Supervisory Board monitors the company's management by the Management Board as well as via its committees where particular powers are delegated to these committees. The Supervisory Board meets on a regular basis without the Management Board if personnel matters relating to the Management Board are to be discussed. For information on the remuneration agreements that reflect this cooperation, please refer to the **Remuneration Report**.

Avoidance of Conflicts of Interest

In the reporting year, there were no conflicts of interest of Management Board or Supervisory Board members, which are to be reported immediately to the Supervisory Board. There was no need to discuss or make decisions on legal matters, in particular lending transactions with members of executive bodies or individuals related to them.

Accounting and Audits

The Annual General Meeting selected KPMG AG Wirtschaftsprüfungsgesellschaft as auditor for the annual financial statements and consolidated financial statements.

We prepare the annual financial statements of Vonovia SE in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG) and the consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) to be applied in the EU. In addition, we prepare a combined management report as required by the German Commercial Code (HGB) and the German Stock Corporation Act (AktG).

The Management Board is responsible for financial accounting. The Supervisory Board examines and adopts or approves the annual financial statements, the consolidated financial statements and the combined management report.

In addition to our annual financial statements, we also prepare interim statements for the first and third quarters as well as an interim financial report for the first half-year in accordance with the German Securities Trading Act.

Both the interim statements and the interim financial report are presented to, and discussed with, the Audit Committee of the Supervisory Board before they are published.

Under German stock corporation and commercial law, there are special requirements for internal risk management that apply to Vonovia. Therefore, our risk management system covers risk inventory, analysis, handling and limitation. In accordance with Section 317 (4) of the German Commercial Code (HGB) applicable to listed companies, KPMG assesses in its audit the risk early warning system as part of the risk management system. Furthermore, we maintain standard documentation of all our internal control mechanisms throughout the Group and continually evaluate their effectiveness.

In the combined management report, we provide comprehensive information on the main features of the internal control and risk management system with regard to the accounting process and the Group accounting process in accordance with our reporting duties pursuant to Sections 289 (4) and 315 (4) of the German Commercial Code (HGB).

Pursuant to Section 315b of the German Commercial Code (HGB), the Management Board is obliged to submit a Non-financial Group Declaration, which in turn has to be reviewed by the Supervisory Board. The Supervisory Board has commissioned the auditor to perform the review. The Management Board also prepares a sustainability report with annexes for classification in the context of sustainability ratings.

Overview

> Positive economic development overall in 2022.
> Stable rental business with virtually full occupancy of the portfolio.
> Investment strategy adapted to reflect new overall conditions.
> A total of 3,749 new apartments created.
> Customer satisfaction values remain high.
> Sales portfolio expanded for 2023.

Despite deteriorating overall conditions on the procurement and capital markets, mainly due to the war in Ukraine, Vonovia can look back on a positive 2022 fiscal year and rising business figures overall. The contribution made by Deutsche Wohnen strengthens the company's positive overall development.

Total segment revenue increased by 19.9% to around € 6.3 billion in 2022.

The **Adjusted EBITDA Total** came to € 2,763.1 million, an increase of 22.6% against the prior-year figure.

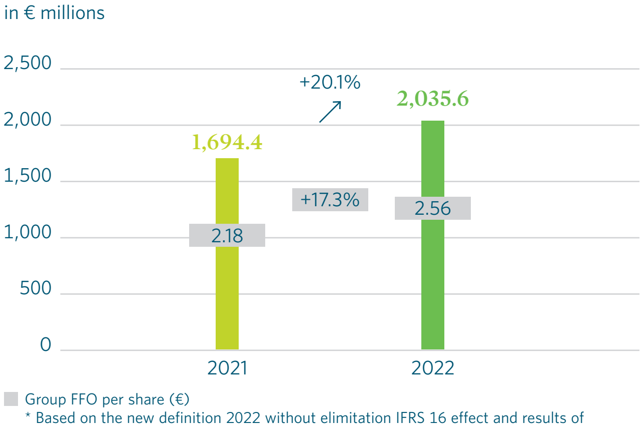
Group FFO improved by 20.1% from € 1,694.4 million to € 2,035.6 million.

The **EPRA NTA per share** came in at € 57.48, down by 8.2% on the prior-year value of € 62.63.

The **Sustainability Performance Index** (Vonovia excl. Deutsche Wohnen) stood at 103% in the 2022 fiscal year. This was helped along in particular by the reduction of CO_2 intensity, the development of the average primary energy requirements of new construction and (partial) modernization measures to make apartments fully accessible.

Sustained Earnings

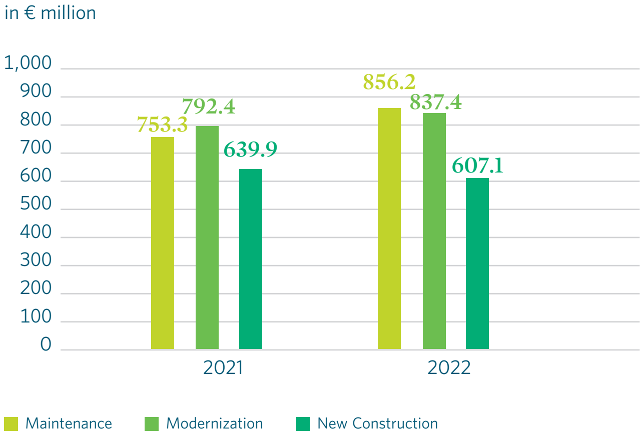
Group FFO*



* Based on the new definition 2022 without elimitation IFRS 16 effect and results of assets accounted for using the equity method.

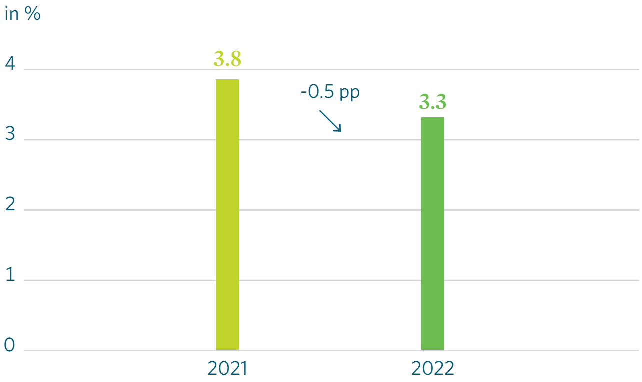
Maintenance, Modernization and New Construction

Investments



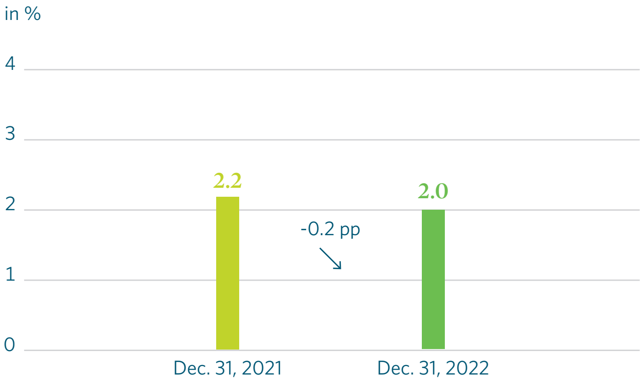
Organic Rent Growth

Organic Rent Increase



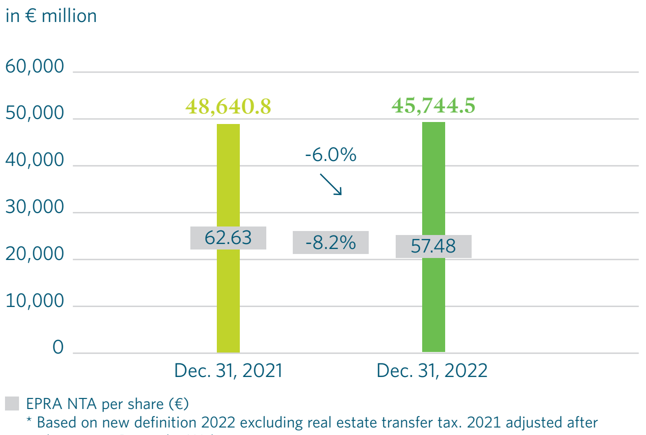
Vacancy

Vacancy Rate



Net Assets

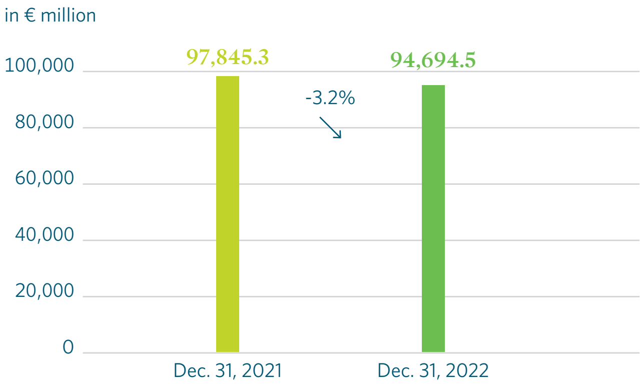
EPRA NTA*



* Based on new definition 2022 excluding real estate transfer tax. 2021 adjusted after closing ppa Deutsche Wohnen.

Fair Value of the Real Estate Portfolio

Fair Value

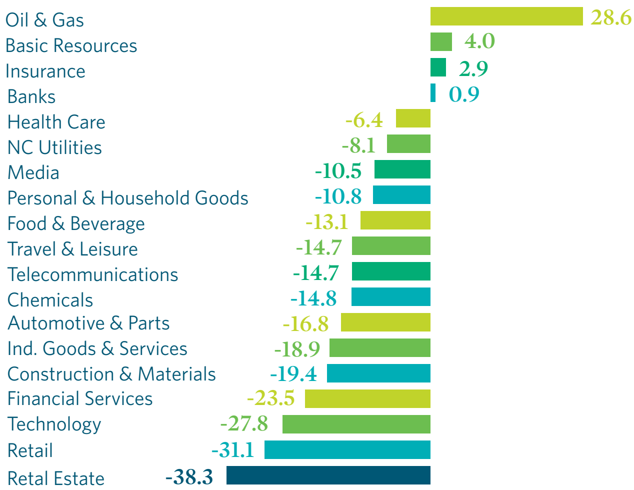


Vonovia SE on the Capital Market

> Despite Vonovia achieving its forecast for 2022 and exhibiting ongoing positive economic development, share price performance is still being hit by the macroeconomic environment – in particular by interest rate development.
> Very good placement in key ESG ratings such as MSCI, CDP and S&P Global again.

Sector Development

in %



Capital Market Development and Shares in Vonovia

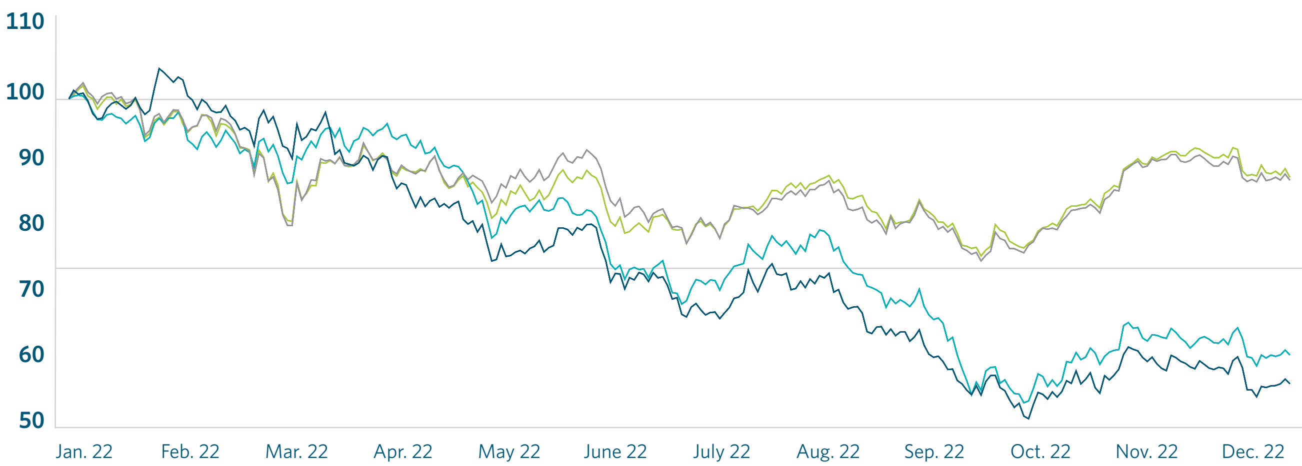
The past year on the capital markets was dominated in particular by high inflation, rising interest rates and concerns about a recession. In this environment, it came as little surprise to see a negative performance in almost all sectors: DAX 40 -12.3%; EURO STOXX 50 -11.5%; EPRA Europe -38.9%.

The real estate sector was hit harder than most, largely due to the capital-intensive nature of the business. Rising bond yields also made real estate shares less attractive in relative terms. In this environment, at least the short-term outlook for shares in German residential real estate was particularly pessimistic, not least against the backdrop of the increase in value seen in recent years, and resulted in underperformance in an environment that was already challenging. Shares in Vonovia lost 54.6% in the course of the year,

Share Price Development

Vonovia SE   DAX   FTSE EPRA Europe   EuroStoxx50   Source: FactSet

in %



closing 2022 at € 22.02. This was once again due to the marked negative correlation with government bond yields.

This means that we are still observing an ever-wider gap between what remain pessimistic capital market expectations on the one hand, and the sustained robust development on the residential real estate market on the other. While the capital market appears to be pricing in a large-scale correction for real estate assets, the residential property markets in which we operate remain relatively stable. This is due, in particular, to the favorable relationship, from an owner's point of view, between supply and demand in urban regions, which have conventionally been long-term financing arrangements, tax aspects as well as the structural momentum on the revenue side.

As a result, even though Vonovia's share price declined in 2022, we still believe that our shares can reflect the positive operating development and ultimately the success of our business model as a whole, at least in the medium to long term. Our responses to key long-term megatrends – climate change, urbanization and demographic change – remain the dominant factors driving our business. We are optimistic as we look ahead to the future and are confident that we will remain financially successful.

The average daily trading volume for shares in Vonovia SE, expressed as the number of shares traded on XETRA, came to 2.5 million in 2022. Expressed in euros, shares in Vonovia worth € 84 million were traded every day on average in 2022, on a par with the previous year.

Vonovia's shares reached their highest intraday price for the year on February 2, 2022, at € 51.30 and their lowest price on October 13, 2022, at € 18.58.

Vonovia's market capitalization amounted to around € 17.5 billion as of December 31, 2022.

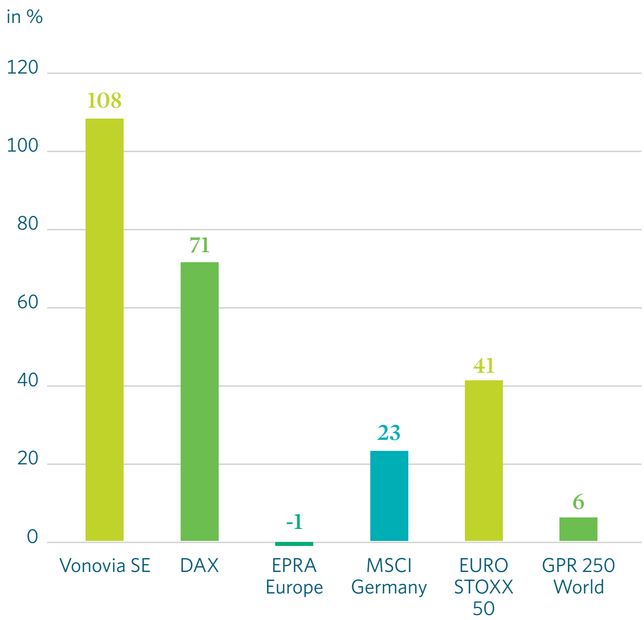
Index Memberships: Vonovia SE member of the EURO STOXX 50, DAX 50 ESG and DJSI Europe

Vonovia has been a member of various sustainability indices since 2020, in particular the DAX 50 ESG and the Dow Jones Sustainability Index (DJSI Europe), which confirms Vonovia's successful ESG activities and the progress made in this area.

Long-term Yield

An investor who bought shares in Vonovia when the company went public in 2013 and has held them ever since, reinvesting each dividend in more shares in Vonovia, will have seen the value of their securities deposit account increase by 108% by December 31, 2022, a result that far outstrips the performance of a corresponding investment in the benchmark indices.

Yield since Vonovia IPO

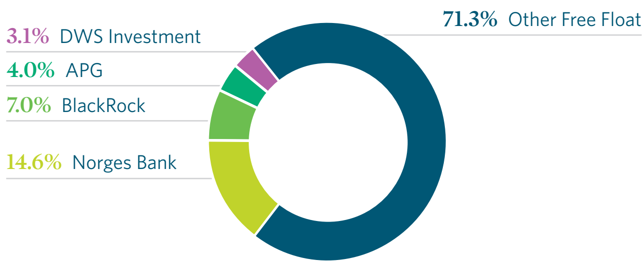


VNA and DAX performance are total shareholder return (share price plus dividends reinvested); MSCI Germany, GPR 250 World, EURO STOXX 50 and EPRA Europe are share priceperformance only.

Shareholder Structure

The chart shows the company's shareholdings based on the data it collects itself and/or based on the voting rights pursuant to Sections 33 and 34 of the German Securities Trading Act (WpHG) as notified by the shareholders in relation to the current share capital. It is important to note that the number of voting rights reported could have changed within the respective thresholds without triggering an obligation to notify the company.

Major Shareholders (as of December 31, 2022)

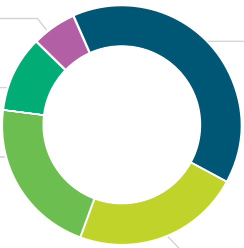


Based on the German stock exchange's definition of free float, only the interest held by Norges Bank (Ministry of Finance on behalf of Norway) does not count toward the free float. This means that 85.4% of Vonovia's shares were in free float on December 31, 2022. The underlying **voting rights notifications** and corresponding financial instruments reported by shareholders or other instruments pursuant to Sections 38 and 39 WpHG can be found online.

In line with Vonovia's long-term strategic focus, the majority of its investors also have a long-term focus. The company's investors include pension funds, sovereign wealth funds and international asset managers in particular. We determine/update the shareholder structure once a quarter. By the end of 2022, we had identified approximately 95% of our shareholder base. Institutional investors account for 89% of our shareholders and private investors for around 6%. The breakdown of the company's shareholders by region at the end of 2022 is as follows:

Regional Distribution of Institutional Investors of Vonovia SE

Source: Own survey by NASDAQ



2022 Annual General Meeting

The Annual General Meeting of Vonovia SE was held as a virtual event on April 29, 2022. The shareholders approved all of the resolution proposals put forward by the Supervisory Board and the Management Board as required. They also formally approved the actions of the Supervisory Board (98.03% of the votes) and the Management Board (99.87% of the votes) for the 2021 fiscal year with a large majority.

The Annual General Meeting approved the dividend proposal of € 1.66 made by the Supervisory Board and the Management Board, which corresponds to a dividend yield of 3.4% based on the closing price for 2021 of € 48.50. In a year-on-year comparison, this corresponds to an increase of € 0.08 – taking into account the increased number of shares due to the capital increase. Shareholders were free to choose between a cash dividend and a scrip dividend. 47.85% opted for a dividend in the form of shares.

A total of 72.48% of the company's share capital was represented.

Since 2018, **the investor portal** has given our shareholders the option to conveniently attend to all formalities relating to registering for and voting at the Annual General Meeting online.

Investor Relations Activities

In 2022, Vonovia participated in a total of 26 investors' conference days and organized 25 roadshow days. In addition, Vonovia took part in various investor forums and numerous one-on-one meetings with investors and analysts

Successful Development of Vonovia's Shares Over a Period of Several Years

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Annual closing price (€)	16.06*	25.08*	26.76*	28.97*	38.80*	37.11*	45.00*	56.02*	48.50	22.02
High (€)*	17.62	25.08	31.15	34.51	39.26	41.88	45.78	58.33	56.64	51.14
Low (€)*	15.65	16.31	22.68	23.43	28.08	33.94	37.39	36.19	45.85	18.97
No. of shares as of Dec. 31 (in million)	251.5*	304.6*	497.2*	497.2*	517.6*	552.8*	578.6*	603.8*	776.6	795.8
Market cap as of Dec. 31 (€ billion)	4.0	7.6	13.3	14.4	20.1	20.5	26.0	33.8	37.7	17.5
Average transaction volume per day (VWAP in € million)*	1.3	12.3	45.2	41.2	47.6	55.8	65.9	85.7	84.2	84.2
Dividend per share (€)	0.62*	0.70*	0.88*	1.05*	1.24*	1.35*	1.47*	1.58*	1.66	0.85**
Dividend yield (%)	3.9	2.8	3.3	3.6	3.2	3.6	3.3	2.8	3.4	3.9

* Values are TERP-adjusted (TERP 2015: 1.051 – capital increase with subscription rights in connection with Südewo acquisition; TERP 2021: 1.067 – capital increase with subscription rights in connection with Deutsche Wohnen acquisition).
** Planned dividend proposed to the 2023 Annual General Meeting.
Source of share prices: FactSet

to keep them informed of current developments and special issues. In 2022, we held several hundreds of talks with analysts and investors. The dominant topics included the business outlook in the changed macroeconomic environment, the capital structure, capital allocation and transaction activity in the residential real estate market.

After a two-year break due to the coronavirus pandemic, Vonovia's seventh Capital Markets Day was held in Bochum on September 27, 2022. We took the event, which focused on the ecological aspect of the megatrend of sustainability, as an opportunity to delve deeper into various topics including, in particular, the "Internet of Things," the decarbonization tool and the Energy Center of the Future with around 50 investors and analysts. We concluded the Capital Markets Day with a property tour in Bochum. The presentations held at the Capital Markets Day can be downloaded online on the **Investor Relations website**.

We will also continue to communicate openly with the capital market in 2023. Various roadshows, conferences and investor forums have already been planned. Information can be found in the **Financial Calendar** on our Investor Relations website.

Positive Analyst Assessments

As of December 31, 2022, 24 analysts were publishing studies on Vonovia on a regular basis. The average target share price at the end of the year was € 37.23 per share, with 71% of analysts issuing a "buy" recommendation, 25% issuing a "hold" recommendation and 4% issuing a "sell" recommendation.

For information on the banks that regularly report on Vonovia and value its shares, please visit our **Investor Relations website**.

Dividend

As a reaction to Russia's war of aggression, central banks around the world have been increasing interest rates at an unprecedented speed.

The drawback of Vonovia's stable business model in a regulated market is that it can only react slowly to this new environment, and the initial impact on our KPIs is negative.

However, the new environment also accelerates the megatrends around which we have built our business, especially the supply/demand imbalance in urban areas and the need to fight climate change. This will lead to even stronger fundamentals in the medium- and long-term.

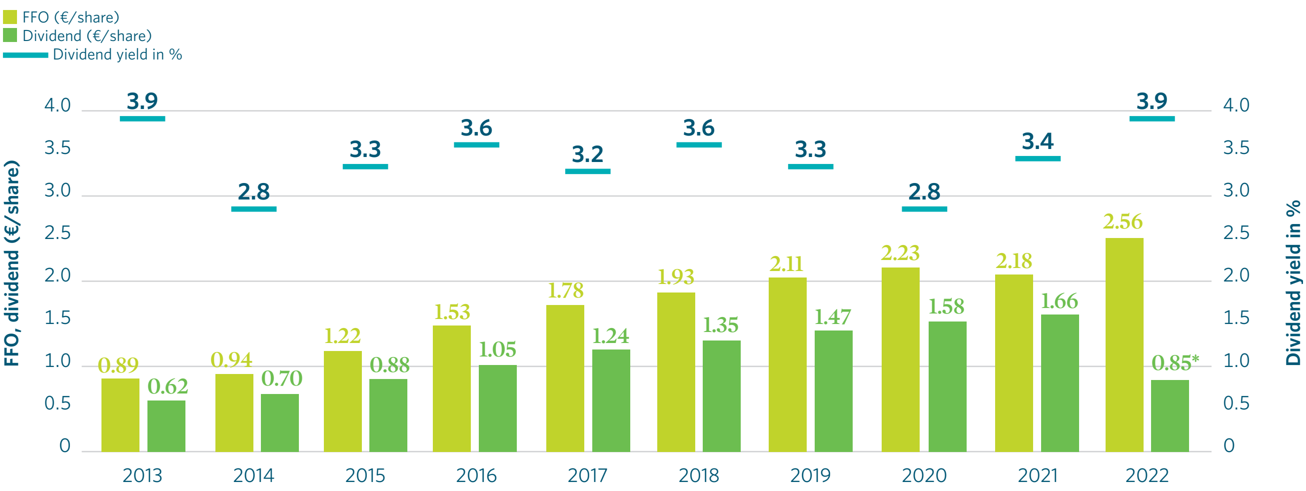
While Vonovia proposes the dividend to the AGM, it is the shareholders' prerogative to vote on the dividend, and there are basically two fundamentally different sets of expectations among shareholders.

As dividend continuity is a key priority for Vonovia, offering an adequate dividend remains an important objective due to the fact that a significant part of our shareholder base counts on dividends as a form of shareholder returns.

However, in the current environment, many shareholders expect capital discipline; it is therefore prudent to adjust the payout ratio of the dividend for the 2022 fiscal year and strike a different balance between cash retention and returns to shareholders.

This decision underlines our responsiveness to what shareholders expect regardless of our firm conviction with respect to the medium- and long-term robustness of our business model.

Attractive Dividend



FFO: 2013–2018: "FFO" corresponds to FFO 1; as of 2019: "FFO" corresponds to Group FFO. The years 2013 and 2014 are TERP-adjusted. TERP 2015: 1.051 – capital increase with subscription rights in connection with Südewo acquisition. The years 2013 and 2020 are TERP-adjusted. TERP 2021: 1.067 – capital increase with subscription rights in connection with Deutsche Wohnen acquisition.

* Planned dividend proposed to the 2023 Annual General Meeting.

The Management and Supervisory Board firmly believe in the robustness of Vonovia's stability and the success of its business model, and we explicitly confirm the general and unchanged dividend policy of paying out approx. 70% of Group FFO after minority interests. This policy makes sure that retained earnings plus the proceeds from Recurring Sales provide sufficient funds to sustain the investment program.

Financing Environment

The capital market in 2022 was very unusual and different; it was a volatile environment. The start of the year had already been characterized by caution and restraint among investors and interest rates that were on a slight upward trajectory, but an upward trajectory all the same. With the start of the war in Ukraine, interest rates rose to unfamiliar levels, while share prices of real estate companies moved in the opposite direction. Disrupted supply chains, the coronavirus pandemic, dramatically higher construction costs, concerns about gas and electricity prices and storage levels had an impact on society as a whole, but especially on real estate companies and their tenants.

Central banks brought their loose monetary policy to an end, primarily in a quest to counter inflation. In July 2022, the European Central Bank ("ECB") initiated a monetary policy turnaround and lifted the key interest rate from 0% to 0.5% for the first time in years. This was followed by three further increases as the year progressed (September, October and December), and by the end of the year, the key interest rate stood at 2.5%. The yield on ten-year German Federal bonds, which had been in negative territory for years, stood at 2.3% at the end of December. The ECB also wants to gradually reduce its bond holdings from March 2023 onward. Funds from maturing securities as part of its Asset Purchasing Program ("APP"), introduced back in 2015 with a volume running into the trillions, will then no longer be reinvested in full. By the end of the second quarter of 2023, holdings are to have been reduced by an average of € 15 billion a month.

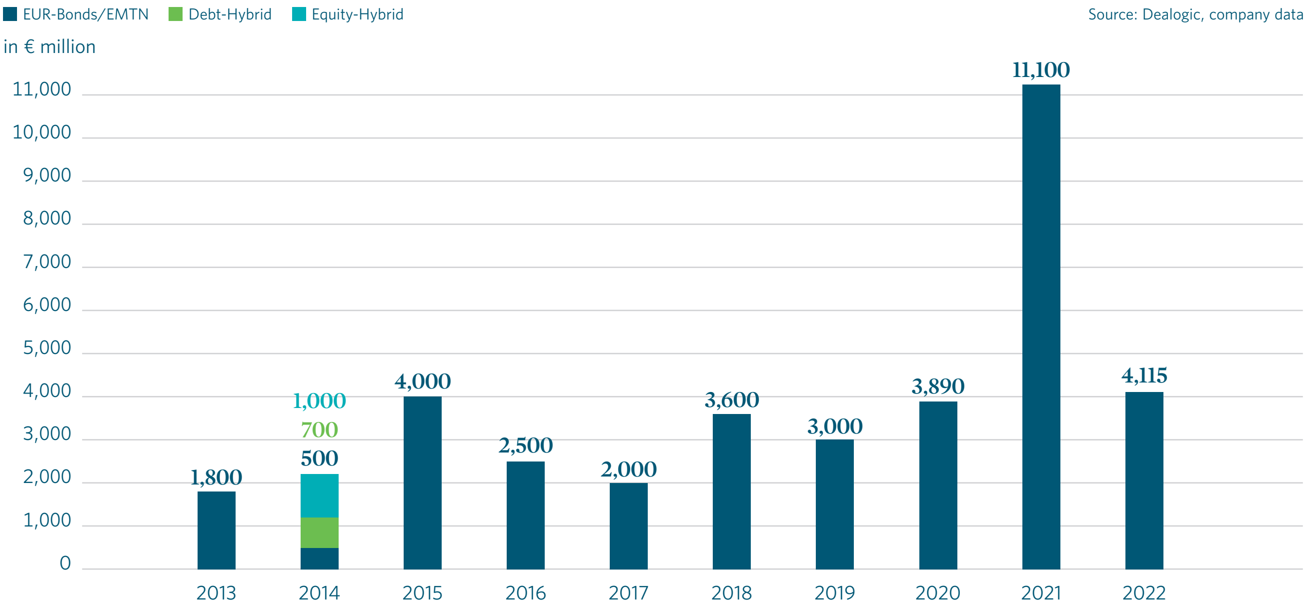
In as early as December 2021, the US Federal Reserve ("FED"), the world's largest central bank, had signaled that it would be tightening the monetary policy reins. The key interest rate, which had been at an extremely low level of between 0.00% and 0.25% since March 2020, has since been gradually lifted to between 4.25% and 4.50% – the highest

Share Information (as of December 31, 2022)

First day of trading	Jul. 11, 2013
Subscription price	€ 16.50 | € 14.71*
Total number of shares	795,849,997
Share capital	€ 795,849,997
ISIN	DE000A1ML7J1
WKN	A1ML7J
Ticker symbol	VNA
Common code	94567408
Share class	Registered shares with no par value
Stock exchange	Frankfurt Stock Exchange
Market segment	Regulated market
Indices	DAX 40, EURO STOXX 50, DAX 50 ESG, Dow Jones Sustainability Index Europe, STOXX Global ESG Leaders, EURO STOXX ESG Leaders 50, FTSE EPRA/NAREIT Developed Europe and GPR 250 World

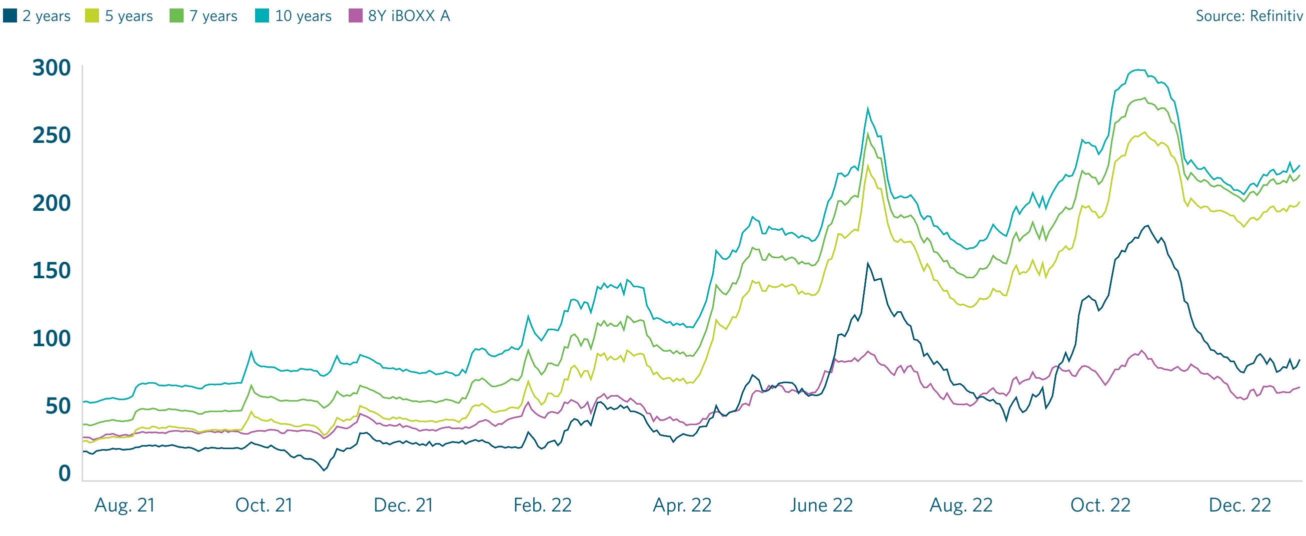
* TERP-adjusted.

Vonovia's Public Bond Issue Volume Per Year (EUR bonds excl. convertible bonds)



Since 2021 incl. Deutsche Wohnen

Spread Development (in Basis Points)



level since 2007. All in all, this already marked the seventh increase of 2022, with the FED most recently raising its key rate by 0.75 percentage points four times in a row. The Bank of England ("BoE") also raised its key interest rate to 3.50% in December. This was the ninth time in a row that the BoE had tightened the key rate by 0.5 percentage points.

One of the World's Biggest Capital Market Issuers

The rating agency Standard & Poor's has assigned Vonovia SE and Deutsche Wohnen SE a long-term corporate credit rating of BBB+ and a short-term credit rating of A-2. The outlook was changed from "positive" to "stable" in November. The Berlin-based Scope Group has also issued Vonovia SE a rating of A- with a stable outlook. Moody's became the third rating agency to publish ratings for Vonovia, with its first rating in May 2021. This is also an investment grade rating. The rating was lowered from A3 with a stable outlook to Baa1 in November.

Vonovia's first-class credit rating continues to give the company unrestricted access to the international capital markets. At the start of 2022, we harmonized the existing Green Bond Frameworks of Vonovia SE and Deutsche Wohnen, added social criteria and made the Framework fully consistent with the EU Taxonomy, which was confirmed by a third, independent party in a Second Party Opinion (SPO). In March 2022, we were able to issue green and social bonds in EUR and SEK for the very first time based on this new Sustainable Finance Framework.

In a phase that proved very challenging for the real estate sector, Vonovia once again demonstrated its excellent access to the capital market in November 2022, reopening the bond market for the real estate sector and focusing on liability management. With a bond issue volume of € 4.1 billion (2021: € 11.1 billion), Vonovia (incl. Deutsche Wohnen) once again ranks among the top 5 euro-investment grade issuers in the world in 2022 (2021: also among the top 5 euro-investment grade issuers) based on analyses performed by Dealogic. The volume-weighted average interest cost of the new bonds comes to 2.99% in 2022 (2021: 0.63% p.a.) with a weighted average maturity of 6.5 years (2021: 10.9 years).

Capital Markets Outlook

The end of 2022 marked the end of a turbulent year dominated by change and transformation. The war in Ukraine caused dismay and also triggered events with far-reaching implications. The realms of industry and business were confronted with rising inflation, higher interest rates, increased energy prices and the associated uncertainty.

In 2022, Vonovia was once again successful in demonstrating that its debt instruments remain a highly sought-after investment thanks to its loan-to-value ratio, the cover pool eligibility of its financing and its investment grade ratings. 2023 will be another year full of challenges, as there seems to be no end in sight to the current obstacles. We also believe that the considerable challenges currently facing us present opportunities, because the construction and real estate industry has huge potential to become more sustainable and climate-friendly. This is an area in which we want to live up to our responsibility and play a pioneering role.

A mild (technical) recession is forecast in both the United States and the eurozone, followed by a below-average recovery. Inflation will slow in 2023 – both the FED and the ECB are likely to have finished their tightening cycle next year.

Combined Management Report

Unchanged megatrends, coupled with what is virtually full occupancy of the portfolio and high demand for housing in the Development segment, continue to provide a stable operating basis for the business.

The management of the financing structure is a key focal issue given the changing interest rate environment.

Fundamental Information About the Group

Societal Megatrends Defining Overall Conditions on the Residential Real Estate Market

In February 2022, Russia invaded Ukraine, and economies that had already been hit hard by the coronavirus pandemic, particularly in Europe, came under additional strain.

The war in Ukraine triggered an additional shortage of raw materials and primary products in global supply and value chains, which had already been disrupted by the coronavirus pandemic, pushing prices up considerably and, as a result, driving inflation rates up across the globe. In particular, fears of energy shortages sent energy prices soaring.

In this environment, central banks abandoned their low interest rate policy entirely, and lifted key interest rates significantly. The financial markets reacted to the new macroeconomic conditions with hefty price losses overall. And although Vonovia has a balanced long-term financing structure, stakeholders reevaluated the business model against the backdrop of the changing interest rate landscape in terms of profitability, the level of debt and assets. This contributed to the considerable drop in the price of the company's shares.

Nevertheless, it is important to note that, putting the increased interest rates aside, there has been no fundamental change in the overall conditions for the Vonovia Group. The megatrends driving our business model remain unchanged. Vonovia's portfolio is virtually fully occupied, guaranteeing secure and stable future cash flows.

The shortage of housing in large metropolitan areas means that there is continued strong demand for the apartments completed by Vonovia's Development segment, particularly given that the political targets for new construction in Germany currently appear to be out of reach. This creates an extremely solid foundation for the company's operating business.

The management is focusing on the increased prices for raw materials, energy and primary products, together with interest rates, to ensure profitability in the changed macroeconomic environment described above. Vonovia's plans to increase sales of residential portfolios are designed to have a positive effect on debt and profitability, as well as on the demand for houses.

The megatrends that have been at work for some time now, urbanization and the shortage of housing, climate protection and reducing CO_2, digitalization and demographic change, are being continually reassessed in terms of their economic, political and social implications for the company's strategy and business model in light of the experience gleaned from the coronavirus pandemic, recent developments as a result of the war in Ukraine and the higher interest rates.

As part of its sustainability strategy, Vonovia has made a clear and explicit commitment to climate protection targets, in particular to a virtually climate-neutral building stock by 2045, as well as to reliable and transparent corporate governance.

The Company

Vonovia's business model is based on the rental of good-quality, modern and, most importantly, affordable living space, the development and construction of new apartments, both for its own portfolio and for sale to third parties, and the provision of housing-related services. These housing-related services mainly relate to cable TV, energy services, automated meter reading and senior-friendly apartment modernization. This is supported by our caretakers and by our established craftsmen's and residential environment organizations.

Vonovia's business model has proven to be robust and largely **resilient** in the face of the impact of the war in Ukraine and the coronavirus pandemic. The high level of **digitalization** meant that business processes were maintained practically without any disruption – also thanks to the options for working from home for back office functions. There were no significant interruptions on our building sites.

The aim is to make the business model **future-fit in the long run** by using sustainable new construction and refurbishment approaches, CO_2 reduction in the real estate portfolio and innovations relating to emissions reduction, renewable energies and sustainable construction materials to contribute to solutions for climate protection objectives.

Aspects of Sustainability at Vonovia

E Environmental	S Social	G Governance
Contribution to climate protection and reducing CO_2 in both the housing stock and new construction.	Responsibility towards tenants and society through fair prices, housing that meets people's needs and future-fit neighborhood development. Attractive and fair working environment for our diverse workforce.	Sustainable corporate governance and responsible business practices with reliable compliance.

Our **neighborhoods, the main areas of action** for creating a socially responsible housing industry, are to provide housing that responds to tenants' needs as part of a process aimed at tenant participation so as to boost customer satisfaction and also contribute to the integration of our increasingly diverse society. In the initial phase of every neighborhood development project, residents are involved in the plans as part of a civic participation process so as to arrive at a shared vision.

In addition to the strategic neighborhoods (urban quarters), there are unique strategic properties (urban clusters) to which the options for action of the strategy and business model are adaptively applied. The large number of urban quarters and urban clusters in urban areas allows Vonovia to use its strategy to address the challenges arising from the megatrends.

Around 75% of Vonovia's portfolio is located in contiguous urban quarters, i.e. neighborhoods that generally include more than 150 apartments. At Vonovia, designing homes that offer real quality of life always involves identifying what the relevant social structures need, taking into account the history of these neighborhoods. Neighborhoods are also a key implementation level for the initiatives aimed at climate protection.

As well as allowing social projects to be implemented, meeting places to be created, doctors or supermarkets to move into the area and cultural events to be offered, urban quarters offer an ideal platform for the implementation of new and innovative products. The development business is also consistent with the sustainable neighborhood concept.

Vonovia aims to be an attractive employer for its **employees**, ensuring equal opportunities and supporting staff members in their personal and professional development. Trustworthy, reliable and transparent corporate governance will lay the foundation for this.

Vonovia manages a housing stock of around 488,000 **of its own apartments** in almost all of Germany's attractive cities and regions. It also manages a portfolio of around 39,000 units in Sweden and approximately 21,000 in Austria. The total fair value comes to around € 94.7 billion, with net assets based on the EPRA definition coming to approximately € 45.7 billion (European Public Real Estate Association: EPRA). In addition to its own apartments, Vonovia manages around 73,000 apartments for third parties. This makes Vonovia one of the leading residential real estate companies in Germany, Austria and Sweden, albeit with a low market share of around 2.1% in Germany due to the highly fragmented nature of the market.

Vonovia's roots and those of its predecessor companies extend back into the 19th century and lie in not-for-profit housing and housing for factory workers. Deutsche Annington and GAGFAH have their roots in housing construction companies that built low-cost homes for workers, salaried employees and civil servants. Many of the housing developments and neighborhoods built in that era were model projects of the time and are now covered by preservation orders. Living in neighborhoods known as "workers' settlements" was about much more than just affordable living space. The residents were colleagues and neighbors; they worked and lived together. The approximately 780 neighborhoods (including Deutsche Wohnen) that the company has today are one of Vonovia's USPs and a focal point of the answers to the megatrends facing us. The story of Vonovia's roots continued in 2021 with the merger with the Deutsche Wohnen Group. Deutsche Wohnen's roots go back to 1863, with the real estate held by the pension fund of the company Hoechst. Via the non-profit company GEHAG, which was established in 1924, Deutsche Wohnen has properties that are exceptional examples of architectural history from the Bauhaus and expressionist movements. These included new housing concepts that helped to shape the idea of a neighborhood and were even listed as UNESCO world heritage sites. Examples include the "Hufeisensiedlung", "Wohnstadt Carl Legien", "Weiße Stadt" and "Ringsiedlung Siemensstadt" developments. BUWOG, which created by the Austrian government as a housing company for civil servants and was eventually privatized, represent the company's roots in Austria. It was in this time that BUWOG evolved into a leading real estate developer in Germany and Austria. The Swedish properties originate from the "Million Program" public housing program of the 1960s and 1970s, the aim of which was to create simple, low-rent homes. A need for modernization and development meant that selected properties in and around Stockholm, Malmö and Gothenburg were ultimately acquired by Victoria Park and Hembla as investors. Vonovia operates under the name Victoriahem in Sweden.

The integration of Deutsche Wohnen's systems and processes into Vonovia's structures was one of the key tasks on the management agenda in 2022. This process was consistent with Deutsche Wohnen's decision to work with Vonovia to achieve harmonization effects and economies of scale. As there is no control agreement between Vonovia SE and Deutsche Wohnen SE, the requirements of a de facto group, as a result, minority rights were always to be upheld. This was supported by corresponding contractual agreements.

Corporate Structure

Vonovia SE, the parent company of the Vonovia Group, is organized in the legal form of a dualistic European company (SE). Vonovia SE is directed by a Management Board, which is responsible for conducting business and defining the Group's strategy. The strategy is implemented in close coordination with the Supervisory Board, which is regularly briefed by the Management Board regarding the development of business, strategy and potential opportunities and risks. The Supervisory Board oversees the activities of the Management Board.

Vonovia SE has its registered headquarters in Germany. Since 2017, its registered office has been in Bochum. The head office (principal place of business) is located at Universitätsstrasse 133, 44803 Bochum.

As of December 31, 2022, 654 legal entities/companies (of which 429 in Germany) formed part of the Vonovia Group. A detailed list of Vonovia SE shareholdings is appended to the Notes to the consolidated financial statements.

Vonovia SE performs the function of the management holding company for the Group. In this role, it is responsible for determining and pursuing the overall strategy and implementing the company's goals. It also performs property management, financing, service and coordination tasks for the Group. Furthermore, it is responsible for the management, control and monitoring system as well as risk management system of the Group.

In order to carry out management functions, Vonovia SE has established a series of service companies, particularly for commercial and operational support functions, which are centralized in shared service centers. By pooling the corporate functions on a uniform management platform, Vonovia achieves harmonization, standardization and economies of scale objectives, and the other Group companies thus do not need to perform such functions themselves. This bundling is a prerequisite for the efficient and effective management of a portfolio of more than 548,000 apartments and also provides the basis for the successful digitalization of Vonovia's process chains. The development business is largely managed via project companies.

With our **efficient organizational model**, optimized processes, a clear focus on service, and, as a result, on our tenants, and a clear investment strategy focusing on climate protection, we are laying the foundation for a sustainable business while safeguarding our legitimate interests as a private-sector company.

A balanced mix of services provided by the **central service center, regional caretakers working on-site** and our company's own technical and residential environment organization, combined with housing-related services (**Value-add**), ensures that our tenants' concerns can be attended to in a timely, straightforward and reliable manner. This plays a key role in ensuring that our customers feel that they have good support in their environment.

In addition to its successful long-term and modern property management, Vonovia also develops its real estate portfolio through targeted **acquisitions and sales**. The goals associated with new portfolios acquisitions include strengthening its overall regional presence, realizing operational and financial economies of scale and optimizing structures.

In addition, Vonovia will be using **new construction and development measures**, densification and vertical expansion to build new apartments in order to meet the rising demand for living space in metropolitan areas in particular. The development organization operating under the **BUWOG** name gives Vonovia extensive product and process expertise in the field of construction and in the development of residential construction projects. This means that Vonovia has not only a **management platform** but also an end-to-end **development platform** spanning the entire value chain.

Retirement and care homes are operated under the brands KATHARINENHOF and PFLEGEN & WOHNEN HAMBURG under the Deutsche Wohnen umbrella. These facilities provide full residential care, the aim being to maintain an active lifestyle and residents' independence to the greatest possible extent. Senior citizen-friendly services are also provided within the context of assisted living. The nursing care activities are currently being subjected to a strategic review by the Management Board of Deutsche Wohnen.

The management of the operating business is based on the company's strategic approaches and is conducted via the four **segments:** Rental, Value-add, Recurring Sales and Development. As a result of the merger with Deutsche Wohnen, the latter's activities in the Nursing Care segment are managed as an independent segment. Details on the management of our business can be found in the chapter on our → **Management System**.

Vonovia's Scalable Organizational Model: Strong Regional Presence and Efficient Central Shared Services

Central

Portfolio Management

> Invest program management
> Rent calculation & management
> Rent performance management

Central Property Management

> 24/7 customer service
> Rental contract management
> Field service disposition
> Property-related accounting services

Regional

Asset Management

> Strategic development of local portfolio
> Stakeholder management

Property Management

> Field services
> Caretaker organization
> Letting organization

Value-add Management

> Technical service
> Modernization
> Residential environment

Development

> Integrated development platform
> Development to sell/to hold

Shared Services

> Purchasing
> Finance/tax
> Accounting
> Controlling
> Legal
> IT
> HR
> Communication

Strategy

Foundation for our sustainable strategy

The strategy Vonovia introduced **at the time of its IPO** has reached a high **degree of maturity** and has proven its viability and flexibility. It achieved sustainable improvements in customer satisfaction, addressed new demands and successfully established new business models. This strategy still consists of the four basic approaches: the property management strategy, the financing strategy, the portfolio management strategy and the Value-add strategy. The **two additional approaches**, making acquisitions as and when opportunities present themselves and pursuing internationalization, continue to support and round off the four basic approaches. The nursing care activities are currently being subjected to a strategic review by Deutsche Wohnen.

Not only the increasingly dynamic development of **megatrends**, but also the ever louder calls made by various stakeholder groups for a **sustainable business model** mean that the focal points of the company's strategy have to be reviewed on an ongoing basis and, in particular, the **sustainability aspects** of this strategy, which has proven so successful to date, have to be given even greater attention and be enhanced in a targeted manner to ensure the **future viability of Vonovia's strategy** and business model.

The strategy, which will continue to have a **commercially successful business model at its core** in the future as well, explicitly addresses the following sustainability issues:

> Contribution to climate protection and reducing CO_2 (E).
> Social responsibility for our tenants, customers and employees (S).
> Trustworthy, reliable and transparent corporate governance based on the best-practice guidelines set out in the Corporate Governance Code (G).

The strategy also specifically addresses the UN's Sustainable Development Goals (SDGs) as well as the specific ESG targets set by European and national standard setters. With this in mind, Vonovia has defined its own climate path. The integration of sustainability into the strategy is also reflected in the expansion of the management system to include non-financial key figures, in particular in the form of the introduction of the Sustainability Performance Index.

Vonovia has an **organizational unit** reporting to the CEO to coordinate and drive sustainability aspects in the context of the strategy and the business model. A steering group, the Sustainability Committee, has also been set up. It includes the entire Management Board as well as the individuals responsible for sustainability, corporate communications, investor relations, controlling, accounting and business innovation.

In order to calibrate its sustainability endeavors correctly, Vonovia conducts a regular **materiality analysis** or reviews this analysis to define areas for action and develop a sustainability roadmap based on the results.

Solutions for climate protection in the housing industry using innovations and new technologies will be largely implemented in our **neighborhoods** in a cost-effective manner to allow us to continue to design urban, environmentally friendly and affordable housing in a socially responsible manner. Another way in which Vonovia lives up to its social responsibility is via its neighborhood development projects.

Trustworthy, reliable and transparent **governance** is supplemented by ESG risk management that takes the opportunities and risks derived from the action areas and the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) into account.

Greater attention is also being paid to effects on sustainability-related impacts.

Highly Developed 4+2 Strategy

The 4+2 strategic approaches already in place can be briefly summarized as follows:

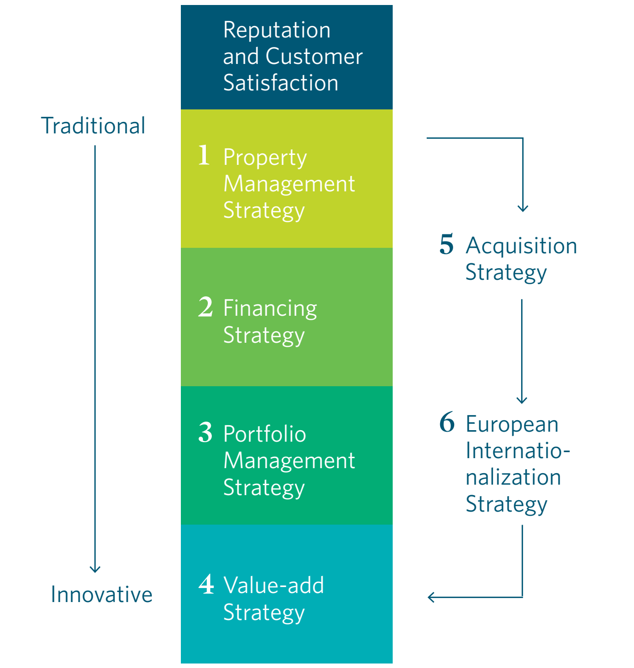
The **property management strategy** is based on the sophisticated **management platform**, which allows for the efficient management of the portfolio and the successful scaling of the property management business. In this respect, Vonovia makes use of a mix of regional and local services and the Group-wide bundling of services in central service centers. Vonovia also applies this expertise to the property management business in Austria and Sweden in line with the requirement profiles that apply in those markets. The property management strategy is being enhanced, in particular, by digitalization measures in the underlying business processes and at the customer interface.

The **financing strategy** aims to establish a well-balanced and sustainable financing structure. Thanks to its broad range of equity and debt capital providers and the investment grade ratings awarded to our company by the rating agencies S&P, Moody's and Scope, Vonovia has excellent access to the international debt and equity capital markets. As well as managing the challenges emerging from the current interest rate environment, our priority remains to maintain these creditratings, optimize the financing structure and maturity profile, diversify our financing sources and financial risk management. We are also currently monitoring other focal areas, such as the earnings to debt and earnings to interest burden ratios.

The **portfolio management strategy** focuses on **optimizing the portfolio**. The portfolio is refined in a targeted manner using privatization measures and the sale of non-strategic properties. On the other hand, tactical acquisitions, modernization, new construction and development measures are used to increase the value of the portfolio in a targeted manner. The prevailing macroeconomic conditions set out the framework within which the company can act. Within this framework, Vonovia invests in its strategic holdings in urban neighborhoods and urban clusters, especially in line with its climate path to promote sustainability and with its innovation strategy. We will then create new homes in our portfolio in the future, too, as part of our densification strategy, using a combination of vertical expansion and new construction on existing land. The portfolio management strategy also includes the activities of the development business on land purchased specifically for this purpose, adding another profitable element to Vonovia's value chain. The development business, operated under the BUWOG brand, includes the construction of owner-occupied apartments for sale to private and institutional investors and owner-occupiers as well as the construction of rented apartments to be managed by the company itself.

The **Value-add strategy** supplements our core business to include **customer-oriented services**, e.g., services that are closely related to or influence the rental business. As part of this strategy, we continually evaluate additional innovative service ideas and business models to boost customer satisfaction and add the corresponding activities to our offering. Those areas of the Value-add strategy that have already been established successfully largely include the craftsmen's organization, the residential environment organization, multimedia services, energy services and metering services, and insurance services. The capability of having our own craftsmen's and residential environment organization cover the entire portfolio, in particular the maintenance and modernization services, allows us to make

The 4+2 Pillars of Our Strategy



1 Management platform/Austrian client/digitalization
2 LTV/financing strategy/financial risk management
3 Portfolio management/recurring sales and Non Core/investment strategy/development and new construction
4 Housing and property-related services/business development/digitalization
5 Opportunistic acquisition strategy Germany
6 Austria/Sweden/France/Netherlands

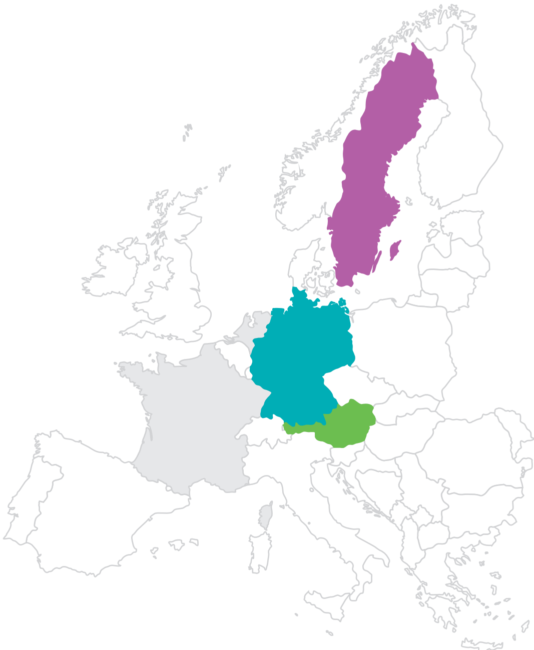
the residential units more attractive in general and help to boost customer satisfaction.

Vonovia pursues **acquisitions** as and when opportunities present themselves in light of the current opportunities for returns and financing. Acquisitions have to be expected to increase in value before they are conducted. Such increases in value are generally assessed in terms of strategic suitability, increases in EBITDA Rental yield per share and a neutral impact on the EPRA NTA per share; these are funded by 50% equity and 50% debt. Furthermore, an acquisition must not pose any risk to the company's stable BBB+ long-term issuer credit rating. Vonovia has been growing in recent years thanks to a large number of acquisitions.

Our scalable operational management system allows us to achieve harmonization and generate economies of scale from the full and swift integration of newly acquired companies and portfolios. Our market knowledge and our management and development platform, combined with our integration expertise, allow us to analyze acquisitions with regard to future synergy contributions. This means that acquisitions supplement our four core strategic areas.

Our experience and expertise as a leading real estate company on three European markets (Germany, Sweden and Austria) serves as a reference that allows us to invest as part of our **internationalization strategy** to generate added value by tapping into other European markets. The potential target markets include those that are not yet as professional as the German housing market, and those that offer attractive overall conditions in terms of rental market growth and household growth. Any activities on other European markets are performed by making targeted direct investments, such as in Sweden and Austria, but also, as an alternative, via high-profile and reliable joint venture partners in the first instance, which is the approach pursued on the French and Dutch markets. This will involve making contact with European partner companies, corresponding investors or political institutions in order to help accurately assess investment opportunities, cooperation options and opportunities for market entry. Vonovia will pursue its internationalization strategy as and when opportunities present themselves. Our activities on other European markets must not impact on our established business in Germany, Austria and Sweden, and must entail risk potential that can be controlled or limited.

European Markets



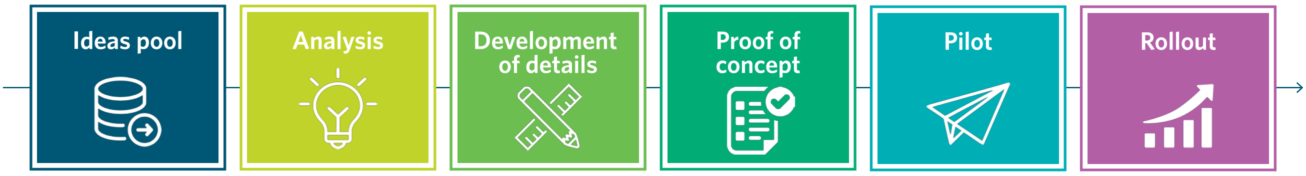
Germany	Sweden	Austria	The Netherlands	France
15 urban growth regions	Stockholm, Gothenburg, Malmö	Vienna (mainly)	Randstad (greater Amsterdam/Rotterdam)	Île-de-France (greater Paris)

Innovation as a Basis for Solutions

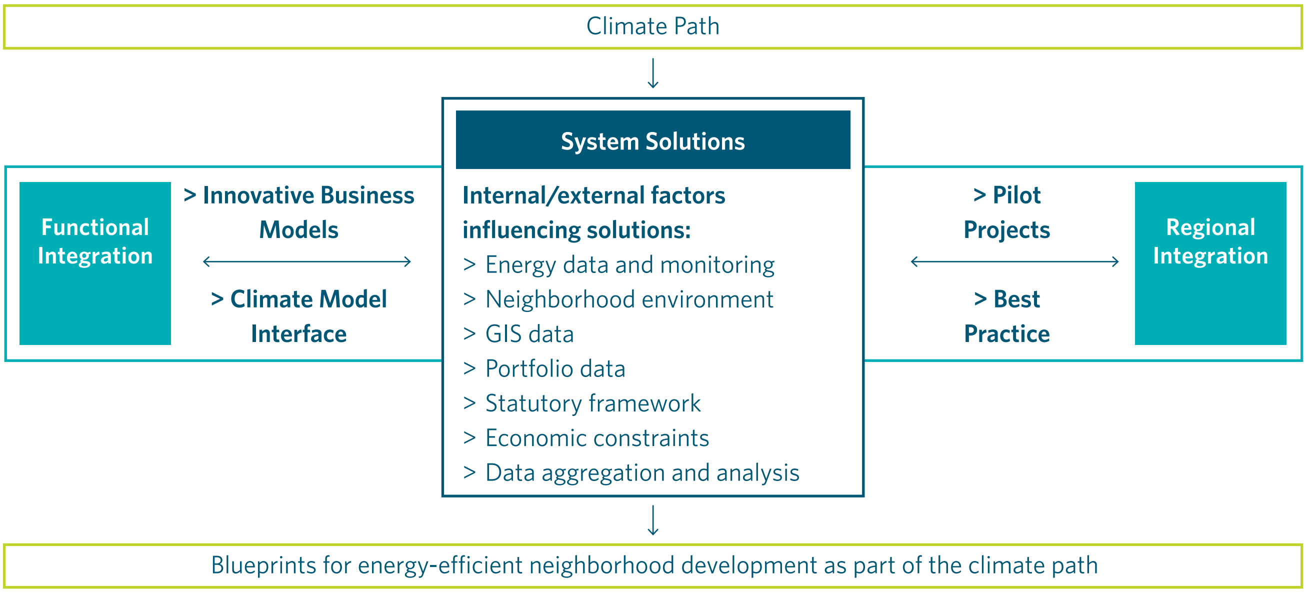
Innovation is a firmly established component of Vonovia's strategy. The large number of neighborhoods in the company's portfolio creates potential to develop future-fit solutions for innovative technologies and new services to respond to the current megatrends. The innovative approaches are not only applied, however, to the neighborhoods (urban quarters), but are also selectively adapted to urban clusters.

The most recent developments in the overall technological, socioeconomic and ecological conditions serves as confirmation to us that the strategy we have defined, namely the quest to forge ahead with innovation and, in doing so, also promote the aspects of customer orientation, sustainability and the future viability of existing business models, is the right one. Particularly in the context of the energy revolution, Vonovia sees itself as a market player with social responsibility that thinks beyond the boundaries of the pure rental business in seeking to develop innovative solutions. In order to pursue the company's innovation goals in a targeted manner, a Management Board function has been set up with responsibility for transformation.

A Strict Innovation Process



Energy-efficient Neighborhood Development



Non-financial Group Declaration*

Explanatory Information on the Content of the Report and the Framework

Sustainability reporting is experiencing a period of upheaval. Due in particular to increasing requirements at a European level – as a result of the EU taxonomy and the adoption of the Corporate Sustainability Reporting Directive – we are now increasingly seeing reporting on sustainability-related topics featured in the annual report.

For Vonovia, this integrated approach aligns well with our understanding of sustainability, which is a key component of our corporate strategy and business processes. Consequently, information on sustainability is not limited to the Non-financial Group Declaration, but can be found throughout this annual report, such as in the description of our business model or in the risk assessment. Corresponding references point to chapters in the management report in which the required disclosures are reported. As such, we are underscoring our understanding of a sustainable business model in which all three dimensions of sustainability (ESG) are embedded within our sustainability strategy (see → **Fundamental Information About the Group**).

Vonovia SE's (hereinafter referred to as Vonovia) corporate reporting includes a Non-financial Group Declaration, which has its legal basis in Sections 315b, 315c in conjunction with Section 289c to 289e HGB.

The frameworks provided by the Global Reporting Initiative (GRI) for sustainability reporting and the UN Global Compact were taken into account when preparing this declaration. These standards also serve as a guide for the separate sustainability report. We also use the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), which we describe in the section entitled → **Environmental Issues**.

The provisions of the delegated act for Regulation (EU) 2020/852, subject to application of Articles 8 and 10 (EU taxonomy), are explained in the → **"Taxonomy"** section of this Non-financial Group Declaration and also include the subgroup Deutsche Wohnen SE (referred to in the following as Deutsche Wohnen).

Vonovia acquired control of Deutsche Wohnen on September 30, 2021. The subsequent integration process began at the end of 2021 and encompasses the consolidation of concepts, applied due diligence processes, and targets and outcomes relating to the non-financial topics pursuant to Section 289c of the German Commercial Code (HGB) determined in the Vonovia materiality process. The operational go-live date on January 1, 2023 marked the successful completion of this process. As of this date, Vonovia and Deutsche Wohnen shall operate using joint systems and structures in line with the Vonovia organizational and process model (see → **Fundamental Information About the Group**).

Deutsche Wohnen is therefore included in the consolidated financial statements and the Non-financial Group Declaration of Vonovia. Deutsche Wohnen will not be issuing its own non-financial declaration for the 2022 fiscal year, as it is exercising its rights under the simplifying provision for CSR reporting pursuant to Sections 289b (2) and 315b (2) HGB.

In preparation for the integration process, the materiality assessments of the two companies were merged in 2021 and their validity was reviewed once again in the reporting year. Due to the high degree of concordance between the identified → **material sustainability topics** and the non-financial key performance indicators, the selection of indicators already used by Vonovia and their definitions have been adopted by Deutsche Wohnen. This also applies to the description of concepts and their implementation.

* The content of the Non-financial Group Declaration is not covered by the audit of the annual and consolidated financial statements, but rather are subjected to a separate limited assurance audit conducted by KPMG AG Wirtschaftsprüfungsgesellschaft in accordance with ISAE 3000.

The main relevant non-financial performance indicators are reported – together with information on the underlying concepts and objectives – in the individual chapters covering the content in question. These are allocated to the legally mandated aspects – environmental issues, social issues, employee issues, combating corruption and bribery, and observance of human rights. Consolidated reporting with Deutsche Wohnen is not possible for a few selected key performance indicators, as the company-wide criteria for determining these key figures will only be fully implemented in the course of the complete integration from the start of the 2023 fiscal year onwards. We refer to any existing differences in the disclosure for the key figure concerned. Deutsche Wohnen is included in the reported objectives for the 2023 fiscal year.

Six of the key figures listed in the Non-financial Group Declaration are non-financial performance indicators within the meaning of GAS 20, Paragraph 101 in conjunction with Paragraph 106. These are the key figures that together constitute the Sustainability Performance Index (SPI) since its introduction in 2021. The SPI, which is derived from the material sustainability topics, is a vital instrument in terms of managing our sustainable activities. It represents the leading non-financial performance indicator applicable for the Vonovia Group. For the 2022 fiscal year, the reported SPI does not include Deutsche Wohnen. This will only be reported on a consolidated basis for the 2023 fiscal year following full integration (see → **Management System**).

The company's activities in Austria and Sweden are also covered by this Non-financial Group Declaration. This initially concerns the qualitative presentation of the non-financial information of the business entities. Due to the ongoing integration of the corresponding processes, the full consolidation of a few of the key performance indicators is still in the implementation phase. With respect to each key performance indicator, we make reference to the degree of KPI integration.

Sustainability reporting is supplemented by a separate sustainability report. This contains further extensive information and key figures for individual non-financial topics as well as examples of implementation. The sustainability report for the 2022 reporting year will be published in the second quarter of 2023. Further information on **commitments and guidelines**, for example, can be found on the website of the Investor Relations department. The final aspect of sustainability reporting is participation in numerous ESG ratings.

Both the Non-financial Group Declaration and the additional quantitative disclosures in the sustainability report are audited by → **the auditor of the annual financial statements**. All references to content outside the Non-financial Group Declaration are further information and are not covered by the audit performed by KPMG. An exception to this rule applies to references to further chapters of the management report. These are covered by the audit.

Sustainability Management at Vonovia

Our business model means that our relationship with social and environmental change processes is one of great interdependence. Sustainability is thus a key component of our corporate strategy. In recent years, we have made great progress in integrating sustainability into the company's business processes.

With the launch of the → **non-financial performance indicator** SPI in 2021, these are linked to clear and remuneration-relevant targets for the Management Board and senior management (the first tier below the Management Board).

The SPI comprises six sub-indicators based on the material topics of Vonovia. They include the carbon intensity of the housing stock, the energy efficiency of new buildings, the share of accessible (partial) modernization measures in relation to newly let apartments, the increase in customer and employee satisfaction and proportion of female managers in the company's top management team. The SPI for Vonovia achieved an index value of 103% in the reporting year (see → **Report on Economic Position**). For a more detailed description of our sustainable business model, please refer to the chapter entitled → **Fundamental Information About the Group**.

Vonovia's understanding of sustainability illustrates how we interpret sustainability at the company. It is published on our **Investor Relations website**.

At Vonovia, sustainability lies at the very top level of management. The individual responsible for the issue of sustainability is the Chief Executive Officer. On the part of the Supervisory Board, the Audit Committee, in particular, performs the corresponding control function.

Central coordination of sustainability activities is the responsibility of the Sustainability/Strategy department. This department reports directly to the Chief Executive Officer. Its core duties include, in particular, the further development of the sustainability strategy, the definition and monitoring of sustainability targets, the providing of impetus and the implementation of sustainability projects. It also handles sustainability reporting, which includes not only sustainability reporting within the annual report, but also the preparation of the sustainability report and the management of numerous ESG ratings.

A sustainability committee meets three to four times a year– as required – to discuss the overall strategic direction and to evaluate the company's sustainability performance. The committee comprises the entire Management Board (including the chief representatives), as well as the heads of Sustainability, Corporate Communications, Controlling, Accounting and Investor Relations. This ensures that decisions on the implementation of our sustainability strategy are borne by all relevant divisions and all the way through to local implementation levels.

The operational implementation of sustainability aspects takes place in all relevant departments and in our local neighborhoods in the various regions.

In Austria and Sweden, sustainability coordination is embedded in the relevant staff positions. They coordinate the interaction between the Sustainability/Strategy department and the individual countries, as well as the country-specific sustainability strategies pursued by the Austrian BUWOG companies and the Swedish company Victoriahem. In order to take the development business of the German company BUWOG into account, a coordination function for sustainability has been set up there, too.

Risk Assessment Based on Sustainability Aspects

The analysis and assessment of risks, taking into account sustainability considerations, plays a major role for Vonovia. Since 2020, such sustainability risks have been firmly integrated into the company's risk management system. We not only analyze the risks in relation to business operations (outside-in perspective), but also in relation to the possible impacts on the environment and society (inside-out perspective). We provide information on these risks, as well as on the reconciliation of the Deutsche Wohnen risk assessment, in our → **risks and opportunities report**.

In the Non-financial Group Declaration, material risks associated with the Group's own business activities – and business relations or products and services of the Group – which are very likely to occur and which could have very challenging negative effects on non-financial topics must be reported. On the basis of the risk analyses performed and in the opinion of Vonovia's management, there are **no non-financial risks** subject to a reporting requirement that meet the materiality criteria pursuant to Section 289c (3) Nos. 3 and 4 HGB following application of the net method and taking risk mitigation measures into consideration.

Key Materiality Aspects at Vonovia

A home is a basic human need. We meet this basic need by creating new living space and letting existing living space. We do so responsibly and sustainably by paying attention to the environmental footprint of our buildings and by having committed to the goal of virtually climate-neutral housing stock. We also do so by living up to our social responsibility and offering residential units at fair prices for all different groups within society. We do so through a governance structure that meets high value benchmarks and that is well suited to being perceived as trustworthy and reliable by our stakeholders.

Vonovia classifies the company's material sustainability topics based on two dimensions according to the **double materiality** concept: the relevance of social and environmental changes to the business and value creation (outside-in perspective) and the impact of the business model and company activities on the environment, society and the economy (inside-out perspective). As part of this process, the perspectives of our relevant stakeholder groups are taken into consideration in our assessment of the material topics.

The **materiality matrix**, which builds on this, categorizes ten material topics – which will be explained in more detail in the subsequent chapters of this Non-financial Group Declaration – and 14 further important sustainability topics within five areas for action.

Materiality Matrix

Action Area A: Environment and Climate

A1 Reducing CO_2 in the housing portfolio
A2 Sustainable construction and refurbishment
A3 Sustainable materials and products
A4 Protecting biodiversity
A5 Water, effluents and waste
A6 Resource and climate protection in business operations

Action Area B: Society and Contribution to Urban Development

B1 Neighborhood development and contribution to infrastructure
B2 Inclusion, diversity and social cohesion
B3 Dialogue with tenants and participation

Action Area C: Homes and Customers

C1 Living at fair prices
C2 Homes that meet people's needs and demographic change
C3 Maintenance for health and safety
C4 Customer satisfaction and service quality

Action Area D: Corporate Culture and Employees

D1 Appeal as an employer
D2 Training and personal development
D3 Remuneration and flexible working models
D4 Diversity and equal opportunities
D5 Promoting health and safety

Action Area E: Sustainable Governance and Responsible Business Practices

E1 Sustainable corporate strategy
E2 Governance and compliance
E3 Digitalization and data security
E4 Human rights due diligence and supply chain
E5 Contribution to socio-political dialogue
E6 Appeal on the capital market

Material topics are defined by their high significance for the following dimensions: impact on the business and value creation, and impact of the business model on the environment, society and the economy.
Material topics are marked in bold.

Due to the merger between Vonovia and Deutsche Wohnen, we compared the materiality analysis of both companies in 2021, assigning the Deutsche Wohnen sustainability topics to those of Vonovia. In the summer of 2022, we once again performed a critical review of all topics against the backdrop of integration and consolidated reporting, as well as new regulations and changes in general conditions. This review resulted in us slightly upgrading individual topics ("Protecting biodiversity," "Digitalization and data security," "Human rights due diligence and supply chain") due to increased regulatory requirements (EU taxonomy and the Act on Corporate Due Diligence Obligations in Supply Chains) or higher impact assessments. No changes have been made to their assignment to the material topics. Furthermore, we have revised how the topics are structured in some cases in order to eliminate redundancies and allow for more rigorous reporting. All previous topics remain unchanged.

The materiality analysis of sustainability topics that is presented here applies to the entire Group and represents the leading system for the non-financial topics.

In terms of the direction of its sustainability strategy, Vonovia is also **guided by international standards and frameworks,** such as the Sustainable Development Goals (SDGs), the UN Global Compact and – as of January 2023 – the United Nations Guiding Principles on Business and Human Rights. As a company with international operations, we aim to contribute to achieving these goals with our business in Germany, Austria and Sweden. To this end, we have identified **eight central SDGs** that guide our actions (see also the SDG policy on the **Investor Relations website**). We show our progress in terms of achieving these goals, especially in our sustainability report.

Key SDGs for Vonovia

EU Taxonomy Regulation

Reporting Principles

The EU taxonomy is a classification system for "green" economic operations and is intended to promote investments in sustainable activities and to help create greater transparency and comparability. In accordance with the EU taxonomy, we disclose the share of turnover generated with products/services that are associated with environmentally sustainable economic activities. We also report the shares of capital expenditure and operating expenses linked to assets or processes that are associated with environmentally sustainable economic activities.

We reported on our climate-related **taxonomy-eligible** business activities for the 2021 fiscal year. For the current reporting year and for the first time, Vonovia is reporting the shares of **taxonomy-aligned** and non-taxonomy-aligned turnover, capital expenditure and operating expenses in accordance with the requirements set out in Article 8 of the EU Taxonomy Regulation for the EU environmental objectives of climate change mitigation and climate change adaptation. The EU Commission is currently developing technical screening criteria for the other four EU environmental objectives (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems), which in the future will also be subject to a reporting obligation. When determining if a particular taxonomy-eligible economic activity is taxonomy-aligned, it must be established that,

> firstly, it makes a substantial contribution to the achievement of one or more EU environmental objectives ("substantial contribution"),
> secondly, it does not significantly harm any other EU environmental objective ("do no significant harm"),
> and thirdly, it will be practiced in compliance with minimum standards of protection ("minimum social safeguards").

The construction industry and real estate sector are covered by the taxonomy, as they are responsible for a substantial share of CO_2 emissions within the EU. Accordingly, companies operating in these industries can make a significant contribution to climate change mitigation (EU environmental objective 1) by reducing CO_2 emissions and improving energy efficiency.

Identification and Categorization of Economic Activities Eligible for Taxonomy

Alongside the letting of housing, our business model includes the development and construction of new rental units for the company's own stocks and for the purpose of sale. Vonovia is also a modern provider of housing-related services, such as energy services, senior-friendly apartment modernization, and caretaker and craftsmanship services.

Based on Annex I and Annex II of the delegated act of the EU taxonomy, Vonovia has analyzed all business activities and determined those that are deemed **taxonomy-eligible** based on the descriptions in the taxonomy. With regard to those activities that are deemed taxonomy-eligible, there are no changes as against the 2021 reporting year. In July 2022, Commission Delegated Regulation (EU) 2022/1214 was published (Delegated Regulation of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities). The amending regulation now classifies specific atomic energy and fossil gaseous fuels activities as environmentally sustainable economic activities as defined in the EU taxonomy, subject to certain conditions. The Vonovia Group itself does not conduct any activities relating to nuclear power or fossil gas.

Although Vonovia is already implementing individual measures to adapt to the effects of climate change, these are currently of secondary importance overall. Only economic activities that are taxonomy-eligible with regard to EU environmental objective 1 "Climate change mitigation" were therefore identified.

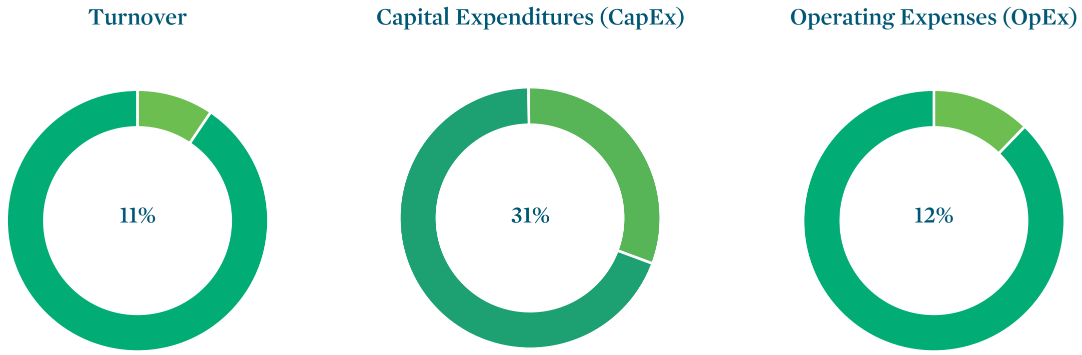
We have identified the following activities carried out by Vonovia as taxonomy-eligible with regard to EU environmental objective 1:

EU Taxonomy Criteria	Activities undertaken by Vonovia	Turnover	Capital Expenditures	Operating expenses
7.1 Construction of new buildings	Turnover from Development to sell	☑		
7.2 Renovation of existing buildings	Investments for energy modernizations		☑	
7.3 Installation, maintenance and repair of energy efficiency equipment	Investments for measures that are not covered by 7.2 (e.g. heating modernization, insulation, window replacement)		☑	
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Investments for charging stations and wallboxes		☑	
7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	Investments for metering technology and smart metering		☑	
7.6 Installation, maintenance and repair of renewable energy technologies	Investments for photovoltaic facilities		☑	
7.7 Acquisition and ownership of buildings	Turnover from rental income and recurring sales, investments for acquisitions, Development to hold and capitalized internal expenses without energy-related effects (e.g., major maintenance measures and vacant apartment renovations), operating expenses for non-capitalized maintenance (e.g., minor maintenance)	☑	☑	☑
4.1 Electricity generation using solar photovoltaic technology	Turnover from the sale of self-generated electricity to tenants and/or feed-in to the grid	☑		

Turnover from the condominium administration business, energy sales from VESG's energy trading activities, Deutsche Wohnen's Care segment, and multimedia are not taxonomy-eligible.

At Group level, the following key figures are obtained from the taxonomy-aligned shares of turnover, capital expenditure and operating expenses for the 2022 reporting year:

Taxonomy-aligned Shares of Vonovia's Business Activities



The largest share of taxonomy-aligned turnover can be attributed to the acquisition and ownership of buildings (activity 7.7), in particular rental income from taxonomy-aligned buildings. A large share of taxonomy-aligned capital expenditure is accounted for by the renovation of existing buildings (7.2) and the acquisition and ownership of buildings (7.7) in particular. The taxonomy-aligned operating expenses include only maintenance expenses from the income statement, including those relating to services provided by the internal craftsmen's organization.

Reviewing Taxonomy-eligible Economic Activities for Taxonomy Alignment

The taxonomy alignment of activities is reviewed at a number of different levels. As a general rule, substantial contribution to climate change mitigation is evaluated at the level of the respective asset, e.g., the respective rental, modernization or construction project. This does not include economic activities that can generally be assumed to make a substantial contribution to climate change mitigation without meeting specific criteria.

Compliance with the "do no significant harm" criteria is generally assessed at activity level, insofar as fundamental aspects of the business activity are subject to investigation, e.g., compliance with statutory law. Compliance with the "do no significant harm" criterion for EU environmental objective 2 "Climate change adaptation" was analyzed for the Group portfolio to assess the activity for any substantial negative impact. At Vonovia, the minimum social safeguards are also implemented at group level.

The EU Taxonomy Regulation and the corresponding delegated acts contain wording and provisions which, even taking into account the supplementary publications issued by the EU Commission, are subject to interpretation and for which clarifications have not yet been published in every case. As such, some of the discretionary decisions made here are based on the ways in which Vonovia has chosen to interpret the EU taxonomy.

Review of an Economic Activity's Substantial Contribution to the Achievement of One or More EU Environmental Objectives ("Substantial Contribution")

In the following, we explain how we assess compliance with the technical screening criteria relevant to us in the construction, residential property and energy sectors with regard to EU environmental objective 1.

In accordance with **Vonovia's business model, the relevant screening criteria for** determining taxonomy-aligned turnover stem from activities 7.1, 7.7 and 4.1:

Turnover associated with **new construction (activity 7.1)** is deemed taxonomy-aligned if the relevant buildings have a primary energy demand that is at least ten percent below the national standard for nearly zero-energy buildings. This is defined differently depending on the EU member state. In Germany, it is set out in the German Buildings Energy Act (GEG). The relevant buildings undergo the thermal integrity and airtightness test. These tests are carried out if either the buildings have a space of >5,000 sqm or they are required as part of the energy performance certificate. Where required to do so, Vonovia determines the global warming potential for each phase of the building life cycle (for buildings with a space of >5,000 sqm) using a model calculation of life cycle emissions based on emission factors that have been determined for different types of construction.

Turnover generated from the **acquisition and ownership of buildings (activity 7.7)** is deemed taxonomy-aligned if the relevant buildings, provided they were constructed before December 31, 2020, have been assigned energy efficiency class A (or better) or are among the top 15 percent of regional or national housing stock in terms of primary energy demand in operation. For buildings constructed after December 31, 2020, the same criteria for significant contribution to climate protection apply as for new construction (activity 7.1).

Vonovia checks compliance with the relevant threshold values by obtaining an energy performance certificate for each building. We base our assessment of the top 15 percent on relevant threshold values for primary energy demand for Germany, Austria and Sweden, which were determined by external experts in a recent benchmark study. If proof of consumption is available, primary energy consumption is applied in the same way as primary energy demand. Further information on the calculation is publicly available and can be found in the requirement criteria of the **Vonovia Sustainable Finance Framework**.

Turnover from **electricity generation using solar photovoltaic technology (activity 4.1)** is treated as a direct climate change mitigation measure in the EU Taxonomy Regulation, meaning that no additional technical criterion needs to be assessed.

In accordance with Vonovia's business model, the **relevant criteria** for determining taxonomy-aligned capital expenditure stem from activities 7.2, 7.3, 7.4, 7.5, 7.6 and 7.7:

At Vonovia, capital expenditure associated with the **renovation of existing buildings (activity 7.2)** always relates to energy-efficient modernization. This makes a substantial contribution to climate change mitigation if the renovation results in at least a 30 percent reduction in primary energy demand within three years or qualifies as a major renovation. In Germany, Vonovia checks compliance with this criterion through energy-efficiency assessments, which are carried out prior to each renovation and determine the savings potential. If these are not available, the savings are documented by the energy performance certificates. This applies to all countries. Capital expenditure as part of energy-efficient modernization projects is allocated to activity 7.2. Where it relates to individual investment measures such as heating modernization or window replacement, the capital expenditure is assigned to activity 7.3.

Capital expenditure on heating modernization, charging stations and wall boxes, measurement technology and smart metering, and photovoltaic systems is generally treated as a direct climate protection measure, meaning that no additional technical criteria need to be assessed. These measures are allocated to the following activities 7.3, 7.4, 7.5, and 7.6.

Activity **7.7 "Acquisition and ownership of buildings"** also includes capital expenditure from acquisitions, development to hold, investments not including energy efficiency measures (e.g., refurbishment of vacant apartments or major maintenance measures) or other internal expenses that can be capitalized. These qualify as taxonomy-aligned if the building-related technical valuation criteria are met.

In accordance with Vonovia's business model, the relevant criteria for determining **taxonomy-aligned operating expenses** stem from activity 7.7. This is non-capitalized maintenance (usually minor maintenance). In addition to maintenance services provided by third parties, this also includes services provided internally by the company's own craftsmen's organization.

Assessing Significant Harm of an Economic Activity on One or Several EU Environmental Objectives ("Do No Significant Harm")

In the following, we explain which "do no significant harm" criteria apply to our economic activities that have been identified as taxonomy-eligible and how we meet these criteria. Generally the criteria are EU regulations or directives that have been transposed into national law in Germany, Austria and Sweden.

In order to avoid significantly compromising **adaptation to the effects of climate change** (EU environmental objective 2), the EU taxonomy requires that a robust climate risk and vulnerability assessment be carried out for all taxonomy-aligned economic activities. Vonovia uses an IT tool to identify and evaluate physical climate risks for the Group-wide portfolio on a continuous basis using the prescribed climate scenarios (RCP2.6, RCP4.5 and RCP8.5) (see → **Environmental issues**). The risk assessment is based on scenario RCP4.5, which, according to the United Nations (UNEP Emissions Gap Report 2022), represents the probable increase in the global average temperature that will result from the national contributions to climate change mitigation that have currently been defined and implemented. In this scenario, no material risk has been identified for any of the climate-related hazards up to 2045. Therefore, no adaptation plan is required in accordance with the EU Taxonomy Regulation. As part of the neighborhood strategy, potential adaptations are to be defined at portfolio level in the future and subsequently implemented individually for the properties or neighborhoods for which there are material risks at the corresponding level.

With regard to the **sustainable use and protection of water and marine resources** (EU environmental objective 3), no criteria need to be assessed for the taxonomy-eligible economic activities, as these do not apply to **residential building units.** At Vonovia, the review of taxonomy alignment is limited to residential building units.

The requirements for the recycling and reuse of non-hazardous construction and demolition waste generated by new construction and renovation work for **transitioning to a circular economy** (EU environmental objective 4) are met through the implementation of the German Circular Economy Act (KrWG) or by means of other national legislation. The photovoltaic systems installed by Vonovia also meet the requirements for preventing significant harm to EU environmental objective 4 on account of their design and service life.

In **order to avoid and prevent environmental pollution** (EU environmental objective 5), compliance with certain EU directives must be ensured (listed in Appendix C to Annex 1 to the Supplement to EU Regulation 2020/852). This is regulated by law in Germany, Austria and Sweden. Vonovia only purchases and uses finished construction products that are approved within the EU, bear the CE mark, meaning that they have an EU declaration of conformity, which is consistent with the applicable EU legislation. Compliance with statutory requirements is defined in Vonovia's Business Partner Code that all subcontractors and suppliers have to sign. Vonovia has established a toxic materials management system to ensure the safe handling of toxic materials. Among other measures, safety fact sheets and operating instructions are kept for affected products and the company's own employees are trained on how to handle these products correctly from an occupational safety perspective. Given the shortage of housing, new construction is crucially important for society. The same applies to energy-efficient building refurbishment, as well as to the installation, maintenance and repair of energy-efficient systems. These measures to decarbonize the real estate portfolio and to continually improve energy efficiency help, for example, to save heating costs, taking pressure off tenants and at the same time improving the quality of housing and life for society.

Vonovia's economic activities do not significantly harm the achievement of EU environmental objective 6 (**protection and restoration of biodiversity and ecosystems**), as Vonovia only builds in designated areas. Relevant aspects are taken into account by the competent authorities in the approval procedures preceding such activities.

Compliance with Minimum Standards at Group Level ("Minimum Social Safeguards")

We are committed to our human rights due diligence obligations and align our conduct with internationally recognized frameworks such as the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.

Vonovia adopts a Group-wide approach to meeting minimum safeguards: comprehensive procedures forming part of the compliance management system, including Group-wide guidelines and complaints mechanisms, have been put in place to prevent and uncover violations (see → **Combating Corruption and Bribery**).

Accordingly, the findings from the investigations conducted by the public prosecutor's office that have been disclosed were taken into account for the calculation of the taxonomy-aligned key figures. In doing so, the performance indicators for economic activities 7.3 and 7.7 were slightly reduced by the estimated share of turnover or capital expenditure and operating expenses in connection with increased services in the Technical Building Services business area which are the subject of the investigation proceedings.

A due diligence process to prevent business activities negatively impacting people and the environment forms the core element of compliance with minimum safeguards. Vonovia implements this process based on the OECD guidelines and has implemented all recommended due diligence steps: integrating human rights due diligence into strategy and processes and adopting a declaration of commitment, performing a regular risk analysis to identify and assess potentially negative impacts in consultation with stakeholders, implementing measures to end, prevent, mitigate and correct any failings in this regard, including monitoring such measures and reviewing their effectiveness, and communicating with the public regarding the approach taken and the measures implemented in order to fulfill human rights due diligence obligations. More information on the implementation of human rights due diligence at Vonovia can be found in the section entitled → **Respect for Human Rights**.

Performance Indicators

Definition and Calculation Method

In order to determine the key figures (KPIs) that are to be reported, the taxonomy-eligible and taxonomy-aligned net turnover, capital expenditure and operating expenses are calculated as a share of the total net turnover, capital expenditure and operating expenses that are to be taken into account in accordance with EU taxonomy requirements. The definition of each KPI is based on Annex I of the Delegated Act on Article 8 on the content and presentation of the information to be disclosed.

Duplicate counting is avoided by means of direct allocation of the taxonomy-eligible or taxonomy-aligned turnover, capital expenditure and operating expenses to a taxonomy-eligible or taxonomy-aligned economic activity.

Turnover

The Group's consolidated turnover is taken into account in the denominator (total net turnover). For more details on accounting methods, please refer to the accounting and valuation methods within the Notes to the IFRS consolidated financial statements → **[B10] Income from property management**, → **[B11] Profit on the disposal of properties** and → **[B12] Profit on the disposal of properties (development)**.

Taxonomy-aligned net turnover (numerator) is comprised of amounts generated through taxonomy-aligned economic activities. Rental income from the Rental segment accounts for the largest share of turnover (€ 593 million). In this case, compliance is assessed on a building-by-building basis taking into account the technical criteria for activity 7.7. Turnover from completed residential properties for our own use (development to hold) has been reported under turnover for 7.7. based on the completion date. The addition of Deutsche Wohnen increased the taxonomy-eligible turnover from activity 7.7 by € 2,337 million year-on-year.

The turnover from development to sell (€ 354 million), which is shown under activity 7.1, is based on the proceeds from the disposal of new builds. The turnover for activity 4.1 (€ 1.4 million) is generated by the feed-in tariff paid for supplying electricity to the grid as well as the direct sale of electricity to tenants.

Completed residential property for our own use (development to hold) is shown in the consolidated financial statements as capital expenditure under 7.7; no turnover is gained from this. The internal turnover of the Value-add companies, e.g., services provided by craftsmen, is eliminated in the course of Group consolidation and is therefore not taken into account in taxonomy-eligible turnover. If the services provided internally are larger projects, e.g., energy-efficient modernization measures, they are capitalized and shown as capital expenditure (CapEx).

Capital Expenditures

In accordance with the EU taxonomy, the denominator for capital expenditure (CapEx) is composed of additions to property, plant and equipment and intangible assets. As such, Vonovia incurs amounts that are recognized as additions on the basis of IAS 16.73(e) (i) and (iii), IAS 38.118 (e) (i), IAS 40.76 (a) and (b) and IFRS 16.53 (h) pursuant to this definition. For accounting details, please refer to chapters → **[D26] Intangible assets**, → **[D27] Property, plant and equipment** and → **[D28] Investment properties in the Notes to the IFRS consolidated financial statements.** The individual additions were taken into account when calculating the denominator. As far as investment properties are concerned, there were also transfers from advance payments to IPs due to the transfer, in economic terms, of a purchased new construction in the reporting year.

For projects lasting several years in the areas 7.2, 7.3 or 7.7, the capitalized amount for the relevant reporting year is reported as taxonomy-eligible and, provided the relevant criteria are met, taxonomy-aligned capital expenditure. For activities 7.4, 7.5 and 7.6, the capital expenditure is shown in the year of asset capitalization. When it comes to capital expenditure, the EU Taxonomy Regulation makes a distinction between different categories of capital expenditure. Due to Vonovia's business model, it largely invests (activity 7.2. and 7.7.) in assets or processes associated with economic activities that are taxonomy-aligned (category A). It also makes investments (activity 7.3.–7.6.) relating to the acquisition of products from taxonomy-eligible economic activities and individual measures through which the target activities are carried out in a low-carbon manner or the emission of greenhouse gases is lowered (category C).

With regard to developed land, the CapEx for buildings and land has been included as additions, as economic activity 7.7. cannot be performed without the relevant land. In addition, as the building is one of the key components of a plot of land, the building and the plot of land are considered one and the same legal entity.

Capital expenditure in the context of Vonovia's capitalized internal expenses is reviewed for taxonomy alignment and allocated to 7.2, 7.3 or 7.7 depending on the type of investment. In order to avoid duplicate counting of capital expenditure, the items are allocated to just one activity in each case. Taxonomy alignment is assessed for each building or project. In addition to capitalized internal expenses, the addition of other property, such as development to hold additions or other acquisitions of investment properties, is reported under 7.7.

With regard to economic activity 7.1, the corresponding properties do not constitute fixed assets but rather are reported within current assets in the real estate inventories (see → **[D36] Real Estate Inventories**) or receivables, and are therefore not included in the denominator of the key figure for taxonomy-relevant capital expenditure.

The taxonomy-aligned capital expenditure (numerator) comprises aligned Development to Hold additions (€ 256 million), aligned modernization measures pursuant to activity 7.2 (€ 239 million), additions of purchased real estate (€ 143 million), capitalized right-of-use assets (€ 50 million), capitalization due to measures in taxonomy-aligned buildings (€ 44 million), aligned individual measures pursuant to activity 7.3 (€ 27 million) and additions relating to property, plant and equipment (€ 16 million). The property, plant and equipment comprises measurement technology (€ 6 million), photovoltaic systems (€ 6 million) and heating systems (€ 4 million). There were no additions resulting from business combinations during this reporting year. The absolute value and the relative share of taxonomy-eligible capital expenditure decreased year-on-year due to the inclusion of Deutsche Wohnen in 2021. € 28 billion in investment property additions were recorded as a result of this merger. This brought about a significant increase in the taxonomy-eligible share, which grew to 98 percent.

We have issued green bonds on the capital market based on the **Vonovia Sustainable Finance Framework 2022**. The proceeds from these issues are used exclusively to (re)finance real estate that has been confirmed to be green. We use a portfolio-based approach, which means that funds cannot be allocated to specific properties. As a result, it was not possible to make adjustments for the taxonomy-aligned capital expenditure financed using these bonds or debentures, or corresponding turnover from environmentally sustainable buildings for the purposes of reporting the taxonomy-aligned performance indicators.

Operating Expenses

Pursuant to the EU taxonomy, the operating expenses (OpEx) denominator encompasses direct, non-capitalized expenses relating to research and development, building renovation measures, short-term leasing, maintenance and repair, as well as all other direct expenses in connection with day-to-day maintenance of property, plant and equipment that are necessary in order to ensure the continuous and effective functionality of these assets. To this extent, this is an addition to the performance indicator of the recognized capital expenditure values rather than a full presentation of the operating expenses of Vonovia, as shown under Section → [B15] Cost of Materials in the Notes to the consolidated financial statements.

We regard direct expenses as those expenses that can be clearly attributed to an identified activity, but not to a specific building. Pursuant to the requirements, we include expenses for upkeep and repair (maintenance) when defining the denominator. Expenses for research and development and short-term leasing are usually capitalized and therefore part of capital expenditure. At Vonovia, maintenance measures are mainly carried out by the internal craftsmen's organization, which is why we also include these items (technicians' and administrative costs) in the denominator. The non-taxonomy-eligible shares, e.g., condominium administration maintenance expenses, are not taken into account. Duplicate counting is avoided due to the fact that capitalized shares, as capital expenditure, reduce maintenance costs accordingly. The remaining maintenance expenses form the denominator. Minor repairs are therefore included in the denominator. These maintenance costs and, in particular, the personnel costs associated with the company's own staff cannot be allocated separately to the individual buildings when posting expenses. In addition, the operating expenses incurred for the individual activities 7.2. to 7.7. cannot be attributed individually. Vonovia thus allocates all maintenance costs to activity 7.7. We use an allocation factor to determine the taxonomy-aligned data. This allocation factor for maintenance expenses is based on the area of the building (in sqm). This share is multiplied by the taxonomy-eligible operating expenses to calculate the numerator. The share of green sqm in relation to the total area is 12.9%.

In this case, operating expenses are comprised of € 729 million for maintenance (see → [B15] Cost of Materials), less € 602 million for the capitalized share and € 272 million from our own craftsmen's organization. € 19 million of the maintenance expenses is attributable to condominium administration. This activity is not taxonomy-eligible. As a result, the numerator is calculated as 12.9% of € 381 million.

The addition of Deutsche Wohnen increased the taxonomy-eligible operating expenses by € 68 million year-on-year.

Presentation of Performance Indicators Linked to Taxonomy-eligible and Taxonomy-aligned Economic Activities

In order to comply with regulatory requirements for the 2022 fiscal year, Vonovia discloses the following shares in performance indicators that are associated with taxonomy-aligned and non-taxonomy-aligned economic activities. As of the 2023 reporting year, we also plan to report on the taxonomy-eligible and taxonomy-aligned share of the performance indicators with regard to the additional EU environmental objectives 3 to 6. Furthermore, we will include prior-year figures on taxonomy alignment for EU environmental objectives 1 and 2 in the reporting (see Article 8 (3) of the Delegated Act on Article 8 regarding the content and presentation of the information that is to be disclosed).

Turnover

Economic Activities	Code(s)	Absolute turnover	Proportion of turnover	Substantial contribution criteria* Climate Change mitigation	Climate Change adaptation**	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems
		€ m	%	%	%	%	%	%	%
A. Taxonomy-eligible activities									
A.1 Environmental sustainable activities (Taxonomy-aligned)									
7.1 Construction of new buildings	F41.1, F41.2, F43	354	3.9	3.9	0.0	–	–	–	–
7.7 Acquisition and ownership of buildings	L68	593	6.6	6.6	0.0	–	–	–	–
4.1 Electricity generation using solar photovoltaic technology	D35.11	1	0.0	0.0	0.0	–	–	–	–
Turnover of environmental sustainable activities (Taxonomy-aligned)		**949**	**10.6**	**10.6**	**0.0**	**–**	**–**	**–**	**–**
A.2 Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)									
7.1 Construction of new buildings	F41.1, F41.2, F43	234	2.6	2.6	0.0	–	–	–	–
7.7 Acquisition and ownership of buildings	L68	7,414	82.5	82.5	0.0	–	–	–	–
4.1 Electricity generation using solar photovoltaic technology	D35.11	0	0.0	0.0	0.0	–	–	–	–
Turnover of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)		**7,648**	**85.1**	**85.1**	**0.0**	**–**	**–**	**–**	**–**
Total (A.1 + A.2)		**8,597**	**95.7**	**95.7**	**0.0**	**–**	**–**	**–**	**–**
B. Taxonomy-non-eligible activities									
Turnover of Taxonomy-non-eligible activities		386	4.3						
Total (A + B)		**8,983**	**100.0**						

* For the reporting year 2022, the disclosure of the performance indicators covers EU environmental objectives 1 and 2. The determination and disclosure of the taxonomy-aligned portions of the performance indicators with reference to EU environmental objectives 3 to 6 is not part of the reporting requirement for fiscal year 2022.

** Vonovia discloses taxonomy-aligned shares of business activities related to EU environmental objective 1 (climate change mitigation). We have not identified any significant contribution of our business activities to EU environmental objective 2 (climate change adaptation). DNSH criteria are not available for all taxonomy-relevant activities of Vonovia. Since there is no significant harm on the respective EU environmental objective in these cases either, we have entered "Y" accordingly.

*** In accordance with reporting requirements, the prior-year figures will be disclosed for the first time for the reporting year 2023.

DNSH criteria									Category	
Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of turnover 2022	Taxonomy-aligned proportion of turnover 2021***	Enabling activity	Transitional activity
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
–	Y	Y	Y	Y	Y	Y	3.9	–		
–	Y	Y	Y	Y	Y	Y	6.6	–		
–	Y	Y	Y	Y	Y	Y	0.0	–		
–	–	–	–	–	–	–	10.6	–		
–	–	–	–	–	–	–	–	–		
–	–	–	–	–	–	–	–	–		
–	–	–	–	–	–	–	–	–		
–	–	–	–	–	–	–	–	–		
–	–	–	–	–	–	–	–	–		

CapEx

Economic Activities	Code(s)	Absolute CapEx	Proportion of CapEx	Substantial contribution criteria*: Climate Change mitigation	Climate Change adaptation**	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems
		€ m	%	%	%	%	%	%	%
A. Taxonomy-eligible activities									
A.1 Environmental sustainable activities (Taxonomy-aligned)									
7.2 Renovation of existing buildings	F41, F43	239	9.6	9.6	0.0	–	–	–	–
7.3 Installation, maintenance and repair of energy efficiency equipment	F43, C33.12	80	3.2	3.2	0.0	–	–	–	–
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	F43	1	0.0	0.0	0.0	–	–	–	–
7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	F43	7	0.3	0.3	0.0	–	–	–	–
7.6 Installation, maintenance and repair of renewable energy technologies	F43	6	0.2	0.2	0.0	–	–	–	–
7.7 Acquisition and ownership of buildings	L68	443	17.9	17.9	0.0	–	–	–	–
CapEx of environmental sustainable activities (Taxonomy-aligned)		**774**	**31.2**	**31.2**	**0.0**	**–**	**–**	**–**	**–**
A.2 Taxonomy-eligible but not environmental sustainable activities (not Taxonomy aligned activities)									
7.2 Renovation of existing buildings	F41, F43	256	10.3	10.3	0.0	–	–	–	–
7.3 Installation, maintenance and repair of energy efficiency equipment	F43, C33.12	0	0.0	0.0	0.0	–	–	–	–
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	F43	0	0.0	0.0	0.0	–	–	–	–
7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	F43	0	0.0	0.0	0.0	–	–	–	–
7.6 Installation, maintenance and repair of renewable energy technologies	F43	0	0.0	0.0	0.0	–	–	–	–
7.7 Acquisition and ownership of buildings	L68	1,359	54.7	54.7	0.0	–	–	–	–
CapEx of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)		**1,615**	**65.0**	**65.0**	**0.0**	**–**	**–**	**–**	**–**
Total (A.1 + A.2)		**2,389**	**96.2**	**96.2**	**0.0**	**–**	**–**	**–**	**–**
B. Taxonomy-non-eligible activities									
CapEx of Taxonomy-non-eligible activities		**94**	**3.8**						
Total (A + B)		**2,483**	**100.0**						

* For the reporting year 2022, the disclosure of the performance indicators covers EU environmental objectives 1 and 2. The determination and disclosure of the taxonomy-aligned portions of the performance indicators with reference to EU environmental objectives 3 to 6 is not part of the reporting requirement for fiscal year 2022.

** Vonovia discloses taxonomy-aligned shares of business activities related to EU environmental objective 1 (climate change mitigation). We have not identified any significant contribution of our business activities to EU environmental objective 2 (climate change adaptation). DNSH criteria are not available for all taxonomy-relevant activities of Vonovia. Since there is no significant harm on the respective EU environmental objective in these cases either, we have entered "Y" accordingly.

*** In accordance with reporting requirements, the prior-year figures will be disclosed for the first time for the reporting year 2023.

DNSH criteria									Category	
Climate Change mitigation	Climate Change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CapEx 2022	Taxonomy-aligned proportion of CapEx 2021***	Enabling activity	Transitional activity
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
–	Y	Y	Y	Y	Y	Y	9.6	–		T
–	Y	Y	Y	Y	Y	Y	3.2	–	E	
–	Y	Y	Y	Y	Y	Y	0.0	–	E	
–	Y	Y	Y	Y	Y	Y	0.3	–	E	
–	Y	Y	Y	Y	Y	Y	0.2	–	E	
–	Y	Y	Y	Y	Y	Y	17.9	–		
–	**–**	**–**	**–**	**–**	**–**	**–**	**31.2**	**–**		
–	–	–	–	–	–	–	–	–		T
–	–	–	–	–	–	–	–	–	E	
–	–	–	–	–	–	–	–	–	E	
–	–	–	–	–	–	–	–	–	E	
–	–	–	–	–	–	–	–	–	E	
–	–	–	–	–	–	–	–	–		
–	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**		
–	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**		

OpEx

Economic Activities	Code(s)	Absolute OpEx	Proportion of OpEx	Substantial contribution criteria* Climate Change mitigation	Climate Change adaptation**	Water and marine resources	Circular economy	Pollution	Biodiversity and ecoysystems
		€ m	%	%	%	%	%	%	%
A. Taxonomy-eligible activities									
A.1 Environmental sustainable activities (Taxonomy-aligned)									
7.7 Acquisition and ownership of buildings	L68	49	12.3	12.3	0.0	–	–	–	–
OpEx of environmental sustainable activities (Taxonomy-aligned)		49	12.3	12.3	0.0	–	–	–	–
A.2 Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)									
7.7 Acquisition and ownership of buildings	L68	331	82.9	82.9	0.0	–	–	–	–
OpEx of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)		331	82.9	82.9	0.0	–	–	–	–
Total (A.1 + A.2)		381	95.3	95.3	0.0	–	–	–	–
B. Taxonomy-non-eligible activities									
OpEx of Taxonomy-non-eligible activities		19	4.7						
Total (A + B)		**399**	**100.0**						

* For the reporting year 2022, the disclosure of the performance indicators covers EU environmental objectives 1 and 2. The determination and disclosure of the taxonomy-aligned portions of the performance indicators with reference to EU environmental objectives 3 to 6 is not part of the reporting requirement for fiscal year 2022.

** Vonovia discloses taxonomy-aligned shares of business activities related to EU environmental objective 1 (climate change mitigation). We have not identified any significant contribution of our business activities to EU environmental objective 2 (climate change adaptation). DNSH criteria are not available for all taxonomy-relevant activities of Vonovia. Since there is no significant harm on the respective EU environmental objective in these cases either, we have entered "Y" accordingly.

*** In accordance with reporting requirements, the prior-year figures will be disclosed for the first time for the reporting year 2023.

DNSH criteria									Category	
Climate Change mitigation	Climate Change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of OpEx 2022	Taxonomy-aligned proportion of OpEx 2021***	Enabling activity	Transitional activity
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
–	Y	Y	Y	Y	Y	Y	12.3	–		
–	**–**	**–**	**–**	**–**	**–**	**–**	**12.3**	**–**		
–	–	–	–	–	–	–	–	–		
–	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**		
–	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**		

Reporting on Aspects of the Non-financial Group Declaration

The Non-financial Group Declaration sets out the relevant concepts, the accompanying due diligence processes, the results of the concept and the status of implementation of the measures for each material topic.

Vonovia has prepared Group guidelines for describing the concepts and their implementation, which Deutsche Wohnen has adopted in the course of its integration. As such, the Group's regulations, concepts and processes are thus also adapted to the new business activities.

Unless stated otherwise, the concepts presented for the 2022 reporting year still apply to the Vonovia Group excluding Deutsche Wohnen.

Nine out of the ten topics that are material for Vonovia can be allocated to the aspects covered by the German Commercial Code (HGB) in the context of the Non-financial Group Declaration:

> Environmental issues: reducing CO_2 in real estate portfolio/sustainable new construction and refurbishment
> Social issues: Neighborhood development and contribution to infrastructure/fairly priced housing/homes that meet people's needs and demographic change/customer satisfaction and service quality
> Employee issues: Appeal as an employer/diversity and equal opportunities
> Combating corruption and bribery: Governance and compliance

"Appeal on the capital market" has been identified as an additional material topic for Vonovia. Information on the "Respect for human rights" aspect, which is a requirement under the German Commercial Code (HGB), is also reported in the Non-financial Group Declaration.

Environmental Issues

Environmental issues include the following material topics for Vonovia: "Reducing CO_2 in the real estate portfolio" and "Sustainable new construction and refurbishment" (see → **Materiality Matrix**).

The mitigation of global warming and the protection of natural resources for life on earth are some of the most important challenges facing society as a whole in our time. As such, environmental and climate protection is accorded paramount importance within our sustainability strategy. Targets set at international level, such as the Paris Agreement and the European Union Green Deal, as well as those set at national level, such as the goal set by the German Federal Government to achieve climate neutrality by 2045, are of high significance for Vonovia in this regard.

As Europe's housing industry market leader with our own real estate portfolio of 548,524 residential units and our development activities, we possess significant levers for protecting the environmental and climate. Here, our main concern is greenhouse gas emissions that can be largely influenced directly, known as scope 1 & 2 emissions. These are produced by supplying heat and hot water to our buildings, with the majority of our housing stock being located in Germany. Greenhouse gas emissions from the upstream value chain and other environmental aspects are also becoming increasingly important to us.

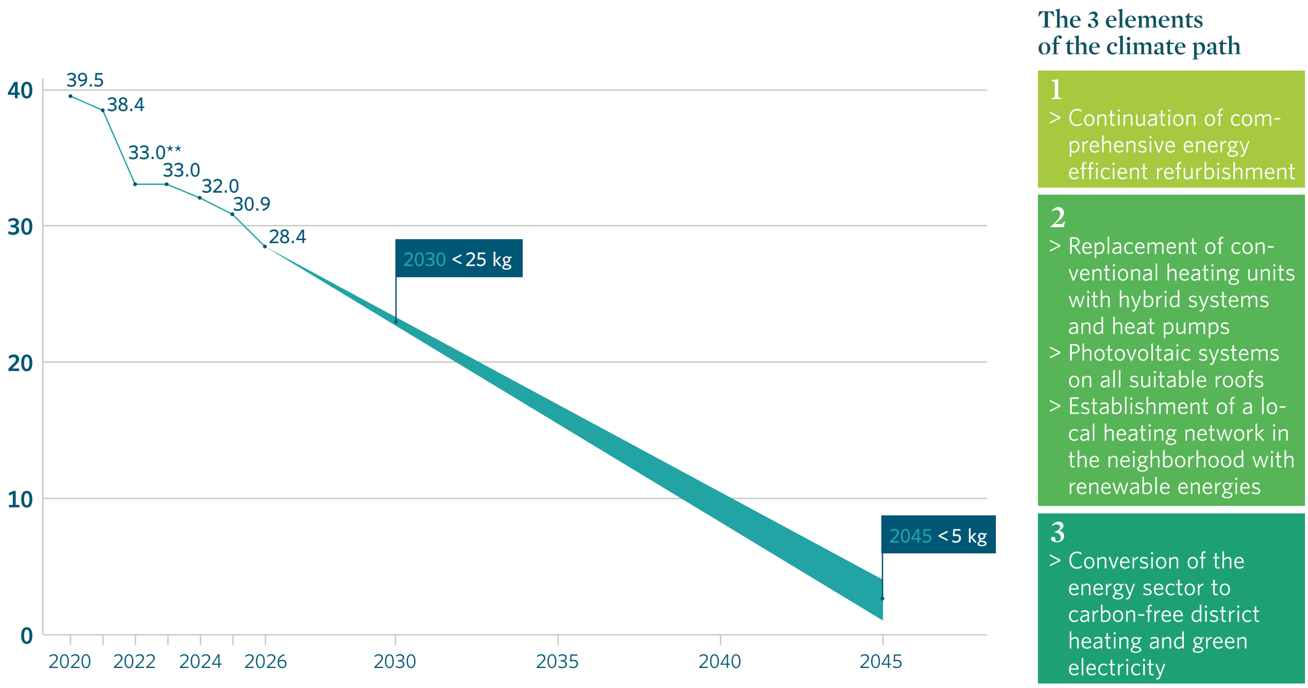
Vonovia has set itself the target of achieving a virtually climate-neutral housing stock by 2045, **with carbon intensity of less than 5 kg of CO_2 equivalents per sqm of rental area**. By 2030, our housing stock in Germany is to have a CO_2 intensity of less than 25 kg CO_2e/sqm. These targets remain unchanged following the merger with Deutsche Wohnen and were confirmed in 2022. Binding interim targets for the next five years have also been defined.

During the reporting year, we had the Vonovia climate pathway's compatibility with the Paris Agreement target calculated using the XDC model from right.based on science. The XDC model converts CO_2 emissions based on our climate pathway into a number of degrees that shows by how much the earth's temperature would increase if the entire world's climate performance were identical to that of Vonovia. This calculation reveals that, taking into account sales that are already planned, **Vonovia's climate pathway is compatible with global warming of 1.4° Celsius.** The 1.5° target path of the Carbon Risk Real Estate Monitor (CRREM) for multifamily homes in Germany (as at 07/2021) was used as a benchmark.

Defining and implementing the climate pathway is part of our systematic way of tackling climate change – with regard to both Vonovia's contribution to mitigating climate change and the effects of climate change on our company's economic development. Our climate pathway combines grand ambitions for CO_2 reduction with the economic efficiency required to implement them. In continuing to develop this path further, we maintain an overview of the risks, e.g., those resulting from future increases in prices for causing CO_2 emissions or the impact of climate change on our buildings, as well as the opportunities, e.g, in the form of climate-resilient and particularly competitive neighborhoods. The recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) constitute important guidance in this regard.

Vonovia's Climate Pathway: Strategy for Decarbonizing the Housing Stock

CO_2 intensity in kg CO_2e/m^2a*



* Includes scopes 1 & 2 as well as scope 3.3 "Fuel- and energy-related activities upstream"; referring to German building stock. Development of the energy sector according to the Agora Energiewende KNDE 2045 scenario; comparison: CRREM path MFH 1.5° DE 2045 = 5.4 kg/CO_2/m² (July 2021); development of climate path supported by Fraunhofer ISE.
** Carbon intensity in 2022 better than was assumed at time of planning.

During the reporting year, Vonovia developed an IT tool in partnership with Deutsche Wohnen in accordance with EU taxonomy requirements in order to analyze the physical risks associated with climate change. This tool enables physical climate risks to be identified and evaluated for the Group-wide portfolio on a continuous basis using the prescribed climate scenarios (RCP2.6, RCP4.5 and RCP8.5).

This **climate risk tool** covers Vonovia's portfolio and development projects in Germany, Austria and Sweden and allows analysis of material negative impacts on our business activities due to the effects of climate change at portfolio and property level. The climate risks examined using this tool are heat, cold, drought, increases in precipitation, wind and storms, snow loads and flooding. Depending on the granularity of the available data source, we measure climate risks at the property or neighborhood level and are able to complete a climate risk assessment for each building in the portfolio.

The risk assessment is based on scenario RCP4.5, which, according to the United Nations (UNEP Emissions Gap Report 2022), represents the probable increase in the global average temperature that will result from the national contributions to climate change mitigation that have currently been defined and implemented. In this scenario, no material risk has been identified for any of the climate-related hazards up to 2045.

As part of the neighborhood strategy, potential adaptations are to be defined at portfolio level in the future and subsequently implemented individually for the properties or neighborhoods for which there are material risks at the corresponding level. Adaptation measures include, in particular, insulating buildings and replacing windows to provide protection against heat and cold, creating shade using blinds and shutters, and installing suitable equipment designed to handle the infiltration and absorption of larger amounts of precipitation. In the future, the individual findings from the climate risk analysis will be incorporated into the specific neighborhood profiles that provide the guidelines for managing a neighborhood.

Implementation of the TCFD Recommendations at Vonovia

Content of the Recommendations	Implementation at Vonovia	Further Information
Governance		
Organizational Structure of the Company Regarding Climate-Related Risks and Opportunities	> The entire Management Board bears responsibility for sustainability and climate protection, as well as climate-related risks and opportunities. > The Sustainability Committee – comprising the entire Management Board and representatives of the central functional departments Sustainability/Strategy, Controlling, Communication, Investor Relations and Accounting – determines the strategy and targets and monitors progress. > The central department Sustainability/Strategy, within the executive division of the CEO, coordinates and spearheads the development and implementation of relevant measures. > Climate-related risks are calculated and collated on a half-yearly basis as part of the company-wide risk management process; the process is coordinated by Controlling, with the Management Board taking the final decision on the risk assessment. > Energy efficiency modernization in the existing portfolio in Germany is the responsibility of the CRO (Regions and Portfolio Management); for Austria, the CDO is responsible, for Sweden the CEO of Victoriahem. > The Value-add segment is responsible for the technical implementation and use of new technologies. > The central non-financial performance indicator is the Sustainability Performance Index (SPI), which includes the carbon intensity of the housing stock in Germany and the primary energy consumption targets for development projects.	**2022 Annual Report:** **The Company** **Corporate Structure** **Sustainability Management at Vonovia** **Management System** **Environmental Issues** **Opportunities and Risks** **2021 Sustainability Report:** **Environment and Climate** **Management of Opportunities and Risks**
Strategy		
Actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning	> As key drivers of long-term business success, climate protection and CO_2 reduction are fundamental components of the corporate strategy. > A binding climate pathway, taking into account various scenarios, defined in cooperation with the scientific community. > An extensive modernization program to increase energy efficiency, as well as the use of neighborhood solutions with renewable energies (fuel switch). > No material physical risks currently determined; transitory risks including through legislation in Germany (CO_2 pricing) and the European Union, as well as through a lack of cost-effectiveness of energy efficiency modernization and the development of renewable energy generation (balance between investments and capacity for passing on costs/affordability for tenants). > Opportunities can be found, in particular, in optimization at neighborhood level and our own decentralized energy generation for supplying heat and providing tenants with electricity from renewable energy sources, especially photovoltaics.	**2022 Annual Report:** **Strategy** **Sustainability Management at Vonovia** **Environmental Issues** **Risk Assessment Based on Sustainability Aspects** **2021 Sustainability Report:** **Environment and Climate** **New Construction and Conversions**
Risk Management		
How the Organization Identifies, Assesses, and Manages Climate-Related Risks	> Climate-related risks form part of the company-wide risk management process; half-yearly evaluation of all risks by the management. > Physical risks are analyzed in a separate tool using various IPCC scenarios. Material risks are addressed in the further development of the neighborhoods and in the planning for development projects, and appropriate potential adaptations are defined and implemented. > The climate risk analysis performed using the climate risk tool does not indicate any material physical risks for Vonovia's housing stock.	**2022 Annual Report:** **Environmental Issues** **Risk Assessment Based on Sustainability Aspects** **Opportunities and Risks** **2021 Sustainability Report:** **Management of Opportunities and Risks**
Metrics and Targets		
Metrics and Targets Used to Assess and Manage Relevant Climate-Related Risks and Opportunities	> Comprehensive carbon footprint for the housing stock and business operations in accordance with the GHG Protocol and IW.2050 > CO_2e in the portfolio (in Germany) in 2022: 1,019,431 metric tons (scopes 1,2,3*) > Expansion of renewable energies through PV: 533 systems with a nominal output of 19.3 MWp Targets: > Virtually climate-neutral housing stock by 2045 (< 5 kg CO_2e per sqm rental area) > Reduction of CO_2 intensity from current level of 33.0 to less than 25 kg CO_2e per sqm of rental area by 2030 in Germany > Installation of photovoltaic systems with a nominal output of around 280 MWp by 2030 > Reduction in average primary energy consumption in new buildings to 27 kWh per sqm by 2025	**2022 Annual Report:** **Strategy** **Management System** **Environmental Issues** **2021 Sustainability Report:** **Environment and Climate** **Sustainable Construction and Development** **Environmental Key Figures**

* Scope 3.3 "Fuel and energy-related emissions upstream"

CO_2 Reduction in the Real Estate Portfolio

The **CO_2 intensity of the building portfolio** represents the central indicator of our climate performance management. It is also an extremely important component of the Sustainability Performance Index (SPI) and therefore of the Corporate Management System. In the reporting year, the CO_2 intensity for our housing stock in Germany was **33.0 kg CO_2e/sqm** (2021: 38.4 kg CO_2e/sqm, excluding Deutsche Wohnen). As we switched to using the Carnot method to calculate district heating CO_2 emissions in the reporting year, as announced in the previous year, the values are not entirely comparable. Once adjusted for method, there is a reduction of around 10 % compared with the previous year's figure (CO_2 intensity in 2021 taking into account the Carnot method: 35.6 kg CO_2e/sqm, excluding Deutsche Wohnen). CO_2 intensity has therefore already reached the level planned for 2023. In addition to the modernization measures, this can also be attributed to our further improved monitoring, as part of which numerous energy performance certificates were updated and the specific emission values of a major district heating supplier were taken into account. As we have already met the original 33.0 kg CO_2e/sqm target for 2023, the lowered expectations for modernization in 2023 due to the increase in construction costs and changes in the interest rate environment do not jeopardize our chances of staying on our climate pathway.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Carbon intensity of the housing stock Vonovia SE (in Germany)*	kg CO_2e/ m^2 living area	38.4 **	33.0	Roughly same level as the previous year***

* Total portfolio, based on final energy demand from energy performance certificates and related to rental space, in some cases including specific CO_2 factors from district heating suppliers.
** Exclusive Deutsche Wohnen.
*** Carbon intensity in 12/2022 lower than expected in planning, therefore target value in 2023 roughly at previous year's level.

We have identified three levers for implementing Vonovia's climate pathway: comprehensive energy-efficient modernization work, increasing the share of renewable energies within neighborhoods and a fundamental transformation of the energy sector.

Energy-related modernization to improve energy efficiency is an essential pillar of our climate pathway. In order to determine the optimal modernization path for the portfolio, Vonovia developed the decarbonization tool (DCT), which includes both environmental and economic targets. The DCT shows how the various neighborhoods need to be modernized in order to meet the Group's overall target and the time frame in which this must be done. Differentiated solutions will be identified for all neighborhoods in the future, which are then set out in more specific detail in the development plans for each particular neighborhood.

For this purpose, a new end-to-end process for ensuring efficient cooperation between all departments involved in neighborhood development was defined during the reporting year. The neighborhood advisors provide an interface between the various stakeholders, bundle requirements and information in the context of neighborhood development and act as the link between Vonovia's internal departments. In the future, this will allow the different neighborhoods to be treated individually, and tailored, economically viable concepts to be developed in terms of a modular system for scalable solutions that focus on linking the heat, electricity and mobility sectors. In doing so, we adopt a holistic view of the neighborhood, examining both the modernization of the building envelope (insulation of facades, basement ceilings and attics, and replacement of windows) and the conversion of the energy supply to climate-friendly systems in their wider context. We believe that many integrated solutions for energy provision with renewable energies and CO_2 optimization can only be implemented in a technically feasible and economically viable way within larger neighborhoods.

The Portfolio Management department, which reports to the Chief Rental Officer (CRO), is responsible for coordinating the energy-efficient modernization activities. The neighborhoods to be modernized are selected in a targeted manner in cooperation with the regions, and the optimal degree of modernization for each building is defined. The investments for the modernization programs are approved by the Management Board as a whole.

Public-sector subsidy programs are being used for many of the modernization measures in order to minimize the costs for our tenants. Here, the federal subsidy program for energy-efficient buildings (BEG) play a particularly crucial role. Planning in the real estate sector involves long timescales and is complex, especially in a neighborhood context. The BEG's subsidy eligibility conditions, however, which changed multiple times at short notice, made it much more difficult for us to plan in the reporting year.

For us to be able to successfully implement our climate pathway, we need reliable framework conditions and predictable subsidy eligibility conditions. While the inclusion of district heating in the CO_2 Cost Sharing Act provides an incentive to reduce emissions, it also represents an additional liability for future investment opportunities.

A total **refurbishment rate of 1.9 %** (excluding Deutsche Wohnen) was achieved in the reporting year. The year-on-year drop (2021: 2.3 %) is, among other things, attributable to the new conditions for subsidies and the adjustments to the internal management system to focus on the neighborhood level, which requires more complex and therefore longer planning. In the year ahead, the refurbishment rate is expected to fall between 0.3% and 0.8% due to the challenging interest rate environment, increased construction costs and reduced subsidies.

Material Performance Indicator

Category	Unit	2021	2022	Projection for 2023
Refurbishment rate (in Germany)*	%	2.3	1.9	0.3–0.8

* Excluding Deutsche Wohnen, planned value 2023 including Deutsche Wohnen.

In order to make energy-efficient building refurbishment even more cost-effective in the medium and long term, we continued to forge ahead with serial refurbishment in the reporting year. In Bochum, a refurbishment project comprising 24 apartments was completed in accordance with the Energiesprong principle. Preparations for further serial refurbishment projects are currently underway. Additionally, Vonovia is undertaking remote digital monitoring of heating systems to ensure optimized operational management and early detection of faults.

With regard to heating modernization, we have begun to ramp up the electrification of heat production against the backdrop of the current situation on the energy markets. We therefore launched a heat pump initiative in the reporting year, allowing us to play a pioneering role in the installation of heat pumps in multifamily homes. This represents a further step in the implementation of our climate pathway. Our aim here is to further reduce the CO_2 intensity of buildings that already have a good energy efficiency standard and thus cut demand for gas within the portfolio by up to 30%. In Dortmund, a pilot-scale batch of single-energy-source systems will be installed in 50 heating networks with over 100 buildings. Building on the results of this pilot, the initiative is to be rolled out to other regions in 2023. We repeatedly come up against obstacles, particularly due to the time and costs involved in extending domestic electrical connections, which will require a political solution in the long run. We are involved in the political discourse on ramping up the use of heat pumps and are advocating for viable solutions.

Another aspect of implementing the climate pathway is **increasing energy generation from renewable sources**. To achieve this, Vonovia launched a long-term program in 2021 to expand photovoltaic capacity. In the reporting year, Vonovia owned **533 photovoltaic systems with an installed output of 19.3 MWp**. The 24.4 MWp target was not met due to supply difficulties and delays associated with the network operators.

Overall potential has increased as a result of the merger with Deutsche Wohnen. Our new aim is to continuously increase the additional installed output per year and to achieve an installed output of around 280 MWp by 2030 (compared to 18.0 MWp in 2021). Since 2022, we have focused exclusively on tenant installations, where the electricity generated is used within the neighborhood itself – to supply our tenants and to power heat pumps. The installation of these systems is therefore also closely interlinked with the heat pump initiative and the modernization program.

All activities relating to renewable energies and energy distribution are organized in the Value-add business area and are managed by a chief representative who reports directly to the Chief Transformation Officer (CTO) of Vonovia. In order to achieve the targets for PV output, we are also investing in in-house installation capacities and creating about 100 new jobs in total. In 2023, installed output is set to more than double to around 43 MWp. In the long term, we intend **to fit all suitable roof spaces in the German portfolio with PV panels by 2050**.

Material Performance Indicator

Category	Unit	2021	2022	Target for 2023
Number of photovoltaic plants*	number	510	533	
Installed output	MWp	18.0	19.3	43.3

* Photovoltaic plants owned by Vonovia at reporting date Dec. 31.

The newly formed energy innovation team, which is part of the Innovation & Business Building department, actively works to support that climate pathway targets are met by analyzing and testing innovative technologies. Targeted efforts have already been made to scout out new technologies at all stages of the stringent innovation process, which are then assessed for technical feasibility and economic viability with the involvement of relevant stakeholders. Particular focus is given to the testing of innovative generation and storage solutions in the context of decentralized energy supplies.

Vonovia is offering its customers the opportunity to purchase electricity from renewable energy sources via its own energy distribution company (VESG). By providing green energy that has been generated or certified in the neighborhood, we are supplying them with cheap electricity and helping them to reduce greenhouse gas emissions. Our objective is to maximize the share of energy we produce ourselves for the benefit of our customers and the environment, and also to use it for our housing-related services, e. g., e-mobility. The purchase of certified green electricity to supply communal areas makes a further contribution to our climate strategy.

A further component of our climate pathway is the supply of sufficient quantities of CO_2-free district heating and electricity by the energy sector. This requires that the energy sector implement the targets set by policymakers for phasing out coal and increasing the share of renewable energies in energy or electricity generation. We consider the proposal of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) on municipal heating planning to be an important step towards this goal. This can provide long-term planning security with respect to the availability of district heating within the municipalities. In this regard, adopting an integrated view of heat and electricity generation that takes all stakeholders into account is of particular importance. District heating is always an important lever for us where it is economically viable to connect additional properties to a district heating network while making consistent progress in decarbonizing heat generation. During the reporting year, Vonovia therefore examined the decarbonization strategies of the most important district heating providers in depth and, based on these conclusions, drew up potential courses of action for incorporating them into its long-term neighborhood strategy.

In Austria, energy efficiency modernization measures are, just like overall business operations in Austria, the responsibility of the Chief Development Officer (CDO) under the BUWOG umbrella, where they are led by the Real Estate Management division. Since 2011, BUWOG has been a partner of the "klimaaktiv Pakt" climate protection initiative launched by the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology. As part of this initiative, BUWOG has defined the goal of achieving a reduction of 55% by 2030 compared to the baseline year of 2005. The highest share of the CO_2 reduction will be accounted for by modernization and improvements to existing stocks, particularly energy-efficient refurbishment, improvements in the efficiency of heating systems and conversion to renewable energy sources. Furthermore, all oil heating systems are to be replaced by 2030, five years earlier than required by law. BUWOG has had a certified energy management system that is consistent with ISO 50001 standards in place in Austria since 2013/14 and in Germany since 2018. The system is a tool used voluntarily to systematically manage energy performance and improve it continuously. The corresponding establishment of processes that reflect this policy in the company and clear objectives serve to increase energy efficiency, reduce energy consumption and cut energy costs.

In Sweden, virtually all existing Victoriahem buildings are supplied with district heating, the generation of which already produces extremely low CO_2 emissions. Therefore, the road to climate neutrality will primarily be shaped by further decarbonization of heating supply, coupled with ongoing improvements in energy efficiency. As such, the aim is to reduce energy consumption per sqm by 30% by 2030 compared to 2015. In 2022, Victoriahem also joined the Swedish housing association's "Allmännyttans klimatinitiativ," which also aims to achieve a CO_2-free energy supply by 2030.

Sustainable Construction and Refurbishment

Vonovia's new construction activities are helping to create urgently needed new and affordable homes, especially in metropolitan areas. The development business operating under the BUWOG brand is active in both the development of high-quality residential neighborhoods for the company's own portfolio (to hold) and for direct sale (to sell) in Germany and Austria, and the densification and adding of extra stories to buildings as part of the development of existing neighborhoods in Germany. The activities of the BUWOG development business in Germany and Austria are the responsibility of the Chief Development Officer (CDO), and the individual development projects are approved by the Management Board.

By taking a holistic neighborhood-based approach to developments, we bring together planning expertise and construction. This involves focusing on vertical expansion and densification in order to provide additional homes while minimizing surface sealing. Our approach is complemented by our Building Information Management (BIM) strategy, which allows us to identify effective measures on the basis of data from across the entire life cycle of our neighborhoods. This reflects our commitment to long-term sustainability, which takes a close look at every stage of a building's life – from finding plots of land through to handing over the keys to the demolition phase – in order to minimize its emissions, the impact it has on the environment and the amount of resources that it consumes. In its new construction and refurbishment projects, Vonovia takes care to ensure optimized energy design and the use of renewable energies. We achieve this, for instance, by using the German efficiency house standard or the new-build criteria of the Austrian "klimaaktiv Pakt" initiative.

The average primary energy demand of newly constructed buildings, in relation to rental area, **is the most important non-financial performance indicator in development**. This performance indicator is part of the Sustainability Performance Index (SPI) and planning process and must be made transparent as part of all Management Board approvals of new-build and development projects. In 2022, the **average primary energy demand was 37.7 kWh/sqm per year**, lower than that of the previous year and below the target for 2022, for which we had assumed a significantly higher value compared to 2021. This can be explained in particular by the early completion of a relatively large project with a low primary energy demand. We expect to see a significantly lower primary energy demand in 2023.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Average primary energy demand – new construction*	kWh/m² p.a.	38.6**	37.7	31.3

* Based on energy performance certificates, excluding commercial projects and extensions.
** Exclusive Deutsche Wohnen.

In the reporting year, resource-saving and eco-friendly construction and, in particular, analysis of the entire life cycle came more to the fore. As part of our "perspectives on the future of construction" dialogue process, we discussed the necessary framework conditions for climate-neutral construction with representatives of the scientific community, building materials manufacturers, planners and the construction industry. We presented the results at our final conference in November and discussed them with representatives from the world of politics. As part of this, Vonovia committed itself to give greater consideration to life cycles and to increase the use of sustainable building materials and those made from renewable raw materials. Improving the recyclability of constructions and construction products and cooperating more closely with our suppliers are also set to become even more important in the future.

In 2023, we will translate these aims into specific measures and continue to develop our processes with these in mind. The dialogue process shows that policymakers in particular need to adapt the framework conditions; to name but a few examples, it calls for the harmonization and simplification of regulations, acceleration of approval procedures for sustainable materials, higher subsidy rates for using sustainable building materials, the strengthening of centralized collection and return systems, and mandatory deconstruction concepts for new buildings.

Designing the residential environment and preserving biodiversity are top priorities for us. Numerous buildings feature green spaces that serve as natural habitats for flora and fauna at ground level, on roofs or on facades. In addition to the optical effects, these green spaces also offer a practical added value, for example, by slowing the flow of rainwater into the partially overburdened municipal sewage system and by making a considerable contribution to the microclimate, especially by preventing urban heat islands in built-up areas. We also take care to conserve resources and protect the environment during construction.

Social Issues

Within the context of the statutory requirements in the Non-financial Group Declaration, social issues include the following material topics: “Neighborhood development and contribution to infrastructure,” “Fairly priced housing,” “Homes that meet people’s needs and demographic change” and “Customer satisfaction and service quality” (see → Materiality Matrix).

Neighborhood Development and Contribution to Infrastructure

The social megatrends of climate change, urbanization and demographic change continue to determine the framework conditions under which housing providers must develop their services and solutions. Whether it is climate-neutral housing stock (see → Environmental Issues), the provision of sufficient affordable housing in large metropolitan areas (see → Fairly Priced Housing) or services for an aging society (see → Homes that Meet People’s Needs and Demographic Change) – the requirements are wide-ranging and call for integrated solutions.

Therefore, the neighborhood, people’s direct residential environment, is becoming an increasingly prominent area of focus for the housing industry. Quality of living is being associated more closely with the neighborhood level. People want to feel at home in their environment and identify with their place of residence. The neighborhood level is also the starting point for networked environmental and social measures.

Thinking and acting in terms of neighborhoods is our answer to these crucial megatrends – it is also the approach we adopt to find solutions for the economic, environmental and social (new) development of our urban housing portfolios, which are largely located in urban quarters. We understand a neighborhood– as per the definition of the Association of German Housing and Real Estate Companies (GdW) – as a visually coherent urban development structure that is seen by its residents as a distinct area and that represents an area for action in which the residential real estate company can make a difference and see positive effects. It comprises at least 150 apartments (see → Portfolio Structure).

This **neighborhood-based, holistic view of the portfolio** expands our spectrum of measures for designing our portfolio using networked approaches and new technical capabilities, thereby helping us to develop places of shared living with a socially and environmentally viable future. The potential of the neighborhood approach can be seen particularly in the synergistic effects that can be achieved through its application. Our neighborhood developments are designed to comply with clear climate protection requirements. They use innovative concepts to offer a strong platform to counter the challenges associated with climate change and reduce CO_2 emissions. We design our residential environments and green spaces to strengthen participation and urban community life and to be sustainable and resilient from an ecological perspective.

Environmental and social aspects go hand in hand within our neighborhood approach. Vonovia is equally committed to both aspects and to promoting social interaction in the local community. Measures to strengthen shared living only become manageable and effective through the neighborhood approach. This is a process involving city and municipal authorities, local stakeholders and our tenants in order to jointly develop solutions for the neighborhood. It uses various participatory processes, instruments and cooperation initiatives to achieve this, e.g., by making premises available, establishing services, neighborhood meet-ups and day care centers hand in hand with cooperation partners that focus on the greater good.

The investment program for neighborhood developments is where Vonovia’s neighborhood approach is implemented at an operational level. In 2022, **18 neighborhood developments across Germany, accounting for around 9,600 residential units,** were involved in this program, which is set to run for a period of several years. This approach will also be extended to Deutsche Wohnen’s portfolios and developed further as part of the integration process.

However, due to the deterioration in the investment climate during the reporting year, we were forced to push back the start date for new neighborhood developments to reflect general economic conditions. The frequent changes to subsidy eligibility conditions by public authorities during the reporting year – e.g., for new-build energy standard requirements and the sudden discontinuation of certain types of support – make neighborhood development planning, which is long-term and complex by its very nature, immensely difficult. In this area, in particular, we are dependent on reliable support schemes. Nevertheless, we are trying to forge ahead with our plans for further multi-year neighborhood developments and are unwavering in our commitment to our long-term goal of optimizing all urban quarters in the portfolio in the course of neighborhood developments moving forward.

Material Performance Indicator

Category	Unit	2021	2022	Projection for 2023
Investment volume for neighborhood development in Germany (fiscal year)*	in € million	61.6	78.5	62.8

* Excluding Deutsche Wohnen, planned value 2023 including Deutsche Wohnen.

We were therefore unable to use the €117.8 million that had been earmarked for investment in neighborhood developments in Germany for the 2022 fiscal year in full. We also expect a reduced investment volume for 2023. Nevertheless, we are ensuring that our plans for further neighborhoods are at a stage where we will be able to implement them as soon as the investment environment allows. We hope to use the associated transition phase to improve internal structures and processes – with respect to standardization, innovations, learning and networking – and to emerge from the crisis stronger than ever.

Neighborhood development calls for complex teamwork and extensive, forward-looking skills from all employees to ensure successful on-site implementation. Here, Vonovia follows the approach of providing central support services for local decision-makers and actors and ensuring the transfer of best practice. Thanks to the Neighborhood Academy, an internal training and networking format, Vonovia employees are trained as neighborhood development experts. The Neighborhood Academy not only teaches innovative concepts and basic knowledge of how the neighborhoods of tomorrow are developed and managed, but also focuses on the training of specific skills. At the same time, it enables the systematic sharing of experiences of neighborhood-related topics among participants. This is supported by a Web-assisted knowledge management system, the Vonovia Guide, which can be used throughout the Group.

In order to further spearhead research in the field of neighborhood development and living, Vonovia sponsors a foundation professorship – held by Prof. Dr. Jan Üblacker – at the EBZ Business School in Bochum.

Neighborhood development is planned and managed on a decentralized basis via the regions. The Chief Rental Officer (CRO) is the Management Board member responsible for the property management business as well as for customer service and portfolio management. We are increasingly using our own neighborhood developers for on-site implementation. This allows us to address any specific issues as and when they arise.

The investment and participation formats are also the responsibility of, and are managed by, the regions, just like Vonovia's social commitment. This approach is supplemented, also from a quality assurance perspective, by centrally managed supporting measures via corporate communications.

Fairly Priced Housing

As a responsible company, we are committed to providing affordable housing that meets people's needs. As such, we meet the basic human need for housing. In this context, the needs and life circumstances of our customers – as a reflection of society – differ in all kinds of ways. There are also differences in the situation on individual housing markets. In metropolitan areas, in particular, shortages of available housing often go hand in hand with strong demand.

This already high demand is exacerbated further by the influx of refugees due to Russia's war of aggression on Ukraine. The marked increase in demand coincides with an increasingly unfavorable investment environment resulting from rising construction and land costs, fewer subsidies, a lack of skilled labor and disproportionately higher interest rates.

These developments continue to unfold against the background of high climate protection requirements, the fulfillment of which is particularly cost-intensive in the buildings sector. Particularly with regard to modernization, it is therefore important to balance the economic and ecological perspectives without losing sight of what our tenants and those searching for an apartment can actually afford. The significantly higher energy costs associated with the war are putting further pressure on housing costs for many people.

For us, it is of fundamental importance to be able to offer long-term housing prospects to as many people as possible. The fundamental challenge involves being able to provide a broad supply of housing at fair and transparent prices, while at the same time achieving a virtually climate-neutral housing stock, even in a more challenging environment.

By further expanding our core business through letting and development, we make a substantial contribution to easing the current situation on housing markets. Our rental prices are based on the usual local rents and – if available – on qualified rent indices. We are in favor of regulatory intervention in the housing markets, as we believe that it helps to ensure social balance and creates a stable business environment as a result. When letting, we always observe the applicable country-specific legislation.

When passing on modernization costs, we are always mindful to ensure that the burden placed on our tenants is socially just and offer individual solutions as part of our social management system. That said, reasonable compromises must be made in favor of additional climate change mitigation measures. In the 2022 reporting year, an average of €1.20/sqm in modernization costs was passed on.

Vonovia's Group-wide portfolio has grown considerably as a result of the merger with Deutsche Wohnen, especially in Berlin. At the same time, the housing situation there is extremely challenging. As responsible partners, Vonovia and Deutsche Wohnen together sent several signals already in 2021 that we wish to change the situation in Berlin through cooperation between politicians, society and housing companies.

As part of the "Future and Social Housing Pact" agreed with the Senate of Berlin in 2021, we have made three voluntary commitments: to strengthen the municipal housing portfolio, build more new homes and limit rises in rents for existing properties. In June 2022, Vonovia – one of only two private residential real estate companies to do so – signed the "Alliance for New Housing Construction and Affordable Housing in Berlin," which replaces the previous agreement and will remain in effect until at least 2027. The Alliance now provides a new basis for commitments to Berlin's tenants that far surpass the scope of the old agreement.

Deutsche Wohnen also has its own regulation, the "Tenants' Promise," which will apply to its portfolio until mid-2024 and continue to exist in parallel with the Berlin Alliance. However, the agreement that is more favorable for our tenants shall always apply.

Material Performance Indicator

Category	Unit	2021	2022
Average rent	€/m²	7.33	7.49

In other cities and municipalities, too, we also offer subsidized – in Germany around 41,000 of our homes are currently price-controlled – and independently financed homes for people on low incomes and are responding to location-specific challenges with services tailored to needs. The focus of such services can vary: In Frankfurt am Main, we are addressing the issue of homelessness, for instance, while in Cologne we are focusing our efforts on a new construction offensive, and in Dresden our aim is to strengthen the municipal housing association as well as to work together to develop neighborhoods and ensure a coordinated climate strategy.

The fundamental concept on which all agreements are based is Vonovia's desire to work in partnership with politicians and society to tackle municipal challenges and that the company takes specific societal and social challenges present within cities into account within its planning.

Individual support programs constitute a further supplementary component of our work to enable fairly priced housing. The aim is to ensure that people can stay in their homes for a long time and that housing remains affordable for them. We support them in this matter and offer personalized assistance to all tenants who are actively working with us to find a solution. These forms of assistance range from deferring rent and allowing payment to be made in installments, to offering help with housing allowance applications and other dealings with the authorities, relocation assistance and other practical forms of help.

As part of our established social management system, we apply uniform standards to hardship cases in the event of modernization work and follow guidelines based on those of welfare associations. These standards and guidelines were agreed with the Tenants' Association and other residential real estate companies in 2021. As such, we are contributing to greater reliability and transparency in cases of hardship.

Also still in place are our special vested rights for people aged over 70, which have also – as of January 2023 – been extended to Deutsche Wohnen's portfolio, and our active support for people who have fallen into payment difficulties as a result of the coronavirus pandemic.

Due to the sharp rise in energy costs, many tenants are worried about high additional heating costs and ancillary expenses. Just like during the coronavirus pandemic, our promise, which is that no one who is taking active steps to find a solution will have to move out of their home due to unaffordable energy costs, still stands. With this in mind, we have developed a comprehensive package of measures to counteract the increase in costs caused by the energy crisis and inflation. These include reducing the heating temperature in our properties to save energy, energy-saving tips, help with claiming government benefits and individual solutions when tenants find themselves unable to cover energy costs.

2022 was primarily dominated by the suffering in Ukraine. Just like during the refugee crisis in 2015, which resulted in a comparable situation, rapid and pragmatic help was needed here. Particularly in the large metropolitan areas of Berlin and Dresden, employees of the company provided support at a number of different levels – whether that be through the provision of housing, furniture donations, volunteer work or donations to charities. Deutsche Wohnen – which focused on Berlin – has run numerous campaigns of this kind, and others, under the hashtag #Wirhelfen ("We are helping").

The very vulnerable groups include, in particular, people who are homeless or at risk of becoming homeless. Vonovia therefore makes this target group a key focus of its social commitment efforts. As such, we continued to engage in a number of projects and measures in this area in the reporting year. In doing so, we pursue the **"housing first" approach**, which envisages providing homeless people with a standard tenancy agreement with all of the normal rights and obligations, regardless of any mental or physical health conditions that they might have. It is only after this that they are offered help in order to get some stability into their lives. Vonovia provides homes for this purpose as part of numerous cooperative initiatives.

Rent structures and agreements with municipalities are managed in a decentralized manner via the regions. The individual measures are planned and coordinated in the Portfolio Management department.

Homes That Meet People's Needs and Demographic Change

Our aging society, a result of demographic change, means that our customers' needs are changing, too. This poses new challenges for the real estate market. In Germany, the demand for senior-friendly housing will outstrip supply by around two million by 2035.

We are adapting our offering in response to these changing housing needs. Our aim is to ensure that our tenants can stay safe, healthy and independent in their homes over the long term. In the event that architectural conditions no longer support independent living, it is important that the barrier to accessing further care services is low.

We are already planning to make a large share of our newly built apartments accessible and/or wheelchair-friendly. More important, however, is the **low barrier for equipping and refurbishing apartments for people with impaired mobility**. Homes that are completely barrier-free, according to German industry standard DIN 18040-2, are only necessary in very rare cases. Rather, a small number of measures, such as the fitting of non-slip flooring or flush-to-floor showers, are often sufficient to significantly increase the level of living comfort in old age.

We therefore aim to modernize around 30 percent of newly rented apartments every year so that they meet the demands of an aging society. To this end, we are reviewing existing buildings to determine their potential for accessibility. In 2022, around 10,100 apartments were (partially) modernized to make them accessible. Due to the limited investment opportunities, we expect the share of accessible, (partially) modernized apartments to account for only around ten percent of new rentals in 2023. However, we are planning to have this share back at its historical level as soon as possible. As of 2023, Deutsche Wohnen has joined the program of (partial) modernization measures to make its portfolio properties fully accessible.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Proportion of accessible (partially) modernized newly rented apartments (in Germany)*	%	30.0	32.4	around 10

* Includes both measures in the event of a change of tenant and modernisations at the request of the tenant; number of new lettings bases on like-for-like analysis excluding newly constructed living space. Excluding Deutsche Wohnen, target 2023 including Deutsche Wohnen.

The Care segment, which is new for Vonovia and for which reporting is carried out separately, comprises Deutsche Wohnen's nursing care and nursing care properties business segments. As of December 31, 2022, we employed a total of 3,798 people in care service or care home management within this segment. Care business operations are based on an independent system and process landscape. 39 retirement and care homes are operated under the brands KATHARINENHOF and PFLEGEN & WOHNEN HAMBURG, 38 of which are owned by Deutsche Wohnen. There are also an additional 33 nursing care properties run by other agencies.

These facilities provide full residential care, the aim being to maintain an active lifestyle and residents' independence to the greatest possible extent. Demand remained at a consistently high level in the reporting year. Senior citizen-friendly services are also provided within the context of assisted living. With its Care segment, Deutsche Wohnen makes a substantial contribution in the area of demographic change.

In addition to structural measures, the social infrastructure in the neighborhood also plays a key role. Alongside special forms of housing, such as senior-friendly apartments, Vonovia also works with cooperation partners that focus on the greater good to offer services and neighborhood meet-ups, for example.

Responsibility for the senior-friendly housing programs lies with the Management Board (CRO). The structure of the renovation program is managed centrally and is implemented via the regions.

Customer Satisfaction and Service Quality

Customer satisfaction is instrumental in the success of a company. For us, this is mainly associated with the question of whether our tenants feel at home in their apartments and neighborhoods and whether they feel that they are treated fairly by us as their landlord. Here, the quality of customer care and services plays a central role. Our experience shows that accessibility, speed and transparency in service are decisive factors for achieving customer satisfaction.

Our central, multilingual customer service department acts as the first port of call, whereas our caretakers and craftsmen look after the needs of tenants on location. This allows us to ensure fast and reliable service. We run our own customer service centers in Essen and Dresden, and since January 2023 also in Berlin. This takes the merger with Deutsche Wohnen – and the increase in customers that came with this – into account. The aim is to be able to guarantee the same level of quality for the entire portfolio in Germany.

In order to further boost flexibility and speed, we are pressing ahead with the **digitalization of our service functions**. The key channel in this regard is the tenant app, which has already been downloaded more than half a million times and is used actively by some 145,000 users. The new features introduced to the app in 2021, the digital lease agreement and apartment search, were well received. In 2022, the feature for providing consumption data that can be read remotely was added. As a result, we can show the entire customer journey in the app: from searching for an apartment and scheduling viewing appointments through to digital contract drafting, ancillary expense bills and all other topics for existing customers. The customer app has thus replaced the customer portal, which was previously run in parallel to the app. The portal was closed down at the beginning of the fourth quarter of 2022.

Customer satisfaction is measured using a quarterly customer survey and is reflected in the Customer Satisfaction Index (CSI). It is incorporated into the Management Board's remuneration as a direct non-financial indicator and component. Year-on-year, we once again succeeded in achieving an **all-time high for Vonovia in the CSI**, surpassing the previous year's result, which at that time had been our best yet. The aim is to cement this positive trend on a permanent basis. BUWOG in Austria and Victoriahem in Sweden also carry out regular customer satisfaction surveys.

Looking forward, we aim to introduce a harmonized CSI in Germany, Sweden and Austria in order to be able to compare the results of the individual surveys.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Increase in Customer Satisfaction (Customer Satisfaction Index (CSI) in Germany)*	%	+4.5	+1.3	Same level as the previous year

* Customer Satisfaction Index (CSI) in glossary, excluding Deutsche Wohnen, 2023 target including Deutsche Wohnen.

Deutsche Wohnen continued to conduct its established annual tenant survey in the 2022 fiscal year. This is comprised of various parameters and investigates how satisfied Deutsche Wohnen's customers are with their housing situation as well as how satisfied they are with Deutsche Wohnen as a landlord. It is not comparable with the Vonovia CSI. Year-on-year, satisfaction with Deutsche Wohnen as a company increased by almost three percentage points (2021: 80.7% to 2022: 83.4%). The score for satisfaction with housing remained at a consistently high level, increasing slightly to reach 87.2% (2021: 86.6%). The first ever consolidated survey on the CSI is scheduled for 2023.

At Vonovia, responsibility for the central customer service center lies with the CRO. While customer satisfaction is assigned to the central customer service center in strategic terms, it affects all customer-facing operating departments and is ensured by each and every Vonovia employee. The design and management of the tenant app are also the responsibility of the central customer service center.

Employee Issues

Within the context of the statutory requirements in the Non-financial Group Declaration, employee issues include the following material topics: "Appeal as an employer" and "Diversity and equal opportunities" (see → **Materiality Matrix**).

Appeal as an Employer

With regard to the commercial sector, Vonovia relies on an insourcing strategy, i.e., key tasks along the value chain – from caretaker work to garden maintenance to the carrying out of modernization work – are largely performed by the company's own employees. Due to the independence from the market that this brings, we are able to exploit synergies, offer a consistently high level of quality, and reduce risks relating to the availability of skilled workers, e.g., trade services.

Accordingly, we consistently refined our human resources strategy during the reporting year, focusing on the three central levers: recruiting, initial and further training, and retaining existing employees.

In the context of recruiting, we rely on a set of measures comprising the further development of the application and hiring process, the recruitment of skilled workers from abroad, and an optimized training concept and targeted further training for technical skilled workers and auxiliary staff.

The training provided by the company itself also plays an important role in enabling us to meet future staffing requirements. We are therefore aiming to maintain a high number of trainees or to increase this further. In 2022, we were able to increase the number of trainees once again, from 561 in 2021 to 617 trainees, thus setting a new peak for Vonovia. Due to the integration of Deutsche Wohnen, Berlin has also grown in importance as a training location. Therefore, a new training center for manual trades is to be set up here, which is scheduled to open its doors in time for the start of the training year in 2023. In Austria, we established the apprentice program in 2021. Thanks to this, in the reporting year, five apprentices were being supported in their training, four of whom have already reached the third year of their apprenticeship. A trainee program has also been set up at BUWOG. At our Swedish subsidiary, particular emphasis is placed on local recruiting and targeted outreach measures, in schools and within the neighborhood, for example, with around 800 young people taking up employment (60 of whom at Victoriahem itself) during the reporting year.

Our recruiting measures are supported by targeted job advertisements and image campaigns that were run via various media channels such as radio or social media. These include our "Hand aufs Werk" format, which was first established in 2021 and expanded in the current reporting year.

Our initiative to recruit skilled electrical installation and landscaping workers from Colombia, which was also launched in 2021 in partnership with the German Federal Employment Agency, led to the subsequent employment of the new skilled workers at several Vonovia locations in the fall of 2022. A second round of the initiative has since been launched in Colombia. The hiring process represents another component of our recruitment strategy, which we intend to expand further in the future.

In addition to recruiting new skilled workers and providing training, retaining existing employees is the third key lever in our human resources strategy. In this context, Vonovia seeks to continually improve from within and to individually promote the potential and talents that our employees have to offer. At our Vonovia Academy, we are developing our employees' skills and knowledge in an even more targeted way with a view to specific roles, functions and requirements in the workforce and have also expanded our offering to include new training programs, curated learning content and guides. On-demand and e-learning services, such as digital training courses for managers and employees on the topics of self-management, storytelling and leadership issues, are designed to make further training and gaining additional qualifications at Vonovia a more flexible and personalized process overall in the future.

At a time when prices for gas, electricity and the general cost of living have risen substantially, Vonovia wishes to acknowledge the good job that its employees do, while ensuring its own competitiveness as an employer, by paying a compensatory inflation bonus of up to 3,000 euros in total over a period of 24 months in addition to an income-based pay rise. The majority of Vonovia's and Deutsche Wohnen's workforce in Germany are eligible for these benefits, which were agreed during constructive discussions with the co-determination committees. During this process, we focused on income groups that are particularly badly affected by rising prices. These groups can expect to see salaries increase significantly in the 2023 calendar year as a result of the combined provisions.

While the pandemic continued to dominate working life and work organization at Vonovia to a large extent in the current fiscal year, the hybrid working models that have been put in place on an ongoing basis since 2021 and our transformation steps towards flexible, digitalized work processes have continued to prove effective in the current fiscal year. Accordingly, the works agreement on mobile working that had already been negotiated between senior management and the works council in 2019 and corresponding agreements for our Austrian colleagues at BUWOG remain in place.

The company's HR processes support this flexibility through the gradual expansion and further development of digital processes at Vonovia. For example, a range of bundled functionalities such as reporting absences due to illness via an app or digitally recording working hours already make it easier for our employees in many of the company's departments to work from a location of their choosing.

As of December 31, 2022, Vonovia had a workforce of **15,915 employees** (December 31, 2021: 15,871) and 926 apprentices (December 31, 2021: 857). Of these, 3,798 employees and 309 trainees belong to the Care segment and 54 employees to SYNVIA. This is not shown in the table below. Further information on the Care segment can be found in the section → **Homes That Meet Tenant Needs and Demographic Change**.

Employee Key Figures*

Category	Unit	2021	2022
Total number of employees	number	12,088	12,063
of which female	number	3,414	3,404
of which permanent	number	11,137	11,180
Nationalities**	number	74	84
Average age (total)	years	42.8	43.3
People with disabilities**	number	344	346
Total number of trainees**	number	561	617
of which commercial	number	185	215
of which technical trade	number	376	402
Training rate**	%	4.6	5.1

* Total number of employees by headcount, including Deutsche Wohnen (excluding the Care segment and SYNVIA; 2021 incl. SYNVIA). The Care segment comprises a further 3,798 employees and 309 apprentices – 54 employees are accounted for SYNVIA.
** Not including Sweden. Germany and Austria taken into account.

Deutsche Wohnen's processes and systems were integrated into Vonovia's platform in the 2022 reporting year. Various team-building measures were implemented in both parts of the company in the course of the "Growing Together" integration campaign to bring the two corporate cultures and the employees of both workforces together under one Group roof. Alongside this process, Deutsche Wohnen offered its employees further training, e.g., on how to handle changes within organizations and transformation processes, to support the integration process in a targeted manner.

Vonovia is committed to the core labor standards of the International Labour Organization (ILO) in all areas, particularly with regard to freedom and rights of association. Works councils represent all Vonovia employees in Germany and Austria. Since July 2022, they have also represented Deutsche Wohnen employees.

The **satisfaction of our employees** is a key concern and thus a decisive indicator for allowing us to assess our appeal as an employer. Since the last reporting year, changes in the employee satisfaction level have been a component of the Group's key non-financial performance indicator (SPI) and offer a regular indication of the degree to which Vonovia is an attractive employer. Following our comprehensive survey in the last reporting year, this year we once again gave our staff the opportunity to rate Vonovia as an employer as part of a Group-wide interim survey.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Increase employee satisfaction*	percentage points	+5.0**	-8.0	Above level of the previous year

* Excluding Deutsche Wohnen, 2023 target including Deutsche Wohnen.
** Referring to survey in 2019 (The comparison over time includes Germany and Austria, Sweden did not participate in 2019).

Unlike in previous years, this year employees were presented with a broader question, allowing them to evaluate their overall satisfaction with their job and report back to us. As a result, for the first time Vonovia recorded a decline of 8 percentage points from the previous year's increase. We therefore plan to work together to find constructive measures that will help us return to the previous year's level. We are fully committed to achieving this goal. Up until 2021, Deutsche Wohnen carried out surveys to measure employee satisfaction within its own group of companies. Due to the ongoing integration project, the survey did not take place in the current fiscal year. Once the integration process has been completed, employee satisfaction throughout the company will be measured again – this time including our colleagues at Deutsche Wohnen.

In Austria, the "trust index" increased by 15 percentage points compared to the 2019 survey; this led to certification being achieved in 2021. Having also taken part in the "cultural audit" for the very first time in 2022, BUWOG now officially ranks among Austria's 40 best employers.

Diversity and Equal Opportunities

Our workforce at Vonovia is as diverse and international as our tenants: While people from over 140 nations have found a home in our apartments and neighborhoods, our Group as a whole employs people from over 80 different countries. They represent many different age groups, religions and world views, have a variety of physical disabilities, come from varying socio-economic backgrounds, and live their lives with a range of gender identities and sexual orientations.

We regard this **diversity as a great strength and opportunity**, which we support in a targeted manner and whose competitive advantage we aim to harness. By the same token, we regard not being able to meet diversity expectations as a risk for the company, which is why we have included it in our risk catalog. We currently measure this risk as having a low amount of loss and a very low probability of occurrence (<5%).

Even though we conclude from this figure that we have already achieved considerable equality of opportunity and that we embrace and promote diversity within the company, we continuously institute further measures in this context and/or adapt existing measures to reflect changes in underlying conditions. For example, we are updating our seminars on discriminatory behavior and continue to focus more closely on workforce diversity, e.g. through the integration of foreign skilled workers and displaced persons, as well as a high degree of flexibility in working hours so that all employees can structure their working time to suit their current phase in life. In order to more firmly anchor the issue of diversity at the strategic level of the company in the future, a comprehensive range of management development courses – focusing, for example, on the topic of "unconscious bias" – is currently being developed and is scheduled to be rolled out in 2023.

The gradual harmonization of social benefits aims to ensure corresponding equal rights for all employees. For example, our employee share program and a works agreement on mobile working are also in place in Austria. Following the introduction of a new, standardized company pension scheme in 2021, this offer is also available to all Vonovia employees in Germany (including Deutsche Wohnen, excluding SYNVIA and the Care segment). Reconciling one's family life and professional life is another important issue at BUWOG in Austria, which offers its employees a variety of ways to achieve this balance. BUWOG is planning to seek recertification as a family-friendly company by the Austrian Federal Ministry for Labor, Family and Youth in 2023.

We see women's empowerment in the company as a special mission, as they – chiefly due to the technical occupations in the field of skilled trades – are considerably underrepresented with a share of 28.2% of the workforce (excluding SYNVIA) as a whole. The SPI indicator "Proportion of women in leadership roles in the first and second level below the Management Board" clearly illustrates that we take care to proactively promote women and give them opportunities to pursue leadership positions and technical occupations. When setting the target – 30% by 2026 – we were guided by the representation of women in the Group as a whole. In

Austria, we were not only awarded the equalitA certification for the internal promotion of women in 2021. BUWOG has also held state certification as a family-friendly company since 2017, being most recently recertified in 2020.

Material Performance Indicator – SPI

Category	Unit	2021	2022	Target for 2023
Proportion of women in management positions (first and second levels below the Management Board)*	%	28.0**	25.1	28.6

* Excluding Care segment and SYNVIA.
** Excluding Deutsche Wohnen.

At the top level of management, the diversity concept for the composition of the management and control bodies is set out in detail in the corporate governance declaration.

Establishment in the Company

At Vonovia, the CEO is responsible for HR work, which is established centrally as a shared service within the HR department. In 2021, the shared service approach was transformed into an HR business partner model that continues to be developed on an ongoing basis. From January 1, 2023, this will also include the Deutsche Wohnen subgroup.

Austria and Sweden have their own HR departments. Austria reports to the HR department in Germany via dotted-line reporting, whereas Sweden is still not firmly established in the reporting line. Here, monitoring and reporting takes place as and when required. The Head of HR discusses developments with the CEO on a regular basis. The objectives and focus of HR work are developed in collaboration with the Management Board and are then cascaded down throughout the organization. With the exception of the SYNVIA group and the companies in the Nursing and Assisted Living business area, the organizational integration of Deutsche Wohnen was completed by January 1, 2023 (see → **Nursing and Assisted Living**).

Combating Corruption and Bribery

Within the context of the statutory requirements in the Non-financial Group Declaration, this aspect includes one material topic: "Governance and Compliance" (see → **Materiality Matrix**).

Governance and Compliance

The foundation of our business model is based on reliable, transparent and trustworthy corporate governance, which the company manages and monitors responsibly and independently. Its function as a role model is decisive in terms of building and cementing credibility – and therefore trust among our stakeholders. This also applies with respect to legally compliant conduct. Trust can be built through reliability if all rules are followed systematically – both those set out by law and, in particular, also those that we impose on ourselves. By contrast, any abuse of trust can damage the reputation and the business success of the company.

As a result, our governance endeavors are geared toward the establishment and implementation of, and systematic compliance with, a transparent and modern system of rules. Group-wide **guidelines and business principles** act as a framework in this regard: Our business philosophy, our Code of Conduct, the Business Partner Code, and our Management Board's Declaration of Respect for Human Rights act as the maxims guiding us in our actions. We live up to this attitude with our independent supervisory board and **our commitment to the principles of the German Corporate Governance Code**.

The **compliance management system** (CMS) supports the corporate governance's direction and guards the company against misconduct. At Vonovia, the CMS is based on three pillars: prevention, detection and response. These pillars are underpinned by an extensive system of measures and processes as part of the compliance program. The basis takes the form of the Compliance Guidelines, which follow the Principles for the Proper Performance of Reasonable Assurance Engagements Relating to Compliance Management Systems (IDW PS 980). The CMS is subject to a periodic audit, which is carried out by an external auditor.

The Group-wide (excluding Deutsche Wohnen), Web-based compliance risk analysis that was conducted at management level in the 2021 fiscal year had identified potential for improvement in the areas of money laundering prevention and IT security, while performance in the other areas were considered good to very good. One measure resulting from this was the restructuring of the data protection department, which was merged with the central compliance department on January 1, 2022. This serves to simplify internal processes, thus making them easier to safeguard.

Regular training sessions are the cornerstone for preventing misconduct before it happens. A comprehensive catalog of regular and mandatory training events is already firmly established and has been adapted for the various internal target groups. The procurement department, for which the issue is particularly relevant, receives special training on corruption and criminal law pertaining to corruption, for example. After focusing on the digitalization of training formats in 2021, such as mandatory training on the Code of Conduct and data protection, we were able to add five new formats to the compliance training we offer in the reporting year: Mandatory training on dealing with conflicts of interest and combating corruption is aimed at all employees and is repeated every year. The target group-specific training sessions are also run every year. We are acting on the recommendations made based on the compliance risk analysis by offering a new training format for the sales department on the topic of money laundering prevention. New additions to the program also include training on corruption and detecting fraud, which is aimed at all levels of management, and training on concluding contracts for the development department.

The complaints management and **whistleblower protection system,** expanded in 2021, has been in regular operation since that time. Bolstered by **Group guidelines** on preventing and tackling corruption, on preventing money laundering, on the whistleblower system and on compliance, the **anonymous whistleblower hotline** is not only available to employees, but also to external parties such as customers and business partners, in both German and English. Up to six additional languages are to be added in 2023 in order to minimize language barriers. The hotline complements and extends the existing system of the independent ombudsman. It is also integrated within the partner portal for business partners. The whistleblower report, prepared externally every six months, is included with the company's compliance report. The various elements of our whistleblowing system mean that we consider ourselves well prepared for the implementation of the Whistleblower Protection Act (Hinweisgeberschutzgesetz), which is due to come into force in Germany in 2023.

Information on potential cases of discrimination can also be submitted anonymously via the whistleblowing system. An additional reporting mailbox has also been set up in the HR department to identify potential violations of the General Act on Equal Treatment (Allgemeines Gleichbehandlungsgesetz). In Germany, this covers four European anti-discrimination directives that have been issued since 2000.

The Chief Executive Officer (CEO) is responsible for implementation of the CMS. A Compliance Committee comprising the Compliance Officer (Legal department), Compliance Managers, the ombudsperson, representatives of the Internal Audit, Risk Management and HR departments, members of the works council and representatives of the companies outside Germany (with Austria joining in 2021 and Sweden in 2022) regularly updates the system in line with current requirements and is responsible for its ongoing development. In this context, the Compliance Officer acts as a central contact point within the company for compliance-related questions and suspicions. The Compliance Officer reports to the CEO on a regular basis, and also on an ad hoc basis when special cases arise. The Compliance Officer's activities are supported by the compliance managers and specialists in the individual departments. The CMS and whistleblowing system apply to the entire Group. Deutsche Wohnen also maintains its own legal and compliance department, which is supported by Vonovia's compliance and data protection department under the terms of the agency agreements. Whenever legislation in Austria or Sweden conflicts with Group-wide rules, a different rule is adopted for the subgroup in the form of a national guideline. Responsibility for this lies with the respective managing directors.

The Supervisory Board regularly receives comprehensive information about compliance issues and corruption along with existing guidelines and processes. The compliance report, which is forwarded to the Audit Committee via the Compliance Officer (following prior consultation with the CEO), provides information about potential breaches, measures and training relating to corruption, as well as relevant data protection issues.

Material Performance Indicator

Category	Unit	2021	2022
Total number of proven cases of corruption (in Germany)	number	0	0*

* Exclusive segment care.

In the 2022 fiscal year, there were individual suspected cases of corruption, which we investigated diligently. None of the cases were confirmed. Furthermore, several other compliance violations or suspected cases were reported, although these can be described as minor in total.

On March 7, 2023, Vonovia SE received information from the public prosecutor's office in Bochum regarding investigations against current and former employees on the basis of a search warrant issued by the Local Court of Bochum. According to the information provided, Vonovia SE or selected affiliated companies are suspected of having suffered damage due to fraud, breaches of trust, anticompetitive agreements in connection with tenders and particularly serious cases of passive and active corruption in business transactions. The extent to which the actual damage may have also resulted in damage incurred by tenants has not yet been clarified with definitive effect. Measures have been taken to clarify the incidents in full. The auditing firm Deloitte has also been engaged to conduct an independent investigation. In this regard, we refer to the explanatory information in the combined management report concerning the → **Disclosures on the "appropriateness and effectiveness of the ICS"** and → **subsequent events**. Given that only fully completed proceedings are presented under key performance indicator "Total number of confirmed cases of corruption (in Germany)" in the reporting year in question, this incident has no impact on the key figures reported for 2021 and 2022.

Respect for Human Rights

The European legal framework in which Vonovia operates with its business model is strictly regulated and overseen in the markets in Germany, Austria and Sweden. This applies in particular to fundamentally enshrined human rights, to which Vonovia attaches great importance irrespective of the legal framework. Compliance with, and the fostering of, these rights is reflected in our ethos and mission statement. We regularly scrutinize our guidelines and adapt them to reflect changing underlying conditions. Due to the Supply Chain Due Diligence Act and the announced European regulation, the way in which supply chains are structured and the due diligence obligations associated with this are of increasing importance to the company.

In our **Declaration of Respect for Human Rights**, we communicate our clear conviction for a pluralistic democratic society and zero tolerance of human rights violations and our commitment to respect human rights in all aspects of our business. We adhere to the core labor standards of the International Labour Organization (ILO), the UN Guiding Principles on Business and Human Rights, and the principles of the UN Global Compact, which we committed to in 2020.

Vonovia's business model includes the construction, maintenance and modernization of homes. From a human rights perspective, compliance with labor and social standards on construction sites in the course of these activities is of particular relevance. Some trade/construction activities in Germany are carried out by the company's own technical service – and therefore by its own employees. This lessens both dependency on the services of external construction companies and – thanks to the measures established in the company's own business area – the risk of noncompliance with labor and social standards.

Concrete **cooperation with external partners and contractors** is governed by Vonovia through its Business Partner Code, the general terms and conditions of purchasing, the general terms and conditions of Vonovia SE for building services, and individual contractual agreements within the scope of structured supplier management. The Business Partner Code must be signed prior to the conclusion of a contract. In this document, we set out, among other things, all material requirements necessary for compliance with human rights – from legal conformity and the fulfillment of legal standards for working conditions to an assurance of freedom of association and the exclusion of child labor, forced labor and discrimination. It is updated regularly – with the next update scheduled for 2023 – and applies to contractual relations in Germany and Austria. A corresponding separate Code is in place in Sweden.

As part of the regular evaluation of our major suppliers and contractors via our partner portal, we strive to ensure that the criteria stated in the Code are complied with. In the event of incidents and breaches, a structured management of measures is activated, which – once all other means have been exhausted – may result in blocks on orders and termination of contract. In Germany, contractual conclusion is preceded by an automatic check against EU sanctions lists, with the compliance department informed immediately in the event of a hit. In Austria, the procurement department reviews all new creditors and regularly reviews existing ones on a half-yearly basis as part of a compliance check that also includes an inspection of sanctions lists (via KSV1870). We also use long-term cooperation in the spirit of partnership to build a close relationship of trust with our contractual partners. This is largely the responsibility of the procurement department and allows any misconduct to be addressed. The procurement department has been assigned to the Chief Transformation Officer's (CTO) Management Board function since January 1, 2022.

In the reporting year, we revised the Group procurement guidelines to further strengthen compliance with due diligence obligations and internal governance procedures, for example. The new guidelines apply throughout the Group and have been in effect since January 1, 2023. We also began the gradual integration of Deutsche Wohnen's suppliers into Vonovia's partner portal in the reporting year. The structures of Vonovia's central procurement department were transferred to the Deutsche Wohnen subgroup.

Furthermore, in the reporting year we focused particularly on preparation for implementation of the requirements of the Supply Chain Due Diligence Act (LkSG), which has been applicable in Germany since January 1, 2023. This also includes reviewing existing guidelines, codes and processes as well as establishing responsibilities. In the course of this process, we updated our Declaration of Respect for Human Rights and republished it in the form of a Group guideline in January 2023.

The Compliance Officer was appointed Human Rights Officer as of January 1, 2023, and will report regularly to the Management Board in the future. The Compliance Officer will be supported by a committee that brings together due diligence coordinators from relevant departments. From 2023 onward, the committee will convene at least once per quarter and discuss the ongoing fulfillment of Vonovia's human rights and environmental due diligence obligations. In the reporting year, we looked at how we can plan training sessions in order to further improve awareness of our human rights and environmental due diligence obligations among employees in relevant business areas in the future.

In the reporting year, we launched a comprehensive risk analysis for our supply chain and identified initial priority risk areas. We describe our approach and the risk areas identified in the course of the risk analysis in our Declaration. There were no indications of human rights violations within our own business area during the reporting year.

Vonovia has set up various procedures to allow potential abuses (such as human rights violations, environmental pollution, other unlawful actions) to be reported by both internal and external parties (see → **Combating Corruption and Bribery**). We continued to develop our whistleblowing system in the reporting year and will integrate additional languages in 2023.

Appeal on the Capital Market

2022 was a turbulent year, not least on the capital markets. High inflation rates, rising interest rates, a slowdown in economic growth and the risk of a recession remain matters of concern to investors. This can also be seen in Vonovia's share price, which fell at an above-average rate in 2022. However, we are observing an ever-wider gap between capital market expectations on the one hand, and ongoing stable development on the residential real estate market on the other (see → **Vonovia SE on the Capital Market**).

The construction and management of residential real estate is a business with a long-term focus. Our aim in this segment is to bring economic activity hand in hand with environmental benefit, living up to the various expectations of stakeholders. It is important to us to provide relevant information on our company and our economic development as well as on the sustainable direction of Vonovia, thereby providing an accurate picture of Vonovia. We want to generate attractive risk-adjusted rates of return for our investors and achieve sustainable revenue and value increases. This strengthens trust in the Vonovia brand.

We are committed to the principles of the social market economy and profitability. Economic success is the prerequisite for further investments in environmental and social sustainability. At the same time, we firmly believe that these investments also pay off in terms of our appeal for investors. This is substantiated by the growing demand for sustainable financial products and the ever greater establishment of ESG criteria as a basis for investment decisions.

We value having access to a broad mix of financing instruments so that we can choose the right product at the right time, e.g., bonds, promissory notes, secured real estate loans, commercial papers, working capital facilities and subsidy loans from KfW and EIB. In November 2022, the EIB granted Vonovia an unsecured loan of € 600 million to support the company's multi-year energy-efficient building modernization program. The portfolio is rounded off with innovative financing sources such as a tokenized promissory note. This enables us to communicate with different capital market actors, such as investors, banks and insurers.

Sustainable bonds play a particularly important role in our financing strategy. After issuing our first green bond in 2021, all seven bonds placed in 2022, which accounted for a total sum of four billion euros and 1.25 billion Swedish kronor, were designed to be sustainable. These included three green bonds and four social bonds. Through these bonds, we are catering to capital market demand in a targeted manner, as demonstrated by the order books, which have been oversubscribed on multiple occasions.

The European Union Sustainable Finance Disclosure Regulation (SFDR) is aimed at providers of financial products and financial advisers such as banks, asset managers, institutional investors and insurance companies. Under the SFDR, these groups are required to align their products, processes and strategies with ESG guidelines. We have made our Sustainable Finance Framework consistent with the EU taxonomy, which was confirmed by an independent third party in a Second Party Opinion (SPO). All green bonds that we issue under this framework are environmentally sustainable as defined in the EU taxonomy (EU environmental objective 1 – climate change mitigation). For example, a fund classified under Article 9 SFDR has the option of investing in green bonds issued by Vonovia. We have published our **Sustainable Finance Framework** and further information about our sustainable bond strategy on our Investor Relations website.

Communication with our stakeholders on the capital market is handled by the Investor Relations (IR) division in close consultation with the Management Board. Transparency is the watchword here. Through formats such as investor conferences and roadshows, we seek out dialogue – including and especially on ESG topics – with our shareholders and potential investors. Face-to-face conversations, additional property tours and the participation in conferences for private investors represent additional communication channels.

After a two-year pause due to the coronavirus pandemic, Vonovia's seventh Capital Markets Day was held in Bochum on September 27, 2022. We took the event, which focused on the ecological aspect of the megatrend of sustainability, as an opportunity to delve deeper into various topics including, in particular, decarbonization tools, the Energy Center of the Future and the "Internet of Things," with around 50 investors and analysts. The Capital Markets Day concluded with a property tour in Bochum, where we presented and explained a number of projects, including our "Energy Center of the Future," where we conduct research into innovative energy systems based on real-world conditions and test how they can be implemented in practice.

At the same time, IR acts in an inward-facing way so that the topics communicated to us by capital market actors come to the attention of the right people within the company.

Once again in 2022, we achieved **good to very good results in all ESG ratings and benchmarks relevant for Vonovia and its investors**, even managing to improve further in some cases. As such, we continue to be listed on the renowned Dow Jones Sustainability Index Europe as well as on sustainability indices such as the DAX 50-ESG or the STOXX Global ESG Leaders, to name but a few examples, and have been awarded Prime status by ISS-ESG. In terms of MSCI ESG Ratings, we were promoted to the highest rating category (AAA) in 2022, while at Sustainalytics we are among the top five performers in the real estate sector (out of 1,070 companies, as of December 31, 2022).

Material Performance Indicator: Performance in Relevant ESG Ratings*

Ratings	2021	2022
Sustainalytics ESG risk rating	6.7	6.7
MSCI ESG	A	AAA
CDP Climate Change	B	B
ISS ESG	C	C
S&P Global CSA	68	71

* Due to the integration, Deutsche Wohnen decided not to actively process its own ratings in the reporting year. The ratings of the Deutsche Wohnen subgroup are not explicitly reported. From 2023, all active ESG ratings will be serviced on a consolidated basis.

For 2023, we have set ourselves the goal of maintaining our consistently high performance in the relevant ESG ratings, including for the integrated Group, and continuing to present our sustainability performance to the capital market in a comprehensive and transparent way. As well as performing regular checks to see whether we are listed in the relevant indices, we also use the results of the rating process and peer group comparisons to further develop our sustainability measures in a targeted manner.

Within the company, the Sustainability/Strategy department is responsible for actively managing our participation in ESG ratings, involving the operating departments in this process. The Investor Relations department and the Sustainability/Strategy department report to the CEO. Decisions regarding ESG ratings are made in the sustainability committee, which also receives regular information on developments in this area. The Finance and Treasury department, which reports to the Chief Financial Officer (CFO), is responsible for the implementation of our financial instruments.

Portfolio Structure

Portfolio in the Property Management Business

As of December 31, 2022, the Group had a total real estate portfolio comprising 548,524 residential units (2021: 565,334), 164,330 garages and parking spaces (2021: 168,015) and 8,838 commercial units (2021: 9,289). Our locations span 628 cities, towns and municipalities in Germany, Sweden and Austria. 72,779 residential units are also managed for other owners. Most of the properties in the Group's portfolio are multifamily homes.

In terms of fair value, most of the properties (around 89%) are located in Germany. The Swedish portfolio accounts for around 8% of the fair value, while the share of the Austrian portfolio comes to around 3%. The portfolio is as follows as of December 31, 2022:

Portfolio and Fair Value by Country

	Portfolio			Fair value*		
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(in €/m²)	In-place rent multiplier
Vonovia Germany	487,659	29,990	1.8	80,069.1	2,590	29.2
Vonovia Sweden	39,453	2,818	3.4	6,876.3	2,248	20.1
Vonovia Austria	21,412	1,579	4.9	3,026.5	1,742	25.8
Vonovia total	**548,524**	**34,386**	**2.0**	**89,971.9**	**2,519**	**28.1**

* Fair value of the developed land excluding € 4,722.5 million, of which € 263.7 million for undeveloped land and inheritable building rights granted, € 566.0 million for assets under construction, € 2,116.4 million for development, € 1,062.6 million for nursing portfolio and € 713.8 million for other.

Rent and Rental Growth by Country

	In-place rent*			Rent increase	
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)	Market rent forecast valuation (in % p. a.)
Vonovia Germany	2,744	2,615	7.40	3.2	1.8
Vonovia Sweden	342	317	9.73	3.1	2.1
Vonovia Austria	117	93	5.18	7.7	1.7
Vonovia total	**3,202**	**3,025**	**7.49**	**3.3**	**1.8**

* Shown based on the country-specific definition.

As of December 31, 2022, the Group's real estate portfolio across Germany comprised 487,659 residential units, 122,297 garages and parking spaces and 6,095 commercial units distributed across 476 cities, towns and municipalities. The total living area amounted to 29,989,860 m², with the average apartment size coming in at around 61 m². With a vacancy rate of 1.8%, an average monthly in-place rent of € 7.40 per m² was generated in Germany. The annualized in-place rent for the residential portfolio as of December 31, 2022, came to € 2,615 million for apartments.

In Sweden, the Group's real estate portfolio comprised 39,453 residential units spanning a total living area of 2,817,871 m², 25,374 garages and parking spaces and 2,149 commercial units. With a vacancy rate of 3.4%, the residential portfolio generated annualized in-place rent of € 317 million as of December 31, 2022. The apartments, which average 71 m² in size, generate monthly in-place rent of € 9.73 per m² (inclusive). Most of them are located in the Stockholm, Gothenburg and Malmö regions.

In the Austrian portfolio, which is largely located in Vienna, Vonovia achieved an annualized in-place rent of € 93 million as of December 31, 2022, with a vacancy rate of 4.9% in the residential portfolio, which comprises 21,412 units covering total living space of 1,578,658 m². The monthly in-place rent amounted to € 5.18 per m² with an average apartment size of around 74 m². The portfolio also comprised 16,659 garages and parking spaces and 594 commercial units.

Changes in the Portfolio

In the course of 2022, the Swedish portfolio was expanded by the acquisition of 830 residential units in the Malmö region. The acquired portfolio was as follows at the time of the takeover:

				In-place rent	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	Residential (p. a. in € million)	Residential (in €/m²)
Landskrona	830	62	6.4	6	8.62

In the course of 2022, the benefits and encumbrances relating to the apartments from the "Future and Social Pact for Housing" were transferred to municipal housing companies berlinovo, degewo and HOWOGE. Properties from the portfolio earmarked for sale were also disposed of in several transactions as part of the implementation of the portfolio management strategy. At the time of each transfer of possession, benefits and encumbrances, the statistics for the portfolios sold were as follows:

				In-place rent*	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	Residential (p. a. in € million)	Residential (in €/m²)
Disposal portfolios 2022	16,512	1,117.2	3.1	84.7	6.52

* Shown based on the country-specific definition.

In addition to the acquisition and sale of larger housing stocks, Vonovia's portfolio changed in 2022 as a result of additions arising from tactical acquisitions, the construction of new apartments and attic extensions on the one hand, and disposals of condominiums and multifamily homes from the portfolio earmarked for sale on the other.

Vonovia invests in its strategic holdings in particular in line with its climate path to promote sustainability and in line with its innovation strategy. We act on behalf of neighborhoods with the (new) development of our urban portfolios. The lion's share of the portfolio in Germany consists of neighborhoods that we have classified as urban quarters. The remaining existing buildings largely comprise smaller clusters of buildings and solitary properties that we have grouped together as urban clusters. Even though, unlike urban quarters, urban clusters do not relate to entire neighborhoods, they are also managed using the same long-term asset and property management strategies based on our operating platform.

The latest portfolio analysis led to the creation of the additional MFH Sales portfolio alongside the sales portfolio for non-strategic holdings (Non Core) and Recurring Sales within the strategic cluster. This portfolio involves the sale of multifamily homes largely located outside of our urban quarters. The corresponding liquidity inflows are to be used primarily for internal financing.

As part of the merger with Vonovia, Deutsche Wohnen's real estate portfolio was reviewed and also compared with Vonovia's portfolio to tap into synergy potential resulting from the coordinated management of the two portfolios. This process involved bringing the portfolio structure into line with Vonovia's and reporting Deutsche Wohnen's portfolio as integrated. Following the implementation of the annual structured reassessment of all potential, as of December 31, 2022, Vonovia's portfolio is as follows:

Portfolio and Fair Value by Strategy

	Portfolio			Fair value*	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(in €/m²)
Strategic	421,221	25,736	1.7	66,959.4	2,550
Urban Quarters	339,604	20,559	1.6	54,915.0	2,623
Urban Clusters	81,617	5,177	2.1	12,044.4	2,261
Recurring Sales	28,541	1,946	2.5	5,169.6	2,589
MFH Sales	23,531	1,495	1.7	6,166.0	3,939
Non Core	14,366	812	3.2	1,774.1	1,623
Vonovia Germany	**487,659**	**29,990**	**1.8**	**80,069.1**	**2,590**

* Fair value of the developed land excluding undeveloped land and inheritable building rights granted, assets under construction, development, nursing portfolio and other.

Rent and Rental Growth by Strategy

	In-place rent*			Rent increase
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)
Strategic	2,305	2,224	7.33	3.0
Urban Quarters	1,835	1,776	7.32	2.9
Urban Clusters	470	448	7.38	3.2
Recurring Sales	174	167	7.32	2.2
MFH Sales	174	164	9.27	7.3
Non Core	90	61	6.45	2.6
Vonovia Germany	**2,744**	**2,615**	**7.40**	**3.2**

* Shown based on the country-specific definition.

In order to boost transparency in portfolio presentation, we also break our portfolio in Germany down into **15 regional markets**. The regional market classification is orientated toward the residential real estate market regions in Germany. These markets are core towns/cities and their surroundings, mainly urban areas. Our decision to focus on the regional markets that are particularly relevant to Vonovia is our way of looking ahead to the future and provides an overview of our strategic core portfolio in Germany.

In relation to the fair value, 95% of our German portfolio is located in 15 regional markets. Only a small part of our strategic portfolios is located outside of these 15 markets. We have referred to this group as "Other strategic locations". Our stocks earmarked for sale from the "Recurring Sales"; "MFH Sales" and "Non Core" subportfolios in locations that do not include any strategic stocks are shown as "Non-Strategic Locations". The fact that our portfolio is spread nationwide makes us more independent of the circumstances prevailing on individual regional markets.

As of December 31, 2022, the German portfolio is as follows, broken down into regional markets:

Portfolio and Fair Value by Regional Market

	Portfolio			Fair value*		
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(in €/m²)	In-place rent multiplier
Berlin	144,094	8,629	1.1	27,793.9	3,123	35.0
Rhine Main Area	36,869	2,325	2.7	7,545.4	3,164	29.2
Dresden	45,318	2,627	2.4	5,769.2	2,081	26.3
Rhineland	31,744	2,085	1.9	5,631.7	2,628	27.4
Southern Ruhr Area	42,997	2,652	2.3	5,509.3	2,045	25.2
Hamburg	20,131	1,258	0.9	3,653.7	2,825	29.8
Hanover	22,099	1,392	2.2	3,211.9	2,226	25.8
Kiel	25,331	1,458	1.9	3,137.3	2,088	24.6
Munich	10,560	685	1.1	3,062.1	4,309	39.2
Stuttgart	13,359	840	1.6	2,514.2	2,939	28.6
Northern Ruhr Area	24,490	1,509	2.2	2,227.0	1,461	19.3
Leipzig	14,200	934	2.2	2,161.3	2,148	27.7
Bremen	11,736	714	1.9	1,559.5	2,131	27.3
Westphalia	9,442	617	1.9	1,235.8	1,980	24.1
Freiburg	4,036	275	1.2	802.1	2,889	29.1
Other strategic locations	27,618	1,752	2.5	3,750.2	2,096	24.3
Total strategic locations	**484,024**	**29,752**	**1.8**	**79,564.5**	**2,596**	**29.2**
Non-Strategic locations	3,635	238	1.9	504.6	1,911	21.5
Vonovia Germany	**487,659**	**29,990**	**1.8**	**80,069.1**	**2,590**	**29.2**

* Fair value of the developed land excluding undeveloped land and inheritable building rights granted, assets under construction, development, nursing portfolio and other.

Rent and Rental Growth by Regional Market

	In-place rent*			Rent increase	
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)	Market rent forecast valuation (in % p. a.)
Berlin	793	756	7.38	3.2	2.0
Rhine Main Area	259	248	9.14	3.8	1.9
Dresden	219	204	6.63	2.6	1.8
Rhineland	206	196	7.98	2.9	1.8
Southern Ruhr Area	219	213	6.85	3.5	1.6
Hamburg	123	118	7.87	4.1	1.7
Hanover	125	118	7.21	3.9	1.7
Kiel	127	122	7.09	3.2	1.7
Munich	78	74	9.10	2.1	2.0
Stuttgart	88	85	8.63	2.7	1.9
Northern Ruhr Area	115	112	6.30	2.6	1.3
Leipzig	78	71	6.46	2.4	1.7
Bremen	57	55	6.51	3.8	1.8
Westphalia	51	50	6.92	2.8	1.7
Freiburg	28	27	8.22	2.8	1.7
Other strategic locations	154	149	7.30	2.9	1.7
Total strategic locations	**2,720**	**2,596**	**7.41**	**3.2**	**1.8**
Non-Strategic locations	23	19	6.85	2.5	1.6
Vonovia Germany	**2,744**	**2,615**	**7.40**	**3.2**	**1.8**

* Shown based on the country-specific definition.

Portfolio in the Development Business

Vonovia Development Under the BUWOG Brand Name

It is under the BUWOG brand that Vonovia's Development business area has become firmly established, primarily in Vienna and Berlin. The Development business area also includes new construction projects on the company's own land.

The acquisition of the Deutsche Wohnen Group added an extensive development pipeline to the existing BUWOG project pipeline. As a result, the pipeline's regional distribution covers the core regions of Berlin, the Rhine-Main region, Dresden/Leipzig, Hamburg, Stuttgart and Munich, expanding the development business to cover the whole of Germany.

In the 2022 fiscal year, Deutsche Wohnen's development activities were integrated into BUWOG's structures on the basis of an agency agreement, the aim being to benefit from BUWOG's development platform and expertise in particular, as well as leveraging harmonization effects and economies of scale. With the skills of the two companies now bundled and the options available for exploiting synergy potential on both sides, the challenges facing the residential real estate market can be addressed more quickly and efficiently.

BUWOG provides Vonovia with an end-to-end development platform spanning the entire value chain – from the purchase of land to its development, project planning, construction and sale. With its substantial product pipeline of residential construction projects that are currently being built, planned or prepared, Vonovia, with the BUWOG brand, ranks among Germany's leading building contractors and is the most active private building contractor in Austria.

Development Business Model

As a major player in the residential real estate segment, Vonovia seeks to use its property development expertise to offer targeted solutions in response to current challenges such as the shortage of housing, climate change, integration and cross-generational housing.

Sustainable and Successful Development

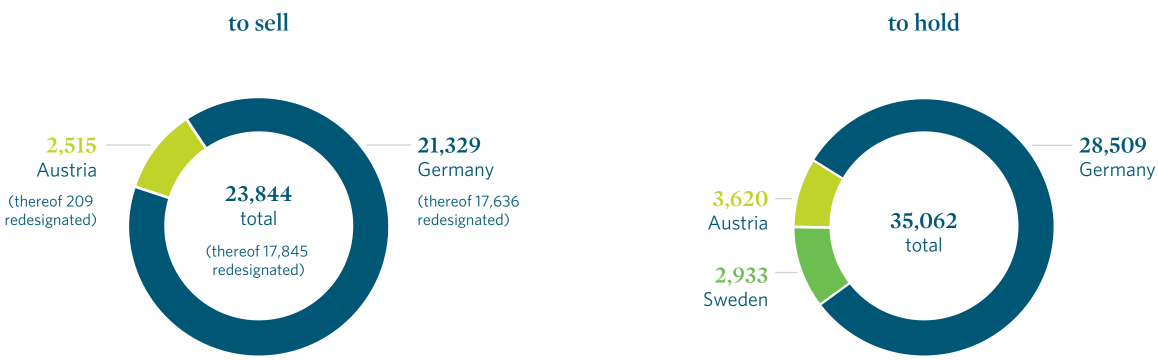
Development Business Model

Conceptual and technical solutions for the resource-light construction and sustainable operation of neighborhoods make up a key component of the development business model. In line with the three focal issues of urbanization, energy efficiency and demographic change, central aspects of sustainability are already taken into account in the early stages of project development. This includes designing socially diverse neighborhoods that offer housing for all generations, realizing energy-efficient new construction projects for ecologically sustainable operation by buyers, as well as for a carbon-neutral portfolio, and creating barrier-free and fully accessible housing for an aging society with changing housing needs.

Sustainability is achieved at all stages in the residential real estate value chain – from the selection of building materials that are as ecological and recyclable as possible, to the commissioning of local craftsmen and service providers, and the sustainable operation of the development projects.

Certification is important to ensure that potential improvements can be made back at the planning stage on the basis of criteria for ecological, social and economic sustainability and managed during the construction process. The “MARINA TOWER”, for example, was given gold status by the klimaaktiv climate protection initiative and was also awarded the Austrian Sustainable Building Council’s (ÖGNI) gold sustainability certificate. BUWOG’s sustainable activities in Vienna have also been recognized with the Greenpass sustainability certificate for the “Kennedy Garden” project. The “BUWOG NEUMARIEN” new construction project in

Development to Sell and Hold (Number of Residential Units)



Valuable Contributions to Society and the Group

Development

1 Acquisition	2 Development	3 Planning	4 Construction	5 Marketing and sales
> Identification of acquisition opportunities > Assessment of development opportunities > Due diligence (legal, tax, technical, environmental, etc.) > Cross-disciplinary acquisition teams > Development of project pipeline, property database	> Design idea > Analysis of market and regulations > District and city representatives, citizens, service providers and other stakeholders > Construction optimization and city development > Coordination of zoning	> Integral planning and cross-disciplinary project teams > Type and product development > Determination of aesthetic, ecological, functional and economic requirements > Detailed project calculation > Professional planning > Coordination of construction approval process	> Preparing for construction > Procurement and awarding of construction contracts > Trade coordination/construction management > Construction > Quality control	> Development of marketing concepts > Sale > Initial rental > Customer service and aftercare

Berlin-Neukölln was also awarded another gold certification by the German Sustainable Building Council (DGNB). Other major development projects in the planning stages have already been registered for DGNB pre-certification, including the development of the Bayerischer Bahnhof district in Leipzig comprising around 1,300 apartments.

The application and further development of innovative solutions is being driven in collaboration with universities and networks for research and knowledge transfer. These endeavors include the areas of sustainable energy generation, innovative mobility concepts and Smart City, as implemented, for example, in the plans for the “Das Neue Gartenfeld” project.

As part of the cooperation with Open District Hub e.V., an ICT ecosystem is to be developed to support fully integrated and fully automated sector coupling at neighborhood level while also meeting the needs of the user community. A cooperation project has been launched with the raw materials platform Madaster so that Vonovia can register, document and archive materials used in buildings. This is laying the foundation for the circular use of products and materials in the construction industry.

Value Creation and Project Development

Real estate development activities can be tackled successfully through long-standing experience, extensive market and sector expertise and intensive, ongoing market analysis, making a valuable contribution to sustainability and to alleviating the shortage of housing.

The strategy of incorporating process steps into the company’s own value chain allows Vonovia to provide stringent and targeted support to residential construction projects and to exploit cost synergies with regard to technical solutions and the pooling of procurement volumes. Being able to cover the entire real estate development value chain internally makes the company more efficient and, as a result, more profitable.

In the Development segment, we make a distinction between two different areas:

> Development to sell includes the units that are sold to investors or to future owner-occupiers directly.
> Development to hold refers to those residential construction projects whose apartments will be added to Vonovia’s rental portfolio upon their completion.

The disruption to global economies and the supply and value chains that connect them, triggered in particular by the war in Ukraine, meant that the Development business area faced particular challenges in 2022 with regard to sale prices, cost prices and profitability. Although Vonovia closed the fiscal year with what was a satisfactory result against this backdrop, development projects previously allocated to the "to hold" portfolio have since been moved to the "to sell" portfolio following changes in profitability criteria and in a quest to strengthen the company's internal financing power.

This redesignation affects a total of 17,845 units and a project volume of € 7,195.7 million.

Overview of Key Development Figures

In the 2022 fiscal year, the Development segment generated Adjusted EBITDA of € 183.2 million in total, including the contribution from Deutsche Wohnen's projects, contributing to Vonovia's successful business.

As of December 31, 2022, the total volume of the development portfolio was 58,906 residential units (a total of 9,348 units from projects under construction and a total of 49,558 units from the pipeline), with 13,004 attributable to Deutsche Wohnen's portfolio.

In the **"Development to sell"** area, the income from disposal of properties came to € 560.6 million in 2022, with € 257.1 million attributable to project development in Germany (thereof € 12.5 million Deutsche Wohnen) and € 303.5 million attributable to project development in Austria.

As of December 31, 2022, and following the redesignation referred to above, there were 23,844 residential units in the "to sell" development portfolio, 6,538 of which related to projects under construction, 125 to projects from the short-term pipeline and 17,181 to projects from the medium-term pipeline. The share attributable to project development in Germany came to 21,329 units (6,182 of which related to projects under construction, 125 to projects from the short-term pipeline and 15,022 to projects from the medium-term pipeline). 8,049 units were attributable to Deutsche Wohnen. The share attributable to project development in Austria came to 2,515 units (356 of which related to projects under construction and 2,159 to projects from the medium-term pipeline).

A total of 1,678 residential units from the "to sell" portfolio were completed in 2022, 484 in Germany (Deutsche Wohnen: 80 units) and 1,194 in Austria.

In the **"Development to hold"** area, a fair value of € 433.9 million was realized in 2022, with € 265.0 million attributable to Germany, € 160.5 million to Austria and € 8.4 million to Sweden.

As of December 31, 2022, and following the redesignation, there were 35,062 residential units in the "Development to hold" portfolio, 2,810 of which related to projects under construction, 381 to projects from the short-term pipeline and 31,871 to projects from the medium-term pipeline. The share attributable to Germany came to 28,509 units (2,352 of which related to projects under construction, 364 to projects from the short-term pipeline and 25,793 to projects from the medium-term pipeline). 4,955 of these units were attributable to Deutsche Wohnen. The share in Austria came to 3,620 units (296 of which related to projects under construction and 3,324 to projects from the medium-term pipeline). The share attributable to Sweden came to 2,933 units (162 of which related to projects under construction, 17 to projects from the short-term pipeline and 2,754 to projects from the medium-term pipeline).

A total of 2,071 residential units were completed in this area with 1,338 in Germany, 592 in Austria and 141 in Sweden.

Nursing and Assisted Living

Care Segment

We are currently responding to the megatrend of demographic change and, in particular, our aging society by offering nursing and assisted living facilities for older people. As part of this quest, we manage corresponding nursing care properties and offer nursing and assisted living services.

Similar to in the rental business, our activities in the Care segment focus on cities and regions with positive development forecasts, as these are the areas with a particularly high demand for nursing and other care services (full inpatient care, as well as assisted living combined with outpatient and day patient care). We place particular emphasis on high-quality properties, as well as high-quality care, support and service.

In the 2022 fiscal year, the Management Board of Deutsche Wohnen launched a review of the Care segment with regard to its future strategic importance within the Group. This process involves answering questions, for example, as to whether the segment can be expanded further, or whether it should, and can, be sold given the lack of uniform regulations in the care sector, the requirements that apply to, and the availability of, staff and the expected profitability development. As part of this strategic review process, the Management Board of Deutsche Wohnen also subjected the Care segment to a market test. The final results and decisions were not yet available at the time the financial statements were prepared.

Nursing Care Businesses

Retirement and care homes are operated under the brands KATHARINENHOF and PFLEGEN & WOHNEN HAMBURG. These facilities provide full residential care, the aim being to maintain an active lifestyle and residents' independence to the greatest possible extent. Senior citizen-friendly services are also provided within the context of assisted living.

Nursing Care Properties

The Nursing and Assisted Living business area encompasses 72 nursing care properties with a total of around 9,540 nursing places, 71 of which are owned by Deutsche Wohnen. This makes us one of the biggest holders of nursing care properties in Germany.

We operate our care business in two different models:

39 care facilities (approx. 5,240 places) are managed by Group-owned KATHARINENHOF Seniorenwohn- und Pflegeanlage Betriebs-GmbH together with its subsidiaries, Hamburger Senioren Domizile GmbH (HSD) and PFLEGEN & WOHNEN HAMBURG GmbH.

A further 33 facilities (approx. 4,300 places) are leased and managed by various non-Group operators on a long-term basis.

Management System

Management Model

Our management system is based on our → **corporate strategy** and our sustainable business activities.

In the 2022 fiscal year, Vonovia initially continued with the 2021 management system until the end of the fourth quarter of 2022. Details can be found in the chapter Management System of the **2021 Annual Report**. Vonovia's business was managed via the five segments: Rental, Value-add, Recurring Sales, Development and Deutsche Wohnen.

At the end of the fourth quarter of 2022, the Deutsche Wohnen segment was dissolved and transferred to the Rental , Value-add, Recurring Sales, Development and Care segments. Details are set out in the Notes under → **[A2] Adjustment to Prior-year Figures**.

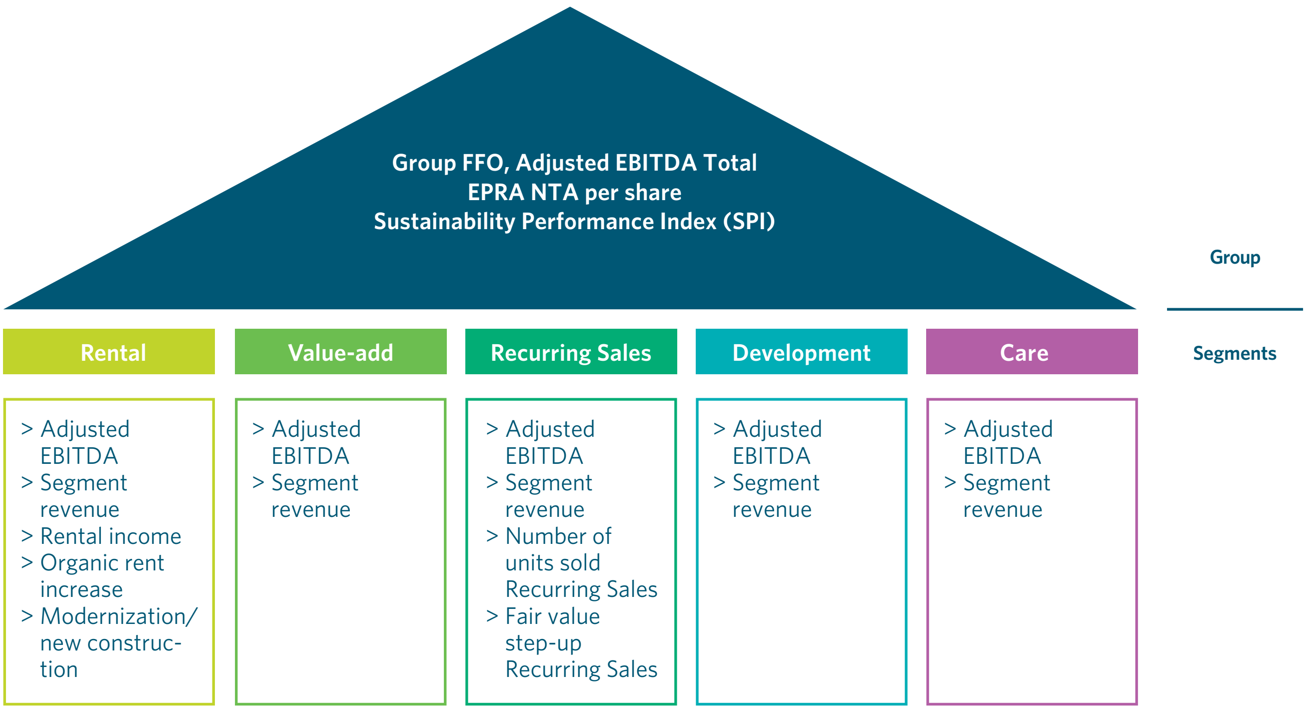
The Rental segment combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden.

The Value-add segment bundles all of the housing-related services that we have expanded our core rental business to include. These services include both the maintenance and modernization work on our residential properties and services that are closely related to the rental business. We allocate the activities relating to the craftsmen's and residential environment organization, the condominium administration business, the cable TV business, metering services, energy supplies and our insurance services to the Value-add segment.

The Recurring Sales segment includes the regular and sustainable disposals of individual condominiums and single-family houses from our portfolio. It does not include the sale of entire buildings or land (MFH Sales/Non Core). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of the Recurring Sales segment. We report these opportunistic sales in the Other column of the segment report.

The Development segment includes project development to build new homes. This covers the value chain starting with the purchase of land without any development plan/dedicated purpose and ending with the completion of new buildings and new construction measures on our own properties. These properties are either incorporated into our own portfolio or sold to third parties. The Development segment deals with projects in selected attractive locations. The value creation from the valuation of the properties at market prices will be allocated to the Development segment when these residential properties are incorporated into our own portfolio.

The Care segment includes all activities relating to the management of the Group's own nursing care businesses and the leasing of nursing care properties.



Performance Indicators

The management system has a modular structure and makes a distinction between performance indicators at Group level (most meaningful performance indicators within themeaning of DRS 20) and those at segment level.

All of the key financial figures shown here are known as "non-GAAP" measures or **alternative performance measures (APMs),** i.e., key figures which cannot be taken directly from the figures in the consolidated financial statements according to IFRS The financial performance indicators can, however, all be reconciled to the closest-possible key figure in the consolidated financial statements.

We make a distinction between **financial** and **non-financial performance indicators**.

We have an integrated Group-wide planning and controlling system in place that is based on central performance indicators. Based on the medium-term plans derived from our strategy, which are subject to an annual review and are updated during the year in the event of significant transactions, we prepare a budget for all areas of the Group. In the course of the fiscal year, current economic developments are compared with these targets and the current forecasts on a regular basis for all key figures that are relevant to control. The business is then steered accordingly in a targeted manner, with any necessary countermeasures being initiated and tracked.

At **Group level, Group FFO,** the **Adjusted EBITDA Total,** the **EPRA NTA per share and the** Sustainability Performance Index are our most meaningful performance indicators.

At the segment level, we look not only at the Adjusted EBITDA, but also at the segment revenue in order to measure not only rental income in the Rental segment but also performance in the Value-add, Development, Recurring Sales and Care segments. The segment revenues generated by all of the segments make up the total segment revenue. Its development over time serves as an additional growth indicator for Vonovia.

The management system includes the following key figures:

Financial Performance Indicators

Group FFO is key for managing the sustained operational earnings power of our business. It is calculated as follows:

Calculation of Group FFO

	Revenue in the Rental segment
(-)	Expenses for maintenance
(-)	Operating expenses in the Rental segment
=	**Adjusted EBITDA Rental**
	Revenue in the Value-add segment
	thereof external revenue
	thereof internal revenue
(-)	Operating expenses in the Value-add segment
=	**Adjusted EBITDA Value-add**
	Revenue in the Recurring Sales segment
(-)	Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for Recurring Sales
=	Adjusted result Recurring Sales
(-)	Selling costs in the Recurring Sales segment
=	**Adjusted EBITDA Recurring Sales**
	Revenue from the disposal of "Development to sell" properties
(-)	Cost of Development to sell
=	Gross profit Development to sell
	Fair value Development to hold
(-)	Cost of Development to hold
=	Gross profit Development to hold
(+)	Rental revenue Development
(-)	Operating expenses in the Development segment
=	**Adjusted EBITDA Development**
	Revenue in the Nursing Business segment
(-)	Expenses for maintenance
(-)	Operating expenses in the Nursing Business segment
=	**Adjusted EBITDA Nursing Business**
Σ	**Adjusted EBITDA Total**
(-)	FFO interest expense
(-)	Current income taxes FFO
(-)	Consolidation
=	**Group FFO**

Due to the limited extent to which Vonovia can control the operating results of those companies included using the equity method, the earnings components of these companies have no longer been included in the performance indicators that are relevant for tax purposes, Adjusted EBITDA Total and Group FFO, since the September 30, 2022 reporting date. The corresponding prior-year figures have been adjusted.

The individual EBITDA figures, after adjustments to reflect effects that do not relate to the period, recur irregularly or are atypical for business operation, form the basis for the operational management of the five segments.

The Adjusted EBITDA Rental reflects the operating profit from residential property management. It can be broken down into three central components: Rental segment revenue, expenses for maintenance and operating expenses in the Rental segment.

The latter include all expenses and income that do not relate to expenses for maintenance or rental income in the Rental segment.

In addition to the expenses for maintenance, we make large-scale investments in our real estate portfolios, with a distinction being made between capitalized maintenance and value-enhancing investment in the form of modernization and new construction measures for our own portfolio.

We manage business activities in the Value-add segment using the Adjusted EBITDA Value-add.

We measure the success of the Recurring Sales segment using Adjusted EBITDA Recurring Sales. The Adjusted EBITDA Recurring Sales compares the proceeds generated from the privatization business with the fair values of properties sold and the related costs of sale. In order to disclose profit and revenue in the period in which they are incurred and to report a sales margin, the fair value of properties sold, valued in accordance with IFRS 5, has to be adjusted to reflect realized/unrealized changes in value.

The Development segment is managed via the Adjusted EBITDA Development. In addition to the revenue from the sale of residential properties built in the reporting year to third parties and the associated costs, we also record the fair value that newly constructed properties create for our own portfolio, as well as the associated costs, as a means of measuring the success of the Development segment.

The Care segment includes all activities relating to the management of the Group's own fully inpatient nursing care facilities and the leasing of nursing care properties to third parties. We manage business activities in the Care segment using segment revenue and the Adjusted EBITDA Care.

The Adjusted EBITDA Total is calculated as the sum total of the Adjusted EBITDA figures for our five segments. It expresses the overall performance of our sustainable operating business before interest, taxes, depreciation and amortization.

As financing is a fundamental component for the success of our business activities, we deduct the current interest expense, adjusted for special circumstances (FFO interest expense), from the Adjusted EBITDA Total. Taking current income taxes and consolidation effects into account, this allows us to calculate Group FFO, the key figure for the sustained earnings power of our business.

When it comes to managing the growth of our company, we also focus on total segment revenue. Total segment revenue includes all income generated by what are now five segments that contribute to value creation, i.e., that cover costs and make an earnings contribution.

Calculation of Total Segment Revenue

	Rental income
(+)	Other income from property management unless included in the operating expenses in the Rental segment
(+)	Other income from property management from the Nursing Business
(+)	Income from disposals Recurring Sales
(+)	Internal revenue Value-add
(+)	Income from the disposal of properties
(+)	Fair value Development to hold
=	**Total Segment Revenue**

In addition to our operational earnings power, the value of our property assets and our modernization and new construction measures are decisive for the further development of our company.

The **EPRA Net Tangible Assets (EPRA NTA)** is used to manage the company's value. Our calculations are based on the best practice recommendations of the EPRA (European Public Real Estate Association). The indicator that is relevant from a corporate management perspective is the **EPRA NTA per share.**

Calculation of EPRA NTA per share

	Total equity attributable to Vonovia's shareholders
(+)	Deferred tax in relation to fair value gains of investment properties*
(+)	Fair value of financial instruments**
(-)	Goodwill
(-)	Intangible assets
=	**EPRA NTA**
(/)	no. of shares as of the reporting date
=	**EPRA NTA per share**

* Share for hold portfolio.
** Adjusted for effects from cross currency swaps.

Other non-operating financial key figures include the **loan-to-value (LTV)** ratio, which is used for monitoring the degree to which debt is covered by the value of the properties, the **net-debt/EBITDA** ratio, which is used for monitoring the degree to which debt is covered by our sustained operating result and the **interest coverage ratio (ICR)** , which expresses the extent to which interest is coveed by our sustained operating result.

Non-financial Performance Indicators

In addition to our key financial figures, we also focus on non-financial operating performance indicators.

Our business activities are aimed at protecting the environment, ensuring trustworthy, transparent and reliable corporate governance and taking social responsibility for our customers and employees.

In line with this focus, we introduced the **Sustainability Performance Index** as a key non-financial control parameter in the 2021 fiscal year. Indicators used in the new Sustainability Performance Index are the carbon intensity of the housing stock, the energy efficiency of new buildings, the share of accessible (partial) modernization measures in relation to newly let apartments, the increase in customer and employee satisfaction and proportion of female managers in the company's top management team.

Each component is assigned an individual factor and a defined annual target amount. The weighted targets add up to a target of 100% that we aim to achieve every year. In order to measure target achievement for the 2022 fiscal year, performance is compared excluding Deutsche Wohnen in each case. In the reporting on the levels of the individual indicators within the Non-financial Group Declaration, the business activities of Deutsche Wohnen are included (excluding the Nursing and Assisted Living segment), unless otherwise stated. The targets for 2023 include Deutsche Wohnen in full.

The **organic rent increase** refers to the increase in the monthly in-place rent for the residential portfolio that was already held by Vonovia twelve months previously and rented as of the reporting date, plus the increase in rent resulting from the construction of new apartments and the addition of stories to existing properties. The monthly in-place rent per m² gives information on the average rental income from the portfolio as of the relevant reporting date.

The vacancy rate also shows the proportion of units in our own portfolio that are not rented and therefore generate no rental income. It can serve as an early-warning indicator, e.g., to identify non-marketable apartments. The vacancy rate and the average rent are key drivers for the development of our key figures related to the management of rental income. They serve as essential **early warning indicators**.

The **number of units sold** from **Recurring Sales** shows our ongoing efforts in the privatization business. In addition to this, we report the Non Core/Other.

The **fair value step-up Recurring Sales** represents the difference between the income from the sale of a privatized residential unit and its last recognized fair value. It shows the percentage increase in value for the company on the sale of a residential unit before further costs of sale.

Sustainability Performance Index (SPI)

- CO_2 intensity in the housing stock →
- Sustainable and energy-efficient new construction →
- Homes that are (partially) modernized to make them fully accessible →
- Increase in customer satisfaction →
- Increase in employee satisfaction →
- Diversity in the management team →

Sustainability Performance Index

Report on Economic Position

Key Events During the Reporting Period

The overall conditions on the market, which have undergone lasting changes, in particular rising interest and inflation rates coupled with heightened uncertainty in the commodity markets and supply chains that remain disrupted, create a highly complex environment for corporate management.

The operating business was positive overall in 2022. The Adjusted EBITDA Total increased by around 23%. EBITDA in the Rental, Recurring Sales and Care segments showed positive development. Adjusted EBITDA in the Development segment was almost on a par with the previous year. Adjusted EBITDA in the Value-add segment dropped by around 18%. All in all, moderate effects resulted from the Ukraine war and the coronavirus pandemic. These effects related primarily to the procurement of raw materials.

As of December 31, 2022, Vonovia's portfolio was virtually fully occupied with a vacancy rate of 2.0%. The Customer Satisfaction Index (CSI) was 0.2 percentage points below the value seen in the previous year in the fourth quarter of 2022. Looking at the average for the year as a whole, however, customer satisfaction increased by 1.0 percentage points year-on-year.

The high customer satisfaction values confirm our efforts in property management and, together with the low vacancy rate, provide a solid foundation for our business. At the same time, this also means stable cash flows and, as a result, a stable basis for the income from our residential properties.

We remain convinced that the challenges associated with megatrends have not changed and that, in the housing industry, these can best be solved by thinking and acting in terms of neighborhoods.

As a result, the lion's share of the portfolio in Germany consists of neighborhoods that we have grouped together as urban quarters. The remaining existing buildings largely comprise smaller clusters of buildings and solitary properties that we have grouped together as urban clusters. Even though, unlike urban quarters, urban clusters do not relate to entire neighborhoods, they are also managed using the same long-term asset and property management strategies based on our operating platform.

The latest portfolio analysis led to the creation of the additional MFH Sales portfolio alongside the sales portfolio for non-strategic holdings (Non Core) and Recurring Sales within the strategic cluster. This new portfolio is to be used primarily for internal financing. The corresponding income will be reported together with Non Core as part of the Non Core/Other segment going forward.

As a result of the higher interest rates, there was a further increase in the cost of capital, meaning that impairment losses amounting to € 1,040.3 million in total were recognized on goodwill and the trademark rights in the nursing and assisted living sector. Impairment losses of € 330.7 million were also recognized on investments accounted for using the equity method as of December 31, 2022. On the other hand, the increase in the discount rate for the measurement of pension provisions translated into actuarial gains.

The bridge facility taken out in connection with the acquisition of a majority stake in Deutsche Wohnen was valued at € 3,490.0 million at the beginning of 2022 and was repaid in full as of March 1, 2022.

In the second quarter of 2022, two bonds worth € 500 million each were repaid, one of which was repaid early. Commercial papers in the amount of a further € 500 million were repaid as planned.

In November 2022, Vonovia issued a social and a green bond in a combined amount of € 1.5 billion with an average term of 6.3 years and an average interest rate of 4.875%. The proceeds were used to buy back bonds totaling some € 1.0 billion early, with maturity dates in 2023 and 2024.

2022 was also dominated by the integration of Deutsche Wohnen, the aim being to use standardized processes and systems, leverage synergy potential and create shared legal conditions for cooperation. This cooperation aims to use Vonovia's management and development platform to leverage benefits through harmonization and standardization effects and economies of scale.

The Annual General Meeting held on April 29, 2022, resolved to pay a dividend for the 2021 fiscal year in the amount of € 1.66 per share. In a year-on-year comparison, this corresponds to an increase of € 0.08 – taking into account the increased number of shares due to the capital increase following the takeover of Deutsche Wohnen. As in previous years, shareholders were offered the option of choosing between being paid the dividend in cash or being granted new shares. During the subscription period, shareholders holding a total of 47.85% of the shares carrying dividend rights opted for the scrip dividend instead of the cash dividend. As a result, 19,252,608 new shares were issued using the company's authorized capital for a total of € 616,815,055.10. The total amount of the dividend distributed in cash therefore came to € 672,336,610.64.

At its meeting on December 8, 2022, the Supervisory Board of Vonovia SE decided unanimously that Clara-Christina Streit should assume the position of Chair of the Supervisory Board following the Annual General Meeting on May 17, 2023. She would therefore succeed Jürgen Fitschen, who will not stand again for election on account of the age limit in place at Vonovia.

Development of the Economy and the Industry

Following a lively first half of 2022, the pace of economic growth in the European Union slowed down in summer, according to the European Commission. With the momentum associated with the economic recovery declining, the contractionary forces unleashed by Russia's war of aggression against Ukraine are gaining the upper hand. Rising energy prices are having an impact on the entire economy, with high inflation devaluing earnings and household savings to an extent that has not been witnessed for many years. Not only is a recession likely this winter, but the weak economy is also expected to remain weak in 2023. Despite the challenging underlying conditions, the Federal Statistical Office estimates that the German economy grew by 1.9% in terms of gross domestic product (GDP) in 2022 compared to the previous year. Nonetheless, the energy crisis continues to have a severe adverse effect on the German economy according to the Kiel Institute for the World Economy (IfW). According to the National Institute of Economic Research (NIER), gross domestic product in Sweden is estimated to have expanded by 2.8% in 2022. High inflation and rising interest rates will contribute to a slowdown in the Swedish economy in 2023. According to the Institute of Economic Research, Austrian GDP grew 4.7% on account of the strong first half of the year, but is likely to have contracted in the winter months. For 2023, GDP growth of 0.3% is forecast for Germany (IfW), -0.9% for Sweden (NIER) and 0.3% for Austria (Institute of Economic Research, WIFO).

Overall, the labor market is stable. On average, unemployment and underemployment fell significantly in Germany in 2022, according to the Federal Employment Agency, although these declines are attributable to the favorable trend seen in the previous year and the first half of 2022. Starting midway through the year, the documentation of Ukrainian refugees resulted in a further rise. According to the German Federal Employment Agency (Bundesagentur für Arbeit), the unemployment rate based on the total civilian labor force in June 2022 fell by 0.4 percentage points year-on-year to 5.3%. The NIER estimates the unemployment rate in Sweden at 7.4%, which is approx. 1.4 percentage points down on the previous year. According to national calculations by the Austrian Public Employment Service (AMS), the unemployment rate in Austria in 2022 was 6.3% and thus 1.7 percentage points lower than in the previous year. In light of the challenges facing the economy, it is expected that the situation on the labor market will temporarily deteriorate in 2023. Based on respective national definitions, the average unemployment rate expected is 5.5% for Germany (IfW), 8.1% in Sweden (NIER) and 6.5% in Austria (WIFO).

In 2022, the pressure associated with the prices of energy, food and other raw materials led to a palpable increase in inflation. Measured against the national Consumer Price Index (CPI), figures from the national statistics offices suggest that average inflation amounted to 7.9% in Germany, and likely came to 8.4% in Sweden and 8.6% in Austria. It is expected that the price spikes will tail off in 2023 and that inflation will be slightly lower. Based on respective national definitions, a CPI increase of is 5.4% is expected for Germany (IfW), 5.2% for Sweden (NIER) and 6.5% for Austria (WIFO).

On account of high inflation, the European Central Bank (ECB) gradually increased the key interest rate from 0% in July 2022 to the level of 2.5% at year-end 2022, doing so in four steps. The ECB ceased purchasing bonds on July 1. The high inflation rate also led the Swedish Riksbank to increase the policy rate, first in May 2022 to 0.25% and then in three steps to 2.5% at year-end 2022. In June, the Riksbank also opted to purchase fewer bonds than initially decided in the second half of 2022. Further increases in the benchmark/policy rates are expected for 2023. In February 2023, for example, the ECB lifted its key interest rate, and the Swedish Riksbank its policy rate, to 3.0%. In this environment, significant year-on-year rises in interest rates for construction financing were observed in Germany, Sweden and Austria in 2022.

The interest rate rises are adversely affecting real estate markets. Residential property ownership markets cooled during the course of the year, with the days of sharp price increases likely consigned to the past. According to Savills, the fundamental conditions for landlords in Germany remain favorable. Demand for rental apartments has noticeably increased, partly due to rapid population growth and because many households are currently unable to afford to buy their own homes and therefore continue to rent. Quoted rents continued to increase across Germany; empirica reports that they were 6.6% higher on average over all years of construction in the fourth quarter of 2022 (new construction 6.3%) than in the same quarter of the previous year. Further rent increases are likely in 2023. DB Research believes that it would be no surprise if existing rents were to increase by far more than 2% per annum for structural reasons. Savills estimates that average rental growth for apartments in Sweden in 2022 came in between 3% and 5%. It is expected that it will take three to five years for the rental trend to catch up with inflation. Measured against the index for actual rental payments for primary residences as part of the consumer price index, rents in Austria also rose from the beginning of the year and were approx. 5.4% higher in December 2022 than in the comparable prior-year month. According to RE/MAX, Austrian rents not subject to rent restrictions are likely to rise marginally in 2023 and may even fall in rural districts.

Although residential real estate prices were still climbing at the start of the year, price growth slowed down noticeably in Germany, Sweden and Austria. The empirica price index for condominiums in Germany (all years of construction) was nonetheless 0.6% higher in the fourth quarter of 2022 compared to the same period of the previous year (new construction 5.2%). According to Svensk Mäklarstatistik, prices for tenant-owned apartments (Bostadsrätter) in Sweden fell by 8.6% in December 2022 compared with the same month of last year. The values of the current residential real estate price index of the Austrian central bank (OeNB) on the basis of new and used condominiums and single-family residences show an increase in Austria in the fourth quarter of 2022 of 5.2% compared to the previous year. Prices of condominiums in Germany and tenant-owned apartments in Sweden peaked within the first half of the year. As a result, the prices of apartments declined during the rest of the year. In Austria, the OeNB residential real estate price index indicated virtual stagnation in the third quarter, following increases in the previous quarters, and did not show a decline until the fourth quarter. Despite the continued high demand for housing in some areas, the changes in the underlying conditions dampened demand for residential property ownership in all three countries. Given the fundamental shortage on the supply side, DB Research only expects a temporary dip in prices in Germany. According to Boverket and RE/MAX, the price trend for residential property in Sweden and Austria will initially take a downward trajectory in 2023.

The size of the population in Germany, Sweden and Austria is estimated to have risen again in 2022 and is expected to increase further. There is still a shortage of apartments in many large cities and urban areas. However, construction activity is declining in Germany. According to an estimate of Zentralverband Deutsches Baugewerbe, only 280,000 apartments were built in 2022; this figure may only stand at 245,000 for 2023 (2021: 293,393). The German federal government set itself the goal of building 400,000 new apartments per year in Germany. For 2023 and 2024, CBRE estimates that a further increase in regular immigration (workers, joining family members, students) of more than 350,000 people per annum is realistic. As a consequence of the Russian war of aggression against Ukraine, there are currently about one million Ukrainian refugees in Germany. As a result, the housing shortage is likely to intensify. Boverket estimates that approximately 63,400 apartments have to be built per year in Sweden by 2030. In 2022, around 64,000 apartments were completed (2021: just under 53,000), meaning that the additional need for the year was met. The conditions for housing construction, however, have deteriorated rapidly since the start of 2022. According to Bank Austria, residential construction activity in Austria has largely addressed the marked increase in the demand for homes in recent years. However, gaps are likely to be found primarily in the sector comprising low-cost rental apartments in bigger cities. In light of the aftermath of the COVID-19 pandemic and the impact of the war in Ukraine, the construction industries faced higher prices, disrupted supply chains, actual/impending material shortages and rising interest rates in 2022. In addition, Germany and Austria are suffering from a shortage of skilled labor. According to DB Research, construction costs will hardly decrease in Germany in 2023. In light of declining construction investment, however, the disruption to supply chains may ease and, for instance, the cost of raw materials may fall further, as already witnessed in recent months. According to Boverket, in Sweden the prices of building materials may fall slightly in the first half of 2023.

As a reflection of the change in interest rate policy, it is not only the German market for residential property investment that was more cautious in 2022. According to CBRE, the transaction volume on the residential investment market in Germany stood at € 13.5 billion and was therefore 73% down on the previous year. This difference is, on the one hand, attributable to the major transaction conducted in 2021 – the takeover of Deutsche Wohnen SE by Vonovia SE; on the other hand, CBRE believes that the market is in a phase of price adjustment triggered by the new interest rate environment and that this is also contributing to the decline in investment volume. Against this backdrop, prime yields rose in the top seven cities. At the same time, rents rose in the top seven cities. According to Colliers, properties worth € 19.3 billion were traded on the Swedish transaction market in 2022, representing a year-on-year decrease of approx. 42%. In terms of transaction volume, residential properties were the preferred asset class with a share of 29% (2021: 33%). According to EHL, the Austrian real estate investment market saw a transaction volume of approximately € 4 billion in 2022, roughly 10% less than in the previous year. The share of the residential segment stood at 31.3% and was therefore down on the previous year (2021: 34.8%).

Housing policy developments in 2022 and at the start of 2023 in Germany included changes to the Federal Funding for Efficient Buildings (BEG). In February, it once again became possible to apply for BEG renovation programs. In April, BEG funding for new builds was relaunched subject to new conditions. A reform of the BEG came into effect on January 1, 2023; as such, new conditions apply in respect of refurbishments to achieve energy-efficiency building standards as well as for individual measures. Since March 1, 2023, the German government has also been promoting the construction of particularly climate-friendly buildings by making loans available on more favorable terms. In the German Buildings Energy Act (GEG), the permissible primary energy level was tightened as of January 1, 2023. Moreover, the reform of rent indices legislation came into effect as of July 1, 2022. Rent indices have since been compulsory for cities with more than 50,000 inhabitants. Furthermore, the German cabinet also approved a draft bill for dividing CO_2 costs between landlords and tenants in 2022, with the act coming into effect on January 1, 2023. An increase in the CO_2 price scheduled for 2023 has been postponed until 2024. The straight-line rate for the amortization of residential buildings was increased from 2% to 3% as of January 1, 2023. This applies to residential buildings completed as of the start of 2023. Investment subsidies for rental apartments in Sweden were discontinued; as of the end of 2022, these subsidies are no longer available. According to Savills, the program may be reintroduced in amended form. In Austria, indicative and category-based rents were increased as of April 1, 2022. Moreover, an agreement was reached in 2022 in respect of the reform of real estate agent fees; starting July 1,2023, the party hiring an agent will be responsible for paying for their services in connection with the letting of apartments.

Group's Business Development

Business Development in 2022 – An Overview

When analyzing the business figures for 2022, it is important to remember that these only allow a comparison with the previous year to a limited extent, as Deutsche Wohnen's figures were not included in Vonovia's consolidated financial statements until September 30, 2021. At the end of the fourth quarter of 2022, the Deutsche Wohnen segment was dissolved and transferred to the Rental, Value-add, Recurring Sales, Development and Care segments.

All in all, Vonovia reported stable economic development in 2022 despite the war in Ukraine, the resulting price and interest rate developments and the ongoing coronavirus pandemic.

We invested around € 1.4 billion (2021: € 1.4 billion) in our own portfolio for new construction and modernization measures and around € 0.9 billion (2021: € 0.8 billion) in maintenance. We completed 2,071 apartments (2021: 1,373) as part of our new construction measures. We also completed 1,678 apartments that are intended for sale (2021: 827). The table below provides an overview of the development of our most recently forecast performance indicators and the target achievement level for these indicators in the 2022 fiscal year. When comparing the current Group figures against the previous year, it is important to bear in mind that the figures for 2021 include the Deutsche Wohnen Group, which was consolidated for the first time as of September 30, 2021, together with its earnings contributions for the fourth quarter of 2021 only.

	2021 (adjusted)	Forecast for 2022 in the 2022 Q3 report	2022
Total Segment Revenue	€ 5,216.6 million	€ 6.2–6.4 billion	€ 6,256.9 million
Adjusted EBITDA Total*	**€ 2,254.4 million**	**€ 2.75–2.85 billion**	**€2,763.1 million**
Group FFO**	**€ 1,694.4 million**	**€ 2.0–2.1 billion**	**€ 2,035.6 million**
Group FFO per share**	€ 2.18	suspended	€ 2.56
EPRA NTA per share***	**€ 62.63**	**suspended**	**€ 57.48**
Sustainability Performance Index (SPI)****	**109%**	**>100%**	**103%**

* Previous year's figures 2021 comparable according to current key figure definition/2022 segmentation/adjusted to new adjusted EBITDA definition (excluding results from at-equity investments).
** Based on the new 2022 definition without eliminating IFRS 16 effects, Group FFO per share based on the shares carrying dividend rights on the reporting date.
*** Based on the new 2022 definition, therefore excluding real estate transfer tax, EPRA NTA per share based on the shares carrying dividend rights on the reporting date. 2021 figures adjusted after closing of Deutsche Wohnen PPA.
****Excl. Deutsche Wohnen.

The **total segment revenue** came to around € 6.3 billion in 2022, up by 19.9% on the prior-year figure of around € 5.2 billion. This increase was due primarily to the additional rental income from Deutsche Wohnen and the income from the Care segment, which are included in 2022 with their full annual contribution, whereas in 2021 they were only included with their quarterly contribution for the fourth quarter.

The **Adjusted EBITDA Total** came to € 2,763.1 million in 2022, an increase of 22.6% against the prior-year figure of € 2,254.4 million. With the exception of the Value-add and Development segments, all other segments reported growth in Adjusted EBITDA. The Adjusted EBITDA Rental increased from € 1,778.5 million in 2021 to € 2,233.5 million in 2022. The Adjusted EBITDA Recurring Sales rose from € 113.2 million in 2021 to € 135.1 million in 2022. The Adjusted EBITDA Care increased from € 23.5 million 2021 to € 84.6 million in 2022. The Adjusted EBITDA Development came to € 183.2 million 2022, almost on a par with the prior-year figure of € 185.4 million. The Adjusted EBITDA in the Value-add segment came to € 126.7 million in 2022, below the prior-year figure of € 153.8 million.

Group FFO rose by 20.1% in 2022 to € 2,035.6 million (2021: € 1,694.4 million). This corresponds to a Group FFO per share of € 2.56 (2021: € 2.18). The increase in Group FFO was driven first and foremost by Deutsche Wohnen, which is included with its full-year contribution for 2022 (2021: only with the contribution for the fourth quarter), as well as by the improved Adjusted EBITDA Rental, Recurring Sales and Care. The Group FFO interest expense came to € 493.8 million in 2022, up by 24.2% on the prior-year value of € 397.7 million. This is largely due to an increase in net cash interest (Deutsche Wohnen contribution for the full year in 2022 vs. quarterly contribution for the fourth quarter of 2021). Current income taxes FFO came in at € 145.0 million in 2022, higher than in the previous year (€ 65.2 million), mainly due to the acquisition of Deutsche Wohnen. At € 88.7 million, consolidation effects in 2022 were down by 8.7% on the prior-year value of € 97.1 million.

The **EPRA NTA per share** came in at € 57.48 in 2022, down by 8.2% on the prior-year value of € 62.63. The development in the net asset value figure was due primarily to the net income from fair value adjustments of investment properties of € -1,269.8 million in 2022 (2021: € 7,393.8 million). The distribution of the cash dividend of € 672.4 million in 2022 also had an impact on this key figure (2021: € 486.0 million). The creation of a new Recurring Sales (MFH Sales) subportfolio has reduced the amounts added for deferred taxes, as these are only intended to be recognized for properties to be held in the portfolio in the long term.

The **Sustainability Performance Index** (Vonovia excl. Deutsche Wohnen) stood at 103% in the 2022 fiscal year. This was helped along in particular by the reduction of CO_2 intensity, the development of the average primary energy requirements of new construction and (partial) modernization measures to make apartments fully accessible.

Statement of the Management Board on the Economic Situation

The net assets, financial position and results of operations of the Group are positive, particularly given the solid financing, the resulting balanced maturity profile and the financing flexibility gained through the rating-backed bond financings with a view to organic growth. The ongoing improvements to the property management and development processes and the use of new digital software solutions, the steady Recurring Sales and a successful development business promote ongoing improvement in profitability.

Results of Operations

Overview

The following key figures provide an overview of how Vonovia's results of operations and their drivers developed in 2022. For information on the limited comparative value of the prior-year figures, we refer to the statements in the chapter on → **overall business development** within the Group.

in € million	2021	2022	Change in %
Total Segment Revenue	5,216.6	6,256.9	19.9
Revenue in the Rental segment	2,568.5	3,163.4	23.2
Revenue in the Value-add segment	1,176.3	1,272.0	8.1
Revenue in the Recurring Sales segment	491.2	543.4	10.6
Revenue in the Development segment	911.8	998.0	9.5
Revenue in the Nursing Business segment	68.8	280.1	>100
Adjusted EBITDA Total	2,254.4	2,763.1	22.6
Adjusted EBITDA Rental	1,778.5	2,233.5	25.6
Adjusted EBITDA Value-add	153.8	126.7	-17.6
Adjusted EBITDA Recurring Sales	113.2	135.1	19.3
Adjusted EBITDA Development	185.4	183.2	-1.2
Adjusted EBITDA Nursing Business	23.5	84.6	>100
Group FFO	1,694.4	2,035.6	20.1
Monthly in-place rent in €/m²	7.33	7.49	2.2
Average area of own apartments in the reporting period (in thou. m²)	28,784	34,525	19.9
Average number of own units (number of units)	452,868	550,342	21.5
Vacancy rate (in %)	2.2	2.0	-0.2 pp
Maintenance expenses and capitalized maintenance (€/m²)	26.17	24.80	-5.2
thereof expenses for maintenance (€/m²)	13.01	12.85	-1.2
thereof capitalized maintenance (€/m²)	13.16	11.95	-9.2
Number of units bought	155,145	969	-99.4
Number of units sold	6,965	19,760	>100
thereof Recurring Sales	2,803	2,710	-3.3
thereof Non Core/Other	4,162	17,050	>100
Number of new apartments completed	2,200	3,749	29.4
thereof own apartments	1,373	2,071	50.8
thereof apartments for sale	827	1,678	>100
Number of employees (as of December 31)	15,871	15,915	0.3

Total segment revenue rose by 19.9% from € 5,216.6 million in 2021 to € 6,256.9 million in 2022. This increase was due primarily to the additional rental income from Deutsche Wohnen and the income from the Care segment, which are included in 2022 with their full annual contribution, whereas in 2021 they were only included with their quarterly contribution for the fourth quarter.

Total Segment Revenue

in € million	2021*	2022	Change in %
Rental income	2,571.9	3,168.1	23.2
Other income from property management unless included in the operating expenses in the Rental segment	66.4	118.3	78.2
Other income from property management from the Nursing Business	68.8	280.1	>100
Income from disposals Recurring Sales	477.2	515.7	8.1
Internal revenue Value-add	1,108.6	1,152.4	4.0
Income from disposal of properties	519.6	588.4	13.2
Fair value Development to hold	404.1	433.9	7.4
Total Segment Revenue	**5,216.6**	**6,256.9**	**19.9**

* Prior-year figures Deutsche Wohnen adjusted to new segment definition.

The following key figures provide an overview of the development in Group FFO and other value drivers in the reporting period.

Group FFO

in € million	2021*	2022	Change in %
Revenue in the Rental segment	2,568.5	3,163.4	23.2
Expenses for maintenance	-377.7	-443.6	17.4
Operating expenses in the Rental segment	-412.3	-486.3	17.9
Adjusted EBITDA Rental	**1,778.5**	**2,233.5**	**25.6**
Revenue in the Value-add segment	1,176.3	1,272.0	8.1
thereof external revenue	67.7	119.6	76.7
thereof internal revenue	1,108.6	1,152.4	4.0
Operating expenses in the Value-add segment	-1,022.5	-1,145.3	12.0
Adjusted EBITDA Value-add	**153.8**	**126.7**	**-17.6**
Revenue in the Recurring Sales segment	491.2	543.4	10.6
Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for sale in the Recurring Sales segment	-355.5	-391.6	10.2
Adjusted result Recurring Sales	**135.7**	**151.8**	**11.9**
Selling costs in the Recurring Sales segment	-22.5	-16.7	-25.8
Adjusted EBITDA Recurring Sales	**113.2**	**135.1**	**19.3**
Revenue from disposal of Development to sell properties	505.6	560.6	10.9
Cost of Development to sell	-370.1	-440.4	19.0
Gross profit Development to sell	**135.5**	**120.2**	**-11.3**
Fair value Development to hold	404.1	433.9	7.4
Cost of Development to hold**	-319.2	-340.6	6.7
Gross profit Development to hold	**84.9**	**93.3**	**9.9**
Rental revenue Development	2.1	3.5	66.7
Operating expenses in the Development segment	-37.1	-33.8	-8.9
Adjusted EBITDA Development	**185.4**	**183.2**	**-1.2**
Revenue in the Nursing Business segment	68.8	280.1	>100
Expenses for maintenance	-2.4	-7.0	>100
Operating expenses in the Nursing Business segment	-42.9	-188.5	>100
Adjusted EBITDA Nursing Business	**23.5**	**84.6**	**>100**
Adjusted EBITDA Total	**2,254.4**	**2,763.1**	**22.6**
FFO interest expense	-397.7	-493.8	24.2
Current income taxes FFO	-65.2	-145.0	>100
Consolidation***	-97.1	-88.7	-8.7
Group FFO	**1,694.4**	**2,035.6**	**20.1**
Group FFO after non-controlling interests	**1,654.4**	**1,944.3**	**17.5**

* Prior-year figures adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), adjustments for Adjusted EBITDA Total/Group FFO: € 14.9 million.
** Excluding capitalized interest on borrowed capital of € 2.5 million (2021 € 0.9 million).
*** Based on the new 2022 definition, without elimination of IFRS 16 effect, thereof intragroup losses/results: € +4.7 million (2021: € -37.8 million), gross profit Development to hold: € -93.3 million (2021: € -84.9 million), (FFO-at-equity effect Deutsche Wohnen 2021: € 25.6 million).

At the end of 2022, Vonovia managed a portfolio comprising 548,524 of its own residential units (2021: 565,334), 164,330 garages and parking spaces (2021: 168,015) and 8,838 commercial units (2021: 9,289). 68,919 residential units (2021: 71,173) are also managed for other owners.

Details on Results of Operations by Segment

Rental segment

At the end of 2022, the portfolio in the Rental segment had a vacancy rate of 2.0% (2021: 2.2%), meaning that it was once again virtually fully occupied.

Rental segment revenue rose by 23.2% from € 2,568.5 million in 2021 to € 3,163.4 million in 2022. This increase was due primarily to the segment revenue from Deutsche Wohnen, which is included in segment revenue with its full annual contribution in 2022, whereas in 2021 it was only included with the quarterly contribution for the fourth quarter. Of the segment revenue in the Rental segment in the 2022 reporting period, € 2,694.6 million is attributable to rental income in Germany (2021: € 2,100.9 million), € 354.5 million to rental income in Sweden (2021: € 357.0 million) and € 114.3 million to rental income in Austria (2021: € 110.6 million).

Organic rent growth (twelve-month rolling) totaled 3.3% (3.8% as of December 31, 2021). The current rent increase due to market-related factors came to 1.0% (1.6% as of December 31, 2021, with 0.6% due to the Act Governing the Rent Cap for Residential Premises in Berlin (the "rent freeze") becoming invalid) and the increase from property value improvements translated into a further 1.6% (1.6% as of December 31, 2021). All in all, this produces a like-for-like rent increase of 2.6% (3.2% as of December 31, 2021). New construction measures and measures to add extra stories also contributed 0.7% (0.6% as of December 31, 2021) to organic rent growth.

The average monthly in-place rent within the Rental segment at the end of 2022 came to € 7.49 per m² compared to € 7.33 per m² at the end of December 2021. The monthly in-place rent in the German portfolio at the end of December 2022 came to € 7.40 per m² (December 31, 2021: € 7.19 per m²), with a figure of € 9.73 per m² (December 31, 2021: € 10.31 per m²) for the Swedish portfolio and € 5.18 per m² for the Austrian portfolio (December 31, 2021: € 4.89 per m²). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating, heating and water supply costs.

We adapted our modernization, new construction and maintenance strategy to reflect the current overall conditions in the 2022 fiscal year. We put the brakes on our new construction investments in our own portfolio and postponed investments in "to sell" projects. The overview below provides details on maintenance, modernization and new construction in our own portfolio. It is important to bear in mind that, in 2022, Deutsche Wohnen is included with its contribution for the year as a whole, whereas in 2021 it was only included with the quarterly contribution for the fourth quarter.

Maintenance, Modernization and New Construction

in € million	2021	2022	Change in %
Expenses for maintenance	374.5	443.6	18.5
Capitalized maintenance	378.8	412.6	8.9
Maintenance measures	**753.3**	**856.2**	**13.7**
Modernization measures	792.4	837.4	5.7
New construction (to hold)	639.9	607.1	-5.1
Modernization and new construction measures	**1,432.3**	**1,444.5**	**0.9**
Total cost of maintenance, modernization and new construction	**2,185.6**	**2,300.7**	**5.3**

Operating expenses in the Rental segment in the 2022 fiscal year were up by 17.9% on the figures for the prior year, from € 412.3 million to € 486.3 million. This was due, in particular, to Deutsche Wohnen being included with its contribution for the year as a whole (2021: quarterly contribution for the fourth quarter) and to higher administrative expenses. All in all, the Adjusted EBITDA Rental came to € 2,233.5 million in the 2022 fiscal year, up by 25.6% on the prior-year value of € 1,778.5 million.

Value-add segment

Developments in the Value-add segment were dominated by the new overall conditions for our own craftsmen's organization. General price increases for construction services and materials, as well as productivity losses due to the shortage of skilled labor and the coronavirus pandemic had a negative impact on economic development. In addition, short-term changes in the technology for heating modernization measures, coupled with investment activity that had already been reduced in the fourth quarter of 2022, resulted in lower service provision.

In the **Value-add segment**, income totaled € 1,272.0 million in 2022, up by 8.1% on the prior-year figure of € 1,176.3 million. € 119.6 million of this amount was attributable to external revenue from our Value-add activities with our end customers (2021: € 67.7 million), with € 1,152.4 million attributable to intra-Group income (2021: € 1,108.6 million).

In the 2022 fiscal year, operating expenses in the Value-add segment were up by 12.0% on the figures for the prior year, from € 1,022.5 million to € 1,145.3 million. This was due, in particular, to higher construction costs, the use of more third-party services and higher energy costs.

The **Adjusted EBITDA Value-add** came to € 126.7 million in the 2022 fiscal year, 17.6% below the prior-year figure of € 153.8 million.

Recurring Sales segment

In the **Recurring Sales segment**, the income from disposal of properties came to € 543.4 million in the 2022 fiscal year, up by 10.6% on the value of € 491.2 million reported in 2021. A total of 2,710 units were privatized (2021: 2,803), 2,293 in Germany (2021: 2,332) and 417 in Austria (2021: 471). Income of € 430.8 million is attributable to sales in Germany (2021: € 382.1 million) and € 112.6 million to sales in Austria (2021: € 109.1 million).

The fair value step-up came in at 38.8% in the 2022 fiscal year, up on the prior-year value of 38.2%.

Selling costs in the Recurring Sales segment came in at € 16.7 million in 2022, down by 25.8%on the value of € 22.5 million seen in the prior year. This is mainly due to a larger proportion of block sales and to a lower sales volume in 2022. **Adjusted EBITDA Recurring Sales** came in at € 135.1 million in the 2022 fiscal year, up by 19.3% on the value of € 113.2 million seen in the prior year.

In the 2022 fiscal year, 17,050 residential units from the Non Core/Other portfolio (2021: 4,162) were sold as part of our portfolio adjustment measures, with proceeds totaling € 2,726.8 million (2021: € 645.0 million). This also includes the block sale from Vonovia's Berlin portfolio as part of the acquisition of Deutsche Wohnen SE. At 1.7% in 2022, the fair value step-up for Non Core/Other was lower than for the previous year (4.1%).

Development segment

In the Development to sell area, a total of 1,678 units were completed in the 2022 fiscal year (2021: 827 units), 484 in Germany (2021: 678 units) and 1,194 in Austria (2021: 149 units). Income from the disposal of development properties to sell came to € 560.6 million in the 2022 fiscal year (2021: € 505.6 million), with € 257.1 million attributable to project development in Germany (2021: € 243.0 million) and € 303.5 million attributable to project development in Austria (2021: € 262.6 million). The increase in proceeds in 2022 was primarily due to a global exit (Gäblerstrasse). The resulting gross profit for "Development to sell" was down from € 135.5 million in the previous year to € 120.2 million in the 2022 fiscal year, largely due to higher construction costs due to inflation.

In the Development to hold area, a total of 2,071 units were completed in the 2022 fiscal year (2021: 1,373 units), 1,338 in Germany (2021: 1,073 units), 592 in Austria (2021: 126 units) and 141 in Sweden (2021: 174 units). In the Development to hold area, a fair value of € 433.9 million was achieved in the 2022 fiscal year (2021: € 404.1 million). € 265.0 million of this amount was attributable to project development in Germany (2021: € 338.4 million), with € 160.5 million attributable to project development in Austria (2021: € 44.3 million) and € 8.4 million attributable to project development in Sweden (2021: € 21.4 million). The gross profit for Development to hold came to € 93.3 million in the 2022 fiscal year (2021: € 84.9 million).

Development operating expenses came to € 33.8 million in the 2022 fiscal year, down by 8.9% on the € 37.1 million reported in the prior year due to a smaller number of certified units. **Adjusted EBITDA in the Development segment** came in at € 183.2 million in 2022, almost on a par with the prior year (2021: € 185.4 million).

Care segment

The Care segment showed positive development in the 2022 fiscal year. It included 72 nursing care properties at the end of 2022 (2021: 72), with 71 owned by Vonovia (2021: 71). These properties offer a total of 9,540 nursing places (2021: 9,580). Segment revenue came to € 280.1 million in 2022 as against € 68.8 million in 2021 (fourth quarter of 2021). The expenses for maintenance amounted to € 7.0 million in the 2022 fiscal year compared with € 2.4 million in 2021 (fourth quarter of 2021). Operating expenses in the Care segment came to € 188.5 million in the 2022 fiscal year compared with € 42.9 million in 2021 (fourth quarter of 2021).

The **Adjusted EBITDA Care** amounted to € 84.6 million in the 2022 fiscal year as against € 23.5 million in 2021 (fourth quarter of 2021). Around 70% of Adjusted EBITDA in the Care segment is attributable to nursing care businesses and 30% to nursing care properties.

Group FFO

Group FFO rose by 20.1% from € 1,694.4 million in 2021 to € 2,035.6 million in 2022.

The **Adjusted EBITDA Total** rose by 22.6% from € 2,254.4 million in the 2021 fiscal year to € 2,763.1 million in the 2022 fiscal year.

In the 2022 fiscal year, the **non-recurring items** eliminated in the Adjusted EBITDA Total came to € 127.5 million (2021: € 37.1 million). This was largely due to costs associated with the integration of Deutsche Wohnen. The following table gives a detailed list of the non-recurring items:

Non-recurring Items

in € million	2021	2022	Change in %
Transactions*	14.1	113.2	>100
Personnel matters	1.6	-3.1	–
Business model optimization	24.2	12.2	-49.6
Research & development	3.6	4.2	16.7
Refinancing and equity measures	-6.4	1.0	–
Total non-recurring items	**37.1**	**127.5**	**>100**

* Including one-time expenses in connection with acquisitions, such as HR measures relating to the integration process and other follow-up costs. In 2022 mainly integration costs of € 79.4 million and restructuring costs of € 22.6 million. In 2021 costs for transactions were offset by income resulting from the valuation of shares in Deutsche Wohnen amounting to € 87.5 million.

Reconciliations

The **financial result** changed from € -554.9 million in the 2021 fiscal year to € -263.0 million in 2022.

FFO interest expense is derived from the financial result as follows:

Reconciliation of Financial Result/FFO Interest Expense

in € million	2021	2022	Change in %
Interest income	21.5	115.5	>100
Interest expense	-411.6	-367.6	-10.7
Other financial result excluding income from investments	-164.8	-10.9	-93.4
Financial result*	**-554.9**	**-263.0**	**-52.6**
Adjustments:			
Other financial result excluding income from investments	164.8	10.9	-93.4
Effects from the valuation of interest rate and currency derivatives	-20.4	-152.5	>100
Prepayment penalties and commitment interest	22.7	12.6	-44.5
Effects from the valuation of non-derivative financial instruments	-43.3	-77.4	78.8
Interest accretion to provisions	9.8	6.8	-30.6
Accrued interest/other effects	30.9	-40.0	–
Net cash interest	**-390.4**	**-502.6**	**28.7**
Adjustment for IFRS 16 Leases	10.3	12.2	18.4
Adjustment of income from investments in other real estate companies	15.7	7.9	-49.7
Adjustment of interest paid due to taxes	-1.8	-0.6	-66.7
Adjustment of accrued interest	-31.5	-10.7	-66.0
Interest expense FFO	**-397.7**	**-493.8**	**24.2**

* Excluding income from other investments.

In the 2022 fiscal year, **profit for the period** came to € -669.4 million (2021: € 2,440.5 million). The Deutsche Wohnen Group is included in profit for the period in full in 2022. Profit for the period is, however, also influenced to a considerable degree by valuation effects, caused by factors such as rising interest rates and inflation, as well as the correction in the value of investment properties.

In 2022, impairment losses due to the increased cost of capital were attributable to goodwill and trademark rights in the nursing and assisted living sector, as well as to investments accounted for using the equity method.

The reconciliation of profit for the period to Group FFO is shown below:

Reconciliation of Profit for the Period/Group FFO

in € million	2021*	2022	Change in %
Profit for the period	**2,440.5**	**-669.4**	**–**
Financial result**	554.9	263.0	-52.6
Income taxes	2,651.5	-63.3	–
Depreciation and amortization (incl. depreciation on financial assets)	3,888.6	1,303.1	-66.5
Net income from investments accounted for using the equity method	-15.7	436.6	–
Net income from fair value adjustments of investment properties	-7,393.8	1,269.8	–
Non-recurring items	37.1	127.5	>100
Total period adjustments from assets held for sale	-6.0	52.3	–
Income from investments in other real estate companies	-15.7	-7.9	-49.7
Other	-9.7	-37.2	>100
Intragroup profits/losses	37.8	-4.7	–
Gross profit Development to hold	84.9	93.3	9.9
Adjusted EBITDA Total	**2,254.4**	**2,763.1**	**22.6**
Interest expense FFO***	-397.7	-493.8	24.2
Current income taxes FFO	-65.2	-145.0	>100
Consolidation	-97.1	-88.7	-8.7
Group FFO******	**1,694.4**	**2,035.6**	**20.1**
Group FFO after non-controlling interests	**1,654.4**	**1,944.3**	**17.5**
Group FFO per share in €****	2.18	2.56	17.3

* Prior-year figures adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), adjustments Adjusted EBITDA Total/Group FFO: € 14.9 million.
** Excluding income from other investments.
*** Incl. financial income from investments in other real estate companies.
**** Based on the new 2022 definition without elimitation of IFRS 16 effect, Group FFO per share based on the shares carrying dividend rights on the reporting date.

Assets

Consolidated Balance Sheet Structure

Consolidated Balance Sheet Structure

	Dec. 31, 2021*		Dec. 31, 2022	
	in € million	in %	in € million	in %
Non-current assets	99,138.5	93.6	96,037.9	94.7
Current assets	6,775.8	6.4	5,351.7	5.3
Total assets	**105,914.3**	**100.0**	**101,389.6**	**100.0**
Equity	36,139.1	34.1	34,438.8	34.0
Non-current liabilities	60,713.2	57.3	61,474.9	60.6
Current liabilities	9,062.0	8.6	5,475.9	5.4
Total equity and liabilities	**105,914.3**	**100.0**	**101,389.6**	**100.0**

* Adjusted after closing of Deutsche Wohnen PPA.

The Group's **total assets** were down by € 4,524.7 million from € 105,914.3 million as of December 31, 2021 to € 101,389.6 million. The development in non-current assets is dominated by the impairment of goodwill and trademark rights of € 1,040.3 million as well as negative net income from fair value adjustments of investment properties in the amount of € -1,269.8 million. The value of non-current financial assets accounted for using the equity method fell to € 185.2 million in the course of the year due to impairment losses and earnings adjustments.

The development in current assets is characterized first of all by the disposal of assets held for sale in the amount of € 2,648.6 million. This relates largely to the parts of the portfolio that were sold to Berlin public housing companies (Berlin Deal). On the other hand, real estate inventories increased by € 1,485.1 million. This increase is due primarily to the previous "development to hold" projects being shifted to the "to sell" portfolio as part of the adjusted capital allocation. Cash and cash equivalents fell by € 130.4 million from € 1,432.8 million to € 1,302.4 million.

Goodwill and trademark rights comprised 1.6% of the total assets. The prior-year figure came to 2.7%.

As of December 31, 2022, the **gross asset value (GAV)** of Vonovia's property assets came to € 95,125.5 million. This corresponds to 93.8% of total assets, as against € 98,225.3 million or 92.7% at the end of 2021.

Total equity fell by € 1,700.3 million from € 36,139.1 million to € 34,438.8 million, due in particular to the total comprehensive income of € -916.3 million and the cash dividend distribution of € 672.4 million. Equity was reduced by € 110.9 million not affecting net income, largely due to the disposal of non-controlling interests via purchases of shares in GSW Immobilien AG and the sale of companies in the context of the Berlin Deal.

This brings the **equity ratio** to 34.0%, compared with 34.1% at the end of 2021.

Liabilities dropped by € 2,824.4 million from € 69,775.2 million to € 66,950.8 million. The amount of non-current non-derivative financial liabilities increased by € 1,097.8 million, in particular due to a promissory note transaction and the issue of social bonds and green bonds, whereas current non-derivative financial liabilities fell by € 3,067.1 million at the same time, largely due to the repayment of bridge financing in March 2022.

Deferred tax liabilities fell slightly by € 81.5 million.

Net Assets

Vonovia's net asset value figures are based on the best practice recommendations of the European Public Real Estate Association (EPRA). At the end of 2022, the EPRA NTA came to € 45,744.5 million, down by 6.0% on the value of € 48,640.8 million seen at the end of 2021. EPRA NTA per share developed from € 62.63 at the end of 2021 to € 57.48 at the end of 2022. It is important to note that the creation of a new MFH Sales subportfolio has reduced the amounts added for deferred taxes, as these are only intended to be recognized for properties to be held in the portfolio in the long term.

EPRA Net Tangible Assets (EPRA NTA)

in € million	Dec. 31, 2021	Dec. 31, 2022	Change in %
Total equity attributable to Vonovia shareholders* **	**32,896.7**	**31,331.5**	**-4.8**
Deferred tax in relation to fair value gains of investment properties*	18,438.4	16,190.0	-12.2
Fair value of financial instruments**	28.6	-117.5	–
Goodwill as per the IFRS balance sheet***	-2,484.1	-1,529.9	-38.4
Intangibles as per the IFRS balance sheet***	-238.8	-129.6	-45.7
EPRA NTA******	**48,640.8**	**45,744.5**	**-6.0**
EPRA NTA per share in €******	**62.63**	**57.48**	**-8.2**

* Proportion of hold portfolio.
** Adjusted for effects from cross currency swaps.
*** 2021 adjusted after closing of Deutsche Wohnen PPA.
**** Based on the new 2022 definition excluding real estate transfer tax. EPRA NTA per share based on the shares carrying dividend rights on the reporting date.

Over a five-year observation period, Vonovia's property assets showed the following development based on the EPRA NTA and the GAV (gross asset value):

in € million	EPRA NTA	GAV
2022	45,744.5	95,125.5
2021	48,640.8	98,225.3
2020	35,488.6	59,207.1
2019	29,762.2	53,586.3
2018		44,226.9

Fair Values

Major market developments and valuation parameters that have an impact on the fair values of Vonovia are assessed every quarter. In addition to the revaluations performed during the year, the entire portfolio was revalued at the end of 2022.

The demand for housing continues to outstrip the supply. The extensive investments made in the energy-efficient modernization of our buildings and improvements to the fittings in our apartments also had a positive impact on rental growth. The return expectations of property buyers increased for the first time in a long time, particularly in the second half of 2022. The positive effects resulting from the high demand and modernization were largely offset by the increase in return expectations and resulted in only a slight 0.5% increase in the fair value of our property portfolio compared with the previous year, after adjustments for acquisitions and sales and excluding currency effects. In addition to the internal valuation, Vonovia's residential real estate portfolio was also valued by the independent property appraisers CBRE GmbH, Jones Lang LaSalle SE and Savills Sweden AB. The market value resulting from the external report is consistent with the internal valuation result.

Vonovia's project developments for subsequent management within its own portfolio are measured using the cost approach until the construction work is complete given that the fair value cannot be reliably calculated on a continuing basis. This is subject to a review of the values applied if triggering events occur. The fair value for the nursing care properties was initially calculated by the external appraiser W&P Immobilienberatung GmbH using a DCF method. The valuation included looking not only at the results of the external appraiser, but also at feedback from the market test as part of the strategic review of the Care segment.

Regular Determination of the Fair Values Creates a Transparent Valuation of the Company's Properties

Calculating and showing the fair values provides a control parameter inside the company and also helps to make the development of the value of our assets transparent to people outside the company.

The fair value of the portfolio of residential properties was determined, in accordance with IAS 40 and IFRS 13, on the basis of the International Valuation Standard Committee's definition of market value.

Vonovia, in principle, measures its portfolio on the basis of the discounted cash flow (DCF) method. Under the DCF methodology, the expected future income and costs of a residential property are forecast and discounted to the date of valuation as the net present value. The income in the DCF model mainly comprises expected rental income (current in-place rent, current inclusive rent in Sweden, market rents as well as their development) taking vacancy losses and also sales revenues for an Austrian subportfolio into account. The expected rental income is derived for each location from the latest rent indices and rent tables (including Value AG, Immobilienverband Deutschland [IVD] and the Austrian Economic Chambers [WKÖ]) as well as from studies on spatial prosperity (Federal Institute for Research on Building, Urban Affairs and Spatial Development [BBSR], Prognos, Value AG, Federal Statistical Office, Statistics Austria, etc.). In Sweden, rents and rent increases are defined as part of negotiations with the Swedish tenants' association ("Hyresgästföreningen") and are reflected accordingly in the valuation model. The expected sales revenues in Austria are derived from historical sale prices as well as market data (e.g., the Austrian Economic Chamber [WKÖ], EHL).

On the cost side, maintenance expenses and administrative costs are taken into account. Further cost items are, for example, ground rents, non-allocable ancillary costs, rent losses and, in Austria, selling costs. In the Swedish valuation, further expenses to be borne by the owner are also taken into account in the DCF model due to the inclusive rents that are a special feature of this market. All cost items are inflated in the reporting period. Modernization measures carried out in the housing stocks are factored in by decreasing the current maintenance expenses and adjusting market rents. The commercial properties in the portfolio are mainly small commercial units for the supply of the local residential environment. Different cost approaches are used to those for residential properties, and the capitalized interest rates were adjusted to reflect the market specifics.

The recognition and valuation of investment properties are explained in detail in the notes to the consolidated financial statements (see → **[D28] Investment Properties**).

The fair value of Vonovia's real estate portfolio comprising residential buildings, commercial properties, garages and parking spaces as well as completed project developments, existing areas with construction potential and land areas with inheritable building rights granted, as well as nursing care facilities, was € 94,694.5 million as of December 31, 2022 (2021: € 97,845.3 million). Net income from fair value adjustments of investment properties in the income statement comes to € -1,269.8 million (2021: € 7,393.8 million).

Financial Position

Cash Flow

The Group cash flow is as follows:

Key Data from the Statement of Cash Flows

in € million	2021	2022
Cash flow from operating activities	1,823.9	2,084.3
Cash flow from investing activities	-19,115.8	938.2
Cash flow from financing activities	18,125.0	-3,145.1
Influence of changes in foreign exchange rates	-2.3	-7.8
Change in cash and cash equivalents related to assets held for sale	-11.3	-
Net changes in cash and cash equivalents	819.5	-130.4
Cash and cash equivalents at the beginning of the period	**613.3**	**1,432.8**
Cash and cash equivalents at the end of the period	**1,432.8**	**1,302.4**

The cash flow from **operating activities** came to € 2,084.3 million in 2022, compared with € 1,823.9 million in 2021. In particular, this reflects the higher operating result, measured in the Adjusted EBITDA key figures, and, with the opposite effect, the change in working capital.

The cash flow from **investing activities** shows net proceeds of € 938.2 million for 2022. This figure is characterized primarily by the sale of residential and commercial units to public housing companies in Berlin based on the agreement reached with the Berlin State Government in 2021. The value for the previous year was dominated by the acquisition of the shares in the Deutsche Wohnen Group. Payments for the acquisition of investment properties came to € 2,475.5 million in 2022 (2021: € 1,957.1 million). On the other hand, income from portfolio sales in the amount of € 3,033.6 million was collected (2021: € 1,084.8 million). Payments for investments in other assets amounted to € 228.2 million in 2022 (2021: € 352.7 million). The proceeds from the sale of other financial assets in the amount of € 2,399.6 million and the payments for the acquisition of other financial assets in the amount of € 1,900.0 million are related to short-term investments in financial assets not classified as cash and cash equivalents.

The cash flow from **financing activities** includes payments for regular and unscheduled repayments in the amount of € 8,540.1 million (2021: € 11,534.0 million) and, on the other hand, proceeds from issuing financial liabilities in the amount of € 6,802.7 million (2021: € 23,945.3 million). The prior-year figures have to be viewed, in particular, within the context of the financing measures related to the acquisition of the Deutsche Wohnen Group. Payouts for transaction and financing costs amounted to € 58.5 million in 2022 (2021: € 374.6 million). Interest payments came to € 541.0 million (2021: € 402.6 million).

Net changes in **cash and cash equivalents** came to € -130.4 million.

Financing

According to the publication dated November 11, 2022, Vonovia's credit rating as awarded by the agency Standard & Poor's is at **BBB+** with a stable outlook for the long-term issuer credit rating and A-2 for the short-term issuer credit rating. At the same time, the credit rating for the issued and unsecured bonds is BBB+.

Furthermore, in an announcement dated November 1, 2022, Vonovia was awarded a rating of Baa1 with a stable outlook by the rating agency Moody's.

Vonovia received an A- investment grade rating from the rating agency Scope, which was most recently confirmed in a publication dated July 8, 2022.

Vonovia SE has launched an **EMTN program** (European medium-term notes program). This program, which was originally launched via Vonovia Finance B.V., allows funds to be raised quickly at any time, without any major administrative outlay, using bond issues. The prospectus for the € 40 billion program, which was published on March 18, 2022, is to be updated annually and approved by the financial supervisory authority of the Grand Duchy of Luxembourg (CSSF).

As of the reporting date of December 31, 2022, Vonovia had placed a total bond volume of € 26.1 billion, € 25.8 billion of which relates to the EMTN program. There are also Deutsche Wohnen bonds worth a further € 1.8 billion.

On January 18, 2022, Vonovia SE took out a commercial paper of € 500.0 million with a maturity of three months. This was repaid in full on April 21, 2022.

A bond in the amount of € 500.0 million issued in 2017 was repaid as scheduled in January 2022.

Deutsche Wohnen repaid registered bonds worth € 150.0 million and a bearer bond in the amount of € 100.0 million as scheduled in January 2022.

In addition, an unscheduled repayment was made on a registered bond in the amount of € 76.3 million in February 2022.

On February 16, 2022, Vonovia SE issued promissory note loans of € 1,010.0 million with maturities of between 5 and 30 years and an average interest rate of 1.13%.

On February 25, 2022, Vonovia took out secured financing with Landesbank Baden-Württemberg in the amount of € 175.0 million with a maturity of ten years.

On February 25, 2022, Vonovia SE took out an unsecured loan with Caixabank S.A. in the amount of € 142.0 million with a maturity of five years.

On February 25, 2022, Vonovia SE took out an unsecured loan with DZ Bank AG in the amount of € 250.0 million with a maturity of seven years.

The bridge facility taken out in connection with the acquisition of Deutsche Wohnen was valued at € 3,490.0 million and repaid in full as of March 1, 2022

On March 21, 2022, Vonovia SE placed two social bonds in a total amount of € 1,650.0 million with maturities of 3.85 and 6.25 years, as well as a green bond worth € 850.0 million with a maturity of ten years. The bonds, which have a total amount of € 2,500.0 million, bear interest at a rate of 1.375%, 1.875% and 2.375%.

On March 30, 2022, Vonovia issued two variable-rate SEK bonds worth a total of SEK 1,250.0 million with maturities of two and five years that were disbursed on April 8, 2022.

On April 1, 2022, Vonovia took out secured financing with Berlin Hyp in the amount of € 175.0 million with a maturity of ten years.

On April 12, 2022, Vonovia took out secured financing with Bayern LB in the amount of € 150.0 million with a maturity of ten years.

May 2022 saw the early repayment of a € 500.0 million bond from 2014 that was set to mature in July 2022.

In June 2022, a € 500.0 million bond from 2016 was repaid as scheduled.

On November 10, 2022, Vonovia SE issued two social and green bonds in a total amount of € 1,500.0 million with maturities of 4.5 and 8 years. The bonds bear interest at 4.75% and 5.00%.

In November 2022, Vonovia published a tender offer to buy back bonds maturing in 2023 and 2024. € 1,044.7 million relating to eight different bonds was bought back early within this context.

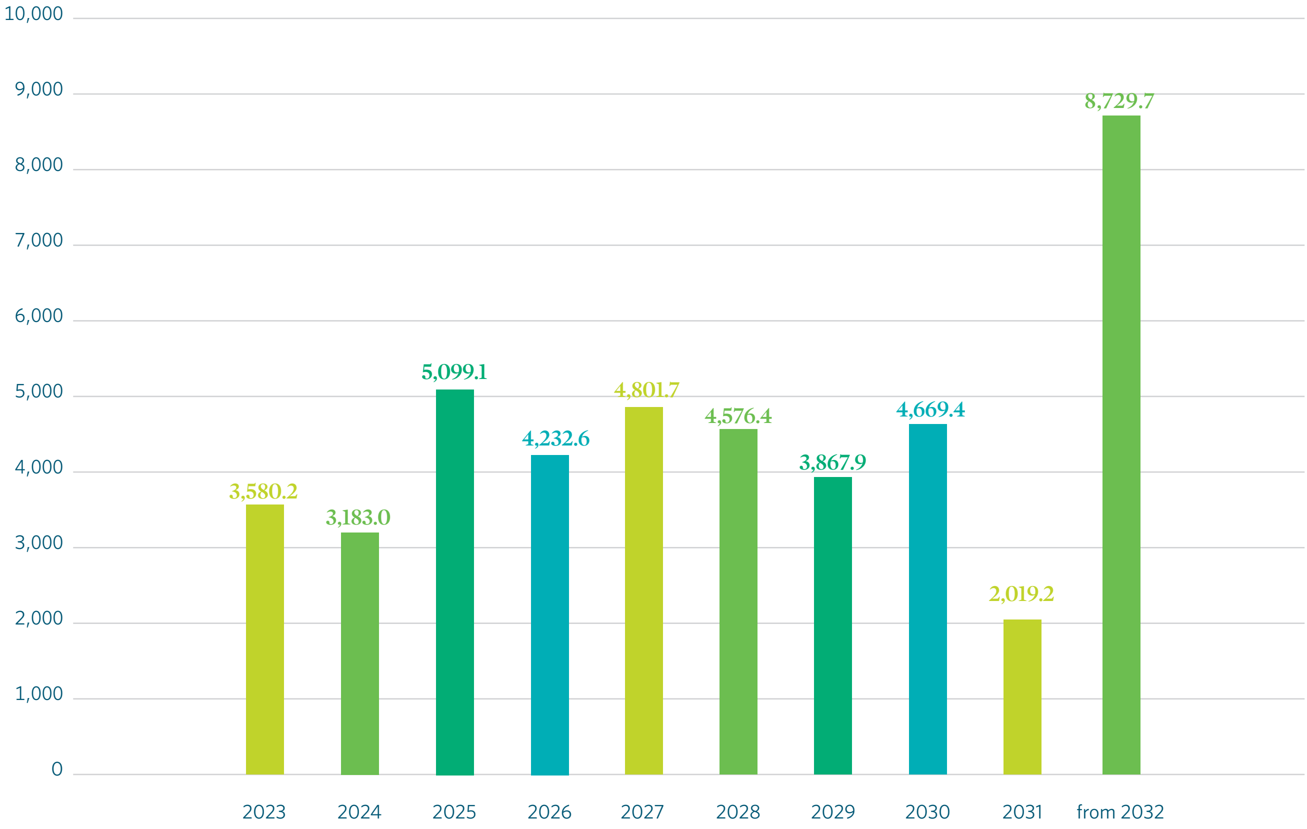
In December 2022, Vonovia repaid a floating rate bond from 2018 in the amount of € 600.0 million as planned.

Deutsche Wohnen repaid secured financing in the amount of € 284.2 million pro rata and ahead of schedule in December 2022.

The **debt maturity profile** of Vonovia's financing was as follows as of December 31, 2022:

Maturity Profile

as of December 31, 2022, in € million (Face values)



In connection with the issue of unsecured bonds by Vonovia Finance B.V., Vonovia has undertaken to comply with the following standard market covenants:

> Limitations on incurrence of financial indebtedness
> Maintenance of consolidated coverage ratio
> Maintenance of total unencumbered assets

The existing structured and secured financing arrangements also require adherence to certain standard market covenants. Any failure to meet the agreed financial covenants could have a negative effect on the liquidity status.

The key debt ratios are as follows as of the reporting date:

in € million	Dec. 31, 2021*	Dec. 31, 2022	Change in %
Non-derivative financial liabilities	47,229.5	45,059.7	-4.6
Foreign exchange rate effects	-36.1	-50.0	38.5
Cash and cash equivalents**	-1,932.4	-1,302.4	-32.6
Net debt	**45,261.0**	**43,707.3**	**-3.4**
Sales receivables	-69.9	-387.2	>100
Adjusted net debt	**45,191.1**	**43,320.1**	**-4.1**
Fair value of the real estate portfolio	**97,845.3**	**94,694.5**	**-3.2**
Loans to companies holding immovable property and land	1,042.1	809.8	-22.3
Shares in other real estate companies	752.4	547.4	-27.2
Adjusted fair value of the real estate portfolio	**99,639.8**	**96,051.7**	**-3.6**
LTV	**45.4%**	**45.1%**	**-0.3 pp**
Net Debt***	32,347.1	43,690.9	35.1
Adjusted EBITDA Total	2,254.4	2,763.1	22.6
Net Debt/EBITDA multiple	**14.3x**	**15.8x**	**1.5x**

* Adjusted after closing of Deutsche Wohnen PPA.
** Incl. term deposits not classified as cash equivalents.
*** Average over 5 quarters.

The financial covenants have been fulfilled as of the reporting date.

in € million	Dec. 31, 2021	Dec. 31, 2022	Change in %
ICR bond covenants	**5.8x**	**5.5x**	**-0.3x**
LTV bond covenants	**44.4%**	**44.4%**	**0.0 pp**

Economic Development of Vonovia SE

(Reporting on the basis of the German Commercial Code [HGB])

Fundamental Information

Vonovia SE has been entered in the commercial register of Bochum Local Court under HRB 16879 since 2017. Vonovia SE was established as Deutsche Annington Immobilien GmbH on June 17, 1998, with its registered headquarters in Frankfurt am Main, to serve as an acquisition vehicle for the purchase of residential properties by financial investors. Following its initial listing in 2013 and further successful acquisitions over the course of time, it now forms the Vonovia Group together with its subsidiaries and is one of the leading German, Austrian and Swedish residential real estate management companies. Following the successful integration of the BUWOG Group, Vonovia also ranks among the leading real estate developers in Germany and Austria. Deutsche Wohnen SE and its subsidiaries have also been part of the Vonovia Group since September 2021.

Vonovia SE performs the function of the management holding company within the Vonovia Group. In this role, it is responsible for determining and pursuing the overall strategy and for implementing this strategy by setting the company's goals. It performs property management, project development, financing, service and coordination tasks for the Group. Furthermore, it is responsible for the management, control and monitoring system as well as risk management. To carry out these management functions, Vonovia SE also maintains service companies to which it has outsourced selected functions, allowing it to realize corresponding harmonization and standardization effects, as well as economies of scale.

The description of the company's net assets, financial position and results of operations is based largely on the reporting of the Vonovia Group. The net assets, financial position and results of operations of Vonovia SE as the management holding company are ultimately determined by the assets of the Group companies and their ability to make sustainable positive contributions to earnings and generate positive cash flows. The company's risk profile is therefore largely the same as the Group's.

The preceding reporting for the Group of Vonovia SE therefore also expresses the company's position.

The Vonovia SE annual financial statements have been prepared in accordance with the provisions of the German Commercial Code (HGB) taking into account the supplementary regulations of the German Stock Corporation Act (AktG). As a listed company, Vonovia SE is classed as a large corporation.

The annual and consolidated financial statements as well as the combined management report are published in the electronic business register.

Development of Business in 2022

On January 4, 2022, Deutsche Wohnen extended a loan to Vonovia SE in the amount of € 1,450 million in line with the arm's length principle. It had a value of € 870 million as of December 31, 2022.

The bridge facility taken out in connection with the acquisition of a majority stake in Deutsche Wohnen was valued at € 3,490.0 million in early 2022 and was repaid in full as of March 1, 2022.

The Annual General Meeting of Vonovia SE was held as a virtual event on April 29, 2022. The shareholders approved all of the resolution proposals put forward by the Supervisory Board and the Management Board as required. They also formally approved the actions of the Supervisory Board (98.03% of the votes) and the Management Board (99.87% of the votes).

The Annual General Meeting approved the dividend proposal of € 1.66 per share. Once again, the shareholders were offered the choice between a cash and a scrip dividend. 47.85% opted for a dividend in the form of shares.

Rising interest and inflation rates, partly triggered by the war in Ukraine, coupled with uncertainty in the commodity markets and supply chains that remain disrupted, create a highly complex environment for corporate management.

The operating business was stable as expected overall, with moderate effects resulting from the Ukraine war and the coronavirus pandemic in some areas. These effects related primarily to the procurement of raw materials and to energy costs.

As a result of the rise in interest rates in particular, there was a further increase in the cost of capital, meaning that impairment losses needed to be recognized on shares in affiliated companies. Impairment losses were taken on the shares in Deutsche Wohnen, in particular, in the amount of € 8,881.9 million in connection with the share price development. The result from profit-and-loss transfer agreements of € -809.9 million also includes significant amounts from impairment losses taken on shares in subsidiaries. Impairment losses of € 219.0 million were also recognized on investments in associates in 2022.

2022 was also shaped by the integration of the Deutsche Wohnen Group within the systems and processes of Vonovia in order to facilitate the shared harnessing of potential synergies. The measures were implemented based on framework and management service agreements.

At its meeting on December 8, 2022, the Supervisory Board of Vonovia SE decided unanimously that Clara-Christina Streit will assume the position of Chair of the Supervisory Board following the Annual General Meeting on May 17, 2023. She would therefore succeed Jürgen Fitschen, who will not stand again for election on account of the age limit in place at Vonovia.

Vonovia holds an investment grade rating from ratings agencies S&P and Moodys. S&P confirmed the company's BBB+/A-2 rating, with a stable outlook, in a notification dated November 11, 2022. In an announcement dated November 1, 2022, Moody's awarded Vonovia a rating of Baa1 with a stable outlook. In a notification dated July 8, 2022, ratings agency Scope published an A- stable rating for Vonovia.

Results of Operations of Vonovia SE

The company regularly generates **income** from the charging of the services it provides, from income from investments in the form of dividend distributions from Group companies and income from the transfer of profits. Profit-and-loss transfer agreements exist with, among other entities, the service companies, which themselves generate income by charging the real estate companies for the services they have provided.

The income from investments collected is based on the net profit of the subsidiaries that is eligible for distribution, which is, in turn, calculated **based on the accounting standards set out in the German Commercial Code**. The main difference between these standards and the IFRS accounting principles lies in the fact that, under IFRS accounting, the fair value principle has more of an impact than the cost principle does under HGB accounting.

In the consolidated financial statements under IFRS, the properties are remeasured at periodic intervals. Under HGB, the fixed assets are stated at amortized cost, taking depreciation into account. The capitalization regulations in particular also vary.

Expenses relate largely to personnel and administrative expenses associated with the management holding function, as well as to losses to be compensated for in connection with profit-and-loss transfer agreements.

The **financial result** is characterized by group financing, impairment losses on non-current financial assets and the result from profit-and-loss transfer agreements.

The **development of business in 2022** and, as a result, the annual result are influenced to a very considerable degree by special effects resulting from impairment losses on non-current financial assets and expenses linked to the integration process, meaning that Vonovia closed 2022 with a net loss for the year of € 10.2 billion. In particular, a write-down of € 8.9 billion had to be applied to shares in Deutsche Wohnen, due primarily to the marked increase in interest rates and, as a result, to the increased discount rates. A write-down of € 219.0 million had to be applied to shares in the Adler Group S.A. due to a lower pro rata share value.

By way of comparison, the previous year was characterized by the expenses resulting from the public takeover offer for the acquisition of a majority stake in Deutsche Wohnen SE.

Revenue and other operating income in Vonovia's ongoing business rose by € 56.6 million. Revenue increased by € 12.1 million due to volume-related aspects as a result of the increased charging-on of holding services. Other operating income included income largely from the intra-Group charging on of vehicle and e-bike leasing expenses, from repayment waivers and from the reversal of provisions.

Purchased services, as a key component of the **cost of materials**, increased by € 9.0 million largely due to higher internally purchased services.

Personnel expenses in 2022 amounted to € 38.7 million as against € 31.3 million in 2021. This is due, on the one hand, to increased additions to provisions for pensions of € 8.4 million due to inflation as well as to premium payments and, on the other hand, to lower allocations to the long-term incentive program.

Other operating expenses fell by € 266.1 million, due predominantly to the financing and acquisition costs as special effects in the previous year in the context of the acquisition of a majority stake in Deutsche Wohnen.

Net financial expenses increased by a significant € 9,116.0 million overall to total € 9,375.7 million, due primarily to the impairment of the shares in Deutsche Wohnen SE in the amount of € 8,881.9 million. Net financial expenses increased by € 28.0 million to € 282.3 million, with € 166.3 million attributable to interest paid to affiliated companies. As the Group is now financed primarily by Vonovia SE directly as opposed to by Vonovia Finance B.V., net interest vis-à-vis affiliated companies fell by € 41.0 million, while net interest vis-à-vis third parties rose by € 68.9 million.

Income from investments in the 2022 fiscal year is in negative territory at € 780.0 million, € 952.9 million lower than the prior year's figure of € 172.9 million. This figure was impacted significantly by the result from profit and loss transfers in the amount of € -809.9 million, which is also influenced primarily by impairment losses on investment carrying amounts.

Whereas **tax expenses** amounted to € 61.8 million in 2021, the total income for 2022 is € 6.2 million. This income relates to deferred taxes and taxes for previous years, less tax expenses of € 10.5 million for the 2022 fiscal year. As the controlling company in a VAT group, Vonovia SE owes the corresponding income taxes.

Vonovia SE closed the 2022 fiscal year with a **net loss for the year** of € 10,239,681,551.72 (2021: € 544,825,598.94).

After offsetting this net loss for the year against the profit carried forward from the previous year of € 35,848,334.26, the Management Board withdrew a further € 10,903,833,217.46 from capital reserves, resulting in a **net profit** net profit for the 2022 fiscal year of € 700,000,000.00.

The Management Board and the Supervisory Board propose to the Annual General Meeting that, of the profit of Vonovia SE for the 2022 fiscal year of € 700,000,000.00, an amount of € 676,472,497.45 on the 795,849,997 shares of the share capital as of December 31, 2022 (corresponding to € 0.85 **per share)** be paid as a dividend to the shareholders, and that the remaining amount of € 23,527,502.45 be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual General Meeting and which go beyond those of the share capital as of December 31, 2022.

As in the 2018, 2019, 2020 and 2021 fiscal years, the dividend for the 2022 fiscal year, payable after the Annual General Meeting in May 2023, will again include the option of a non-cash dividend in shares, to the extent that the Management Board and the Supervisory Board consider this to be in the interests of the company and its shareholders.

Income Statement

in € million	2021	2022
Revenues	166.2	178.3
Other operating income	39.8	84.3
Cost of purchased services	-73.2	-82.2
Personnel expenses	-31.3	-38.7
Amortization and impairment of intangible assets and depreciation and impairment of property, plant and equipment	-17.6	-20.5
Other administrative expenses	-480.1	-214.1
Loss (profit) before financial result and tax	**-396.2**	**-92.9**
Income from profit transfer	153.1	110.8
Income from investments	25.1	29.9
Write-down of financial assets	–	-9,112.6
Income from other non-current securities and non-current loans	18.9	45.4
Interest and similar income	16.1	43.7
Expense from the assumption of losses	-5.3	-920.8
Interest and similar expense	-294.7	-352.3
Financial result	**-86.8**	**-10,155.9**
Tax	-61.8	9.1
Net loss	**-544.8**	**-10,239.7**

Net Assets and Financial Position of Vonovia SE

The company's **asset position** is characterized by the impairment losses on non-current financial assets, which made a key contribution to the reduction in total assets by € 8.9 billion.

The company's non-current assets in the amount of € 33,994.7 million (previous year: € 39,965.4 million) are largely characterized by non-current financial assets in the amount of € 33,969.0 million (previous year: € 39,936.8 million).

At € 8,881.9 million, the drop in non-current financial assets in the 2022 fiscal year is due primarily to the impairment losses recognized on the shares in Deutsche Wohnen SE. On the other hand, lendings to affiliated companies increased by € 2,847.2 million, with € 2,704.7 million attributable in particular to the splitting of cash pool balances into current and non-current balances on account of the new cash pool agreement.

The company's intangible assets and tangible fixed assets fell overall due to depreciation and amortization in the normal course of business.

Net current assets (current assets less liabilities, prepaid expenses and deferred income) including cash and cash equivalents are governed by the Group financing structure, in which Vonovia SE assumes the function of the cash pool leader. Net current assets fell by € 3,055.4 million in the 2022 fiscal year, although this drop is due primarily to the splitting of cash pool balances into current and non-current balances on account of the new cash pool agreement. As of December 31, 2022, the non-current cash pool balances are recognized under non-current financial assets as lendings to affiliated companies. In the prior year, they were recognized as receivables from affiliated companies under current assets.

The **Group's net lending/borrowing position**, which comprises receivables from and liabilities to affiliated companies as well as company loans resulting from the Group financing activity, developed by a total of € 106.0 million in Vonovia SE's favor in 2022.

The issue of bonds and the repayment of funds borrowed from banks increased Vonovia SE's debt financing to € 16,537.8 million as of December 31, 2022 (previous year: € 14,641.1 million).

Provisions came to € 192.5 million at the end of the year (previous year: € 193.3 million), with € 98.3 million attributable to provisions for pensions (previous year: € 84.8 million) and € 38.5 million attributable to tax provisions (previous year: € 35.5 million). Other provisions fell by € 17.2 million, due first and foremost to lower claims under the long-term incentive program and a risk provision in connection with recoverability guarantees vis-à-vis Vonovia Finance B.V.

Total equity had fallen significantly by € 10,912.0 million by the end of the fiscal year due to the net loss for the year and the cash dividend that was paid out.

Assets

in € million	Dec. 31, 2021	Dec. 31, 2022	in € million	Dec. 31, 2021	Dec. 31, 2022
Assets			Equity and liabilities		
Financial assets	39,936.8	33,969.0	Equity	17,775.2	6,863.2
Other assets	28.6	25.7	Provisions	193.3	192.5
Receivables from affiliated companies	4,469.6	1,685.3	Loans	9,600.0	13,351.4
Other receivables and assets	67.1	83.4	Liabilities to banks	5,041.1	3,186.4
Securities	549.2	200.0	Liabilities to affiliated companies	12,642.4	12,599.3
Cash and cash equivalents	356.6	532.8	Other liabilities	155.9	303.4
Total assets	**45,407.9**	**36,496.2**	**Total equity and liabilities**	**45,407.9**	**36,496.2**

Cash flow from operating activities is characterized by the income and expenses relating to the performance of the management holding functions. Vonovia SE only has appreciable cash flows from investing activities when acquisitions are made. Cash flows from financing activities regularly result from changes in Group financing and from the borrowing/repayment of debt financing in the context of the Group financing function.

Employees of Vonovia SE

In the 2022 fiscal year, an average of 160 employees (2021: 160) were employed at the company, 124 of whom were full-time employees and 36 of whom were part-time.

Opportunities and Risks for Vonovia SE

The likely development of Vonovia SE in the 2023 fiscal year depends to a considerable extent on the development of the Group as a whole and its opportunity and risk situation. This situation is set out in the Group's opportunity and risk report, meaning that the statements set out there in regard to the opportunity and risk situation of the Group also apply to the annual financial statements of Vonovia SE prepared in accordance with German commercial law, where the risks can have an impact on the valuation of long-term financial assets and on the amount of the results of subsidiaries collected/compensated for.

Forecast for Vonovia SE

Since the company's net assets, financial position and results of operations are determined solely by the ability of the Group companies to make positive earnings contributions and generate positive cash flows in the long term, we refer at this point to the Forecast Report for the Group. The most important financial performance indicator for the annual financial statements of Vonovia SE is the annual result.

The company's result for 2022 is influenced to a significant degree by special effects due to impairment losses recognized on investments and shares in affiliated companies. The expenses incurred in connection with the integration measures also had a negative impact on Vonovia SE's annual result.

Without taking these special effects into account, the net loss for 2022 runs into the upper double-digit millions, contrary to the prior-year forecast.

The results for the 2023 fiscal year will in turn be characterized by the results of subsidiaries collected/compensated for on the basis of income from investments and profit-and-loss transfer agreements, income from services, personnel and administrative expenses, and the financial result.

All in all, we expect the company to report a net loss in the mid-double-digit million range in the 2023 fiscal year, excluding special effects.

The company's distribution policy remains unchanged in general and provides for the distribution of around 70% of our Group FFO after minority interests. Group FFO is an alternative performance indicator that is not taken directly from the accounting standards but is based on the IFRS. Weighing up the different expectations of our shareholders due to the current environment, the plan is to distribute a reduced dividend of € 0.85 per share to our shareholders for the 2022 fiscal year in deviation from the general distribution policy.

Statement of the Management Board on the Economic Situation

The net assets, financial position and results of operations of the company are positive, particularly given the solid financing, the resulting balanced maturity profile and the financing flexibility gained through the rating-backed bond financing with a view to both organic and external growth. The ongoing improvements to the property management processes, the expansion of the Value-add segment, Recurring Sales and a successful development business promote ongoing improvement in profitability. Developments in Germany are complemented by equally positive developments in Sweden and Austria.

Further Statutory Disclosures

Corporate Governance

In the corporate governance declaration, we report on the principles of management and corporate governance in accordance with Principle 23 of the German Corporate Governance Code and Section 289 et seq. of the German Commercial Code (HGB). The declaration contains the Declaration of Conformity, information on corporate governance practices, a description of how the Management Board and Supervisory Board work and key corporate governance structures. The corporate governance declaration, which is not included in the audit conducted by the auditor of the annual financial statements pursuant to Section 317 (2) (6) HGB, has been published on the **Investor Relations website** and does not form part of the management report.

Corporate governance is the responsible management and supervision of a company.

With balanced corporate governance, the Management Board and the Supervisory Board wish to safeguard Vonovia SE's competitiveness, strengthen the trust of the capital market and the general public in the company and sustainably increase the company's value.

As a major real estate company, we are aware of the particular significance of our entrepreneurial actions for society at large. As a result, we are also committed to the main aims and principles of the Institute for Corporate Governance of the German housing industry. It supplements the corporate governance principles to include housing-specific aspects and is committed to even greater transparency, an improved image and a more competitive real estate sector.

The Management Board has looked at the appropriateness of the internal control system that has been set up and has evaluated its effectiveness. Within this context, the Management Board verified, also based on discussions with the Internal Audit department, that the technical and organizational safeguards put in place for control purposes are suitable for the purposes of ensuring that the company is protected from material damage resulting from financial losses, fraudulent acts or mismanagement in all key matters. Among other things, the standards set out in the German Corporate Governance Code, based on the most recent publications from 2022, serve as the benchmark here. Ultimately, the Management Board has no reason to believe that the internal control system is not appropriate and effective in all key aspects.

Based on findings from internal or external audits, we make continuous improvements to our internal control system. Another component of our internal control system is regular monitoring, on the basis of which any weak points identified are eliminated. Any weak points identified in the internal control system on the basis of the investigations against individuals who are largely former employees, of which Vonovia was notified on March 7, 2023, will also be eliminated in a timely manner. Initial internal investigations have, however, revealed that the allegations made in the context of the investigations are based exclusively on collusion between the defendants, meaning that existing, otherwise effective control mechanisms can be circumvented.*

* The content of this and the previous paragraph – in particular the statement on the appropriateness and effectiveness of the internal control system – does not form part of the statutory audit of the annual and consolidated financial statements, meaning that it has not been audited.

Subscribed Capital and Shares

The share capital of Vonovia SE as of December 31, 2022 amounted to € 795.8 million (previous year: € 776.6 million), divided into 795,849,997 no-par-value shares with a notional interest in the share capital of € 1.00 per share. All shares carry the same rights and obligations. Each share grants one vote at the Annual General Meeting and is decisive for the share held by shareholders in the company's profits. The rights and obligations of the shareholders result in detail from the provisions of the German Stock Corporation Act, in particular from Article 9 (1c) (ii) of the SE Regulation in conjunction with Sections 12, 53a et seq., 118 et seq. and 186 of the German Stock Corporation Act. There are no shares with special rights conferring powers of control.

Shareholdings in the Capital Exceeding 10.0% of the Voting Rights

Pursuant to Section 33 (1) of the German Securities Trading Act (WpHG), shareholders who exceed or fall below the threshold of 10.0% of the voting rights of a listed company, among other criteria, must notify the company and the German Federal Financial Supervisory Authority (BaFin) without delay. These notifications are published by Vonovia SE in accordance with Section 40 of the German Securities Trading Act (WpHG). Direct or indirect shareholdings in the share capital of Vonovia SE that exceed the threshold of 10.0% of the voting rights have been reported by Norges Bank, which has its registered headquarters in Oslo. As of December 31, 2022, Norges Bank had a direct shareholding of 14.6%.

Authority of the Management Board to Issue or Repurchase Shares

At the Annual General Meeting on April 29, 2022, the decision was taken to cancel Authorized Capital 2021 and to create the new Authorized Capital 2022 in the amount of € 233,000,000.00, under which, in accordance with Article 5 of the Articles of Association, the Management Board is authorized until 2027 to increase total equity on one or more occasions by issuing up to 233,000,000 new shares ("Authorized Capital 2022"). The "Conditional Capital 2021" was created to serve the authorization passed by the Annual General Meeting on April 16, 2021 to issue convertible bonds, bonds carrying option rights, participating rights, and participating bonds. On the basis of the resolution of this Annual General Meeting, the share capital is conditionally increased by up to € 282,943,649.00 through the issuing of 282,943,649 new no-par-value registered shares carrying dividend rights. The conditional capital increase will only be implemented to the extent that the holders, i.e. creditors, of the debt instruments set out in the capital increase resolution on Conditional Capital 2021 may demand conversion into shares and are served instead of payment.

The authority to acquire own shares arises from Article 9 (1) (c) (ii) SE Regulation in conjunction with Sections 71 et seq. AktG and, as of the reporting date, from the authorization passed by the Annual General Meeting on April 29, 2022. The Management Board is authorized, with the approval of the Supervisory Board, until April 28, 2027 to acquire and use own shares in the company up to a total of 10% of the share capital of the company existing at the time of the resolution or – if this value is lower – at the time the authorization is exercised, in accordance with the conditions granted, while observing the principle of equal treatment (Article 9 (1c) (ii) of the SE Council Regulation in conjunction with Section 53a AktG). The shares acquired on the basis of this authorization, together with other shares in the company that it has already acquired and still holds or that are attributable to it in accordance with Sections 71a et seq. AktG, may at no time exceed 10% of the respective share capital of the company.

Appointment and Removal from Office of Members of the Management Board and Amendments to the Articles of Association

Members of the Management Board are appointed and removed from office by the Supervisory Board in accordance with Art. 9 (1), Art. 39 (2) SE Regulation and Sections 84 and 85 AktG. The Supervisory Board appoints members of the Management Board for a maximum period of six years in accordance with the Articles of Association of Vonovia SE. Reappointment or extension of the term of office, in each case for a maximum of six years, is permissible. The Articles of Association of Vonovia SE further stipulate in Section 8 (1) that the Management Board shall consist of at least two members. It may appoint a member of the Management Board as Chairperson of the Management Board and a Deputy Chairperson. Pursuant to Art. 59 of the SE Regulation, the Annual General Meeting adopts resolutions on amendments to the Articles of Association. In accordance with Art. 17 (4) of the Articles of Association, amendments to the Articles of Association require a majority of two thirds of the votes cast or, if at least half of the share capital is represented, a simple majority of the votes cast, unless mandatory statutory provisions require a different majority.

Change of control clauses and compensation agreements in the event of a takeover bid

The main agreements of Vonovia SE that are subject to a change of control relate primarily to financing agreements. In the event of a change of control, these provide for the right of termination and early repayment on the part of the lender, as is customary. Under certain circumstances, a change of control would have an impact on the bonds, promissory note loans and mortgages issued by Vonovia SE and on the existing credit lines and loan agreements concluded by Vonovia SE or Group companies with banks. The relevant terms and conditions comprise standard market agreements that grant the creditors the right of early termination or conversion in the event of a change of control pursuant to these terms and conditions. The employment contracts of the members of the Management Board also contain provisions in the event of a change of control. In the event of early termination of duties due to a change of control, the members of the Management Board are entitled to benefits.

Opportunities and Risks

Risk Management Structure and Instruments

The market environment and the overall statutory/regulatory conditions to which Vonovia is subject are constantly changing. Vonovia is adapting to this environment by developing its strategy and, within this context, its business activities on an ongoing basis. Vonovia also reacts to ESG influences from a wide variety of stakeholders by adjusting its corresponding ESG targets. These changes mean that additional opportunities and risks arise on a regular basis, and that the extent of existing opportunities and risks can change at any time.

As a result, Vonovia has implemented a comprehensive risk management system that ensures that all of the risks that are relevant to the company (and to the environment and society at large) can be identified, evaluated and managed. This reduces risk potential, secures the company's survival, supports its strategic further development and promotes responsible entrepreneurial action.

In order to harmonize risk management within the Vonovia Group, Deutsche Wohnen adopted Vonovia's risk management system at the end of 2022 as part of its integration into the Vonovia Group.

Risks are defined as possible events or developments that could have a negative impact on the company's expected economic development and, as a result, could lead to a negative deviation from the short-term plans (budget and forecasts) and the company's medium-term plans (five-year plan). Any deviations from the company's ESG objectives also pose risks to its economic development.

5 Pillars of Risk Management at Vonovia

Management Board
(Strategy, Requirements/Goals, Control Environment, Monitoring)

1 Performance-Management	2 Compliance-Management	3 Risk Management System	4 Internal Control System	5 Internal Audit
Controlling > Budget > Forecast > Results	**Compliance Officer** > Guidelines, regulations > Contracts > Capital market compliance > Data protection	**Controlling** > Risk management process > Risk reporting	**IT** > Process documentation **Accounting** > Accounting-based internal control system	**Internal Audit** > Process-oriented audits > Risk-oriented audits
Operational Areas > Performance management > Technical integrity	**Operational Areas** > Ensuring compliance	**Operational Areas** > Risk identification and evaluation > Risk control	**Operational Areas** > Documentation of core processes > Control activities > Control self assessment	**Operational Areas** > Process improvements

Opportunities are defined as possible events or developments that could have a positive impact on the company's expected economic development and, as a result, could lead to a positive deviation from the short-term plans (budget and forecasts) and the company's medium-term plans (five-year plan). Deviations from the company's ESG objectives can also give rise to opportunities. Opportunities are not quantified for internal management purposes.

Vonovia's risk management system is based on an integrated five-pillar risk management approach.

(1) Performance Management

Detailed corporate planning and appropriate reporting on deviations in the operational and financial key figures from Controlling constitute the backbone of the early warning system used at the company. Analyses are made of the business performance compared with the plans approved by the Supervisory Board and the previous year. Furthermore, forecasts are prepared regularly which take appropriate account of the effect of any potential risks and opportunities on the development of business.

Reporting includes detailed monthly controlling reports for the Management Board and the Supervisory Board. The operational business is described in regular reports on key figures, some of which are drawn up on a weekly or daily basis. On the basis of these reports and the deviations that they highlight between the actual and target figures, countermeasures are initiated and implemented and then checked in subsequent reporting periods to ensure they are effective.

(2) Compliance Management

Compliance means that the company, its bodies and employees act in line with the applicable rules and regulations. For the Management Board, compliance with statutory law and the observance of internal guidelines are the basis of corporate management and culture. Compliance is to ensure the integrity of employees, customers and business partners and avoid possible negative consequences for the company (and for the environment and society at large).

The management and monitoring of Vonovia is based on the relevant statutory requirements, the Articles of Association and the rules of procedure for the Supervisory Board and the Management Board. They form the basis for the company's internal rules and guidelines, adherence to which is monitored by a central compliance management system and administered by a guideline management team that forms part of the Legal department.

The guidelines describe clear organizational and monitoring structures with specified responsibilities and appropriately installed checks. The legally compliant behavior of all employees in the business processes is ensured by suitable control procedures and supervision by managers.

The company has also put in place a compliance management system based on IDW (Institute of Public Auditors in Germany) standard PS 980 and has appointed a central compliance officer, whose remit focuses on identifying compliance risks, taking suitable measures to avoid and detect these risks and taking appropriate action in response to compliance risks (compliance program).

In terms of specific content, the main features of the compliance management system are Vonovia's Code of Conduct, which focuses on ethical values and statutory requirements and reinforces the personal responsibility of employees, Vonovia's Compliance Guidelines and a Business Partner Code setting out requirements that the company's contractual partners have to meet. An external ombudsman is available to all employees and business partners as a confidant with respect to compliance matters. The system also features an anonymous whistleblower hotline in German and English. The hotline is available not only to employees, but also to external groups, such as customers and business partners.

(3) Risk Management System

Vonovia's strategy has a sustainable and long-term focus. As a result, Vonovia pursues a conservative risk strategy in its business activities. This does not mean minimizing risks, but rather promoting entrepreneurial and responsible action and ensuring the necessary transparency with regard to any possible risks.

The risk management system supports all employees in their day-to-day work in accordance with Vonovia's mission statement. It ensures the early identification, assessment, management and monitoring of all risks within the Group that exceed the short-term financial risks dealt with by the Performance Management pillar and could pose a risk not only to the company's results of operations and net assets, but also to intangible assets.

The risk management system explicitly includes sustainability risks. These are assessed both in terms of their impact on Vonovia (outside-in perspective) and also – in line with the concept of ESG due diligence – in terms of their impact on the environment and society (inside-out perspective). This means that potential risks which might impair the value and/or development of the company, or the environment and society, can be identified at an early stage. The risk management system takes account of early warning indicators that are specific to the environment and the company, as well as the observations and regional knowledge of our employees.

In organizational terms, risk management is assigned directly to the Management Board. It has overall responsibility and decides on the organizational structures and workflows of risk management and provision of resources. The operational management of the risk management system falls within the remit of the Head of Controlling, who is responsible for Risk Controlling. The Head of Controlling reports to the Chief Financial Officer (CFO). Risk Controlling initiates the software-supported, periodic risk management process and consolidates and validates the risks reported. It is also responsible for validating the risk management measures and monitoring their implementation. Risk Controlling works with the individual risk owners to define early warning indicators that are used to monitor actual developments with regard to certain risks.

The risk owners are the managers at the level directly below the Management Board. They are responsible for identifying, evaluating, managing, monitoring, documenting and communicating all risks in their sphere of responsibility. They are also responsible for recording and reporting all risks in the company's risk tool based on the defined reporting cycles.

Based on a half-yearly risk inventory taken in the first and third quarters of a fiscal year, Risk Controlling prepares a risk report for the Management Board and the Supervisory Board. It also simulates major risk developments and their impact on the corporate plans and objectives. The Management Board approves the documented risk management findings, takes account of them in steering the company and reports them to the Supervisory Board. The Audit Committee of the Supervisory Board monitors the effectiveness of the risk management system.

Should significant risks occur unexpectedly, they are reported directly to the Management Board and the Supervisory Board on an ad hoc basis.

As part of the process involved in preparing the annual financial statements, the risks identified in the third quarter are reviewed by Risk Controlling to ensure they are up-to-date and – if necessary – updated, with newly identified risks being added. New risks can arise in the context of the budget and five-year planning process. These are coordinated and evaluated bilaterally between Risk Controlling and the responsible risk owners as part of the planning process.

Vonovia's risk management system includes a simulation model to calculate the company's risk-bearing capacity. As part of this analysis, risk management evaluates the interdependencies between major risks on an annual or ad hoc basis and defines the parameters for risk aggregation. A Monte Carlo simulation model based on the statistical distribution functions relevant to the risks is used to determine the company's overall risk position. The resulting overall risk position is compared to the company's risk-bearing capacity with regard to insolvency and overindebtedness. Extreme scenarios for selected major risks are also simulated as part of the corporate planning process. The effects on the company's performance indicators, as well as key figures related to financing, are always taken into account here. The results of the simulations are discussed with the Management Board. Planning and risk management are managed by the same area within Controlling.

The risk management system is updated and refined on a regular basis and is also adjusted to reflect changes at the company. The effectiveness of the risk management system is analyzed in regular audits.

The risk management system looks at all activities in the risk management process, i. e.,

> Risk identification
> Risk assessment
> Risk aggregation
> Risk control
> Risk monitoring

Based on the COSO Framework, a **risk space with the following four main risk categories** has been defined to facilitate risk identification: strategy, regulatory environment and overall statutory framework, operating business and financing (including accounting and tax). A structured risk catalog has been assigned to each of these categories.

When it comes to **assessing risk**, a distinction is made between risks with an impact on profit and loss and those affecting the balance sheet. Risks with an impact on profit and loss have a negative effect on the company's sustained earnings power and, as a result, on Adjusted EBITDA in the individual segments and Group FFO. In general, these risks also have an impact on liquidity. Risks affecting the balance sheet do not impact Group FFO, but they certainly do impact the assets and, in general, also profit for the period and the EPRA NTA. These risks can be such that they do not affect liquidity, e.g., because they only impact real estate values.

As part of the merger of Vonovia and Deutsche Wohnen, the loss categories were reviewed and adjusted to reflect the higher business volume. The upper limit for risks with an impact on profit and loss was raised from >€ 500 million to >€ 750 million and the upper limit for risks affecting the balance sheet was lifted from >€ 8,000 million to >€ 12,000 million. The lower limits remain unchanged, while the intervals are increased proportionately by 50%. The expected amount of loss is classified to one of five categories:

Category	Class	Description	Impact on profit and loss*	Impact on statement of financial position*
Very high	5	Threatens the company's existence	Possible loss of > € 750 million in Group FFO	Possible balance sheet loss of > € 12,000 million
High	4	Dangerous impact on business development, previous business situation cannot be restored in the medium term	Possible loss of € 375 million to € 750 million in Group FFO	Possible balance sheet loss of € 6,000 million to € 12,000 million
Consid-erable	3	Temporarily impairs business development	Possible loss of € 150 million to € 375 million in Group FFO	Possible balance sheet loss of € 2,400 million to € 6,000 million
Noticeable	2	Low impact, possibly leaving a mark on business development in one or more years	Possible loss of € 40 million to € 150 million in Group FFO	Possible balance sheet loss of € 600 million to € 2,400 million
Low	1	Minor impact on business development	Possible loss of € 5 million to € 40 million in Group FFO	Possible balance sheet loss of € 80 million to € 600 million

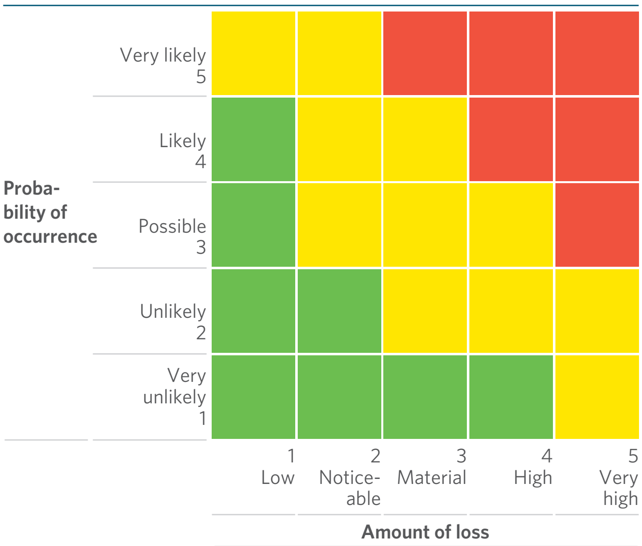
* Understood as the possible financial loss over five years in accordance with the medium-term planning horizon.

Five clusters have been defined for the expected probability of occurrence.

Category	Class	Definition	Probability
Very likely	5	It is to be assumed that the risk will materialize during the observation period.	>95 %
Likely	4	The risk is likely to materialize during the observation period.	60–95 %
Possible	3	The risk could materialize during the observation period.	40–59 %
Unlikely	2	The risk is unlikely to materialize during the observation period.	5–39 %
Very unlikely	1	It is to be assumed that the risk will not materialize during the observation period.	<5 %

The expected amount of loss and the probability of occurrence are classified within the set ranges before action (gross) and after action (net) for each risk, documented in a risk tool and transferred to a heatmap there. Risk reporting is based on the net assessment and the assignment of risks in the net heatmap, comprising five categories for both probability of occurrence and the amount of loss.

Net Heatmap



The term "top risks" refers to the risks assigned to the red and amber fields. These are reported to the Supervisory Board and published as part of the external reporting process. The risks assigned to the red fields are classified as threatening or endangering the company or its survival. The risks assigned to the amber fields are significant to the company. Red and amber risks are subject to intensive monitoring by the Management Board and the Supervisory Board. The risks assigned to the green fields are less significant to the current risk assessment.

As part of an active **risk control** process, the focus is on the major (red and amber) risks. Any necessary specific risk management measures were agreed and incorporated into a regular monitoring process to be conducted by Risk Controlling.

Regular **risk monitoring** by Risk Controlling ensures that risk management measures are implemented as planned.

The appropriateness and effectiveness of the risk management system was audited in accordance with the audit standard "Principles for the Proper Performance of Reasonable Assurance Engagements Relating to Risk Management Systems" (IDW PS 981) for the period from July 1 to December 31, 2021.

(4) Internal Control System

The Internal Control System (ICS) comprises the basic principles, procedures and regulations aimed at supporting the effectiveness and cost-effectiveness of our business activities, ensuring due and proper, and reliable internal and external accounting, and ensuring compliance with the legal provisions that apply to the company.

All key processes at Vonovia are recorded and documented centrally with the help of a process management software solution. In addition to the relevant process steps, this documentation highlights key risks and controls in the interests of a process-oriented internal control system (ICS). It provides the binding basis for subsequent evaluations, audits and reporting to the executive bodies of Vonovia SE on the effectiveness of the ICS within the meaning of Section 107 (3) sentence 2 of the German Stock Corporation Act (AktG).

Overall responsibility for structuring and implementing the ICS lies with Vonovia's Management Board. The Management Board delegates this responsibility to process and control owners. The Internal Audit department provides support in the further technical development of the ICS in addition to performing its primary audit duties in full. Internal Audit is responsible for providing technical support for the documentation software, with administrative support being provided by IT.

The aim of the accounting-related internal control and risk management system is to ensure due and proper and legally compliant financial reporting pursuant to the relevant regulations. The accounting-related internal control and risk management system is embedded in the overarching Group-wide risk management system.

Organizationally, responsibility for preparing the financial statements lies with the Chief Financial Officer's (CFO) department and, in particular, with the Accounting department. The Accounting department exercises the authority to lay down guidelines for the application of relevant accounting standards as well as for the content and timing of the steps in the financial statements preparation process.

From the organizational and systems side, the preparation of the financial statements for all companies included in the consolidated financial statements as well as the preparation of the consolidated financial statements themselves are performed in the central shared service centers, which ensures consistent and continual application of accounting principles in a uniform financial statement preparation process. Furthermore, through the shared service center functions it is ensured that both content and organizational changes in the requirements are incorporated in the financial statement preparation process.

The financial statements of the companies included in the consolidated financial statements – with the exception of Deutsche Wohnen, the companies in Sweden and the investments in France and the Netherlands – are located in an IT SAP environment. They are subject largely to uniform charts of account, accounting guidelines, processes and process controls. The requirement of separation of functions and the dual-review principle are taken appropriate account of with preventive and also subsequent checks.

The financial statements of the Deutsche Wohnen Group are managed in a separate IT environment. The subsidiaries of the Deutsche Wohnen Group as well as those in Sweden and the investments in France and the Netherlands report their data as part of a structured IT-based data recording process.

The relevant financial statement data of the individual companies are made available to the SAP consolidation module via an integrated, automated interface with comprehensive validation rules for further processing and preparation of the consolidated financial statements. An authorization concept is in place granting access to the financial statements in line with the respective job profile of the employee.

Newly acquired companies are incorporated into the internal control environment as part of a structured integration process, which includes integration in terms of both IT systems and processes relating to financial statements.

Once the financial statements have been drawn up, the annual and consolidated financial statements, including the consolidated management report, are submitted to the Audit Committee of the Supervisory Board. The Committee then makes a recommendation for the Supervisory Board to adopt or approve them. This examination may include discussion with the auditor and is subject to the auditor's report. The Audit Committee is continually involved in the establishment and refinement of the accounting-related internal control and risk management system.

(5) Internal Audit

The system and control environment, business processes and the internal control system (ICS) are audited on a regular basis by Vonovia's Group Audit department. The annual audit plan is based on a risk-oriented evaluation of all relevant audit areas of the Group (audit universe) and is approved by the Management Board and the Supervisory Board's Audit Committee.

The audits conducted throughout the year focus on assessing the effectiveness of the control and risk management systems, identifying process improvements in order to minimize risks and ensuring the sustainability of Vonovia's business activities. Corresponding special ad hoc audits are also performed in consultation with the Management Board.

The internal reports are presented to the Management Board, the individuals responsible for the area reviewed and, in cases involving significant and serious findings, the risk manager and, where relevant, the compliance officer on a regular basis. The Audit Committee receives a quarterly summary of the audit results and measures. The implementation status of the agreed measures is monitored on an ongoing basis after the relevant due dates and is reported to the Management Board and the Audit Committee on a quarterly basis. A follow-up audit is conducted to ensure that any serious findings have been remedied.

Current Risk Assessment

A scheduled risk inventory was performed in both the first and second half of the 2022 fiscal year. The risk report was presented to the Management Board and the Audit Committee. The risk inventory for the second half of the year was adjusted/updated at the end of 2022. There were no unscheduled ad hoc risk reports in the 2022 fiscal year or up until the time at which the balance sheet was prepared.

Overall Assessment of the Risk Situation

A total of 107 (2021: 108) individual risks were identified for Vonovia, including Deutsche Wohnen, at the end of 2022.

All in all, and based on the current assessment, there were no signs of any risks threatening or endangering Vonovia or its survival at the end of 2022. At the time this report was prepared, Vonovia's Management Board had not identified any risks associated with future business development that the company cannot suitably overcome, or which could jeopardize the position of Vonovia SE, a major company included in the scope of consolidation or the Group as a whole in terms of revenue, assets and/or finances.

The outcome of the risk-bearing capacity analysis revealed that there is no current threat to Vonovia's survival over the five-year period.

The risks to be modeled were quantified and the interaction between individual top risks and selected green risks analyzed in detail at the end of 2022.

11 (2021: six) amber risks that are significant to the company and 96 (2021: 102) other green risks were identified. Specifically, the picture that emerges for each risk category is as follows (prior-year figures in brackets):

Risk	Strategy	Operating business	Regulatory environment	Financing	Total
					0 (0)
		4 (1)	2 (2)	5 (3)	11 (6)
	9 (9)	51 (53)	27 (29)	9 (11)	96 (102)
Total	**9 (9)**	**55 (54)**	**29 (31)**	**14 (14)**	**107 (108)**

The main reason behind the increase in amber risks is Russia's war of aggression on Ukraine and its impact on the energy and capital markets, as well as the implications of disrupted supply chains.

Risks Related to Operating Business

In the operating business, we identified the four amber risks (2021: 1) explained below at the end of 2022.

The residential properties held in the Rental segment are subject to a regular valuation process. Details can be found in the notes to the consolidated financial statements in chapter → **[D28] Investment Properties**. Changing overall conditions on the real estate and capital markets mean that future market developments, such as inflation and rising interest rates, could reduce the value of the properties. Lower property values would push up the company's loan-to-value ratio (LTV), which could have a negative impact on its ability to raise capital. The balance sheet operating risk "future market development leads to a drop in property values", which was classed a green risk in 2021, was upgraded to an amber risk with an expected amount of loss of >€ 12,000 million (2021: € 4,000–8,000 million) and an expected probability of occurrence of 5–39% (2021: <5%). In order to limit risk, Vonovia is committed to maintaining the current diversification of its portfolio.

The development in the supply of, and demand for, residential properties has a significant influence on the home prices that can be achieved and, as a result, a direct impact on both Adjusted EBITDA in the Recurring Sales segment and the success of Non Core sales. Surplus demand, with variations from region to region, was observed up until the 2022 fiscal year. This shortage has resulted in a steady increase in home prices in the past, creating a positive overall environment for property sellers, also thanks to low interest rates. These positive overall conditions are currently being dampened by rising financing costs, making it more difficult for property buyers to finance the purchase prices being asked for. A scenario in which interest rates were to remain permanently high or increase further could lead to buyers no longer being able to finance the home prices asked for on the market. This would reduce demand and ultimately result in lower home prices, which could represent a risk with an impact on profit and loss for the Recurring Sales segment. The expected amount of loss attributable to the operating risk with an impact on profit and loss "deteriorating residential property market situation with regard to apartment sales/buyer behavior", which was classified as amber in 2021, was increased to € 375–750 million (2021: € 100–250 million). The expected probability of occurrence remained at 5–39%. In order to limit and monitor risk, regular reporting on sales volumes and prices and regular monitoring of target prices and sales volume targets by the portfolio controlling team has been implemented alongside a process for identifying ideal prices.

With regard to the sale of our development projects, we believe that a risk could arise, in particular, due to changes in the demand situation for individual apartments on the regional markets, as well as in connection with institutional buyers in the context of global exits. Changes in demand could arise due to changes in the cost of capital or for other reasons. The expected amount of loss attributable to the operating risk with an impact on profit and loss "Development sale risk", which was classified as green in 2021, was upgraded to € 375–750 million and reclassified as an amber risk (2021: € 25–100 million). The expected probability of occurrence was assessed as being 40–59% (2021: 5–39%). In order to be able to respond to market changes early on, in-depth market studies and analyses are prepared at regular intervals and are analyzed in connection with reports prepared by renowned real estate experts. Any market changes that are identified are taken into account when analyzing the real estate portfolio, meaning that they have a significant impact on sales planning. Another measure for limiting risk is the option of switching pipeline projects from sale to rental.

Russia's war of aggression on Ukraine had a direct and indirect impact on the energy and construction materials markets. Rising energy costs also translated into higher costs for construction materials and led to bottlenecks in the procurement of construction materials in a large number of places. This has resulted in deteriorating overall conditions for construction and modernization projects in the Development and Value-add segments, with negative knock-on effects on Adjusted EBITDA in the segments. We expect this development to continue in 2023. As we have taken a corresponding adjustment to our investment strategy into account in our planning, the risk reflects the effect extending beyond this. We expect the overall conditions to improve in subsequent years. The operating risk with an impact on profit and loss "Higher construction costs than planned due to increases in the price of construction materials & services, as well as supply bottlenecks", which was classified as a green risk in 2021, was upgraded to amber and evaluated as having an expected probability of occurrence of 60–95% (2021: 5–39%). The expected amount of loss was evaluated at € 40–150 million (2021: € 25–100 million). In order to limit this risk, Vonovia monitors the market systematically while simultaneously developing alternatives, e.g. revising specifications and using standardization to reduce material usage. In addition, critical materials are secured early on and, where appropriate, stored where possible.

Risks Related to Regulatory Environment & Overall Statutory Framework

Changes in the regulatory environment and in the overall statutory framework could give rise to risks for all of Vonovia's business segments. At present, 2 (2021: 2) key amber risks have been identified.

In the Rental segment, regulations regarding rent and ancillary expenses have a particular impact. The legislation on the carbon tax introduced by the German government could entail risks for Vonovia with the potential to negatively impact Adjusted EBITDA in the Rental segment. The risk relating to the regulatory environment "Unfavorable carbon tax", which is classified as an amber risk, has been assigned an expected amount of loss of € 40–150 million (2021: € 25–100 million) and is still assessed as having a probability of occurrence of 60–95%. In order to limit this risk, Vonovia has adopted a program for energy-efficient refurbishments within its portfolio and has started developing new methods for carbon-reduced energy production (power-heat coupling, sector coupling, etc.). The research center in Bochum-Weitmar is also part of this measure.

From the Group's perspective, the results from our business activities in the Rental segment in Sweden depend not only on our operating success but also on exchange rate developments. As the Swedish companies are small compared to the rest of the Group (eurozone), no currency hedging instruments are currently in use. In order to avoid short-term negative EUR/SEK fluctuations, foreign currency forwards are concluded in certain cases for the period from the time at which the need for an SEK payment is identified until the time of the actual transfer. Beyond that, however, there is a general exchange rate risk. The amber risk with an impact on profit and loss associated with "unfavorable exchange rate developments", which relates to our business activities in Sweden, has been assessed as having an expected amount of loss of € 40–150 million (2021: € 25–100 million) and an unchanged probability of occurrence of 40–59%.

Risks Related to Financing

With regard to financing, we identified the five amber risks (2021: 3) explained below at the end of 2022.

Restricted access to the bond market could give rise to risks for Vonovia, as this could mean that too little liquidity is available temporarily. Due to the emerging changes on the capital market, the financing risk with an impact on profit and loss "restricted access to the bond market", which was classified as green in 2021, was upgraded to amber and assigned an expected amount of loss of > € 750 million (2021: € 250–500 million). The expected probability of occurrence remained at <5%. The active and timely management of refinancing maturities allows Vonovia to ensure a balanced maturity profile so as to avoid cluster risks. Vonovia continues to use all financing instruments that are used as standard on the market and has the internal expertise to place these instruments. This prevents any one-sided reliance on specific types of financing.

Being awarded an investment-grade rating is the very top priority in all strategic decisions. As a result, we remain in close dialogue with our rating agencies. In the very unlikely event that refinancing via the capital market is temporarily impossible, Vonovia can resort to existing available credit lines.

A further increase in capital market interest rates could give rise to risks for Vonovia's growth and result in planned investments being cut back, suspended or canceled completely. In addition, an increasing interest burden due to unfavorable interest rate developments could translate into lower growth or even a drop in Group FFO. The expected amount of loss for the financing risk with an impact on profit and loss relating to "unfavorable interest rate developments", which had already been classified as an amber risk in 2021, was increased to > € 750 million (2021: € 100–250 million). The expected probability of occurrence remained unchanged at 5–39%. As well as diversifying debt capital instruments and maintaining a balanced maturity profile, risks are limited by ensuring a long-term average maturity/fixed-interest period of around eight years. Debt reduction by freeing up liquidity is another measure used to limit risk.

Vonovia is obliged to report certain key figures and adhere to certain covenants in connection with bonds, secured loans and transactions. If these covenants are not adhered to or these reporting obligations are not fulfilled on time, Vonovia could be subject to payment obligations and additional negative effects on earnings could result from new financing arrangements. The amber financial risk with an impact on profit and loss associated with a "**failure to fulfill obligations (from bonds, secured loans, transactions)**" was assessed as having an expected amount of loss of >€ 750 million (2021: >€ 500 million) and an unchanged expected probability of occurrence of <5%. In order to counter this risk, Vonovia has implemented standardized processes for monitoring and managing its obligations.

The amendments to the German Real Estate Transfer Tax Act that came into force on July 1, 2021, lowering the participation threshold from 95% to 90% and increasing the observation period from 5 to 10 years, could give rise to a subsequent liability to pay real estate transfer tax. The amber risk with an impact on profit and loss associated with an "**amendment to the German Real Estate Transfer Tax Act due to share deals**" was assessed as having an expected amount of loss of >€ 750 million (2021: >€ 500 million) and an unchanged expected probability of occurrence of <5%. In addition to monitoring court decisions and legislation on an ongoing basis, Vonovia also limits this risk by raising awareness among decision-makers in the context of share deals. This ensures the involvement of the internal Tax department, which then helps monitor the acquisition process. The internal Tax department has also developed an extended checklist to serve as guidance within this context.

Goodwill arose in the context of acquisitions in the past because the purchase price exceeded the value of the assets acquired less all liabilities. **Goodwill** is subjected to regular impairment testing, at least once a year. If the present value of future cash flows (value in use) is lower than the carrying amount (generally fair value plus goodwill), the goodwill has to be written down. This can have an impact on our covenants. At present, we consider this risk affecting the balance sheet to have an expected amount of loss of € 600–2,400 million (2021: € 400 million–1,600 million) and a probability of occurrence of 40–59% (2021: 5–39%). In order to counter this risk, an ongoing performance reporting system has been implemented to identify and monitor deviations from our plans. This allows us to take any corrective action required to be able to stick to our plans. Within this context, a dedicated synergy monitoring process also ensures that planned synergies from acquisition projects are actually leveraged.

At the end of 2022 (previous years in parentheses), the net risks identified can be summarized as follows:

Net Risks

Probability of occurrence over the next 5 years (in %)						
	>95					
	60–95	2 (5)	2 (1)			
	40–59	2 (3)	2 (1)		1 (0)	
	5–39	24 (25)	9 (15)	0 (2)	1 (0)	2 (0)
	<5	40 (41)	10 (6)	5 (4)	4 (3)	3 (2)
Impact on profit and loss		5–40	40–150	150–375	375–750	>750
Impact on statement of financial position		80–600	600–2,400	2.400–6,000	6.000–12,000	>12,000
Qualitative		very low	low	medium	high	very high
		Amount of loss over the next 5 years (in € million)				

Sustainability Risks

In addition to the amber risks set out above, Vonovia also reports on selected green risks that relate explicitly to sustainability in order to reflect the growing importance of this risk consideration:

Environmental Risks

The need to consider climate-related aspects is playing an increasingly important role in Vonovia's business model and strategy, in line with the mounting importance of climate issues in society at large. The resulting climate transition risks describe the effects that can arise for companies due to the process of transformation towards a sustainable economic system. Vonovia has set itself an intensity target equating to a roughly 35% reduction in GHG emissions in its German portfolio by 2030 compared to 2021, in order to achieve its climate objectives and meet the associated regulatory requirements. We are sticking to this climate target despite limited investments in modernization and new construction over the coming year. As a result, we continue to consider the **risk of non-compliance with our climate path** to be associated with a low amount of loss and consider its materialization to be improbable.

In addition, crises or disasters such as floods, earthquakes, extreme weather events, etc., could have an impact on our real estate portfolio and require specific crisis management measures. Physical climate risks like these refer to longer-term shifts in general climatic conditions. We have assessed the **risk of business continuity in disasters/crisis situations** as being associated with an amount of loss of € 5–40 million and a probability of occurrence of 5–39%. To allow us to analyze and assess potential long-term implications of climate change (i.e., those extending beyond the usual risk management observation period of five years), we have developed a climate risk tool that maps the internationally recognized climate change scenarios developed by the Intergovernmental Panel on Climate Change (IPCC).

Transition risks and physical climate risks could potentially have a negative impact on the Group's net assets, financial position and results of operations and could make the estimates used in an accounting context less certain. We do not believe that climate change gives rise to any significant **direct risks** for the period covered by the risk management system at the moment, e.g., caused by extreme weather conditions such as heavy rain with the potential for floods. Based on our current knowledge of future developments, this will not have any impact on Vonovia's balance sheet. This relates, among other things, to the fair values of investment properties, useful lives and the value of assets and provisions for environmental risks, for which no significant need for adjustment emerges (see → Environmental Issues).

When it comes to the development of new and sustainable fields of business in the Value-add segment – particularly with regard to renewable energies – **risks can arise from the design and implementation of the business models. Procurement prices** can also develop differently than expected. At present, we have assigned this **procurement price risk in our energy services area** a low amount of loss of € 40–150 million and a probability of occurrence of <5%. With regard to the planned **expansion of renewable energies using photovoltaic systems**, we have assessed the related risks as having a low amount of loss and a probability of occurrence of 5–39%.

Social Risks

Breaches of provisions concerning special contractual rights (Social Charters) can come hand-in-hand with risks related to tenant protection and, as a result, the aim of providing "homes at fair prices". While we have assigned a significant amount of loss of € 150–375 million to these risks, we consider them very unlikely to materialize.

Failure to comply with statutory occupational health and safety and occupational safety management provisions could have a long-term impact for Vonovia and its employees. We currently assess these risks as being associated with a substantial amount of loss but believe that they are very unlikely to materialize.

Governance Risks

Vonovia is exposed to the risk **of losing sustainable financing**. Sustainable "green" financing is becoming increasingly relevant. Failure by Vonovia to meet its sustainability targets, for example, could jeopardize the basis for this financing. At present, we have assigned this risk an amount of loss of € 375–750 million and a probability of occurrence of <5%.

In addition, Vonovia could be exposed to risks **associated with non-compliance with statutory requirements and investor or analyst expectations regarding ongoing sustainability reporting**. We currently assess this risk as being associated with a substantial amount of loss, but believe that it is very unlikely to materialize.

Inspections and reviews of buildings with regard to public safety are conducted based on a defined inspection plan and dedicated safety standards. If shortcomings are identified, there is a risk of unplanned refurbishment expenses and/or replacement investments. We have assessed the **risk of non-compliance with operator obligations** as being associated with an amount of loss of € 5–40 million and a probability of occurrence of <5%.

Current Assessment of the Main Opportunities

Assessment of Opportunities Inherent in the Business Model

In the process of defining its strategy and preparing its short and medium-term plans, Vonovia has identified and addressed earnings potential. The assumptions applied within this context regarding the corporate strategy, economic environment and market-related factors, and the company's operating business are not only associated with risks. Rather, Vonovia's business development can also end up being more favorable than in the assumptions included in the company's plans. Besides the economic opportunities, opportunities also arise from primary ESG objectives that extend beyond the initiatives included in the company's plans.

Strategy-Related Opportunities

The decision to focus our business activities on sustainability remains at the core of our corporate strategy. As well as renting out contemporary and affordable housing and creating new homes, this also includes improving our customers' quality of living and significantly reducing the carbon emissions originating from our residential properties.

By focusing our new construction activities and corresponding modernization measures on the latest **energy and material standards**, we can make a key contribution to alleviating the shortage of housing and improving the ecological footprint that we made a commitment to in the 2020 fiscal year with our binding climate path.

We are using sustainable, ecological building materials and sustainable energy concepts to help conserve scarce resources and make targeted use of renewable energy. Within this context, we see our neighborhoods as a strong link for sector coupling. We expect opportunities to arise for us from the targeted digital networking of electricity, heat and mobility.

Opportunities are also arising for us from the ecological transformation of the **residential environment:** The creation of tenant gardens and flower meadows and the installation of insect hotels allow us to improve its quality and make a contribution to biodiversity to the extent we are able to do so.

Relevant opportunities are also arising from the expansion of **renewable energies;** this refers to the direct sale of green electricity to our tenants, as well as the production (and sale) of electricity from renewable sources on/at our properties. With this in mind, we are forging ahead with the expansion of PV programs and the sale of electricity to tenants (tenant electricity), among other things. Our measures support a change in consumer behavior (use of green electricity).

As we move towards a climate-neutral housing stock, **energy-efficient refurbishments** are a key lever for us. The goal of reducing heating costs and, in doing so, cutting energy consumption is consistent with our goal of reducing emissions and makes a contribution to energy security in the current context of the war in Ukraine.

Optimizing the energy efficiency of our portfolio has been at the core of our climate strategy since as long ago as 2017. Since then, our modernization activities have consistently outstripped the German average with regard to the refurbishment rate. In order to manage investments in our housing stock in a manner that optimizes emissions, our company uses innovations (e.g., Energiesprong) and focuses on tried-and-tested urban quarter approaches in the implementation process.

Sociological and economic research data suggests that the **population in Germany and parts of Europe will continue to grow** as a result of migration. This will result in sustained high demand for affordable housing which cannot be satisfied in full by the expected levels of new construction activity, not even in the medium term. This translates directly into opportunities for us for the development and new construction business.

At the same time, the housing market will be faced not only with quantitative challenges due to the flow of migrants, but also with challenges relating to integration that Vonovia can counter using its experience of strategic and sustainable neighborhood development. Another key factor in this regard is, in particular, the **demographic** change toward an aging society. Demand for senior-friendly and affordable homes is expected to increase steadily over the coming years. As a result, opportunities could arise from senior-friendly modernization of our apartments and investment in new and innovative housing concepts. This is expected to come hand-in-hand with further rental growth.

In order to deliver answers to the challenges facing society, policymakers **are striving to improve the overall regulatory framework**: The German government coalition agreement promised initiatives to both significantly increase the supply of affordable homes through new construction and transform existing properties in a manner that is as climate-neutral as possible. This can only be achieved with private-sector investment and related incentives. Creating a positive investment climate for the residential real estate markets also means making the required ecological construction and modernization measures cost-effective, making additional land available for construction, reducing the amount of red tape and promoting the acceptance of private-sector real estate investors in general, which is likely, in turn, to create opportunities for Vonovia.

Looking at the internationalization strategy, the further regulatory changes in the residential property markets in other European countries, such as France, could give rise to further opportunities provided that the overall conditions are similar and consistent with our acquisition criteria. Other acquisition opportunities in Sweden, Austria and the Netherlands could also have a positive impact on business development. Internationalization measures are only pursued provided that profitability and internal financing requirements are met.

Making acquisitions within the value chain as and when opportunities present themselves, also with regard to the Value-add Business, could open up additional earnings potential. In the Value-add Business itself, promising opportunities could also arise both from entry into the B2B business and from moves to expand existing business models to include customer groups outside of Vonovia.

In addition to the further expansion of the company's existing housing-related services, also via possible third-party business, the megatrend of digitalization also creates expansion potential for forging even closer links between customers and the business model, e.g., via customer loyalty programs, communication platforms or networks.

Potential efficiency gains in the Value-add processes and system are a source of additional earnings potential.

Our corporate strategy also focuses on our employees' further development and on employee satisfaction. We aim to make use of new HR development concepts and actively shape the recruitment of new staff to fill vacant positions. We are aiming to increase the proportion of women at the first and second levels of management. All in all, further opportunities could arise for Vonovia due to the advantages associated with diversity and as a result of our increased appeal as an employer, also in the interests of employee satisfaction.

Economic Environment and Market-Related Opportunities

The housing industry is being influenced to a considerable degree by a range of social and technological megatrends. According to analyses released by the German Federal Statistical Office, domestic migration from rural areas to the country's large metropolitan areas will continue unchanged. The resulting shortage of housing in urban areas could be exacerbated even further by the effects of migration from global crisis hotspots and the trend toward smaller households. In response to the shortage of (skilled) workers and the dwindling population, the German government has set itself the goal of promoting immigration from non-EU countries specifically. The German Federal Employment Agency (Bundesagentur für Arbeit) expects Germany to require around 400,000 immigrants a year to close the gaps on the labor market resulting from demographic changes. According to the Cologne Institute for Economic Research, this translates into a potential shortfall of as much as 308,000 apartments a year in the medium term. This development trend could benefit our existing real estate portfolio, which focuses primarily on small and medium-sized apartments in urban areas. Vonovia is in a position to counter the increasing shortage of affordable housing through its development and new construction business. The German government coalition agreement has set a target involving the construction of 400,000 new apartments per year. This will not be possible without deregulation measures and the provision of additional land for construction, which could, in turn, create opportunities for Vonovia.

One aspect that enjoys a particularly prominent position in the coalition agreement is climate protection. Within this context, the decision taken very early on to focus on energy-efficiency refurbishments could prove to be advantageous. After all, almost one-third of CO_2 emissions in Germany can currently be attributed to residential property. Vonovia sees itself as a driver of innovation in the quest to solve this problem. Increased environmental awareness could result in the Vonovia brand taking on increasingly positive connotations in the future thanks to its effective innovations and in greater demand for Vonovia's energy-efficient apartments.

The Ukraine war has flagged up just how dependent Europe is on energy imports. The current energy shortages caused by the war in Ukraine will increase investment and the use of renewable energies. Vonovia's "1,000 roofs" program, which fits PV systems to the roofs of Vonovia buildings, is expected to benefit from further tailwind as a result. The investment program, for which sufficient funds from internal financing have been set aside, will open up further potential opportunities through the tenant electricity initiative.

The merger with Deutsche Wohnen offers further opportunities for implementing the approaches described thanks to what is now a larger existing and development portfolio.

Opportunities Arising from the Operating Business

The megatrend of digitalization is also having an impact on the real estate sector, as was reflected not least in the establishment of a new Management Board division for digitalization and innovation at Vonovia as of January 1, 2022. Vonovia will continue to make systematic investments in testing and expanding new technologies in the future, too, in particular in the areas of "artificial intelligence" or "robotics." We expect the systematic rollout of these and other technologies within the company, for example aimed at "predictive maintenance," "home automation," "process automation" and "building information system," and at the interface with our customers, to create additional opportunities.

Predictive maintenance, for example, could allow potential damage to elevators or heating units to be recognized in a timely manner, and prevented as a result, in the future. Smart home systems could allow tenants to consciously manage their energy costs. And digital communication platforms have the potential to improve dialogue with tenants, but also to support loyalty to the company and links within the neighborhood. These opportunities for the company's operating business resulting from digitalization should also have an impact on and through customer satisfaction.

Targeted acquisitions and collaboration initiatives with suitable start-ups at all stages in the value chain to enable the further implementation of digital solutions within Vonovia's processes, but also at the various interfaces, could open up further earnings and expertise potential for the company.

The digitalization of public administration could promote the much-called-for streamlining of administrative and, in particular, approval processes, with a positive impact, for example, on Vonovia's development/new construction business thanks to the quicker approval of building applications.

We also see the potential acquisition of larger portfolios in Germany, as well as the targeted small-scale "tactical" acquisitions of single or multiple buildings in specific locations and targeted measures in the residential environment as an opportunity to improve the nature and quality of whole residential districts and thus increase the appeal of our apartments for our customers and the value of our residential properties. In the current market environment, acquisition opportunities can certainly arise where the required internal financing is available.

Vonovia manages its housing portfolios throughout Germany using standardized systems and processes. The acquisition of further residential real estate portfolios offers the opportunity to generate additional value through harmonization effects and economies of scale on the property management side, in development and with regard to housing-related services by reducing the costs per residential unit. This approach is also reflected in the merger with Deutsche Wohnen, which was expected to generate synergies of € 105 million a year. Due to Vonovia's extensive experience in integrating companies into its systems and processes, further operating efficiency gains for both groups extending beyond the conservative expectations that have been applied to date could well arise.

Our own craftsmen's organization is responsible for repair and maintenance services for our residential properties. We are aiming to continually increase the proportion of building and apartment optimizing services we provide ourselves via our craftsmen's organization as well as new building construction and reduce the proportion of third-party services that we need to purchase. In particular due to the shortage of workers with the desired skills and the availability of corresponding capacities, we intend to extend the scope of these services to cover all kinds of technical work and thus bring added value from these services to Vonovia. This is being supported by corresponding HR management concepts.

The merger with Deutsche Wohnen also allows experience in housing-related services, primarily in metering services, multimedia services and energy supply, to be bundled. This creates economic potential on the one hand, but also potential with regard to the services offered to customers and, as a result, customer satisfaction on the other.

Financial Opportunities

Vonovia has benefited from extremely favorable conditions on the capital and banking markets in recent years thanks to its favorable ratings, allowing it to establish a financing foundation that is stable and balanced in the long run. The latest bond issue shows that this continues to give Vonovia the opportunity to access relatively more advantageous (re)financing options, even in market environments that may be more disadvantageous in the future.

Together with the diversification strategy for liquidity procurement that we have been pursuing for many years now, we also have the opportunity, particularly given the current capital market environment, to optimize the structure and conditions of our financial liabilities on an ongoing basis.

Rising inflation rates and interest rates in the current market environment have forced us to reevaluate investments in terms of their profitability against the backdrop of our sustainability objectives. Within this context, we are paying more attention to strengthening our internal financing. This means that we are increasing selling selected unfavorable portfolios and exploring alternative sources of financing in the form of minority private equity investments. More intensive sales efforts for our development projects will also have a positive effect on our internal financing power. All in all, stronger internal financing potential could allow for investment decisions, where appropriate opportunities arise, to boost the company's overall profitability or to allow it to pursue more sustainability initiatives and earnings potential.

The strengthening of our financial position, the profitability of our (sustainability) investments and our market share in urban areas could, as a result, also have a positive impact on how our investors and ratings agencies assess us, resulting in a further improvement in our attractive financing options.

Our investments in affordable homes are associated with a cash flow that is largely independent of economic factors. The resulting stability allows us to service our financial liabilities with a relative degree of certainty, even in times of economic or political crisis. This is evident, in particular, from the fact that our rent default rate, which was already low to begin with, has not increased to any significant degree, even in the year dominated by the war in Ukraine and the supply chain disruption that was 2022.

Forecast Report

Business Outlook 2023

The forecast was based on the accounting principles used in the consolidated financial statements, with the adjustments described elsewhere in the management report being made. The forecast does not take account of any larger acquisitions of real estate portfolios.

Our forecast for the 2023 fiscal year is based on determined and updated corporate planning for the Vonovia Group as a whole and considers current business developments, the completed integration of Deutsche Wohnen, possible opportunities and risks, potential after-effects of the coronavirus pandemic and the effects of the war in Ukraine. It also includes the key overall macroeconomic developments and the economic factors that are relevant to the real estate industry and our corporate strategy. Further information is provided in the sections entitled → **Development of the Economy and the Industry** and → **Fundamental Information About the Group**. Beyond this, the Group's further development remains exposed to general opportunities and risks (see → **Opportunities and Risks**).

We expect price increases triggered by the Ukraine crisis, particularly on the energy markets, to have a substantial impact on Vonovia and our customers. While these will have a direct impact on ancillary expenses, they will also have an indirect effect on all areas of the economy due to general price increases. We also expect prices for construction materials to remain high, with a knock-on effect on our construction projects, too.

Rising interest rates and inflation continue to create increased volatility on the equity and debt capital markets, also due to, or exacerbated by, the war in Ukraine. We therefore assess the overall economic situation and developments on an ongoing basis, particularly with regard to the return requirements for investment and divestment decisions.

We expect total segment revenue to increase further in 2023. We also expect Adjusted EBITDA Total to be on a par with, or slightly below, the prior-year level. Both key figures are currently being influenced to a considerable degree by the sales risks on the transaction market.

We expect the EBITDA contribution for the Rental segment to increase slightly with stable/rising demand for rental apartments. We predict a result that is roughly on a par with the previous year for Value-add and Recurring Sales. Due to the strong result in the 2022 fiscal year and the updated project valuations in the annual financial statements, we expect to see a marked drop in EBITDA in the Development segment. As far as the Care segment is concerned, we predict a slight drop in EBITDA in 2023 due to positive one-off effects in 2022.

We also expect borrowing costs to increase further, and current income taxes to increase due to the higher transaction volume. As a result, we expect Group FFO to decline slightly.

In addition, we expect the value of our company to increase further in 2023 and predict a slight increase in EPRA NTA per share, leaving any further market-related changes in value out of the equation.

Due to the increased cost of capital as described above, we anticipate a decline in modernization/portfolio investments and new construction/densification in 2023.

Based on the individual weighted targets and the values planned for the 2023 fiscal year in each case, we predict a total value of around 100% for the Sustainability Performance Index.

The table below provides an overview of the development of the performance indicators forecast, their target achievement level in the 2022 fiscal year as well as a forecast for the 2023 fiscal year.

	Actual 2021	Forecast for 2022	Forecast for 2022 in the 2022 Q3 Report	Actual 2022	Forecast for 2023
Total Segment Revenue	€ 5.2 billion	€ 6.2–6.4 billion	€ 6.2–6.4 billion	€ 6.3 billion	€ 6.4–7.2 billion
Adjusted EBITDA Total*	**€ 2,254.4 million**	**€ 2.75–2.85 billion**	**€ 2.75–2.85 billion**	**€2,763.1 million**	**€ 2.6–2.85 billion**
Group FFO**	**€ 1,694.4 million**	**€ 2.0–2.1 billion**	**€ 2.0–2.1 billion**	**€ 2,035.6 million**	**€ 1.75–1.95 billion**
Group FFO per share**	€ 2.18	suspended	suspended	€ 2.56	suspended
EPRA NTA per share***	**€ 62.63**	**suspended**	**suspended**	**€ 57.48**	**suspended**
Sustainability Performance Index (SPI)****	**109.0%**	**~100%**	**>100%**	**103.0%**	**~100%**
Rental income	€ 2,568,7 million	€ 3.1–3.2 billion	€ 3.1–3.2 billion	€ 3,168.1 million	€ 3.15–3.25 billion
Organic rent growth (eop)	3.8%	Increase of ~3.3%	3.4%	3.3%	above previous year
Modernization/portfolio investments*****	€ 792.4 million	€ 1.1–1.3 billion	€ 0.8–0.9 billion	€ 837.4 million	~€ 0.5 billion
New construction/space creation*****	€ 639.9 million	€ 1.0–1.2 billion	~€ 0.5 billion	€ 607.1 million	~€ 0.35 billion
Number of units sold Recurring Sales	2,803	~3,000	~3,000	2,710	3,000–3,500
Fair value step-up Recurring Sales	38.2%	~30%	>35%	38.8%	~25%

* Figures 2021 adjusted to new adjusted EBITDA definition (excluding results from at-equity investments).
** Based on the new 2022 definition without eliminating IFRS 16 effects, Group FFO per share based on the shares carrying dividend rights on the reporting date.
*** Based on the new 2022 definition, therefore excluding real estate transfer tax, EPRA NTA per share based on the shares carrying dividend rights on the reporting date. 2021 figures adjusted after closing of Deutsche Wohnen PPA.
**** Up to and including 2022 exclusive Deutsche Wohnen. From forecast 2023 including Deutsche Wohnen (excluding segment care and SYNVIA).
***** Previously shown as modernization and new construction.

Bochum, March 14, 2023

The Management Board

Rolf Buch (CEO) | Arnd Fittkau (CRO) | Philip Grosse (CFO) | Daniel Riedl (CDO) | Helene von Roeder (CTO)

Consolidated Financial Statements

The Group's net assets, financial position and results of operations remain positive. Total assets fell slightly by € 4.4 billion to € 101.5 billion.

Earnings per share fell to € -0.82, which includes the non-cash earnings contribution made by the valuation of investment properties in the amount of € -1.3 billion and impairment losses on goodwill of € -0.9 billion.

Consolidated Income Statement

for the period from January 1 until December 31

in € million	Notes	2021*	2022
Revenue from property letting		3,465.0	4,724.6
Other revenue from property management		158.9	427.2
Revenue from property management	**B10**	**3,623.9**	**5,151.8**
Income from disposal of properties		1,122.2	3,242.4
Carrying amount of properties sold		-1,044.6	-3,172.0
Revaluation of assets held for sale		87.4	68.0
Profit from the disposal of properties	**B11**	**165.0**	**138.4**
Revenue from disposal of real estate inventories		519.6	588.4
Cost of sold real estate inventories		-381.7	-460.9
Profit from disposal of real estate inventories	**B12**	**137.9**	**127.5**
Net income from fair value adjustments of investment properties	B13	7,393.8	-1,269.8
Capitalized internal expenses	B14	662.6	673.3
Cost of materials	B15	-1,671.1	-2,501.5
Personnel expenses	B16	-682.3	-863.8
Depreciation and amortization**	D26	-3,872.6	-1,279.1
Other operating income	B17	276.9	218.8
Impairment losses on financial assets		-39.2	-49.8
Net income from the derecognition of financial assets measured at amortized cost		-2.5	-2.6
Other operating expenses	B18	-388.9	-397.5
Net income from investments accounted for using the equity method		15.7	-436.6
Interest income	B19	21.5	115.5
Interest expenses	B20	-411.6	-367.6
Other financial result	B21	-137.1	10.3
Earnings before tax		**5,092.0**	**-732.7**
Income taxes	B22	-2,651.5	63.3
Profit for the period		**2,440.5**	**-669.4**
Attributable to:			
Vonovia's shareholders		2,251.5	-643.8
Vonovia's hybrid capital investors		38.4	–
Non-controlling interests		150.6	-25.6
Earnings per share (diluted) in €	**C24**	**3.59**	**-0.82**
Earnings per share (basic) in €	**C24**	**3.59**	**-0.82**

* Adjusted (see note [A2] Adjustment to Prior-year Figures).
** Without impairment losses on real estate holdings recognized as investment properties.

Consolidated Statement of Comprehensive Income

for the period from January 1 until December 31

in € million	2021*	2022
Profit for the period	2,440.5	-669.4
Change in unrealized gains/losses	26.5	77.9
Taxes on the change in unrealized gains/losses	-8.3	-23.9
Net realized gains/losses	-0.4	-5.0
Taxes due to net realized gains/losses	3.2	4.1
Profit on cash flow hedges	21.0	53.1
Changes in the period	-110.7	-408.8
Tax effect	13.3	11.7
Profit on currency translation differences	-97.4	-397.1
Items which will be recognized in profit or loss in the future	-76.4	-344.0
Changes in the period	81.1	-17.1
Taxes on changes in the period	-1.2	0.6
Profit on equity instruments at fair value in other comprehensive income	79.9	-16.5
Change in actuarial gains/losses, net	37.0	165.8
Tax effect	-12.6	-52.2
Profit on actuarial gains and losses from pensions and similar obligations	24.4	113.6
Items which will not be recognized in profit or loss in the future	104.3	97.1
Other comprehensive income	27.9	-246.9
Total comprehensive income	**2,468.4**	**-916.3**
Attributable to:		
Vonovia's shareholders	2,278.9	-894.5
Vonovia's hybrid capital investors	38.4	–
Non-controlling interests	151.1	-21.8

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Consolidated Balance Sheet

Assets

in € million	Notes	Dec. 31, 2021*	Dec. 31, 2022
Intangible assets	D26	2,722.9	1,659.5
Property, plant and equipment	D27	654.1	673.4
Investment properties	D28	94,100.1	92,300.1
Financial assets	D29	1,016.7	745.0
Investments accounted for using the equity method	D30	425.3	240.1
Other assets	D31	199.6	380.2
Deferred tax assets	D32	19.8	39.6
Total non-current assets		**99,138.5**	**96,037.9**
Inventories	D33	16.4	146.4
Trade receivables	D34	449.9	330.2
Financial assets	D29	1,063.3	768.2
Other assets	D31	220.9	337.5
Income tax receivables	D32	201.9	239.9
Cash and cash equivalents	D35	1,432.8	1,302.4
Real estate inventories	D36	671.2	2,156.3
Assets held for sale	D37	2,719.4	70.8
Total current assets		**6,775.8**	**5,351.7**
Total assets		**105,914.3**	**101,389.6**

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Equity and Liabilities

in € million	Notes	Dec. 31, 2021*	Dec. 31, 2022
Subscribed capital		776.6	795.8
Capital reserves		15,458.4	5,151.6
Retained earnings		16,535.5	25,605.1
Other reserves		126.2	-221.0
Total equity attributable to Vonovia shareholders		**32,896.7**	**31,331.5**
Non-controlling interests		3,242.4	3,107.3
Total equity	**E38**	**36,139.1**	**34,438.8**
Provisions	E39	866.3	655.7
Trade payables	E40	5.4	5.2
Non-derivative financial liabilities	E41	40,171.9	41,269.7
Derivatives	E42	66.2	-
Lease liabilities	E43	634.9	641.0
Liabilities to non-controlling interests	E44	224.5	220.0
Financial liabilities from tenant financing	E45	44.9	43.0
Other liabilities	E46	5.2	27.9
Deferred tax liabilities		18,693.9	18,612.4
Total non-current liabilities		**60,713.2**	**61,474.9**
Provisions	E39	727.2	549.7
Trade payables	E40	444.4	563.3
Non-derivative financial liabilities	E41	6,857.1	3,790.0
Derivatives and put options	E42	266.0	272.2
Lease liabilities	E43	44.2	41.5
Liabilities to non-controlling interests	E44	16.0	15.9
Financial liabilities from tenant financing	E45	112.6	112.1
Other liabilities	E46	228.8	131.2
Liabilities associated with assets classified as held for sale	D37	365.7	-
Total current liabilities		**9,062.0**	**5,475.9**
Total liabilities		**69,775.2**	**66,950.8**
Total equity and liabilities		**105,914.3**	**101,389.6**

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Consolidated Statement of Cash Flows

for the period from January 1 until December 31

in € million	Notes	2021*	2022
Profit for the period		2,440.5	-669.4
Net income from fair value adjustments of investment properties	B13	-7,393.8	1,269.8
Change in value from properties sold	B11	-87.4	-68.0
Depreciation and amortization	D26	3,872.6	1,279.1
Interest expenses/income and other financial result	B19/B20/B21	554.9	263.0
Income taxes	B22	2,651.5	-63.3
Profit on the disposal of investment properties	B11	-77.6	-70.4
Results from disposals of other non-current assets		-0.6	-1.6
Other expenses/income not affecting cash		-94.4	439.9
Change in working capital		51.2	-106.6
Income tax paid		-93.0	-188.2
Cash flow from operating activities		**1,823.9**	**2,084.3**
Proceeds from disposals of investment properties and assets held for sale		1,084.8	3,033.6
Proceeds from disposals of other assets		132.7	75.7
Proceeds from the disposal of other financial assets		–	2,399.6
Payments for investments in investment properties	D28	-1,957.1	-2,475.5
Payments for investments in other assets	D26/D27/D29	-352.7	-228.2
Payments for acquisition of shares in consolidated companies, in due consideration of liquid funds	A4	-17,122.8	–
Payments for acquisition of other financial assets		-912.8	-1,900.0
Interest received		12.1	33.0
Cash flow from investing activities		**-19,115.8**	**938.2**

in € million	Notes	2021*	2022
Capital contributions on the issue of new shares (including premium)	E38	8,080.5	–
Cash paid to shareholders of Vonovia SE and non-controlling interests	E38	-514.6	-714.0
Cash paid to hybrid capital investors		-1,040.0	–
Proceeds from issuing financial liabilities	E38	23,945.3	6,802.7
Cash repayments of financial liabilities	E41	-11,534.0	-8,540.1
Cash repayments of lease liabilities	E43	-27.3	-41.6
Payments for transaction costs in connection with capital measures	E41	-346.1	-45.9
Payments for other financing costs	E41	-28.5	-12.6
Payments in connection with the disposal of shares in non-controlling interests		-7.7	-52.6
Interest paid		-402.6	-541.0
Cash flow from financing activities	A4	18,125.0	-3,145.1
Influence of changes in foreign exchange rates on cash and cash equivalents		-2.3	-7.8
Change in cash and cash equivalents related to assets held for sale		-11.3	–
Net changes in cash and cash equivalents		819.5	-130.4
Cash and cash equivalents at the beginning of the period		613.3	1,432.8
Cash and cash equivalents at the end of the period**	**D35**	**1,432.8**	**1,302.4**

* Adjusted (see note [A2] Adjustment to Prior-year Figures).
** Includes € 200.6 million (Dec. 31, 2021: € 298.8 million) in current securities classified as cash equivalents and total restricted cash of € 104.1 million (Dec. 31, 2021: € 117.6 million).

Consolidated Statement of Changes in Equity

in € million	Subscribed capital	Capital reserves	Retained earnings	Other reserves: Cash flow hedges	Other reserves: Equity instruments at fair value in other comprehensive income
As of Jan. 1, 2022*	**776.6**	**15,458.4**	**16,535.5**	**-11.9**	**80.7**
Profit for the period			**-643.8**		
Changes in the period			110.0	54.0	-16.8
Reclassification affecting net income				-0.9	
Other comprehensive income			**110.0**	**53.1**	**-16.8**
Total comprehensive income			**-533.8**	**53.1**	**-16.8**
Capital increase	19.2				
Premium on the issue of new shares		597.6			
Transaction costs in connection with the issue of shares		-0.7			
Withdrawal from the capital reserves		-10,903.8	10,903.8		
Dividend distributed by Vonovia SE			-1,289.2		
Changes recognized directly in equity		0.1	-11.2		
As of Dec. 31, 2022	**795.8**	**5,151.6**	**25,605.1**	**41.2**	**63.9**
As of Jan. 1, 2021	**565.9**	**9,037.9**	**13,368.2**	**-32.9**	**50.0**
Profit for the period			**2,251.5**		
Changes in the period			23.9	18.2	79.9
Reclassification affecting net income				2.8	
Other comprehensive income			**23.9**	**21.0**	**79.9**
Total comprehensive income			**2,275.4**	**21.0**	**79.9**
Capital increase	210.7				
Premium on the issue of new shares		8,340.1			
Transaction costs in connection with the issue of shares		-93.4			
Reclassification of equity instruments at fair value in other comprehensive income			49.2		-49.2
Withdrawal from the capital reserves		-1,826.2	1,826.2		
Dividend distributed by Vonovia SE			-956.3		
Addition of non-controlling interests due to acquisition of Deutsche Wohnen					
Changes recognized directly in equity			-27.2		
As of Dec. 31, 2021*	**776.6**	**15,458.4**	**16,535.5**	**-11.9**	**80.7**

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Currency translation differences	Total	Equity attributable to Vonovia's shareholders	Equity attributable to Vonovia's hybrid capital investors	Equity attributable to Vonovia's share-holders and hybrid capital investors	Non-controlling interests	Total equity
57.4	**126.2**	**32,896.7**		**32,896.7**	**3,242.4**	**36,139.1**
		-643.8		**-643.8**	**-25.6**	**-669.4**
-397.0	-359.8	-249.8		-249.8	3.8	-246.0
	-0.9	-0.9		-0.9		-0.9
-397.0	**-360.7**	**-250.7**		**-250.7**	**3.8**	**-246.9**
-397.0	**-360.7**	**-894.5**		**-894.5**	**-21.8**	**-916.3**
		19.2		19.2		19.2
		597.6		597.6		597.6
		-0.7		-0.7		-0.7
		0.0		0.0		0.0
		-1,289.2		-1,289.2		-1,289.2
13.5	13.5	2.4		2.4	-113.3	-110.9
-326.1	**-221.0**	**31,331.5**		**31,331.5**	**3,107.3**	**34,438.8**
154.8	**171.9**	**23,143.9**	**1,001.6**	**24,145.5**	**686.3**	**24,831.8**
		2,251.5	**38.4**	**2,289.9**	**150.6**	**2,440.5**
-97.4	0.7	24.6		24.6	0.5	25.1
	2.8	2.8		2.8		2.8
-97.4	**3.5**	**27.4**		**27.4**	**0.5**	**27.9**
-97.4	**3.5**	**2,278.9**	**38.4**	**2,317.3**	**151.1**	**2,468.4**
		210.7		210.7		210.7
		8,340.1		8,340.1		8,340.1
		-93.4		-93.4		-93.4
	-49.2	0.0		0.0		0.0
		0.0		0.0		0.0
		-956.3		-956.3		-956.3
					2,421.0	2,421.0
		-27.2	-1,040.0	-1,067.2	-16.0	-1,083.2
57.4	**126.2**	**32,896.7**		**32,896.7**	**3,242.4**	**36,139.1**

Notes

(A): Principles of the Consolidated Financial Statements

1 General Information

Vonovia SE is incorporated and domiciled in Germany. The company has been registered with the local court (Amtsgericht) in Bochum under HRB 16879 since 2017. Its registered office is at Universitätsstraße 133, 44803 Bochum, Germany.

The consolidated financial statements as of and for the year ended December 31, 2022, have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted in the EU. In addition, the supplementary commercial law provisions under Section 315e (1) of the German Commercial Code (HGB) have been observed. Changes due to the conclusion of the purchase price allocation in connection with the acquisition of the Deutsche Wohnen Group are set out in chapter → **[A2] Adjustment to Prior-year Figures**.

The consolidated financial statements have been prepared on the basis of amortized cost except for investment properties, assets held for sale, derivative financial instruments, plan assets and equity instruments at fair value in other comprehensive income. These are measured at their fair value. The income statement has been prepared using the nature of expense method.

These consolidated financial statements are presented in euros, which is the Group's functional currency. Unless stated otherwise, all figures are shown in million euros (€ million).

The following overview indicates the chapters on the individual topics containing disclosures on accounting policies, judgments and estimates:

Chapter	Accounting policies, judgments, estimates
A6	Currency translation
A7	Government grants
B	Profit for the period
B12	Profit on the disposal of properties
B22	Income taxes
C24	Earnings per share
D26	Intangible assets/Goodwill
D27	Property, plant and equipment
D28	Investment properties
D29	Financial assets
D33	Inventories
D34	Trade receivables
D35	Cash and cash equivalents
D36	Real estate inventories
D37	Assets and liabilities held for sale
E38	Total equity
E39	Provisions
E41	Non-derivative financial liabilities
E43	Leases
E44	Liabilities to non-controlling interests
E45	Financial liabilities from tenant financing
F48	Share-based payment

2 Adjustment to Prior-year Figures

The conclusion of the purchase price allocation in connection with the acquisition of the Deutsche Wohnen Group (see → **[A4] Scope of Consolidation and Business Combinations**) resulted in the adjustments set out below for December 31, 2021:

Balance Sheet

The tables below illustrate the changes as against the prior-year presentation in the balance sheet:

in € million	Dec. 31, 2021	Adjustment	Dec. 31, 2021 (adjusted)
Intangible assets	3,005.3	-282.4	2,722.9
Property, plant and equipment	654.1		654.1
Investment properties	94,100.1		94,100.1
Financial assets	1,016.7		1,016.7
Investments accounted for using the equity method	548.9	-123.6	425.3
Other assets	199.6		199.6
Deferred tax assets	19.8		19.8
Total non-current assets	**99,544.5**	**-406.0**	**99,138.5**
Inventories	16.4		16.4
Trade receivables	449.9		449.9
Financial assets	1,063.3		1,063.3
Other assets	220.9		220.9
Income tax receivables	201.9		201.9
Cash and cash equivalents	1,432.8		1,432.8
Real estate inventories	671.2		671.2
Assets held for sale	2,719.4		2,719.4
Total current assets	**6,775.8**	**–**	**6,775.8**
Total assets	**106,320.3**	**-406.0**	**105,914.3**

in € million	Dec. 31, 2021	Adjustment	Dec. 31, 2021 (adjusted)
Subscribed capital	776.6		776.6
Capital reserves	15,458.4		15,458.4
Retained earnings	16,925.9	-390.4	16,535.5
Other reserves	126.2		126.2
Total equity attributable to Vonovia shareholders	**33,287.1**	**-390.4**	**32,896.7**
Non-controlling interests	3,258.0	-15.6	3,242.4
Total equity	**36,545.1**	**-406.0**	**36,139.1**
Provisions	866.3		866.3
Trade payables	5.4		5.4
Non-derivative financial liabilities	40,171.9		40,171.9
Derivatives	66.2		66.2
Lease liabilities	634.9		634.9
Liabilities to non-controlling interests	224.5		224.5
Financial liabilities from tenant financing	44.9		44.9
Other liabilities	5.2		5.2
Deferred tax liabilities	18,693.9		18,693.9
Total non-current liabilities	**60,713.2**	**-**	**60,713.2**
Provisions	727.2		727.2
Trade payables	444.4		444.4
Non-derivative financial liabilities	6,857.1		6,857.1
Derivatives and put options	266.0		266.0
Lease liabilities	44.2		44.2
Liabilities to non-controlling interests	16.0		16.0
Financial liabilities from tenant financing	112.6		112.6
Other liabilities	228.8		228.8
Liabilities associated with assets classified as held for sale	365.7		365.7
Total current liabilities	**9,062.0**	**-**	**9,062.0**
Total liabilities	**69,775.2**	**-**	**69,775.2**
Total equity and liabilities	**106,320.3**	**-406.0**	**105,914.3**

The change in the item Investments accounted for using the equity method is due to the adjusted assessment of the measurement of the acquired joint ventures and associates. This reassessment of the information already known as of the date of consolidation results in a reduction in the provisional value recognized by € 123.6 million, with € 15.6 million attributable to non-controlling interests. By contrast, the goodwill resulting from the acquisition of the Deutsche Wohnen Group has increased by € 108.0 million.

The impairment test for goodwill as of December 31, 2021 was also recalculated. This took account not only of the adjusted goodwill for the Deutsche Wohnen Group in terms of amount, but also of the final allocation to the relevant cash-generating units. All in all, the final impairment loss to be recognized for the 2021 fiscal year is up by € 390.4 million.

Income Statement

The table below illustrates the changes as against the prior-year presentation in the income statement:

in € million	2021	Adjustment	2021 (adjusted)
Revenue from property letting	3,465.0		3,465.0
Other revenue from property management	158.9		158.9
Revenue from property management	**3,623.9**		**3,623.9**
Income from the disposal of properties	1,122.2		1,122.2
Carrying amount of properties sold	-1,044.6		-1,044.6
Revaluation of assets held for sale	87.4		87.4
Profit from the disposal of properties	**165.0**		**165.0**
Revenue from disposal of real estate inventories	519.6		519.6
Cost of sold real estate inventories	-381.7		-381.7
Profit from disposal of real estate inventories	**137.9**		**137.9**
Net income from fair value adjustments of investment properties	7,393.8		7,393.8
Capitalized internal expenses	662.6		662.6
Cost of materials	-1,671.1		-1,671.1
Personnel expenses	-682.3		-682.3
Depreciation and amortization	-3,482.2	-390.4	-3,872.6
Other operating income	276.9		276.9
Impairment losses on financial assets	-39.2		-39.2
Net income from the derecognition of financial assets measured at amortized cost	-2.5		-2.5
Other operating expenses	-388.9		-388.9
Net income from investments accounted for using the equity method	15.7		15.7
Interest income	21.5		21.5
Interest expenses	-411.6		-411.6
Other financial result	-137.1		-137.1
Earnings before tax	**5,482.4**	**-390.4**	**5,092.0**
Income taxes	-2,651.5		-2,651.5
Profit for the period	**2,830.9**	**-390.4**	**2,440.5**
Attributable to:			
Vonovia's shareholders	2,641.9	-390.4	2,251.5
Vonovia's hybrid capital investors	38.4		38.4
Non-controlling interests	150.6		150.6
Earnings per share (diluted) in €	**4.22**	**-0.63**	**3.59**
Earnings per share (basic) in €	**4.22**	**-0.63**	**3.59**

Segment Report

In the 2022 fiscal year, Vonovia continued with the 2021 management system for the time being. Details can be found in the chapter Management System of the **2021 Annual Report**. Vonovia's business was managed via the five segments: Rental, Value-add, Recurring Sales, Development and Deutsche Wohnen.

In the course of the fourth quarter of 2022, the Deutsche Wohnen segment was dissolved and transferred to the Rental, Value-add, Recurring Sales, Development and Care segments. Details on the allocation of Deutsche Wohnen's segment figures for 2021 to the five segments are presented below.

in € million	2021 Deutsche Wohnen	Adjustments Removal of at-equity-investment from Adjusted EBITDA*	 Lineshifts**	2021 (adjusted) Segments total	Allocation to the segments Rental	 Value-add	 Recurring Sales	 Develop-ment	 Care
Jan. 1–Dec. 31, 2021									
Segment revenue	**307.7**		**36.6**	**344.3**	**206.9**	**10.5**	**14.2**	**43.9**	**68.8**
thereof external revenue	302.2		-1.1	301.1	206.9	9.1	14.2	2.1	68.8
thereof internal revenue	5.5		37.7	43.2		1.4		41.8	
Carrying amount of assets sold	-0.2		-11.6	-11.8			-11.8		
Revaluation from disposal of assets held for sale	–		–	–					
Expenses for maintenance	-41.7		-2.5	-44.2	-41.8				-2.4
Cost of development to sell	-14.5		11.6	-2.9				-2.9	
Cost of development to hold			-41.8	-41.8				-41.8	
Operating expenses	-80.5	-6.3	7.7	-79.1	-26.0	-5.4	-3.2	-1.6	-42.9
Adjusted EBITDA Total	**170.8**	**-6.3**	**–**	**164.5**	**139.1**	**5.1**	**-0.8**	**-2.4**	**23.5**

* Adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), due to Vonovia's minor control influence on the operating results of companies consolidated using the equity method.

** The amounts shown in this column are transactions that took place in the old segment structure within the Deutsche Wohnen segment and now represent transactions between the segments of the new segment structure.

3 Consolidation Principles

Business Combinations

An entity shall account for each business combination by applying the acquisition method if it obtains control. All hidden reserves and charges of the company acquired are disclosed as part of the necessary remeasurement. Any excess of the cost of a business combination over the net fair value of the identifiable assets, liabilities and contingent liabilities, following the disclosure of hidden reserves and charges, is recognized as goodwill in the balance sheet. The consideration transferred at the time of the acquisition and the identifiable net assets that are acquired are measured at fair value as a general rule. Transaction costs are recognized as an expense immediately insofar as they do not relate to costs pertaining to the raising of capital or the issue of debt capital.

Subsidiaries

Subsidiaries are companies that are controlled by the Group. The Group controls an investee if it is exposed to risks or has rights to variable returns from its involvement with the investee and has the ability to use its power of control over the investee to influence the level of these returns. In the process of full consolidation, the assets and liabilities of a subsidiary are included in the consolidated financial statements in their entirety. Subsidiaries are included in the consolidated financial statements from the date on which Vonovia SE obtains control until the day control ceases.

Non-Controlling Interests

The equity of a subsidiary that is not attributable to Vonovia is shown as a separate component of equity under non-controlling interests. Non-controlling interests are measured based on their share of the identified net assets of the acquired company at the time of acquisition.

Changes in a parent's ownership interest in a subsidiary that do not result in the parent losing control of the subsidiary are equity transactions.

Loss of Control

If Vonovia loses control over a subsidiary, the assets and liabilities of the subsidiary in question as well as any corresponding non-controlling interests are derecognized. The result is recognized in the income statement. Any investment retained is recognized at fair value when control is lost.

Associates and Joint Arrangements

Associates and joint arrangements classified as joint ventures are accounted for using the equity method. An associate is an entity over which the investor has significant influence. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. If the arrangement involves rights to the assets and obligations for the liabilities of a joint arrangement instead, then these are recognized using quota consolidation.

Business Transactions Eliminated on Consolidation

The effects of the business transactions between the entities included in the Vonovia consolidated financial statements are eliminated.

Results from business transactions with companies accounted for using the equity method are only eliminated in line with the Group's share in the investee.

The financial statements of Vonovia SE and all subsidiaries are consistently prepared according to uniform accounting policies.

4 Scope of Consolidation and Business Combinations

All in all, and including Vonovia SE, 654 companies (December 31, 2021: 736) – thereof 429 (December 31, 2021: 441) domestic companies and 225 (December 31, 2021: 295) foreign companies – have been included in the consolidated financial statements as of December 31, 2022. The two domestic companies with which joint activities were performed in the previous year are now included in the consolidated financial statements for the first time due to increases in the interests held. In addition, 25 (December 31, 2021: 25) domestic companies and one (December 31, 2021: one) foreign company were included as joint ventures and five domestic companies (December 31, 2021: five) and three (December 31, 2021: two) foreign companies were included as associates accounted for using the equity method.

Three (December 31, 2021: three) foreign companies are no longer included in the scope of consolidation as they are no longer considered to be material. These companies are shown as non-consolidated affiliated companies.

For all subsidiaries included in the consolidated financial statements, the reporting date is December 31.

The → **list of Vonovia shareholdings** is appended to the Notes to the consolidated financial statements as an integral part thereof.

Companies that have made use of the exemption provision set out in Section 264 (3) of the German Commercial Code (HGB) are marked accordingly in the list of shareholdings.

The year-on-year changes in the consolidated companies as of December 31, 2022 result from five acquisitions, two reallocations that have already been mentioned above, one newly established company, 66 mergers, 18 sales, four accruals and two liquidations. The addition to associates is due to a reallocation following the assumption of control.

Acquisition of Deutsche Wohnen SE

The total number of voting shares held by Vonovia SE in Deutsche Wohnen SE as of December 31, 2022, is 347,728,483. Of these shares, 198,463,161 were tendered as part of the takeover offer, 141,468,495 were acquired on the market or by way of individual agreements and 7,796,827 were added through the conversion of acquired convertible bonds. As of December 31, 2022, this represents 87.60% of the share capital entitled to voting rights. Deutsche Wohnen SE also holds a further 3,362,003 shares as own shares.

As part of the final purchase price allocation, the total consideration for the business combination comprises the following:

in € billion	
Fair value of shares held as of September 30, 2021	7.5
Net cash purchase price component for shares tendered	10.5
Total consideration	**18.0**

The allocation of the total purchase price to the acquired assets and liabilities (PPA) of the Deutsche Wohnen Group as of the date of first-time consolidation is based on the financial statements of the Deutsche Wohnen Group as of September 30, 2021, and on the necessary adjustments to the fair values of the assets and liabilities.

The allocation of the total purchase price was finalized as of September 30, 2022. The assessment of the measurement of the acquired joint ventures and associates was adjusted as against December 31, 2021. This reassessment, based on the information available as of the date of consolidation, reduces the fair value of other assets by € 123.6 million.

The assets and liabilities assumed in the course of the business combination had the following fair values as of the date of first-time consolidation on September 30, 2021.

in € billion	
Investment properties	28.2
Financial assets	1.0
Cash and cash equivalents	0.8
Assets held for sale	2.2
Fair value of other assets	1.3
Total assets	**33.5**
Provisions	0.5
Non-derivative financial liabilities	11.2
Deferred tax liabilities	5.4
Non-controlling interests	0.5
Fair value of other liabilities	0.7
Total liabilities	**18.3**
Fair value net assets	**15.2**
Consideration	18.0
Non-controlling interests	2.0
Goodwill	**4.8**

The non-controlling interests are included based on the share of the assets and liabilities of Deutsche Wohnen that have been recognized.

The goodwill represents synergies from the expected integration of the Deutsche Wohnen Group, in particular through the shared administration and management of the respective residential units. Goodwill was definitively allocated to one or several cash-generating units as of September 30, 2022, with the prior-year figures being adjusted accordingly.

In the 2022 fiscal year, no transaction costs related to the acquisition of the Deutsche Wohnen Group were recognized in other operating expenses affecting net income.

5 Financial Reporting of Financial Assets and Financial Liabilities

Loans and Receivables

Loans and receivables are first recognized as incurred, other non-derivative financial assets as of the day of trading. The day of trading is the date on which Vonovia becomes a contracting party of the financial instrument. All financial instruments are initially measured at fair value, taking account of transaction costs. Trade receivables are stated at the transaction price. A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire, or the financial asset is transferred and Vonovia neither retains control nor retains material risks and rewards associated with ownership of the financial asset.

Loans and receivables are stated at amortized cost using the effective interest method.

Vonovia determines whether there is an objective indication of an impairment at the level of individual financial instruments if they are material, and, for financial instruments for which no impairments have been identified at the level of the individual financial instruments or such impairments are immaterial, grouped according to risk profile. Impairments are identified for individual financial instruments when the counterparty has defaulted or breached a contract or there are indications of risks of impairments due to a rating downgrade and general information (loss event). For groups of financial instruments with similar risks, historical default probabilities in relation to the time overdue are drawn upon (loss event). An impairment is calculated after the occurrence of a loss event as the difference between the carrying amount and the value of the discounted estimated future cash flow. The original effective interest rate is taken as the discount rate. Impairment losses are recognized with effect on net income and offset directly with the carrying amount of the financial instrument. Any interest income on impaired financial instruments is still recognized. If there are indications that the amount of the impairment loss will be smaller, this reduction is credited to the financial instrument affecting net income to the extent that the sum does not exceed the amortized cost that would have been recognized if the impairment had not occurred.

Derivative Financial Instruments

Derivative financial instruments are stated at their fair value on the day of trading when they are recognized for the first time. The fair values of the derivative financial instruments are calculated using standard market valuation methods for such instruments on the basis of the market data available on the valuation date.

With derivatives that are not designated as a hedging instrument in the balance sheet, changes in the fair value are recognized in profit or loss with effect on net income.

Compared with IAS 39, the IFRS 9 regulations relating to hedge accounting include, among other things, an expanded range of eligible hedged items, changes regarding the posting approach for certain undesignated value components of hedging instruments, the abolition of the fixed effectiveness ranges and retrospective effectiveness testing as well as the first-time introduction of “recalibration.” The less restrictive provisions compared with IAS 39 make it easier to reflect economic risk management in the balance sheet, which can, in turn, reduce artificial volatility in the income statement.

At the time of application of IFRS 9, Vonovia will opt to continue to apply the hedge accounting provisions set out in IAS 39 as opposed to the provisions of IFRS 9. Vonovia applies this accounting method to all hedge relationships.

Contracts concluded for the purpose of receiving or supplying non-financial items in accordance with the company’s expected purchase, sale, or use requirements (own-use contracts) are not recognized as derivative financial instruments, but rather as pending transactions under IAS 37.

With derivatives designated as hedging instruments, the recognition of changes in the fair value depends on the type of hedge:

> With a fair value hedge, the changes in the fair value of the derivative financial instruments and of the underlying hedged items attributable to the hedged risk are recognized affecting net income.
> With a cash flow hedge, the unrealized gains and losses are initially recognized in other comprehensive income to the extent that the hedge is effective. Amounts accumulated in other comprehensive income are reclassified to the income statement at the same time the underlying hedged item affects net income. To the extent that the hedge is ineffective, the change in fair value is immediately recognized in net interest.

Embedded derivative financial instruments that are combined with a non-derivative financial instrument (host contract) to form a hybrid financial instrument are to be separated from the underlying contract pursuant to IFRS 9 as a general rule and accounted for separately if (i) its economic risks and characteristics are not closely related to those of the host contract, (ii) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and (iii) the hybrid instrument is not measured at fair value affecting net income with changes in fair value recognized in the income statement. As soon as the derivative is to be separated from its host contract, the individual components of the hybrid financial instrument are to be accounted for based on the provisions that apply to the individual financial instruments.

In order to measure interest rate swaps, future cash flows are calculated and then discounted. The calculated cash flows result from the contract conditions. The contract conditions regularly refer to the EURIBOR/STIBOR reference rates (3M and 6M EURIBOR/STIBOR). Discounting is based on market interest rate data as of the reporting date for comparable instruments (EURIBOR/STIBOR rate of the same tenor). The fair value contains the credit risk of the interest rate swaps and therefore allows for adjustments for the company’s own credit risk or for the counterparty credit risk.

To measure the cross currency swaps, future cash flows are calculated and then discounted. The calculated cash flows result from the contract conditions and the USD forward rates (development of exchange rates expected by the market). Discounting is based on market interest rate data as of the reporting date for comparable instruments (EURIBOR rate of the same tenor). The fair value contains the credit risk of the cross currency swaps and therefore allows for adjustments for the company's own credit risk or for the counterparty credit risk.

Equity Instruments to Be Recognized at Fair Value in Other Comprehensive Income

In general, the equity instruments to be recognized at fair value in other comprehensive income are shares in companies that were acquired with long-term strategic intentions.

These equity instruments to be recognized at fair value in other comprehensive income are initially stated at their fair value, plus the directly attributable transaction costs. Subsequent measurement is at fair value as a general rule. Changes in the fair value are recognized in other comprehensive income.

The fair value of equity instruments to be recognized at fair value in other comprehensive income is based on quoted market prices as of the reporting date. If these equity instruments are derecognized, the cumulative gain or loss recognized in other comprehensive income is transferred to retained earnings, not affecting net income. Interest on interest-bearing financial instruments of this category is calculated using the effective interest method. Dividends on equity instruments in this category are shown in the income statement.

6 Currency Translation

Accounting Policies

Foreign currency transactions involving Group companies are converted into the functional currency, in accordance with the temporal method, at the exchange rate that applies on the day of the transaction. Monetary balance sheet items denominated in a foreign currency are converted at the exchange rate that applies on each reporting date. Any exchange differences are recognized affecting net income. Non-monetary items that are measured in terms of historical cost are recorded on the reporting date at the exchange rate on the date they were first recognized. Non-monetary items that are measured at fair value are translated on the reporting date using the exchange rate on the date the fair value was determined. Exchange differences relating to non-monetary items are recognized affecting net income insofar as a profit or loss on the corresponding line item is also recognized affecting net income. Otherwise, they are disclosed in other comprehensive income.

The main foreign subsidiaries included in the consolidated financial statements operate their business independently in line with functional theory. The annual financial statements of those subsidiaries whose functional currency is not the euro are converted into the reporting currency using the modified closing rate method. The functional currency of individual foreign units is always the respective local currency. Any resulting exchange differences are disclosed as a separate item in other comprehensive income. When a foreign subsidiary leaves the scope of consolidation, the cumulative exchange differences are reversed and recognized in profit or loss.

Vonovia applies the concept of functional currency translation in accordance with IAS 21 "Effects of Changes in Foreign Exchange Rates" to its consolidated financial statements. The functional currency of Vonovia SE and the reporting currency of the Vonovia Group is the euro.

The exchange rates of the currencies relevant to the Vonovia Group have developed as follows:

	Closing rate		Average for period	
Basis: € 1	Dec. 31, 2021	Dec. 31, 2022	2021	2022
SEK – Swedish krona	10.25	11.12	10.15	10.63
USD – US dollar	1.13	1.07	1.18	1.05

7 Government Grants

Accounting Policies

Government grants are recognized when there is reasonable assurance that the relevant conditions will be fulfilled and that the grants will be awarded.

Government grants that do not relate to investments are regularly recognized as income in the periods in which the relevant expenses are incurred.

Expenses subsidies granted in the form of rent, interest and other expenses subsidies are recorded as income in the periods in which the expenses are incurred and shown within other revenue from property management.

The low-interest loans are grants from public authorities that – insofar as the company received them as part of a business combination – are recorded at present value. The difference between face value and present value is recognized with an effect on net income over the maturity term of the corresponding loans.

New expenses loans or low-interest loans are initially recognized at their present value within the non-derivative financial liabilities on the basis of the market interest rate at the time the loans are taken out. The difference between the face value and the present value of the loan is recognized as deferred income. Reversal occurs, in principle, with an effect on net income in line with the length of the fixed-interest-rate period of the relevant loans. In cases where the low-interest loans are issued as part of capitalized modernization measures, the difference between the face value and the present value of the loan is deducted from the capitalized acquisition cost. In subsequent measurements, the loans are measured at amortized cost.

The companies that belong to the Group receive government grants in the form of construction subsidies, expenses subsidies, expenses loans and low-interest loans. In the 2022 fiscal year, Vonovia was granted low-interest loans of € 109.7 million (2021: € 130.4 million).

8 Changes in Accounting Policies, Estimates, Assumptions, Options and Judgments

Changes to Key Accounting Methods

As of January 1, 2022, the Group did not have to apply any interest rate benchmark reform.

Approach to the Interest Rate Benchmark Reform and Associated Risks

General Information

A fundamental reform of the main interest rate benchmarks is under way across the globe, including the replacement of some "Interbank Offered Rates" (IBORs) with alternative, almost risk-free interest rates (referred to as the "IBOR reform").

Group financial instruments are exposed to IBORs that are not being replaced or reformed as part of these market-wide initiatives. The biggest risk for the Group in connection with the IBOR as of December 31, 2022 was the link to the EURIBOR and STIBOR. As these are expected to remain valid until 2025, no changes had to be made to the financial instruments in the period leading up to December 31, 2022, meaning that no new interest rate benchmarks have to be reflected here.

The LIBOR administrator regulated and licensed by the UK Financial Conduct Authority (FCA), the ICE Benchmark Administration (IBA), announced in November 2020 that it had launched talks on ceasing the publication of certain USD LIBORs after June 2023. As of December 31, 2022, it remains unclear when the date on which publication of the USD LIBOR will cease will be announced. The Group does not hold any financial instruments that are subject to the USD LIBOR.

The IBOR risks to which the Group was exposed as of December 31, 2022 relate to corporate bonds linked to the EURIBOR. As explained above, the Group has not had to make any changes to the contractual terms for any risks resulting from a link to the EURIBOR.

The EURIBOR calculation method changed in the course of 2019.

In July 2019, the Belgian Financial Services and Markets Authority approved the EURIBOR in accordance with the European Union Benchmarks Regulation. This allows market participants to keep using the EURIBOR for both existing and new contracts, and the Group expects the EURIBOR to remain in force as the interest rate benchmark for the foreseeable future.

Derivatives

The Group holds interest rate swaps designated in hedging relationships to hedge cash flows for risk management purposes. The variable amounts of the interest rate swaps are linked to the EURIBOR.

Hedge Accounting

The Group's hedged items and hedging instruments are linked to the EURIBOR as of the reporting date. These reference rates are quoted daily and the IBOR cash flows are exchanged with the counterparties as usual.

Changes in Accounting Policies Due to New Standards and Interpretations

The following new or amended standards and interpretations became mandatory for the first time in the 2022 fiscal year. They did not have any material effects on Vonovia's consolidated financial statements.

> IFRS 1 “First-time Adoption of International Financial Reporting Standards”
> IFRS 3 “Business Combinations”
> IFRS 9 “Financial Instruments”
> IFRS 16 “Leases”
> IAS 16 “Property, Plant and Equipment”
> IAS 37 “Provisions, Contingent Liabilities and Contingent Assets”
> IAS 41 “Agriculture”

IFRS 16

Due to the rent concessions (deferrals, waivers) granted in a large number of countries as a result of the coronavirus pandemic, IFRS 16 was amended to provide companies with an exemption from assessing whether a COVID-19-related rent concession is a lease modification within the meaning of IFRS 16. Instead, they can opt to account for COVID-19-related rent concessions as if they were not lease modifications. This would spare them the work involved in evaluating the lease contracts to check for possible contractually defined rent concessions as well as the work involved in reassessing these contracts applying a new discount rate (which is always required for lease modifications). This relief was initially limited until June 30, 2021, but was extended until June 30, 2022, in April 2021.

No rent concessions were granted by the lessor within the Vonovia Group. This is due primarily to the Group’s encouraging and robust financial position, even in times dominated by the COVID-19 pandemic. As a result, the Group is not exercising this option as it is not relevant. These amendments to IFRS 16 do not have any material effects on the consolidated financial statements.

New Standards and Interpretations Not Yet Applied

Application of the following standards, interpretations and amendments to existing standards was not yet mandatory for the 2022 fiscal year. Vonovia also did not choose to apply them in advance. It is expected that the application of the new or amended standards and interpretations will have no material effects on Vonovia’s consolidated financial statements. Their application will be mandatory for the fiscal years following the dates stated in the following table:

Relevant New Standards, Interpretations and Amendments to Existing Standards and Interpretations		Effective Date for Vonovia
Amendments to Standards		
IFRS 9	“Financial Instruments”	Jan. 1, 2023
IFRS 16	“Leases”	Jan. 1, 2024*
IAS 1	“Presentation of Financial Statements”	Jan. 1, 2023
IAS 1	“Presentation of Financial Statements”	Jan. 1, 2024*
IAS 8	“Accounting Policies, Changes in Accounting Estimates and Errors”	Jan. 1, 2023
IAS 12	“Income Taxes”	Jan. 1, 2023
New Standards		
IFRS 17	“Insurance Contracts”	Jan. 1, 2023

* Not yet endorsed.

Estimates and Assumptions

To a certain extent, the preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the reporting date as well as reported amounts of income and expenses during the reporting year. The actual amounts may differ from the estimates as the business environment may develop differently than assumed. In this case, the assumptions and, where necessary, the carrying amounts of the assets or liabilities affected are prospectively adjusted accordingly. Specific estimates and assumptions relating to individual elements of financial statements are also explained in the corresponding notes to the consolidated financial statements.

Assumptions and estimates are reviewed on an ongoing basis and are based on experience and other factors, including expectations regarding future events that appear reasonable under the given circumstances.

The estimates and assumptions that may have a material risk of causing an adjustment to the carrying amounts of assets and liabilities mainly relate to the determination of the fair value of investment properties.

The best evidence of fair value of investment properties is current prices in an active market for comparable residential properties. As such information is not completely available, however, Vonovia uses standard valuation techniques.

A detailed description of the discounted cash flow (DCF) method used can be found in chapter → **[D28] Investment Properties**.

In accordance with IAS 40 in conjunction with IFRS 13, the respective market values of the investment properties owned by Vonovia are determined. Changes in certain market conditions such as prevailing rent levels and vacancy rates may affect the valuation of investment properties. Any changes in the fair value of the investment portfolio are recognized as part of the profit for the period in the income statement and can thus substantially affect Vonovia's results of operations.

The statement of financial liabilities at amortized cost using the effective interest method takes the expected contractual cash flows into account. In some cases, the agreements do not have any fixed maturity terms. As a result, the cash flows included in the valuation are subject to management assumptions in terms of amount and term.

As explained in chapter → **[D26] Intangible Assets**, Vonovia checks for goodwill impairments on an annual basis, or if there is any reason to suspect such impairments. The next step involves determining the recoverable amount of the group of cash-generating units (CGU). This corresponds to either the fair value less costs of sale or the value in use, whichever is higher. Determining the value in use includes adjustments and estimates regarding the forecast and discounting of the future cash flow. Although the management believes that the assumptions used to determine the recoverable amount are appropriate, any unforeseeable changes in these assumptions could result in impairment losses, with a detrimental impact on the net assets, financial position and results of operations.

When determining the volume of current and deferred taxes, the Group takes into account the effects of uncertain tax items and whether additional taxes and interest may be due. This assessment is made on the basis of estimates and assumptions about future events. New information may become available that causes the Group to change its discretionary decisions regarding the appropriateness of existing tax liabilities; such changes to tax liabilities will affect the tax expense in the period in which such a change is made.

Deferred tax assets are recognized to the extent that it can be demonstrated that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that there will be sufficient future taxable profits to realize the tax benefit in the future.

In connection with the application of IFRS 15, it is assumed with respect to determining progress in relation to revenue recognition over time that the costs incurred appropriately reflect the progress as a share of total costs.

Additional estimates and assumptions mainly relate to the uniform definition of useful lives, the assumptions made on the value of land and buildings, the recognition and measurement of provisions as well as the realization of future tax benefits.

Climate risks have an impact on Vonovia's business model and strategy. They are addressed in particular by the climate path that the company has mapped out, but also by appropriate estimates and assumptions in key items of the company's net assets, financial position and results of operations. Climate risks can have a potentially negative impact and result in increased estimation uncertainties.

Physical climate risks refer to longer-term shifts in general climatic conditions. Climate events such as floods, earthquakes, extreme weather events, etc. could have an impact on our real estate portfolio and require specific crisis management measures. Climate transition risks describe the effects that can arise for companies due to the process of transformation towards a more sustainable economic system.

As part of its sustainability strategy, Vonovia has made a clear and explicit commitment to climate protection targets and a virtually carbon-neutral housing stock by 2045. Based on our current knowledge and expectations regarding future developments, this will not have any impact on Vonovia's balance sheet. This relates, among other things, to the fair values of investment properties, specific useful lives and the value of assets, as well as provisions for environmental risks, for which no significant need for adjustment emerges.

Options and Judgments

Options exercised and judgments made by Vonovia's management in the process of applying the entity's accounting policies that may have a significant effect on the amounts recognized in the consolidated financial statements include the following:

> The group of investments accounted for using the equity method is determined by assessing significant influence.
> Determining whether the acquisition of investment properties as part of a business combination constitutes the acquisition of a "business" or the acquisition of an individual asset or group of assets can involve discretionary judgments.
> Vonovia measures investment properties at fair value. If management had opted to use the acquisition costs model as permitted under IAS 40, the carrying amounts of the investment properties as well as the corresponding income and expense items in the income statement would differ significantly.
> The criteria for assessing in which category a financial asset is to be classified may involve discretionary judgments.
> Within the scope of revenue recognition in accordance with IFRS 15, discretionary decisions relating to the expected revenue, the total costs of a project and the degree of completion may be necessary. These have an impact on the amount and timing of revenue.
> When accounting for leases in accordance with IFRS 16, the assessment of the exercise or non-exercise of unilaterally granted termination or renewal options may involve discretionary judgment, particularly if there is no economic incentive for the exercise or non-exercise of options.
> The need to include information concerning the future in the valuation of expected defaults results in discretionary decisions regarding the impact that changes in economic factors will have on the expected defaults.
> The decision on how to define a group of cash-generating units to which goodwill is allocated may involve discretionary judgments.
> Allocating the goodwill to the group of individual cash-generating units may also involve discretionary judgments. The parameters used in the impairment test, such as the determination of undiscounted cash flows, the weighted average cost of capital and the growth rate, may also involve discretionary judgments. Due to a lack of any detailed definition of the term "operation" (IAS 36.86), the disposal of goodwill within the context of real estate sales may involve discretionary decisions.
> Due to a lack of any detailed definition of the term "a separate major line of business or geographical area of operations" (IFRS 5), a disposal group within the context of real estate sales may involve discretionary decisions.
> At the moment, there are no definitive provisions on how to reflect a mandatory acquisition of non-controlling interests following the acquisition of control as part of a voluntary public takeover offer. In general, the acquisition of shares as part of a public offer during the second offer period is based on exactly the same conditions as those that applied in the first offer period, and the two acquisitions are closely related in terms of content and timing. This means that, even if it is executed in two offer periods, the acquisition constitutes one and the same transaction (linked transaction). Following the completion of the later acquisition, the original purchase price allocation is to be adjusted with retroactive effect from the acquisition date, resulting in a change in the consideration transferred, the fair value of net assets transferred and, consequently, the resulting goodwill.

9 Subsequent Events

On March 7, 2023, Vonovia SE received information from the Bochum public prosecutor's office regarding investigations against current and former members on the basis of a search warrant issued by the Local Court of Bochum. According to the information provided, Vonovia SE or selected affiliated companies are suspected of having suffered damage due to fraud, breaches of trust in the form of anticompetitive agreements in connection with tenders and particularly serious cases of passive and active corruption in business transactions. The extent to which the actual damage has not yet been clarified with definitive effect. Measures have been taken to clarify the incidents in full. The auditing firm Deloitte has also been engaged to conduct an independent investigation.

Based on the information currently available, this does not result in any material impact on the net assets, financial position and results of operations of the Vonovia Group.

Section (B): Profit for the Period

The figures from the previous year are only comparable to a limited extent due to the acquisition of Deutsche Wohnen made in the previous year.

Accounting Policies

Revenue from property management includes income from the rental of investment properties and assets held for sale which is recognized, net of discounts, over the duration of the contracts when the remuneration is contractually fixed or can be reliably determined and collection of the related receivable is probable.

In Vonovia's financial statements, the corresponding income for all the services for **ancillary costs** performed by the end of the year is also recognized in the year in which the service is performed. This amount is recognized on a non-netted basis using the principal method, in particular due to Vonovia's business model, which provides for a large proportion of services relevant to ancillary costs being performed by Vonovia itself as Vonovia is considered by the tenant to be the primary party responsible for providing the service. For all services that it does not perform itself, Vonovia also bears an inventory risk due to the settlement method (based on rentable area), as is standard practice in the real estate sector.

Income from **real estate sales** is recognized as soon as the material risks and rewards of ownership have been transferred to the buyer and Vonovia has no substantial further obligations. As far as any remaining obligations are concerned, a provision is recognized for the probable risk.

Expenses are recognized when they arise or at the time they are incurred. Interest is recognized as income or expense in the period in which it is incurred using the effective interest method.

10 Revenue from Property Management

in € million	2021	2022
Rental income	2,571.9	3,168.1
Ancillary costs	893.1	1,556.5
Revenue from property letting	**3,465.0**	**4,724.6**
Other revenue from property management	158.9	427.2
	3,623.9	**5,151.8**

Other revenue from property management includes income of € 280.1 million (Q4 2021: € 68.8 million) from the nursing and assisted living business area.

11 Profit on the Disposal of Properties

in € million	2021	2022
Income from the disposal of properties	239.2	195.4
Carrying amount of properties sold	-161.6	-126.2
Profit from the disposal of investment properties	**77.6**	**69.2**
Income from the sale of assets held for sale	883.0	3,047.0
Retirement carrying amount of assets held for sale	-883.0	-3,045.8
Change in value from properties sold	87.4	68.0
Profit from the disposal of assets held for sale	**87.4**	**69.2**
	165.0	**138.4**

The fair value adjustment of residential properties held for sale, for which a purchase contract had been signed but for which transfer of title had not yet taken place as of December 31, 2022, led to a gain of € 68.0 million (2021: € 87.4 million).

The year-on-year increase in the profit on, and retirement carrying amount from, the disposal of assets held for sale is due primarily to the disposal of properties as part of what is known as the Berlin Deal in the first and third quarter of 2022 (see further information in chapter → **[D28] Investment Properties**).

12 Profit on Disposal of Real Estate Inventories

Accounting Policies

Revenue from disposal of real estate inventories is realized either over time or at a specific point in time as soon as the customer obtains control over the asset in question. If, upon conclusion of the certified purchase agreement, control within the meaning of IFRS 15.35 (c) passes to the customer before or during the construction phase, the revenue is to be recognized as of this point in time based on the degree of completion of the construction project. Disclosure of the contract assets that fall within the scope of IFRS 15 occurs on a net basis with the corresponding advance payments received under trade receivables.

Contractual balances with an expected term of less than one year are not adjusted to reflect the time value of money.

No separate agreements are reached, in the contracts on the sale of apartments as part of the development business, on extraordinary rights of return or rescission, meaning that such rights are based on the relevant legal provisions. The same applies to warranty commitments, which are not to be treated as a separate contractual component within the meaning of IFRS 15 as a result. Existing warranty claims are always accounted for in line with the provisions of IAS 37.

In accordance with IFRS 15.94, costs for the initiation of the contracts with customers are recognized as an expense as soon as they are incurred, as the depreciation period generally would not amount to more than a year. The costs relate primarily to brokerage commission.

In cases involving **revenue recognition over time, the percentage of completion/progress made has to be assessed.** Vonovia uses the cost-to-cost method, as an input-based procedure, for this purpose. The progress made is determined based on the ratio of the capitalized contract costs incurred up until the reporting date to the estimated total contract costs that can be capitalized.

Revenue from the disposal of real estate inventories amounting to € 588.4 million (2021: € 519.6 million) comprises € 407.6 million (2021: € 420.1 million) in period-related revenue from the disposal of real estate inventories together with € 180.8 million (2021: € 99.5 million) in time-related revenue from the disposal of real estate inventories. As of the reporting date, contract assets of € 169.2 million (2021: € 247.0 million) are recognized within trade receivables in connection with the period-related revenue recognition. As of the reporting date, this amount includes advance payments received of € 172.6 million (2021: € 236.2 million). The increase in revenue as against the previous year is due to the larger project volume overall, as well as to the transfer of benefits and encumbrances for a project in Berlin in connection with the sale to an individual investor (global exit).

A transaction price of € 93.3 million (2021: € 197.9 million) has been allocated to the remaining performance obligations that had not yet been satisfied (in full) at the end of the current reporting period. These amounts are expected to be recognized, affecting net income, within the next three fiscal years, with an amount of € 76.4 million attributable to 2023, an amount of € 14.8 million to 2024 and an amount of € 2.1 million to 2025.

13 Net Income from Fair Value Adjustment of Investment Properties

Investment properties are generally measured by the in-house valuation department according to the fair value model. The fair value for the nursing care properties and undeveloped land are calculated by independent experts using a DCF method and are adjusted, where appropriate, based on findings from market observation and transactions. Any gains or losses from a change in fair value are recognized in the income statement affecting net income.

The measurement of the investment properties led to a valuation loss of € -1,269.8 million in the 2022 fiscal year (2021: gain of € 7,393.8 million) (see → **[D28] Investment Properties**). This includes € 22.6 million (2021: € -12.1 million) for the measurement of right-of-use assets (IFRS 16).

The figure also includes the valuation result from buildings under construction (new construction/development to hold) that were completed during the reporting period and were moved to the Rental portfolio. A fair value measurement is performed for the first time when the properties are completed. This resulted in a valuation effect of € 90.8 million in the 2022 fiscal year (2021: € 83.9 million).

As a result of Management Board resolutions passed in the fourth quarter of 2022 to sell project developments that had originally been intended for the company's own portfolio, an impairment loss on capitalized costs in the amount of € 206.8 million, which is part of the net income from fair value adjustments of investment properties, was calculated prior to the transfer to real estate inventories.

In the valuation result for 2022, the effects of investing activities and the positive development of Vonovia's operating business were overshadowed by rising return expectations on the part of investors, which explains the negative performance overall.

14 Capitalized Internal Expenses

Capitalized internal expenses in the fiscal year amount to € 673.3 million (2021: € 662.6 million) and mainly relate to the expenses of the Group's own craftsmen's organization contained in the capitalized modernization costs as well as the management costs for major modernization projects.

15 Cost of Materials

in € million	2021	2022
Expenses for ancillary costs	898.1	1,579.5
Expenses for maintenance and modernization	635.9	729.4
Other cost of purchased goods and services	137.1	192.6
	1,671.1	**2,501.5**

16 Personnel Expenses

in € million	2021	2022
Wages and salaries	558.3	714.9
Social security, pensions and other employee benefits	124.0	148.9
	682.3	**863.8**

The personnel expenses include expenses for severance payments in the amount of € 11.5 million (2021: € 17.8 million), allocations to the provisions for pre-retirement part-time work arrangements in the amount of€ 3.3 million (2021: € 0.0 million) and expenses for the long-term incentive plan (LTIP) at € -1.1 million (2021: € 6.2 million) (see → **[E39] Provisions**).

In the fiscal year under review, employers' contributions to statutory pension insurance amounted to € 62.1 million (2021: € 49.2 million).

As of December 31, 2022, Vonovia had a workforce of 15,915 employees (December 31, 2021: 15,871). 6,154 employees were female as of December 31, 2022 (December 31, 2021: 6,349) and 9,761 were male (December 31, 2021: 9,522). The average figure for the year was 15,878 employees (2021: 13,351). Vonovia also employed 922 apprentices as of December 31, 2022 (December 31, 2021: 857).

17 Other Operating Income

in € million	2021	2022
Compensation paid by insurance companies	65.3	87.8
Reversal of provisions	45.2	25.6
Compensation for damages and cost reimbursements	16.3	15.8
Dunning and debt collection fees	5.3	4.3
Reversal of impairment losses	5.4	2.7
Miscellaneous	139.4	82.6
	276.9	**218.8**

The drop in miscellaneous other operating income results from the increase in the value, recognized in the previous year, of the Deutsche Wohnen shares purchased prior to September 30, 2021 in the amount of € 87.5 million.

18 Other Operating Expenses

in € million	2021	2022
Consultants' and auditors' fees	136.8	86.2
Vehicle and traveling costs	30.2	38.5
Advertising costs	26.6	33.1
Communication costs and work equipment	26.8	28.5
Rents, leases and ground rents	17.7	19.3
Administrative services	17.8	18.0
Non-capitalizable expenses from real estate development	8.7	13.2
Insured losses	9.8	10.5
Additions to provisions	20.0	7.8
Costs of sale associated with real estate inventories	7.3	4.8
Sales incidentals	10.9	4.0
Impairment losses	2.9	3.2
Legal and notary costs	2.2	2.4
Dunning and debt collection fees	2.6	1.1
Miscellaneous	68.6	126.9
	388.9	**397.5**

Miscellaneous includes, as the biggest item, expenses for process adjustments and standardization as part of the integration of Deutsche Wohnen in the amount of € 37.8 million (2021: € 0.0 million).

19 Interest Income

in € million	2021	2022
Income from non-current securities and non-current loans	13.1	50.1
Other interest and similar income	8.4	65.4
	21.5	**115.5**

The income from non-current securities and non-current loans relates primarily to income from loans extended to the QUARTERBACK Immobilien Group.

Other interest and similar income in the reporting year includes income of € 32.9 million from a partial buyback (€ 1,044.7 million) of eight bonds maturing in 2023 and 2024. In addition, secured financing in the amount of € 284.2 million was repaid pro rata and ahead of schedule in 2022, resulting in interest income of € 11.3 million. The item also includes € 4.8 million in income from the discounting of provisions (2021: € 0.4 million).

20 Interest Expenses

The interest expenses mainly relate to interest expense on financial liabilities measured at amortized cost.

in € million	2021	2022
Interest expense from non-derivative financial liabilities	409.5	570.5
Swaps (current interest expense for the period)	20.6	10.7
Effects from the valuation of non-derivative financial instruments	-43.3	-77.4
Effects from the valuation of swaps	-20.4	-152.5
Prepayment penalties and commitment interest	22.7	12.6
Interest accretion to provisions	10.2	11.7
Interest from leases	15.8	17.6
Other financial expenses	-3.5	-25.6
	411.6	**367.6**

The prepayment penalties include the fees for the unscheduled repayment of loans during the fixed interest period; in the previous year, this applied in particular to the sale of unencumbered portfolios to the State of Berlin (Berlin Deal). The current interest rate environment and the resulting positive fair values is having a significant impact resulting from the valuation of swaps.

A reconciliation of net interest to net interest to be classified in accordance with IFRS 9 is shown in the following table:

in € million	2021	2022
Interest income	21.5	115.5
Interest expense	-411.6	-367.6
Net interest	**-390.1**	**-252.1**
Less:		
Net interest from provisions for pensions in acc. with IAS 19	4.5	7.4
Net interest from other provisions in acc. with IAS 37	5.3	-0.5
Net interest from leases	15.8	17.6
Net interest to be classified	**-364.5**	**-227.6**

The net interest classified pursuant to IFRS 9 is as follows:

in € million	2021	2022
Financial assets measured at (amortized) cost	21.1	110.7
Derivatives measured at FV through P&L	-0.2	141.8
Financial liabilities measured at (amortized) cost	-385.4	-480.1
Classification of net interest	**-364.5**	**-227.6**

21 Other Financial Result

in € million	2021	2022
Income from other investments	27.7	21.2
Transaction costs	-119.2	-1.4
Purchase price liabilities from put options/rights to reimbursement	-40.6	-9.3
Miscellaneous other financial result	-5.0	-0.2
	-137.1	**10.3**

The income from investments includes financial income resulting from the collection of profits from the investment in AVW GmbH & Co. KG, Hamburg, in the amount of € 11.7 million (2021: € 10.5 million) for the previous fiscal year in each case.

It also comprises financial income from investments in other residential real estate companies in the amount of € 7.9 million (2021: € 15.7 million).

The transaction costs in the previous year mainly related to expenses in connection with the voluntary public takeover offers to the shareholders of Deutsche Wohnen SE, Berlin.

22 Income Taxes

Accounting Policies

Income taxes for the current and prior fiscal years are recognized as current income tax liabilities to the extent that they have not yet been paid.

Deferred tax assets and liabilities are recognized using the liability method under the temporary concept, providing for all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax assets are only recognized for temporary differences and on loss carryforwards to the extent that there are deferred tax liabilities that can be netted against them – regarding deferred tax assets on loss carryforwards taking the minimum taxation into account – or, based on the predictable profits in the foreseeable future, it can be verified that they will be realized.

Deferred tax assets and liabilities are not recognized where the temporary difference arises from initial recognition of goodwill in connection with a business combination or the initial recognition (other than a business combination) of other assets and liabilities in a transaction that neither affects taxable income nor net income.

The carrying amount of a deferred tax asset is reviewed at each reporting date. If necessary, the carrying amount of the deferred tax asset is reduced to the extent that it is no longer offset by deferred tax liabilities that can be netted against it or that it is no longer probable that sufficient taxable profit will be available in the future.

Deferred taxes are measured at the tax rates that apply, or are expected to apply, to the period when the tax asset is realized or the liability is settled based on the current legislation in the countries in question. As in 2021, the combined tax rate of corporate income tax and trade tax of 33.1% was used to calculate domestic deferred taxes for 2022. The corporate income tax rate for the companies based in Austria is 23.0% based on the expectation announced for 2024, while the rate for companies based in Sweden is 20.6%.

Deferred tax assets and liabilities are netted against each other only if Vonovia has a legally enforceable right to set off the recognized amounts, when the same tax authority is involved and when the realization period is the same. In accordance with the regulations of IAS 12 "Income Taxes," deferred tax assets and liabilities are not discounted.

in € million	2021	2022
Current income tax	102.1	203.6
Prior-year current income tax	19.2	-14.1
Deferred tax – temporary differences	2,523.6	-329.3
Deferred tax – unutilized loss carryforwards	6.6	76.5
	2,651.5	**-63.3**

The current tax expense is determined on the basis of the taxable income for the fiscal year. For the 2022 fiscal year, the combined tax rate of corporate income tax and solidarity surcharge for domestic companies is 15.8% (2021: 15.8%). Including trade tax at a rate of about 17.3% (2021: 17.3%), the combined domestic tax rate is 33.1% in 2022 (2021: 33.1%). The corporate income tax rate for the companies based in Austria is 25.0% (2021: 25.0%), while the rate for companies based in Sweden is 20.6% (2021:20.6%). The income generated by Vonovia Finance B.V. is subject to Dutch tax law; current taxes of € 2.4 million (2021: € 2.8 million) were incurred there. The other companies that hold properties and are based in the Netherlands have limited corporation tax liability in Germany. These companies, together with the other foreign companies, pay tax that is of a negligible amount from the Group's perspective in the countries in which they are domiciled.

For deductible temporary differences (excl. loss carryforwards) in the amount of € 88.2 million (December 31, 2021: € 44.4 million), no deferred corporate income taxes or deferred trade taxes were recognized, because they are not likely to be used in the future.

As of December 31, 2022, there were corporate income tax loss carryforwards amounting to € 4,549.9 million (December 31, 2021: € 4,756.3 million), as well as trade tax loss carryforwards amounting to € 2,850.2 million (December 31, 2021: € 2,992.0 million), for which deferred tax assets have been recognized to the extent that their realization is sufficiently probable. As of December 31, 2022, there were corporate income tax loss carryforwards abroad amounting to € 435.6 million (December 31, 2021: € 536.0 million), as well as trade tax loss carryforwards amounting to € 15.3 million (2021: € 17.5 million), for which deferred tax assets have been recognized to the extent that their realization is sufficiently probable. The drop in tax loss carryforwards resulted from current tax gains at individual companies and the associated utilization of the loss carryforwards.

No deferred taxes were recognized in the balance sheet for domestic and foreign corporate income tax loss carryforwards amounting to € 1,342.7 million (December 31, 2021: € 1,339.4 million). Of this amount, € 23.4 million arose for the first time in the 2022 fiscal year (2021: € 9.0 million). Under current tax law, these loss carryforwards are not subject to restrictions either with regard to time or the amount of the loss carryforward. The fact that no deferred tax assets were recognized on the new corporate income tax loss carryforwards results in a tax effect of € 3.7 million (2021: € 1.5 million). In addition, there are further trade tax loss carryforwards subject to no restrictions with regard to how they can be carried forward in the amount of € 624.4 million in total (December 31, 2021: € 606.0 million). These did not give rise to any deferred tax assets. Of this amount, € 22.2 million arose for the first time in the 2022 fiscal year (2021: € 9.8 million) and the resulting tax effect is € 3.7 million (2021: € 1.5 million).

The remeasurement of deferred tax assets on temporary differences and loss carryforwards from the previous year led to income amounting to € 8.2 million in the 2022 fiscal year (2021: expenses of € 82.5 million). The high prior-year value is mainly due to the remeasurement of the tax loss carryforward of two companies that were included in a tax group for income tax purposes in 2021.

Deferred taxes on interest carryforwards are recognized if the interest carryforward is likely to be able to be used in the future. Due to the Group's capital structure, no interest carryforwards are likely to be able to be used in the future. As a result, no deferred tax assets have been recognized on interest carryforwards in the amount of € 1,340.7 million (December 31, 2021: € 1,325.6 million). € 223.9 million of this amount arose for the first time in the reporting year (2021: € 259.3 million). The fact that no deferred tax assets were recognized on the new interest carryforward generated a tax effect of € 71.4 million in Germany (2021: € 83.3 million). In the 2022 fiscal year, however, the interest carryforwards could be used for deduction for the first time at four companies. The resulting tax income came to € 63.2 million. Sweden has had a regulation similar to the German interest threshold since 2019. As a result, no deferred tax assets have been recognized on interest carryforwards in the amount of € 144.7 million in Sweden (2021: € 119.3 million). Of this amount, € 32.7 million (2021: € 22.1 million) arose for the first time in the reporting year. The fact that no deferred taxes were recognized generated a tax effect of € 6.7 million in Sweden (2021: € 4.5 million).

A reconciliation between disclosed effective income taxes and expected tax expense, which is the product of the accounting profit for the period multiplied by the average tax rate applicable in Germany, is shown in the table below.

in € million	2021	2022
Earnings before tax	5,482.4	-732.7
Income tax rate in %	33.1	33.1
Expected tax expense	**1,814.7**	**-242.9**
Trade tax effects	-215.6	-1.6
Non-deductible operating expenses	70.2	149.6
Tax-free income	-59.5	-42.4
Change in the deferred tax assets on loss carryforwards and temporary differences	82.5	-8.2
New loss and interest carryforwards not recognized and utilization of interest carryforwards	90.8	22.3
Prior-year income tax and taxes on guaranteed dividends	-78.5	-224.6
Tax effect from goodwill impairment	1,120.1	316.3
Differing foreign tax rates	-186.3	-38.4
Other tax effects (net)	13.1	6.6
Effective income taxes	**2,651.5**	**-63.3**
Effective income tax rate in %	**48.4**	**8.6**

The deferred taxes refer to temporary differences in balance sheet items and unutilized loss carryforwards as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Intangible assets	6.8	6.2
Investment properties	37.0	75.7
Inventories	234.5	142.0
Property, plant and equipment	41.3	42.3
Financial assets	6.8	6.0
Other assets	36.5	55.3
Provisions for pensions	118.9	65.4
Other provisions	44.5	45.3
Liabilities	293.3	242.4
Loss carryforwards	1,119.5	1,042.9
Deferred tax assets	**1,939.1**	**1,723.5**

in € million	Dec. 31, 2021	Dec. 31, 2022
Intangible assets	61.1	32.8
Investment properties	20,090.2	19,795.5
Inventories	7.7	61.1
Assets held for sale	71.6	34.9
Property, plant and equipment	49.3	48.1
Financial assets	13.2	5.1
Other assets	221.8	188.4
Provisions for pensions	0.5	2.9
Other provisions	79.0	78.0
Liabilities	18.8	49.5
Deferred tax liabilities	**20,613.2**	**20,296.3**
Excess deferred tax liabilities	**18,674.1**	**18,572.8**

Deferred tax assets and liabilities are netted against each other when the same company and the same tax authority are involved and the realization period is the same. As a result, the following deferred tax assets and liabilities are stated:

in € million	Dec. 31, 2021	Dec. 31, 2022
Deferred tax assets	19.8	39.6
Deferred tax liabilities	18,693.9	18,612.4
Excess deferred tax liabilities	**18,674.1**	**18,572.8**

The drop in deferred tax liabilities can be attributed primarily to investment properties.

The change in deferred taxes is as follows:

in € million	2021	2022
Excess deferred tax liabilities as of Jan. 1	10,943.2	18,674.1
Deferred tax expense in income statement	2,530.2	-252.8
Deferred tax due to first-time consolidation and deconsolidation	5,411.7	156.5
Change in deferred taxes recognized in other comprehensive income due to equity instruments measured at fair value	0.4	-0.6
Change in deferred taxes recognized in other comprehensive income on actuarial gains and losses from pensions and similar obligations	12.7	52.2
Change in deferred taxes recognized in other comprehensive income on derivative financial instruments	5.1	19.8
Deferred taxes recognized in equity on accrued capital procurement costs resulting from the issuance of a hybrid bond with an indefinite term	0.5	-
Deferred taxes recognized in the capital reserve on capital procurement costs of capital increases	-44.1	0.1
Currency translation differences	-28.5	-77.1
Disposal group share deal Berlin	-157.5	
Other	0.4	0.6
Excess deferred tax liabilities as of Dec. 31	**18,674.1**	**18,572.8**

No deferred tax liabilities are recognized for profits accumulated at subsidiaries of € 57,216.9 million (December 31, 2021: € 55,312.7 million), as these profits are to remain invested for an indefinite period or are not subject to taxation. In the event of distribution or disposal of the subsidiaries, 5% of the distributed amounts or the capital gains would be subject to German taxation so that there would normally be an additional tax obligation.

Section (C): Other Disclosures on the Results of Operations

23 Segment Reporting

Vonovia is an integrated residential real estate company with operations across Europe. The company's strategy is focused on sustainably increasing the value of the company. This is achieved by managing the company's own portfolio sustainably and with a view to enhancing its value, investing in existing residential properties in order to create value, building new residential buildings and selling individual apartments as well as by engaging in active portfolio management and offering property-related services. For the purposes of managing the company, we make a distinction between five segments: **Rental, Value-add, Recurring Sales, Development** and **Care**. Explanatory information on the changes in the segment structure are set out in → **[A2] Adjustment to Prior-year Figures**. We also report the **Other segment,** which is not relevant from a corporate management perspective, in our segment reporting. This includes the sale, only as and when the right opportunities present themselves, of entire buildings or land (Non Core/Other) that are likely to have below-average development potential in terms of rent growth in the medium term and are located in areas that can be described as peripheral compared with Vonovia's overall portfolio and in view of future acquisitions. Ancillary costs are also reported under "Other."

The **Rental** segment combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden. The consolidation of our property management activities in Germany, Austria and Sweden to form one single reporting segment is based on the similarities that we see in the property management business in these three countries. This applies to the way in which services are provided and the individual service processes that form part of the property management business as well as to the customers in the residential rental market and the type of customer acquisition used. Overall, the residential rental market in all three countries is characterized by a shortage of housing and is regulated by statutory requirements, resulting in return expectations that are similar in the long term.

The **Value-add** segment bundles all of the housing-related services that we have expanded our core rental business to include. These services include both the maintenance and modernization work on our residential properties and services that are closely related to the rental business. We allocate the activities relating to the craftsmen's and residential environment organization, the condominium administration business, the cable TV business, metering services, energy supplies and our insurance services to the Value-add segment.

The **Recurring Sales** segment includes the regular and sustainable disposals of individual condominiums and single-family houses from our portfolio. The consolidation of our sales activities in Germany and Austria to form one single reporting segment is based on the similarities that we see in the property management business in these two countries. It does not include the sale of entire buildings or land (Non Core/Other). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of the Recurring Sales segment. We report these opportunistic sales in the **Other** column of the segment report.

The **Development** segment combines cross-country development activities and includes the project development of new residential buildings. The consolidation of our development activities in Germany, Austria and Sweden to form one single reporting segment is based on the similarities that we see in the business in these three countries. The business covers the value chain starting with the purchase of land without any development plan/dedicated purpose and ending with the completion of new buildings and new construction measures on our own properties. These properties are either incorporated into our own portfolio or sold to third parties. The Development segment deals with projects in selected attractive locations. Project development work is currently focusing on Berlin, Hamburg and Vienna. The adjusted EBITDA of the Development segment includes the fair value step-up for properties that were completed in the reporting period and have been added to our own portfolio.

The **Care segment** includes all activities relating to the management of the Group's own nursing care businesses and the leasing of nursing care properties.

Planning and controlling systems ensure that resources are efficiently allocated and their successful use is monitored on a regular basis. Reporting to the chief decision-makers and thus the assessment of business performance as well as the allocation of resources are performed on the basis of this segmentation. Asset and liability items are not reported separately by segment. Internal reporting is based on the IFRS reporting standards in general.

The Management Board as chief decision-makers of Vonovia monitor the contribution made by the segments to the company's performance on the basis of the segment revenue as well as the Adjusted EBITDA.

The following table shows the segment information for the reporting period:

in € million	Rental	Value-add	Recurring Sales	Development	Care	Segments total	Other*	Consolidation*	Group
Jan. 1–Dec. 31, 2022									
Segment revenue	**3,163.4**	**1,272.0**	**543.4**	**998.0**	**280.1**	**6,256.9**	**4,283.3**	**-1,557.6**	**8,982.6**
thereof external revenue	3,163.4	119.6	543.4	564.1	280.1	4,670.6	4,283.3	28.7	8,982.6
thereof internal revenue		1,152.4		433.9		1,586.3		-1,586.3	
Carrying amount of assets sold			-471.1			-471.1	-2,700.9		
Revaluation from disposal of assets held for sale			79.5			79.5	40.8		
Expenses for maintenance	-443.6				-7.0	-450.6			
Cost of development to sell				-440.4		-440.4			
Cost of development to hold**				-340.6		-340.6		340.6	
Operating expenses	-486.3	-1,145.3	-16.7	-33.8	-188.5	-1,870.6	-6.5	1,128.4	
Ancillary costs							-1,579.5		
Adjusted EBITDA Total	**2,233.5**	**126.7**	**135.1**	**183.2**	**84.6**	**2,763.1**	**37.2**	**-88.6**	**2,711.7**
Non-recurring items									-127.5
Period adjustments from assets held for sale									-52.3
Income from investments/ amortization in other real estate companies									7.9
Net income from fair value adjustments of investment properties									-1,269.8
Depreciation and amortization (incl. depreciation on financial assets)									-1,303.1
Net income from investments accounted for using the equity method									-436.6
Income from other investments									-21.2
Interest income									115.5
Interest expenses									-367.6
Other financial result									10.3
EBT									**-732.7**
Income taxes									**63.3**
Profit for the period									**-669.4**

* The revenue for the Rental, Value-add, Recurring Sales, Development and Care segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The revenue/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.
** Excluding capitalized interest on borrowed capital of € 2.5 million.

in € million	Rental	Value-add	Recurring Sales	Develop-ment	Care	Segments total	Other*	Consolida-tion*	Group
Jan. 1–Dec. 31, 2021									
Segment revenue	2,568.5	1,176.3	491.2	911.8	68.8	5,216.6	1,538.2	-1,489.1	5,265.7
thereof external revenue	2,568.5	67.7	491.2	507.7	68.8	3,703.9	1,538.2	23.6	5,265.7
thereof internal revenue		1,108.6		404.1		1,512.7	–	-1,512.7	
Carrying amount of assets sold			-421.9			-421.9	-622.7		
Revaluation from disposal of assets held for sale			66.4			66.4	14.9		
Expenses for maintenance	-377.7				-2.4	-380.1			
Cost of development to sell				-370.1		-370.1			
Cost of development to hold**				-319.2		-319.2		319.2	
Operating expenses***	-412.3	-1,022.5	-22.5	-37.1	-42.9	-1,537.3	-22.6	1,031.2	
Ancillary costs							-898.1		
Adjusted EBITDA Total***	1,778.5	153.8	113.2	185.4	23.5	2,254.4	9.7	-138.7	2,125.4
Non-recurring items									-37.1
Period adjustments from assets held for sale									6.0
Income from investments in other real estate companies									15.7
Net income from fair value adjustments of investment properties									7,393.8
Depreciation and amortization									-3,872.6
Net income from investments accounted for using the equity method									15.7
Income from other investments									-27.7
Interest income									21.5
Interest expenses									-411.6
Other financial result									-137.1
EBT									**5,092.0**
Income taxes									**-2,651.5**
Profit for the period									**2,440.5**

* The revenue for the Rental, Value-add, Recurring Sales, Development and Care segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The revenue/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.
** Excluding capitalized interest on borrowed capital of € 0.9 million.
*** Prior-year figures adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), adjustments to adjusted EBITDA Rental: € -14.9 million thereof formerly Deutsche Wohnen € -6.3 million, Adjusted EBITDA Other: € -0.8 million.

To show the development of operating performance and to ensure comparability with previous periods, we calculate Adjusted EBITDA for each of our segments: Rental, Value-add, Recurring Sales, Development and Care. The sum of these key figures produces the Group's Adjusted EBITDA Total.

The breakdown of the business figures of the Deutsche Wohnen segment that was reported in the previous year into the five segments that are now relevant is set out in greater detail in the Notes under → **[A2] Adjustment to Prior-year Figures**.

The adjustments made include items that are not related to the period, items that recur irregularly and items that are atypical for business operation. The non-recurring items include the expenses for pre-retirement part-time work arrangements and severance payments, the development of new fields of business and business processes, acquisition projects including integration costs, research and development and expenses for refinancing and equity increases (where not treated as capital procurement costs).

In the 2022 fiscal year, the **non-recurring items** eliminated in the Adjusted EBITDA Total came to € 127.5 million (2021: € 37.1 million). This was largely due to costs associated with the integration of Deutsche Wohnen. The following table gives a detailed list of the non-recurring items:

in € million	Jan. 1– Dec. 31, 2021	Jan. 1– Dec. 31, 2022
Transactions*	14.1	113.2
Personnel matters	1.6	-3.1
Business model optimization	24.2	12.2
Research and development	3.6	4.2
Refinancing and equity measures	-6.4	1.0
Total non-recurring items	**37.1**	**127.5**

* Including one-time expenses in connection with acquisitions, such as HR measures relating to the integration process and other follow-up costs. In 2022 mainly integration costs of €79.4 million and restructuring costs of €22.6 million. In 2021 costs for transactions were offset by income resulting from the valuation of shares in Deutsche Wohnen amounting to € 87.5 million.

The breakdown of non-Group revenue from contracts with customers (pursuant to IFRS 15.114f.) and its allocation to the segments referred to above is as follows:

in € million	Rental	Value-add	Recurring Sales	Development	Care	Other	Consolida-tion	Total
Jan. 1–Dec. 31, 2022								
Revenue from ancillary costs (IFRS 15)	–	–	–	–	–	1,334.9	–	1,334.9
Income from the disposal of real estate inventories	–	–	27.8	560.6	–	–	–	588.4
Other revenue from contracts with customers	–	118.4	–	–	280.1	–	28.6	427.1
Revenue from contracts with customers	**–**	**118.4**	**27.8**	**560.6**	**280.1**	**1,334.9**	**28.6**	**2,350.4**
thereof period-related	–	–	–	407.6			–	407.6
thereof time-related	–	118.4	27.8	153.0	280.1	1,334.9	28.6	1,942.8
Revenue from rental income (IFRS 16)	3,163.4	1.2	–	3.5		–	–	3,168.1
Revenue from ancillary costs (IFRS 16)*	–	–	–	–	–	221.6	–	221.6
Other revenue	**3,163.4**	**1.2**	**–**	**3.5**	**–**	**221.6**	**–**	**3,389.7**
Revenue	**3,163.4**	**119.6**	**27.8**	**564.1**	**280.1**	**1,556.5**	**28.6**	**5,740.1**
Jan. 1–Dec. 31, 2021								
Revenue from ancillary costs (IFRS 15)	–	–	–	–	–	749.5	–	749.5
Income from the disposal of real estate inventories	–	–	14.0	505.6	–	–	–	519.6
Other revenue from contracts with customers	–	66.4	–	–	68.8	–	23.6	158.8
Revenue from contracts with customers	**–**	**66.4**	**14.0**	**505.6**	**68.8**	**749.5**	**23.6**	**1,427.9**
thereof period-related	–	–	–	420.1	–		–	420.1
thereof time-related	–	66.4	14.0	85.5	68.8	749.5	23.6	1,007.8
Revenue from rental income (IFRS 16)	2,568.5	1.3	–	2.1		–	–	2,571.9
Revenue from ancillary costs (IFRS 16)*	–	–	–	–	–	143.7	–	143.7
Other revenue	**2,568.5**	**1.3**	**–**	**2.1**	**–**	**143.7**	**–**	**2,715.6**
Revenue	**2,568.5**	**67.7**	**14.0**	**507.7**	**68.8**	**893.2**	**23.6**	**4,143.5**

* Includes land tax and buildings insurance.

External revenue and non-current assets, excluding financial instruments, deferred taxes, post-employment benefits and rights under insurance contracts, are distributed among Vonovia's country of origin and other countries as follows. The revenue and the assets are allocated based on the registered office of the unit providing the service.

in € million	Revenue		Assets	
	Jan. 1–Dec. 31, 2021	Jan. 1–Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022
Germany	3,353.1	4,901.4	87,100.6	84,885.3
Austria	427.0	474.4	3,382.7	3,581.6
Sweden	362.3	360.6	7,588.9	7,098.5
France	0.0	0.0	109.7	95.7
Other countries	1.1	3.7	387.9	97.2
Total	**4,143.5**	**5,740.1**	**98,569.8**	**95,758.3**

24 Earnings per Share

Accounting Policies

The basic **earnings per share** are calculated by dividing the profit for the period attributable to the shareholders by the weighted average number of ordinary shares in circulation during the reporting period. The diluted earnings per share are obtained by adjusting the profit for the period and the number of outstanding shares on the basis of the assumption that convertible instruments will be converted, options or warrants will be exercised or ordinary shares will be issued under certain conditions. Potential ordinary shares will only be included in the calculation if the conversion into ordinary shares would reduce the earnings per share.

	2021	2022
Profit for the period attributable to Vonovia shareholders (in € million)	2,251.5	-643.8
Weighted average number of shares	626,466,541	788,254,448
Earnings per share (basic and diluted) in €	**3.59**	**-0.82**

At the end of the reporting period, no diluting financial instruments were in circulation. The basic earnings per share correspond to the diluted earnings per share.

25 Management Board's Proposal for the Appropriation of Profit

The Management Board and the Supervisory Board propose to the Annual General Meeting that, of the profit of Vonovia SE for the 2022 fiscal year of € 700,000,000.00, an amount of € 676,472,497.45 on the 795,849,997 shares of the share capital as of December 31, 2022 (corresponding to € 0.85 per share) be paid as a dividend to the shareholders, and that the remaining amount of € 23,527,502.55 be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual General Meeting and which go beyond those as of December 31, 2022.

As has been the case since the 2018 fiscal year, the dividend for the 2022 fiscal year, payable after the Annual General Meeting in May 2023, will again include the option of a non-cash dividend in shares, to the extent that the Management Board and the Supervisory Board consider this to be in the interests of the company and its shareholders.

Section (D): Assets

26 Intangible Assets

in € million	Concessions, industrial property rights, license and similar rights	Self-developed software	Customer relationships and non-competition clause	Trademark rights	Goodwill	Total
Cost						
As of Jan. 1, 2022*	143.5	8.1	57.5	152.6	9,372.1	9,733.8
Additions	12.9	2.9				15.8
Disposals	-20.0		-3.1			-23.1
Changes in value from currency translation		-0.1			-67.8	-67.9
Transfers	1.7					1.7
As of Dec. 31, 2022	138.1	10.9	54.4	152.6	9,304.3	9,660.3
Accumulated amortization						–
As of Jan. 1, 2022*	99.0	6.0	18.0	–	6,887.9	7,010.9
Amortization in reporting year	20.7	1.7	7.8	86.0		116.2
Impairment					954.3	954.3
Disposals	-13.0		-0.7			-13.7
Changes in value from currency translation					-67.8	-67.8
Transfers	0.9					0.9
As of Dec. 31, 2022	107.6	7.7	25.1	86.0	7,774.4	8,000.8
Carrying amounts						–
As of Dec. 31, 2022	30.5	3.2	29.3	66.6	1,529.9	1,659.5
Cost						
As of Jan. 1, 2021	107.7	7.1	13.8	66.6	4,616.8	4,812.0
Additions due to business combinations*	26.2	0.4	45.6	86.0	4,774.3	4,932.5
Additions	11.8	1.1	–	–	–	12.9
Disposals	-3.2	-0.4	-1.9	–	–	-5.5
Changes in value from currency translation	–	–	–	–	-19.0	-19.0
Transfers	1.0	-0.1	–	–	–	0.9
As of Dec. 31, 2021*	143.5	8.1	57.5	152.6	9,372.1	9,733.8
Accumulated amortization						–
As of Jan. 1, 2021	66.3	4.7	7.2	–	3,122.1	3,200.3
Additions due to business combinations	19.6	–	8.5	–	–	28.1
Amortization in reporting year	15.4	1.3	4.2	–	–	20.9
Impairment*	–	–	–	–	3,774.4	3,774.4
Disposals	-2.9	–	-1.9	–	–	-4.8
Changes in value from currency translation	–	–	–	–	-8.6	-8.6
Transfers	0.6	–	–	–	–	0.6
As of Dec. 31, 2021*	99.0	6.0	18.0	–	6,887.9	7,010.9
Carrying amounts						–
As of Dec. 31, 2021*	44.5	2.1	39.5	152.6	2,484.2	2,722.9

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Accounting Policies

Acquired other intangible assets are stated at amortized cost. **Internally generated other intangible assets** are stated at amortized cost provided that the requirements of IAS 38 for the capitalization of internally generated intangible assets are met. Acquired trademark rights that are identified have an indefinite useful life and are subject to regular impairment testing. All of Vonovia's miscellaneous other intangible assets have definite useful lives and are amortized on a straight-line basis over their estimated useful lives. Software and licenses are amortized on the basis of a useful life of three years.

In accordance with IAS 36 "Impairment of Assets," other intangible assets are tested for impairment whenever there is an indication of an impairment. Impairment testing is performed at least once a year. An impairment loss is recognized when an asset's recoverable amount is less than its carrying amount. If the recoverable amount cannot be determined for the individual asset, the impairment test is conducted on the cash-generating unit (CGU) to which the asset belongs. Impairment losses are recognized as expenses in the income statement affecting net income.

An impairment loss recognized for prior periods is reversed if there has been a change in the estimates used to determine the asset's (or the CGU's) recoverable amount since the last impairment loss was recognized. The carrying amount of the asset (or the CGU) is increased to the newly estimated recoverable amount. The carrying amount is limited to the amount that would have been determined if no impairment loss had been recognized in prior years for the asset (or the CGU).

Customer Relationships and Similar Values

The brand names "Pflegen & Wohnen Hamburg" and "Katharinenhof" were identified as material assets with indefinite useful lives in the context of the purchase price allocation for the Deutsche Wohnen Group and were recognized at a total value of € 86.0 million. In addition, customer relationships for these activities were identified and recognized as assets with definite useful lives of between five and six years in the amount of € 37.1 million. As part of the (ad hoc) impairment tests conducted in the second quarter of 2022, trademark rights in the Care segment in the amount of € 86.0 million were written off in full. Information on the approach to impairment testing can be found in the subchapter below entitled → **Goodwill**.

The "BUWOG" brand name, which had already been acquired in previous years, is still recognized with a value of € 66.6 million for the development business. There were no signs of impairment losses for this brand name or customer relationships.

Goodwill

Accounting Policies

Goodwill results from a business combination and is defined as the amount by which the total consideration for shares in a company or group of companies exceeds the pro rata net assets acquired. The net assets are the total of the identifiable assets acquired that are valued at fair value in accordance with IFRS 3 as well as the assumed liabilities and contingent liabilities.

Goodwill is not subject to amortization, but rather is subjected to impairment testing on an annual basis. It is also tested for impairment whenever events or circumstances indicating an impairment arise.

The impairment testing of goodwill is performed at the level of cash-generating units (CGUs) or a group of CGUs. A CGU is the smallest group of assets which generates cash inflows that are largely independent of the cash inflows generated by other assets or other groups of assets. Goodwill purchased as part of a business combination is allocated to the CGUs or groups of CGUs that are expected to produce benefits resulting from the synergy effects of the combination.

At Vonovia, each property meets the requirements for classification as a CGU as a general rule. As part of operational management, these properties are grouped first of all to form geographically structured business units and then to form regional business areas. Since the regional business areas are the lowest level within the company at which goodwill is monitored for internal management purposes, the impairment test is performed at business area level and, as a result, in accordance with IAS 36.80 for a group of CGUs. The acquired assets are allocated to the business areas based on the geographical location of the properties. A further group of CGUs for which goodwill is monitored for internal management purposes relates to the Value-add segment. The third group of CGUs, to which goodwill is allocated and for which goodwill is monitored for management purposes, relates to the Development segment. As a result of the acquisition of Deutsche Wohnen SE, the Care segment was added as a further CGU, which is also monitored for internal management purposes.

The group of CGUs to which goodwill has been allocated are tested for impairment on a regular basis. This involves comparing the recoverable amount with the carrying amount of the group of CGUs. The recoverable amount of the group of CGUs is either its value in use or fair value less costs of sale, whichever is higher. When calculating the value in use, the estimated future cash flows are discounted to their cash value. Discount rates before tax are used that reflect the current market assessment of the interest rate effect and the specific risks associated with the regional business areas and the Value-add, Development and Care segments.

If goodwill has been allocated to a group of CGUs and its carrying amount exceeds the recoverable amount, the goodwill is to be written down in the amount of the difference in the first instance. Any need for impairment in excess of this amount is distributed among the other assets in the group of CGUs in proportion to their carrying amount. The individual fair value less costs to sell, value in use or zero must not be undercut in this regard.

Impairment losses that have been realized as part of the valuation of goodwill are not reversed in the following years.

Groups of Cash-generating Units

in € million	Rental segment: Central area	Rental segment: Deutsche Wohnen	Value-add segment	Development segment	Care segment	Group
Goodwill as of Dec. 31, 2021*	21.4	896.9	1,391.7	138.2	36.0	2,484.2
Impairment	-21.4	-896.9	–	–	-36.0	-954.3
Goodwill as of Dec. 31, 2022	0.0	0.0	1,391.7	138.2	0.0	1,529.9
Trademark rights as of Dec. 31, 2021	–	–	–	66.6	86.0	152.6
Impairment	–	–	–	–	-86.0	-86.0
Trademark rights as of Dec. 31, 2022	–	–	–	66.6	0.0	66.6

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

The carrying amount of goodwill came to € 1,529.9 million as of December 31, 2022. This means that goodwill has dropped by € 954.3 million compared with December 31, 2021. The change is due, first of all, to the impairment of € 918.3 million identified in the first quarter of 2022 as part of the (ad hoc) impairment test performed. Within the meaning of IAS 36, the triggering event related to further increases in the values of the real estate portfolio in the first quarter of the 2022 fiscal year in combination with the increased cost of capital of the Rental business areas in Germany.

Second, the change is due to the impairment identified in the second quarter of 2022 as part of the (ad hoc) impairment test performed. The increased cost of capital in the Care segment was classified as a triggering event within the meaning of IAS 36. The impairment test conducted as of June 30, 2022, resulted in the goodwill for the Care segment of € 36.0 million being written off in full. In addition, trademark rights in the Care segment classified as having an indefinite useful life in the amount of € 86.0 million were also written off in full. This led to an impairment of € 1,040.3 million in 2022 for goodwill and trademark rights.

The conclusion of the purchase price allocation in connection with the acquisition of the Deutsche Wohnen Group (see → **[A2] Adjustment to Prior-year Figures**) meant that goodwill had increased by € 108.0 million as against the provisional purchase price allocation. At the same time, the goodwill was finally allocated to the date of the first-time consolidation as of September 30, 2022.

As part of the provisional allocation of goodwill from the acquisition of Deutsche Wohnen, the acquired residential real estate was allocated to the existing business areas in the Rental segment. Goodwill was provisionally allocated to these CGUs.

As part of the final allocation, the CGUs were restructured, as part of the final breakdown of the expected synergies, to produce an independent CGU with Deutsche Wohnen's real estate portfolio. The final allocation of goodwill is accordingly made to the business areas in the Rental segment (North, East, South, West and Central) and to the new CGU with Deutsche Wohnen's real estate in the amount of € 1,342.8 million. In addition, the final allocation of goodwill was made to the Value-add and nursing and assisted living CGUs.

Overall, both the preliminary and the final allocation of goodwill to the business areas of the Rental, Value-add and Care segments were performed based on the two indicators that reflect the synergy effects expected to be generated as a result of the business combination: "direct planned synergies" and "fair values."

As a result of the final purchase price allocation, the impairment tests for the reporting dates December 31, 2021, March 31, 2022, and June 30, 2022, were then performed again. This resulted in an impairment loss that was € 390.4 million higher as of December 31, 2021, an impairment loss that was € 164.3 million lower as of March 31, 2022, and an impairment loss that was € 0.8 million higher as of June 30, 2022.

In accordance with IAS 36.19, first the value in use was calculated based on the Management Board-approved detailed plan with a planning period of five years. This was derived from the five-year plan at Group level approved by the Management Board and the Supervisory Board. With the exception of the WACC, the assumptions used to calculate the value in use during the year match the assumptions used for the purposes of the impairment test at the end of 2021. With regard to the regional business areas of the Rental segment, the main drivers behind the results of the five-year plan are the increase in gross rental income and the planned vacancy rate.

The growth rate for the cash-generating units of the Rental segment and the Deutsche Wohnen Rental business area was calculated regionally on the basis of in-place rents and limited to 1%. The growth rate for the Care segment was also restricted to 1%. The main parameters for calculating the value in use are the sustainable rate of increase, the weighted average cost of capital (WACC) and the expected cash flows. In the Development segment, a further normalized planning year was added to the five-year plan to reflect a "steady state."

The growth rate for the CGUs of the Rental segment in Germany was limited to 1%. With regard to the regional business areas of the Rental segment, the main drivers behind the results of the five-year plan are the increase in gross rental income by an average of 2.5% every year as well as the planned vacancy rate of 2.5% at the end of the detailed planning period. The average gross rental increase within the five-year plan is 3.1% with an assumed vacancy rate of 2% at the end of the detailed planning period.

A constant growth rate of 1.0% was assumed for the Value-add, Development and Care CGUs.

Parameters for WACC Calculation for the Rental Segment

	Dec. 31, 2021	Mar. 31, 2022
Risk-free interest rate in %	0.08	0.40
Market risk premium in %	7.75	7.75
Levered beta	0.67	0.77
WACC (before tax) in %	4.00	4.30

Parameters for WACC Calculation for the Care Segment

	Dec. 31, 2021	June 30, 2022
Risk-free interest rate in %	0.08	1.24
Market risk premium in %	7.75	8.00
Levered beta	0.79	0.83
WACC (before tax) in %	4.30	6.00

For the purposes of the regular annual impairment test on goodwill as of December 31, 2022, the five-year plan for the Value-add and Development segments for the fiscal years from 2023 to 2027 was taken as a basis. This also forms part of the five-year plan for the Group as a whole as approved by the Management Board and acknowledged by the Supervisory Board. The plan is based on assessments regarding the development of the operating business areas in terms of future revenue, expenses and margins, and taking current market developments into account.

The regular annual impairment test was performed for the CGUs attributable to the Value-add and Development segments as of December 31, 2022. The value of the goodwill for the Value-add and Development CGUs and the trademark rights for the Development CGU was ultimately confirmed. Developments in the Value-add segment are characterized primarily by the extension of existing business areas (craftsmen's organization, multimedia, management of residential property, smart metering, energy service, etc.). On the other hand, there is an increase in operating expenses, taking into account the rate of inflation. The development in these values is in line with past experiences of business model development.

The Development segment is characterized by the construction of new buildings for Vonovia's own portfolio and the sale of properties to third parties. The main drivers of the results in the Development segment are the investment costs, the number of units sold and completed and the sales margin that can be generated.

The cash flows from the last detailed planning year were derived to calculate the perpetual annuity.

A constant growth rate of 1.0% was assumed for the Value-add and Development CGUs.

The weighted average cost of capital before tax is based on the risk-free interest rate calculated as a three-month average using the Svensson method, a market risk premium and a levered beta. The levered beta and the equity ratios used are determined on the basis of a peer comparison. In addition, a country-specific cost surcharge was also calculated for the Development segment. The main parameters are shown in the following table:

Parameters for WACC Calculation

	Value-add segment	Development segment
Dec. 31, 2022		
Risk-free interest rate in %	2.00	2.00
Market risk premium in %	7.00	7.00
Levered beta	0.76	0.92
Country-specific premium in %		0.12
WACC (before tax) in %	6.10	8.13
Dec. 31, 2021		
Risk-free interest rate in %	0.08	0.08
Market risk premium in %	7.75	7.75
Levered beta	0.68	0.91
Country-specific premium in %		0.08
WACC (before tax) in %	4.1	6.33

Impairment losses are recognized in the consolidated income statement under depreciation, amortization and impairment losses. The value in use for the Deutsche Wohnen Rental business area amounts to € 17.0 billion, with a value of € 0.3 billion for the central business area and € 1.3 billion for the Care segment.

A increase in the cost of capital would result in the following need for impairment:

	Value-add segment	Development segment
Goodwill and trading rights as of Dec. 31, 2022 in € million	1,391.7	204.8
Headroom in € million	830.6	62.0
Impairment starts with an increase of the WACC in percentage points	1.19	0.14
Full impairment in the event of an increase in the WACC in percentage points	10.18	0.67
Goodwill and trading rights as of Dec. 31, 2021 in € million*	1,391.7	204.8
Headroom in € million	3,082.9	1,045.0
Impairment starts with an increase of the WACC in percentage points	3.19	1.96
Full impairment in the event of an increase in the WACC in percentage points	21.65	2.61

* Adjusted (see chapter [A2] Adjustment to Prior-year Figures).

In the event of a drop in the planned sustainable rate of increase by 0.25 percentage points, there would only be impairment losses in the Development segment. Goodwill and trademark rights would only be written off in full if no growth were achieved.

In the Value-add and Development segments, a 0.25 percentage point drop in the sustainable rate of increase would not have resulted in any goodwill impairment in the previous year.

27 Property, Plant and Equipment

in € million	Owner-occupied properties	Technical equipment, plant and machinery	Other equipment, fixtures, furniture and office equipment	Total
Cost				
As of Jan. 1, 2022	273.3	83.7	590.9	947.9
Additions	4.1	23.1	113.0	140.2
Capitalized modernization costs	4.9	5.4	1.0	11.3
Disposals	-0.6	-2.6	-80.9	-84.1
Transfer from investment properties	31.5	–	–	31.5
Transfer to investment properties	-29.4	–	–	-29.4
Other transfers	–	61.7	-50.2	11.5
Revaluation from currency effects	–	-0.2	-0.6	-0.8
As of Dec. 31, 2022	283.8	171.1	573.2	1,028.1
Accumulated depreciation				
As of Jan. 1, 2022	21.9	39.5	232.4	293.8
Depreciation in reporting year	4.5	13.5	87.1	105.1
Impairment	1.6	–	–	1.6
Reversal of impairments	-0.2	–	–	-0.2
Disposals	-0.6	-0.9	-55.7	-57.2
Other transfers	–	14.7	-2.8	11.9
Revaluation from currency effects	0.1	-0.1	-0.3	-0.3
As of Dec. 31, 2022	27.3	66.7	260.7	354.7
Carrying amounts				
As of Dec. 31, 2022	256.5	104.4	312.5	673.4
Cost				
As of Jan. 1, 2021	201.3	65.2	284.2	550.7
Additions due to business combinations	64.6	9.8	251.7	326.1
Additions	3.1	13.9	105.6	122.6
Capitalized modernization costs	2.3	0.4	0.1	2.8
Disposals	-0.4	-5.5	-52.8	-58.7
Transfer from investment properties	12.6	–	–	12.6
Transfer to investment properties	-11.6	–	–	-11.6
Transfer to assets held for sale	-0.7	–	1.6	0.9
Other transfers	2.1	-0.2	0.7	2.6
Revaluation from currency effects	–	0.1	-0.2	-0.1
As of Dec. 31, 2021	273.3	83.7	590.9	947.9
Accumulated depreciation				
As of Jan. 1, 2021	10.0	37.0	116.1	163.1
Additions due to business combinations	7.6	–	97.7	105.3
Depreciation in reporting year	3.8	8.7	64.0	76.5
Impairment	0.5	–	–	0.5
Reversal of impairments	-0.4	–	–	-0.4
Disposals	-0.4	-5.4	-48.6	-54.4
Transfer to assets held for sale	-0.1	–	1.8	1.7
Other transfers	0.9	-0.8	1.4	1.5
Revaluation from currency effects	–	0.0	–	–
As of Dec. 31, 2021	21.9	39.5	232.4	293.8
Carrying amounts				
As of Dec. 31, 2021	251.4	44.2	358.5	654.1

Accounting Policies

Items of property, plant and equipment are carried at amortized cost less accumulated depreciation and are depreciated over their respective estimated useful lives on a straight-line basis. In accordance with IAS 36 "Impairment of Assets," impairment tests are performed whenever there is an indication of an impairment.

Subsequent costs of replacing part of an item of property, plant and equipment are capitalized provided it is probable that future economic benefits associated with the item will flow to Vonovia and the cost can be estimated reliably.

The properties used by the company itself are subject to depreciation over a term of 50 years, with fixtures, furniture and office equipment subject to depreciation over a period of 3–13 years and technical equipment, plant and machinery over a period of 5–20 years.

Carrying amounts of owner-occupied properties amounting to € 79.5 million as of December 31, 2022 (Dec. 31, 2021: € 79.9 million) are encumbered with land charges in favor of various lenders.

28 Investment Properties

in € million	
As of Jan. 1, 2022	**94,100.1**
Additions	961.8
Capitalized modernization costs	1,248.9
Grants received	-12.1
Transfer to property, plant and equipment	-31.5
Transfer from property, plant and equipment	29.4
Transfer to down payments made	-417.2
Transfer from down payments made	105.0
Transfer from real estate inventories	143.3
Transfer to real estate inventories	-1,450.1
Transfer to assets held for sale	-416.5
Other transfers	-8.4
Disposals	-153.7
Net income from fair value adjustments of investment properties	-1,269.8
Revaluation of assets held for sale	68.0
Revaluation from currency effects	-597.1
As of Dec. 31, 2022	**92,300.1**
As of Jan. 1, 2021	**58,071.8**
Additions due to business combinations	28,181.7
Additions	792.3
Capitalized modernization costs	1,124.2
Grants received	-2.7
Transfer to property, plant and equipment	-12.6
Transfer from property, plant and equipment	11.6
Transfer from real estate inventories	20.0
Transfer to real estate inventories	-27.4
Transfer to assets held for sale	-1,221.6
Other transfers	-0.5
Disposals	-167.7
Net income from fair value adjustments of investment properties	7,393.8
Revaluation of assets held for sale	87.4
Revaluation from currency effects	-150.2
As of Dec. 31, 2021	**94,100.1**

Accounting Policies

When Vonovia acquires properties, whether through a business combination or as part of a separate transaction, the intended use determines whether such properties are classified as investment properties or as owner-occupied properties.

Investment properties are properties that are held for the purpose of earning rental income or for capital appreciation or both and are not owner-occupied or held for sale in the ordinary course of business. Investment properties include undeveloped land, land and land rights including buildings and land with hereditary building rights of third parties. Investment properties also include right-of-use assets from rented, developed and undeveloped land (hereditary building rights) and from rented residential and commercial properties (interim leasing) within the meaning of IFRS 16 that are classified as investment properties.

Investment properties are initially measured at cost. Related transaction costs, such as fees for legal services or real estate transfer taxes, are included in the initial measurement. If properties are purchased as part of a business combination and if the transaction relates to a "business," then IFRS 3 applies as far as recognition is concerned. Transaction costs are recognized as an expense.

Following initial recognition, investment properties are measured at fair value. Any change therein is recognized as affecting net income in the income statement. If, during the land or project development phase, reliable measurement at fair value is not possible due to the lack of marketability and the lack of comparable transactions, recognition is at acquisition cost. In such cases, the cost model is continued until a reliable measurement can be carried out, but at the latest until the property in question is completed.

Investment properties are transferred to property, plant and equipment when there is a change in use evidenced by the commencement of owner-occupation. The properties' deemed cost for subsequent measurement corresponds to the fair value at the date of reclassification.

The values as of December 31, 2022 include assets of € 663.7 million (December 31, 2021: € 2,180.9 million) that are measured at cost, as their fair value cannot be reliably calculated on a continuing basis. These relate to project developments for the company's own portfolio, assets under construction, pre-construction expenses and land without buildings that may be intended for future sale. In particular in the current market environment, which is dominated by inflation and supply chain problems and, as a result, by very volatile costs for construction materials, as well as by a marked increase in interest rates and insignificant transaction activity, neither construction costs nor income from project developments can be reliably calculated on a continuing basis. Due to the existing inherent risks during the construction phase, development projects are generally recognized at cost until they are completed. In the context of business combinations, no assets measured at cost (December 31, 2021: € 1,439.3 million) were added in the 2022 fiscal year. There were further additions of € 386.7 million (December 31, 2021: € 372.4 million). In the fiscal year under review, impairment tests on the capitalized cost of project developments were performed throughout the year due to the tense market situation. These resulted in impairment losses of € 450.4 million which are part of net income from fair value adjustments of investment properties. As a result of resolutions passed by the Management Board in the fourth quarter of 2022 to now sell project developments that were originally intended for Vonovia's own portfolio, € 1,450.1 million was reclassified to real estate inventories in the 2022 fiscal year.

The additions in the 2022 reporting year include € 607.1 million (2021: € 639.9 million) in production costs for new construction activities.

The total amount reported for investment properties as of December 31, 2022, includes right-of-use assets from recognized hereditary building rights (including right-of-use assets arising from leased and sublet care homes since first-time consolidation of Deutsche Wohnen as of September 30, 2021) in the amount of € 2,019.8 million (December 31, 2021: € 1,689.1 million). In this respect, we also refer to chapter → **[E43] Leases**.

The majority of € 2,016.8 million is attributable to right-of-use assets from hereditary building rights (December 31, 2021: € 1,685.3 million). This includes right-of-use assets amounting to € 97.3 million (December 31, 2021: € 80.9 million) relating to the Spree-Bellevue (Spree-Schlange) property in Berlin, which comprises the leasehold land and the rented properties. The properties have been leased from the fund company DB Immobilienfonds 11 Spree-Schlange von Quistorp KG until 2044. The lease agreement includes an obligation to pay compensation for loss of use as agreed by contract. At the end of 2028, each fund subscriber is entitled to return his share to the property fund at a fixed redemption price. If all of the fund investors make use of this option, Vonovia is obliged to acquire the properties at a fixed purchase price after deduction of borrowings. If more than 75% of the shares are returned in this way, Vonovia has a call option for the purchase of all fund shares.

For the investment properties encumbered with land charges in favor of various lenders, see chapter → **[E41] Non-derivative Financial Liabilities**.

Directly Attributable Operating Expenses

Rental income from investment properties amounted to € 3,168.1 million during the fiscal year (2021: € 2,571.9 million). Operating expenses directly relating to these properties amounted to € 433.3 million during the fiscal year (2021: € 317.6 million). These include expenses for maintenance, ancillary costs that cannot be passed on to the tenants, personnel expenses from the caretaker and craftsmen's organizations, and income from the capitalized internal expenses. The capitalized internal expenses relate to the work performed by the Group's own craftsmen's organization and the management costs for major modernization projects.

Long-term Leases

Vonovia as a lessor has concluded long-term leases on commercial properties. These are non-cancelable leases. The minimum future lease receipts from these leases are due as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Total minimum lease payments	85.2	95.6
Due within 1 year	27.0	29.3
Due in 1 to 5 years	49.2	59.9
Due after 5 years	9.0	6.4

Fair Values

The value of the entire portfolio of residential properties was determined on the basis of the International Valuation Standard Committee's definition of market value. Portfolio premiums and discounts, which can be observed when portfolios are sold in market transactions, were not included. Nor were time restrictions in the marketing of individual properties. Vonovia determines fair value in accordance with the requirements of IAS 40 in conjunction with IFRS 13.

Vonovia, in principle, measures its portfolio on the basis of the discounted cash flow (DCF) method. Under the DCF methodology, the expected future income and costs of a property are forecast over a detailed period of ten years and discounted to the date of valuation as the net present value. Due to the particular market situation in Austria and in order to reflect the extensive Austrian rent restrictions, a sales scenario involving the recurring sales of apartments is assumed for a subportfolio. In order to present these sales in the correct accounting period, the detailed period for the Austrian DCF model has been extended to 100 years.

The income in the DCF model mainly comprises expected rental income (current net rent excl. ancillary costs, current inclusive rent in Sweden, market rents as well as their development) taking vacancy losses and also sales revenues for an Austrian subportfolio into account. The expected rental income is derived for each location from the latest rent indices and rent tables (including Value AG, IVD, the Austrian Economic Chambers [WKÖ]) as well as from studies on spatial prosperity (Federal Institute for Research on Building, Urban Affairs and Spatial Development [BBSR], Prognos, Value AG, the Federal Statistical Office of Germany, the Austrian statistical office, Statistik Austria, etc.). In Sweden, rents and rent increases are defined as part of negotiations with the Swedish tenants' association ("Hyresgästföreningen") and are reflected accordingly in the valuation model. The expected sales revenues in Austria are derived from historical sale prices as well as market data (e.g., WKÖ, EHL).

On the cost side, maintenance expenses and administrative costs are taken into account. In Germany, these are taken into account in accordance with the II. Berechnungsverordnung. The II. Berechnungsverordnung (BV) is the German Regulation on Calculations for Residential Buildings in accordance with the Second Housing Construction Law, which stipulates how economic viability calculations for homes are to be performed. These cost approaches are also transferred to the Austrian market. Further cost items are, for example, ground rents, non-allocable ancillary costs, rent losses and, in Austria, selling costs. In the Swedish valuation model, further expenses to be borne by the owner are also taken into account in the DCF model due to the inclusive rents that are a special feature of this market. All cost items are inflated in the reporting period. Modernization measures carried out in the housing stocks are factored in by decreasing the current maintenance expenses and adjusting market rents.

On this basis, the forecast cash flows are calculated on an annual basis and discounted to the date of valuation as the net present value. Furthermore, the terminal value of the property at the end of the ten-year period is determined using the expected stabilized net operating income and again discounted to the date of valuation as the net present value. The discount rate applied reflects the market situation, location, type of property, special property features (e.g., hereditary building rights, rent restrictions), the yield expectations of a potential investor and the risk associated with the forecast future cash flows of the property. The derived market value is therefore the result of this net present value and includes standard market transaction costs such as real estate transfer taxes, agent and notary costs. As the detailed period in the Austrian DCF model has been extended to 100 years in order to present the sales scenarios in the correct accounting period, no terminal value is applied here.

The commercial properties in the portfolio are mainly small commercial units for the supply of the local residential environment. Different cost approaches are used to those for residential properties, and discount rates were adjusted to reflect the market specifics.

The valuation is, in principle, performed on the basis of homogeneous valuation units. These meet the criteria of economically cohesive and comparable land and buildings. They include:

> Geographical location (identity of the microlocation and geographical proximity)
> Comparable types of use, building class, construction year class and condition of property
> Same property features such as rent restrictions, hereditary building rights and full or part ownership

The Vonovia portfolio also contains project developments, existing areas with construction potential and land areas with inheritable building rights granted, as well as nursing care facilities. Project developments for subsequent management within its own portfolio are measured using the cost approach until the construction work is complete – subject to a review of the values applied if triggering events occur. Once the construction work is complete, measurement is at fair value using the DCF procedure described above. Existing areas with construction potential are valued using a comparable method on the basis of the local standard land value evaluated. Deductions are taken into account in particular for the readiness for construction and potential use as well as for likelihood of development and the development situation. Inheritable building rights granted are valued in the same way as the property portfolio using a DCF method. The input parameters here are the duration and amount of ground rent and the value of the land. The right-of-use assets from leasehold contracts are recognized at their fair value. The fair value of the leasehold contracts corresponds to the present value of the standard market leasehold fee payments up until the end of the term of the hereditary building right in question. These are calculated based on the current amount of the ground rent. In order to calculate the present value, the leasehold fee payments are discounted using a property-specific interest rate.

Vonovia determined the fair values of its real estate portfolio in Germany, Sweden and Austria as of December 31, 2022, in its in-house valuation department on the basis of the methodology described above.

In addition to the internal valuation, Vonovia's real estate portfolio was also valued by the independent property appraisers CBRE GmbH, Jones Lang LaSalle SE and Savills Sweden AB. The market value resulting from the external report is consistent with the internal valuation result.

The fair value for the nursing care properties was calculated by the independent expert W&P Immobilienberatung GmbH using a DCF method and are adjusted, where appropriate, based on findings from market observation and transactions.

The contractually fixed remuneration for the valuation report is not linked to the valuation results.

The real estate portfolio of Vonovia is to be found in the items investment properties, property, plant and equipment (owner-occupied properties), real estate inventories, contract assets and assets held for sale. The fair value of the portfolio comprising residential buildings, commercial properties, garages and parking spaces, project developments and undeveloped land, inheritable building rights granted and nursing care facilities was € 94,694.5 million as of December 31, 2022 (December 31, 2021: € 97,845.3 million). This corresponds to a net initial yield for the real estate portfolio of 2.5% (total portfolio including Sweden and Austria; December 31, 2021: 2.5%). For Germany (Vonovia stand-alone and Deutsche Wohnen together), this results in an in-place rent multiplier of 29.2 (December 31, 2021: 29.7) and a fair value per m² of € 2,590 (December 31, 2021: € 2,547). The in-place rent multiplier and fair value for the Austrian portfolio come to 25.8 and € 1,742 per m² (December 31, 2021: 26.5 and € 1,674 per m²), with the figures for Sweden coming to 20.1 and € 2,248 per m² (December 31, 2021: 20.6 and € 2,475 per m²).

The material valuation parameters for the investment properties (Level 3) in the real estate portfolio are as follows as of December 31, 2022, broken down by regional market:

Regional market	Valuation results* Fair value (in € million)	thereof investment properties (in € million)	thereof other asset classes (in € million)
Dec. 31, 2022			
Berlin	27,793.9	27,424.6	369.3
Rhine Main area	7,545.4	7,452.2	93.2
Dresden	5,769.2	5,730.4	38.9
Rhineland	5,631.7	5,624.8	6.9
Southern Ruhr area	5,509.3	5,499.1	10.1
Hamburg	3,653.7	3,648.7	5.0
Hanover	3,211.9	3,209.0	2.9
Kiel	3,137.3	3,132.0	5.3
Munich	3,062.1	3,047.6	14.5
Stuttgart	2,514.2	2,509.5	4.7
Northern Ruhr area	2,227.0	2,219.7	7.4
Leipzig	2,161.3	2,160.0	1.3
Bremen	1,559.5	1,557.0	2.5
Westphalia	1,235.8	1,234.5	1.3
Freiburg	802.1	800.5	1.6
Other strategic locations	3,750.2	3,740.5	9.7
Total strategic locations	**79,564.5**	**78,990.1**	**574.4**
Non-strategic locations	504.6	496.5	8.1
Vonovia Germany	**80,069.1**	**79,486.6**	**582.5**
Vonovia Sweden**	6,876.3	6,876.3	–
Vonovia Austria**	3,026.5	2,972.0	54.6

* Fair value of the developed land excl. € 4,722.5 million for development, undeveloped land, inheritable building rights granted and other; € 2,502.2 million of this amount relates to investment properties. The investment properties balance sheet item also includes the present value in connection with payments for right-of-use assets in the amount of € 463.0 million.

** The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

Valuation parameters investment properties (Level 3)						
Management costs residential (€ per residential unit p. a.)	Maintenance costs total residential (€/m² p. a.)	Market rent residential (€/m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate total
287	15.92	8.24	2.0%	1.0%	4.1%	2.3%
311	15.74	9.92	1.9%	1.1%	4.4%	2.8%
276	15.29	6.93	1.8%	2.3%	4.3%	2.9%
308	15.21	8.89	1.8%	1.7%	4.5%	3.0%
305	13.74	7.43	1.6%	2.6%	4.2%	3.0%
297	15.45	8.95	1.7%	1.2%	4.2%	2.7%
296	15.27	7.87	1.7%	2.0%	4.4%	3.1%
299	15.92	8.06	1.7%	1.7%	4.5%	3.1%
298	15.63	12.45	2.0%	0.6%	4.4%	2.7%
312	16.03	9.67	1.9%	1.2%	4.6%	3.0%
307	14.35	6.73	1.3%	3.3%	4.4%	3.6%
292	16.26	7.07	1.7%	3.1%	4.1%	2.7%
304	14.38	7.42	1.8%	2.0%	4.3%	2.9%
303	14.31	7.72	1.7%	2.0%	4.5%	3.2%
309	16.58	9.03	1.7%	0.9%	4.2%	2.7%
303	15.44	7.91	1.7%	2.5%	4.5%	3.2%
296	**15.39**	**8.22**	**1.8%**	**1.7%**	**4.3%**	**2.7%**
323	16.11	7.64	1.6%	2.6%	5.0%	3.6%
296	**15.40**	**8.21**	**1.8%**	**1.7%**	**4.3%**	**2.7%**
379	12.83	9.78	2.1%	1.5%	5.6%	3.6%
n. a.	21.34	5.88	1.7%	2.6%	5.5%	n. a.

Regional market**	Valuation results* Fair value (in € million)	thereof investment properties (in € million)	thereof other asset classes (in € million)
Dec. 31, 2021			
Berlin	30,191.7	27,774.1	2,417.5
Rhine Main area	7,614.2	7,580.9	33.2
Dresden	5,847.5	5,839.6	7.9
Rhineland	5,734.1	5,557.1	177.0
Southern Ruhr area	5,267.0	5,247.9	19.1
Hamburg	3,611.8	3,604.1	7.8
Hanover	3,147.0	3,126.5	20.5
Kiel	3,005.5	2,998.8	6.7
Munich	2,966.1	2,951.9	14.2
Stuttgart	2,551.9	2,546.6	5.3
Northern Ruhr area	2,179.9	2,164.8	15.1
Leipzig	2,161.0	2,150.7	10.3
Bremen	1,484.2	1,481.3	2.9
Westphalia	1,173.3	1,170.4	3.0
Freiburg	788.7	786.3	2.4
Other strategic locations	3,928.6	3,919.0	9.6
Total strategic locations	**81,652.6**	**78,900.0**	**2,752.6**
Non-strategic locations	440.6	423.8	16.8
Vonovia Germany	**82,093.2**	**79,323.7**	**2,769.4**
Vonovia Sweden***	7,386.0	7,386.0	–
Vonovia Austria***	2,932.5	2,872.8	59.7

* Fair value of the developed land excl. € 5,433.6 million for development, undeveloped land, inheritable building rights granted and other; € 4,141.1 million of this amount relates to investment properties. The investment properties balance sheet item also includes the present value in connection with payments for right-of-use assets in the amount of € 376.5 million.
** In this table, the portfolio of Deutsche Wohnen, which was disclosed as a separate line in the 2021 Annual Report, has been transferred to the respective regional markets.
*** The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

The inflation rate applied to the valuation procedure comes to 2.1%. For the Austrian portfolio, a sales strategy with an average selling price of € 2,417 per m² was assumed for 49.5% of the portfolio.

Net income from the valuation of investment properties amounted to € -1,269.8 million in the 2022 fiscal year (December 31, 2021: € 7,393.8 million). The main input factors used for the valuation of nursing care properties are average market rent (2022: € 9.37/sqm; 2021: € 9.04/sqm), discount rates (2022: 4.8%; 2021: 4.4%) and maintenance costs (2022: € 12.32/sqm; 2021: € 11.60/sqm). A 5% reduction in the average market rent results in a -5% adjustment to the carrying amount of the nursing care facilities (previous year: -5%), an increase in the discount rate by 0.1pp produces a value adjustment of -2% (previous year: -2%) and a 10% increase in maintenance costs results in a value adjustment of -1% (previous year: -1%).

Sensitivity Analyses

The sensitivity analyses performed on Vonovia's real estate portfolio show the impact of value drivers dependent upon market developments. Those influenced in particular are the market rents and their development, the amount of recognized administrative and maintenance expenses, cost increases, the vacancy rate and interest rates. The effect of possible fluctuations in these parameters is shown separately for each parameter according to regional market in the following.

Interactions between the parameters are possible but cannot be quantified owing to the complexity of the interrelationships. The vacancy and market rent parameters, for example, can influence each other. If rising demand for housing is not met by adequate supply developments, then this can result in lower vacancy rates and, at the same time, rising market rents. If, however, the rising demand is compensated for by a high vacancy reserve in the location in

Valuation parameters investment properties (Level 3)						
Management costs residential (€ per residential unit p. a.)	Maintenance costs total residential (€/m² p. a.)	Market rent residential (€/m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate total
289	13.68	9.04	1.4%	1.0%	3.9%	2.5%
289	14.10	10.08	1.7%	1.6%	4.4%	2.8%
258	13.75	6.94	1.6%	2.3%	4.4%	3.0%
285	13.83	8.71	1.6%	1.9%	4.4%	3.0%
279	12.78	7.27	1.5%	2.6%	4.3%	3.0%
271	14.49	8.78	1.6%	1.3%	4.1%	2.7%
280	14.03	7.99	1.6%	2.0%	4.6%	3.2%
273	14.93	7.75	1.6%	1.6%	4.5%	3.0%
277	14.04	12.11	1.8%	0.7%	4.4%	2.7%
286	14.73	9.50	1.8%	1.2%	4.5%	2.9%
281	13.29	6.56	1.1%	3.3%	4.6%	3.7%
277	14.15	7.01	1.5%	2.8%	4.3%	3.0%
278	13.32	7.21	1.6%	2.1%	4.4%	3.0%
277	13.32	7.48	1.5%	2.0%	4.6%	3.3%
282	15.45	8.84	1.6%	0.9%	4.2%	2.7%
284	14.05	7.72	1.5%	2.2%	4.7%	3.3%
281	**13.81**	**8.37**	**1.5%**	**1.7%**	**4.2%**	**2.8%**
308	14.92	7.47	1.4%	2.9%	5.2%	3.9%
281	**13.82**	**8.36**	**1.5%**	**1.8%**	**4.3%**	**2.8%**
n. a.	n. a.	10.59	2.0%	0.8%	5.3%	3.2%
n. a.	19.7	5.80	1.7%	2.4%	5.2%	n. a.

question, then the market rent level does not necessarily change.

Changes in the demand for housing can also impact the risk associated with the expected cash flows, which is then reflected in adjusted discounting and capitalized interest rates. The effects do not, however, necessarily have to have a favorable impact on each other, for example, if the changes in the demand for residential real estate are overshadowed by macroeconomic developments.

In addition, factors other than demand can have an impact on these parameters. Examples include changes in the portfolio, in seller and buyer behavior, political decisions and developments on the capital market. Due to the effect that changes in inflation will have on future rent increases in Sweden, it has been assumed, for the purposes of calculating sensitivities, that one-third of any change in inflation will spill over into rental growth.

The table below shows the percentage impact on values in the event of a change in the valuation parameters. The absolute impact on values is calculated by multiplying the percentage impact by the fair value of the investment properties.

	Change in value as a % under varying parameters		
	Management costs residential	Maintenance costs residential	Cost increase/inflation
Regional market	-10%/10%	-10%/10%	-0.5%/+0.5% points
Dec. 31, 2022			
Berlin	0.7/-0.7	2.2/-2.2	6.5/-6.4
Rhine Main area	0.6/-0.6	1.7/-1.7	4.1/-4.2
Dresden	0.9/-0.9	2.7/-2.7	6.4/-6.3
Rhineland	0.7/-0.7	2.0/-2.0	4.7/-4.8
Southern Ruhr area	1.0/-1.0	2.6/-2.6	6.2/-6.2
Hamburg	0.7/-0.7	2.1/-2.1	5.2/-5.3
Hanover	0.8/-0.8	2.4/-2.4	5.4/-5.4
Kiel	0.9/-0.9	2.5/-2.5	5.5/-5.5
Munich	0.4/-0.4	1.4/-1.4	3.9/-4.0
Stuttgart	0.6/-0.6	1.8/-1.8	4.1/-4.2
Northern Ruhr area	1.2/-1.2	3.4/-3.4	6.6/-6.6
Leipzig	0.9/-0.9	3.0/-3.0	7.4/-7.2
Bremen	0.9/-0.9	2.6/-2.6	6.6/-6.4
Westphalia	0.9/-0.9	2.6/-2.6	5.7/-5.8
Freiburg	0.7/-0.6	2.2/-2.2	5.1/-5.1
Other strategic locations	0.8/-0.8	2.5/-2.5	5.3/-5.3
Total strategic locations	0.7/-0.8	2.3/-2.3	5.7/-5.7
Non-strategic locations	0.8/-0.8	2.4/-2.4	4.7/-4.8
Vonovia Germany	**0.8/-0.8**	**2.3/-2.3**	**5.7/-5.7**
Vonovia Sweden*	0.7/-0.7	1.6/-1.7	4.7/-5.1
Vonovia Austria*	n. a.	0.4/-0.4	0.4/-0.5

* The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

	Change in value as a % under varying parameters			
	Market rent residential	Market rent increase residential	Stabilized vacancy rate residential	Discounting and capitalized interest rates total
	-2%/+2%	-0.2%/+0.2% points	-1%/+1% points	-0.25%/+0.25% points
	-2.6/2.5	-10.3/12.7	1.6/-1.8	12.5/-10.1
	-2.4/2.4	-8.0/9.5	1.0/-1.6	10.0/-8.3
	-2.6/2.6	-8.6/10.2	1.9/-2.0	9.9/-8.3
	-2.5/2.5	-8.1/9.5	1.7/-1.8	9.6/-8.1
	-2.6/2.6	-8.6/10.2	2.1/-2.1	9.5/-8.0
	-2.5/2.4	-8.7/10.6	1.3/-1.8	10.7/-8.8
	-2.5/2.5	-8.0/9.4	1.9/-1.9	9.2/-7.8
	-2.6/2.5	-7.9/9.3	1.9/-1.9	8.9/-7.6
	-2.2/2.2	-8.4/10.1	0.8/-1.5	11.1/-9.1
	-2.4/2.4	-7.8/9.1	1.5/-1.7	9.3/-7.9
	-2.8/2.8	-7.7/8.9	2.3/-2.3	7.8/-6.7
	-2.6/2.7	-9.1/11.1	2.0/-2.0	10.6/-8.8
	-2.5/2.5	-8.7/10.4	2.0/-2.0	9.8/-8.2
	-2.5/2.5	-7.9/9.3	1.9/-2.0	8.8/-7.5
	-2.5/2.5	-8.6/10.3	1.2/-1.8	10.3/-8.5
	-2.6/2.6	-7.8/9.1	1.9/-1.9	8.7/-7.5
	-2.5/2.5	**-9.0/10.8**	**1.6/-1.9**	**10.7/-8.8**
	-2.3/2.3	-6.7/7.8	1.7/-1.8	8.0/-6.9
	-2.5/2.5	**-8.9/10.8**	**1.6/-1.9**	**10.6/-8.8**
	-2.9/2.8	-8.8/10.2	0.6/-1.2	8.3/-7.1
	-0.4/0.4	-1.0/1.1	0.9/-0.9	4.4/-4.0

	Change in value as a % under varying parameters		
	Management costs residential	Maintenance costs residential	Cost increase/inflation
Regional market*	-10%/10%	-10%/10%	-0.5%/+0.5% points
Dec. 31, 2021			
Berlin	0,6/-0,6	1,4/-1,4	4,7/-4,7
Rhine Main area	0,4/-0,4	1,2/-1,2	3,2/-3,3
Dresden	0,7/-0,7	1,9/-1,9	4,9/-4,9
Rhineland	0,5/-0,5	1,6/-1,5	4,2/-4,2
Southern Ruhr area	0,7/-0,7	2,0/-2,0	5,1/-5,1
Hamburg	0,5/-0,5	1,7/-1,7	4,5/-4,6
Hanover	0,6/-0,6	1,7/-1,7	3,9/-4,0
Kiel	0,7/-0,7	2,0/-2,0	4,8/-4,9
Munich	0,3/-0,3	1,0/-1,0	3,3/-3,5
Stuttgart	0,5/-0,5	1,4/-1,4	3,4/-3,6
Northern Ruhr area	1,0/-1,0	2,7/-2,7	5,3/-5,3
Leipzig	0,6/-0,6	1,9/-1,9	5,0/-5,1
Bremen	0,7/-0,7	2,0/-2,0	5,4/-5,4
Westphalia	0,7/-0,7	2,0/-2,0	4,6/-4,7
Freiburg	0,5/-0,5	1,7/-1,7	4,1/-4,3
Other strategic locations	0,6/-0,6	1,9/-1,9	4,1/-4,3
Total strategic locations	0,6/-0,6	1,6/-1,6	4,4/-4,5
Non-strategic locations	0,6/-0,6	1,7/-1,7	3,6/-3,8
Vonovia Germany	**0,6/-0,6**	**1,6/-1,6**	**4,4/-4,5**
Vonovia Sweden**	n. a.	n. a.	1.3/-1.3
Vonovia Austria**	n. a.	0.3/-0.3	0.4/-0.5

* In this table, the portfolio of Deutsche Wohnen, which was disclosed as a separate line in the 2021 Annual Report, has been transferred to the respective regional markets.
** The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

Contractual Obligations

In connection with major acquisitions, Vonovia entered into contractual obligations or assumed such obligations indirectly via acquired companies, among other things in the form of Social Charters, which could limit its ability to freely sell parts of its portfolio, increase rents or terminate existing rent agreements for certain units and which, in the event of a breach, could give rise to substantial contractual penalties in some cases. Moreover, when acquiring and financing some of the properties in the portfolio, Vonovia also entered into an obligation to spend a certain average amount per square meter on maintenance and improvements.

After a certain period of time, these obligations often cease to apply either in full or in part. As of December 31, 2022, around 105,000 residential units in Vonovia's portfolio were subject to one or several contractual restrictions or other obligations.

> **Sale restrictions:** As of December 31, 2022, around 66,000 residential units were subject to sale restrictions (excl. occupancy rights). Around 18,000 of these units cannot be freely sold before a certain date. Sale restrictions like these include a full or partial ban on the sale of residential units and provisions requiring the consent of certain representatives of the original seller prior to sale.

> **Preemptive rights on preferential terms:** Around 6,000 residential units from the "Recurring Sales" subportfolio can only be sold if the tenants are offered preemptive rights on preferential terms. This means that Vonovia is obliged to offer these tenants the residential units at a price that is up to 15% below the price that could be achieved by selling the units in question to third parties.

	Change in value as a % under varying parameters			
	Market rent residential	Market rent increase residential	Stabilized vacancy rate residential	Discounting and capitalized interest rates total
	-2%/+2%	-0.2%/+0.2% points	-1%/+1% points	-0.25%/+0.25% points
	-1,6/1,6	-8,2/9,7	1,2/-1,6	11,5/-9,3
	-2,1/2,1	-7,6/9,0	1,1/-1,5	10,0/-8,3
	-2,3/2,3	-7,8/9,2	1,7/-1,8	9,5/-8,0
	-2,4/2,4	-7,6/9,0	1,6/-1,6	9,6/-8,1
	-2,5/2,5	-8,1/9,5	1,9/-1,8	9,3/-7,8
	-2,4/2,3	-8,7/10,5	1,2/-1,6	11,0/-8,9
	-2,2/2,2	-7,2/8,3	1,7/-1,7	8,9/-7,6
	-2,4/2,4	-7,9/9,3	1,8/-1,8	9,2/-7,8
	-2,0/2,0	-8,3/9,9	0,8/-1,4	11,2/-9,2
	-2,3/2,3	-7,8/9,0	1,3/-1,6	9,6/-8,1
	-2,6/2,6	-7,1/8,1	2,1/-2,1	7,5/-6,5
	-2,1/2,1	-7,8/9,1	1,8/-1,8	9,7/-8,1
	-2,4/2,4	-8,3/9,8	1,8/-1,8	9,7/-8,1
	-2,4/2,3	-7,5/8,8	1,7/-1,8	8,6/-7,3
	-2,4/2,3	-8,4/9,9	1,1/-1,6	10,2/-8,5
	-2,3/2,4	-7,3/8,4	1,7/-1,7	8,6/-7,3
	-2,0/2,0	**-7,9/9,4**	**1,4/-1,7**	**10,2/-8,5**
	-1,6/1,7	-5,7/6,0	1,6/-1,6	7,6/-6,6
	-2,0/2,0	**-7,9/9,3**	**1,4/-1,7**	**10,2/-8,5**
	-3.0/3.0	-1.3/1.3	0.8/-1.3	7.8/-6.8
	-0.4/0.4	-1.0/1.1	0.9/-0.9	4.9/-4.4

> **Restrictions on the termination of lease agreements:** Around 82,000 residential units are affected by restrictions on the termination of lease agreements. These restrictions include notice to vacate for personal use and notice to vacate for appropriate commercial utilization. In some cases, units are covered by a lifelong security of tenure.

> **Expenses for minimum maintenance and restrictions on maintenance and modernization measures:** No apartments are subject to minimum maintenance obligations anymore. Around 51,000 residential units are affected by restrictions relating to modernization and maintenance measures, which are designed to prevent changes in socio-economic tenant composition (i.e., to limit luxury modernization). Some of the restrictions to prevent luxury modernization have been agreed on a permanent basis.

> **Restrictions on rent increases:** Restrictions on rent increases (including provisions stating that "luxury modernization" measures are subject to approval) affect around 43,000 residential units. These restrictions could prevent Vonovia from realizing the rent that could potentially be generated from the units in question.

In many cases, in the event that all or part of a portfolio is transferred or individual residential units are sold, the aforementioned obligations are to be assumed by the buyers, who are in turn subject to the obligation to pass them on to any future buyers.

Under structured financing programs, Vonovia is subject to fundamental restrictions on the use of excess property disposal proceeds, such restrictions being particularly in the form of mandatory minimum capital repayments. Excess cash from property management is also restricted to a certain extent.

All contractual obligations that have a material impact on the valuation were taken into account accordingly.

29 Financial Assets

	Dec. 31, 2021		Dec. 31, 2022	
in € million	non-current	current	non-current	current
Non-consolidated subsidiaries	2.4	–	2.5	–
Other investments	374.6	–	396.1	–
Loans to other investments	33.2	–	33.1	–
Securities	5.2	–	5.5	–
Other non-current loans	511.8	563.1	121.2	716.2
Receivables from finance leases	23.7	–	21.1	2.6
Other current financial receivables from financial transactions	–	499.6	–	–
Derivatives	65.8	0.6	165.5	49.4
	1,016.7	**1,063.3**	**745.0**	**768.2**

Accounting Policies

Financial assets are recognized in the balance sheet when Vonovia becomes a contracting party of the financial instrument. A financial asset is derecognized when the contractual rights to the cash flows from a financial asset expire, or the financial asset is transferred and Vonovia neither retains control nor retains material risks and rewards associated with ownership of the financial asset.

In accordance with IFRS 9, the **classification of financial assets** takes into account both the business model in which financial assets are held and the characteristics of the cash flows of the assets in question. These criteria determine whether the assets are measured at amortized cost using the effective interest method or at fair value.

With regard to the business model criterion, all financial investments at Vonovia are to be assigned to the "hold to collect" model pursuant to IFRS 9.4.1.2(a). Whenever financial investments are categorized as equity instruments, Vonovia has exercised the irrevocable option to state future changes to the fair value in other comprehensive income in equity. Gains and losses recognized in other comprehensive income are never reclassified from total equity to the income statement on their disposal.

The carrying amount of financial assets corresponds to maximum risk of loss as of the reporting date.

Other investments comprise the Vesteda Residential Fund FGR, Amsterdam, in the amount of € 188.2 million (December 31, 2021: € 193.5 million) and OPPCI JUNO, Paris, in the amount of € 95.7 million (December 31, 2021: € 109.7 million).

In connection with the cooperation with Gropyus AG, Vienna, a non-current equity investment in the amount of € 32.1 million was added in the reporting year.

The loans to other investments not yet due relate to a loan to the property fund DB Immobilienfonds 11 Spree-Schlange von Quistorp KG.

The drop in other non-current loans is due primarily to the debt recovery action relating to a Lombard loan in the amount of around € 250.0 million (see → **[D30] Financial Assets Accounted for Using the Equity Method**).

The other non-current loans also largely include loan receivables with a nominal value of € 801.9 million (December 31, 2021: € 806.5 million) from the QUARTERBACK Immobilien Group granted in line with standard market conditions.

The expected credit losses for the loans granted to the QUARTERBACK Immobilien Group were calculated in accordance with the IFRS 9 general approach. The loans generally feature a risk concentration. As the credit risk had increased considerably as of the reporting date as against the prior period, the calculations were performed based on the lifetime expected probability of default pursuant to IFRS 7.35M, resulting in expected credit losses of € 20.1 million. The new loans taken out as of the reporting date are excluded from a significant increase in credit risk and are still calculated on the basis of a twelve-month probability of default.

The receivables from finance leases are mainly due to the rental of certain broadband cable networks. There were receivables of € 23.7 million (December 31, 2021: € 23.7 million) and interest income of € 1.1 million on the reporting date (December 31, 2021: € 1.3 million). The debt maturity profile of the receivables is as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Nominal value of outstanding lease payments	28.2	28.2
thereof due within one year	–	3.5
thereof due between one and two years	3.5	3.6
thereof due between two and three years	3.6	3.0
thereof due between three and four years	3.0	3.0
thereof due between four and five years	3.0	3.0
thereof due after more than five years	15.1	12.1
plus unguaranteed residual values	0.2	0.2
less unrealized financial income	-4.7	-4.7
Present value of outstanding lease payments	**23.7**	**23.7**

Other current financial receivables from financial transactions include time deposits and short-term financial investments in highly liquid money market funds that have an original term of more than three months.

Non-current derivatives include positive market values from cross currency swaps in the amount of € 47.0 million (December 31, 2021: € 35.2 million) and positive market values of € 165.5 million (December 31, 2021: € 4.3 million) from other interest rate derivatives. The call option reported here in the previous year with a positive fair value of € 26.3 million is no longer recognized in connection with the debt recovery action relating to the shares in Adler Group S.A. (see → **[D30] Financial Assets Accounted for Using the Equity Method**).

30 Financial Assets Accounted for Using the Equity Method

As of the reporting date, Vonovia held interests in 26 joint ventures and eight associates (December 31, 2021: 26 joint ventures and seven associates).

The change is due to control of 20.5 % of the shares in Adler Group S.A., which were previously held by Aggregate Holdings Invest S.A., passing to Vonovia as part of a debt recovery action on February 22, 2022.

The shares had been pledged to secure a loan that Vonovia had granted on October 7, 2021, to replace a bank loan of Aggregate Holdings Invest S.A.

At the time of the debt recovery action, the shares in the Adler Group had been reported at their market value of € 251.4 million as investments in associates accounted for using the equity method.

As the value of the assets offered in the form of the call option of € 25.3 million and the other loan of € 215.3 million was lower than the value of the shares acquired, taking into account costs and interest this resulted in a negative difference of € 9.4 million, which was disclosed as other operating income in profit or loss.

As current information is not yet available, no adjustments were made in connection with the remeasurement of the assets and liabilities.

As of June 30, 2022, an impairment loss of € 160.6 million was recognized for the shares in the Adler Group as part of an ad hoc impairment test. The development of the Adler Group's share price was identified as a triggering event within the meaning of IAS 28.

The adjustment based on the equity method, taking into account the pro rata total comprehensive income of the Adler Group of € -152.7 million for the period from March 31, 2022, to September 30, 2022, was made as of December 31. Taking into account the existing investment carrying amount of € 90.8 million, the adjustment was only made in the amount of the investment carrying amount. The value recognized for the non-current equity investment amounts to € 0.0 million as of December 31, 2022.

The impairment loss and the income adjustment were recognized in the consolidated income statement under net income from non-current financial assets accounted for using the equity method.

Vonovia also holds 40% of the non-listed QUARTERBACK Immobilien AG with registered office in Leipzig, which was classed as an associate as of December 31, 2022. QUARTERBACK Immobilien AG is a project developer with operations throughout Germany focusing on the central German region. The investment strengthens Vonovia's development business.

Vonovia also holds interests in eleven (December 31, 2021: eleven) non-listed financial investments of QUARTERBACK Immobilien AG, with equity interests of between 44% and 50% (QUARTERBACK property companies), that were classified as joint ventures.

The 40% stake in the non-listed QUARTERBACK Immobilien AG and QBI's eleven non-listed financial investments in which Vonovia holds a stake of between 44% and 50% in each case was adjusted on the basis of the financial information as of December 31, 2022, that was available on the preparation cut-off date.

The total purchase price was definitively allocated to the acquired assets and liabilities as of September 30, 2022 and did not result in any major adjustments.

in € million	Dec. 31, 2021 QUARTERBACK Immobilien AG (adjusted)	Dec. 31, 2022 QUARTERBACK Immobilien AG	Dec. 31, 2021 QUARTERBACK-property companies	Dec. 31, 2022 QUARTERBACK-property companies
Non-current assets	774.3	764.0	234.3	229.5
Current assets				
Cash and cash equivalents	112.7	104.9	15.7	21.1
Other current assets	1,133.6	1,510.3	567.9	589.3
Total non-current assets	1,246.3	1,615.2	583.6	610.4
Total non-current liabilities	769.9	841.6	111.9	86.6
Total current liabilities	908.7	1,186.2	462.2	510.3
Non-controlling interests	40.9	42.5	11.9	12.0
Equity (100%)	**301.1**	**308.9**	**231.9**	**231.0**
Group share in %	40%	40%	44% to 50%	44% to 50%
Group share of net assets in EUR	120.4	123.6	108.8	106.6
Group adjustments	-1.6	-49.5	-4.6	-5.4
Goodwill	128.6		–	
Carrying amount of share in joint venture	**247.4**	**74.1**	**104.2**	**101.2**
Revenues	205.9	311.1	60.3	59.0
Change in inventories	631.3	302.2	24.0	17.7
Interest income	4.3	20.6	9.1	8.4
Depreciation and amortization	-3.0	-4.3	-0.2	-0.2
Interest expenses	-48.3	-78.2	-17.1	-23.2
Income taxes	-13.7	-18.1	-1.9	-0.6
Total gain and comprehensive income for the fiscal year (100%)	**16.5**	**7.8**	**7.2**	**-3.1**

The at-equity adjustment of the investments in the QUARTERBACK Group results in a negative result of € 8.5 million as of December 31, 2022 (Q4 2021: € 3.7 million).

As of June 30, 2022, an impairment loss of € 120.8 million was recognized for QUARTERBACK Immobilien AG as part of an ad hoc impairment test. The increased cost of capital was identified as a triggering event within the meaning of IAS 28. Due to the final purchase price allocation, the associated reassessment was used for the impairment test as of June 30, 2022. This produced an adjusted impairment loss of € 167.8 million retroactive to June 30, 2022. No further need for impairment was identified as part of the regular impairment test as of December 31, 2022.

The impairment loss identified was recognized in the consolidated income statement under net income from non-current financial assets accounted for using the equity method.

In addition to these investments, Vonovia also holds interests in 21 (December 31, 2021: 21) other entities that are accounted for using the equity method and are currently of minor importance; quoted market prices are not available.

Within other non-current equity investments, a need for impairment of € 2.3 million was identified for one non-current equity investment as part of the regular impairment test as of December 31, 2022.

The following table shows, in aggregated form, the carrying amount and the share of profit and other comprehensive income of these companies:

in € million	Dec. 31, 2021	Dec. 31, 2022
Carrying amount of shares in companies accounted for using the equity method	73.7	64.8
Group share of net income from companies not accounted for using the equity method	10% to 50%	10% to 50%
Pro rata total comprehensive income	**12.0**	**-6.6**

The interests were adjusted for these entities provided that corresponding financial information was available.

With regard to the other 21 entities, Vonovia has no significant financial obligations or guarantees with respect to joint ventures and associates.

31 Other Assets

	Dec. 31, 2021		Dec. 31, 2022	
in € million	non-current	current	non-current	current
Advance payments for real estate projects	184.5	–	363.0	104.5
Right to reimbursement for transferred pensions	3.5	–	2.6	–
Receivables from insurance claims	1.0	19.2	1.6	29.3
Miscellaneous other assets	10.6	201.7	13.0	203.7
	199.6	**220.9**	**380.2**	**337.5**

The advance payments made for real estate projects include ongoing project developments by third parties (forward deals) in which the purchase price is paid in installments during the project development phase.

The right to reimbursement for transferred pensions is in connection with the indirect obligation shown under provisions for pensions arising from pension entitlements transferred to former affiliated companies of the Viterra Group.

The receivables from insurance claims include the recognition of the excess of the fair value of plan assets over the corresponding pension obligations amounting to € 1.6 million (December 31, 2021: € 1.0 million).

32 Income Tax Receivables

The income tax receivables disclosed relate to corporate income tax and trade tax receivables for the current fiscal year and prior years as well as capital gains tax.

The increase in the 2022 fiscal year results mainly from the rise in rebate entitlements on tax prepayments and capital gains tax to be credited at certain domestic subsidiaries.

33 Inventories

Accounting Policies

Inventories are valued at cost or at their net realizable value, whichever is lower.

Inventories include € 113.9 million (December 31, 2021: € - million) in work in progress relating to ancillary costs bills in 2023. Inventories also largely include repair materials for our craftsmen's organization.

34 Trade Receivables

The trade receivables break down as follows:

in € million	Impaired: Gross amount	Impaired: Impairment losses	Not impaired: Neither impaired nor past due at the end of the reporting period	Not impaired – Overdue in the following time bands as at the reporting date: less than 30 days	between 30 and 90 days	between 91 and 180 days	between 181 and 360 days	more than 360 days	Carrying amount: Corresponds to maximum risk of loss*
Receivables from the sale of investment properties	1.4	-1.3	33.1	10.2	2.5	0.8	0.5	–	47.2
Receivables from the sale of real estate inventories	–	–	18.2	0.1	4.8	3.8	0.3	0.3	27.5
Contract assets	–	–	165.7	2.1	1.4	–	–	–	169.2
Receivables from property letting	102.1	-57.2	–	–	–	–	–	–	44.9
Receivables from other supplies and services	9.5	-2.8	31.6	2.2	0.1	0.1	0.7	–	41.4
As of Dec. 31, 2022	**113.0**	**-61.3**	**248.6**	**14.6**	**8.8**	**4.7**	**1.5**	**0.3**	**330.2**
Receivables from the sale of investment properties	2.2	-2.2	74.9	2.5	9.9	11.6	1.6	4.1	104.6
Receivables from the sale of real estate inventories	0.7	-0.2	9.6	1.7	0.6	1.9	0.7	2.0	17.0
Contract assets	–	–	239.0	1.6	1.8	0.7	3.6	0.3	247.0
Receivables from property letting	103.3	-54.7	–	–	–	–	–	–	48.6
Receivables from other supplies and services	9.3	-3.1	23.2	2.9	0.4	–	–	–	32.7
As of Dec. 31, 2021	**115.5**	**-60.2**	**346.7**	**8.7**	**12.7**	**14.2**	**5.9**	**6.4**	**449.9**

* The maximum default risk on the receivables from the sale of properties is limited to the margin and the transaction unwinding costs as the title to the properties remains with Vonovia as security until receipt of payment.

Accounting Policies

Impairment losses on financial assets are determined based on the expected credit loss model. The guiding principle of the model is to reflect the general pattern of deterioration or improvement in the credit quality of financial instruments, taking losses that are already expected into account.

The IFRS 9 approach includes the following measurement levels:

> Level 1: Twelve-month expected credit losses (ECLs), which applies to all items (from initial recognition) as long as there is no significant deterioration in credit quality.
> Level 2: Lifetime ECLs (homogeneous debtor portfolios), which applies when a significant increase in credit risk has occurred on an individual or a collective basis of financial instruments.
> Level 3: Lifetime ECLs (based on an individual assessment): If an individual assessment of assets produces objective indications of a need for impairment, then an assessment of the entire maturity of the financial instrument is decisive.

The simplified impairment approach is used with regard to **trade receivables** (e. g., rent receivables, receivables from ancillary costs, receivables from the sale of properties) and for **contract assets** pursuant to IFRS 15. This means that there is no need to track the changes in credit risk. Instead, Vonovia has to set up loan loss provisions in the amount of the lifetime expected credit losses both at the time of initial recognition and on each following reporting date.

The carrying amounts of current trade receivables correspond to their fair values.

In principle, all impaired trade receivables are due and payable. As regards the trade receivables that are neither impaired nor past due, there was no indication on the reporting date that the debtors would not meet their payment obligations.

Receivables from the sale of properties arise on economic transfer of ownership. The due date of the receivable may, however, depend on the fulfillment of contractual obligations. Some purchase contracts provide for the purchase price to be deposited in an escrow account. Impairment losses for doubtful debts are recorded up to the amount of the posted proceeds from sales.

Vonovia's receivables from property letting generally arise at the beginning of the month, are of a short-term nature and result from claims in relation to tenants relating to operating business activities. Due to the (subsequent) measurement at amortized cost, an impairment test has to be performed. The receivables fall under the scope of the calculation of expected credit losses.

In accordance with the general provisions set out in IFRS 9, expected credit losses are to be recognized using the simplified approach for current trade receivables without any significant financing component.

Irrespective of their term, Vonovia initially assigns receivables to Level 2 of the impairment model. In the further course, they need to be moved to Level 3 of the impairment model if there is objective evidence of impairment. The transfer from Level 2 to Level 3 is to be made at the latest when the contractual payments have been overdue for more than 90 days. This assumption can, however, be refuted in individual cases if there are no other objective indications pointing towards a default. Receivables always have to be transferred to the next level if a legally enforceable instrument has been obtained against the tenant as part of a dunning procedure. If the objective evidence of impairment ceases to apply, the receivable is transferred (back) to Level 2 of the impairment model.

If Vonovia becomes aware of any major changes in market conditions and/or a debtor's circumstances, it reevaluates the expected credit losses without delay. This procedure ensures that receivables are transferred to the right level in the impairment model as soon as possible.

Vonovia uses a credit loss matrix when calculating expected credit losses for trade receivables. The matrix is based on historical default rates and takes current expectations into account, including macroeconomic indicators (e.g., GDP). The matrix can be used to calculate the expected credit losses for various homogeneous portfolios.

In order to create portfolios for the purpose of assessing the probability of default, the individual clusters of receivables need to have homogeneous credit risk characteristics. As far as receivables from its operating business activities are concerned, i.e., the letting of rental properties, Vonovia makes a distinction between receivables from existing tenants and receivables from former tenants. Both portfolios include current receivables that are exposed to a low level of volatility, as the company's core operating business is hardly exposed to any major fluctuations. Main effects on receivables in the past are attributable to corporate takeovers by Vonovia.

Calculation Method for Receivables from Former Tenants
The calculation of the probability of default is based on the results of an analysis of the historical probability of default. Cash flows relating to outstanding receivables over the last three years have been analyzed and an average amount of incoming payments for the year in question was calculated on a monthly basis. The average monthly incoming payments were compared against the average monthly receivables for the year in question. Ultimately, Vonovia has been able to collect approx. 4.5% of the average receivables over the last three years. This means that Vonovia sets up risk provisions corresponding to a rounded total of 95% for its receivables from former tenants.

The loss given default comprises the following:

The receivables of former tenants that are being analyzed (amount of the receivable at the time of default) are corrected to reflect retained deposits that serve as security for Vonovia. This is already taken into account as part of the calculation method used for the probability of default.

The average receivables taken as a basis do not include receivables subject to specific valuation allowances that were written off in full.

Receivables from Existing Tenants
When it comes to determining the probability of default with regard to receivables associated with ongoing lease agreements, Vonovia analyzes those receivables that have actually been derecognized over the last three years.

This is performed systematically by way of a receivables management system according to the aspects receivables relating to ancillary expenses, those connected to the product, rent adjustments and payment difficulties.

Impairment losses on trade receivables developed as follows:

in € million	
Impairment losses as of Jan. 1, 2022	**60.2**
Addition	28.1
Addition due to business combinations	0,0
Utilization	-24.7
Reversal	-2.3
Impairment losses as of Dec. 31, 2022	**61.3**
Impairment losses as of Jan. 1, 2021	55.2
Addition	24.1
Addition due to business combinations	19.5
Utilization	-37.7
Reversal	-0.9
Impairment losses as of Dec. 31, 2021	**60.2**

Within the impairment losses on receivables from property letting, the risk provisions are generally taken into account as follows: For existing tenants, a risk provision corresponding to between 18% and 40% of the receivables, in a total amount of € 7.5 million (December 31, 2021: € 12.7 million), was set up depending on the term. In cases involving payment difficulties, the provision corresponded to between 40% and 95% of the receivables and amounted to € 18.2 million in total (December 31, 2021: € 14.5 million). The risk provisions for former tenants correspond to 95% of the receivables and amount to € 31.5 million in total (December 31, 2021: € 26.2 million).

For contracts with customers who are assigned to Vonovia's development business, the payment terms pursuant to Section 3 (2) of the Real Estate Agent and Commercial Contractor Regulation (MaBV) generally apply in Germany. Customers also have a contractual obligation to present a financing commitment issued by a credit institution for the entire purchase price. Otherwise, Vonovia is entitled to withdraw from the agreement. In Austria, the installment plan pursuant to Section 10 (2) of the Austrian Property Development Contract Act (BTVG) is normally applied, with customers obliged to pay the entire purchase price into an escrow account. Due to the structure of the standard payment terms in the development business, no separate impairment losses are taken into account on corresponding receivables from customer contracts.

For example, receivables are derecognized if tenants die and have no heirs, if they move to an unknown location or move abroad, if execution is impossible for the court bailiff, in cases involving bankruptcy or if a settlement was reached.

The following table shows the expenses for the full derecognition of receivables as well as income from the receipt of derecognized receivables:

in € million	2021	2022
Expenses for the derecognition of receivables	5.4	8.9
Income from the receipt of derecognized receivables	2.9	6.4

35 Cash and Cash Equivalents

Accounting Policies

Cash and cash equivalents include cash on hand, checks and deposits at banking institutions as well as marketable securities with an original term of up to three months.

Cash and cash equivalents are measured using the general impairment approach in accordance with IFRS 9.

Cash and cash equivalents include cash on hand, checks and deposits at banking institutions totaling € 1,101.8 million (December 31, 2021: € 1,134.0 million), as well as marketable current securities in the amount of € 200.6 million (December 31, 2021: € 298.8 million).

€ 104.1 million (December 31, 2021: € 117.6 million) of the bank balances are restricted with regard to their use.

36 Real Estate Inventories

Accounting Policies

Properties from the sales-related development business and land and buildings intended for sale are reported within real estate inventories. The **sales-related development business** refers to subsidized or independently financed condominiums that are under construction or have already been completed. These properties are not held with the aim of generating rental income or achieving increases in value within the meaning of IAS 40, but rather are developed and constructed to be sold at a later date. These development projects are recognized depending on whether there is a customer contract for the residential units that are intended for sale. If this is not the case, the valuation is performed, due to the intention to sell according to IAS 2 at amortized cost or at net realizable value, whichever is lower, with a corresponding disclosure under real estate inventories.

Land and buildings intended for sale are properties that are sold in the ordinary course of business, which may exceed a period of twelve months. Initial measurement is at cost. Acquisition costs include the directly attributable costs of acquisition and provision, in particular the acquisitions costs for the land and the incidental acquisition costs.

Recognized real estate inventories in the amount of € 2,156.3 million (December 31, 2021: € 671.2 million) mainly concern development projects. These are projects to construct residential units planned for sale that are currently being built or that have been completed but have not yet been sold. The increase as against the previous year is mainly due to reclassifications from investment properties to real estate inventories due to the conversion of development-to-hold projects into development-to-sell projects.

37 Assets and Liabilities Held for Sale

Accounting Policies

To be classified as **held for sale,** the assets must be available for immediate sale in their present condition subject only to terms that are usual and customary for sales of such assets, and it must be highly probable that a sale will take place. A sale is deemed to be highly probable if there is a commitment to a plan to sell the asset, an active program to locate a buyer and complete the plan has been initiated, the asset is being actively marketed for sale at a reasonable price, and a sale is expected to be completed within one year of the date on which the asset is classified as held for sale.

Vonovia accounts for investment properties as assets held for sale when notarized purchase contracts have been signed or a declaration of intent to purchase has been signed by both parties as of the reporting date but transfer of title will, under the contract, not take place until the subsequent reporting period. Initially they are recognized at the contractually agreed selling price and subsequently at fair value following deductions for costs to sell, if the latter is lower.

Ownership of all of the residential and commercial units sold to municipal housing companies in Berlin in the previous year was transferred in 2022. This reduced assets held for sale by a total of € 2.4 billion.

The assets held for sale now include only properties for which notarized purchase contracts had already been signed as of the reporting date as part of Vonovia's ordinary sales activities totaling € 70.8 million. The value as of December 31, 2021 was € 302.6 million.

Section (E): Capital Structure

38 Total Equity

Accounting Policies

Other comprehensive income includes changes in total comprehensive income not affecting net income except that resulting from capital transactions with equity holders (e.g., capital increases or dividend distributions). Vonovia includes under this item unrealized gains and losses from the fair value measurement of equity instruments and derivative financial instruments that are designated as cash flow hedges. The item also includes actuarial gains and losses from defined benefit pension commitments as well as certain currency translation differences.

The **other reserves** contain cumulative changes in equity not affecting income. At Vonovia, the effective portion of the net change in the fair value of cash flow hedging instruments, the equity instruments at fair value as well as currency translation differences are recognized in other comprehensive income.

The other reserves from cash flow hedges and from currency translation differences can be reclassified. When the underlying hedged item of the cash flow hedge affects net income, the reserves attributable thereto are reclassified to profit or loss. If a foreign business is disposed of, the reserves attributable thereto are reclassified.

Development of the Subscribed Capital

in €

As of Jan. 1, 2022	**776,597,389.00**
Capital increase against non-cash contributions on May 25, 2022 (scrip dividend)	19,252,608.00
As of Dec. 31, 2022	**795,849,997.00**

Development of the Capital Reserves

in €

As of Jan. 1, 2022	**15,458,430,362.98**
Premium from capital increase for scrip dividend on May 25, 2022 (scrip dividend)	597,562,447.10
Transaction costs on the issue of new shares (after allowing for deferred taxes)	-732,067.06
Withdrawal from capital reserve	-10,903,833,217.46
Other changes not affecting net income	116,850.56
As of Dec. 31, 2022	**5,151,544,376.12**

Dividend

The Annual General Meeting held on April 29, 2022, resolved to pay a dividend for the 2021 fiscal year in the amount of € 1.66 per share, € 1,289.2 million in total.

As in previous years, shareholders were offered the option of choosing between being paid the dividend in cash or being granted new shares. During the subscription period, shareholders holding a total of 47.85% of the shares carrying dividend rights opted for the scrip dividend instead of the cash dividend. As a result, 19,252,608 new shares were issued using the company's authorized capital pursuant to Section 5b of the Articles of Association ("2021 authorized capital") at a subscription price of € 32.038, i.e., a total amount of € 616,815,055.10. The total amount of the dividend distributed in cash therefore came to € 672,336,610.64.

Authorized Capital

At the Annual General Meeting on April 29, 2022, a resolution was passed to cancel the 2021 authorized capital and create new 2022 authorized capital in the amount of € 233,000,000.00; pursuant to the resolution, the Management Board is authorized, in accordance with Article 5 of the Articles of Association, to raise equity once or multiple times by issuing up to 233,000,000 new shares (2022 authorized capital).

Conditional Capital

In order to serve the authorization, passed by the Annual General Meeting of April 16, 2021, to issue convertible bonds, bonds carrying option rights, participating rights, and participating bonds, "2021 conditional capital" was created. On the basis of the resolution of this Annual General Meeting, the share capital is conditionally increased by up to € 282,943,649.00 through the issuing of 282,943,649 new no-par-value registered shares carrying dividend rights. The conditional capital increase shall only be carried out to the extent that the owner (i.e., creditor) of the debt instruments stipulated in the capital increase resolution on 2021 conditional capital is entitled to demand conversion in shares and that the instruments are served in this manner instead of cash payment.

Retained Earnings

Retained earnings of € 25,605.1 million (December 31, 2021: € 16,535.5 million) were reported as of December 31, 2022. This figure includes actuarial gains and losses of € 22.7 million (December 31, 2021: € -138.1 million), which cannot be reclassified and therefore may no longer be recognized in profit or loss in subsequent reporting periods.

Other Reserves

Changes in other comprehensive income during the period in the amount of € -359.8 million (2021: € 0.7 million) are mainly the result of currency translation differences due to changes in the exchange rate for the Swedish krona against the euro.

Non-controlling Interests

Shares of third parties in Group companies are recognized under non-controlling interests.

Non-controlling interests decreased by € 135.1 million in the 2022 fiscal year, from € 3,242.4 million as of January 1, 2022, to € 3,107.3 million as of December 31, 2022. This drop is attributable primarily to the profit for the period attributable to non-controlling interests, neutral disposals due to further acquisitions of shares in subsidiaries and the sale of subsidiaries with non-controlling interests in Berlin.

The combined subgroup financial information, prepared in accordance with Vonovia's accounting policies, for the Deutsche Wohnen Group as a major subsidiary with non-controlling interests and its registered headquarters in Berlin is as follows:

in € million	Dec. 31, 2021 Deutsche Wohnen Group	Dec. 31, 2022 Deutsche Wohnen Group
Revenue*	402.3	1,564.5
Profit for the period*	262.9	-424.8
attributable to non-controlling interests*	38.3	-59.2
Other comprehensive income*	47.1	21.5
attributable to non-controlling interests*	0.2	2.3
Total non-current assets	29,939.3	28,041.9
Total current assets	3,448.8	2,504.4
thereof cash and cash equivalents	674.7	184.3
Total non-current liabilities	15,914.3	14,584.5
Total current liabilities	1,015.7	836.9
Total equity	**16,458.1**	**15,124.9**
Cash flow from operating activities	607.3	144.1
Cash flow from investing activities	-688.5	227.8
Cash flow from financing activities	174.6	-864.3
Net changes in cash and cash equivalents	93.4	-492.4
Dividend	1.03	0.04

* In 2021 for the period from September 30 to December 31, 2021.

39 Provisions

in € million	Dec. 31, 2021 non-current	Dec. 31, 2021 current	Dec. 31, 2022 non-current	Dec. 31, 2022 current
Provisions for pensions and similar obligations	684.5	–	512.5	–
Provisions for taxes (current income taxes excl. deferred taxes)	–	233.2	–	290.9
Other provisions				
Environmental remediation	19.8	16.8	25.0	–
Personnel obligations	39.0	84.4	24.2	85.1
Outstanding trade invoices	–	267.2	–	–
Miscellaneous other provisions	123.0	125.6	94.0	173.7
Total other provisions	**181.8**	**494.0**	**143.2**	**258.8**
Total provisions	**866.3**	**727.2**	**655.7**	**549.7**

Provisions for Pensions and Similar Obligations

Accounting Policies

When valuing the **provisions for pensions**, the company pension obligations are determined using the projected unit credit method pursuant to IAS 19 "Employee Benefits," whereby current pensions and vested pension rights as of the reporting date as well as expected future increases in salaries and pensions, are included in the valuation. An actuarial valuation is performed at every reporting date.

The amount shown in the balance sheet is the total present value of the defined benefit obligations (DBO) after offsetting against the fair value of plan assets.

Actuarial gains and losses are accounted for in full in the period in which they occur and recognized in retained earnings as a component of other comprehensive income and not in profit or loss. The actuarial gains and losses are also no longer recognized with effect on net income in subsequent periods.

Service cost is shown in personnel expenses. The service cost is the increase in the present value of a defined benefit obligation resulting from employee service in the reporting period.

The interest expense is recognized in the financial result. Interest expense is the increase during a period in the present value of a defined benefit obligation that generally arises due to the fact that the benefit obligation is one period closer to being discharged.

Reinsurance contracts that qualify as plan assets have been taken out to cover the pension obligations toward particular individuals. Where the value of those reinsurance contracts exceeds the related pension obligations, the excess is recognized as an asset and shown under other assets.

Obligations from joint defined benefit multi-employer plans at Versorgungsanstalt des Bundes und der Länder (VBL), a pension institution of the Federal Republic of Germany and the Federal States, are stated, in line with IAS 19.34, in the same way as obligations from defined contribution plans, insofar as the information required for the statement of defined benefit plans is not available. The obligations are based on the amounts to be paid for the current period.

Vonovia has pension obligations towards various employees which are based on the length of service. Defined benefit and defined contribution obligations – for which Vonovia guarantees a certain level of benefit – are financed through provisions for pensions. Vonovia has taken out reinsurance contracts for individual people.

Generally, they are pension benefits that depend on the final salary with percentage increases depending on the number of years of service.

The pension commitments cover 7,657 (December 31, 2021: 6,545) eligible persons. The increase results mainly from first-time inclusion of the participants in the deferred compensation scheme that was newly agreed in 2021 in the pension valuation.

The new "BAV 2021" deferred compensation scheme applies as standard for all defined employee groups within the Vonovia Group in Germany (current number of participants: 1,293). In addition to deferred compensation, the employer subsidies (matching contributions) are also contributed to the new employee retirement benefit plan. The matching contributions made in each case correspond to the amount of the deferred compensation contribution made, and are limited to 1% of the employee's monthly gross basic salary.

Executives currently working for companies belonging to Vonovia have the opportunity to participate in the "Pension Instead of Cash Remuneration" model (Versorgungsbezüge anstelle von Barbezügen) (eligible persons: 306, incl. persons no longer active). Retirement, invalidity and surviving dependent benefits in the form of a lifelong pension are offered under this deferred compensation model. The retirement benefits can also be paid out as a one-time capital sum.

Overview of the most important basic data for existing pension plans (all of which have already been closed):

	VO 1/VO 2 Veba Immobilien	VO 60/VO 91 Eisenbahnges.	Bochumer Verband
Type of benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits
Pensionable remuneration	Final salary	Final salary	Not applicable
Max. pension level	Yes	Yes	Depends on individual grouping
Total pension model based on final salary	Yes	No	No
Net benefit limit incl. state pension	None	Yes	None
Gross benefit limit	Yes	None	None
Adjustment of pensions	Section 16 (1,2) BetrAVG	Section 16 (1,2) BetrAVG	Adjustment every 3 years by Bochumer Verband (Management Board resolution)
Supplementary periods	Age of 55	Age of 55	Age of 55 (half)
Legal basis	Works agreement	Works agreement	Commitment to executives in individual contracts
Number of eligible persons	347	643	367

	VO 1991/VO 2002 Gagfah	VO guideline Gagfah M	VO 2017 VBL-Ersatzversorgung
Type of benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits
Pensionable remuneration	Salary for September of each year	Final salary	Salary of each year
Max. pension level	Module p.a.	Yes	Module p.a.
Total pension model based on final salary	No	Yes	No
Net benefit limit incl. state pension	None	None	None
Gross benefit limit	None	Yes	None
Adjustment of pensions	1% p.a.	Section 16 (1,2) BetrAVG	1% p.a.
Supplementary periods	Age of 55	Age of 55	None
Legal basis	Works agreement	Works agreement	Individual agreement
Number of eligible persons	1,104	342	107

The current pensions according to the classic pension benefit regulations of Bochumer Verband are adjusted in line with Section 20 of those regulations. Section 20 is a rule which is based on Section 16 (1,2) of the German Occupational Pensions Improvement Act (BetrAVG) but which, according to a ruling of the Federal Labor Court of Germany, is an independent rule. Other company pensions are reviewed and adjusted under the terms of the agreement according to Section 16 (1,2) BetrAVG. On every review date, the development of the cost of living since the individual retirement date is reviewed and compensated for. Only in the aforementioned deferred compensation model is the option, available since January 1, 1999, used to raise the current pensions every year by 1% (Section 16 [3] No. 1 BetrAVG). No further risks are seen.

The company has decided to use the internal financing effect of the provisions for pensions and only to back a relatively small portion of the pension obligations with plan assets. Reinsurance policies have been taken out for former Management Board members against payment of a one-time insurance premium in order to provide additional protection against insolvency; these reinsurance policies were pledged to the eligible persons. They constitute plan assets, which are offset against the gross obligation. The fair value of the reinsurance policies for individual persons is higher than the extent of the obligations towards the respective person. This surplus of the fair values of the assets over the obligation is shown under non-current other assets. The conclusion of further personal liability insurance reinsurance policies is not planned.

Pension plan obligations and the expenses necessary to cover these obligations are determined using the projected unit credit method prescribed by IAS 19. Both pensions known on the reporting date and vested rights as well as expected future increases in salaries and pensions are included in the measurement. The following actuarial assumptions were made at the reporting date – in each case related to the end of the year and with economic effect for the following year.

Actuarial Assumptions

in %	Dec. 31, 2021	Dec. 31, 2022
Actuarial interest rate	1.10	3.73
Pension trend	1.75	2.19
Salary trend	2.50	3.00

The 2018 G mortality tables of Prof. Dr. Klaus Heubeck have been taken for the biometric assumptions without any changes.

The defined benefit obligation (DBO) developed as follows:

in € million	2021	2022
DBO as of Jan. 1	**648.1**	**711.8**
Additions due to business combinations	110.4	–
Interest expense	4.6	7.7
Current service cost	14.6	16.0
Actuarial gains and losses:		
Changes in the biometric assumptions	4.8	31.3
Changes in the financial assumptions	-41.1	-196.9
Transfer	–	0.1
Benefits paid	-29.6	-30.2
DBO as of Dec. 31	**711.8**	**539.8**

The present value of the pension obligation is divided among the groups of eligible persons as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Active employees	157.3	97.9
Former employees with vested pension rights	141.2	85.5
Pensioners	413.3	356.4
DBO as of Dec. 31	**711.8**	**539.8**

Plan assets comprise pension liability insurance reinsurance contracts and long-term contributions made by Vonovia, which are managed by trustees, in the context of the deferred compensation scheme that was closed in the 2021 fiscal year. The fair value of the plan assets has developed as follows:

in € million	2021	2022
Fair value of plan assets as of Jan. 1	**21.2**	**28.3**
Additions due to business combinations	7.7	–
Return calculated using the actuarial interest rate	0.1	0.2
Actuarial gains:		
Changes in the biometric assumptions	–	–
Changes in the financial assumptions	0.7	0.2
Benefits paid	-1.4	-1.6
Employer contributions	–	1.6
Fair value of plan assets as of Dec. 31	**28.3**	**28.7**

The actual return on plan assets amounted to € 0.4 million during the fiscal year (2021: € 0.8 million).

The following table shows a reconciliation of the defined benefit obligation to the pension obligation recognized in the balance sheet:

in € million	Dec. 31, 2021	Dec. 31, 2022
Present value of funded obligations	36.2	33.5
Present value of unfunded obligations	675.6	506.3
Total present value of defined benefit obligations	**711.8**	**539.8**
Fair value of plan assets	-28.3	-28.7
Net liability recognized in the balance sheet	**683.5**	**511.1**
Other assets to be recognized	1.0	1.4
Provisions for pensions recognized in the balance sheet	**684.5**	**512.5**

In 2022, actuarial gains of € 165.8 million (excluding deferred taxes) were recognized in other comprehensive income (2021: € 37.0 million).

The weighted average term of the defined benefit obligations is 12.5 years (December 31, 2021: 15.5 years).

The following table contains the estimated, undiscounted pension payments of the coming five fiscal years and the total of those in the subsequent five fiscal years:

in € million	Projected pension payments
2023	33.4
2024	32.7
2025	32.6
2026	32.8
2027	32.3
2028–2032	160.2

Sensitivity Analyses

An increase or decrease in the material actuarial assumptions would have led to the following defined benefit obligation, providing the other assumptions did not change:

in € million		Dec. 31, 2021	Dec. 31, 2022
Actuarial interest rate	Increase of 0.5%	660.4	507.7
	Decrease of 0.5%	769.6	575.1
Pension trend	Increase of 0.25%	726.5	549.7
	Decrease of 0.25%	696.9	529.0

An increase in life expectancy of 4.8% would have resulted in an increase in the DBO of € 17.8 million as of December 31, 2022 (December 31, 2021: € 27.9 million). This percentage rise corresponds to a one-year increase in the life expectancy of a man who was 65 at the reporting date.

If several assumptions are changed simultaneously, the cumulative effect is not necessarily the same as if there had been a change in just one of the assumptions.

The provisions for pensions include € 2.6 million (December 31, 2021: € 3.5 million) for pension obligations which were transferred to third parties as part of an assumption of debt and which relate to vested rights and the payment of current pensions. A corresponding non-current receivable is shown under miscellaneous other assets.

Other Provisions

Accounting Policies

Other provisions are recognized when there is a present obligation, either legal or constructive, vis-à-vis third parties as a result of a past event if it is probable that a claim will be asserted and the probable amount of the required provision can be reliably estimated. Provisions are discounted if the resulting effect is material. The carrying amount of discounted provisions increases in each period to reflect the passage of time and the unwinding of the discount is recognized within interest expense. The discount rate is a pre-tax rate that reflects current market assessments.

Provisions for restructuring expenses are recognized when the Group has set up and communicated a detailed formal plan for restructuring and has no realistic possibility of withdrawing from these obligations.

Provisions for onerous contracts are recognized when the expected benefits from a contract are lower than the unavoidable cost of meeting the obligations under the contract. The provision is stated at the lower of the present value of the fulfillment obligation and the cost of terminating the contract, i.e., a possible indemnity or fine for breach or non-fulfillment of contract.

Provisions are reviewed regularly and adjusted to reflect new information or changed circumstances.

The **provisions for pre-retirement part-time work arrangements** are basically to be classified as other long-term employee benefits that are to be accrued over the employees' service periods.

The assets of the insolvency policy to secure fulfillment shortfalls arising from pre-retirement part-time work arrangements are offset against the amounts for fulfillment shortfalls contained in the provisions for pre-retirement part-time work arrangements.

A contingent liability is a possible obligation toward third parties that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events or a present obligation that arises from past events for which an outflow of resources is not probable or the amount of which cannot be estimated with sufficient reliability. According to IAS 37, contingent liabilities are not generally recognized.

Development of Other Provisions During the Fiscal Year

in € million	As of Jan. 1, 2022	Changes in scope of consolida-tion	Additions	Reversals	Netting plan assets	Interest accretion to provisions	Revaluation from cur-rency ef-fects	Transfer	Utiliza-tion	As of Dec. 31, 2022
Other provisions										
Environmental remediation	36.6	–	–	-0.5	–	-2.2	–	-7.3	-1.6	25.0
Personnel obligations	123.4	–	70.0	-5.0	-0.2	–	-0.7	-0.9	-77.3	109.3
Outstanding trade invoices	267.2	–	–	–	–	–	–	-267.2	–	–
Miscellaneous other provisions	248.6	–	58.8	-22.1		1.6	-0.1	21.3	-40.4	267.7
	675.8	**–**	**128.8**	**-27.6**	**-0.2**	**-0.6**	**-0.8**	**-254.1**	**-119.3**	**402.0**

Development of Other Provisions During the Previous Year

in € million	As of Jan. 1, 2021	Changes in scope of consolida-tion	Additions	Reversals	Netting plan assets	Interest accretion to provisions	Revaluation from cur-rency ef-fects	Transfer	Utiliza-tion	As of Dec. 31, 2021
Other provisions										
Environmental remediation	11.5	10.7	16.6	–	–	–	–	–	-2.2	36.6
Personnel obligations	108.6	37.2	55.1	-3.1	–	0.1	-0.1	–	-74.4	123.4
Outstanding trade invoices	93.4	172.0	156.5	-8.6	–	–	-0.1	–	-146.0	267.2
Miscellaneous other provisions	134.8	124.3	45.1	-31.6	–	5.6	-0.1	–	-29.5	248.6
	348.3	**344.2**	**273.3**	**-43.3**	**–**	**5.7**	**-0.3**	**–**	**-252.1**	**675.8**

Reversals of provisions are generally offset against the expense items for which they were originally established.

The provisions for environmental remediation primarily refer to site remediation of locations of the former Raab Karcher companies and the Kabelwerk Köpenick cable factory. Remediation has either already begun or an agreement has been reached with the authorities as to how the damage is to be remedied. The cost estimates are based on expert opinions detailing the anticipated duration of the remediation work and the anticipated cost.

The personnel obligations are provisions for pre-retirement part-time work arrangements, provisions for bonuses, severance payments not relating to restructuring and other personnel expenses. The other personnel expenses include a provision for the long-term incentive plan (LTIP) determined in accordance with IFRS 2 of € 9.3 million (December 31, 2021: € 22.6 million) (see → **[F48] Share-based Payments**).

The material individual cost items under miscellaneous other provisions include costs associated with legal disputes in the amount of € 39.4 million (December 31, 2021: € 34.2 million), litigation costs in the amount of € 20.0 million (December 31, 2021: € 31.4 million), costs associated with company tax audits in the amount of € 7.3 million (December 31, 2021: € 8.2 million) and provisions for other contractually agreed guarantees in the amount of € 3.9 million (December 31, 2021: € 4.2 million).

The Group expects to settle the lion's share of the provision over the coming year.

40 Trade Payables

in € million	Dec. 31, 2021 non-current	Dec. 31, 2021 current	Dec. 31, 2022 non-current	Dec. 31, 2022 current
Liabilities				
outstanding trade invoices	–	–	–	242.8
from property letting	–	133.7	–	127.7
from other supplies and services	5.4	310.7	5.2	192.8
	5.4	**444.4**	**5.2**	**563.3**

Unlike in the previous year, outstanding trade invoices are reported under trade payables as opposed to under provisions.

41 Non-derivative Financial Liabilities

in € million	Dec. 31, 2021 non-current	Dec. 31, 2021 current	Dec. 31, 2022 non-current	Dec. 31, 2022 current
Non-derivative financial liabilities				
Liabilities to banks	16,997.3	4,266.1	17,086.4	1,021.4
Liabilities to other creditors	23,174.6	2,418.3	24,183.3	2,558.4
Deferred interest from non-derivative financial liabilities	–	172.7	–	210.2
	40,171.9	**6,857.1**	**41,269.7**	**3,790.0**

Accounting Policies

Vonovia recognizes **non-derivative financial liabilities**, which mainly include liabilities to banks and to investors, at their fair value on the day of trading, less the directly attributable transaction costs (this generally corresponds to the acquisition cost). These liabilities are subsequently measured at amortized cost using the effective interest method. Financial liabilities are derecognized when Vonovia's obligations specified in the contract expire or are discharged or canceled.

Liabilities bearing no interest or interest below market rates in return for occupancy rights at rents below the prevailing market rates are recorded at present value.

Deferred interest is presented as current in order to show the cash effectiveness of the interest payments transparently. In principle, the deferred interest is part of the non-derivative financial liability. Of the deferred interest from non-derivative financial liabilities, € 173.8 million (December 31, 2021: € 166.2 million) is from bonds reported under non-derivative financial liabilities to other creditors.

The non-derivative financial liabilities developed as follows in the fiscal year under review:

in € million	As of Jan. 1, 2022	First-time consoli-dation	New loans	Scheduled repay-ments	Unsched-uled repay-ments	Adjusted for effec-tive inter-est method	Other adjust-ments	Exchange rate dif-ferences	As of Dec. 31, 2022
Bond (US dollar)	219.3					13.9			233.2
Bond (SEK)			121.2			-8.4			112.8
Bond (EMTN)	24,110.3			-1,600.0	-1,511.8	28.8	-32.9		20,994.4
Bond (EMTN Green Bond)	596.6		1,600.0			-16.8			2,179.8
Bond (EMTN Social Bond)			2,400.0			-20.0			2,380.0
Promissory note loan	230.0		1,010.0			-0.1			1,239.9
Bridge financing	3,481.6			-3,490.0		8.4			–
Commercial paper			500.0	-500.0					–
Mortgages	8,126.7		1,132.0*	-514.3	-188.5	-38.2	-0.7	-106.6	8,410.4
Deferred interest	139.6						37.2		176.8
Deutsche Wohnen									
Other financing***	10,091.8		40.0	-302.3**	-437.1	-82.1	-11.3		9,299.0
Deferred interest	33.1						0.3		33.4
	47,029.0	**–**	**6,803.2**	**-6,406.6**	**-2,137.4**	**-114.5**	**-7.4**	**-106.6**	**45,059.7**

* New mortgages include capitalized interest not affecting cash in the amount of € 0.5 million.
** Repayments include debt servicing not yet rendered not affecting cash in the amount of € 3.9 million.
*** This includes mortgages, convertible bonds, registered bonds and bearer bonds.

The non-derivative financial liabilities developed as follows in the previous year:

in € million	As of Jan. 1, 2021	First-time consoli-dation	New loans	Scheduled repay-ments	Unsched-uled repay-ments	Adjusted for effec-tive inter-est method	Other adjust-ments	Exchange rate dif-ferences	As of Dec. 31, 2021
Bond (US dollar)	202.0					17.3			219.3
Bond (EMTN)	15,186.5		9,500.0	-500.0		-76.2			24,110.3
Bond (EMTN Green Bond)			600.0			-3.4			596.6
Promissory note loan	49.9		224.0	-4.0	-40.0	0.1			230.0
Bridge financing			12,950.0*	-9,460.0*		-8.4			3,481.6
Mortgages	8,531.2	12.3	523.2**	-469.0***	-287.3	-24.2	-123.7	-35.8	8,126.7
Deferred interest	115.1						24.5		139.6
Deutsche Wohnen									
Other financing****		10,752.0	150.2	-61.4	-723.7	-23.8	-1.5		10,091.8
Deferred interest		25.8					7.3		33.1
	24,084.7	**10,790.1**	**23,947.4**	**-10,494.4**	**-1,051.0**	**-118.6**	**-93.4**	**-35.8**	**47,029.0**

* This includes a short-term bridge financing from Société Générale of € 1,500.0 million.
** New mortgages include capitalized interest not affecting cash in the amount of € 2.1 million.
*** Repayments include repayment grants or repayment waivers not affecting cash in the amount of € 11.4 million.
**** This includes mortgages, convertible bonds, registered bonds and bearer bonds.

The U.S. dollar bond issued in 2013 is translated at the exchange rate at the end of the reporting period in line with applicable IFRS provisions. Allowing for the hedging rate prescribed through the interest hedging transaction entered into, this financial liability would be € 50.0 million (December 31, 2021: € 36.1 million) lower than the recognized value.

The maturities and average interest rates of the nominal obligations of the liabilities to banks and the liabilities to other creditors are as follows during the fiscal year:

				Repayment of the nominal obligations is as follows:					
in € million	Nominal obligation Dec. 31, 2022	Maturity	Average interest rate	2023	2024	2025	2026	2027	from 2028
Bond (US dollar)*	185.0	2023	4.58%	185.0					
Bond (SEK)*	48.5	2024	1.02%		48.5				
Bond (SEK)*	72.7	2027	1.47%					72.7	
Bond (EMTN)*	500.0	2025	1.50%			500.0			
Bond (EMTN)*	876.8	2023	2.25%	876.8					
Bond (EMTN)*	500.0	2026	1.50%				500.0		
Bond (EMTN)*	890.4	2024	1.25%		890.4				
Bond (EMTN)*	500.0	2027	1.75%					500.0	
Bond (EMTN)*	500.0	2025	1.13%			500.0			
Bond (EMTN)*	373.2	2024	0.75%		373.2				
Bond (EMTN)*	500.0	2028	1.50%						500.0
Bond (EMTN)*	700.0	2026	1.50%				700.0		
Bond (EMTN)*	500.0	2030	2.13%						500.0
Bond (EMTN)*	500.0	2038	2.75%						500.0
Bond (EMTN)*	391.6	2023	0.88%	391.6					
Bond (EMTN)*	500.0	2025	1.80%			500.0			
Bond (EMTN)*	500.0	2029	0.50%						500.0
Bond (EMTN)*	500.0	2034	1.13%						500.0
Bond (EMTN)*	403.4	2023	0.13%	403.4					
Bond (EMTN)*	500.0	2027	0.63%					500.0	
Bond (EMTN)*	500.0	2039	1.63%						500.0
Bond (EMTN)*	389.7	2024	1.63%		389.7				
Bond (EMTN)*	500.0	2030	2.25%						500.0
Bond (EMTN)*	750.0	2026	0.63%				750.0		
Bond (EMTN)*	750.0	2030	1.00%						750.0
Bond (EMTN)*	500.0	2041	1.00%						500.0
Bond (EMTN)*	278.3	2024	0.00%		278.3				
Bond (EMTN)*	1,000.0	2027	0.38%					1,000.0	
Bond (EMTN)*	1,000.0	2029	0.63%						1,000.0
Bond (EMTN)*	1,000.0	2033	1.00%						1,000.0
Bond (EMTN)*	500.0	2041	1.50%						500.0
Bond (EMTN)*	351.9	2023	0.00%	351.9					
Bond (EMTN)*	1,250.0	2025	0.00%			1,250.0			
Bond (EMTN)*	1,250.0	2028	0.25%						1,250.0
Bond (EMTN)*	1,250.0	2032	0.75%						1,250.0
Bond (EMTN)*	750.0	2051	1.63%						750.0

in € million	Nominal obligation Dec. 31, 2022	Maturity	Average interest rate	Repayment of the nominal obligations is as follows:					
				2023	2024	2025	2026	2027	from 2028
Bond (EMTN Green Bond)*	600.0	2031	0.63%						600.0
Bond (EMTN Green Bond)*	850.0	2032	2.38%						850.0
Bond (EMTN Green Bond)*	750.0	2030	5.00%						750.0
Bond (EMTN Social Bond)*	850.0	2026	1.38%				850.0		
Bond (EMTN Social Bond)*	800.0	2028	1.88%						800.0
Bond (EMTN Social Bond)*	750.0	2027	4.75%					750.0	
Promissory note loan*	1,240.0	2029	2.07%	120.0			50.0	309.0	761.0
Mortgages**	8,464.2	2034	1.57%	784.7	1,001.8	830.9	494.3	787.5	4,565.0
Deutsche Wohnen									
Other financing***	8,993.5	2029	1.63%	466.8	201.1	1,518.2	888.3	882.5	5,036.6
	44,759.2			**3,580.2**	**3,183.0**	**5,099.1**	**4,232.6**	**4,801.7**	**23,862.6**

* Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
** For a portion of the mortgages, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
*** This includes mortgages, convertible bonds, registered bonds and bearer bonds. For a portion of the financing, Deutsche Wohnen is obliged to fulfill certain financial covenants, which it fulfilled.

In the previous year, the maturities and average interest rates of the nominal obligations were as follows:

in € million	Nominal obligation Dec. 31, 2021	Maturity	Average interest rate	Repayment of the nominal obligations is as follows:					
				2022	2023	2024	2025	2026	from 2027
Bond (US dollar)*	185.0	2023	4.58%		185.0				
Bond (EMTN)*	500.0	2022	2.13%	500.0					
Bond (EMTN)*	500.0	2025	1.50%				500.0		
Bond (EMTN)*	1,000.0	2023	2.25%		1,000.0				
Bond (EMTN)*	500.0	2022	0.88%	500.0					
Bond (EMTN)*	500.0	2026	1.50%					500.0	
Bond (EMTN)*	1,000.0	2024	1.25%			1,000.0			
Bond (EMTN)*	500.0	2022	0.75%	500.0					
Bond (EMTN)*	500.0	2027	1.75%						500.0
Bond (EMTN)*	500.0	2025	1.13%				500.0		
Bond (EMTN)*	500.0	2024	0.75%			500.0			
Bond (EMTN)*	500.0	2028	1.50%						500.0
Bond (EMTN)*	600.0	2022	0.79%	600.0					
Bond (EMTN)*	700.0	2026	1.50%					700.0	
Bond (EMTN)*	500.0	2030	2.13%						500.0
Bond (EMTN)*	500.0	2038	2.75%						500.0
Bond (EMTN)*	500.0	2023	0.88%		500.0				
Bond (EMTN)*	500.0	2025	1.80%				500.0		
Bond (EMTN)*	500.0	2029	0.50%						500.0
Bond (EMTN)*	500.0	2034	1.13%						500.0
Bond (EMTN)*	500.0	2023	0.13%		500.0				

in € million	Nominal obligation Dec. 31, 2021	Maturity	Average interest rate	Repayment of the nominal obligations is as follows: 2022	2023	2024	2025	2026	from 2027
Bond (EMTN)*	500.0	2027	0.63%						500.0
Bond (EMTN)*	500.0	2039	1.63%						500.0
Bond (EMTN)*	500.0	2024	1.63%			500.0			
Bond (EMTN)*	500.0	2030	2.25%						500.0
Bond (EMTN)*	750.0	2026	0.63%					750.0	
Bond (EMTN)*	750.0	2030	1.00%						750.0
Bond (EMTN)*	500.0	2041	1.00%						500.0
Bond (Green Bond)*	600.0	2031	0.63%						600.0
Bond (EMTN)*	500.0	2024	0.00%			500.0			
Bond (EMTN)*	1,000.0	2027	0.38%						1,000.0
Bond (EMTN)*	1,000.0	2029	0.63%						1,000.0
Bond (EMTN)*	1,000.0	2033	1.00%						1,000.0
Bond (EMTN)*	500.0	2041	1.50%						500.0
Bond (EMTN)*	500.0	2023	0.00%		500.0				
Bond (EMTN)*	1,250.0	2025	0.00%				1,250.0		
Bond (EMTN)*	1,250.0	2028	0.25%						1,250.0
Bond (EMTN)*	1,250.0	2032	0.75%						1,250.0
Bond (EMTN)*	750.0	2051	1.63%						750.0
Bridge financing	3,490.0	2022	0.65%	3,490.0					
Promissory note loan*	230.0	2025	0.12%		120.0			50.0	60.0
Mortgages**	8,142.3	2034***	1.17%***	814.5	782.9	1,016.6	734.0	502.0	4,292.3
Deutsche Wohnen									
Other financing****	9,704.1	2028***	1.33%***	279.9	744.7	202.4	1,562.0	889.2	6,025.9
	46,651.4			**6,684.4**	**4,332.6**	**3,719.0**	**5,046.0**	**3,391.2**	**23,478.2**

* Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
** For a portion of the mortgages, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
*** The calculation includes financial liabilities that will be transferred to Berlin housing companies in 2022 as part of the sale of residential units. These financial liabilities are included in the "Assets and liabilities held for sale" as at December 31, 2021.
**** This includes mortgages, convertible bonds, registered bonds and bearer bonds. For a portion of the financing, Deutsche Wohnen is obliged to fulfill certain financial covenants, which it fulfilled.

The loan repayments shown for the following years contain contractually fixed minimum repayment amounts.

Of the nominal obligations to creditors, € 12,287.4 million (December 31, 2021: € 13,060.3 million) are secured by land charges and other collateral (account pledge agreements, assignments, pledges of company shares and guarantees of Vonovia SE or other Group companies). In the event that payment obligations are not fulfilled, the securities provided are used to satisfy the claims of the banks.

Financial liabilities to banks and other creditors have an average interest rate of approximately 1.48%. The financial liabilities as a whole do not contain any significant short-term interest rate risks as they relate either to loans with long-term fixed interest rates or variable-interest liabilities that are hedged using suitable derivative financial instruments (see → **[G54] Financial Risk Management**).

Repayment of Bonds Under the European Medium-Term Notes Program (EMTN)

A bond in the amount of € 500.0 million issued in 2017 was repaid as scheduled in January 2022.

May 2022 saw the early repayment of a € 500.0 million bond from 2014 that was set to mature in July 2022.

In June 2022, a € 500.0 million bond from 2016 was repaid as scheduled.

In November 2022, Vonovia published a tender offer to buy back bonds maturing in 2023 and 2024. € 1,044.7 million relating to eight different bonds was bought back early within this context.

In December 2022, Vonovia repaid a floating rate bond from 2018 in the amount of € 600.0 million as planned.

Repayment of Bonds and Bearer Bonds of Deutsche Wohnen

Deutsche Wohnen repaid registered bonds worth € 150.0 million and a bearer bond in the amount of € 100.0 million as scheduled in January 2022.

In addition, an unscheduled repayment was made on a registered bond in the amount of € 76.3 million in February 2022.

Repayment of Secured Financing of Deutsche Wohnen

Deutsche Wohnen repaid secured financing in the amount of € 284.2 million pro rata and ahead of schedule in December 2022.

Issue of Bonds Under the European Medium-Term Notes Program (EMTN)

On March 21, 2022, Vonovia SE placed two social bonds in a total amount of € 1,650.0 million with maturities of 3.85 and 6.25 years, as well as a green bond worth € 850.0 million with a maturity of ten years. The bonds, which have a total amount of € 2,500.0 million, bear interest at a rate of 1.375%, 1.875% and 2.375%.

On March 30, 2022, Vonovia issued two variable-rate SEK bonds worth a total of SEK 1,250.0 million with maturities of two and five years that were disbursed on April 8, 2022.

On November 10, 2022, Vonovia SE issued two social and green bonds in a total amount of € 1,500.0 million with maturities of 4.5 and 8 years. The bonds bear interest at 4.75% and 5.00%.

Promissory Note Loan

On February 16, 2022, Vonovia SE issued promissory note loans of € 1,010.0 million with terms of between 5 and 30 years and an average interest rate of 1.13%.

Commercial Paper

On January 18, 2022, Vonovia SE took out a commercial paper of € 500.0 million with a maturity of 3 months. This was repaid in full on April 21, 2022.

Secured Financing

On February 25, 2022, Vonovia took out secured financing with Landesbank Baden-Württemberg in the amount of € 175.0 million with a maturity of ten years.

On April 1, 2022, Vonovia took out secured financing with Berlin Hyp in the amount of € 175.0 million with a maturity of ten years.

On April 12, 2022, Vonovia took out secured financing with Bayern LB in the amount of € 150.0 million with a maturity of ten years.

Unsecured Financing

On February 25, 2022, Vonovia SE took out an unsecured loan with Caixabank S.A. in the amount of € 142.0 million with a maturity of five years.

On February 25, 2022, Vonovia SE took out an unsecured loan with DZ Bank AG in the amount of € 250.0 million with a maturity of seven years.

Bridge Financing

The bridge facility taken out in connection with the acquisition of Deutsche Wohnen was valued at € 3,490.0 million and repaid in full as of March 1, 2022

Working Capital Facility

With an agreement dated September 30, 2021, Commerzbank, Bank of America, BNP Paribas, Deutsche Bank, ING, Morgan Stanley, Société Générale and UniCredit provided Vonovia with a working capital facility of € 2,000.0 million with an initial term of three years; on December 13, 2021, the facility was increased to € 3,000.0 million with the addition of Goldman Sachs, JPMorgan, Citibank and UBS. Citibank left the contract and was replaced by Mizuho Bank as of November 18, 2022. This credit line had not been used as of December 31, 2022.

Subsidy Loan

The European Investment Bank provided Vonovia with an unsecured loan of up to € 600.0 million on November 10, 2022.

42 Derivatives and Put Options

	Dec. 31, 2021		Dec. 31, 2022	
in € million	non-current	current	non-current	current
Derivatives and put options				
Purchase price liabilities from put options/rights to reimbursement		264.0		270.9
Cash flow hedges	12.3			
Stand-alone derivatives	53.9			
Deferred interest from derivatives		2.0		1.3
	66.2	**266.0**		**272.2**

Regarding derivative financial liabilities please refer to chapters → **[G52] Additional Financial Instrument Disclosures** and → **[G56] Cash Flow Hedges and Stand-alone Hedging Interests**.

43 Leases

Accounting Policies

IFRS 16 "Leases," which has applied as a mandatory requirement since January 1, 2019, introduces only one accounting model (right-of-use model) for lessees, based on which all leases are to be recognized in the balance sheet as a matter of principle. The distinction between operating and finance leases only remains in place for accounting as the lessor.

All contracts that give the Vonovia Group the right to control the use of an identified asset over a certain period of time in return for consideration are considered leases within the meaning of IFRS 16.

For all lease contracts that meet the definition of leases according to IFRS 16, Vonovia recognizes lease liabilities equal to the present value of the future lease payments, discounted using the term-specific incremental borrowing rate. Correspondingly, right-of-use assets are recognized in the amount of the lease liabilities, plus any advance payments or any initial direct costs.

The lease liabilities are adjusted in line with financial principles. They are increased by the periodic interest expenses and reduced by the lease payments made.

The right-of-use assets are generally recognized at amortized cost, taking depreciation and impairments into account. Right-of-use assets that meet the definition of investment properties (IAS 40) are recognized at fair value in line with the recognition and measurement rules set out in IAS 40.

Changes within the lease term or within the lease payments lead to a remeasurement of the present value and, as a result, to an adjustment of the lease liability and the right-of-use asset.

Periods resulting from extension or termination options granted on a unilateral basis are assessed on a lease-by-lease basis and are only taken into account if their use is sufficiently probable – for example, due to financial incentives.

There is an accounting option available for short-term leases and leases of low-value assets. Vonovia makes use of this option, meaning that such leases are not recognized. As far as rented IT equipment is concerned, portfolios are, in some cases, set up for leases with similar terms and a single discount rate is applied to these portfolios.

Such variable lease payments, which are not included in the measurement of the lease liabilities, as well as lease payments associated with short-term leases, with leases of low-value assets and with lease contracts that do not meet the definition of leases according to IFRS 16 are recognized as expenses on a straight-line basis over the lease term.

In addition to conventional vehicle leasing over a fixed lease term of three to five years, the Vonovia Group also leases IT equipment (IT leasing), rented residential, commercial and care home properties for subleasing (interim rental agreements), heat generation plants to supply the Group's own properties with heat (contracting), smoke detectors and heat meters (metering technology), leasing of land for the construction of owner-occupied commercial properties, as well as office buildings, office spaces, warehouse spaces and parking spaces (lease agreements). Under license agreements with public-sector institutions, Vonovia is granted the right to use public properties as storage locations or parking spaces, to lay heating pipes or cables, or to construct playgrounds. Long-term leasehold contracts, however, have the biggest impact on the company's net assets, financial position and results of operations. These involve Vonovia leasing land for the rental of constructed residential and commercial properties. These contracts generally have a term of 99 years.

Development of Right-of-use Assets

in € million	Dec. 31, 2021	Dec. 31, 2022
Right-of-use assets		
Leasehold contracts	1,685.3	2,016.8
Interim rental agreements	3.8	3.0
Right-of-use assets within investment properties	**1,689.1**	**2,019.8**
Leasing of land for the construction of owner-occupied commercial properties	27.4	30.9
Lease agreements	45.1	41.7
Contracting	56.8	91.8
Vehicle leases	4.8	4.7
License agreements	0.5	0.5
Leases of IT equipment	2.1	1.5
Metering technology	38.2	22.6
Right-of-use assets within property, plant and equipment	**174.9**	**193.7**
	1,864.0	**2,213.5**

As of December 31, 2022, the right-of-use assets resulting from leases amount to € 2,213.5 million (2021: € 1,864.0 million).

The majority of the right-of-use assets amounting to € 2,019.8 million is reported under investment properties and does not only result from interim lease agreements (residential and commercial properties) and agreements on subleased care home properties (€ 3.0 million), but mainly from leasehold contracts (€ 2,016.8 million). The other right-of-use assets totaling € 193.7 million are reported under property, plant and equipment and mainly include right-of-use assets resulting from heat contracting (€ 91.8 million), concluded lease agreements (€ 41.7 million), the leasing of land for the construction of owner-occupied commercial properties (€ 30.9 million), contracts connected with leased metering technology (€ 22.6 million) and vehicle leases (€ 4.7 million).

Development of Lease Liabilities

in € million	Dec. 31, 2021 Due within one year	Due in 1 to 5 years	Due after 5 years	Dec. 31, 2022 Due within one year	Due in 1 to 5 years	Due after 5 years
Lease liabilities						
Leasehold contracts (IAS 40)	11.5	40.3	446.1	12.2	39.5	430.6
Interim rental agreements	1.4	2.6	0.0	1.4	1.7	–
Leasing of land for the construction of owner-occupied commercial properties	0.1	0.5	27.4	0.1	0.6	31.3
Lease agreements	10.4	23.1	11.8	10.3	21.3	10.7
Contracting	11.8	32.1	14.1	11.4	40.1	41.8
Vehicle leases	2.2	2.6	–	2.2	2.5	–
License agreements	0.0	0.0	0.5	–	–	0.5
Leases of IT equipment	1.2	1.0	–	0.7	0.8	–
Metering technology	5.6	19.9	12.8	3.2	12.4	7.2
	44.2	**122.1**	**512.8**	**41.5**	**118.9**	**522.1**

As of December 31, 2022, the lease liabilities amount to € 682.5 million (2021: € 679.1 million).

The year-on-year increase in lease liabilities of € 3.4 million is due primarily to extended heating supply contracts (€ +35.4 million) and newly concluded leases, including € 5.9 million in connection with the office building for the customer service department in Dresden that was leased in January 2022 (rental agreements). Lower lease liabilities from leasehold contracts (€ -15.6 million, largely due to the disposal of real estate in the first quarter of 2022) and from leased metering technology (€ -15.5 million, largely for smoke alarms) had the opposite effect.

Totaling € 522.1 million, the majority of the lease liabilities recognized as of December 31, 2022, is due after more than five years. Of this amount, € 430.6 million is attributable to lease liabilities from leasehold contracts. € 41.5 million is due within the next year. € 12.2 million of this amount is attributable to leasehold contracts.

The following table shows the development of the right-of-use assets reported under property, plant and equipment:

in € million	Carrying amount of right-of-use assets Jan. 1, 2022	Additions 2022	Depreciation 2022	Carrying amount of right-of-use assets Dec. 31, 2022	Interest expenses 2022
Leasing of land for the construction of owner-occupied commercial properties	27.4	4.0	-0.4	30.9	0.8
Lease agreements	45.1	16.4	-12.2	41.7	0.4
Contracting	56.8	49.4	-12.2	91.8	1.3
Vehicle leases	4.8	2.7	-2.5	4.7	0.0
License agreements	0.5	0.0	-0.0	0.5	0.0
Leases of IT equipment	2.1	1.7	-1.0	1.5	0.0
Metering technology	38.2	0.8	-5.4	22.6	0.2
	174.9	**75.0**	**-33.7**	**193.7**	**2.7**

in € million	Carrying amount of right-of-use assets Jan. 1, 2021	Additions 2021	Depreciation 2021	Carrying amount of right-of-use assets Dec. 31, 2021	Interest expenses 2021
Leasing of land for the construction of owner-occupied commercial properties	27.3	0.3	-0.4	27.4	0.8
Lease agreements	22.9	35.1	-10.2	45.1	0.2
Contracting	15.9	47.4	-6.1	56.8	0.6
Vehicle leases	2.6	5.0	-2.7	4.8	0.0
License agreements	0.6	0.0	-0.1	0.5	0.0
Leases of IT equipment	3.0	1.4	-1.3	2.1	0.0
Metering technology		40.4	-1.2	38.2	0.0
	72.3	**129.6**	**-22.0**	**174.9**	**1.6**

The interest expenses recognized in the 2022 fiscal year resulting from leases pursuant to IFRS 16 amounted to € 17.6 million in total (2021: € 15.8 million), mainly from leasehold contracts (€ 14.9 million).

In the 2022 fiscal year, a total of 161 lease contracts (2021: 279) were classified as short-term leases and thus were not recognized in line with the accounting option available. The corresponding expenses, recognized in the 2022 fiscal year, amounted to € 0.6 million (2021: € 0.7 million). Expenses relating to leases of low-value assets amounting to € 1.2 million in the 2022 fiscal year (2021: € 1.2 million) mostly result from leased bicycles/e-bikes. Expenses totaling € 33.1 million were incurred in connection with variable lease payments in the 2022 fiscal year (2021: € 7.2 million), mainly due to increased energy costs under heat supply contracts. Variable lease payments have not been included in the measurement of lease liabilities.

In addition to variable lease payments as well as payments resulting from short-term leases and low-value assets, each included in the cash flow from operating activities, interest payments and repayments of lease liabilities totaling € 59.2 million were incurred in the 2022 fiscal year (2021: € 43.1 million). Thus, the total cash outflow for leases in the reporting year amounted to € 94.1 million (2021: € 52.2 million).

Total income from subleasing, mostly from subleasing of right-of-use assets in connection with rented residential, commercial and care home properties, amounts to € 14.4 million (2021: € 9.4 million). As of the reporting date, there were no significant non-cancelable subleases on the Spree-Bellevue property.

The loss arising from the rental of the sold Spree-Bellevue property (sale and leaseback transaction) in fiscal year 2022 amounted to € 1.2 million (2021: loss of € 0.9 million). This does not have any material impact on the Group's cash flows.

44 Liabilities to Non-controlling Interests

Accounting Policies

Liabilities to non-controlling interests, which include obligations from the guaranteed dividend agreements, in particular, are stated at fair value when they are recognized for the first time. The fair value is, in principle, determined by the value of the respective company; if a contractually agreed minimum purchase price is higher than this amount, this purchase price is recognized.

The liabilities to non-controlling interests relate especially to the obligations to pay several guaranteed dividends under valid profit-and-loss transfer agreements or co-investor agreements in an amount of € 235.9 million (December 31, 2021: € 240.5 million).

45 Financial Liabilities from Tenant Financing

Accounting Policies

Financial liabilities from tenant financing include tenant financing contributions. The financing contributions relate to the contributions collected from tenants in Austria for subsidized apartments. These are reimbursed upon the termination of the rental contract following the deduction of a depreciation amount. The amount refunded can be collected again relating to new tenants. As these are generally rental contracts that can be terminated at any time, these liabilities are reported as current liabilities.

Financial liabilities from tenant financing also include maintenance and improvement contributions deposited by tenants (EVB). These contributions are paid by tenants in Austria to finance the costs associated with modernization work. The payment depends on the age of the building and must be used up for modernization work within 20 years of their receipt. Otherwise, the contributions have to be refunded to the tenant.

First-time recognition is at fair value. Subsequent measurement is at amortized cost.

The financial liabilities from tenant financing as of the reporting date include € 111.9 million (December 31, 2021: € 112.0 million) in tenant financing contributions. Financial liabilities from tenant financing also include € 43.2 million in maintenance and improvement contributions deposited by tenants (EVB) (December 31, 2021: € 45.5 million).

46 Other Liabilities

	Dec. 31, 2021		Dec. 31, 2022	
in € million	non-current	current	non-current	current
Advance payments received	–	101.2	–	40.3
Miscellaneous other liabilities	5.2	127.6	27.9	90.9
	5.2	**228.8**	**27.9**	**131.2**

Section (F): Corporate Governance Disclosures

47 Related Party Transactions

Vonovia had business relationships with unconsolidated investees and subsidiaries in the 2022 fiscal year. These transactions resulted from the normal exchange of deliveries and services and are shown in the table below:

in € million	Provided services		Purchased services		Receivables		Liabilities		Advance payments	
	2021	2022	2021	2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022
Associated companies	–	2.3	28.8	25.7	657.9	646.5	0.9	0.1	126.9	290.1
Joint ventures	–	6.3	–	265.8	148.6	173.1	–	6.3	8.9	17.3
Other non-consolidated subsidiaries	–	0.0	–	–	1.8	1.8	–	–	–	–
	–	**8.6**	**28.8**	**291.5**	**808.3**	**821.4**	**0.9**	**6.4**	**135.8**	**307.4**

As of December 31, 2022, Vonovia's significant business relations were with the QUARTERBACK Group. As of December 31, 2022, loan receivables were recognized in the amount of € 801.9 million (December 31, 2021: € 806.5 million), with € 692.2 million repayable in 12 months and € 109.7 million in 24 months. The average interest rate for the loans is 6.6%.

There are real estate project sales of the QUARTERBACK Group to Vonovia in the amount of € 876.0 million (December 31, 2021: € 876.0 million), for which Vonovia had made advance payments of € 307.4 million in total as of December 31, 2022 (December 31, 2021: € 135.8 million). In connection with agency services contracted by the QUARTERBACK Group in the amount of € 24.2 million (2021: € 16.6 million), Vonovia has outstanding balances on liabilities of € 0.1 million as of December 31, 2022 (December 31, 2021: € 0.9 million). Services totaling € 0.2 million (2021: € - million) were rendered to the QUARTERBACK Group in the reporting period.

As of December 31, 2022, there is also a guarantee to secure non-current loan liabilities of the QUARTERBACK Group in the amount of € 12.3 million (December 31, 2021: € 12.3 million).

Vonovia also has outstanding balances on liabilities of € 0.2 million vis-à-vis B&O Service Berlin GmbH, Berlin, as of December 31, 2022 (December 31, 2021: € - million) for services purchased in the period leading up to December 31, 2022 in the amount of € 119.7 million (2021: € - million).

As of December 31, 2022, Vonovia has outstanding balances on receivables of € 0.6 million (December 31, 2021: € - million) vis-à-vis G+D Gesellschaft für Energiemanagement mbH, Magdeburg. In the reporting period, services worth € 3.7 million (2021: € - million) were provided to G+D Gesellschaft für Energiemanagement mbH, Magdeburg, while services worth € 144.2 million (2021: € - million) were purchased.

There were also loan receivables of € 13.5 million from OLYDO Projektentwicklungsgesellschaft mbH, Berlin, as of December 31, 2022 (December 31, 2021: € 2.1 million) which are to be repaid within two months of the reporting date. The loan has a fixed interest rate of 3%.

At Vonovia, the individuals in key positions pursuant to IAS 24 include the members of the Management Board and the Supervisory Board of Vonovia SE.

The emoluments to key management personnel, which are subject to a disclosure requirement under IAS 24, include the remuneration of the active members of the Management Board and Supervisory Board.

The active members of the Management Board and Supervisory Board received the following remuneration:

in € million	2021	2022
Short-term benefits (without share-based payment)	8.0	10.2
Post-employment benefits	2.4	2.6
Termination benefits	0.6	–
Share-based payment	4.4	-0.8
	15.4	**12.0**

The service cost resulting from provisions for pensions for the active Management Board members is reported under post-employment benefits. The disclosure on share-based payments is based on the expenses in the fiscal year, which are also reported in chapter → **[F48] Share-based Payments**.

The Management Board and Supervisory Board members were not granted any loans or advances.

48 Share-based Payments

Accounting Policies

The **obligations arising from share-based payments** are calculated using standard valuation methods based on option pricing models.

Share-based payments settled through equity instruments are recognized at the grant date at the fair value of the equity instruments vested by that date. The fair value of the obligation is therefore recognized as personnel expenses proportionally over the vesting period and is offset directly against the capital reserves.

The cash-settled share-based payments are shown under other provisions and remeasured at fair value at each reporting date. The expenses are also recognized as personnel expenses over the vesting period (see → **[E39] Provisions**).

Vonovia Management Board

As part of the LTIP in place since 2015, the Management Board members are granted a fixed number of phantom stocks (performance share units or "PSU") annually, which are paid out at the end of a four-year performance period based on the target achievement level for targets defined at the beginning of the performance period and on the development of the share price. The pre-defined target achievement level is based on the targets Relative Total Shareholder Return (RTSR), the development of EPRA Net Tangible Assets (NTA) per share, the development of the Group FFO per share, and the Sustainability Performance Index (SPI), with each target weighted equally at 25%. As a result, this LTIP constitutes a form of cash-settled share-based payment pursuant to IFRS 2; in turn, the payout claim can be lost entirely if the defined target achievement level has not been reached.

The value of the total phantom stocks that had been granted but not paid out from the LTIP as of December 31, 2022, was calculated by an external expert based on recognized actuarial principles. The obligation disclosed as of the reporting date breaks down as follows:

Tranche in €	End of vesting period	Dec. 31, 2022
2019–2022	Dec. 31, 2022	2,778,945
2020–2023	Dec. 31, 2023	1,935,710
2021–2024	Dec. 31, 2024	1,106,812
2022–2025	Dec. 31, 2025	820,936

The LTIP program resulted in expenses pursuant to IFRS 2 totaling € -0.8 million in the 2022 reporting year (2021: € 5.1 million).

Management Board of Deutsche Wohnen

The members of the Management Board of Deutsche Wohnen are granted an annual LTIP over a four-year performance period, the amount of which depends on the achievement of specific financial targets and, in general, also on the achievement of specific sustainability targets. Target achievement is determined using the financial performance criteria DW-NTA per share and DW-Group FFO per share. The two financial performance criteria create incentives for a long-term increase in the value of the company. In general, target achievement is also determined on the basis of sustainability criteria (ESG targets). This means that the LTIP constitutes a form of cash-settled payment. Conversely, the payment claim can be lost entirely if the defined target achievement level has not been reached.

The value of the liability recognized as of December 31, 2022 was determined by an external appraiser using recognized actuarial methods and is composed as follows:

Tranche in €	End of vesting period	Dec. 31, 2022
2022–2025	Dec. 31, 2025	233,243

The LTIP program resulted in expenses pursuant to IFRS 2 totaling € 0.2 million in the 2022 reporting year (2021: € -0.1 million).

Vonovia Executives Below Management Board Level

The LTIP was implemented for the first level of management in 2016. This LTIP is based largely on the LTIP in place for the Management Board, also regarding the performance objectives and the calculation of the objective values with regard to the minimum value, the "target achievement value," and the maximum value.

The value of the total phantom stocks that had been granted but not paid out from the LTIP as of December 31, 2022, was calculated by an external expert based on recognized actuarial principles. The obligation disclosed as of the reporting date breaks down as follows:

Tranche in €	End of vesting period	Dec. 31, 2022
2019–2022	Dec. 31, 2022	1,164,286
2020–2023	Dec. 31, 2023	701,651
2021–2024	Dec. 31, 2024	393,109
2022–2025	Dec. 31, 2025	197,269

The LTIP program results, in accordance with IFRS, in expenses of € -0.5 million in the 2022 reporting year (2021: € 1.7 million).

Deutsche Wohnen Executives Below Management Board Level

The LTIP for the first level of management, which was based largely on the LTIP in place for the Management Board of Deutsche Wohnen, also regarding the identical performance objectives and the calculation of the objective values with regard to the minimum value, the "target achievement value," and the maximum value, was transitioned to the STIP in 2022 or was otherwise contractually replaced. This means that this form of share-based payment will no longer apply to executives below Management Board level in the future.

The LTIP program resulted in expenses pursuant to IFRS 2 totaling € 0.0 million in the 2022 reporting year (2021: € - million).

Employees

The Group works council agreement "Employee Share Program" was concluded in 2014. The program started in the 2015 calendar year, with the shares granted subject to a vesting period of six months. The costs associated with the securities deposit account are borne by Vonovia. Shares with a value of between € 90 and € 360 at the most are granted to employees, depending on their gross annual salary, without the employees having to make any contribution of their own.

The new employee share program results in total expenses of € 2.4 million in the 2022 reporting year (2021: € 2.4 million), which have been offset directly against the capital reserves.

49 Remuneration

Remuneration of the Supervisory Board

The members of the Supervisory Board received total remuneration of € 2.5 million during the 2022 fiscal year (2021: € 1.8 million) for their work.

Total Remuneration of the Management Board

The total remuneration paid to the members of the Management Board comprises the following:

Total remuneration of the Management Board in €	Total remuneration 2021	Total remuneration 2022
Fixed remuneration and short-term variable remuneration	7,186,465	9,150,872
Total long-term variable share-based remuneration	4,828,565	6,807,249
of which		
2021–2024	4,828,565	–
2022–2025	–	6,807,249
(number of shares)	88,524	138,742
Total remuneration	**12,015,030**	**15,958,121**

The remuneration paid to the Management Board members includes the remuneration for all mandates at Vonovia Group companies, subsidiaries and participating interests.

Remuneration of Former Management Board Members and Their Surviving Dependents

Total remuneration of former Management Board members and their surviving dependents amounts to € 0.4 million for the 2022 fiscal year (2021: € 0.9 million).

The defined benefit obligation (DBO) to former members of the Management Board and their surviving dependents amounts to € 14.8 million (2021: € 20.5 million).

50 Auditors' Fees

In the fiscal year, the following fees (including expenses and excluding VAT) have been credited for the services rendered by the Group auditors KPMG Wirtschaftsprüfungsgesellschaft:

in € million	2021	2022
Audits	8.4	10.4
Other confirmation services	3.1	1.3
	11.5	**11.7**

All of the services rendered were consistent with the activities performed as the auditor of the annual financial statements and consolidated financial statements of Vonovia SE.

The fee paid for auditing services performed by KPMG AG Wirtschaftsprüfungsgesellschaft relates to the audit of the consolidated financial statements and annual financial statements of Vonovia SE as well as to various audits of annual financial statements and a review of one set of annual financial statements of Group companies. The consolidated interim financial statements were reviewed and the financial statements were audited in accordance with audit standard IDW PS 490.

The fees for other confirmation services comprise all confirmation services that are not services relating to the audit and are not used in the context of the audit. These mainly include reviews of reconciliations on the interest threshold based on audit standard IDW PS 900, business audits pursuant to ISAE 3000 relating to the non-financial report, various housing assistance reports and reports on the appropriation of loans granted by the German government-owned development bank KfW. Other confirmation services also include services associated with the issue of comfort letters and the issue of valuation certificates.

51 Declaration of Conformity with the German Corporate Governance Code

In December 2022, the Management Board and the Supervisory Board of Vonovia SE and Deutsche Wohnen issued a Declaration of Conformity with the recommendations of the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG) and made it permanently available on the **Vonovia** and **Deutsche Wohnen** websites.

Section (G): Additional Financial Management Disclosures

52 Additional Financial Instrument Disclosures

Measurement categories and classes:

in € million	Carrying amounts Dec. 31, 2022
Assets	
Cash and cash equivalents	
Cash on hand and deposits at banking institutions	1,101.8
Money market funds	200.6
Trade receivables	
Receivables from the sale of properties	47.2
Receivables from property letting	44.9
Other receivables from trading	41.3
Receivables from the sale of real estate inventories	196.8
Financial assets	
Investments valued at equity	240.1
Finance lease receivables	23.7
Loans to other investments	33.1
Other non-current loans	11.5
Other non-current loans to associates and joint ventures	825.9
Non-current securities	5.5
Other investments	398.6
Derivative financial assets	
Cash flow hedges	115.1
Stand-alone interest rate swaps and interest rate caps	99.8
Liabilities	
Trade payables	568.5
Non-derivative financial liabilities	45,059.7
Derivatives and put options	
Purchase price liabilities from put options/rights to reimbursement	270.9
Cash flow hedges	1.3
Lease liabilities	682.5
Liabilities from tenant financing	155.1
Liabilities to non-controlling interests	235.8

Amounts recognized in balance sheet in accordance with IFRS 9						
Amortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IAS 28/IFRS 16	Fair value Dec. 31, 2022	Fair value hierarchy level
1,101.8					1,101.8	1
200.6					200.6	2
47.2					47.2	2
44.9					44.9	2
41.3					41.3	2
196.8					196.8	2
				240.1		n.a.
				23.7		n.a.
33.1					33.2	2
121.2					121.2	2
716.2					716.2	2
			5.5		5.5	1
			398.6		398.6	2
	-10.1	125.2			115.1	2
	99.8				99.8	2
568.5					568.5	2
45,059.7					37,783.4	2
270.9					189.6	3
	1.3				1.3	2
				682.5		n.a.
155.1					155.1	2
235.8					235.8	2

Measurement categories and classes:

in € million	Carrying amounts Dec. 31, 2021
Assets	
Cash and cash equivalents	
Cash on hand and deposits at banking institutions	1,134.0
Money market funds	298.8
Trade receivables	
Receivables from the sale of properties	104.6
Receivables from property letting	48.6
Other receivables from trading	32.7
Receivables from the sale of real estate inventories	264.0
Financial assets	
Investments valued at equity	425.3
Finance lease receivables	23.7
Other current financial receivables from financial transactions*	499.6
Loans to other investments	33.2
Other non-current loans	511.8
Other non-current loans to associates and joint ventures	563.1
Non-current securities	5.2
Other investments	377.0
Derivatives and put options	
Cash flow hedges (cross currency swaps)	35.8
Stand-alone interest rate swaps and interest rate caps	30.6
Liabilities	
Trade payables	449.8
Non-derivative financial liabilities	47,029.0
Derivative financial liabilities	
Purchase price liabilities from put options/rights to reimbursement	264.0
Stand-alone interest rate swaps and interest rate caps	53.9
Cash flow hedges	14.3
Lease liabilities	679.1
Liabilities from tenant financing	157.5
Liabilities to non-controlling interests	240.5

* This includes time deposits and short-term investments in highly liquid money market funds with an original maturity of more than three months.

The section below provides information on the financial assets and financial liabilities not covered by IFRS 9:

> Employee benefits in accordance with IAS 19: gross presentation of right to reimbursement arising from transferred pension obligations in the amount of € 2.6 million (December 31, 2021: € 3.5 million).
> Amount by which the fair value of plan assets exceeds the corresponding obligation of € 1.6 million (December 31, 2021: € 1.0 million).
> Provisions for pensions and similar obligations: € 512.5 million (December 31, 2021: € 684.5 million).

	Amounts recognized in balance sheet in accordance with IFRS 9						
	Amortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IFRS 16/IAS 28	Fair value Dec. 31, 2021	Fair value hierarchy level
	1,134.0					1,134.0	1
	298.8					298.8	2
	104.6					104.6	2
	48.6					48.6	2
	32.7					32.7	2
	264.0					264.0	2
					425.3		n.a.
					23.7		n.a.
	499.6					499.6	2
	33.2					54.8	2
	511.8					511.8	2
	563.1					563.1	2
				5.2		5.2	1
				377.0		377.0	2
		-14.0	49.8			35.8	2
		30.6				30.6	2
	449.8					449.8	2
	47,029.0					47,596.5	2
	264.0					264.0	3
		53.9				53.9	2
		11.4	2.9			14.3	2
					679.1		n.a.
	157.5					157.5	2
	240.5					240.5	2

The following table shows the assets and liabilities that are recognized in the balance sheet at fair value and their classification according to the fair value hierarchy:

in € million	Dec. 31, 2022	Level 1	Level 2	Level 3
Assets				
Investment properties	92,300.1			92,300.1
Financial assets				
Non-current securities	5.5	5.5		
Other investments	398.6		398.6	
Assets held for sale				
Investment properties (contract closed)	70.8		70.8	
Derivative financial assets				
Cash flow hedges	115.1		115.1	
Stand-alone interest rate swaps and caps	99.8		99.8	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	1.3		1.3	
Stand-alone interest rate swaps and caps	–		–	

in € million	Dec. 31, 2021	Level 1	Level 2	Level 3
Assets				
Investment properties	94,100.1			94,100.1
Financial assets				
Non-current securities	5.2	5.2		
Other investments	377.0		377.0	
Assets held for sale				
Investment properties (contract closed)	1,661.5		1,661.5	
Derivative financial assets				
Cash flow hedges (cross currency swaps)	35.8		35.8	
Stand-alone interest rate swaps and caps	30.6		30.6	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	14.3		14.3	
Stand-alone interest rate swaps and caps	53.9		53.9	

In general, Vonovia measures its investment properties on the basis of the discounted cash flow (DCF) methodology (Level 3). The material valuation parameters and valuation results can be found in chapter → [D28] Investment Properties.

The investment properties classified as assets held for sale are recognized at the time of their transfer to assets held for sale at their new fair value, the agreed purchase price (Level 2).

No financial instruments were reclassified to different hierarchy levels as against the comparative period.

Securities and shares in listed companies included in other investments are generally measured using the quoted prices in active markets (Level 1).

All investments in equity instruments that do not relate to associates are measured at fair value in other comprehensive income. The Group's primary aim is to hold its investments in equity instruments in the long term for strategic purposes. Measurement is consistent with Level 2 as the expected cash flows do not involve any considerable estimation uncertainties as the business model can be planned based on the contractual agreements, and discounting can use the same approach as that used for other financial instruments.

For the measurement of financial instruments, cash flows are initially calculated and then discounted. In addition to the tenor-specific EURIBOR/STIBOR rates (3M; 6M), the respective credit risk is taken as a basis for discounting. Depending on the expected cash flows, either Vonovia's own credit risk or the counterparty risk is taken into account in the calculation.

Due to the current interest rate environment (and the return to more positive market values as a result), counterparty risk premiums were relevant for the interest rate swaps in the consolidated financial statements alongside Vonovia's own credit risk. As with Vonovia's own risk, they are derived from rates observable on the capital markets and ranged from 0 to 230 basis points, depending on the residual maturities. Vonovia's own risk premiums were trading at between 25 and 280 basis points on the same cut-off date, depending on the maturities. Regarding the positive market values of the cross currency swaps, a counterparty risk of -20 basis points was taken into account.

As part of the valuation of the cross currency swaps, the USD cash flows are converted into EUR using the EUR/USD FX forward curve, after which all EUR cash flows are discounted using the 6M EURIBOR curve (Level 2).

The fair values of the cash and cash equivalents, trade receivables and other financial receivables approximate their carrying amounts at the reporting date owing to their mainly short maturities. The amount of the estimated impairment loss on cash and cash equivalents was calculated based on the losses expected over a period of twelve months. It was determined that the cash and cash equivalents have a low risk of default due to the external ratings and short residual maturities and that there is no need for any material impairment of cash and cash equivalents.

The fair value of the purchase price liabilities from put options/rights to reimbursement granted to minority shareholders is generally based on the going concern value of the respective company; if a contractually agreed minimum purchase price is higher than this amount, this purchase price is recognized (Level 3). The unobservable valuation parameters may fluctuate depending on the going concern values of these companies. However, a major change in value is not likely, as the business model is very predictable.

				From subsequent measurement							
in € million	From interest	Income from other non-current loans	Dividends from other investments	Impairment losses	Expected credit loss for other non-current loans to associates	Derecognized receivables	Derecognized liabilities	Financial result affecting income 2022	Measurement of cash flow hedges	Measurement of financial instruments categorized as equity instruments	Total financial result 2022
2022											
Debt instruments carried at (amortized) cost	110.7	50.1	–	-25.7	-24.1	-2.5	–	108.5	–	–	108.5
Derivatives measured at FV through P&L with reclassification	141.8	–	–	–	–	–	–	141.8	–	–	141.8
Debt instruments measured at FVOCI with reclassification	–	–	–	–	–	–	–	–	72.9	–	72.9
Equity instruments measured at FVOCI without reclassification	–	–	21.2	–	–	–	–	21.2	–	-17.1	4.1
Financial liabilities measured at (amortized) cost	-480.1	–	–	–	–	–	-0.2	-480.3	–	–	-480.3
	-227.6	**50.1**	**21.2**	**-25.7**	**-24.1**	**-2.5**	**-0.2**	**-208.8**	**72.9**	**-17.1**	**-153.0**

				From subsequent measurement							
in € million	From interest	Income from other non-current loans	Dividends from other investments	Impairment losses	expected credit loss for other non-current loans to associates	Derecognized receivables	Derecognized liabilities	Financial result affecting income 2021	Measurement of cash flow hedges	Measurement of financial instruments categorized as equity instruments	Total financial result 2021
2021											
Debt instruments carried at (amortized) cost	21.1	13.1	–	-23.3	-15.9	-2.5	–	-7.5	–	–	-7.5
Derivatives measured at FV through P&L with reclassification	-0.2	–	–	–	–	–	–	-0.2	–	–	-0.2
Debt instruments measured at FVOCI with reclassification	–	–	–	–	–	–	–	–	26.1	–	26.1
Equity instruments measured at FVOCI without reclassification	–	–	27.7	–	–	–	–	27.7	–	81.1	108.8
Financial liabilities measured at (amortized) cost	-385.4	–	–	–	–	–	3.5	-381.9	–	–	-381.9
	-364.5	**13.1**	**27.7**	**-23.3**	**-15.9**	**-2.5**	**3.5**	**-361.9**	**26.1**	**81.1**	**-254.7**

53 Information on the Consolidated Statement of Cash Flows

The statement of cash flows shows how Vonovia's cash has changed during the reporting year as a result of cash inflows and outflows. In accordance with IAS 7 (Statement of Cash Flows), a distinction is made between changes in cash flow from operating activities, investing activities and financing activities.

The cash flow from operating activities is determined from the profit for the period using the indirect method, the profit for the period being adjusted for effects of transactions that are not cash-effective, any deferrals or accruals of past or future operating cash receipts or payments as well as items of income or expense associated with investing or financing cash flows.

The effects of changes in the scope of consolidation are shown separately. Therefore, direct comparison with the corresponding changes in the items of the consolidated balance sheet is not possible.

The proceeds from the disposal of intangible assets, property, plant and equipment and investment properties are shown in cash flow from investing activities.

Exercising the IAS 7 option, interest received is shown under cash flow from investing activities and interest paid is shown under cash flow from financing activities.

The item "Payments for acquisition of investment properties" mainly shows expenses for modernization measures.

54 Financial Risk Management

In the course of its business activities, Vonovia is exposed to various financial risks. The Group-wide financial risk management system aims to identify any potentially negative impact on the financial position of the Group early on and take suitable measures to limit this impact. For the structure and organization of financial risk management, we refer to the management report (see → **Risk Management Structure and Instruments**). This system was implemented on the basis of Group guidelines, which were approved by the Management Board and which are continually reviewed. The risks associated with financial instruments and the corresponding risk management are described in detail as follows:

Market Risks

Currency Risks

The cash-effective currency risks arising in connection with the still to be issued USD bond were eliminated by the contracting of cross currency swaps. Liquidity transfers from the German subgroup to Swedish subsidiaries are usually secured through the conclusion of foreign currency forwards. Nevertheless, currency fluctuations are expected to result from financing relationships. By way of example, Vonovia SE issued two bonds denominated in Swedish krona in a total amount of SEK 1,250.0 million on March 30, 2022. Based on the exchange rate as of December 31, 2022, a -5 % change in the value of the Swedish krona against the euro would result in currency gains of € 1.1 million, while a change of +5 %would result in a currency loss of € 1.1 million. Vonovia is subject to no further material currency risks in the scope of its usual business activities.

Interest Rate Risks

The investments measured at fair value are subject, in particular, to a price risk resulting from fluctuations in expected returns, market interest rates and expectations based on the operating business development of the investments. Other investments are long-term investments that are closely related to Vonovia's operating business areas. As a result, short-term realization of the price fluctuations cannot generally be assumed.

In the course of its business activities, Vonovia is exposed to cash-effective interest rate risks as a result of floating-rate debt as well as new and follow-on loans. Within this context, the interest markets are continually monitored by the Finance and Treasury department.

Its observations are incorporated into the financing strategy.

As part of its financing strategy, Vonovia uses derivative financial instruments, in particular interest rate swaps and caps, to limit or manage interest rate risks. Vonovia's policies permit the use of derivatives only if they are associated with underlying assets or liabilities, contractual rights or obligations and planned, highly probable transactions.

A sensitivity analysis for cash flow hedges is provided under chapter → **[G56] Cash Flow Hedges and Stand-alone Hedging Instruments**.

Other Risks

Vonovia also acts as an energy supply company through its subsidiary Vonovia Energie Service GmbH. Contracts used for procurement and in the context of sales only constitute financial instruments under IFRS 9 to an insignificant extent. However, because the contracts used are managed in a comparable manner, this business area is also presented below. Due in particular to the current strong fluctuations in energy procurement conditions, there is a risk that planned energy procurement prices may not be realized. This indirectly results in the risk of the energy sales business becoming loss-making. Vonovia hedges against these risks with a broad range of risk management instruments, which, in addition to a structured multi-year procurement strategy and systematic risk monitoring, also offers the option of price adjustments during the year. This has significantly reduced market price risks in the current highly dynamic situation on the energy procurement markets.

For all material equity instruments categorized at FVOCI, a 5% increase (reduction) in the share price would have increased (reduced) total equity by € 19.5 million (€ -19.5 million) (previous year: € 18.6 million (€ -18.6 million).

Credit Risks

Vonovia is exposed to a default risk resulting from the potential failure of a counterparty to fulfill its part of the contract. In order to minimize risks, financial transactions are generally only executed with banks and partners whose credit rating has been found by a rating agency to be at least equivalent to Vonovia's. These counterparties are assigned volume limits set by the Management Board. The counterparty risks are managed and monitored centrally by the Finance and Treasury department.

Liquidity Risks

The companies of Vonovia are financed by borrowings to a notable degree. Due to their high volume, the loans are in some cases exposed to a considerable refinancing risk. The liquidity risks arising from financing transactions with high volumes (volume risks) have become apparent in the financial sector, especially in the wake of the financial crisis. In order to limit these risks, Vonovia is in constant contact with many different market players, continuously monitors all financing options available on the capital and banking markets and uses these options in a targeted manner. Moreover, Vonovia subjects its existing financings to an early review prior to the respective final maturity date in order to ensure refinancing.

Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants such as the debt service coverage ratio or debt-equity ratio. If financial covenants are violated, the breach is not rectified within so-called cure periods and no mutually acceptable agreement can be reached with the lenders, the financing may be restructured and the cost structure changed. Should all commonly practiced solutions be unsuccessful, the lenders could call in the loan. The fulfillment of these financial covenants is continually monitored by the Finance and Treasury department on the basis of current actual figures and budgetary accounting.

In order to ensure its ability to pay at all times, Vonovia has put a system-supported cash management system in place. This system monitors and optimizes Vonovia's cash flows on an ongoing basis and provides the Management Board with regular reports on the Group's current liquidity situation. Liquidity management is supplemented by short-term rolling, monthly liquidity planning for the current fiscal year, of which the Management Board is also promptly notified. In order to minimize credit risks, large amounts of cash on hand are avoided wherever possible. In the event that large reserves are necessary on a short-term basis due to pending investments or refinancing, these are distributed among various instruments and banking partners with good credit ratings.

The following table shows the forecast for undiscounted cash flows of the non-derivative financial liabilities and derivative financial instruments for the 2022 reporting year. The loan repayments shown for the following years contain only contractually fixed minimum repayment amounts:

		2023		2024		2025 to 2029	
in € million	Carrying amount as of Dec. 31, 2022	Interest	Repayment	Interest	Repayment	Interest	Repayment
Non-derivative financial liabilities							
Liabilities to banks	18,107.8	213.2	1,344.5	241.2	1,163.6	797.0	9,085.1
Liabilities to other creditors	26,741.7	242.2	2,235.7	385.1	2,019.4	1,461.0	13,492.6
Deferred interest from other non-derivative financial liabilities	210.2	210.2	–	–	–	–	–
Lease liabilities	682.5	18.7	38.5	18.1	31.7	83.6	103.2
Financial liabilities from tenant financing	155.1	–	114.1	–	2.0	–	9.7
Derivative financial assets and liabilities							
Purchase price liabilities from put options/rights to reimbursement	270.9	–	–	–	–	–	195.4
Cash flow hedges/stand-alone interest rate derivatives	-165.5	-23.5	–	-14.2	–	-23.5	–
Cash flow hedges (cross currency swap) USD in €	-47.0	-10.8	-185.0				
Cash flow hedges (cross currency swap) in €		8.4	185.0				
Deferred interest from swaps	-1.1	-1.1	–	–	–	–	–

in € million	Carrying amount as of Dec. 31, 2021	2022 Interest	2022 Repayment	2023 Interest	2023 Repayment	2024 to 2028 Interest	2024 to 2028 Repayment
Non-derivative financial liabilities							
Liabilities to banks	21,263.4	118.0	846.7	149.2	1,619.4	484.1	7,437.7
Liabilities to other creditors	25,592.9	200.7	5,837.7	307.0	2,713.2	1,100.2	11,956.1
Deferred interest from other non-derivative financial liabilities	172.7	172.7	–	–	–	–	–
Lease liabilities	679.1	17.3	39.0	16.9	33.4	79.8	107.3
Financial liabilities from tenant financing	157.5	–	114.6	–	2.1	–	10.2
Derivative financial assets and liabilities							
Purchase price liabilities from put options/rights to reimbursement	264.0	–	47.8	–	–	–	34.0
Cash flow hedges/stand-alone interest rate derivatives	35.6	46.0	–	35.5	–	28.4	–
Cash flow hedges (cross currency swap) USD in €	-35.2	-10.2	–	-10.2	-185.0		
Cash flow hedges (cross currency swap) in €		8.4	–	8.4	185.0		
Deferred interest from swaps	1.4	1.4	–	–	–	–	–

Credit Facilities

Since November 2021, an agreement has been in place between Vonovia SE and a banking consortium led by Commerzbank AG for a syndicated credit facility with a volume of € 3,000.0 million. Drawdowns can be made in euros or Swedish krona under the agreement, which will end in 2024, with interest based on the EURIBOR or STIBOR, plus an additional margin. This credit line had not been used as of December 31, 2022.

A commercial paper master program with a total volume of € 3,000.0 million, in which Vonovia SE acts as the issuer, has also been in place since November 2021. No issues were outstanding as part of this program as of December 31, 2022.

As of December 31, 2022, the total volume available under guarantee loan agreements in the Group as a whole amounted to € 245.8 million. A total of € 115.2 million of this amount had been drawn down by the reporting date.

Most of the total volume was made available to Vonovia SE in the form of three revolving guarantee lines of € 50.0 million each by Commerzbank AG, Atradius Credit Insurance N.V. and Swiss Re International SE. A total of € 69.7 million of this volume had been drawn in the form of guarantees issued as of December 31, 2022. The BUWOG subgroup also has a revolving guarantee line of € 10.0 million with UniCredit Bank Austria AG, which had been drawn in the amount of € 5.4 million as of December 31, 2022, as well as a guarantee line of € 5.0 million with Raiffeisen Bank International AG. The latter had not been drawn by the reporting date. In addition, a project-specific development financing arrangement with Berliner Volksbank eG allows for the possibility of obtaining bills of exchange, bonds and/or guarantees. On the reporting date of December 31, 2022, an amount of € 0.15 million had been used as part of this arrangement. As of the reporting date, guarantees of Kreissparkasse Gelnhausen of approx. € 0.25 million had also been drawn, as had a guarantee of HypoVereinsbank of approx. € 0.17 million. Vonovia SE has granted a letter of comfort for an already terminated general guarantee agreement between BUWOG Bauträger GmbH and VHV Allgemeine Versicherung AG, under which guarantees of € 0.23 million are currently in force. No new guarantees will be issued under this agreement.

In the Deutsche Wohnen subgroup, there are a total of two framework credit agreements with various banks and a total volume of € 80.0 million. Bills of exchange may also be issued under the terms of one of these agreements, concluded with Aareal Bank in a framework volume of € 30.0 million. As of the reporting date, bills of exchange with a total volume of around € 0.01 million were outstanding. There is also a guarantee framework agreement with Euler Hermes in the amount of € 50.0 million, with a volume of some € 39.3 million having been issued as of the reporting date.

All in all, Vonovia has cash on hand and deposits at banking institutions of € 1,101.8 million as of the reporting date (December 31, 2021: € 1,134.0 million). The master credit agreements/the commercial paper program, together with the cash on hand, guarantee Vonovia's ability to pay at all times.

We refer to the information on financial risk management in the management report.

55 Capital Management

Vonovia's management aims to achieve a long-term increase in value in the interests of customers, employees and investors. Within this context, maintaining a degree of financial flexibility in order to be able to achieve strategic objectives is crucial. This is why Vonovia's capital management focuses on ensuring our investment grade rating. The priority is to ensure sufficient liquidity resources and maintain an efficient ratio between secured and non-secured capital components.

As part of the opportunities and risk management of Vonovia, the members of the Management Board are given monthly reports on the development of results and their potential effects on the capital structure.

The equity situation of the subsidiaries is regularly examined.

Vonovia's equity developed as follows:

in € million	Dec. 31, 2021*	Dec. 31, 2022
Total equity	36,139.1	34,438.8
Total assets	105,914.3	101,389.6
Equity ratio	34.1%	34.0%

* Adjusted (see note [A2] Adjustment to Prior-year Figures).

Vonovia plans to continue funding possible acquisitions by an optimal mix of debt capital and equity.

In order to protect itself against changes in exchange rates and interest rates, Vonovia regularly contracts derivative hedging transactions in the case of liabilities with variable interest rates or liabilities in foreign currencies. The Finance and Treasury department is responsible for implementing the approved financing strategy.

56 Cash Flow Hedges and Stand-alone Hedging Instruments

On the reporting date, the nominal volume of cash flow hedges held in euros, including swaptions, amounts to € 1,501.7 million (December 31, 2021: € 1,109.5 million). Interest rates on hedging instruments are between 0.064% and 3.760% with original swap periods of between 5.25 and 20 years.

In order to partially hedge a secured fixed-rate loan issue in favor of Vonovia SE for an expected amount of € 1.2 billion, with a planned issue date of April 13, 2023 and a term of 10 years, three zero-cost swaption collars (financial options on three interest rate swaps) with a total nominal volume of € 1.0 billion were concluded with different banks in each case between December 5, 2022 and December 8, 2022. Annual interest payments are planned for the hedged item, and no contractual agreements have been reached on repayments during the term. The conclusion of the derivatives caps Vonovia's interest expense from the financing at 3.00% for the term of 10 years. The hedge only relates to the interest rate risk. In order to maximize hedge effectiveness, only the intrinsic value of the options is designated in the hedge. The fair value of the swaption is not part of the hedge and is recognized periodically in the income statement affecting net income. The option on the interest rate swap can only be exercised on the option expiry date. All swaptions concluded are cash-settled, i.e., the market values of the derivatives are settled on the option due date.

For the hedging instruments that are maintained within a so-called passive hedge accounting, € 7.9 million was reclassified affecting net income in the reporting year in line with the expected cash flows from the underlying hedged items. This reduced the value recognized in other comprehensive income to € 10.8 million.

All derivatives are included in netting agreements with the issuing banks.

Due to the current interest rate environment, both the cross currency swaps and the other euro interest rate swaps are reported with positive market values as of the reporting date.

No economic or accounting offsetting was performed in the reporting year.

Key parameters of the interest rate swaps were as follows:

in € million	Carrying amount Dec. 31, 2022	Balance sheet item including the hedging instrument	Face value	Beginning of term	End of term
Bank of America (future fixed interest loan issue)					
Hedged item			400.0	Apr. 12, 2023	Apr. 11, 2033
Swaption	11.9	Financial assets	400.0	Dec. 05, 2022	Apr. 06, 2023
Deutsche Bank (future fixed interest loan issue)					
Hedged item			300.0	Apr. 13, 2023	Apr. 12, 2033
Swaption	9.2	Financial assets	300.0	Dec. 08, 2022	Apr. 11, 2023
BNP Paribas (future fixed interest loan issue)					
Hedged item			300.0	Apr. 14, 2023	Apr. 13, 2033
Swaption	9.1	Financial assets	300.0	Dec. 07, 2022	Apr. 12, 2023
HELABA					
Hedged item			146.6	Jan. 28, 2019	Apr. 30, 2024
Interest rate swaps	5.6	Financial assets	146.6	Jan. 28, 2019	Apr. 30, 2024
Berlin Hyp					
Hedged item			146.6	Jan. 28, 2019	Apr. 30, 2024
Interest rate swaps	5.6	Financial assets	146.6	Jan. 28, 2019	Apr. 30, 2024
Norddeutsche Landesbank					
Hedged item			75.9	June 28, 2013	June 30, 2023
Interest rate swaps	0.2	Financial assets	75.9	June 28, 2013	June 30, 2023
UniCredit Bank AG					
Hedged item			43.1	Oct. 01, 2018	Nov. 30, 2038
Interest rate swaps	6.5	Financial assets	43.1	Oct. 01, 2018	Nov. 30, 2038
UniCredit Bank Austria AG					
Hedged item			89.5	Jan. 02, 2015	Dec. 31, 2034
Interest rate swaps	17.6	Financial assets	89.5	Sep. 18, 2020	Dec. 31, 2034

Current average interest rate (incl. margin)	Changes in the value of the hedging instrument recognized in other comprehensive income	Ineffectiveness of the hedging instrument recognized in profit or loss	Profit or loss item including hedge ineffectiveness	Reporting year reclassification	Profit or loss item including the reclassification of the hedge	Change in fair value of the hedged item
	(+) Increase of equity (-) Decrease of equity	(+) Increase of equity (-) Decrease of equity				
6-M-EURIBOR Marge 0.0%						
3.00%/2.299%	7.4	4.5	Interest expenses	n.a.	n.a.	n.a.
6-M-EURIBOR Marge 0.0%						
3.00%/2.2275%	5.6	3.6	Interest expenses	n.a.	n.a.	n.a.
6-M-EURIBOR Marge 0.0%						
3.00%/2.286%	5.6	3.5	Interest expenses	n.a.	n.a.	n.a.
1-M-EURIBOR Marge 0.0%						-6.3
0.390%	6.3	0.0	n.a.	0.1	Interest expenses	
1-M-EURIBOR Marge 0.0%						-6.3
0.390%	6.3	0.0	n.a.	0.1	Interest expenses	
3-M-EURIBOR Marge 1.47%						-3.3
2.290%	3.9	-0.6	Interest expenses	1.7	Interest expenses	
3-M-EURIBOR Marge 1.32%						-11.6
1.505%	10.9	0.7	Interest expenses	0.7	Interest expenses	
3-M-EURIBOR Marge 1.12%						-16.0
0.064%	15.5	0.5	Interest expenses	0.1	Interest expenses	

In 2013, two cross currency swaps were contracted in equal amounts with each of JP Morgan Limited and Morgan Stanley Bank International Limited; these hedging instruments (cross currency swaps/CCS) became effective on the issuance of two bonds for a total amount of USD 1,000 million. The CCS, each for an amount of USD 375.0 million, fell due in October 2017 in line with the bonds. The hedging instruments, each for an amount of USD 125.0 million, originally had a term of ten years. This means that the EUR/USD currency risk resulting from the coupon and capital repayments was eliminated for the entire term of the bonds.

Key parameters of the cross currency swaps were as follows:

	Face value in USD million	Face value in € million	Beginning of term	End of term	Interest rate USD	Interest rate €	Hedging rate USD/€
J.P. Morgan Securities plc Morgan Stanley & Co. International plc							
Hedged items	250.0	185.0	Oct. 02, 2013	Oct. 02, 2023	5.00%		
CCS	250.0	185.0	Oct. 02, 2013	Oct. 02, 2023		4.58%	1.3517

On February 22, 2022, control of 20.5 % of the shares in the Adler Group, which were previously held by Aggregate Holdings Invest S.A., passed to Vonovia as part of a debt recovery action. At the time of the debt recovery action, the shares in the Adler Group had been reported at their market value of € 251.4 million as investments in associates accounted for using the equity method. Within this context, the call option discussed at this point last year was lost.

As of the reporting date, Deutsche Wohnen Group recognized 16 stand-alone interest rate swaps. The hedged nominal volume amounted to € 704.8 million as of December 31, 2022 (December 31, 2021: € 652.9 million), while the positive market values amount to a total of € 66.4 million (December 31, 2021: € -20.8 million).

The hedged nominal volume of currently 13 stand-alone interest rate swaps of BUWOG amounted to € 299.9 million as of December 31, 2022 (December 31, 2021: € 312.3 million).

On the reporting date, the Victoriahem Group recognized 15 stand-alone interest rate swaps and three interest rate caps. The nominal volume hedged in Swedish krona amounted to € 1,296.9 million as of December 31, 2022 (December 31, 2021: € 1,668.2 million), while the positive market values amount to a total of € 23.8 million (December 31, 2021: € -1.0 million).

The designation of the cash flow hedges as hedging instruments is prospectively determined on the basis of a sensitivity analysis, retrospectively on the basis of the accumulated dollar offset method. The fair value changes of the hedged items are determined on the basis of the hypothetical derivative method. In the reporting year – as in the prior year – the impact of default risk on the fair values is negligible and did not result in any adjustments of the balance sheet item.

In the reporting year, the cash flow hedges held in euros, including swaptions, were shown at their clean fair values totaling € 65.7 million as of December 31, 2022 (December 31, 2021: € -12.3 million). At the same time, positive market values from cross currency swaps in the amount of € 47.0 million (December 31, 2021: € 35.2 million) and positive market values totaling € 99.8 million (December 31, 2021: € 30.6 million) from stand-alone interest rate derivatives of Deutsche Wohnen, BUWOG and Victoriahem were recognized.

In the previous year, financial liabilities still included negative fair values from stand-alone interest rate derivatives in the amount of € -53.9 million.

The total deferred interest came to € 1.1 million in the reporting year (December 31, 2021: € -1.4 million).

The impact of the cash flow hedges (after income taxes) on the development of other reserves is shown below:

		Changes in the period		Reclassification affecting net income		
in € million	As of Jan. 1	Changes in CCS	Other	Currency risk	Interest risk	As of Dec. 31
2022	**-11.9**	**9.0**	**45.0**	**-9.4**	**8.5**	**41.2**
2021	**-32.9**	**12.1**	**6.1**	**-11.7**	**14.5**	**-11.9**

The impact of the cash flow hedges (including income taxes) on total comprehensive income is shown below:

Cash Flow Hedges

in € million	2021	2022
Change in unrealized gains/losses	26.5	77.9
Taxes on the change in unrealized gains/losses	-8.3	-23.9
Net realized gains/losses	-0.4	-5.0
Taxes due to net realized gains/losses	3.2	4.1
Total	**21.0**	**53.1**

In the reporting year, after allowing for deferred taxes, positive cumulative ineffectiveness for cash flow hedges amounts to € 8.1 million (2021: € -0.1 million), improving net interest by € 8.2 million. On the basis of the valuation as of December 31, 2022, Vonovia used a sensitivity analysis to determine the change in equity given a parallel shift in the interest rate structure of 50 basis points in each case:

	Change in equity		
in € million	Other reserves not affecting net income	Income statement affecting net income	Total
2022			
+50 basis points	31.8	10.9	42.7
-50 basis points	-16.9	-20.9	-37.8
2021			
+50 basis points	6.1	21.8	27.9
-50 basis points	-5.8	-19.7	-25.5

A further sensitivity analysis showed that a change in the foreign currency level of -5% (+5%) would lead, after allowance for deferred taxes, to a change in the other reserves not affecting net income of € -0.4 million (or € 0.4 million), while ineffectiveness affecting net income in the amount of € 0.3 million (or € -0.3 million) would result at the same time. In the previous year, a change in the other reserves not affecting net income of € -1.1 million (or € -0.9 million) was recognized in connection with ineffectiveness affecting net income in the amount of € +1.6 million (or € +0.5 million).

57 Contingent Liabilities

Contingent liabilities exist for cases in which Vonovia SE and its subsidiaries give guarantees to various contractual counterparts. The terms are in many cases limited to an agreed time. In some cases, the term is unlimited.

Contingent liabilities of Vonovia are as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Guarantees in connection with Development	104.5	86.0
Rent surety bonds	3.2	2.9
Other	1.6	3.9
	109.3	**92.8**

Vonovia is involved in a number of legal disputes resulting from normal business activities. In particular, these involve tenancy and sales law disputes and, in individual cases, company law disputes (mainly following squeeze-out processes). None of the legal disputes, taken in isolation, will have any material effects on the net assets, financial position or results of operations of Vonovia.

58 Other Financial Obligations

The other financial obligations are as follows:

in € million	Dec. 31, 2021	Dec. 31, 2022
Other financial obligations		
Obligations resulting from acquisition	868.1	798.6
Investment obligations	921.9	757.7
Commitments under purchase orders for modernization and new construction	800.1	580.2
Cable TV service contracts	220.5	173.4
IT service contracts	62.0	43.4
Surcharges under the German Condominium Act	1.6	0.3
Other	26.4	12.0
	2,900.6	**2,365.6**

The obligations under cable TV service contracts are set against future income from the marketing of the cable TV service.

Bochum, March 14, 2023

Rolf Buch
(CEO)

Arnd Fittkau
(CRO)

Philip Grosse
(CFO)

Daniel Riedl
(CDO)

Helene von Roeder
(CTO)

Information

To offer a high degree of transparency, we publish detailed information in line with the requirements of the European Public Real Estate Association (EPRA).

List of Vonovia Shareholdings

as of December 31, 2022, according to Section 313 (2) HGB

Company	Company domicile	Interest %
Vonovia SE	Bochum/DE	
Consolidated Companies		
Germany		
AGG Auguste-Viktoria-Allee Grundstücks GmbH	Berlin	100.00 1)
Alboingärten Bauvorhaben Bessemerstraße GmbH	Schönefeld	100.00
Alpha Asset Invest GmbH	Berlin	100.00
alt+kelber Immobilienverwaltung GmbH	Berlin	100.00
Amber Dritte VV GmbH	Berlin	94.90 1)
Amber Erste VV GmbH	Berlin	94.90 1)
Amber Zweite VV GmbH	Berlin	94.90 1)
Aragon 13. VV GmbH	Berlin	94.90 1)
Aragon 14. VV GmbH	Berlin	94.90 1)
Aragon 15. VV GmbH	Berlin	94.90 1)
Aragon 16. VV GmbH	Berlin	94.90 1)
Aufbau-Gesellschaft der GEHAG mit beschränkter Haftung	Berlin	100.00
Barmer Wohnungsbau GmbH	Wuppertal	92.03
Barmer Wohnungsbau Grundbesitz I GmbH	Wuppertal	100.00
Barmer Wohnungsbau Grundbesitz IV GmbH	Wuppertal	100.00
Barmer Wohnungsbau Grundbesitz V GmbH	Wuppertal	100.00
Bau- und Siedlungsgesellschaft Dresden mbH	Dresden	94.73
BauBeCon BIO GmbH	Berlin	100.00 1)
BauBeCon Immobilien GmbH	Berlin	100.00 1)
BauBeCon Wohnwert GmbH	Berlin	100.00 1)
Baugesellschaft Bayern mbH	Munich	94.90
Beamten-Baugesellschaft Bremen Gesellschaft mit beschränkter Haftung	Bremen	94.90
Beragon VV GmbH	Berlin	94.90 1)
Börsenhof A Besitz GmbH	Bremen	94.00
Bremische Gesellschaft für Stadterneuerung, Stadtentwicklung und Wohnungsbau mit beschränkter Haftung	Bremen	94.90
Bundesbahn-Wohnungsbaugesellschaft Kassel Gesellschaft mit beschränkter Haftung	Kassel	94.90
Bundesbahn-Wohnungsbaugesellschaft Regensburg mbH	Regensburg	94.90
BUWOG - Bauen und Wohnen Deutschland 1 GmbH	Schönefeld	100.00
BUWOG - Bauen und Wohnen Deutschland 2 GmbH	Berlin	100.00
BUWOG - Bauen und Wohnen Deutschland 3 GmbH	Berlin	100.00

Company	Company domicile	Interest %
BUWOG - Bauen und Wohnen Leipzig GmbH	Leipzig	100.00
BUWOG - Bauen und Wohnen Süd GmbH (former Bresta Invest GmbH)	Lindau (Bodensee)	100.00
BUWOG - Berlin I GmbH & Co. KG	Bochum	94.90
BUWOG - Berlin II GmbH	Kiel	94.90
BUWOG - Berlin Kreuzberg I GmbH & Co. KG	Bochum	94.90
BUWOG - Berlin Wohnen GmbH	Kiel	94.90
BUWOG - Berlin Wohnen II GmbH	Kiel	94.90 [1)]
BUWOG - Berlin Wohnen III GmbH	Kiel	94.90
BUWOG - Braunschweig I GmbH	Kiel	94.90
BUWOG - Gartenfeld Development GmbH	Berlin	94.90
BUWOG - Gartenfeld Wohnen GmbH	Kiel	94.90
BUWOG - Gervinusstraße Development GmbH	Berlin	100.00
BUWOG - Goethestraße Development GmbH	Berlin	94.90
BUWOG - Grundstücks- und Betriebs GmbH	Kiel	94.90
BUWOG - Hamburg Süd GmbH	Kiel	94.90 [1)]
BUWOG - Hamburg Umland I GmbH	Kiel	94.90
BUWOG - Hamburg Umland II GmbH	Kiel	94.90
BUWOG - Hamburg Wohnen GmbH	Kiel	100.00
BUWOG - Harzer Straße Development GmbH	Berlin	94.90
BUWOG - Hausmeister GmbH	Kiel	100.00
BUWOG - Heidestraße Development GmbH	Berlin	94.90
BUWOG - Herzogtum Lauenburg GmbH	Kiel	94.90
BUWOG - Immobilien Management GmbH	Kiel	100.00
BUWOG - Jahnstraße Development GmbH	Berlin	94.90
BUWOG - Kassel Verwaltungs GmbH	Kiel	100.00
BUWOG - Kiel I GmbH & Co. KG	Bochum	94.90
BUWOG - Kiel II GmbH	Kiel	94.90
BUWOG - Kiel III GmbH	Kiel	94.90
BUWOG - Kiel IV GmbH	Kiel	94.90
BUWOG - Kiel Meimersdorf GmbH	Kiel	94.90 [1)]
BUWOG - Kiel V GmbH	Kiel	94.90
BUWOG - Lübeck Hanse I GmbH	Kiel	94.90
BUWOG - Lübeck Hanse II GmbH	Kiel	94.90
BUWOG - Lübeck Hanse III GmbH	Kiel	94.90
BUWOG - Lübeck Hanse IV GmbH	Kiel	94.90
BUWOG - Lückstraße Development GmbH	Berlin	94.90
BUWOG - Lüneburg GmbH	Kiel	94.90
BUWOG - Mariendorfer Weg Development GmbH	Berlin	94.90
BUWOG - NDL I GmbH	Kiel	100.00
BUWOG - NDL II GmbH	Kiel	100.00
BUWOG - NDL III GmbH	Kiel	100.00
BUWOG - NDL IV GmbH	Kiel	100.00
BUWOG - NDL IX GmbH	Kiel	100.00
BUWOG - NDL V GmbH	Kiel	100.00
BUWOG - NDL VI GmbH	Kiel	100.00
BUWOG - NDL VII GmbH	Kiel	100.00

Company	Company domicile	Interest %
BUWOG - NDL VIII GmbH	Kiel	100.00
BUWOG - NDL X GmbH	Kiel	100.00
BUWOG - NDL XI GmbH	Kiel	100.00
BUWOG - NDL XII GmbH	Kiel	100.00
BUWOG - NDL XIII GmbH	Kiel	100.00
BUWOG - Niedersachsen/Bremen GmbH	Kiel	94.90 [1)]
BUWOG - Parkstraße Development GmbH	Berlin	94.90
BUWOG - Regattastraße Development GmbH	Berlin	100.00
BUWOG - Region Ost Development GmbH	Berlin	100.00
BUWOG - Rhein-Main Development GmbH	Hanau	100.00
BUWOG - Schleswig-Holstein GmbH	Kiel	94.90 [1)]
BUWOG - Spandau Primus GmbH	Kiel	100.00
BUWOG - Weidenbaumsweg Development GmbH	Berlin	94.90
BUWOG Bauträger GmbH	Berlin	94.90
BUWOG Immobilien Treuhand GmbH	Bochum	100.00 [1)]
BUWOG Kassel I GmbH & Co. KG	Bochum	94.90
BUWOG Kassel II GmbH & Co. KG	Bochum	94.90
BUWOG Projektmanagement GmbH	Berlin	100.00
BUWOG Spandau 1 GmbH & Co. KG	Kiel	100.00 [2), 3)]
BUWOG Spandau 2 GmbH & Co. KG	Kiel	100.00 [2), 3)]
BUWOG Spandau 3 GmbH & Co. KG	Kiel	100.00 [2), 3)]
BUWOG Syke GmbH	Kiel	100.00
BUWOG-Lindenstraße Development GmbH	Berlin	100.00
BUWOG-Westendpark Development GmbH	Berlin	100.00
BWG Frankfurt am Main Bundesbahn-Wohnungsgesellschaft mbH	Frankfurt am Main	94.90
C. A. & Co. Catering KG	Wolkenstein	100.00
Ceragon VV GmbH	Berlin	94.90 [1)]
Communication Concept Gesellschaft für Kommunikationstechnik mbH	Leipzig	100.00
conwert & kelber Besitz 10/2007 GmbH	Berlin	94.80
conwert & kelber Besitz 11/2007 GmbH	Zossen	94.80
conwert & kelber Bestand 10/2007 GmbH	Berlin	94.80
conwert Alfhild II Invest GmbH	Berlin	94.90
conwert Alfhild Invest GmbH	Berlin	94.90
conwert Berlin 2 Immobilien Invest GmbH	Zossen	94.90
conwert Capricornus Invest GmbH	Zossen	100.00
conwert Carina Invest GmbH	Berlin	100.00
conwert Centaurus Invest GmbH	Zossen	94.90
conwert delta Invest GmbH	Berlin	100.00
conwert Deutschland Beteiligungsholding GmbH	Berlin	100.00
conwert Deutschland GmbH	Berlin	100.00
conwert Deutschland Holding GmbH	Berlin	94.90
conwert Dresden Vier Invest GmbH	Berlin	100.00
conwert Eisa Invest GmbH	Zossen	94.90
conwert Epitaurus Invest GmbH	Zossen	94.00
conwert gamma Invest GmbH	Berlin	94.90
conwert Grazer Damm Development GmbH	Zossen	94.90

Company	Company domicile	Interest %
conwert Grundbesitz Leipzig Besitz GmbH	Berlin	94.90
conwert Grundbesitz Leipzig Bestand GmbH	Zossen	94.90
conwert Immobilien Development GmbH	Berlin	94.90
conwert lambda Invest GmbH	Berlin	100.00
conwert Lepus Invest GmbH	Berlin	100.00
conwert omega Invest GmbH	Zossen	94.90
conwert Pegasus Invest GmbH	Berlin	94.90
conwert Sachsen Invest GmbH	Zossen	100.00
conwert Tizian 1 Invest GmbH	Berlin	94.90
conwert Tizian 2 Invest GmbH	Berlin	94.90
conwert Wali Invest GmbH	Berlin	94.90
conwert Wohn-Fonds GmbH	Zossen	100.00
DA EB GmbH	Nuremberg	100.00
DA Jupiter Wohnanlage GmbH	Düsseldorf	94.00 [1)]
DAIG 1. Objektgesellschaft mbH	Düsseldorf	100.00 [1)]
DAIG 12. Objektgesellschaft mbH	Düsseldorf	94.00 [1)]
DAIG 13. Objektgesellschaft mbH	Düsseldorf	94.00
DAIG 2. Objektgesellschaft mbH	Düsseldorf	100.00 [1)]
DAIG 3. Objektgesellschaft mbH	Düsseldorf	100.00 [1)]
DAIG 4. Objektgesellschaft mbH	Düsseldorf	100.00 [1)]
DELTA VIVUM Berlin I GmbH	Berlin	94.90 [1)]
DELTA VIVUM Berlin II GmbH	Berlin	94.90 [1)]
Deutsche Annington Acquisition Holding GmbH	Düsseldorf	100.00 [1)]
Deutsche Annington Beteiligungsverwaltungs GmbH	Düsseldorf	100.00 [1)]
Deutsche Annington DEWG GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington DEWG Verwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington DMB Eins GmbH	Bochum	100.00
Deutsche Annington Fundus Immobiliengesellschaft mbH	Cologne	100.00
Deutsche Annington Fünfte Beteiligungsgesellschaft mbH	Düsseldorf	100.00
Deutsche Annington Haus GmbH	Kiel	100.00
Deutsche Annington Heimbau GmbH	Kiel	100.00
Deutsche Annington Holdings Drei GmbH	Bochum	100.00
Deutsche Annington Holdings Eins GmbH	Düsseldorf	100.00
Deutsche Annington Holdings Fünf GmbH	Düsseldorf	100.00 [1)]
Deutsche Annington Holdings Sechs GmbH	Bochum	100.00 [1)]
Deutsche Annington Holdings Vier GmbH	Düsseldorf	100.00 [1)]
Deutsche Annington Holdings Vier GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington Holdings Zwei GmbH	Düsseldorf	100.00
Deutsche Annington Immobilien-Dienstleistungen GmbH	Düsseldorf	100.00 [1)]
Deutsche Annington Interim DAMIRA GmbH	Düsseldorf	100.00
Deutsche Annington Kundenservice GmbH	Bochum	100.00 [1)]
Deutsche Annington McKinley Eins GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington McKinley Eins Verwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington McKinley-Holding GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington Rhein - Ruhr GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington Rheinland Immobiliengesellschaft mbH	Cologne	100.00

Company	Company domicile	Interest %
Deutsche Annington Sechste Beteiligungs GmbH	Düsseldorf	100.00
Deutsche Annington WOGE Sieben Verwaltungs-GmbH	Düsseldorf	100.00
Deutsche Annington WOGE Vier Bestands GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington WOGE Vier GmbH & Co. KG	Bochum	100.00 [2), 3)]
Deutsche Annington Wohnungsgesellschaft I mbH	Essen	100.00 [1)]
Deutsche Annington Zweite Beteiligungsgesellschaft mbH	Düsseldorf	100.00
Deutsche Eisenbahn-Wohnungs-Gesellschaft mbH	Leipzig	100.00 [1)]
Deutsche Multimedia Service GmbH	Düsseldorf	100.00 [1)]
Deutsche TGS GmbH	Düsseldorf	100.00 [1)]
Deutsche Wohnen Asset Immobilien GmbH	Frankfurt am Main	100.00 [1)]
Deutsche Wohnen Berlin 5 GmbH	Berlin	94.90 [1)]
Deutsche Wohnen Berlin 6 GmbH	Berlin	94.90 [1)]
Deutsche Wohnen Berlin 7 GmbH	Berlin	94.90 [1)]
Deutsche Wohnen Berlin I GmbH	Berlin	94.00 [1)]
Deutsche Wohnen Berlin II GmbH	Berlin	94.90 [1)]
Deutsche Wohnen Berlin III GmbH	Berlin	94.90 [1)]
Deutsche Wohnen Berlin X GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XII GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XIII GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XV GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XVI GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XVII GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Berlin XVIII GmbH	Berlin	94.80 [1)]
Deutsche Wohnen Beteiligungen Immobilien GmbH	Frankfurt am Main	100.00 [1)]
Deutsche Wohnen Beteiligungsverwaltungs GmbH & Co. KG	Berlin	100.00 [2), 3)]
Deutsche Wohnen Care SE	Berlin	100.00
Deutsche Wohnen Construction and Facilities GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Corporate Real Estate GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Direkt Immobilien GmbH	Frankfurt am Main	100.00
Deutsche Wohnen Dresden I GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Dresden II GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Fondsbeteiligungs GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Immobilien Management GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Kundenservice GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Management GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Management- und Servicegesellschaft mbH	Frankfurt am Main	100.00 [1)]
Deutsche Wohnen Multimedia Netz GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Reisholz GmbH	Berlin	100.00 [1)]
Deutsche Wohnen SE	Berlin	87.60
Deutsche Wohnen Technology GmbH	Berlin	100.00 [1)]
Deutsche Wohnen Zweite Fondsbeteiligungs GmbH	Berlin	100.00 [1)]
Deutsche Wohn-Inkasso GmbH	Bochum	100.00 [1)]
Diak-Nd Pflege-Altenheime Besitz GmbH	Berlin	100.00
DW Pflegeheim Dresden Grundstücks GmbH	Munich	100.00 [1)]
DW Pflegeheim Eschweiler Grundstücks GmbH	Munich	100.00 [1)]
DW Pflegeheim Frankfurt am Main Grundstücks GmbH	Munich	100.00 [1)]

Company	Company domicile	Interest %
DW Pflegeheim Friesenheim Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Glienicke Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Konz Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Meckenheim Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Potsdam Grundstücks GmbH	Munich	100.00
DW Pflegeheim Siegen Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Weiden Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeheim Würselen Grundstücks GmbH	Munich	100.00 [1]
DW Pflegeresidenzen Grundstücks GmbH	Munich	100.00
DW Property Invest GmbH	Berlin	100.00 [1]
DWRE Alpha GmbH	Berlin	100.00 [1]
DWRE Braunschweig GmbH	Berlin	100.00 [1]
DWRE Dresden GmbH	Berlin	100.00 [1]
DWRE Halle GmbH	Berlin	100.00 [1]
DWRE Hennigsdorf GmbH	Berlin	100.00 [1]
DWRE Leipzig GmbH	Berlin	100.00 [1]
ecowo GmbH	Bochum	100.00 [1]
Eisenbahn-Siedlungsgesellschaft Augsburg mbH (Siegau)	Augsburg	94.90
Eisenbahn-Siedlungs-Gesellschaft Berlin mit beschränkter Haftung	Berlin	94.90
Eisenbahn-Siedlungsgesellschaft Stuttgart, gemeinnützige Gesellschaft mit beschränkter Haftung	Stuttgart	94.87 [1]
Eisenbahn-Wohnungsbau-Gesellschaft Karlsruhe GmbH	Karlsruhe	94.90
Eisenbahn-Wohnungsbaugesellschaft Köln mbH	Cologne	94.90
Eisenbahn-Wohnungsbaugesellschaft Nürnberg GmbH	Nuremberg	94.90
EMD Energie Management Deutschland GmbH	Berlin	100.00 [1]
Eragon VV GmbH	Berlin	94.90 [1]
FACILITA Berlin GmbH	Berlin	100.00
Faragon V V GmbH	Berlin	94.90 [1]
Fjord Immobilien GmbH	Kiel	94.90 [1]
Fortimo GmbH	Berlin	100.00 [1]
Franconia Invest 1 GmbH	Düsseldorf	94.90
Franconia Wohnen GmbH	Düsseldorf	94.90
Frankfurter Siedlungsgesellschaft mbH (FSG)	Düsseldorf	100.00 [1]
FSG-Holding GmbH	Düsseldorf	94.80
GAG Grundstücksverwaltungs-GmbH	Berlin	94.90
GAGFAH Acquisition 1 GmbH	Bochum	94.80
GAGFAH Acquisition 2 GmbH	Bochum	94.80 [1]
GAGFAH Asset Management GmbH	Bochum	100.00 [1]
GAGFAH Dritte Grundbesitz GmbH	Bochum	94.80 [1]
GAGFAH Erste Grundbesitz GmbH	Bochum	94.80 [1]
GAGFAH GmbH	Bochum	94.90
GAGFAH Griffin GmbH	Bochum	94.90 [1]
GAGFAH Griffin Holding GmbH	Bochum	100.00 [1]
GAGFAH Hausservice GmbH	Essen	94.90 [1]
GAGFAH Holding GmbH	Bochum	100.00 [1]
GAGFAH M Immobilien-Management GmbH	Bochum	94.90
GAGFAH Zweite Grundbesitz GmbH	Bochum	94.80 [1]

Company	Company domicile	Interest %
GBH Acquisition GmbH	Bochum	94.80
GBH Service GmbH	Heidenheim an der Brenz	100.00
Gehag Acquisition Co. GmbH	Berlin	100.00
GEHAG Beteiligungs GmbH & Co. KG	Berlin	100.00 [2), 3)]
GEHAG Dritte Beteiligungs GmbH	Berlin	100.00 [1)]
GEHAG Erste Beteiligungs GmbH	Berlin	100.00 [1)]
GEHAG Erwerbs GmbH & Co. KG	Berlin	99.99 [2)]
GEHAG GmbH	Berlin	100.00
GEHAG Grundbesitz I GmbH	Berlin	100.00 [1)]
GEHAG Grundbesitz II GmbH	Berlin	100.00 [1)]
GEHAG Grundbesitz III GmbH	Berlin	100.00 [1)]
GEHAG Vierte Beteiligung SE	Berlin	100.00 [1)]
GEHAG Zweite Beteiligungs GmbH	Berlin	100.00 [1)]
Geragon VV GmbH	Berlin	94.90 [1)]
GGR Wohnparks Kastanienallee GmbH	Berlin	100.00 [1)]
GGR Wohnparks Nord Leipziger Tor GmbH	Berlin	100.00 [1)]
GGR Wohnparks Süd Leipziger Tor GmbH	Berlin	100.00 [1)]
Grundstücksgesellschaft Karower Damm mbH	Berlin	100.00 [1)]
Grundwert Living GmbH	Berlin	100.00
GSW Acquisition 3 GmbH	Berlin	100.00 [1)]
GSW Corona GmbH	Berlin	100.00 [1)]
GSW Gesellschaft für Stadterneuerung mbH	Berlin	100.00
GSW Grundvermögens- und Vertriebsgesellschaft mbH	Berlin	100.00 [1)]
GSW Immobilien AG	Berlin	94.90
GSW Immobilien GmbH & Co. Leonberger Ring KG	Berlin	94.00 [2)]
GSW Pegasus GmbH	Berlin	100.00 [1)]
GSW-Fonds Weinmeisterhornweg 170-178 GbR	Berlin	80.23
Hamburger Ambulante Pflege- und Physiotherapie "HAPP" GmbH	Hamburg	100.00
Hamburger Senioren Domizile GmbH	Hamburg	100.00
Haragon VV GmbH	Berlin	94.90 [1)]
Haus- und Boden-Fonds 38	Essen	68.96
Haus und Heim Wohnungsbau-GmbH	Berlin	100.00 [1)]
HESIONE Vermögensverwaltungsgesellschaft mbH	Frankfurt am Main	100.00
Holzmindener Straße/Tempelhofer Weg Grundstücks GmbH	Berlin	100.00 [1)]
HPE Hausbau GmbH	Zossen	94.90
HPE Sechste Hausbau Portfolio GmbH	Zossen	100.00
HPE Siebte Hausbau Portfolio GmbH	Berlin	100.00
HSI Hamburger Senioren Immobilien GmbH	Hamburg	100.00
HSI Hamburger Senioren Immobilien Management GmbH	Hamburg	100.00
HvD I Grundbesitzgesellschaft mbH	Berlin	100.00
IESA Immobilien Entwicklung Sachsen GmbH	Berlin	100.00
Immo Service Dresden GmbH	Dresden	100.00
Iragon VV GmbH	Berlin	94.90 [1)]
ISABELL GmbH	Berlin	100.00
ISARIA Dachau Entwicklungsgesellschaft mbH	Munich	100.00
ISARIA Hegeneck 5 GmbH	Munich	100.00

Company	Company domicile	Interest %
ISARIA Objekt Achter de Weiden GmbH	Munich	100.00
Isaria Objekt Erminoldstraße GmbH	Munich	100.00
ISARIA Objekt Garching GmbH	Munich	100.00
ISARIA Objekt Hoferstraße GmbH	Munich	100.00
ISARIA Objekt Norderneyer Straße GmbH	Munich	100.00
ISARIA Objekt Preußenstraße GmbH	Munich	100.00
ISARIA Objekt Schwedler Trio GmbH	Munich	100.00
ISARIA Stuttgart GmbH	Munich	100.00
IWA GmbH Immobilien Wert Anlagen	Berlin	100.00
JANANA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
KADURA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.91
Karagon VV GmbH	Berlin	94.90 [1)]
KATHARINENHOF Seniorenwohn- und Pflegeanlage Betriebs-GmbH	Berlin	100.00
KATHARINENHOF Service GmbH	Berlin	100.00
Kieler Wohnungsbaugesellschaft mit beschränkter Haftung	Kiel	94.90 [1)]
KKS Projektentwicklung GmbH	Berlin	94.80
KWG Grundbesitz CI GmbH & Co. KG	Berlin	99.57 [2)]
KWG Grundbesitz CIII GmbH & Co. KG	Berlin	92.00 [2)]
KWG Grundbesitz I Verwaltungs GmbH	Berlin	100.00
KWG Grundbesitz III GmbH	Berlin	100.00
KWG Grundbesitz VI GmbH	Berlin	100.00
KWG Grundbesitz VIII GmbH	Berlin	100.00
KWG Grundbesitz X GmbH	Berlin	100.00
KWG Immobilien GmbH	Berlin	100.00
KWG Kommunale Wohnen GmbH	Berlin	94.13
Laragon VV GmbH	Berlin	94.90 [1)]
Larry I Targetco (Berlin) GmbH	Berlin	100.00 [1)]
Larry II Targetco (Berlin) GmbH	Berlin	100.00 [1)]
LebensWerk GmbH	Berlin	100.00
LEMONDAS Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
LEVON Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
Liegenschaften Weißig GmbH	Dresden	94.75
Living Innovations- & Beteiligungsgesellschaft mbH	Bochum	100.00
Main-Taunus Wohnen GmbH	Eschborn	99.99
MAKANA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
MANGANA Grundstücksgesellschaft mbH & Co.KG	Grünwald	94.90
Maragon VV GmbH	Berlin	94.90 [1)]
MELCART Grundstücks-Verwaltungsgesellschaft mbH	Grünwald	94.80
MIRA Grundstücksgesellschaft mbH	Düsseldorf	94.90 [1)]
MIRIS Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
Neues Schweizer Viertel Betriebs+Service GmbH & Co. KG	Berlin	94.99
NILEG Immobilien Holding GmbH	Hanover	100.00
NILEG Norddeutsche Immobiliengesellschaft mbH	Hanover	94.86
Objekt Gustav-Heinemann-Ring GmbH	Munich	100.00
Olympisches Dorf Berlin GmbH	Berlin	100.00

Company	Company domicile	Interest %
Omega Asset Invest GmbH	Berlin	100.00
Osnabrücker Wohnungsbaugesellschaft mit beschränkter Haftung	Osnabrück	94.09
PFLEGEN & WOHNEN HAMBURG GmbH	Hamburg	100.00
PFLEGEN & WOHNEN Service GmbH	Hamburg	100.00
PFLEGEN & WOHNEN Textil GmbH	Hamburg	100.00
Planungsgemeinschaft "Das-Neue-Gartenfeld" GmbH & Co. KG	Berlin	59.25
Planungsgemeinschaft "Das-Neue-Gartenfeld" Verwaltungs GmbH	Berlin	100.00
PRIMA Wohnbauten Privatisierungs-Management GmbH	Berlin	100.00 [1]
PUW AcquiCo GmbH	Hamburg	100.00
PUW OpCo GmbH	Hamburg	100.00
PUW PFLEGENUNDWOHNEN Beteiligungs GmbH	Hamburg	100.00
Rhein-Main Wohnen GmbH	Frankfurt am Main	100.00 [1]
Rhein-Mosel Wohnen GmbH	Mainz	100.00 [1]
Rhein-Pfalz Wohnen GmbH	Mainz	100.00 [1]
RMW Projekt GmbH	Frankfurt am Main	100.00 [1]
RPW Immobilien GmbH & Co. KG	Berlin	94.00 [2]
RSTE Objektgesellschaft Wohnanlagen für Chemnitz mbH	Wuppertal	94.73
RVG Rheinauhafen-Verwaltungsgesellschaft mbH	Cologne	74.00
SEED 1 GmbH	Berlin	100.00
Seniorenresidenz "Am Lunapark" GmbH	Leipzig	100.00
SGG Scharnweberstraße Grundstücks GmbH	Berlin	100.00 [1]
"Siege" Siedlungsgesellschaft für das Verkehrspersonal mbH Mainz	Mainz	94.90
Sophienstraße Aachen Vermögensverwaltungsgesellschaft mbH	Berlin	100.00 [1]
Stadtentwicklungsgesellschaft Buch mbH	Berlin	100.00
Süddeutsche Wohnen Gebäude GmbH	Stuttgart	100.00 [1]
Süddeutsche Wohnen GmbH	Stuttgart	94.90 [1]
Süddeutsche Wohnen Grundstücksgesellschaft mbH	Stuttgart	100.00 [1]
Süddeutsche Wohnen Management Holding GmbH	Stuttgart	100.00 [1]
SÜDOST WOBA DRESDEN GMBH	Dresden	94.90
SWG Siedlungs- und Wohnhausgesellschaft Sachsen GmbH	Berlin	100.00
SYNVIA energy GmbH	Magdeburg	100.00
SYNVIA media GmbH	Magdeburg	100.00
SYNVIA mobility GmbH	Magdeburg	100.00
SYNVIA technology GmbH	Magdeburg	100.00
TELE AG	Leipzig	100.00
Tempelhofer Feld GmbH für Grundstücksverwertung	Kiel	94.90
Viterra Holdings Eins GmbH	Düsseldorf	100.00 [1]
Viterra Holdings Zwei GmbH	Düsseldorf	100.00 [1]
Vonovia Dritte Berlin GmbH	Schönefeld	94.90 [1]
Vonovia Eigentumsservice GmbH	Bochum	100.00 [1]
Vonovia Eigentumsverwaltungs GmbH	Bochum	100.00 [1]
Vonovia Elbe Berlin II GmbH	Nuremberg	94.90
Vonovia Elbe Berlin III GmbH	Nuremberg	94.90
Vonovia Elbe Dresden I GmbH	Nuremberg	94.90
Vonovia Elbe GmbH	Nuremberg	94.90

Company	Company domicile	Interest %
Vonovia Elbe Ost GmbH	Nuremberg	94.90
Vonovia Elbe Wannsee I GmbH	Nuremberg	94.90
Vonovia Elbe Wohnen GmbH	Bochum	100.00
Vonovia Energie Service GmbH	Bochum	100.00 [1)]
Vonovia Engineering GmbH	Bochum	100.00 [1)]
Vonovia Immobilienmanagement GmbH	Bochum	100.00 [1)]
Vonovia Immobilienmanagement one GmbH	Frankfurt am Main	94.90 [1)]
Vonovia Immobilienmanagement two GmbH	Frankfurt am Main	94.90 [1)]
Vonovia Immobilienservice GmbH	Munich	100.00 [1)]
Vonovia Kundenservice GmbH	Bochum	100.00 [1)]
Vonovia Managementverwaltung GmbH	Nuremberg	100.00 [1)]
Vonovia Mess Service GmbH	Essen	100.00 [1)]
Vonovia Modernisierungs GmbH	Düsseldorf	100.00 [1)]
Vonovia Operations GmbH	Bochum	100.00 [1)]
Vonovia Pro Bestand Nord GmbH	Bochum	100.00
Vonovia Pro Bestand Nord Invest GmbH	Bochum	94.90
Vonovia Pro Bestand Nord Real Estate GmbH	Bochum	94.90
Vonovia Technischer Service Nord GmbH	Essen	100.00 [1)]
Vonovia Technischer Service Süd GmbH	Dresden	100.00
Vonovia Wohnumfeld Service GmbH	Düsseldorf	100.00 [1)]
WIK Wohnen in Krampnitz GmbH	Berlin	100.00 [1)]
WOBA DRESDEN GMBH	Dresden	100.00
WOBA HOLDING GMBH	Dresden	100.00
Wohnanlage Leonberger Ring GmbH	Berlin	100.00 [1)]
WOHNBAU NORDWEST GmbH	Dresden	94.90
Wohnumfeld Hausservice GmbH	Bochum	100.00 [1)]
Wohnungsbau Niedersachsen Gesellschaft mit beschränkter Haftung	Hanover	94.85
Wohnungsgesellschaft Norden mit beschränkter Haftung	Hanover	94.88
Wohnungsgesellschaft Ruhr-Niederrhein mbH Essen.	Essen	94.90
Zisa Grundstücksbeteiligungs GmbH & Co. KG	Berlin	94.90 [2)]
Zisa Verwaltungs GmbH	Berlin	100.00
Zweite GSW Verwaltungs- und Betriebsgesellschaft mbH	Berlin	100.00
Austria		
Anton Baumgartner-Straße 125, 1230 Wien, Besitz GmbH	Vienna	100.00
Brunn am Gebirge Realbesitz GmbH	Vienna	100.00
BUWOG - Bauen und Wohnen Gesellschaft mbH	Vienna	100.00
BUWOG - Penzinger Straße 76 GmbH	Vienna	100.00
BUWOG - Projektholding GmbH	Vienna	100.00
BUWOG - PSD Holding GmbH	Vienna	100.00
BUWOG Altprojekte GmbH	Vienna	100.00
BUWOG Baranygasse 7 GmbH	Vienna	100.00
BUWOG Bernreiterplatz 13 GmbH	Vienna	100.00
BUWOG Bestands und Projektentwicklungs GmbH (former Mariahilferstraße 156 Invest GmbH)	Vienna	100.00

Company	Company domicile	Interest %
BUWOG Breitenfurterstraße 239 GmbH	Vienna	100.00
BUWOG Breitenfurterstraße Eins, GmbH & Co KG	Vienna	100.00
BUWOG Bruno-Marek-Allee 22 GmbH & Co KG	Vienna	100.00
BUWOG cw Dienstleistung Holding GmbH	Vienna	100.00
BUWOG cw Handelsges.m.b.H.	Vienna	100.00
BUWOG cw Invest GmbH	Vienna	100.00
"BUWOG cw SECURITISATION" Holding GmbH	Vienna	100.00
BUWOG Demophon Immobilienvermietungs GmbH	Vienna	100.00
BUWOG Diesterweggasse 27 GmbH	Vienna	100.00
BUWOG Diesterweggasse 27 GmbH & Co KG	Vienna	100.00
BUWOG Döblerhofstraße GmbH	Vienna	100.00
BUWOG Gewerbeimmobilien Eins GmbH	Vienna	100.00
BUWOG Group GmbH	Vienna	100.00
BUWOG Handelskai 346 GmbH	Vienna	100.00
BUWOG Heiligenstädter Lände 29 GmbH & Co KG	Vienna	100.00
BUWOG Himberger Straße GmbH	Vienna	100.00
BUWOG Holding GmbH	Vienna	100.00
BUWOG Laaer-Berg-Straße 45 GmbH	Vienna	100.00
BUWOG Linke Wienzeile 280 GmbH	Vienna	100.00
BUWOG Pfeiffergasse 3–5 GmbH	Vienna	100.00
BUWOG Projektentwicklung GmbH	Vienna	100.00
BUWOG Rathausstraße GmbH	Vienna	100.00
BUWOG Schweidlgasse 30 GmbH & Co KG	Vienna	100.00
BUWOG Seeparkquartier GmbH	Vienna	100.00
BUWOG Seeparkquartier Holding GmbH	Vienna	100.00
BUWOG Süd GmbH	Villach	99.98
BUWOG Turnergasse 9 GmbH (former V. PASSWEG Ges.m.b.H.)	Vienna	100.00
CENTUM Immobilien GmbH	Vienna	100.00
Con Tessa Immobilienverwertung GmbH	Vienna	100.00
Con value one Immobilien GmbH	Vienna	100.00
CWG Beteiligungs GmbH	Vienna	100.00
DATAREAL Beteiligungsgesellschaft m.b.H. & Co. Gablenzgasse 60 KG	Vienna	100.00
DATAREAL Beteiligungsgesellschaft m.b.H.& Co. Heiligenstädter Straße 9 OG	Vienna	100.00
EB Immobilien Invest GmbH	Vienna	100.00
EBI Beteiligungen GmbH	Vienna	100.00
EBI Beteiligungen GmbH & Co, 1190 Wien, Rampengasse 3–5, KG	Vienna	100.00
ECO Business-Immobilien GmbH	Vienna	100.00
ECO Business-Immobilien-Beteiligungen GmbH	Vienna	100.00
ECO CEE & Real Estate Besitz GmbH	Vienna	100.00
ECO Eastern Europe Real Estate GmbH	Vienna	100.00
ECO Immobilien Verwertungs GmbH	Vienna	100.00
"Epssilon" Altbau GmbH	Vienna	100.00
"Epssilon" Meidlinger Hauptstr.27 Liegenschaftsverwaltungs GmbH	Vienna	100.00
"G1" Immobilienbesitz GmbH	Vienna	100.00
GENA SECHS Immobilienholding GmbH	Vienna	100.00

Company	Company domicile	Interest %
GENA ZWEI Immobilienholding GmbH	Vienna	100.00
Gewerbepark Urstein Besitz GmbH	Vienna	100.00
Gewerbepark Urstein Besitz GmbH & Co KG	Vienna	100.00
GGJ Beteiligungs GmbH	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Eins OG	Vienna	100.00
GJ-Beteiligungs GmbH	Vienna	100.00
GJ-Beteiligungs GmbH & Co Projekt Fünf OG	Vienna	100.00
G-Unternehmensbeteiligung GmbH	Vienna	100.00
"Heller Fabrik" Liegenschaftsverwertungs GmbH	Vienna	100.00
Hertha-Firnberg-Straße 10, 1100 Wien, Immobilienbesitz GmbH	Vienna	100.00
Kapital & Wert Immobilienbesitz GmbH	Vienna	100.00
Lithinos Immobilien Invest GmbH	Vienna	100.00
MARINA TOWER Holding GmbH	Vienna	51.00
MARINADECK Betriebs GmbH	Vienna	100.00
REVIVA Immobilien GmbH	Vienna	100.00
RG Immobilien GmbH	Vienna	100.00
Roßauer Lände 47–49 Liegenschaftsverwaltungs GmbH	Vienna	100.00
Stubenbastei 10 und 12 Immobilien GmbH	Vienna	100.00
Themelios Immobilien Invest GmbH	Vienna	100.00
TP Besitz GmbH	Vienna	100.00
TPI Immobilien Holding GmbH	Vienna	100.00
TPI Tourism Properties Invest GmbH	Vienna	96.00
"TPW" Immobilien GmbH	Vienna	100.00
T-Unternehmensbeteiligung GmbH	Vienna	100.00
Verein "Social City" - Verein zur Förderung der sozialen Kontakte und der sozialen Infrastruktur in Stadterneuerungsgebieten	Vienna	100.00
WZH WEG Besitz GmbH	Vienna	100.00
Sweden		
Graflunds Fastighets Aktiebolag	Eskilstuna	100.00
HomeStar InvestCo AB	Stockholm	100.00
Hyresbostäder Grevgatan 20 Zenithegie AB	Stockholm	100.00
Hyresbostäder Industrivägen 19 Zenithegie AB	Stockholm	100.00
Hyresbostäder Järnvägsgatan 28 AB	Stockholm	100.00
Hyresbostäder Nynäsvägen 24 och 26 AB	Stockholm	100.00
Hyresbostäder Nynäsvägen 27 AB	Stockholm	100.00
Östgötafastigheter i Norrköping AB	Norrköping	100.00
Victoria Park Myran 30 AB	Malmö	100.00
Victoria Park Råbergstorp AB	Malmö	100.00
Victoriahem AB	Malmö	100.00
Victoriahem Alby AB	Stockholm	100.00
Victoriahem Albyberget AB	Stockholm	100.00
Victoriahem Arboga AB	Stockholm	100.00
Victoriahem Beethoven I AB	Malmö	100.00
Victoriahem Bergen 1 Kommanditbolag	Stockholm	100.00

Company	Company domicile	Interest %
Victoriahem Bergen II AB	Stockholm	100.00
Victoriahem Bergsjön AB	Malmö	100.00
Victoriahem Björkriset AB	Malmö	100.00
Victoriahem Boliger AB	Malmö	100.00
Victoriahem Borås AB	Malmö	100.00
Victoriahem Brandbergen NO AB	Malmö	100.00
Victoriahem Bredbykvarn AB	Stockholm	100.00
Victoriahem Bredbykvarn Garage AB	Stockholm	100.00
Victoriahem Bromsten AB	Stockholm	100.00
Victoriahem Bygg och Projekt AB	Malmö	100.00
Victoriahem Duvholmen 1 AB	Stockholm	100.00
Victoriahem Eskilstuna Bostad AB	Eskilstuna	100.00
Victoriahem Eskilstuna Skiftinge AB	Malmö	100.00
Victoriahem Fastigheter AB	Malmö	100.00
Victoriahem Fastigheter Göteborg AB	Malmö	100.00
Victoriahem Gröna Lund 35 AB	Malmö	100.00
Victoriahem Gulsparven AB	Malmö	100.00
Victoriahem Holding Eskilstuna AB	Malmö	100.00
Victoriahem Holding Karlskrona AB	Malmö	100.00
Victoriahem Holding Kristianstad AB	Malmö	100.00
Victoriahem Holding Landskrona AB (former Victoriahem Vivaldi II AB)	Malmö	100.00
Victoriahem Holding Lövgärdet AB	Malmö	100.00
Victoriahem Holding Nyköping AB	Malmö	100.00
Victoriahem Holding Örebro AB	Malmö	100.00
Victoriahem Holding Rosengård AB	Malmö	100.00
Victoriahem Holding Tensta AB	Malmö	100.00
Victoriahem Holding Växjö AB	Malmö	100.00
Victoriahem Holmiensis Bostäder AB	Stockholm	100.00
Victoriahem Holmiensis II AB	Stockholm	100.00
Victoriahem Huddinge Fyra AB	Stockholm	100.00
Victoriahem Husby Sollentuna AB	Stockholm	100.00
Victoriahem i Söderort AB	Stockholm	100.00
Victoriahem i Sverige Fyra AB	Stockholm	100.00
Victoriahem i Sverige II AB	Stockholm	100.00
Victoriahem i Sverige III AB	Stockholm	100.00
Victoriahem i Sverige V AB	Stockholm	100.00
Victoriahem Inanis Alba I AB	Stockholm	100.00
Victoriahem Inanis Alba II AB	Stockholm	100.00
Victoriahem Inanis Holdco AB	Stockholm	100.00
Victoriahem Jordbro AB	Stockholm	100.00
Victoriahem Jordbro Västra Kommanditbolag	Stockholm	100.00
Victoriahem Karlskrona AB	Malmö	100.00
Victoriahem Katrineholm AB	Stockholm	100.00
Victoriahem Kista Förvaltning AB	Stockholm	100.00
Victoriahem Kista Kommandit AB	Stockholm	100.00
Victoriahem Klena Kommanditbolag	Malmö	100.00

Company	Company domicile	Interest %
Victoriahem Köping AB	Stockholm	100.00
Victoriahem Kristianstad AB	Malmö	100.00
Victoriahem Kullerstensvägen AB	Stockholm	100.00
Victoriahem Landskrona AB	Malmö	100.00
Victoriahem Linrepan AB	Stockholm	100.00
Victoriahem Living AB	Malmö	100.00
Victoriahem Lövgärdet Ctr Kommanditbolag	Malmö	100.00
Victoriahem Lövgärdet Handelsbolag	Malmö	100.00
Victoriahem Malmö Centrum AB	Malmö	100.00
Victoriahem Markaryd AB	Malmö	100.00
Victoriahem Mozart AB	Malmö	100.00
Victoriahem Mozart Fastighets AB	Malmö	100.00
Victoriahem M-ryd Holding AB	Stockholm	100.00
Victoriahem M-ryd Södertälje AB	Södertälje	100.00
Victoriahem Nidarosgatan Kommanditbolag	Stockholm	100.00
Victoriahem Nordkapsgatan Kommanditbolag	Stockholm	100.00
Victoriahem Norrköping Hageby AB	Stockholm	100.00
Victoriahem Nyfors City AB	Stockholm	100.00
Victoriahem Nygård AB	Malmö	100.00
Victoriahem Nyköping AB	Malmö	100.00
Victoriahem NYKR AT AB	Stockholm	100.00
Victoriahem NYKR FH AB	Stockholm	100.00
Victoriahem NYKR Holdco AB	Stockholm	100.00
Victoriahem Nyproduktion AB	Stockholm	100.00
Victoriahem Ösmo AB	Stockholm	100.00
Victoriahem Ostbrickan AB	Malmö	100.00
Victoriahem Rinkeby AB	Stockholm	100.00
Victoriahem Ronna AB	Stockholm	100.00
Victoriahem Rosengård AB	Malmö	100.00
Victoriahem Servicecenter AB	Malmö	100.00
Victoriahem Smaragden 2 AB	Malmö	100.00
Victoriahem Söderby 23 AB	Malmö	100.00
Victoriahem Söderby 68 AB	Malmö	100.00
Victoriahem Sten AB	Stockholm	100.00
Victoriahem Strängnäs AB	Stockholm	100.00
Victoriahem Svart AB	Stockholm	100.00
Victoriahem Tallriset AB	Malmö	100.00
Victoriahem Telemark Kommanditbolag	Stockholm	100.00
Victoriahem Tensta AB	Malmö	100.00
Victoriahem Tönsbergsgatan Kommanditbolag	Stockholm	100.00
Victoriahem Tranås AB	Stockholm	100.00
Victoriahem Tranås Två Handelsbolag	Tranås	100.00
Victoriahem Trojeborgsfastigheter AB	Stockholm	100.00
Victoriahem Turbinen och Zenith VI AB	Stockholm	100.00
Victoriahem Uppsala Bro Märsta AB	Upplands-Bro	100.00
Victoriahem Uthyrning Tranås AB	Stockholm	100.00

Company	Company domicile	Interest %
Victoriahem Valsätra Galaxen AB	Stockholm	100.00
Victoriahem Våmmedal AB	Malmö	100.00
Victoriahem Vårby Visättra AB	Stockholm	100.00
Victoriahem Västerås AB	Stockholm	100.00
Victoriahem Växjö AB	Malmö	100.00
Victoriahem Veningen AB	Stockholm	100.00
Victoriahem Vivaldi I AB	Malmö	100.00
Victoriahem Vivaldi III AB	Malmö	100.00
Victoriahem Vivaldi IV AB	Malmö	100.00
Victoriahem Vivaldi V AB	Malmö	100.00
Victoriahem Zenithegie I AB	Stockholm	100.00
Victoriahem Zenithegie II AB	Stockholm	100.00
Victoriahem Zenithegie III AB	Stockholm	100.00
Other countries		
Algarobo Holding B.V.	Baarn/NL	100.00
Buwog Lux I S.à r.l.	Esch-sur-Alzette/LU	94.00
BUWOG Wohnwerk S.A.	Luxembourg/LU	94.84
DA DMB Netherlands B.V.	Eindhoven/NL	100.00
DA Jupiter NL JV Holdings 1 B.V.	Amsterdam/NL	100.00
DAIG 10. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 11. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 14. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 15. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 16. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 17. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 18. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 19. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 20. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 21. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 22. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 23. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 24. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 25. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 9. Objektgesellschaft B.V.	Amsterdam/NL	94.44
Long Islands Investments S.A.	Luxembourg/LU	100.00
Vonovia Finance B.V.	Amsterdam/NL	100.00
VONOVIA FRANCE SAS	Paris/FR	100.00
Affiliated companies not consolidated		
BOKRÉTA Management Ingatlanhasznosító Korlátolt Felelösségü Társaság	Budapest/HU	100.00
IMMO-ROHR PLUS Ingatlanforgalmazó Korlátolt Felelösségü Társaság	Budapest/HU	100.00
My-Box Debrecen Ingatlan-fejlesztö Korlátolt Felelösségü Társaság	Budapest/HU	100.00

Company	Company domicile	Interest %
Joint ventures consolidated using the equity method		
B & O Service Berlin GmbH	Berlin	24.94
Casa Nova 2 GmbH	Grünwald	50.00
Casa Nova 3 GmbH	Grünwald	50.00
Casa Nova GmbH	Grünwald	50.00
Deutsche KIWI.KI GmbH	Berlin	49.00
DWA Beteiligungsgesellschaft mbH	Berlin	50.00
Funk Schadensmanagement GmbH	Berlin	49.00
G+D Gesellschaft für Energiemanagement mbH	Magdeburg	49.00
GSZ Gebäudeservice und Sicherheitszentrale GmbH	Berlin	33.33
IOLITE IQ GmbH	Berlin	33.33
MARINA CITY Entwicklungs GmbH	Vienna	50.00
LE Property 2 GmbH & Co. KG	Leipzig	49.00
LE Quartier 1 GmbH & Co. KG	Leipzig	46.50
LE Quartier 1.1 GmbH & Co. KG	Leipzig	49.00
LE Quartier 1.4 GmbH	Leipzig	50.00
LE Quartier 1.5 GmbH	Leipzig	44.00
LE Quartier 1.6 GmbH	Leipzig	50.00
LE Quartier 5 GmbH & Co. KG	Leipzig	44.00
OLYDO Projektentwicklungsgesellschaft mbH	Berlin	50.00
Othermo GmbH	Alzenau	24.00
Projektgesellschaft Jugendstilpark München mbH	Leipzig	50.00
Schaeffler-Areal 1. Liegenschaften GmbH	Bad Heilbrunn	30.00
Schaeffler-Areal 2. Liegenschaften GmbH (in Liquidation)	Bad Heilbrunn	30.00
Siwoge 1992 Siedlungsplanung und Wohnbauten Gesellschaft mbH	Berlin	50.00
Telekabel Riesa GmbH	Riesa	26.00
WB Wärme Berlin GmbH	Schönefeld	49.00
Associated companies consolidated using the equity method		
Adler Group S.A.	Luxembourg/LU	20.49
Comgy GmbH	Berlin	10.28
KIWI.KI GmbH	Berlin	21.11
Krampnitz Energie GmbH	Potsdam	25.10
Malmö Mozart Fastighets AB	Malmö	41.89
QUARTERBACK Immobilien AG	Leipzig	40.00
Rosengård Fastighets AB	Malmö	25.00
Zisa Beteiligungs GmbH	Berlin	49.00

[1] Exemption according to Section 264 (3) HGB.
[2] Exemption according to Section 264b HGB.
[3] The unlimited liable shareholder of this company is a company which is integrated in the consolidated financial statements.

	Company domicile	Interest %	Equity € k Dec. 31, 2021	Net income for the year € k Dec. 31, 2021
Other investments with more than 10% of Vonovia's share in the capital				
blackprint Booster Fonds GmbH & Co KG	Frankfurt am Main	10.35	1,509	707
Entwicklungsgesellschaft Erfurt-Süd Am Steiger mbH	Schwartzatal	11.00	-705	-591
Erste JVS Real Estate Verwaltungs GmbH	Berlin	11.00	6,842	6,985
Füchse Berlin Handball GmbH	Berlin	18.60	858	576 [4]
GbR Fernheizung Gropiusstadt	Berlin	46.10	545	-43 [3]
GLB Projekt 7 S.à r.l.	Luxembourg/LU	11.00	442	-685 [5]
GETEC mobility solutions GmbH	Hanover	10.00	-34	57
GSB Gesellschaft zur Sicherung von Bergmannswohnungen mit beschränkter Haftung	Essen	12.50	60	0 [3]
Hellerhof GmbH	Frankfurt am Main	13.17	78,793	6,964
Implementum II GmbH	Grevenbroich	11.00	-564	-257
LE Central Office GmbH	Leipzig	11.00	-27	-90
QUARTERBACK Premium 1 GmbH	Berlin	11.00	-398	-321
QUARTERBACK Premium 6 GmbH (former GLB Projekt 1 S.à r.l.)	Luxembourg/LU	11.00	442	-685 [5]
QUARTERBACK Premium 4 GmbH	Leipzig	11.00	-104	-117
QUARTERBACK Premium 10 GmbH	Frankfurt am Main	11.00	-13,157	-5,807
Quartier 315 GmbH	Leipzig	15.00	5,216	178
Roobeo GmbH	Berlin	17.19	-565	-653
Sea View Projekt GmbH	Leipzig	11.00	5,947	367
Seniorenwohnen Heinersdorf GmbH	Berlin	10.10	13	-9 [2]
SIAAME Development GmbH	Berlin	20.00	-227	-109
VBW Bauen und Wohnen GmbH	Bochum	19.87	119,400	7,954
VRnow GmbH	Berlin	10.00	1,960	342 [1]
VSK Software GmbH	Bochum	15.00	150	-26
WasE-2 GmbH	Offenbach	11.00	-1,228	-386
Westside Living GmbH	Leipzig	11.00	-527	-175
WirMag GmbH	Grünstadt	14.85	1,239	-646 [2]
WoWi Media GmbH & Co. KG	Hamburg	10.50	2,758	10
Zuckerle Quartier Investment S.à r.l.	Luxembourg/LU	11.00	-1,833	-1,818 [5]

[1] Equity and net income/loss are conform to December 31, 2018.
[2] Equity and net income/loss are conform to December 31, 2019.
[3] Equity and net income/loss are conform to December 31, 2020.
[4] Equity and net income/loss are conform to June 30, 2021.
[5] Equity and net income/loss comply with local GAAP.

Further Information About the Bodies

Management Board

The Management Board of Vonovia SE consisted of five members as of December 31, 2022.

Rolf Buch, Chairman of the Management Board

Function: Chief Executive Officer
Responsible for sustainability/strategy, transactions, general counsel, investor relations, HR management, auditing and corporate communications.

Appointments:
> Kötter Group (Member of the Council of Shareholders)[2]
> Apleona GmbH (Member of the Supervisory Board and Member of the Shareholder Board)[2]

Arnd Fittkau, Member of the Management Board

Function: Chief Rental Officer
Responsible for the Rental segment in the North, East, South, and West business areas, as well as for customer service and portfolio and tenant management.

Appointment:
> STEAG Fernwärme GmbH (Member of the Advisory Board)[2]

Philip Grosse, Member of the Management Board

Function: Chief Financial Officer
Responsible for accounting, controlling, finance, valuation and portfolio controlling as well as taxes.

Appointments
> Eisenbahn-Siedlungs-Gesellschaft Berlin mbH (Chairman of the Supervisory Board) (until April 27, 2022)[2, 4]
> GSW Immobilien AG (Chairman of the Supervisory Board) (until June 13, 2022)[3]
> QUARTERBACK Immobilien AG (Member of the Supervisory Board)[1, 6]

Daniel Riedl, Member of the Management Board

Function: Chief Development Officer
Responsible for development in Austria, development in Germany and operating rental business in Austria.

Appointment:
> QUARTERBACK Immobilien AG (Member of the Supervisory Board) (since March 16, 2022)[1, 6]

Helene von Roeder, Member of the Management Board

Function: Chief Transformation Officer
Responsible for Value-add (incl. insurance), IT and procurement as well as condominium administration and the management of properties for third parties.

Appointments:
> AVW Versicherungsmakler GmbH (Member of the Supervisory Board)[2]
> E. Merck KG (Member of the Council of Shareholders)[2]
> Merck KGaA (Member of the Supervisory Board)[1, 5]
> Vonovia Finance B.V. (Member of the Supervisory Board) (until December 31, 2022)[2, 4]
> Deutsche Wohnen SE (Chairwoman of the Supervisory Board) (as of January 2, 2022)[3, 5]

[1] Supervisory Board mandates in accordance with Section 100 (2) of align German Stock Corporation Act (AktG).
[2] Membership in comparable German and foreign supervisory bodies of commercial enterprises.
[3] Exempted Group mandates in accordance with Section 100 (2) no. 2 of the German Stock Corporation Act (AktG).
[4] Other Group bodies.
[5] Listed.
[6] Related party of the Deutsche Wohnen Group.

Supervisory Board

The current Supervisory Board consists of twelve members. The Annual General Meeting of May 9, 2018, elected ten members for a statutory term of office, and the Annual General Meeting of April 29, 2022, elected two members for a three-year term of office.

Jürgen Fitschen, Chairman

Senior Advisor at Deutsche Bank AG

Appointments:
> CURA Vermögensverwaltung GmbH & Co. KG (Member of the Administrative Board)[2]
> Syntellix AG (Member of the Supervisory Board)[2]
> ESG Book GmbH (Member of the Advisory Board)[2]

Prof. Dr. Edgar Ernst, Deputy Chairman

Self-employed management consultant

Appointments:
> METRO AG (Member of the Supervisory Board)[1, 5]
> TUI AG (Member of the Supervisory Board)[1, 5]

Burkhard Ulrich Drescher (until April 29, 2022)

Managing Director of Innovation City Management GmbH

Appointment:
> STEAG Fernwärme GmbH (Member of the Advisory Board)[2]

Vitus Eckert

Attorney, Partner in Wess Kux Kispert & Eckert Rechtsanwalts GmbH

Appointments:
> STANDARD Medien AG (Chairman of the Supervisory Board)[2]
> S. Spitz GmbH (Deputy Chairman of the Supervisory Board)[2]
> Vitalis Food Vertriebs-GmbH (Deputy Chairman of the Supervisory Board, group company of S. Spitz GmbH)[2]
> Simacek Holding GmbH (Chairman of the Supervisory Board)[2]
> Simacek GmbH (Chairman of the Supervisory Board, group company of Simacek Holding GmbH)[2]

Jürgen Fenk (since April 29, 2022)

Chief Executive Officer Primonial REIM, Paris
Self-employed management consultant as of January 31, 2023

Appointment:
> Alfons & alfreda AG, Düsseldorf (Deputy Chairman of the Supervisory Board)[1]

Dr. Florian Funck

Chief Financial Officer of Franz Haniel & Cie. GmbH

Appointments:
> CECONOMY AG (Member of the Supervisory Board)[1, 5]
> TAKKT AG (Member of the Supervisory Board)
> Innovation City Management GmbH (Member of the Supervisory Board)[2]

Dr. Ute Geipel-Faber

Self-employed management consultant

Appointment:
> Bayerische Landesbank (Member of the Supervisory Board)[1]

Matthias Hünlein (since April 29, 2022)

Managing Director of Tishman Speyer Properties Deutschland GmbH

Appointment:
> Tishman Speyer Investment GmbH, Frankfurt am Main (Deputy Chairman of the Supervisory Board)[2]

Daniel Just

Chairman of Bayerische Versorgungskammer

Appointments:
> DWS Grundbesitz GmbH (1st Deputy Chairman of the Supervisory Board)[2]
> Universal Investment GmbH (Member of the Supervisory Board)[2]

Hildegard Müller

President of the German Association of the Automotive Industry (VDA)

Appointments:

> Siemens Energy AG (Member of the Supervisory Board)[1, 5]
> Siemens Energy Management GmbH (Member of the Supervisory Board, group company of Siemens Energy AG)[1]
> RAG-Stiftung (Member of the Board of Trustees)[2]

Prof. Dr. Klaus Rauscher (until April 29, 2022)

Self-employed management consultant

Dr. Ariane Reinhart

Member of the Management Board of Continental AG[5]

Appointment:

> SUSE S.A. (Member of the Supervisory Board)[2, 5]

Clara-Christina Streit

Member of Supervisory/Administrative Boards

Appointments:

> Jerónimo Martins SGPS S.A. (Member of the Administrative Board)[2, 5]
> Vontobel Holding AG (Member of the Administrative Board)[2, 5]
> Deutsche Börse AG (Member of the Supervisory Board)[1, 5]

Christian Ulbrich

President and Chief Executive Officer of Jones Lang LaSalle Incorporated[5]

[1] Supervisory Board mandates in accordance with Section 100 (2) of the German Stock Corporation Act (AktG).
[2] Membership in comparable German and foreign supervisory bodies of commercial enterprises.
[3] Exempted Group mandates in accordance with Section 100 (2) no. 2 of the German Stock Corporation Act (AktG).
[4] Other Group bodies.
[5] Listed.

Independent Auditor's Report

To Vonovia SE, Bochum

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of Vonovia SE, Bochum, and its subsidiaries (the Group), which comprise the consolidated balance sheet as of December 31, 2022, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2022, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the management report of the Company and the Group (combined management report) of Vonovia SE for the financial year from January 1 to December 31, 2022.

In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the → **Other Information** section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

> the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2022, and of its financial performance for the financial year from January 1 to December 31, 2022, and

> the accompanying combined management report as a whole provides an appropriate view 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 appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the content of those components of the combined management report specified in the → **Other Information** section of the auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation No 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards are further described in the → **Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report** section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Valuation of investment properties

Please refer to → **Note 13** and → **28** to the consolidated financial statements as well as the section on → **opportunities and risks** in the combined management report.

The Financial Statement Risk

Investment properties with a carrying amount of EUR 92.3 billion are recognized in the consolidated financial statements of Vonovia as of December 31, 2022, and represent 91.0% of total assets, a substantial share. Of this amount, EUR 81.9 billion is attributable to properties located in Germany, EUR 3.3 billion to properties located in Austria and EUR 7.1 billion to properties located in Sweden.

Vonovia measures the investment properties at fair value quite predominantly in accordance with IAS 40 in conjunction with IFRS 13. In the financial year a loss of EUR -1.3 billion from the measurement of investment properties was recognized in the consolidated income statement.

Vonovia calculates the fair values using internal valuation models. Nursing care properties and parts of undeveloped land are excluded from this.

The fair values are determined internally by means of a discounted cash flow (DCF) method based on homogeneous valuation units of aggregated commercially related and comparable land and buildings. Appraisals are also prepared by independent experts to confirm the internal valuations. The fair value of the nursing care properties and undeveloped land that are not measured internally is calculated on the basis of appraisals by independent experts using DCF methods and, insofar as they are relevant, under consideration of findings from current market observations and transactions.

The valuation of investment properties is complex and incorporates numerous assumptions and data relevant to measurement that involve considerable estimation uncertainties and judgment. Even minor changes in the assumptions and information relevant to valuation can result in significant changes to the resulting fair value. The most significant assumptions and data are market rents, including the expected trend in rental prices, the planned maintenance costs and discount and capitalization rates. When calculating the discount and capitalization rates, Vonovia also takes into account the different dynamics of real estate prices and rental price trends.

Due to existing estimation uncertainties and judgments, there is the risk for the consolidated financial statements that the fair values of investment properties are not within a reasonable range.

Moreover, there is the risk for the consolidated financial statements that the disclosures on investment properties required in the notes pursuant to IAS 40 and IFRS 13 are not complete and adequate.

Our Audit Approach

With the involvement of our own property valuation experts, using partly control-based and substantive audit procedures, we assessed the accuracy and completeness of the property portfolio data used in the internal valuation models. In addition, we assessed the internal valuation methods regarding compliance with IAS 40 in conjunction with IFRS 13, the homogeneity of the defined valuation units and the appropriateness of the assumptions and data used for measurement. We also used external market data to assess the assumptions and data used for measurement, such as the discount and capitalization rates applied, market rents and the expected trend in rental prices as well as planned maintenance costs.

For a representative selection of valuation units located in Germany and Austria, which were supplemented with a risk-oriented selection of elements, we compared the valuation made by Vonovia with our own calculations. To this end, we used the standardized income approach ("Ertragswertverfahren") in accordance with the German Real Estate Appraisal Regulation [Immobilienwertermittlungsverordnung, ImmoWertV] for the German portfolio and the market comparable method ("Vergleichswertverfahren") in line with ImmoWertV for the Austrian portfolio. In addition, we carried out on-site inspections for the German properties of this sample to assess the condition of the respective property.

Furthermore, we evaluated the computational and mathematical accuracy of the valuation models.

We satisfied ourselves of the qualification, competence and impartiality of the external valuers commissioned by Vonovia; we also evaluated the valuation methods used for the appraisal with regard to compliance with IAS 40 in conjunction with IFRS 13, assessed the material assumptions and data for measurement, and compared the internal measurements with those of the respective external appraisal.

In addition, we assessed the completeness and adequacy of disclosures on investment properties required in the notes to the consolidated financial statements pursuant to IAS 40 and IFRS 13.

Our Observations

The valuation method implemented by Vonovia is appropriate and suitable for determining fair value in compliance with IFRS. The assumptions and data used for valuation of the investment properties are appropriate. The disclosures on investment properties in the notes to the consolidated financial statements pursuant to IAS 40 and IFRS 13 are complete and adequate.

Goodwill Impairment

Please refer to → **Note 26** in the consolidated financial statements for information on the accounting policies applied and the assumptions used. Disclosures on the amount of goodwill and disclosures on the amount of impairment losses recognized can be found under → **Note 26**. Information on the economic development of the business segments can be found in the combined management report in the section → **Results of operations**.

The Financial Statement Risk

Goodwill in the amount of EUR 1.5 billion is reported in the consolidated financial statements of Vonovia as of December 31, 2022.

Goodwill is allocated pursuant to IAS 36 to groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. At Vonovia, these are the regional business areas in the Rental segment and the Value-add, Development and Nursing Care and Assisted Living segments.

Goodwill is routinely tested for impairment each year at the level of the group of cash-generating units to which the goodwill in question is allocated. If there are indications that the goodwill could be impaired, an ad hoc impairment test is also conducted. The impairment test compares the carrying amount with the recoverable amount of each group of cash-generating units. If the carrying amount exceeds the recoverable amount, there is a need for impairment. The recoverable amount is the higher of the fair value less costs to sell and value in use of the group of cash-generating units.

The reporting date for the routine impairment test is December 31, 2022.

Increased capitalization rates (WACC) and increases in the value of real estate portfolios during the year – where material – may be an indication that goodwill is impaired. For this reason, Vonovia conducted ad hoc impairment testing in Q1 and Q2 of financial year 2022.

For the ad hoc impairment test in Q4 of financial year 2021, the new goodwill arising from the acquisition of Deutsche Wohnen SE in financial year 2021 and determined as part of the (still) preliminary purchase price allocation of EUR 4.7 billion as of December 31, 2021, was provisionally allocated to the respective groups of cash-generating units of Vonovia. As of September 30, 2022, the purchase price allocation was completed, with goodwill being EUR 0.1 billion higher at EUR 4.8 billion. As part of the final allocation of goodwill, EUR 1.3 billion of the goodwill was allocated to the now independent group of cash-generating units consisting of property portfolios of Deutsche Wohnen. On account of the completed purchase price allocation, impairment testing taking account of the final allocation of goodwill was conducted for the reporting dates December 31, 2021, March 31, 2022, and June 30, 2022.

In Q1 of financial year 2022, the increase in the capitalization rate (WACC) and the revaluation of the investment properties and the related increase in carrying amounts for all groups of cash-generating units in the Rental segment resulted in full impairment of the remaining goodwill totaling EUR 918.3 million. Owing to the increase in the capitalization rate (WACC), goodwill of the "Nursing and assisted living" segment was impaired in full in the amount of EUR 36.0 million in Q2 of financial year 2022.

Vonovia determines the value in use as part of a complex calculation model using a DCF method. In this regard, the determination of the WACC is the primary source of judgment apart from cash flow forecasts. As even minor changes in the cash flow forecasts and the WACC may have a material impact on the recoverable amount, the measurement of goodwill is associated with considerable estimation uncertainties.

There is the risk for the consolidated financial statements that an impairment loss is not recognized in the amount required. There is also the risk that the disclosures in the notes to the consolidated financial statements are not complete and adequate.

Our Audit Approach

With the involvement of our valuation experts, we also assessed the appropriateness of Vonovia's significant assumptions and the calculation methods for both ad hoc and annual impairment testing.

We verified the appropriateness of the future cash flows presented in the model and used for calculation by, among other approaches, reconciling these with the current projected figures from the detailed planning prepared by Vonovia. We also checked that the detailed planning was correctly derived from the five-year plan adopted by the Management Board and acknowledged by the Supervisory Board. In addition, we obtained an understanding of the process of preparing the plans and evaluated the planning process. We also assessed the plausibility of the planning assumptions based on sector-specific market expectations. Furthermore, we assessed the quality of forecasts used for planning in the past by comparing the target figures with actual figures and analyzing deviations.

With regard to the WACCs calculated by Vonovia, we assessed the individual assumptions and data used in detail on the basis of available market data and also critically evaluated them as a whole compared to comparable companies in the real estate sector. Due to the material impact of even minor changes in the WACC, we also focused on the sensitivity analyses conducted by Vonovia and ascertained whether and to what extent a change in the individual WACC assumptions and data would result in the need for further impairment within expected ranges.

To assess whether the valuation methods are applied properly in methodological and mathematical terms, we analyzed the valuation carried out by Vonovia using our own calculations and analyzed discrepancies.

Finally, we assessed whether the disclosures in the notes regarding impairment of goodwill are complete and adequate.

Our Observations

The calculation method used for impairment testing of goodwill is appropriate and in line with the accounting policies to be applied. The Company's assumptions and data used for measurement are within an acceptable range. The disclosures in the notes on impairment testing of goodwill are complete and adequate.

Other Information

Management and/or the Supervisory Board are/is responsible for the other information. The other information comprises the following components of the combined management report, whose content was not audited:

> the Group's non-financial statement contained in its own section of the combined management report and

> the combined corporate governance statement for the Company and the Group referred to in the combined management report, and

> information extraneous to combined management reports and marked as unaudited.

The other information also includes the remaining parts of the annual report. The other information does not include the consolidated financial statements, the combined management report information audited for content and our auditor's report thereon.

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

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

> is materially inconsistent with the consolidated financial statements, with the combined management report information audited for content or our knowledge obtained in the audit, or

> otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

> Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

> Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

> Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

> Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

> Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

> Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

> Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

> Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the combined management report (hereinafter the "ESEF documents") contained in the electronic file „5299005A2ZEP6AP7KM81-2022-12-31-de.zip" (SHA256-Hashwert: 6d69cd38aa95ce860777b14a917330c1e1dfd167cd9a7ad2fe7295a29d4b92e7) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the combined management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from January 1 to December 31, 2022, contained in the "Report on the Audit of the Consolidated Financial Statements and the Combined Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the combined management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the combined management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Company's management is responsible for such internal control that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

> Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

> Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

> Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Commission Delegated Regulation (EU) 2019/815, as amended as of the reporting date, on the technical specification for this electronic file.

> Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited combined management report.

> Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Commission Delegated Regulation (EU) 2019/815, as amended as of the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the Annual General Meeting on April 29, 2022. We were engaged by the Supervisory Board on October 6, 2022. We have been the group auditor of Vonovia SE without interruption since financial year 2013.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other Matter – Use of the Auditor's Report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited combined management report as well as the examined ESEF documents. The consolidated financial statements and combined management report converted to the ESEF format – including the versions to be entered in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Maximilian Cremer.

Düsseldorf, March 16, 2023

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Salzmann	Cremer
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Limited Assurance Report of the Independent Auditor regarding the Non-Financial Group Statement

To the Vonovia SE, Bochum

We have performed an independent limited assurance engagement on the non-financial group statement of Vonovia SE, Bochum (further the "Company"), as well as the section of the combined management report that are qualified as part of it through cross reference, → **"Fundamental Information About the Group"**, for the period from January 1 to December 31, 2022.

It was not part of our engagement to review references to external websites and information sources presented as " Further Information" in the non-financial group statement.

Management's Responsibility

The legal representatives of the Company are responsible for the preparation of the

non-financial group statement in accordance with § 315c in conjunction with §§ 289c to 289e HGB and with Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of June 18, 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (further „EU Taxonomy Regulation") and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the Company as disclosed in Section "EU Taxonomy" of the non-financial group statement.

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the non-financial group statement and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for such internal control as they consider necessary to enable the preparation of a non-financial group statement that is free from material misstatement, whether due to fraud or error.

The EU Taxonomy Regulation and the supplementing Delegated Acts contain wordings and terms that are still subject to substantial uncertainties regarding their interpretation and for which not all clarifications have been published yet. Therefore, the legal representatives have included a description of their interpretation in Section "EU Taxonomy" of the non-financial group statement. They are responsible for its tenability. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations is subject to uncertainty.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Practitioner's Responsibility

It is our responsibility to express a conclusion on the non-financial group statement based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by IAASB.

Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the non-financial group statement of the Company for the period from January 1 to December 31, 2022 has not been prepared, in all material respects, in accordance with § 315c in conjunction with §§ 289c to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the legal representatives as disclosed in Section "EU Taxonomy" of the non-financial group statement. As the assurance procedures performed in a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The choice of assurance procedures is subject to the auditor's own judgement.

Within the scope of our assurance engagement we performed, amongst others, the following procedures:

> Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for Vonovia SE

> A risk analysis, including media research, to identify relevant information on Vonovia SE's sustainability performance in the reporting period

> Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures, including data consolidation, on environmental, employee and social matters, respect for human rights, and combating corruption and bribery

> Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures

> Inspection of selected internal and external documents

> Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites

> Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data

> Assessment of the overall presentation of the disclosures

> Inquiries of responsible employees at Group level to obtain an understanding of the approach to identify relevant economic activities in accordance with EU taxonomy

> Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures on turnover, capital expenditures and operating expenditures for the taxonomy-relevant economic activities for the environmental objectives of climate change mitigation and adaptation

> Assessment of data collection, validation and reporting processes and reliability of reported data for the taxonomy-aligned economic activities in relation to the assurance on the Technical Screening Criteria (substantial contribution for the environmental objective, DNSH criteria) and minimum safeguards

The legal representatives have to interpret vague legal concepts in order to be able to compile the relevant disclosures according to Article 8 of the EU Taxonomy Regulation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations and, correspondingly, our assurance thereof are subject to uncertainty.

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Emphasis of Matter

We refer to the section "EU Taxonomy Regulation" and section "Combating Corruption and Bribery", in which the legal representatives describe that Vonovia SE was notified on March 7, 2023 by the investigating authorities on the basis of a search warrant issued by the Local Court of Bochum of investigations against current and former employees. The subject matter of the proceedings is the suspicion of gang and commercial fraud, breach of trust, anticompetitive agreements in connection with tenders and particularly serious cases of passive and active corruption in business transactions, in each case also to the detriment of the Vonovia Group or selected affiliated companies. The findings from these investigative proceedings to date were taken into account for the calculation of the taxonomy-aligned key figures. In doing so, the performance indicators of economic activities 7.3 and 7.7 were slightly reduced by the estimated share of turnover or capital expenditure and operating expenses in connection with increased services for the Technical Building Services business area which are the subject of the investigation proceedings.

Our opinion is not modified in respect of this matter.

Assurance Opinion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the non-financial group statement of Vonovia SE for the period from January 1 to December 31, 2022 has not been prepared, in all material respects, in accordance with § 315c in conjunction with §§ 289c to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation disclosed in Section "EU Taxonomy" of the non-financial group statement.

Restriction of Use/General Engagement Terms

This assurance report is solely addressed to Vonovia SE, Bochum.

Our assignment for the Vonovia SE, Bochum, and professional liability as described above was governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (**https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf**). By reading and using the information contained in this assurance report, each recipient confirms having taken note of provisions of the General Engagement Terms (including the limitation of our liability for negligence to EUR 4 million as stipulated in No. 9) and accepts the validity of the attached General Engagement Terms with respect to us.

Düsseldorf, March 16, 2023

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Stauder	Brokof
Wirtschaftsprüfer	Wirtschaftsprüferin
[German Public Auditor]	[German Public Auditor]

Responsibility Statement

Balance Sheet Oath

"To the best of our knowledge and belief, and in accordance with the applicable reporting principles, the annual financial statements give a true and fair view of the company's net assets, financial position and results of operations, and the combined management report includes a fair review of the business development and position of the company, including the results, together with a description of the principal opportunities and risks associated with the expected development of the company in the remainder of the fiscal year."

Bochum, March 14, 2023

Rolf Buch
(CEO)

Arnd Fittkau
(CRO)

Philip Grosse
(CFO)

Daniel Riedl
(CDO)

Helene von Roeder
(CTO)

EPRA Reporting

Vonovia SE has been a member of EPRA since 2013. The eponymous European Public Real Estate Association (EPRA) is a non-profit organization that has its registered headquarters in Brussels and represents the interests of listed European real estate companies. Its mission is to raise awareness of European listed real estate companies as a potential investment destination that offers an alternative to conventional investments.

In order to make it easier to compare real estate companies and to reflect special features that apply to the real estate sector, EPRA has developed a framework for standardized reporting that goes beyond the scope of the IFRS.

Vonovia reports the EPRA key figures based on the EPRA Best Practice Recommendations (BPRs). Vonovia only uses some of the EPRA key figures as performance indicators, which is why they are reported outside of the management report. They are non-GAAP measures or also APMs (Alternative Performance Measures).

We would like to point out that the EPRA BPRs refer generally to both residential and commercial real estate companies. On the other hand, Vonovia is active almost exclusively in the area of housing. Vonovia's business model is based on the development and construction of new apartments, both for its own portfolio and for sale to third parties, the rental of homes, the provision of housing-related services and the sale of apartments. Unlike companies with a commercial real estate portfolio and, as a result, a relatively small number of properties, Vonovia's portfolio features a large number of fairly similar residential units. This means that it does not make sense for a company specializing in residential real estate to report much of the information recommended in the EPRA BPRs, which focus in particular on significant individual properties.

This is why, with regard to the current real estate portfolio, we have opted not to report an overview of lease agreement terms (the lease agreements tend to be concluded for an indefinite period), the estimated market rent upon the expiry of the lease or the ten biggest tenants in terms of rental income.

The Development segment relates almost exclusively to residential units. Further information on the Development segment can be found in the chapter → **Portfolio in the Development Business**.

EPRA Key Figures

in € million			2021*	2022	Change in %
EPRA- Performance Measure	**Definition**	**Purpose**			
EPRA Earnings	Earnings from operational activities.	A key measure of a company`s underlying operating results and an indication of the extent to which current dividend payments are supported by earnings.	1,383.2	1,755.0	26.9
EPRA Net Reinstatement Value (NRV)	Assumes that entities never sell assets and aims to represent the value required to rebuild the entity.	The EPRA NAV set of metrics make adjustments to the NAV per IFRS financial statements to provide stakeholders with the most relevant information on the fair value of the assets and liabilities of a real estate investment company, under different scenarios.	59,489.8	57,426.9	-3.5
EPRA Net Tangible Assets (NTA)	Assumes that entities buy and sell assets, thereby crystallizing certain levels of unavoidable deferred tax.		48,640.8	45,744.5	-6.0
EPRA Net Disposal Value (NDV)	Represents the shareholders' value under a disposal scenario, where deferred tax, financial instruments and certain other adjustments are calculated to the extent of their liability, net of any resulting tax.		30,047.4	34,669.5	15.4
EPRA Net Initial Yield in %	Annualized rental income based on the cash rents passing at the balance sheet date, less non-recoverable property operating expenses, divided by the market value of the property, increased with purchasers´costs.	A comparable measure for portfolio valuations. This measure should make it easier for investors to judge themselves, how the valuation of portfolio X compares with portfolio Y.	2.6	2.7	0.1 pp
EPRA Topped-up Net Initial Yield in %	This measure incorporates an adjustment to the EPRA NIY in respect of the expiration of rent-free periods (or other unexpired lease incentives such as discounted rent periods and step rents).		2.6	2.7	0.1 pp
EPRA Vacancy Rate in %	Estimated Market Rental Value (ERV) of vacant space divided by ERV of the whole portfolio.	A "pure" (%) measure of investment property space that is vacant, based on ERV.	2.0	2.0	-
EPRA Cost Ratio (incl. direct vacancy costs) in %	Administrative & operating costs (including costs of direct vacancy) divided by gross rental income.	A key measure to enable meaningful measurement of the changes in a company´s operating costs.	26.2	25.2	-1.0 pp
EPRA Cost Ratio (excl. direct vacancy costs) in %	Administrative & operating costs (excluding costs of direct vacancy) divided by gross rental income.		24.9	24.2	-0.7 pp
EPRA LTV in %	Debt divided by market value of the property	A key (shareholder-gearing) metric to determine the percentage of debt comparing to the appraised value of the properties	46.9	45.8	-1.1 pp

EPRA Earnings

The EPRA Earnings is a measure of the operating result. It indicates the extent to which current dividend payments are supported by the operating result. Based on the profit for the period, adjustments are made to reflect changes in the value of assets and liabilities affecting net income, and to reflect sale effects and costs for acquisition/integration.

The EPRA Earnings increased by 26.9 % in 2022 compared with 2021.

As far as company-specific adjustments are concerned, we include the earnings contributions made by the Development and Recurring Sales segments. Prior-year and non-recurring interest expenses, depreciation and amortization, other non-recurring items and taxes that do not correspond to current income taxes are also eliminated. The adjusted earnings are calculated after adjustments to reflect effects of using the equity method. This corresponds to the Group FFO, which was up by 20.1% year-on-year.

As there were no diluting financial instruments on the reporting dates, the undiluted EPRA Earnings equal the diluted figure.

in € million	2021*	2022	Change in %
Earnings per IFRS income statement	**2,440.5**	**-669.4**	**–**
Changes in value of investment properties, development properties held for investment and other interests	-7,377.9	1,817.4	–
Profits or losses on disposal of investment properties, development properties held for investment and other interests	-165.0	-138.4	-16.1
Profits or losses on sales of trading properties including impairment charges in respect of trading properties.	-137.9	-127.5	-7.5
Selling costs	74.6	55.9	-25.1
Tax on profits or losses on disposals	68.2	131.5	92.8
Negative goodwill/goodwill impairment	3,774.4	954.3	-74.7
Changes in fair value of financial instruments and associated close-out costs	162.0	-129.2	–
Acquisition costs	14.1	113.2	>100
Deferred tax in relation to EPRA adjustments	2,530.2	-252.8	–
EPRA Earnings	**1,383.2**	**1,755.0**	**26.9**
EPRA Earnings per share in €**	**1.78**	**2.21**	**24.2**
Adjustment development	100.5	89.9	-10.5
Adjustment recurring sales	113.2	135.1	19.3
Adjustments other non-recurring items	23.0	14.3	-37.8
Adjustment depreciation and amortization	97.4	222.9	>100
Adjustments of prior-year/one-time interest expense	-20.6	-109.5	>100
Adjustments for tax on profits or losses on disposals and other/prior-year taxes	-12.1	-87.1	>100
Adjustment At-Equity	9.8	15.0	53.1
Adjusted Earnings (Group FFO)	**1,694.4**	**2,035.6**	**20.1**
Adjusted Earnings (Group FFO) per share in €**	**2.18**	**2.56**	**17.4**

* Prior-year adjusted.
** Based on the shares carrying dividend rights on the reporting date.

EPRA NAV Key Figures

The EPRA NAV key figures make adjustments based on the IFRS equity to provide stakeholders with information that is as clear as possible on the fair value of a real estate company's assets and liabilities in various scenarios.

The EPRA Net Reinstatement Value (NRV) is calculated based on the assumption that residential properties are never sold. It represents the asset value that would be required to rebuild the company from scratch. The equity attributable to Vonovia's shareholders is adjusted by the deferred taxes in relation to fair value gains of investment properties and the fair value of derivative financial instruments after taking deferred taxes into account. In addition, the real estate transfer tax and other purchasers' costs, deducted as part of the property valuation process, are added back. A fair value for intangible assets is no longer recognized as of this fiscal year. As a result, the NRV no longer includes any additional value contribution, not recognized in the balance sheet, from the Development and Value-add platform. The prior year has been adjusted accordingly.

The EPRA NTA (Net Tangible Assets) is calculated based on the assumption that properties are purchased and sold. This means that part of the deferred taxes on the real estate assets is inevitably realized as a result of the sale process. At Vonovia, the Recurring Sales, Non Core and MFH Sales portfolio clusters, as well as the portfolio in Austria, are not to be allocated to the real estate portfolio that is held in the long term. The deferred taxes on these portfolios are calculated in proportion to the fair values and reduce the total deferred taxes recognized. As of this year, the pro rata other purchasers' costs for the portfolio held in the long term are no longer reported. The prior year has been adjusted accordingly. The fair value of derivative financial instruments, after taking deferred taxes into account, is adjusted and the intangible assets (goodwill and other intangible assets) are eliminated in full.

The EPRA Net Disposal Value (NDV) determines the value of the equity in a sale scenario. The fair values of the deferred taxes and financing instruments are realized as in IFRS equity. Goodwill is eliminated and the fixed-interest financial liabilities are stated at fair value, taking the resulting tax effects into account.

The tables below show the NAV key figures as of December 31, 2022, and the corresponding prior year.

Dec. 31, 2022 (in € million)	EPRA NRV	EPRA NTA	EPRA NDV
IFRS equity attributable to Vonovia shareholders	**31,331.5**	**31,331.5**	**31,331.5**
Deferred tax in relation to fair value gains of IP	19,719.8	16,190.0	–
Fair value of financial instruments*	-117.5	-117.5	–
Goodwill as per the IFRS balance sheet	–	-1,529.9	-1,529.9
Intangibles as per the IFRS balance sheet	–	-129.6	–
Fair value of fixed interest rate debt	–	–	4,867.9
Real estate transfer tax	6,493.1	–	–
NAV	**57,426.9**	**45,744.5**	**34,669.5**
Fully diluted number of shares (millions)	795.8	795.8	795.8
NAV per share (in €)	**72.16**	**57.48**	**43.56**

* Adjusted for effects from cross currency swaps.

Dec. 31, 2021* (in € million)	EPRA NRV	EPRA NTA	EPRA NDV
IFRS equity attributable to Vonovia shareholders	**32,896.7**	**32,896.7**	**32,896.7**
Deferred tax in relation to fair value gains of IP	20,053.3	18,438.4	–
Fair value of financial instruments**	28.6	28.6	–
Goodwill as per the IFRS balance sheet	–	-2,484.1	-2,484.1
Intangibles as per the IFRS balance sheet	–	-238.8	–
Fair value of fixed interest rate debt	–	–	-365.2
Real estate transfer tax	6,511.1	–	–
NAV	59,489.8	48,640.8	30,047.4
Fully diluted number of shares (millions)	776.6	776.6	776.6
NAV per share (in €)	**76.60**	**62.63**	**38.69**

* Prior-year adjusted.
** Adjusted for effects from cross currency swaps.

EPRA Net Initial Yield

The EPRA Net Initial Yield shows the ratio of annualized rental income minus property outgoings (annualized net rent) to the gross fair values of the residential properties. The fair values are increased by the purchasers' costs.

The topped-up net initial yield eliminates the rental incentives in the annualized net rental income. Rental incentives are of only minor importance to a company specializing in residential properties.

The EPRA Net Initial Yield rose slightly from 2.6% in 2021 to 2.7% in 2022. With net rents that were virtually unchanged, the increase was due to lower fair values.

in € million	**2021**	**2022**	**Change in %**
Fair value of the real estate portfolio (net)	**92,411.7**	**89,971.9**	**-2.6**
Allowance for estimated purchasers' costs	6,420.5	6,493.1	1.1
Fair value of the real estate portfolio (gross)	**98,832.2**	**96,465.0**	**-2.4**
Annualized cash passing rental income	3,234.8	3,202.3	-1.0
Property outgoings	-668.4	-618.4	-7.5
Annualized net rents	**2,566.4**	**2,583.9**	**0.7**
Adjustments for rental incentives	6.8	4.2	-38.2
Topped-up net annualized rent	**2,573.2**	**2,588.1**	**0.6**
EPRA Net Iinitial Yield in %	**2.6**	**2.7**	**0.1 pp**
EPRA Topped-up Net Initial Yield in %	**2.6**	**2.7**	**0.1 pp**

* Fair value of the developed land excl. IFRS 16, development, undeveloped land, inheritable building rights granted, nursing portfolio.

EPRA Vacancy Rate

The calculation of the EPRA Vacancy Rate is based on the ratio of the estimated market rent for the vacant residential properties to the estimated market rent of the residential property portfolio, i.e., the vacancy rate shown in the management report is valued based on the market rent for the residential properties.

As of the end of 2022, our apartments were again virtually fully occupied. The EPRA Vacancy Rate remained unchanged year-on-year at 2.0%.

in € million	Dec. 31, 2021	Dec. 31, 2022	Change in %
Market rent of vacant apartments	74.9	66.9	-10.7
Market rent of residential property portfolio	3,674.3	3,398.1	-7.5
EPRA Vacancy Rate in %	2.0	2.0	-

EPRA Cost Ratio

As the ratio of EPRA costs to gross rental income, the EPRA Cost Ratio provides information on the cost efficiency of a real estate company. The EPRA Cost Ratio is reported including and excluding direct vacancy costs. In 2022, the EPRA Cost Ratio was down by 1.0 percentage points (incl. direct vacancy costs)/0.7 percentage points (excluding direct vacancy costs) year-on-year.

in € million	2021*	2022	Change in %
Operating expenses Rental	412.3	486.3	17.9
Maintenance expenses	377.7	443.6	17.4
Adjusted EBITDA Value-add	-153.8	-126.7	-17.6
Intragroup profits/losses	37.8	-4.7	-
EPRA Costs (including direct vacancy costs)	674.0	798.5	18.5
Direct vacancy costs	-34.6	-33.4	-3.5
EPRA Costs (excluding direct vacancy costs)	639.4	765.1	19.7
Gross rental income	2,568.5	3,163.4	23.2
EPRA Cost Ratio including direct vacancy costs in %	26.2	25.2	-1.0 pp
EPRA Cost Ratio excluding direct vacancy costs in %	24.9	24.2	-0.7 pp

* Prior-year adjusted.
Costs are only capitalized in connection with self-provided capatilized maintenance or value-enhancing investments.

EPRA LTV

The aim of the EPRA LTV is to allow an assessment of the debt-equity ratio of a real estate company. This involves comparing net debt based on the EPRA definition with total assets. The EPRA LTV is reported without information based on the proportionate consolidation of companies that are not fully consolidated.

The EPRA LTV fell from 46.9% in 2021 to 45.8% in 2022. A drop in assets is countered by a disproportionately marked drop in net debt.

in € million	2021	2022	Change in %
Borrowings from Financial Institutions*	21,566.4	18,697.7	-13.3
Commercial paper	–		–
Hybrids	–	–	–
Bond loans	25,085.0	26,061.5	3.9
Foreign currency derivatives	–	–	–
Net payables	1,221.6	–	-100.0
Owner-occupied property (debt)	–	–	–
Current accounts (equity characteristic)	–	–	–
Cash and cash equivalents	-1,432.8	-1,302.4	-9.1
Net Debt	**46,440.2**	**43,456.8**	**-6.4**
Owner-occupied property	265.8	285.8	7.5
Investment properties at fair value	94,100.1	92,300.1	-1.9
Properties held for sale	2,719.4	70.8	-97.4
Properties under development**	–	–	–
Intangibles	238.8	129.6	-45.7
Net receivables	–	769.9	–
Financial assets	1,794.5	1,357.2	-24.4
Total Property Value	**99,118.6**	**94,913.4**	**-4.2**
EPRA LTV in %	**46.9**	**45.8**	**-1.1 pp**

* Incl. bond loans Deutsche Wohnen.
** Included in Investment properties at fair value

Property-related Capital Expenditure

The table below provides an overview of the property-related capital expenditure made by the company throughout the fiscal year.

In the acquisitions category, the prior year was dominated by the takeover of Deutsche Wohnen. Smaller portfolios in relative terms were acquired in the reporting year.

Investments in new construction fell by 5.1% year-on-year in 2022. Investments in the existing portfolio were increased by 11.1%.

in € million	2021	2022	Change in %
Acquisitions	28,334.1	354.7	-98.7
Development*	639.9	607.1	-5.1
Investment properties	1,124.2	1,248.9	11.1
Incremental lettable space	–	–	
No incremental lettable space	1,124.2	1,248.9	11.1
Other	–	–	
Property-related capital expenditure	**30,098.2**	**2,210.7**	**-92.7**

* incl. attic conversions.

Like-for-like Rent Increases

The following tables provide an overview of the like-for-like rent increases in the company's residential property portfolio.

Dec. 31, 2022	Residential units	Living area (in thou. m²)	Residential in-place rent like-for-like* Dec. 31, 2021 (p. a. in € million)	Dec. 31, 2022 (p. a. in € million)	Change (in %)
Strategic	412,427	25,211	2,160.3	2,216.5	2.6
Urban Quarters	332,938	20,168	1,726.3	1,770.7	2.6
Urban Clusters	79,489	5,044	434.0	445.8	2.7
Recurring Sales	27,777	1,896	163.0	166.5	2.1
MFH Sales	22,522	1,430	152.6	156.2	2.4
Non Core	13,872	788	59.4	61.0	2.6
Vonovia Germany	**476,598**	**29,325**	**2,535.4**	**2,600.2**	**2.6**
Vonovia Sweden	37,120	2,648	301.8	309.9	2.7
Vonovia Austria	19,702	1,464	86.1	89.3	3.8
Total	**533,420**	**33,437**	**2,923.4**	**2,999.4**	**2.6**

* The underlying portfolio has a fair value of € 83,381.4 million.

Regional Market	Residential units	Living area (in thou. m²)	Residential in-place rent like-for-like* Dec. 31, 2021 (p. a. in € million)	Dec. 31, 2022 (p. a. in € million)	Change (in %)
Berlin	141,871	8,492	731.7	748.5	2.3
Rhine Main area	35,580	2,249	239.3	245.8	2.7
Dresden	44,047	2,557	199.3	203.1	1.9
Rhineland	31,019	2,039	190.1	195.2	2.7
Southern Ruhr area	41,773	2,575	206.0	211.6	2.7
Hamburg	19,715	1,240	113.3	116.8	3.1
Hanover	21,572	1,359	113.5	117.7	3.7
Kiel	24,837	1,431	118.1	121.7	3.1
Munich	10,404	675	72.4	73.8	1.9
Stuttgart	13,018	818	82.8	84.7	2.3
Northern Ruhr area	23,867	1,471	108.8	111.2	2.1
Leipzig	13,801	909	68.8	70.3	2.3
Bremen	11,506	700	52.7	54.8	3.8
Westphalia	9,260	605	49.0	50.3	2.8
Freiburg	3,989	271	26.1	26.8	2.8
Other strategic locations	26,773	1,698	144.8	148.7	2.7
Total strategic locations Germany	**473,032**	**29,091**	**2,516.7**	**2,580.9**	**2.6**
Non-strategic locations	3,566	234	18.8	19.2	2.5
Vonovia Germany	**476,598**	**29,325**	**2,535.4**	**2,600.2**	**2.6**
Vonovia Sweden	37,120	2,648	301.8	309.9	2.7
Vonovia Austria	19,702	1,464	86.1	89.3	3.8
Total	**533,420**	**33,437**	**2,923.4**	**2,999.4**	**2.6**

* The underlying portfolio has a fair value of € 83.381.4 million.

Glossary

Adjusted EBITDA Development
The Adjusted EBITDA Development includes the gross profit from the development activities of "to sell" projects (income from sold development projects less production costs) and the gross profit from the development activities of "to hold" projects (fair value of the units developed for the company's own portfolio less incurred production costs) less the operating expenses from the Development segment.

Adjusted EBITDA Care
The Adjusted EBITDA Care is calculated by deducting maintenance expenses and operating costs from the segment revenue.

Adjusted EBITDA Recurring Sales
The Adjusted EBITDA Recurring Sales compares the proceeds generated from the privatization business with the fair values of assets sold and also deducts the related costs of sale. In order to disclose profit and revenue in the period in which they are incurred and to report a sales margin, the fair value of properties sold, valued in accordance with IFRS 5, has to be adjusted to reflect realized/unrealized changes in value.

Adjusted EBITDA Rental
The Adjusted EBITDA Rental is calculated by deducting the operating expenses of the Rental segment and the expenses for maintenance in the Rental segment from the Group's rental income.

Adjusted EBITDA Total (Earnings Before Interest, Taxes, Depreciation and Amortization)
Adjusted EBITDA Total is the result before interest, taxes, depreciation and amortization (including income from other operational investments and intragroup profits) adjusted for effects that do not relate to the period, recur irregularly and that are atypical for business operation, and for net income from fair value adjustments to investment properties. These non-recurring items include the development of new fields of business and business processes, acquisition projects, expenses for refinancing and equity increases (where not treated as capital procurement costs), IPO preparation costs and expenses for pre-retirement part-time work arrangements and severance payments. The Adjusted EBITDA Total is derived from the sum of the Adjusted EBITDA Rental, Adjusted EBITDA Value-add, Adjusted EBITDA Recurring Sales, Adjusted EBITDA Development and Adjusted EBITDA Care.

Adjusted EBITDA Value-add
The Adjusted EBITDA Value-add is calculated by deducting operating expenses from the segment's income.

COSO
The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a private-sector U.S. organization. It was founded in 1985. In 1992, COSO published the COSO model, an SEC-recognized standard for internal controls. This provided a basis for the documentation, analysis and design of internal control systems. In 2004, the model was further developed and the COSO Enterprise Risk Management Framework was published. Since then, it has been used to structure and develop risk management systems.

Covenants
Requirements specified in loan agreements or bond conditions containing future obligations of the borrower or the bond obligor to meet specific requirements or to refrain from undertaking certain activities.

EPRA Key Figures
For information on the EPRA key figures, we refer to the chapter on → **EPRA Reporting**.

EPRA NTA
The presentation of the NAV based on the EPRA definition aims to show the net asset value in a long-term business model. NTA stands for Net Tangible Assets. The equity attributable to Vonovia's shareholders is adjusted by deferred taxes in relation to the existing portfolio and the fair value of derivative financial instruments after taking deferred taxes into account. Stated goodwill and other intangible assets are also deducted.

European Public Real Estate Association (EPRA)
The European Public Real Estate Association (EPRA) is a non-profit organization that has its registered headquarters in Brussels and represents the interests of listed European real estate companies. Its mission is to raise awareness of European listed real estate companies as a potential investment destination that offers an alternative to conventional investments. EPRA is a registered trademark of the European Public Real Estate Association.

Fair Value
Fair value is particularly relevant with regard to valuation in accordance with IAS 40 in conjunction with IFRS 13. The fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

GAV
The Gross Asset Value (GAV) of the recognized real estate investments. This consists of the owner-occupied properties, the investment properties including development to hold, the assets held for sale and the development to sell area. In the latter, both residential properties for which a purchase contract has been signed and those with the intention to sell – i.e., a purchase contract has not yet been signed – are included.

Group FFO
Group FFO reflects the recurring earnings from the operating business. In addition to the adjusted EBITDA for the Rental, Value-add, Recurring Sales, Development and Care segments, Group FFO allows for recurring current net interest expenses from non-derivative financial instruments as well as current income taxes. This key figure is not determined on the basis of any specific international reporting standard but is to be regarded as a supplement to other performance indicators determined in accordance with IFRS.

ICR (Interest Coverage Ratio)
The interest coverage ratio is the ratio of Adjusted EBITDA Total to net cash interest.

Maintenance
Maintenance covers the measures that are necessary to ensure that the property can continue to be used as intended over its useful life and that eliminate structural and other defects caused by wear and tear, age and weathering effects.

Vacancy Rate
The vacancy rate is the number of empty units as a percentage of the total units owned by the company. The vacant units are counted at the end of each month.

LTV Ratio (Loan-to-Value Ratio)
The LTV ratio shows the extent to which financial liabilities are covered. It shows the ratio of non-derivative financial liabilities pursuant to IFRS, less foreign exchange rate effects, cash and cash equivalents less advance payments received by Development (period-related), receivables from disposals, plus purchase prices for outstanding acquisitions to the total fair values of the real estate portfolio, fair values of the projects/land currently under construction as well as receivables from the sale of real estate inventories (period-related) plus the fair values of outstanding acquisitions and investments in other real estate companies, as well as loans to companies with holdings of real estate and land.

MFH Sales
We also report on the Other segment, which is not relevant from a corporate management perspective, in our segment reporting. This portfolio involves the sale of multifamily homes largely located outside of our urban quarters.

Rental Income
Rental income refers to the current gross income for rented units as agreed in the corresponding lease agreements before the deduction of non-transferable ancillary costs. The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating and heating costs.

Modernization Measures
Modernization measures are long-term and sustainable value-enhancing investments in housing and building stocks. Energy-efficient refurbishments generally involve improvements to the building shell and communal areas as well as the heat and electricity supply systems. Typical examples are the installation of heating systems, the renovation of balconies and the retrofitting of prefabricated balconies as well as the implementation of energy-saving projects, such

as the installation of double-glazed windows and heat insulation, e.g., facade insulation, insulation of the top story ceilings and basement ceilings. In addition to modernization of the apartment electrics, the refurbishment work upgrades the apartments, typically through the installation of modern and/or accessible bathrooms, the installation of new doors and the laying of high-quality and non-slip flooring. Where required, the floor plans are altered to meet changed housing needs.

Monthly In-place Rent
The monthly in-place rent is measured in euros per square meter and is the current gross rental income per month for rented units as agreed in the corresponding rent agreements at the end of the relevant month before deduction of non-transferable ancillary costs divided by the living area of the rented units. The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating and heating costs.

The in-place rent is often referred to as the "Nettokaltmiete" (net rent excl. ancillary costs such as heating, etc.). The monthly in-place rent on a like-for-like basis refers to the monthly in-place rent for the residential portfolio that was already held by Vonovia twelve months previously, i.e., portfolio changes during this period are not included in the calculation of the in-place rent on a like-for-like basis. If we also include the increase in rent due to new construction measures and measures to add extra stories, then we arrive at the organic increase in rent.

Sustainability Performance Index (SPI)
Index to measure non-financial performance. Vonovia's sustainable activities are geared towards the top sustainability topics that we have identified, which are bundled in the Sustainability Performance Index. The Customer Satisfaction Index (CSI) is included in the calculation of the Sustainability Performance Index. The CSI is determined at regular intervals in systematic customer surveys conducted by an external service provider and shows the effectiveness and sustainability of our services for the customer. Other indicators used in the Sustainability Performance Index are the carbon savings achieved annually in housing stock, the energy efficiency of new buildings, the share of accessible (partial) modernization measures in relation to newly let apartments, the increase in employee satisfaction and diversity in the company's top management team.

Net Debt/EBITDA
Net debt/EBITDA reflects average adjusted net debt in relation to the Adjusted EBITDA Total.

Non Core
We also report on the Other segment, which is not relevant from a corporate management perspective, in our segment reporting. This includes the sale, only as and when the right opportunities present themselves, of entire buildings or land (Non Core) that are likely to have below-average development potential in terms of rent growth in the medium term and are located in areas that can be described as peripheral compared with Vonovia's overall portfolio and in view of future acquisitions.

Rating
Classification of debtors or securities with regard to their creditworthiness or credit quality according to credit ratings. The classification is generally performed by rating agencies.

Recurring Sales
The Recurring Sales segment includes the regular and sustainable disposals of individual condominiums and single-family houses from our portfolio. It does not include the sale of entire buildings or land (MFH Sales/Non Core). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of our operating business within the narrower sense of the term. Therefore, these sales will be reported under "Other" in our segment reporting.

Fair Value Step-up
Fair value step-up is the difference between the income from selling a unit and its current fair value in relation to its fair value. It shows the percentage increase in value for the company on the sale of a unit before further costs of sale.

Cash-generating Unit (CGU)
The cash-generating unit refers, in connection with the impairment testing of goodwill, to the smallest group of assets that generates cash inflows and outflows independently of the use of other assets or other cash-generating units (CGUs).

Financial Calendar

March 17, 2023
Publication of the 2022 Annual Report

May 4, 2023
Publication of the interim statement for the first three months of 2023

May 17, 2023
Annual General Meeting (virtual)

August 4, 2023
Publication of the interim financial report for the first half of 2023

November 3, 2023
Publication of the interim statement for the first nine months of 2023

Contact

Vonovia SE

Universitätsstrasse 133
44803 Bochum
Phone +49 234 314-0
Fax +49 234 314-1314
info@vonovia.de
www.vonovia.de

Your Contacts

Investor Relations
Rene Hoffmann
Head of Investor Relations
Phone +49 234 314-1629
Fax +49 234 314-2995
Email: rene.hoffmann@vonovia.de

Corporate Communications
Klaus Markus
Head of Corporate Communications
Phone +49 234 314-1149
Fax +49 234 314-1309
Email: klaus.markus@vonovia.de

Note
This Annual Report is published in German and English. The German version is always the authoritative text. The Annual Report can be found on the website at www.vonovia.de.

EPRA is a registered trademark of the European Public Real Estate Association.

Disclaimer
This report contains forward-looking statements. These statements are based on the current experiences, assumptions and forecasts of the Management Board as well as information currently available to the Management Board. The forward-looking statements are not guarantees of the future developments and results mentioned therein. The future developments and results depend on a large number of factors. They involve certain risks and uncertainties and are based on assumptions that may prove to be inaccurate. These risk factors include but are not limited to those discussed in the risk report of the 2022 Annual Report. We do not assume any obligation to update the forward-looking statements contained in this report. This financial report does not constitute an offer to sell or the solicitation of an offer to subscribe for or buy any securities of Vonovia SE.

Imprint
Published by
The Management Board of Vonovia SE

Concept and Realization:
Berichtsmanufaktur GmbH, Hamburg

Translation:
EnglishBusiness AG, Hamburg

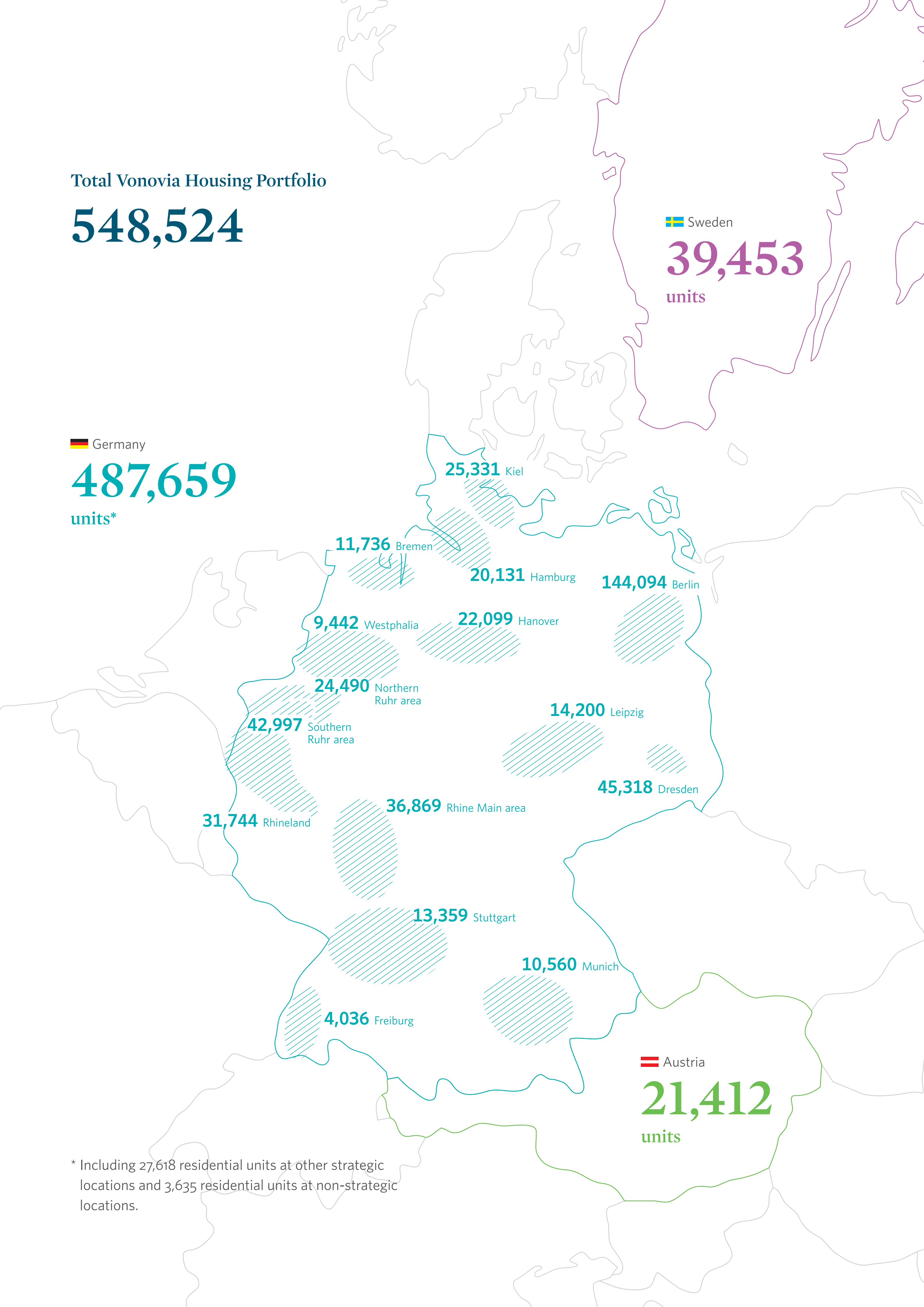
Photography:
Catrin Moritz

Illustration:
Thomas Kappes

As of March 2023

Total Vonovia Housing Portfolio

548,524



* Including 27,618 residential units at other strategic locations and 3,635 residential units at non-strategic locations.

www.vonovia.de/en