

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.

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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 macro-economic 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 CO₂, 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, CO₂ 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

<p>E Environmental</p> <p>Contribution to climate protection and reducing CO₂ in both the housing stock and new construction.</p>	<p>S Social</p> <p>Responsibility towards tenants and society through fair prices, housing that meets people's needs and future-fit neighborhood development.</p> <p>Attractive and fair working environment for our diverse workforce.</p>	<p>G Governance</p> <p>Sustainable corporate governance and responsible business practices with reliable compliance.</p>
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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 exper-

tise 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	Regional	Shared Services
Portfolio Management <ul style="list-style-type: none"> > Invest program management > Rent calculation & management > Rent performance management 	Asset Management <ul style="list-style-type: none"> > Strategic development of local portfolio > Stakeholder management 	<ul style="list-style-type: none"> > Purchasing > Finance/tax > Accounting > Controlling > Legal > IT > HR > Communication
Central Property Management <ul style="list-style-type: none"> > 24/7 customer service > Rental contract management > Field service disposition > Property-related accounting services 	Property Management <ul style="list-style-type: none"> > Field services > Caretaker organization > Letting organization 	
	Value-add Management <ul style="list-style-type: none"> > Technical service > Modernization > Residential environment 	
	Development <ul style="list-style-type: none"> > Integrated development platform > Development to sell/to hold 	

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 **mega-trends**, 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 CO₂ (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:

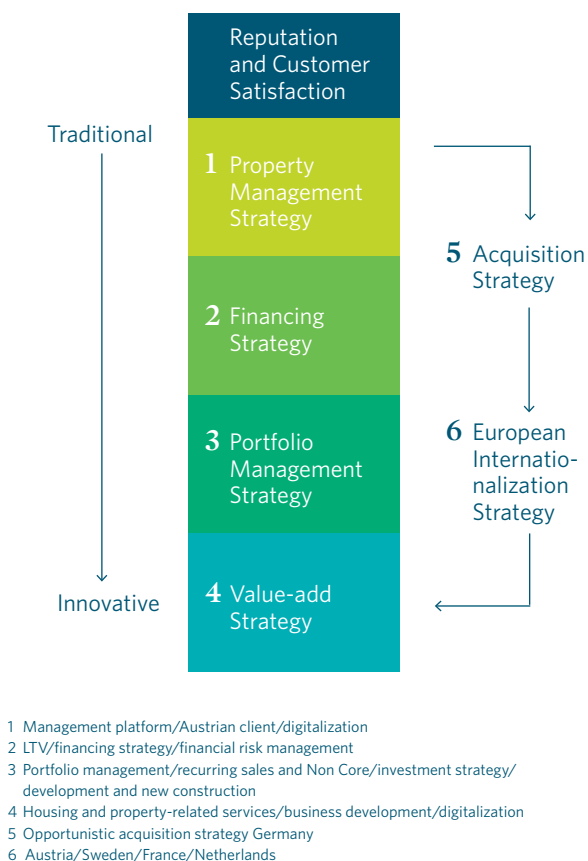
The **property management strategy** is based on the sophisticated **management platform**, which allows for the efficient management of the portfolio and the successful scaling of the property management business. In this respect, Vonovia makes use of a mix of regional and local services and the Group-wide 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 credit ratings, 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



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

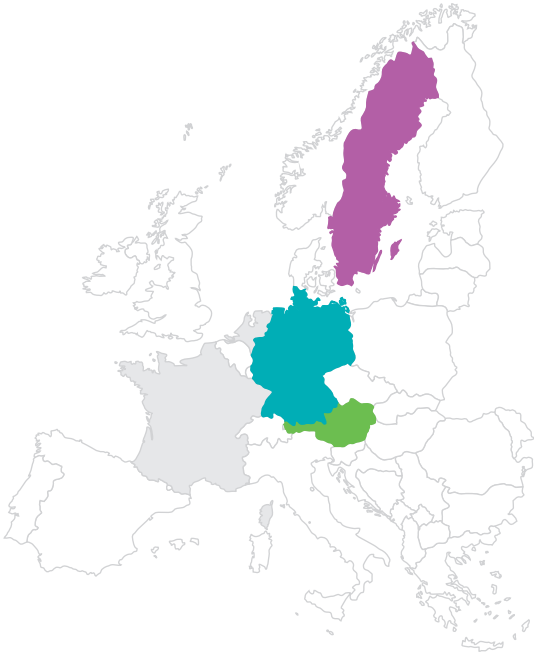
Vonovia pursues **acquisitions** as and when opportunities present themselves in light of the current opportunities for returns and financing. Acquisitions have to be expected to increase in value before they are conducted. Such increases in value are generally assessed in terms of strategic suitability, 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

15 urban growth regions

Sweden

Stockholm, Gothenburg, Malmö

Austria

Vienna (mainly)

The Netherlands

Randstad (greater Amsterdam/Rotterdam)

France

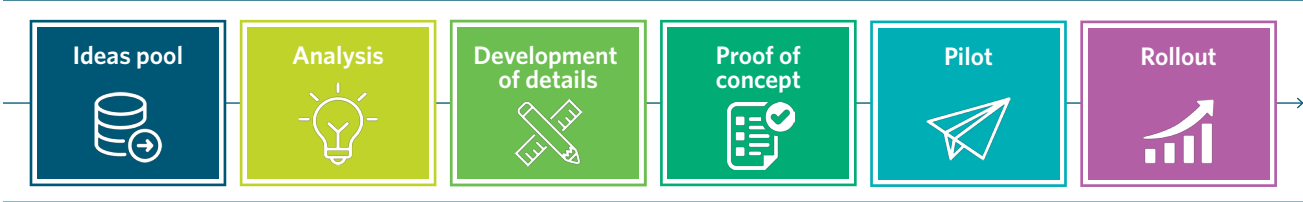
Île-de-France (greater Paris)

Innovation as a Basis for Solutions

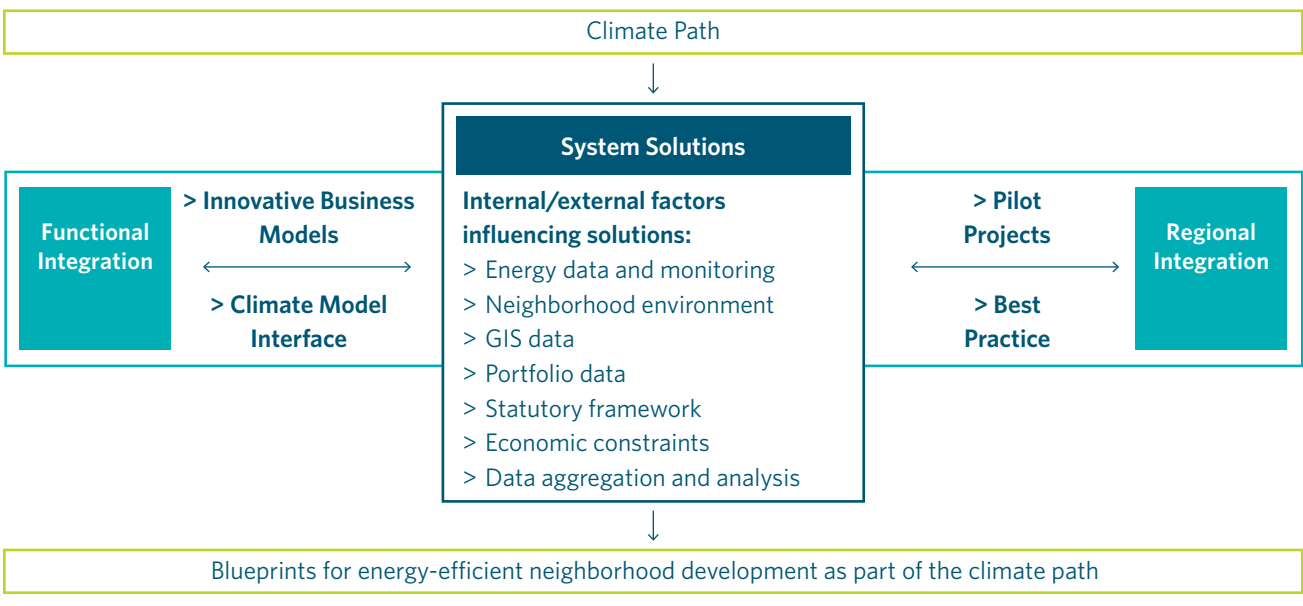
Innovation is a firmly established component of Vonovia’s strategy. The large number of neighborhoods in the company’s portfolio creates potential to develop future-fit solutions for innovative technologies and new services to respond to the current megatrends. The innovative approaches are not only 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.

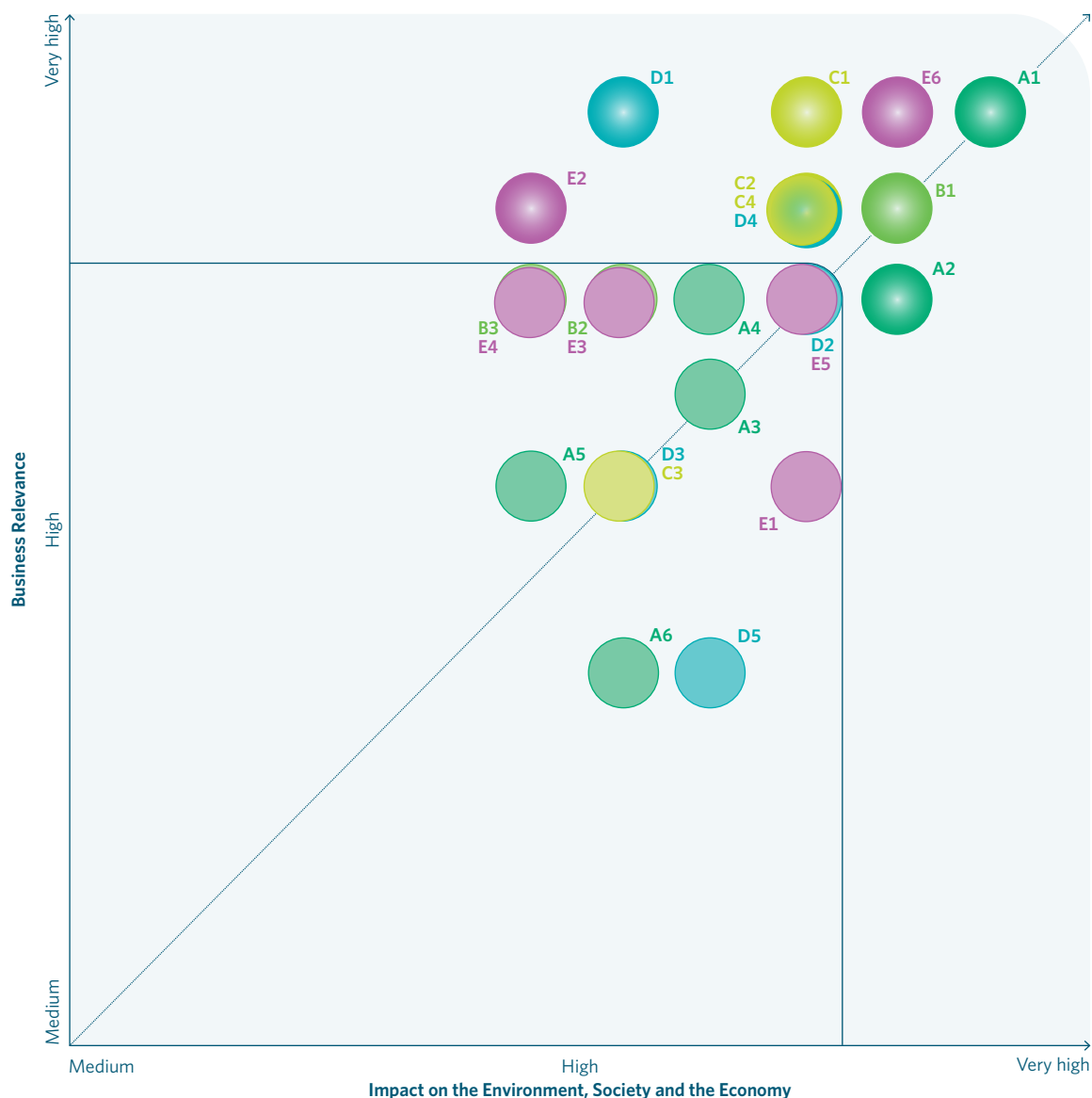
Key Materiality Aspects at Vonovia

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 CO₂ 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 CO₂ 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 CO₂ 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.

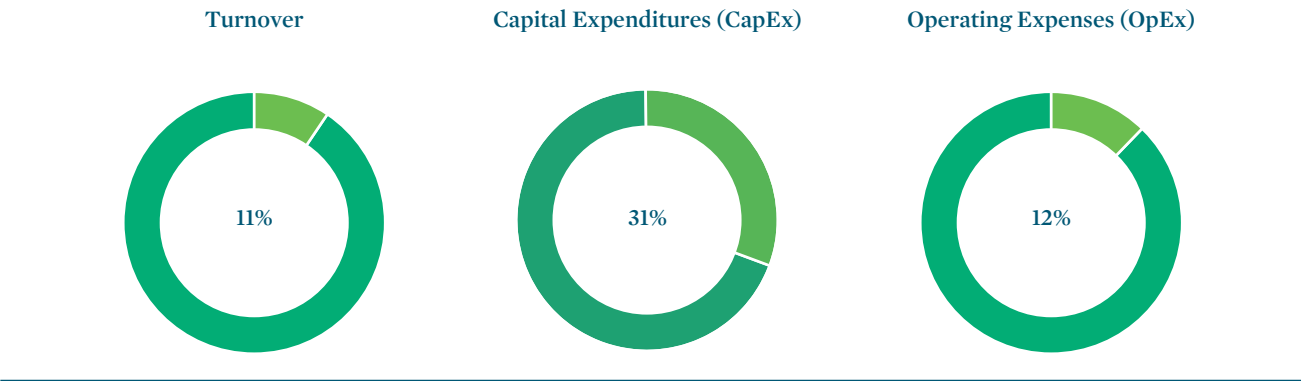
We have identified the following activities carried out by Vonovia as taxonomy-eligible with regard to EU environmental objective 1:

EU Taxonomy Criteria	Activities undertaken by Vonovia	Turnover	Capital Expenditures	Operating expenses
7.1 Construction of new buildings	Turnover from Development to sell	<input checked="" type="checkbox"/>		
7.2 Renovation of existing buildings	Investments for energy modernizations		<input checked="" type="checkbox"/>	
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)		<input checked="" type="checkbox"/>	
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		<input checked="" type="checkbox"/>	
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		<input checked="" type="checkbox"/>	
7.6 Installation, maintenance and repair of renewable energy technologies	Investments for photovoltaic facilities		<input checked="" type="checkbox"/>	
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)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>		

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 allo-

cates 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

	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
Economic Activities		€ 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.

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CapEx

	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
Economic Activities		€ 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.

[illegible]

	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 ecosystems
Economic Activities		€ 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.

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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 CO₂ 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 CO₂ 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 environment 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.

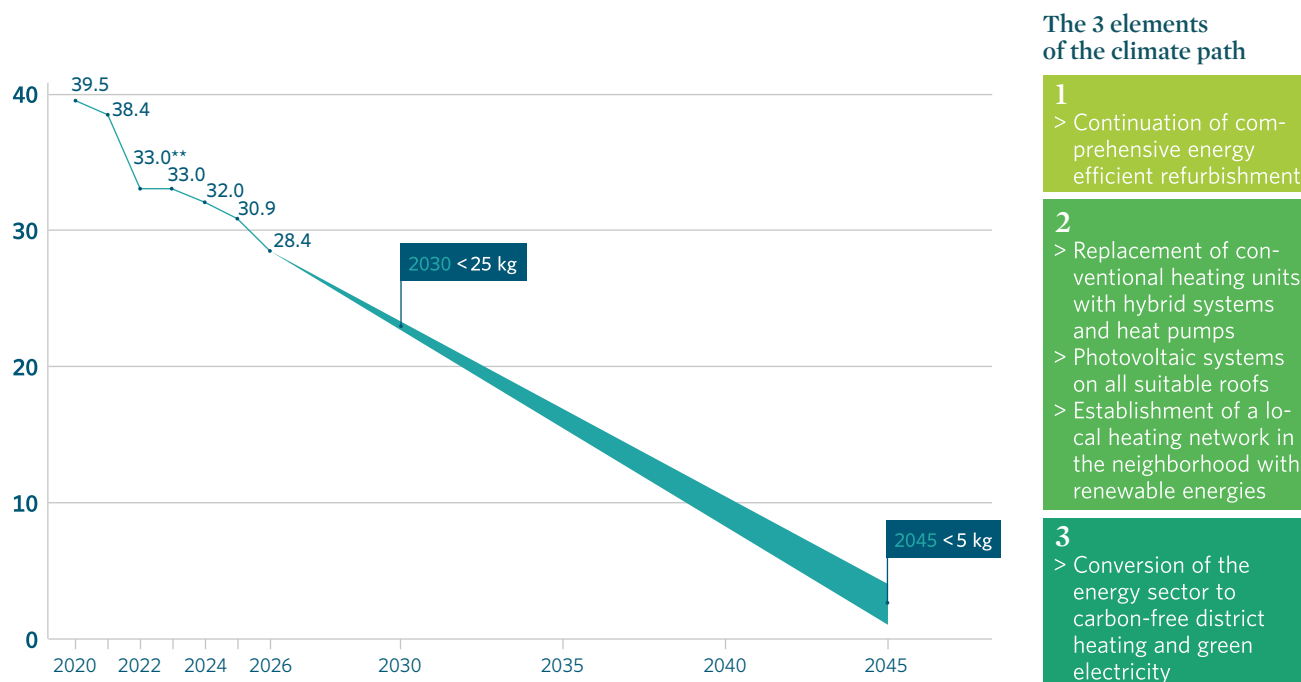
Vonovia has set itself the target of achieving a virtually climate-neutral housing stock by 2045, **with carbon intensity of less than 5 kg of CO₂ equivalents per sqm of rental area**. By 2030, our housing stock in Germany is to have a CO₂ intensity of less than 25 kg CO₂e/sqm. These targets remain unchanged 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 CO₂ 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 CO₂ 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 CO₂ 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

CO₂ intensity in kg CO₂e/m²a*



* 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/CO₂/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	<ul style="list-style-type: none"> > 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. 	<p>2022 Annual Report: The Company Corporate Structure Sustainability Management at Vonovia Management System Environmental Issues Opportunities and Risks</p> <p>2021 Sustainability Report: Environment and Climate Management of Opportunities and Risks</p>
Strategy		
Actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning	<ul style="list-style-type: none"> > As key drivers of long-term business success, climate protection and CO₂ 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 (CO₂ 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. 	<p>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</p>
Risk Management		
How the Organization Identifies, Assesses, and Manages Climate-Related Risks	<ul style="list-style-type: none"> > 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. 	<p>2022 Annual Report: Environmental Issues Risk Assessment Based on Sustainability Aspects Opportunities and Risks 2021 Sustainability Report: Management of Opportunities and Risks</p>
Metrics and Targets		
Metrics and Targets Used to Assess and Manage Relevant Climate-Related Risks and Opportunities	<ul style="list-style-type: none"> > Comprehensive carbon footprint for the housing stock and business operations in accordance with the GHG Protocol and IW.2050 > CO₂e 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 <p>Targets:</p> <ul style="list-style-type: none"> > Virtually climate-neutral housing stock by 2045 (< 5 kg CO₂e per sqm rental area) > Reduction of CO₂ intensity from current level of 33.0 to less than 25 kg CO₂e 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 	<p>2022 Annual Report: Strategy Management System Environmental Issues 2021 Sustainability Report: Environment and Climate Sustainable Construction and Development Environmental Key Figures</p>

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

CO₂ Reduction in the Real Estate Portfolio

The **CO₂ 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 CO₂ intensity for our housing stock in Germany was **33.0 kg CO₂e/sqm** (2021: 38.4 kg CO₂e/sqm, excluding Deutsche Wohnen). As we switched to using the Carnot method to calculate district heating CO₂ 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 (CO₂ intensity in 2021 taking into account the Carnot method: 35.6 kg CO₂e/sqm, excluding Deutsche Wohnen). CO₂ 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 CO₂e/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 ₂ e/ 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 CO₂ 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 CO₂ 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 CO₂ 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 CO₂ 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 CO₂-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 "klimatektiv 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 CO₂ 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 CO₂ 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 CO₂-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 Germa-

ny 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/m ² 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 micro-climate, 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 CO₂ 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	€/m ²	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 apprenticeship 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 Victoriavägen 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 SYN VIA. 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 SYN VIA; 2021 incl. SYN VIA). The Care segment comprises a further 3,798 employees and 309 apprentices - 54 employees are accounted for SYN VIA.

** 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 SYN VIA 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 SYN VIA) 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 equality 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 SYNVA. ** 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 SYNVA 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 [anonymously 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. m ²)	Vacancy (in %)	(in € million)	(in €/m ²)	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 €/m ²)	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:

	Residential units	Living area (in thou. m ²)	Vacancy (in %)	In-place rent	
				Residential (p. a. in € million)	Residential (in €/m ²)
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:

	Residential units	Living area (in thou. m ²)	Vacancy (in %)	In-place rent*	
				Residential (p. a. in € million)	Residential (in €/m ²)
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. m ²)	Vacancy (in %)	(in € million)	(in €/m ²)
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 €/m ²)	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

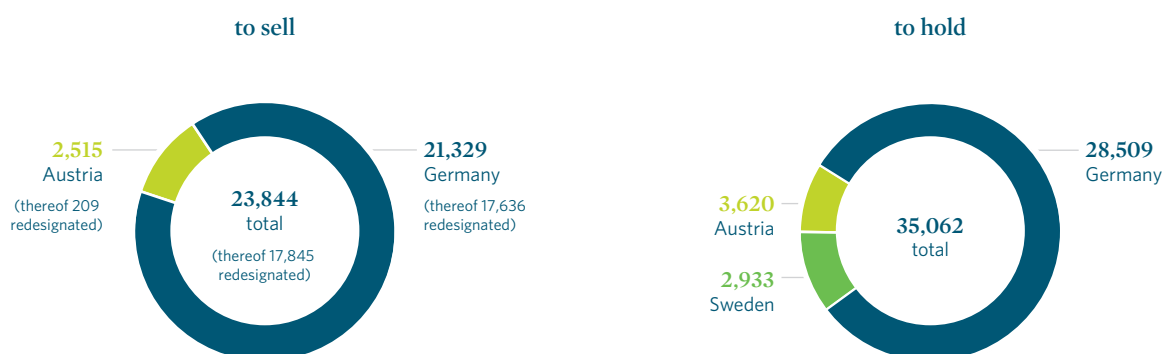
Conceptual and technical solutions for the resource-light construction and sustainable operation of neighborhoods make up a key component of the development business model. In line with the three focal issues of urbanization, energy efficiency and demographic change, central aspects of sustainability 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.

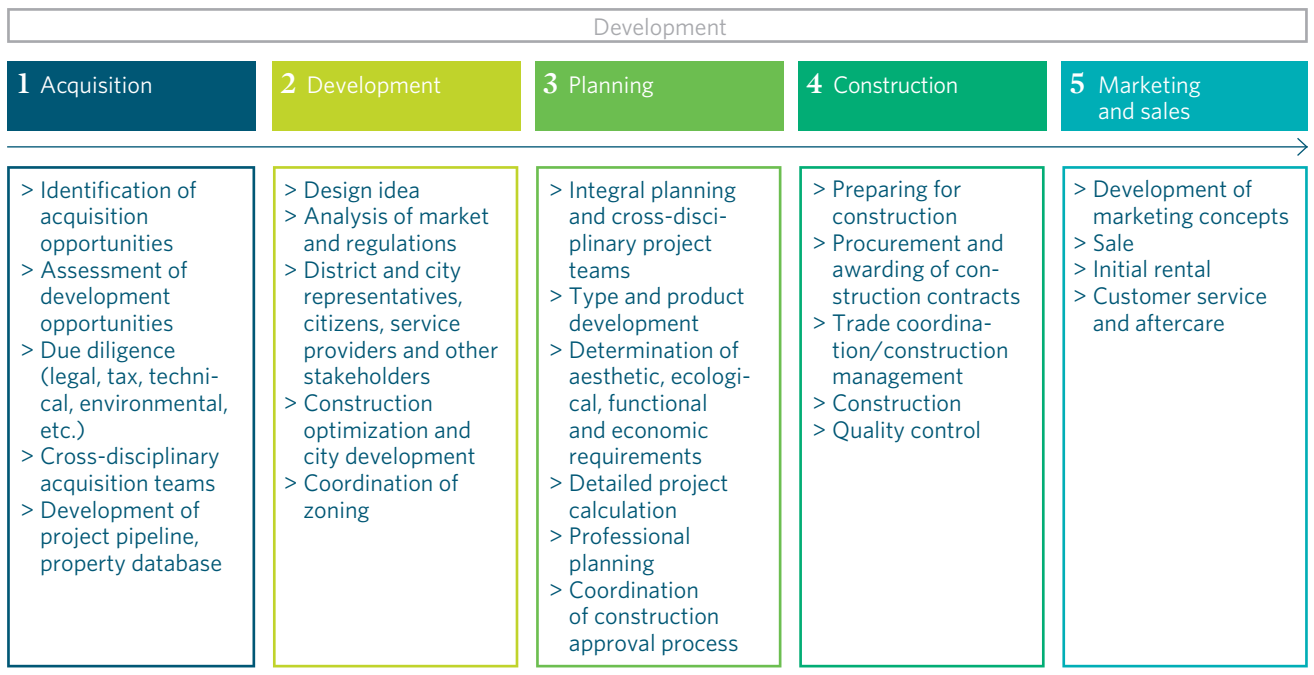
Sustainability is achieved at all stages in the residential real estate value chain – from the selection of building materials that are as ecological and recyclable as possible, to the commissioning of local craftsmen and service providers, and the sustainable operation of the development projects.

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 “MARI-NA 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



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](#).

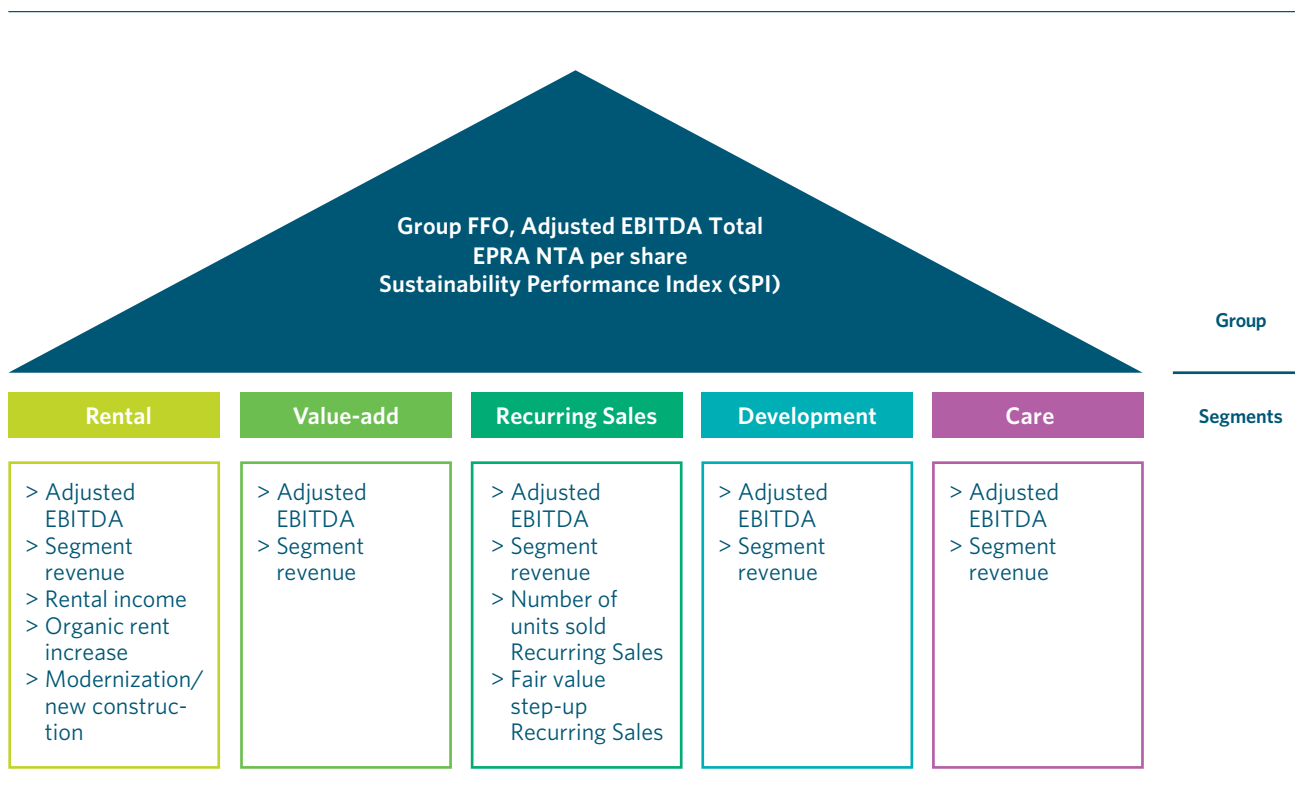
The **Rental segment** combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden.

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 the meaning 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 covered 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.

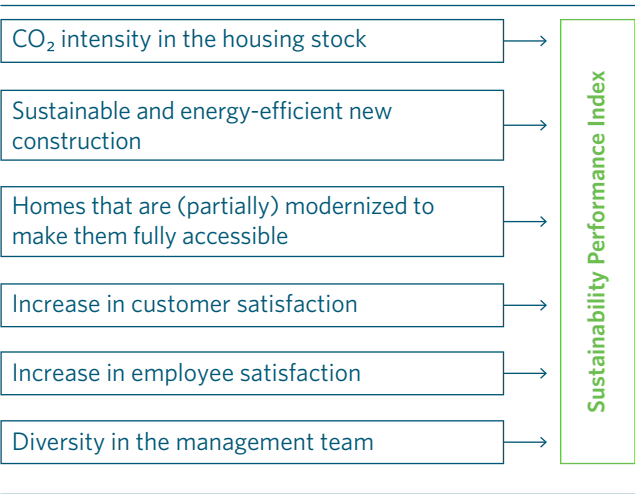
The **organic rent increase** refers to the increase in the monthly in-place rent for the residential portfolio that was already held by Vonovia twelve months previously and rented as of the reporting date, plus the increase in rent resulting from the construction of new apartments and the addition of 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)



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 proper-

ties 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 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 CO₂ costs between landlords and tenants in 2022, with the act coming into effect on January 1, 2023. An increase in the CO₂ 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 CO₂ 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 €/m ²	7.33	7.49	2.2
Average area of own apartments in the reporting period (in thou. m ²)	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 (€/m ²)	26.17	24.80	-5.2
thereof expenses for maintenance (€/m ²)	13.01	12.85	-1.2
thereof capitalized maintenance (€/m ²)	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 elimination 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.

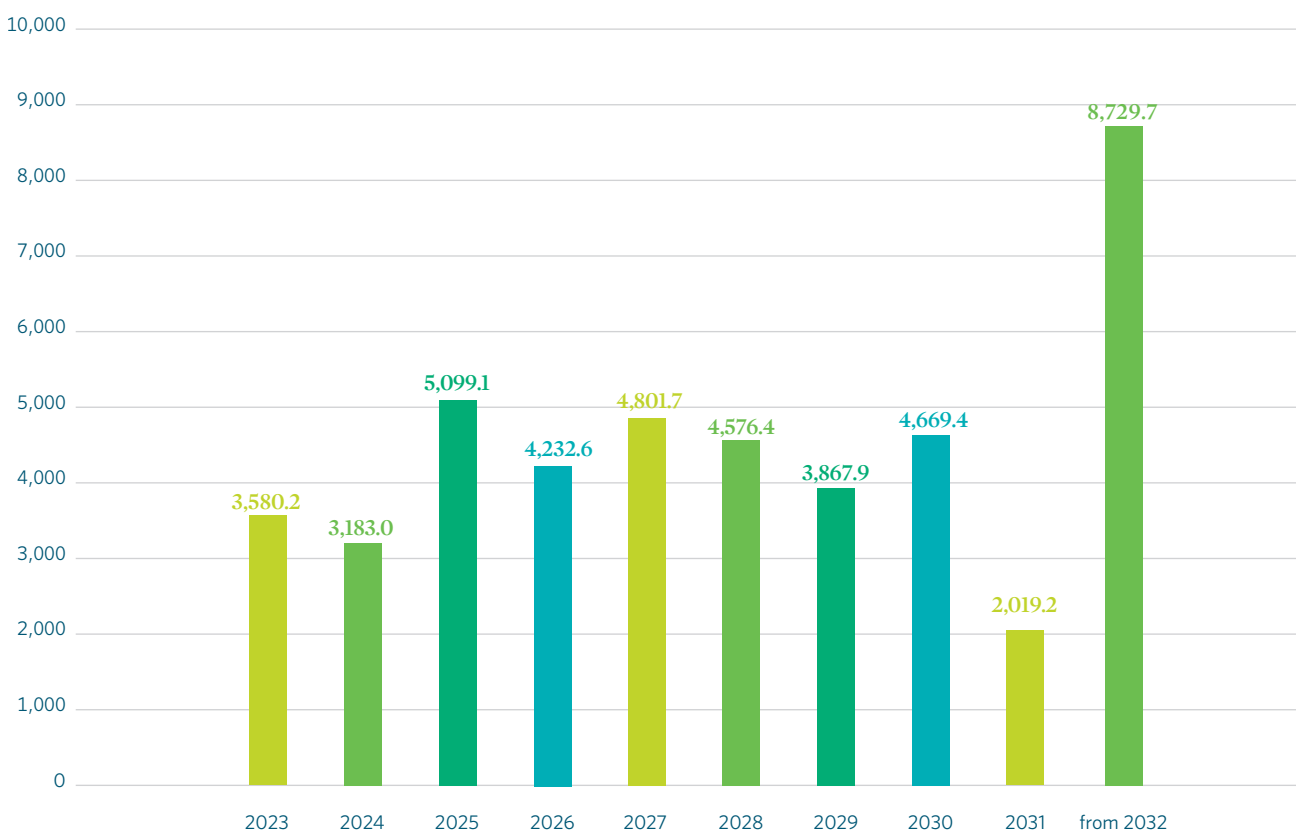
In December 2022, Vonovia repaid a floating rate bond from 2018 in the amount of € 600.0 million as planned.

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 <ul style="list-style-type: none"> > Budget > Forecast > Results 	Compliance Officer <ul style="list-style-type: none"> > Guidelines, regulations > Contracts > Capital market compliance > Data protection 	Controlling <ul style="list-style-type: none"> > Risk management process > Risk reporting 	IT <ul style="list-style-type: none"> > Process documentation Accounting <ul style="list-style-type: none"> > Accounting-based internal control system 	Internal Audit <ul style="list-style-type: none"> > Process-oriented audits > Risk-oriented audits
Operational Areas <ul style="list-style-type: none"> > Performance management > Technical integrity 	Operational Areas <ul style="list-style-type: none"> > Ensuring compliance 	Operational Areas <ul style="list-style-type: none"> > Risk identification and evaluation > Risk control 	Operational Areas <ul style="list-style-type: none"> > Documentation of core processes > Control activities > Control self assessment 	Operational Areas <ul style="list-style-type: none"> > 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 work-flows 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
Considerable	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

Probability of occurrence	Very likely 5					
	Likely 4					
	Possible 3					
	Unlikely 2					
	Very unlikely 1					
		1	2	3	4	5
		Low	Noticeable	Material	High	Very high
		Amount of loss				

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	40–59	5–39	<5
		2 (5)	2 (1)		
			2 (3)	2 (1)	
				24 (25)	9 (15)
					0 (2)
					1 (0)
Impact on profit and loss	5–40	40–150	150–375	375–750	>750
	80–600	600–2,400	2,400–6,000	6,000–12,000	>12,000
	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 CO₂ 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 SYNVA).

***** 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)

