COMBINED MANAGEMENT REPORT

In 2018, Vonovia picked up exactly where it had left off in the previous year in terms of business performance. We were successful in implementing our business strategy and all key figures showed an improvement. We are also optimistic as far as this fiscal year is concerned.

Fundamental Information About the Group

Overall Conditions of the German Residential Real Estate Market

Everyone needs a home. In addition to our basic physiological needs, **a roof over our heads** is a basic and fundamental human requirement; as well as offering protection and shelter, our home is also, first and foremost, an expression of our personal lifestyle. According to the latest estimates from the Federal Statistical Office, at least 42.0 million apartments are on offer for approx. 82.9 million people.

At the time of the last microcensus (2014), the proportion of owner-occupied apartments came to around 45.5%, with rented apartments accounting for around 54.5%. The vast majority of these apartments are made available by private small-scale providers. In addition to these providers and landlords, the German real estate market features cooperative, municipal, public-sector and church landlords, as well as private-sector professional landlords such as Vonovia. According to the German Association of Professional Homeowners (GdW), the latter provided a combined total of around 4.2 million apartments at the time of the microcensus. Vonovia currently rents out a total of around 358,500 apartments in Germany. This corresponds to around 8.5% of the total supply made available by private-sector professional landlords and to around 1.5% of the total number of rented apartments in Germany.

A large number of major cities and the areas surrounding them are experiencing rapid growth. This is due, in particular, to **migration** from other parts of Germany and from abroad, a trend that has been accelerated by the influx of refugees from global crisis regions. This is fueling greater demand for suitable and affordable living space in these growing cities and regions, resulting in housing shortages as well as rising rents and prices. Despite an increase in the number of completed developments, new construction is still lagging behind the demand for housing, particularly in the country's metropolitan regions. On the other hand, other cities and rural regions in various parts of Germany are faced with a dwindling population.

In addition, the German population is becoming older on average, creating major challenges for the real estate industry, particularly as far as senior-friendly housing is concerned.

Awareness of the **housing problem**, which is reflected in a shortage of available and affordable housing in Germany's metropolitan regions and in the associated significant increase in property prices on both the rental and owner-occupied markets, has grown considerably in recent years. At the same time, surveys suggest that the prevailing opinion is that policymakers have made the wrong housing policy decisions in the past and that they are still doing too little to combat the problem. This shortage of housing and the development in property prices/rent that comes along with it have created a subjective sense of inequality that pervades all sections of society, with political decision-makers under increased pressure to rectify the situation.

This means that housing providers have to adopt a very sensitive approach that gives due consideration to how the "housing issue" is seen in the public eye, and have to proactively seek dialog with political lobbyists and tenants at local, regional and nationwide level. As the issue affects a whole range of different stakeholders, a balance has to be struck between the demands created by the current societal **megatrends** on the one hand and the fundamental human need for housing on the other.

Societal Megatrends

Vonovia's business model is influenced by key environmental developments and megatrends. The main megatrends on the real estate market are (1) the shortage of housing, (2) climate change and the drive to avoid fossil fuels with the aim of limiting emissions that are harmful to the environment, (3) migration and social change and (4) demographic change and the demand for housing that meets the needs of today's society. (5) Digitization is also becoming increasingly important. These megatrends are affecting a real estate industry that is subject to stringent statutory regulation in a climate characterized by increasing concerns regarding the "housing problem" among the population at large.

(1) The shortage of housing in Germany is reflected in the need for around 350,000 to 400,000 new apartments to be built every year. In contrast, around 353,000 building permits are expected to have been granted in 2018, with only around 300,000 apartments actually completed. In Germany's seven largest cities alone, around 88,000 new apartments will have to be built every year, in real terms, in the period leading up to 2020. This shortage of housing means that the vacancy rate is now close to zero on the real estate markets in the country's top locations. As a result, rents in the country's major metropolitan areas are growing at a faster rate than wages, meaning that the burden associated with housing costs is growing disproportionately. What is more, an increasing number of apartments are no longer covered by restrictions put in place to secure an adequate supply of social housing. Whereas back in 1990, there were still around 3 million apartments classified as social housing in Germany, this figure is set to have fallen to around 1 million by 2020. Vonovia plans to use densification in existing neighborhoods to create new apartments in areas that it already owns. The company has efficient processes in place for modular new construction to create affordable living space in the short term. What's more, around 12,000 new apartments are to be built over the next few years thanks to the real estate development business.

(2) Germany has made a commitment to achieving the targets agreed at the Climate Change Conference in Paris as part of its quest to combat climate change. This has created an urgent need for extensive energy-efficient refurbishment measures, particularly given that housing is one of the biggest producers of greenhouse gas emissions. Despite diminishing public acceptance for intensive measures, Vonovia most recently refurbished approximately 5% of its portfolio per year to meet the latest standards in energy efficiency, outpacing the national renovation rate. We want to continue to ensure that our tenants are not overwhelmed financially, while still being able to find solutions to reduce the CO_2 emissions of existing buildings. Energy-efficient modernization means investing in building facilities and insulation. Companies' internal processes, however, are also being put under the microscope as far as their energy efficiency is concerned. Vonovia discloses this information in its Sustainability Report.

(3) The influx of people from different cultural backgrounds as well as the internal migration towards the country's metropolitan regions/high-influx cities is often experienced by the native population, which can impact the social cohesion in and the image of the affected neighborhoods. The risk of insufficient social diversity and mounting tension in the day-to-day interaction between residents in these neighborhoods also has to be tackled in a responsible manner. Vonovia is living up to its responsibility in this area by taking targeted neighborhood development measures, i. e., it is developing its housing stock both by making investments in the residential environment, but also by investing in neighborhood and social structures with suitable cooperation partners. Rules should also be put in place to promote a harmonious communal life.

(4) At the same time, housing needs are changing. The German population is becoming increasingly older, presenting the real estate industry with considerable challenges, particularly when it comes to senior-friendly homes. The number of households is on the rise due to a growing number of one- to two-person households. This development is fueling even greater demand for apartments to accomodate smaller households. Migration patterns within Germany and immigration from abroad are increasing the demand for suitable and affordable housing in metropolitan areas even further. These trends are affecting a housing stock that was created to handle very different circumstances.

(5) Digitization: Digital transformation is also having an increasing impact on Vonovia's business model. Developments in the field of digitization, i. e. primarily the exponential increase in computing power, networking (Internet of Things (IoT)) and platform solutions, mobile devices, robotic process automation (RPA) and artificial intelligence (AI) are being monitored on an ongoing basis to evaluate the impact on our business model and adapt where appropriate. We evaluate digitization and the benefits that it offers with regard to our processes and our customers. For Vonovia, Smart Real Estate

already means the extensive digitization of business processes with a level of sophistication that includes RPA and even extends as far as the first few AI approaches, for example in contract and portfolio data analysis. In our new construction activities, we are using Building Information Modeling (BIM) solutions. Evidence of networking can be found, in particular, within the value chain in our management platform, which facilitates ongoing improvements in how we interact with our customers using corresponding apps and portal solutions, and in the coordination of the local customer service, the craftsmen's and residential environment organization and the commercial support functions. We are also, however, increasingly seeing approaches for smart home building solutions, from smart grid to assistance systems and predictive maintenance. Vonovia is not pursuing digitization as an end in itself, but rather to boost customer satisfaction, improve the basis on which decisions are made, further develop its business model and processes and reduce the use of resources.

The Company

Vonovia manages a housing stock of around **358,000 apartments** in almost all of Germany's attractive cities and regions. It also manages a portfolio of around 23,000 units in Austria and approximately 14,000 in Sweden. The total fair value comes to around € 44.2 billion, with net assets based on the EPRA definition coming to approximately € 26.1 billion (EPRA European Public Real Estate Association). In addition to its own apartments, Vonovia manages around 84,000 apartments for third parties. This makes Vonovia one of the leading residential real estate companies in Germany, Austria and Sweden, albeit with a very low market share of around 1.5% in Germany due to the highly fragmented nature of the market. Vonovia also holds a minority stake in a portfolio perviously held by the French railway operator SNCF.

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 in Germany's Ruhr region. Deutsche Annington and GAGFAH, for example, were originally set up to build apartments for the workforce: They were housing companies and cooperatives that built low-cost housing for workers, salaried employees and civil servants. Many of the housing developments built in that era were model projects of the time and are now covered by preservation orders. Living in what were 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 **age structure** of Vonovia's 358,000 or so German properties shows that around 69% were built between 1945 and 1980 and around 15% originate from the period before the Second World War, while around 16% were built after 1980. Of these, approximately 1% were built after the year 2000.

Vonovia's history also, however, includes a phase which was characterized by "private equity investors," as public-sector and private-sector employers started to withdraw from the management of company-owned apartments as part of the trend towards increasing privatization and liberalization within the real estate market. The German housing market as a whole underwent change. The investors found themselves faced with the challenge of pursuing their business model with an outdated housing stock for which **maintenance and modernization** measures were long overdue; their business model did not ultimately achieve the success they had hoped for and maintenance and investment in the housing stock was cut back even further. This was a partial cause of serious housing defects, which resulted in persistent complaints being lodged by tenants and damage to the housing companies' reputation.

Against the backdrop of the debate on how to limit climate change, it is important to note that Germany's total housing stock has a significant influence on greenhouse gas emissions, accounting for around 35% of the final energy consumption, and that the commitment made by the Federal Republic of Germany under the United Nations **Paris Agreement on climate change** can only be realized by taking substantial energy-efficient modernization measures to overhaul properties that are in need of modernization to begin with. The renovation rate for residential buildings in Germany currently stands at around 1%, considerably lower than the political target of 2%. (Reference is made to Vonovia's Sustainability Report at this point).

Vonovia is just as committed to achieving the targets set out in the Paris Agreement on climate change and reaching the **energy-efficient modernization** rate of 2% as it is to tackling the need to **preserve the building stock in the long term** and **to provide modern and affordable living space that meets tenant needs.** Political stakeholders and the real estate industry alike have to apply sound judgment as they attempt to strike a balance between the need for modernization, the legitimate commercial interests of private-sector landlords and the public perception of the acute housing situation.

As Germany's largest real estate company, Vonovia believes that it has a particular **responsibility** towards its customers, but also towards society and its shareholders. In order to live up to this responsibility, it is extremely important to take not only economic but also ecological and social aspects into account when making entrepreneurial decisions. This is why Vonovia addresses the latest developments and trends head on and is committed to intensive dialog with a whole range of stakeholders.

As Germany's leading residential real estate company, Vonovia maintains close dialog not only with customers, but also with numerous other stakeholder groups that are important for the company's development. These mainly include its employees, investors, suppliers and service providers, as well as social interest groups, including non-governmental/non-profit organizations. We also use our **sustainability reporting** to meet these stakeholders' expectations in terms of information.

As a **modern service company**, Vonovia focuses on customer orientation and, as a result, on the satisfaction of its customers, namely its tenants. Being able to offer tenants affordable and attractive homes, combined with one-stop property-related services, remains a prerequisite for the company's successful development.

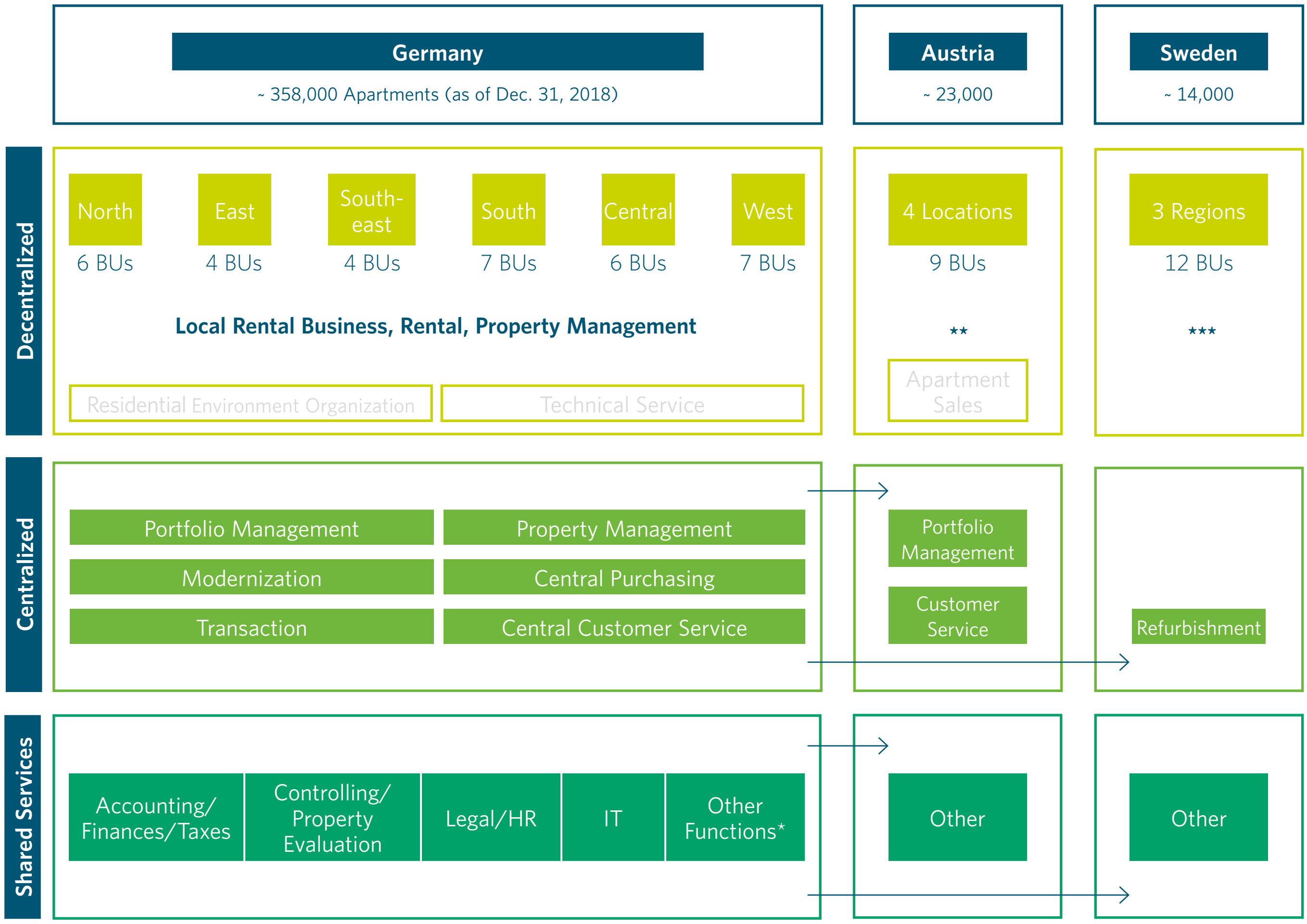
Vonovia's business model is based on the rental of good-quality, modern and, most importantly, affordable living space, the development and construction of new apartments, both for its own portfolio and for sale to third parties, and the provision of housing-related services. These housing-related services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

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

A balanced mix of services provided by the **central service center** and by **regional caretakers working on-site** as well as by our company's own technical and residential environment organization ensures that our tenants' concerns are 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 residential environment.

In addition to its successful long-term and modern property management, Vonovia also develops the 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 development measures, densification and vertical expansion to build an increasing number of new apartments in order to meet the rising demand for living space in metropolitan areas in particular.

Corporate Structure Rental



* Other shared services and staff functions: investor relations, product management, revision, corporate communication, insurance.
** Asset management, commercial and technical property management, rental, caretakers/facility support.
*** Customer service, facility support, rental, local rental business.

→ = Partial takeover from or existence of central functions or shared services.

Corporate Structure

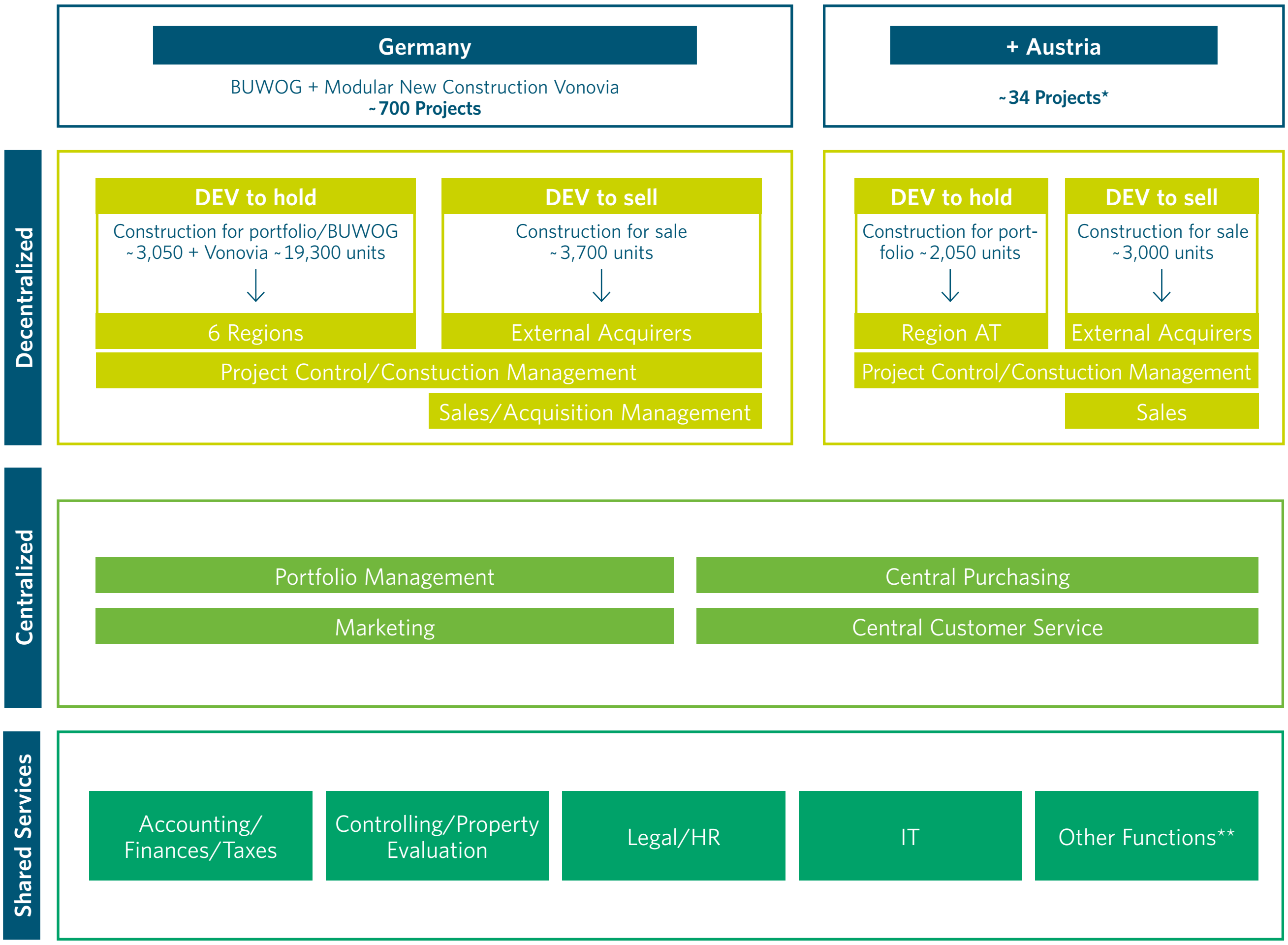
Vonovia SE, the parent company of the Vonovia Group, is organized in the legal form of a dualistic European company (SE). Vonovia SE is directed by a Management Board, which is responsible for conducting business and defining the Group's strategy. Implementation occurs in close coordination with the 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, 2018, 522 legal entities/companies 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 of the Group.

In order to carry out its 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

Corporate Structure Development



* Total projects in progress, preparation and planning.
** Other shared services and staff functions: investor relations, revision, corporate communication, insurance.

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 effective and efficient management of a nationwide portfolio of 358,000 apartments and also provides the basis for the successful digitization of Vonovia's process chains.

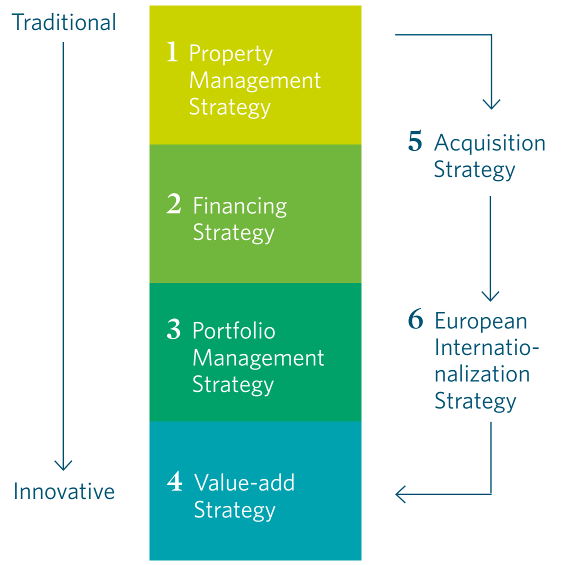
Vonovia's core operating rental business in Germany is currently divided into six business areas. These are, in turn, split into business units (BUs), each of which is responsible for an average of around 10,500 housing units on location as part of a decentralized structure. The caretaker, craftsmen's and residential environment organization is also based on a regional structure.

Responsibility for the other activities that belong to the Value-add segment, i. e., product management, data and energy services, vertical expansion and modernization, is centralized. This also applies to activities relating to sales and acquisition.

The development business is also managed centrally for both Austria and Germany.

The management of the business is based on the company's strategic approaches and is conducted via the four segments: Rental, Value-add, Recurring Sales and Development. Details on the management of our business can be found in the chapter on our management system.

The 4+2 Pillars of our Strategy



Strategy

The 4+2 Strategy

Our reputation and customer satisfaction remain the cornerstones of our strategy. Since 2013, our strategy has been based on four pillars, to which a fifth related strategic approach, our acquisition strategy, was added. These **four basic strategic approaches** include traditional property management, portfolio management, the financing strategy and the innovative aspect of the Value-add strategy. These four basic strategic approaches entail an increasing proportion of innovative elements for the market. The fifth pillar, our acquisition strategy, is designed to strengthen the impact of the first four strategic approaches as the opportunity arises.

This strategy has proved to be extremely successful in previous years. A comparison of the specific situation in Germany with European neighboring countries has shown that Germany has an efficient real estate market. This has led to the decision to use the expertise we have acquired in Germany in other parts of Europe, too. This is why the "4+1 strategy" was turned into a **"4+2 strategy"** in 2017. The 4+2 strategy involves internationalization as a further **opportunistic approach** that is also designed to strengthen the four basic approaches.

In detail, our 4+2 strategy elements can be described as follows:

Property Management Strategy

The core element of the property management strategy is the sophisticated, scalable **management platform,** which benefits primarily from its customer-oriented local business units, the Group-wide bundling of services in shared service centers, the appropriate automated systems, and cost-efficient operations. The aim of continuous improvements to the management platform is to improve the quality and efficiency of customer service. Mastering the complexity of Vonovia's large nationwide real estate portfolio is the top priority within this context. The cost per unit (cpu) is our benchmark. We use our management platform to manage the maintenance and modernization process, as well as procurement. As part of the further development of the platform and its processes, we keep a constant eye on digitization developments to generate further optimization potential for our platform and our customer service. The Austrian and Swedish portfolios are managed by their own respective country-specific organizations. Both organizations aim to rival the standards set by the successful management platform that has already been established in Germany.

Financing Strategy

The financing strategy pursues various yet complementary goals: These are centered on ensuring adequate, but also optimized, liquidity at all times, a balanced structure and maturity of debt capital, optimization of financing costs and credit rating maintenance. Our aim is to maintain an ideal level of debt of between around 40% and 45% measured in terms of the loan-to-value ratio key figure.

Thanks to its broad range of equity and debt capital providers and the BBB+/Stable/A-2 long-term corporate credit ratings awarded tor our company by S&P, our company has excellent access to the international debt and equity capital markets. This gives us flexible access to capital based on favorable financing conditions at all times, securing Vonovia's liquidity on a permanent basis.

This comprehensive access to the international debt and equity capital markets gives a German residential real estate company a clear strategic competitive edge. This was recently evident time and again in the context of our acquisitions and the modernization measures that have been implemented. Without fast and free access to the equity and debt capital markets, it would not have been possible to carry out these measures.

The latest acquisitions expose Vonovia to country risks, and it is also exposed to a currency risk due to the acquisition of the stake in Victoria Park in Sweden. The new challenges arising from this have been incorporated into the financing strategy.

Portfolio Management Strategy

We continue to split our overall real estate portfolio into the **"Strategic"** portfolio, which focuses on value-enhancing property management using the "Operate" and "Invest" approaches on the one hand and, on the other, into the "Recurring Sales" portfolio, which is intended to be sold to tenants, owner-occupiers and capital investors, and the "Non-core Disposals" portfolio, which includes locations and properties that are not absolutely essential to the Group's further strategic development.

In the "Operate" subportfolio of the "Strategic" portfolio, we aim to further increase the value of the properties by carrying out sustainable maintenance measures, increasing rents and reducing vacancy levels. In the "Invest" subportfolio, we are generating additional added value by implementing an extensive program of investments that responds to climate protection concerns and focuses on investments in energy-efficient renovation. Most of our investments are in heat insulation for facades and roofs, as well as in new windows and heating systems. When it comes to investing in our apartments, our measures to improve residential standards are based on our customers' needs. As well as modernizing or renovating bathrooms, installing new flooring and offering modern electrical installations, this also includes the demand for senior-friendly fittings.

We want to continue to create new living space in our portfolio in the future as part of our densification strategy. The first set of new construction projects has already been successfully completed and others are in the planning stages. These also include moves to add extra stories to existing buildings. **New construction and vertical expansion projects** are frequently realized using a standardized series construction system with the help of pre-configured segments, making them much quicker to complete. Modular construction using pre-configured elements allows standardization and scaling at a low cost, while ensuring reliable project implementation at the same time.

Thanks to the acquisition of BUWOG, the portfolio management strategy also includes the activities of the development business in Germany and Austria on land purchased specifically for this purpose, adding another profitable element to Vonovia's value chain. The acquisition also results in the transfer of substantial expertise between the **development business** and Vonovia's established new construction and vertical expansion activities. The development business includes the construction of owner-occupied apartments for sale to private investors and owner-occupiers, as well as the construction of rented apartments to be managed by the company itself. These activities will continue to be performed under the established BUWOG brand in the future.

In the **"Recurring Sales"** portfolio, our focus is on generating additional added value by selling owner-occupied apartments and single-family houses at a premium compared with their fair value.

The **"Non-core Disposals"** portfolio includes locations and properties that are not earmarked for privatization, are likely to have below-average development potential in terms of rent growth in the medium term and are located in areas that can be described as peripheral compared with Vonovia's overall portfolio and in view of future acquisitions. Properties in this portfolio are reviewed on a regular basis and offer further sale potential.

The properties in Austria and Sweden are combined in the "Vonovia Austria" and "Vonovia Sweden" portfolios respectively.

Value-add Strategy

The Value-add strategy supplements our core business to include customer-oriented services, e.g., services that are closely related to and/or influence the rental business. As part of this strategy, we continually evaluate additional service ideas to boost customer satisfaction and add the corresponding services to our offering. Those areas of the Value-add strategy that have already been established successfully largely include the caretaker organization, the craftsmen's organization, the residential environment organization, multimedia services and metering services. In addition, we are expanding our services are into the area of energy supplies and home automation.

The capability of having our own craftsmen's organization cover the entire portfolio, in particular the maintenance and modernization services, allows us to make the units more attractive in general and help to boost customer satisfaction. In addition, our residential environment organization consisting of our own employees is responsible for looking after outdoor areas, green spaces, playgrounds and refuse collection points within our properties, particularly in conurbations. We have also established our own caretaker organization in recent years, with employees on hand to provide on-site support for our existing properties. This systematic insourcing allows us to increase the proportion of services we provide ourselves on an ongoing basis, allowing us to ensure that our own employees are on site in the various property locations. In addition, this improves reaction times to customer inquiries and makes it easier to coordinate services – especially in such a large nationwide portfolio like Vonovia's. Therefore, the effective increase in craftsmen's availability and the improved quality of repair work ultimately lead to an increase in customer satisfaction.

The Value-add strategy also includes the condominium administration business, property insurance and the management of properties for third parties.

Acquisition Strategy

The Vonovia Group has been growing in recent years thanks to a large number of acquisitions. Our scalable operational management system has allowed us to achieve harmonization and generate economies of scale from the full and swift integration of newly acquired companies and portfolios. Over the past few years, we have been able to prove, time and again, that this strategy pays off.

Making the most of this competitive advantage and using the expertise that has been built up within our organization over many years, we are constantly analyzing portfolios that could constitute potential takeover targets. In accordance with our portfolio management strategy and our Value-add strategy, we do not consider acquisitions to be the only way in which to achieve growth, but rather see them as key additional strategic levers that help to strengthen the impact of the core strategies.

We pursue our acquisitions as and when opportunities present themselves. Acquisitions have to be expected to increase value before they are conducted. Such increases in value are generally assessed in terms of strategic suitability, increases in FFO per share and a neutral impact on the NAV 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 corporate credit rating.

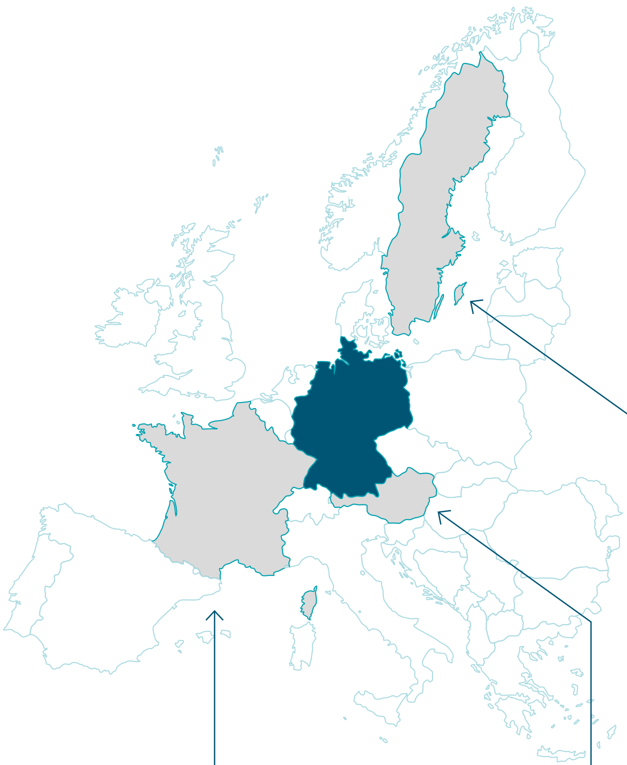
Despite a shorter supply of attractive portfolios, Vonovia remains committed to the implementation of its acquisition strategy, as there are still opportunities for successful takeovers and integration measures available.

European Internationalization Strategy

The German real estate market has become a lot more professional over the last 20 years since measures were taken to liberalize it. Most European markets are still organized in a way that resembles the German market 20 years ago. The transfer of expertise is expected to result in professionalization in other European countries. Our experience and expertise as a leading German real estate company serves as a reference in order 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 real estate 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 Austria and Sweden, 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 market. 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 domestic business and must entail risk potential that can be controlled or limited.

European Activities – Current Steps



The challenges in many European metropolitan areas are comparable.

- Affordable apartments
- Demographic change
- Migration
- Urbanization (population influx tow. cities)
- Energy efficiency (CO_2 reduction)
- Scarcity of housing space
- Residential environment services

CDC habitat

Biggest landlord in France: 348,000 apartments; exchange of expertise and identifying joint investment opportunities.

BUWOG

48,000 apartments; of which 27,000 in Germany.

Victoria Park

On the stock exchange in Sweden; about 14,000 apartments in the areas of Stockholm, Gothenburg and Malmö.

Non-financial Declaration

Explanatory Information on the Content of the Report and the Framework

Corporate reporting at Vonovia SE has already been subject to a process of ongoing enhancement for several years now to include matters extending beyond mere financial reporting and to broaden the perspective to include comprehensive reporting on developments within the company. This process is designed to take account of the key role that Vonovia plays in society at large and to address, and provide information for, numerous stakeholder groups. The most recent enhancement to corporate reporting relates to the Non-financial Declaration resulting from the entry into force of the CSR Directive Implementation Act (CSR-RUG) in 2017.

This chapter includes the required disclosures for the Non-financial Declaration pursuant to Section 289 a-e of the German Commercial Code (HGB) in conjunction with Section 315 b-c HGB (combined Non-financial Declaration). In order to avoid data redundancy, reference is made, where appropriate, to other sections of the management report that contain non-financial information.

As with other sections of this Annual Report, reporting in the Non-financial Declaration is also on a consolidated basis. This means that the company activities in Austria and Sweden – resulting from the acquisitions of (the former) BUWOG AG and Victoria Park AB in 2018 – are also covered by this Non-financial Declaration. In the first stage, this concerns the qualitative presentation of the non-financial information of the acquired companies. As the integration of the corresponding processes is still ongoing, however, the key performance indicators cannot be fully consolidated as yet. We will refer to the extent to which the key figures have been integrated in the following chapters.

The Non-financial Declaration is largely based on the structure of Vonovia's Sustainability Report. This is, in turn, structured based on the GRI Standards of the Global Reporting Initiative (as valid in 2016) in accordance with the "core" option. The Sustainability Report is also based on the EPRA Best Practice Recommendations on Sustainability (in its third version from 2017).

The Non-financial Declaration has to report on the main relevant non-financial performance indicators, their individual target values and the underlying concepts. This information is set out in the individual chapters, which are structured by content. Not all of the performance indicators included in this Declaration correspond to the GRI set of standards. Rather, some of them have been adapted to reflect the specific circumstances prevailing in the housing industry.

The Non-financial Declaration will be reviewed by the internal auditor of Vonovia SE on behalf of the Supervisory Board.

The Sustainability Report of Vonovia SE contains further extensive information on individual non-financial topics, as well as corresponding project examples and key figures. The Sustainability Report for the 2018 reporting year will be published in June 2019.

Business Model and Risk Assessment

A Sustainable Business Model

A home is a basic human need. The fundamental availability of living space, needs-based and good living standards, an environment in which we feel comfortable and intact neighborhoods are of crucial importance when it comes to determining whether we feel at home in an apartment in the long run. The object of our business – namely the renting of high-quality, modern and affordable homes combined with housing-related services and the construction of new living space – meets this basic need. As we are aware of the tense situation on numerous regional residential property markets, we are constantly on the lookout for the best solutions so that we can offer all of our tenants homes that meet these very standards in the long term. A home should not be a question of social status.

Within this context, Vonovia is creating new homes as part of its development, new construction and vertical expansion program in order to meet the growing demand. The company is also, however, investing in the maintenance and upgrading of its existing properties. These efforts include, in particular, measures to improve energy efficiency. This allows us to make a significant contribution to protecting our climate. At the same time, well-insulated apartments increase efficiency and simultaneously reduce ancillary expenses for our customers. Compliance with the regulatory requirements of environmental, energy and rental law is always a material component of our business processes. We seek to find mutually agreeable solutions that strike a balance between fair rents, effective climate protection and rising construction prices.

For Vonovia, housing does not end at the front door. A nice, stable and ecologically valuable environment is part of a good residential atmosphere. Therefore, together with other social actors, we become involved beyond our buildings and set trends with cities, companies and city planners, as well as with associations, initiatives and, last but not least, with our local customers for the sustainable and ecological development of entire neighborhoods.

In order to keep the service promise we have made to our customers and provide them with good quality over the long term, we perform as many tasks as possible on our own – via well-trained and committed service employees, caretakers, technicians and gardeners.

In all of our processes, we pay due attention to the impact that our business model has on society and the environment and seek to achieve developments and improvements that are as sustainable as possible.

The corporate strategy and structure of Vonovia SE has been further explained in the section entitled "Fundamental Information About the Group." → **p. 60** The corresponding non-financial performance indicators are set out in more detail under "Corporate Governance." → **p. 94 et seq.**

An Extensive Risk Assessment

According to CSR-RUG, material risks associated with the corporation's own business activities which are very likely to occur and which could have challenging negative effects on non-financial topics and, as a result, on the business model must be reported. We identify potential risks relating to areas such as corporate governance, society and the environment as part of our comprehensive risk management system. These risks are identified in both gross and net terms.

In the opinion of Vonovia's management, there are no risks that meet the materiality criteria pursuant to Section 289c (3) Nos. 3 and 4 HGB in net terms. We have provided detailed information on other risks in the opportunity and risk report of the combined management report.
→ **p. 131 et seq.**

Key Sustainability Aspects at Vonovia

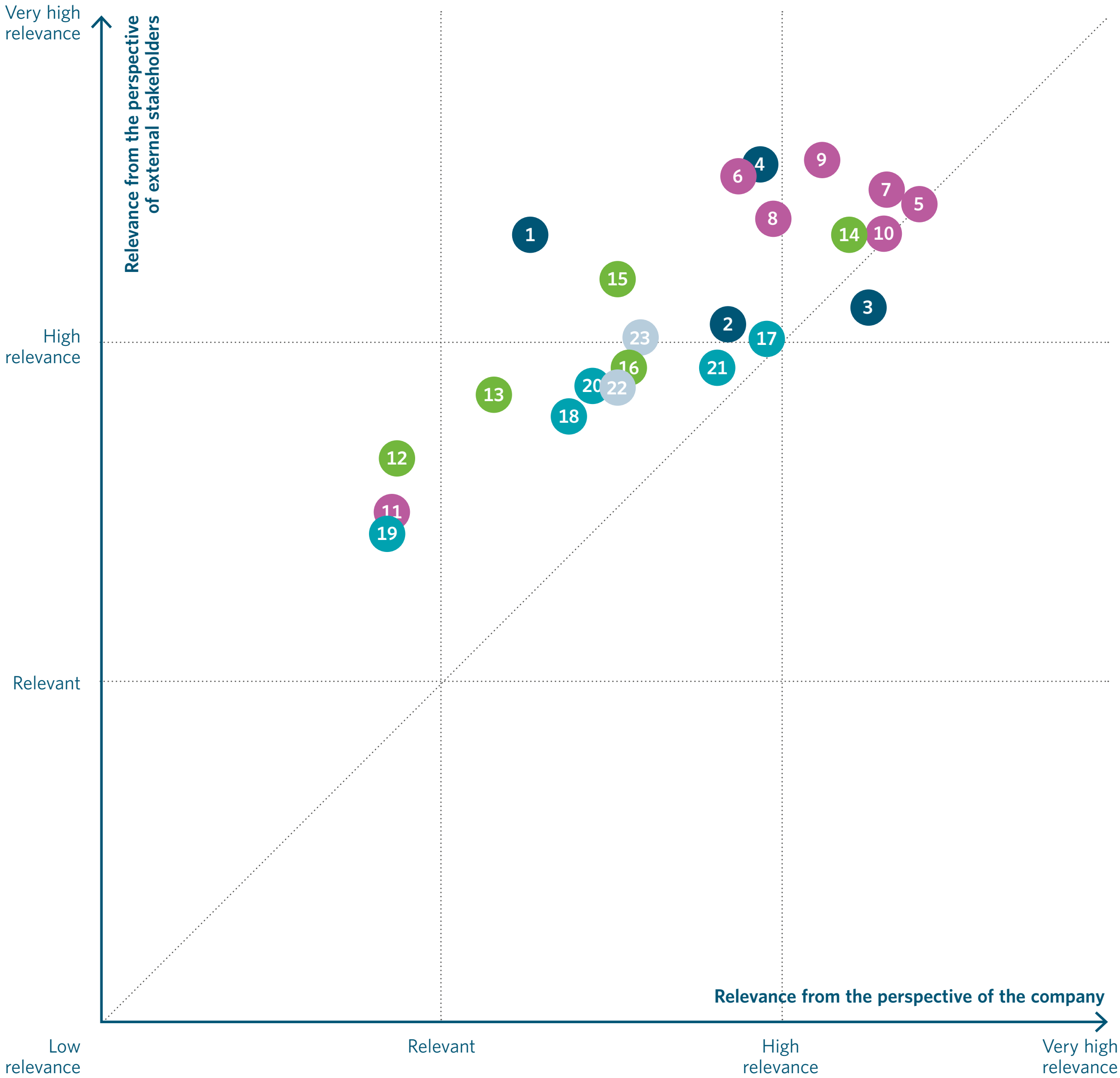
Definition of the Key Topics

Vonovia deals in a continuous and structured manner with foreseeable developments in German real estate markets and within society and analyzes how they will affect Vonovia's business and its value creation. We also address topics that we can use our business model to influence. We involve our stakeholders in identifying issues that we consider important sustainability topics.

As a result, Vonovia has identified the key topics that it wants to focus on in its sustainability reporting. The focus was on ensuring that the topics selected have a direct link to Vonovia's business success and financial development, as well as an impact on our company's value creation. At the beginning of 2017, we conducted a stakeholder survey to validate these topics as part of a materiality analysis. The survey participants included representatives of the capital market, tenants, employees, suppliers and service providers of Vonovia, as well as representatives from authorities, the world of politics, associations, NGOs and academia.

The results of this analysis were translated into a materiality matrix and the topics were split into four areas: sustainable corporate governance, society and customers, the environment and employees. These four clusters illustrate the categories which we will use to subsequently report on the key topics. **SR 2017, section entitled "Material Topics" → p. 12**

Materiality Matrix



Sustainable Management

1 Adjustments to Reflect Climate Change
2 Compliance and Anti-corruption
3 Long-term Growth
4 Open Dialogue with Society
22 Social and Labor Standards in the Supply Chain
23 Environmental Standards in the Supply Chain

Society and Customers

5 Portfolio Maintenance
6 Affordable Rents
7 Tenant Health and Safety
8 Neighborhood Development
9 Creation of Homes
10 Service Quality and Customer Satisfaction
11 Corporate citizenship

Environment

12 Impact of Transportation/ Logistics
13 Company Environmental Protection
14 Energy Efficiency and Reducing Greenhouse Gas Emissions in the Portfolio
15 Environmental Protection in the Portfolio
16 Environmental Protection in Connection with Renovation and New Construction Measures

Employees

17 Initial and Further Training
18 Occupational Health and Safety
19 Co-determination
20 Diversity and Equal Opportunity
21 Work-Life Balance

They comprise the general aspects covered by the CSR-RUG law: Combating corruption and bribery and respecting human rights (sustainable corporate governance), social issues (society and customers), environmental issues (the environment) and employee issues (employees).

Vonovia has not identified any other relevant aspects.

Both the BUWOG companies in Austria and Victoria Park AB in Sweden have conducted their own materiality analyses. While both analyses reveal common ground regarding the selection of the key aspects, the weightings attached to these aspects differ in some cases. The next stakeholder survey in Germany is scheduled to be conducted in 2020.

Establishing Sustainability Within the Company

At the highest level, the chief executive officer of Vonovia SE is responsible for sustainability. The Audit Committee in particular handles sustainability on behalf of the Supervisory Board. The operational processing of sustainability-related issues is performed via the staff positions and line functions of Vonovia SE. Those who share responsibility ensure that the agreed measures are implemented in the course of day-to-day business.

In order to ensure that sustainability issues can be tackled in a more structured, cross-departmental manner and to expand our dialog with stakeholders, the function of a sustainability specialist was established in 2017. General topics such as sustainability reporting, corporate citizenship, adjustments to relevant guidelines or the development of interfaces with relevant company processes are handled there on a centralized basis.

In addition, Vonovia launched a project to further improve its reporting on key environmental figures at the end of 2018. This project is the responsibility of a staff function that forms part of the central controlling department.

There are similar staff functions in Austria and Sweden – the function at the BUWOG companies involves responsibility for the Austrian market and the development business, while the function at Victoria Park AB focuses on HR & CSR.

Aspects of the Non-financial Declaration

Sustainable Corporate Governance

This section is dedicated to the topics of long-term growth, compliance and anti-corruption as well as open dialog with society. Our position regarding adjustments to reflect climate change can be found in the opportunity and risk report → **p. 131 et seq.** as well as in the chapter about the environment → **p. 78 et seq.** (see Materiality Matrix).

Long-term Growth

Long-term, stable growth forms the basis of Vonovia's business model. It is legitimized by its social acceptance, by the demand among customers and by its room for maneuver within the overall political framework. Responsible and transparent corporate governance is an absolute must within this context.

Vonovia is a trusted and reliable partner – and would like to be seen as such by its customers, shareholders, business partners and employees, and by society and the general public at large. With a Code of Conduct, we provide the ethical and legal framework within which we act. It describes the conduct guidelines that apply with binding effect to Vonovia's employees and managers and forms the basis for an open, appreciative and legally compliant corporate culture. The Code of Conduct features provisions on issues including environmental and health protection, respect for employee rights, dealing with conflicts of interest, and interacting with governments and public-sector agencies. Similar tools are also used at the BUWOG companies and Victoria Park AB and are tailored to reflect the specific requirements that apply in Austria and Sweden.

In order to be successful in the long run as a residential real estate company with an established place in society, Vonovia needs management and control bodies that can address and reflect the diverse nature of social interests. The corresponding diversity concept for the composition of the management and control bodies is set out in greater detail in the "Declaration on Corporate Governance" (see also chapter on corporate governance, → p. 44 et seq.).

Key performance indicator

Proportion of women in management and control bodies	
Management Board	25%
Supervisory Board	33.3%

Compliance and Anti-corruption

Systematic adherence to all of the provisions and laws that apply to the company is essential in order for Vonovia to act as and be accepted as a reliable and trusted partner. A good compliance organization also makes a key contribution to a company's sustainable development and value creation.

Through the corresponding monitoring of our compliance rules, we protect the integrity of employees, customers and business partners, and shield our company from negative consequences. These internal rules and Group guidelines – for example, to protect the capital market, ensure data protection, secure information, manage risks, fight corruption or set out guidelines on how to deal with donations and sponsoring – are based on the relevant statutory requirements, the Articles of Association and the rules of procedure for the Supervisory Board and the Management Board. Our compliance principles are also detailed in our Code of Conduct which is binding for all Group employees under the Group works council agreement.

Similar provisions are also in place at our subsidiaries of BUWOG in Germany and Austria and Victoria Park AB in Sweden. As a result of Vonovia's expansion to include these companies – and to include the area of development – the internationalization and adjustment of our compliance rules forms a key part of our integration efforts. Our Compliance Committee, which meets multiple times a year (typicially once every quarter), is responsible for the ongoing further development of Vonovia's compliance management system and its timely adjustment to reflect the latest requirements. Along with the compliance officer, the compliance managers and the ombudsperson, other members of the Compliance Committee include representatives from the areas of internal audit, risk management, HR management and the works council.

Vonovia's employees undergo regular training on compliance issues. Procurement, for which the issue is particularly relevant, receives special training on corruption and criminal law pertaining to corruption. Managers can book compliance courses at the Vonovia Academy. A particular focal point in 2018 was the implementation of the EU General Data Protection Regulation. Extensive training sessions were conducted on this topic as well.

Key performance indicator

Number of compliance training sessions	12*

* Covering different topics, such as Capital Market Compliance, AML, Anti-corruption, Data Protection, Code of Conduct, Compliance for Managers.
All employees undergo online training covering the contents of the Code of Conduct. There is also classroom training in blocks for employees in related functions (for example, in the procurement department, sales, construction management, finance, etc.).

The Supervisory Board is also regularly and comprehensively briefed on the issues of compliance, corruption and existing guidelines and procedures. The Audit Committee receives a corresponding compliance report, which reports on suspected cases, measures and training offered on the issue of corruption.

In the 2018 fiscal year, there were isolated suspected cases of corruption, which we investigated diligently. None of the cases were confirmed. There were also several other non-material compliance violations or suspected cases. This clearly shows, however, that the system we have put in place is proving effective. Cases are reported and addressed and corresponding consequences ensue.

Key performance indicator

Total number of confirmed cases of corruption	0

Adherence to Labor, Social and Environmental Standards in the Supply Chain

Vonovia is aware of the potential sustainability risks in the supply chain. The challenges primarily relate to compliance with labor and social standards in construction companies and their subcontractors. Since Vonovia conducts considerable trade-related construction work on its own through the technical service, most of the risks that could arise with external suppliers can be reduced from the outset. As it is less dependent on the offerings of external construction firms, Vonovia is able to exclude service providers that violate certain sustainability criteria.

Our Business Partner Code for subcontractors and suppliers sets out clear expectations regarding integrity, legal compliance and ethical conduct. It stipulates, among other things, that illicit employment must be ruled out, that the legal minimum wage must be paid and that valid German regulations on occupational safety and human rights must be observed. These obligations also apply to third parties – i. e. subcontractors of our contractual partners. The Code of Conduct performs the very same function at our subsidiary Victoria Park AB in Sweden. The BUWOG companies select their suppliers and service providers carefully, assess them and aim to establish long-term relationships to facilitate continuous improvement.

Construction managers in Germany maintain direct contact with subcontractors and have a clear picture of the persons working on construction sites. Compliance with the Business Partner Code can thus be largely verified within the scope of this working relationship. In addition, our procurement department holds annual reviews with key subcontractors.

In case of repeated violations of the Code or other legal provisions, we take appropriate steps, either significantly reducing the sales volume with the affected supplier or terminating the business relationship entirely. Vonovia did not learn of any significant cases of noncompliance in the reporting year.

A uniform supplier assessment system is currently being developed. The goal is for key suppliers to be evaluated by procurement as well as the Group's departments in order to achieve transparency and to obtain a systematic overview of the performance and development of suppliers. As a result, no key performance indicator is available for this topic as yet. The aim is to develop this indicator as part of the supplier assessment system.

As Vonovia operates within a strictly regulated and controlled legal framework within the European Union, possible challenges relating to human rights are not considered to be material. Consequently, there is no explicit performance indicator for this topic. The procurement department, however, acts as a watchdog in this regard by selecting suppliers accordingly (see above) in order to ensure the protection of fundamental rights and adherence to the law. In the future, however, Vonovia will be making a voluntary commitment to the Federal Government's national action plan and will be taking corresponding action.

Open Dialog With Society

Vonovia's aim is to provide transparent reporting on the company and its activities and to maintain intensive dialog with its stakeholder groups. We seek to use ongoing, open and mutual dialog with society to help find common solutions to foster a good sense of community spirit within the properties that make up our portfolio.

The most important aspect in this respect is dialog with our customers (see the section entitled "Society and Customers"→ p. 76 et seq.). We aim to establish dialog on location – be it via our caretakers, our rental offices as local ports of call, tenant meetings or parties – so that we can respond to our customers' questions, concerns and requests as directly as possible.

In those cities in which we have a large portfolio and in which large-scale projects such as extensive modernization measures are on the horizon/underway, early communication and involvement is particularly relevant. We play a proactive role and talk to the local mayors – also at Management Board level. We involve residents by entering into dialog with renters' associations and by getting involved in citizens' forums and meetings with tenants.

Vonovia is involved in housing and real estate industry associations such as the German Association of German Housing and Real Estate Companies (Bundesverband deutscher Wohnungs- und Immobilienunternehmen [GdW]), the German Property Federation (Zentralen Immobilienausschuss e. V. [ZIA]) or the German Association for Housing, Urban and Spatial Development (Deutscher Verband für Wohnungswesen [DV]), allowing it to make a contribution to a strong real estate industry in Germany. We are also involved in a whole number of initiatives such as the "climate discourse" project of the state of North Rhine-Westphalia, KlimaDiskurs.NRW, or the dialog forum "Wirtschaft macht Klimaschutz" (Business for Climate Protection). In addition to these lobbies, we also engage in direct dialog with policymakers at municipal, state and federal level.

We maintain an ongoing and effective dialog with our investors and shareholders as well. In 2018, for example, we organized a Corporate Governance Road Show involving our new Chairman of the Supervisory Board Jürgen Fitschen and our largest investors. We also participate in a whole range of sustainability benchmarks and ratings, for example the EPRA Best Practices Recommendations on Sustainability Reporting, in respect of which we received a Gold Award in 2018 for our sustainability reporting in 2017. Participation in the CDP or the sector-specific GRESB rating also highlights our efforts to make our sustainability performance transparent.

We also want to strengthen dialog at international level. Both BUWOG Group GmbH in Austria – for example via its involvement in the Austrian climate protection initiative "klimaaktiv pakt2020" – and Victoria Park AB in Sweden attach just as much importance to open and transparent dialog with stakeholders as Vonovia does in Germany. We will continue to expand, and forge ahead with, cross-country dialog within this context.

Due to the diverse nature of the topics presented, it does not make sense to focus on a single performance indicator. On the contrary, this would restrict the management of the topic to an unnecessary degree. As a result, we have opted not to report a corresponding key performance indicator.

Society and Customers

This section looks at the issues of satisfaction, portfolio maintenance, tenant health and safety, affordable rents and the creation of living space, as well as neighborhood development and social commitment (see Materiality Matrix). You can also find other key information on these aspects in the chapter entitled "Our Service Promise." → p. 88 et seq.

Customer Satisfaction

Customers are Vonovia's top priority. It is their satisfaction with, and appreciation of, our products and services that contribute to the company's success in the long term. This is reflected in the CSI, the Customer Satisfaction Index, and is an element used in determining Management Board remuneration as a direct, non-financial control parameter. BUWOG Group GmbH in Austria also uses an annual customer satisfaction survey as a tool, although it is not consistent with the CSI – while customer satisfaction is a fundamental benchmark for all business processes at Victoria Park AB as well. In 2019, we want to establish an even stronger regional presence for Vonovia on location in order to bring us even closer to our customers.

Portfolio Maintenance, Health, Safety and Quality of Life

We offer our tenants attractive and livable homes by making extensive investments – encompassing our entire portfolio in Germany, Austria and Sweden – in maintenance and modernization. We employ modern standards in our corresponding measures and select the building materials carefully. When it comes to modernization measures, for example, we only use selected and tested materials and explicitly subject the companies performing the measures to the obligation to use them. We are also constantly keeping an eye on product innovations in order to create the best product for our customers. We offer conversion measures to meet specific tenant needs via our housing-related services – for example senior-friendly apartment conversions – and make mobility and security solutions available.

Affordable Rents and Creation of Homes

One aspect that is of fundamental importance to Vonovia is being able to offer all tenants the prospect of being able to stay in their homes in the long term. Nobody should have to move out of a Vonovia apartment due to their financial resources. As much as costly energy-efficient modernization measures are necessary in order to ensure appropriate climate protection as well as increase the appeal and comfort of our apartments on the one hand, on the other hand, they rely on acceptance among and affordability for our tenants. This motivated our decision not to realize the costly modernization projects planned for Germany as part of the 2019/2020 program if they increase rents by more than two euros per square meter. As far as our ongoing modernization projects are concerned, we have promised all tenants reporting social or economic hardship that we will evaluate their cases carefully and pursue a fair approach. Significant funds have been made available for this purpose. In 2018, 20 additional employees were appointed nationwide to deal exclusively with the management of personal hardship cases on location. In Sweden, on the other hand, Vonovia will be expanding its modernization work via Victoria Park AB.

New construction also plays a key role when it comes to making affordable living space available. This is where the BUWOG companies' development program, in particular, comes into play in both Germany and Austria.

Detailed information on relevance, functioning, concepts, due diligence processes and measures, targets and performance indicators relating to the topics referred to in the sections above are detailed further in the chapter entitled "Our Service Promise." → p. 88 et seq.

Neighborhood Development

Vonovia believes that all areas in which it has large contiguous groups of buildings offer particular opportunities. Holistic neighborhood development is one of the areas that offers the greatest development potential for our company. Neighborhood development includes key measures extending beyond modernization and maintenance to include the creation of homes using new construction and vertical expansion measures, as well as measures to shape the residential environment within neighborhoods. In the current fiscal year, eleven neighborhood development projects encompassing a total of around 6,800 residential units are already in the operational implementation stage across Germany as part of the neighborhood development investment program. With a planned investment volume of more than € 400 million alone for the neighborhood development projects already being implemented, we believe that we are making sustainable improvements to our neighborhoods and expect further neighborhood development measures to be launched in the future, too.

Key performance indicator	
Investment volume in the 2018 fiscal year for neighborhood development projects	€ 46.9 million

Development measures take into account both economic and social criteria and are implemented in tandem with the city and municipal authorities. Making sure that the measures taken suit the target group in question is absolutely essential. The aim is to achieve a long-term increase in the value of our property portfolio, which is reflected in visible improvements for our customers in the quality of the living space and the attractiveness of the neighborhood alike.

Regional responsibility for neighborhood development lies with the regional managers, who coordinate measures with the regional managing directors. The measures are increasingly implemented by our own neighborhood developers on-site in the neighborhoods, which allows us to deal with special issues that come up as needed.

The investment measures are bundled in a neighborhood development plan spanning a period of several years and expanded to include further measures. These measures comprise infrastructure improvements for any demolition measures that have to be taken, the realization of holistic energy concepts and urban development issues. These components are already given due consideration during the planning phase of the development projects of the BUWOG companies.

“Soft” factors are also of fundamental importance when it comes to implementing neighborhood development measures. We often have to take conflicting interests into account. The active involvement of residents, public interest groups and other stakeholders in the neighborhood, as well as in cooperation with federal states and municipalities will help identify solutions to create livable neighborhoods. In this way, our tenants are involved in designing the residential environment (for example, in tenant workshops, measures allowing them to actively contribute to facade and playground design, route/pathway design, etc.), among other things. Participation and extensive communication involving all partners is a key component for the successful implementation of large neighborhood development projects.

We use collaboration with social projects to foster community spirit and dialog within neighborhoods, for example by also giving our older tenants the opportunity to remain in their familiar environment for as long as possible (e.g. by establishing a shared residential facility for individuals suffering from dementia). Needs-based and functional cooperation projects with social agencies are a key component of the concept neighborhood development process. Other components can include promoting educational and cultural projects. We have various instruments for implementation at our disposal in this regard, for example providing financial support via our foundations or making premises available. We focus on providing support in three areas “Education,” “Culture” and “Community Spirit.” Our donations and sponsorship guidelines allow this topic to be tackled in a structured manner. We are also constantly looking into potential neighborhood development innovations in order to pick up on trends and opportunities early on, for example in the area of electromobility, photovoltaics, rainwater recycling or digitization.

In Sweden, Victoria Park AB has already been pursuing a special approach for some years now: Victoria Park’s programs get unemployed people involved in the company’s neighborhood development projects. They take on the role of residential coaches or environment wardens, acting as role models and a point of contact on location.

Terms such as “living neighborhoods” or “livable neighborhoods” show that quality of living is increasingly being associated with life at neighborhood level. As a result, neighborhoods are moving into the spotlight of the housing and real estate industry. In many respects, however, there is still a lack of sound research findings. In order to change this, Vonovia SE is sponsoring a professorship for “Neighborhood development, in particular residential living within the neighborhood” at the EBZ Business School – University of Applied Sciences. The aim of the endowment professorship is to research which parameters contribute to successful and forward-looking neighborhood development and what role residential real estate companies can play in this process.

Social Commitment

Vonovia also uses **foundations** to show its social commitment by providing support to tenants, the rental environment and in cases of social hardship. The company is currently involved in four foundations: Vonovia Stiftung, Vonovia Mieterstiftung e. V., Stiftung Mensch und Wohnen and Stiftung Pro Bochum.

The **Vonovia Foundation** is a charitable foundation under German civil law. The foundation is committed to social affairs, community life, helping others to help themselves and vocational training. Its mission is to provide help in cases of social hardship to individuals who need assistance, and to promote intact neighborhoods and vocational training. In this respect, the foundation makes a key contribution to shaping and ensuring social and neighborhood cohesion in Vonovia's properties. It expressly supports active citizenship, personal responsibility and individual initiative within a residential context.

Vonovia Mieterstiftung e. V. comprises an equal number of representatives from tenant associations and Vonovia employees. It aims to foster a sense of community spirit between people from different generations by offering support for young people and senior citizens in the various regions in which the Vonovia Group owns or manages properties.

With its work, the **"Mensch und Wohnen"** (people and living) Foundation set up by the former GAGFAH focuses on promoting a residential environment that brings young and old people together, and fosters a sense of community spirit between these groups in Vonovia's housing developments. The foundation finances meeting places, playgrounds and other assistance and support services with a focus on social activities. The foundation only supports charitable work.

The **Stiftung Pro Bochum** is a cooperation project involving numerous companies based in Bochum to assume responsibility, within the city boundaries, for the city itself and the place where the company has its registered headquarters. The project provides support to cultural, academic and sports-related projects within Bochum, in particular.

Key performance indicator	
Funds distributed by foundations in 2018 in which Vonovia SE is significantly involved	€ 407,133

In addition, numerous other funding approaches are pursued both by Vonovia SE in Germany, and by BUWOG Group GmbH in Austria and Victoria Park AB in Sweden.

Climate and Environmental Protection

Climate and Environmental Protection in Our Properties

Climate and environmental protection in our properties includes issues such as energy efficiency and reducing greenhouse gas emissions in the portfolio, environmental protection in the portfolio and environmental protection in connection with renovation and new construction measures (see Materiality Matrix).

The real estate industry makes a significant contribution to greenhouse gas emissions via the construction and operation of buildings. For a real estate company of our size, this gives rise to a special ecological responsibility. As a result, the 2015 Paris Agreement – and the German federal government's associated climate protection plan for 2050 – is a particularly relevant target system for Vonovia. The path to achieving a virtually climate-neutral building stock by 2050 set out in this plan is an ambitious one and cannot afford to disregard aspects such as the cost-effectiveness and affordability of construction and housing.

Although we can only influence energy and resource consumption levels in our properties to a certain degree in our capacity as the landlord – ultimately, tenants are free to decide how much electricity, water and heating they want to use – energy-efficient modernization, modern heating boilers or solutions such as digital metering technology, for example, can contribute to a marked reduction in energy consumption and, as a result, emissions. In this respect, much higher standards apply to new buildings than to the existing portfolio – which takes into account low-emission construction and energy-efficient operational management as early as the planning and construction stages. Owing to the very size of the real estate portfolio, it is clear that this is the biggest lever Vonovia has in order to make an active contribution to climate protection.

Despite the social policy debate in Germany regarding a reduction in the modernization allocation from eleven to eight percent and the capping of the allocation at three euros per m² (or two euros for rents of less than seven euros per m²), Vonovia still aims to perform energy-efficient renovation measures on three percent of its own buildings in Germany every year. The energy-efficient modernization measures focus on heat insulation for facades, basement ceilings and attics, the replacement of windows and the installation of new heating boilers. At the same time, modernization measures are being expanded in Sweden, in particular. Public-sector subsidy programs are being used for many of the energy-efficient modernization projects.

Key performance indicator	
Vonovia SE's renovation rate in Germany in 2018	5%

Vonovia is also involved in numerous research and development projects to improve energy efficiency and cut greenhouse gas emissions in existing buildings. The aim is to develop more cost-effective measures to take account of the dwindling acceptance of building upgrading work in Germany and thus relieve the affected tenants of the financial burden.

Over and above energy-efficient building upgrades, we are also focusing more on ensuring that our new buildings are optimized from an energy efficiency perspective and use construction methods aimed at preserving resources. The Group can benefit from further expertise in this regard thanks to BUWOG Group GmbH, a long-standing partner of the ambitious "klimaaktiv pakt2020" launched by the Austrian Federal Ministry for Sustainability and Tourism. BUWOG has had an ISO 50001-certified energy management system in place in Austria since 2013/14, which features both established processes and a written energy policy. This tool for the professional management of energy-related issues was expanded to cover the area of development in Germany in 2018.

We are also making ongoing efforts to improve the energy efficiency of our portfolio in ways not related to structural measures: when we install new electrical appliances, for example, we make sure that we use efficient solutions – the majority of kitchens installed, for example, meet energy category A standards at the very least.

Another major lever that can be used to reduce greenhouse gas emissions is the expansion of renewable sources of energy. Vonovia is also taking active steps in this area and is continually expanding the generation and sale of renewable energy. Vonovia currently has a photovoltaic portfolio of 208 facilities with an installed total output of 5.7 MWp. Tenant electricity concepts are designed to significantly increase the number of plants over the next few years. The tenant electricity approach in particular, does not, however, offer a sufficient degree of predictability as yet, as the statutory provisions currently in force do not provide any reliable framework for corresponding business area development.

Vonovia is offering its customers the opportunity to purchase electricity from renewable energy sources via its own energy distribution company. This offer is aimed primarily at new customers when they sign a lease agreement. By supplying certified green electricity, Vonovia is further expanding the options available to it for promoting climate protection and is helping its customers to avoid greenhouse gas emissions.

Key performance indicator	
Number of photovoltaic plants in Germany	208

Climate and Environmental Protection in Our Own Business Activities

This section looks at company environmental protection and the impact of transportation/logistics (see Materiality Matrix).

Compared with the lever that climate and environmental protection measures relating to our existing buildings have, changes to our business processes have much less of a potential impact. Nevertheless, we continuously seek out opportunities to increase our level of resource efficiency and reduce our impact on the climate and the environment in our internal processes as well.

In 2018, Vonovia moved into a new corporate headquarters in Bochum. The building, which was completed in the middle of the year, provides space for around 1,000 employees and has been awarded DGNB Gold Standard certification. In addition to the positive changes regarding workplace design, this translates into potential for considerable savings with regard to energy requirements and emissions.

Due to the large number of technicians in the technical service and gardeners in the residential environment service, Vonovia maintains an extensive fleet in Germany of around 5,200 vehicles. This means that fleet management plays an important role in climate and environmental protection.

While our fleet will continue to grow in tandem with our business over the next few years, we aim to use scheduling and route planning, as well as lower-consumption vehicles, to ensure that the increase in fuel consumption and, as a result, in our CO_2 emissions is less pronounced than the increase in the fleet itself. Pilot projects are also being used to test alternative drive models for their suitability for day-to-day use in long-term field trials.

All of these measures aim not only to reduce costs, but also to reduce the energy that needs to be used. This applies both to average fuel consumption and to the total energy used in our business operations. These are to remain at least constant, but ideally drop, in 2019.

Environmental Key Figures as a Challenge

One particular challenge facing the real estate industry involves making environmental key figures available for the housing stock. These are calculated based on the consumption of resources in rented areas which is, in turn, calculated largely based on the statements prepared by the utilities companies. Due to the delayed billing periods, reliable data for the 2018 fiscal year cannot be calculated until a later point in time. As a result, this data will be published in the Sustainability Report, which is scheduled for publication at the end of April 2019.

In order to place more emphasis on this complex issue within the company and to significantly increase data quality, Vonovia launched a project on the collection and reporting of key environmental figures, under the auspices of the central controlling department, at the end of 2018.

Employees

Within the Non-financial Declaration, the section on employees groups the topics of initial and further training, health management and occupational health and safety, co-determination, diversity and equal opportunities, work-life balance and the balancing of family and career needs (see Materiality Matrix).

An HR Strategy Focusing on Performance, Responsibility and Growth

Vonovia is a growing brand. Thanks to its insourcing strategy, the company is creating jobs with varying requirements with regard to qualifications and involving a large range of duties. There is particular demand for staff to join the technical service and residential environment organization. This means that, in an era in which the labor markets can be described as precarious, Vonovia offers stable and reliable employment with fair wages. The number of employees working for the Vonovia Group in 2018, for example, rose from 8,448 (December 31, 2017) to 9,923 (December 31, 2018). Of these, 89.3 percent have a permanent employment contract.

Differentiated Number of Employees (incl. BUWOG companies and Victoria Park)

Category	Number
Total number of employees	9,923
thereof women	2,386
thereof permanent	8,863 (= 89.3%)
Number of nationalities	78
Average age (total)	41.4
Number of people with disabilities	330 (not including Victoria Park)
Total number of trainees	485 (= 4.9% of the total workforce)
thereof commercial/technical trade	152/333

Vonovia needs well-trained, qualified employees to achieve its mission and pursue its growth strategy. Ever since 2016, the central Recruitment & HR Marketing department has been tasked with finding these employees, getting them enthusiastic about Vonovia and ensuring that they remain loyal to the company in the long run. The aim is to meet the mounting and constantly changing requirements, exploit synergy potential and find employees who are a perfect fit for the positions on offer. In this respect, Vonovia uses both in-house and external recruitment, using targeted initial and further training measures to supplement these efforts. This factor plays a crucial role in ensuring the company's success. In order to make sure that qualified staff remain loyal to us and to remain an attractive employer in the future, we offer various health programs to promote our employees' well-being, help them to strike a balance between their work and family lives and offer them the opportunity to participate in the company's success.

The 2018 fiscal year was characterized by the integration of the BUWOG companies and Victoria Park AB from an HR management perspective as well.

Training and Education

Vocational training is a key pillar of Vonovia's recruitment strategy. We offer a wide range of vocational training programs and are currently offering training in 22 locations in 14 different occupations, as well as offering dual-degree programs. We offer young parents, as well as trainees who are responsible for caring for someone in their family, the opportunity to complete their training on a part-time basis, thereby helping them to obtain professional qualifications.

Our company employed a total of 485 trainees as of December 31, 2018 (December 31, 2017: 462), of whom 152 were commercial trainees and 333 were technical trade trainees. This means that trainees account for 4.9% of the total workforce. This makes us one of the few companies in the DAX 30 that has further increased its training rate.

Key performance indicator	
Training rate	4.9%

Vonovia has set itself the objective of keeping employees within the company and developing their potential. This is why targeted further training and personnel development programs form a key component of our HR management strategy. Training courses and programs are tailored to suit our needs. Vonovia's in-house Vonovia Academy offers training sessions and specialist seminars, management development courses, as well as certified qualification schemes. It offers our employees a whole range of opportunities for specialist, methodological and personal further development. This allows Vonovia to recruit internally wherever possible. As a result, we attach a great deal of importance to talent management, to ensuring that our top performers stay with Vonovia and to systematic succession planning. Victoria Park AB in Sweden has also made the further training of its employees a focal topic of its HR management strategy.

Health Management and Occupational Health and Safety

Preserving the well-being and boosting satisfaction among our employees is something that is important to us. As a result, Vonovia attaches considerable importance to offering employees a work environment in which they are protected against risks and threats to their health while carrying out their work. This applies, in particular, to those departments and trades that are involved in the construction process. Here, the central task is to avoid work-related accidents. The management of occupational safety is conducted through operational coordinators, who are regularly in communication with one another. The occupational safety committees responsible are supported by external specialists in occupational safety and occupational medicine. Threat assessments carried out regularly and reviewed for effectiveness show possible risks and, if necessary, recommend measures to reduce their impact or avoid them altogether.

Furthermore, the company offers health-promoting measures, for example, partnerships with fitness centers, company sports, preventive healthcare programs or health-promoting seminars.

Work-Life Balance

We have been committed to promoting family life for years now, the aim being to allow our employees to strike a balance between family and work commitments by offering a range of tools designed to meet their specific needs. Vonovia's cooperation with external service providers includes, among other things, childcare services and assistance finding a day care center or care services. Flexible working time models – also for trainees – ensure the required flexibility. A harmonious balance between family and professional life is particularly important to BUWOG Group GmbH in Austria. As a result, our subsidiary has been participating in the "berufundfamilie" (work and family) audit conducted by the Austrian Federal Ministry of Families and Youth since 2017. This is a voluntary government seal of quality that aims to achieve improvements in the awareness of family issues. The seal is awarded as part of a structured audit process. The objective is also to use the audit to achieve positive commercial effects on employer appeal, employee loyalty, motivation and identification, and to minimize staff turnover and absences.

Diversity and Equal Opportunities at All Levels

Vonovia is explicitly committed to a plural society in which diversity is respected and applied in practice. This means that we also give all of our employees equal support. They all benefit from a work environment in which appreciation, tolerance and respect are fundamental values and which is free from prejudice. For us, diversity is also a competitive advantage. We employ people from all age groups, genders, various nationalities and cultures and with a whole range of educational backgrounds. We also employ people with varying levels of disability. The nationalities within our workforce, which represents nearly 80 different countries, alone highlight our commitment to diversity. This is consistent with the diversity of our tenants and also has a positive impact on our contact with customers.

We take it for granted that all people are treated equally and their individuality is respected. This allows us to benefit from the different perspectives and ways of thinking which result from our employees' social, cultural and linguistic backgrounds in a respectful and open atmosphere.

In order to further promote equal opportunities, Vonovia is aiming to further increase the proportion of women in management. At present, approximately 37% of managers at Vonovia are women. 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 "Declaration on Corporate Governance" and in the Corporate Governance Report. **https://investors.vonovia.de → p. 44 et seq.**

Key performance indicator	
Proportion of women in leadership positions	37%

Giving employees equal opportunities is also a matter of course at Victoria Park AB in Sweden and BUWOG Group GmbH in Austria.

Co-determination

Works councils have been established in all Vonovia Group companies in order to represent employees. This enables employees and employer's representatives to pursue a trust-based and constructive dialog. In case of significant changes within the company, Vonovia informs its workers within the legally prescribed notice periods.

Portfolio Structure

As of December 31, 2018, Vonovia had a total real estate portfolio comprising 395,769 residential units, 117,885 garages and parking spaces and 5,144 commercial units. Our locations span 709 cities, towns and municipalities in Germany, Austria and Sweden. 84,333 residential units are also managed for other owners. Most of the properties in the Group's portfolio are multifamily residences.

In terms of fair value, most of the properties (around 90%) are located in Germany. The Austrian portfolio accounts for around 6% of the fair value, while the Swedish share of the portfolio comes to around 4%.

As of December 31, 2018, the Group's real estate portfolio across Germany comprised 358,451 residential units, 93,030 garages and parking spaces and 4,022 commercial units distributed across 526 cities, towns and municipalities. The total living area amounted to 22,364,651 m², with the average apartment size coming in at around 62 m². With a vacancy rate of 2.4%, Vonovia generated an average monthly in-place rent of € 6.55 per m² in Germany. The annualized in-place rent came to € 1,715.6 million for apartments, € 52.2 million for commercial units and € 28.4 million for garages and parking spaces.

In the Austrian portfolio, which is largely located in Vienna, Vonovia achieved an annualized in-place rent of € 89.6 million, with a vacancy rate of 4.4%, in the residential portfolio, which comprises 23,030 units covering total living space of 1,720,579 m². The monthly in-place rent amounted to € 4.53 per m² with an average apartment size of around 75 m².

Our Group's portfolio also includes the Swedish real estate portfolio, consisting of 14,288 units with a total living space of 1,015,134 m². With a vacancy rate of 1.2%, the residential portfolio generated annualized in-place rent of € 109.7 million. The apartments, which average 71 m² in size, generate monthly in-place rent of € 9.11 per m². Most of them are located in the Gothenburg, Stockholm and Malmö regions.

Changes in the Portfolio

At the beginning of the fiscal year, the takeover of BUWOG AG saw our portfolio increase by an additional 48,320 apartments, the majority of which are located in Lübeck, Berlin and Vienna. Later on in the year, we incorporated an additional 14,052 residential units into our portfolio when we took over Victoria Park AB, whose properties are mostly located in the Gothenburg, Stockholm and Malmö regions.

The acquisition portfolios were as follows at the time of the takeovers:

				In-place rent	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(p. a. in € million)	(€/m²/month)
BUWOG	48,320	3,251	3.4	192	5.10
thereof in Germany	26,978	1,645	2.3	115	5.96
thereof in Austria	21,342	1,606	4.6	77	4.21
VICTORIA PARK	14,052	997	1.4	104	8.83

In the course of 2018, properties in the "Sell" portfolio were disposed of in several sales during the implementation of the portfolio management strategy.

At the time of the sale, the statistics for the portfolios sold were as follows:

	Residential units	Living area (in thou. m²)	Vacancy (in %)	In-place rent (p. a. in € million)	In-place rent (€/m²/month)
2018 disposal portfolios	11,221	688	8.2	38.7	5.11

In addition to the acquisition and sale of larger housing stocks, Vonovia's portfolio changed in 2018 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 residences from the portfolio earmarked for sale on the other. Furthermore, our regular portfolio reviews due to strategic reassessments resulted in certain housing stocks being reallocated within the overall portfolio. As part of the review, we also made an adjustment to the structure of our portfolio in addition to the strategic reassessment:

The "Recurring Sales" subportfolio now combines all units for which preparatory measures for individual sale have already been taken and which are now set to be sold off on an ongoing basis over the next few years. This new definition increases the number of apartments in this category to 29,563 compared with the former "Privatize" portfolio. Likewise, the designation of further subportfolios was also adjusted; however, this did not result in content changes for the respective strategies.

Following the implementation of the annual structured reassessment of all potential, as of December 31, 2018, Vonovia's residential portfolio is as follows:

Dec. 31, 2018	**Fair value* (in € million)**	**Fair value* (in €/m²)**	**In-place rent multiplier**	**Residential units**	**Living area (in thou. m²)**
Strategic	34,360.5	1,676	21.4	323,056	19,980
Operate	8,594.2	1,669	20.1	74,775	4,714
Invest	25,766.3	1,678	21.9	248,281	15,266
Recurring Sales	3,670.0	1,811	22.8	29,563	1,981
Non-core Disposals	597.9	1,184	18.1	5,832	404
Vonovia Germany	38,628.4	1,677	21.5	358,451	22,365
Vonovia Austria	2,517.0	1,346	23.6	23,030	1,721
Vonovia Sweden	1,737.7	1,563	14.6	14,288	1,015
Total	**42,883.0**	**1,648**	**21.2**	**395,769**	**25,100**

* Fair value of the developed land excluding € 1,356.8 million, of which € 405.1 million for undeveloped land and inheritable building rights granted, € 302.5 million for assets under construction, € 492.6 million for development and € 156.6 million for other.

In order to boost transparency among the portfolios, we showed our extended portfolio in **15 regional markets** for the first time in our reporting in 2016. 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 metropolitan areas. Our decision to focus on these 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, 91% of our German portfolio is located in 15 defined regional markets. Only a small part of our strategic stock is located outside of these 15 markets. We have referred to this group as "Other strategic locations" (around 7% of the total fair value). The regional market breakdown does not include our housing stocks from the "Non-core Disposals" and "Recurring Sales" subportfolios in locations that do not include any strategic stocks.

	In-place rent				
Vacancy (in %)	Total (p.a. in € million)	Residential (p.a. in € million)	Residential (in €/m²)	Organic change (in %)	Average market rent growth rating (in % p.a.)
2.3	1,602	1,533	6.55	4.4	1.7
3.2	428	372	6.83	6.8	1.7
2.0	1,174	1,161	6.47	3.7	1.7
2.8	161	155	6.70	3.7	1.6
5.1	33	28	6.04	0.5	1.8
2.4	1,796	1,716	6.55	4.3	1.7
4.4	107	90	4.53	9.5	0.9
1.2	119	110	9.11	–	2.0
2.4	**2,022**	**1,915**	**6.52**	**4.4**	**1.6**

As of December 31, 2018, the strategic core portfolio is as follows, broken down into regional markets:

Regional market	Fair value* (in € million)	Fair value* (in €/m²)	In-place rent multiplier	Residential units	Living area (in thou. m²)
Berlin	6,535.9	2,370	29.7	41,943	2,667
Rhine Main Area	3,949.6	2,199	22.8	27,673	1,766
Rhineland	3,424.5	1,743	20.8	28,839	1,915
Southern Ruhr Area	3,354.0	1,240	17.8	43,498	2,661
Dresden	3,104.1	1,360	19.1	38,424	2,184
Hamburg	2,456.2	1,915	22.9	19,842	1,253
Munich	2,050.6	3,132	31.7	9,679	637
Stuttgart	1,935.6	2,166	23.3	13,840	871
Kiel	1,909.9	1,371	18.7	23,376	1,345
Hanover	1,622.7	1,549	20.1	16,322	1,029
Northern Ruhr Area	1,566.8	956	14.3	26,277	1,623
Bremen	1,071.2	1,451	21.6	11,846	715
Leipzig	867.6	1,395	19.9	9,191	589
Westphalia	783.2	1,257	17.9	9,495	616
Freiburg	602.4	2,162	24.5	4,036	276
Other strategic locations	2,604.6	1,508	19.4	26,670	1,692
Total strategic locations Germany	**37,838.9**	**1,689**	**21.6**	**350,951**	**21,837**

* Fair value of the developed land excluding € 1,356.8 million, of which € 405.1 million for undeveloped land and inheritable building rights granted, € 302.5 million for assets under construction, € 492.6 million for development and € 156.6 million for other.

A look at the largest regional markets, from Berlin to the Rhine-Main region, the Rhineland, the southern Ruhr region, Dresden, Hamburg and Munich, already shows our balanced presence in strong markets across Germany. In addition to these focal points, we also have properties primarily in very prosperous regions, such as Hanover, Leipzig and Freiburg.

The fact that our portfolio is spread nationwide means that we are independent of the circumstances prevailing on individual regional markets.

		In-place rent				
	Vacancy (in %)	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic change (in %)	Average market rent growth rating (in % p. a.)
	1.4	220	209	6.62	4.1	1.8
	1.3	173	168	8.05	4.4	1.8
	2.4	165	157	7.02	3.7	1.7
	3.2	189	183	5.93	5.5	1.5
	2.9	163	153	6.02	3.9	1.7
	1.3	107	103	6.93	3.9	1.6
	0.7	65	61	8.04	4.4	1.8
	1.7	83	80	7.78	3.2	1.8
	1.9	102	97	6.14	4.7	1.6
	2.8	81	78	6.49	4.9	1.7
	3.1	110	106	5.63	4.7	1.2
	3.3	49	47	5.67	3.8	1.8
	2.8	44	41	5.96	3.9	1.7
	3.3	44	43	5.96	6.0	1.5
	1.3	25	24	7.31	4.6	1.7
	2.6	135	129	6.55	4.9	1.6
	2.3	**1,754**	**1,679**	**6.56**	**4.4**	**1.7**

Our Service Promise

Our customers, the tenants, expect to have an affordable home offering contemporary living standards, combined with a corresponding package of services. At the same time we want to secure reliable, adequate yields for our investors and be a reliable partner to our suppliers. Our employees play a key role in helping us to achieve these objectives. We want to use the holistic development of residential neighborhoods and new construction to create a pleasant residential environment for the public and the environment, and to make our contribution to preserving our habitat in the long run.

Customer Service

For us, systematically making the highest possible level of customer satisfaction one of the company's top priorities forms the key pillar of top-quality customer service. We want to achieve this primarily by maintaining proximity to our customers and making it convenient for them to contact us.

Customer Satisfaction as a Priority

In addition to the financial performance indicators, **customer satisfaction** is of particular importance to Vonovia as a non-financial performance indicator. Our company's economic success is directly linked to the satisfaction level of our customers. We compare our service orientation and customer focus with the level of service provided by our competitors, and not only our competitors from within the industry. Rather, we also take sectors such as telecommunications or Internet trading as a benchmark, making the necessary adjustments to reflect our product promise. Since 2016, we have been available to answer all tenant questions and concerns by extending our opening hours from 7 a.m. until 8 p.m. from Monday to Friday, and from 8 a.m. until 4 p.m. on Saturdays. In emergencies, we are available 24 hours a day, 365 days a year.

Comprehensive Availability of the Central Customer Service Team

Although Vonovia provides its services at local level in principle, it has centralized all tasks that can be provided based on uniform quality standards and in a more cost-efficient manner at a nationwide level. The Group's property management platform is characterized overall by a high degree of automation and full integration.

The **central customer service** center serves Vonovia customers across Germany from two customer service departments that are identical in terms of both the infrastructure used and the content of the work they perform. The department operates across two locations in Duisburg and Dresden and can be reached by tenants with questions or concerns using a regional service hotline as well as by email, fax, app or post. The central customer service center is responsible for processing all matters relating to lease agreements, energy consumption and ancillary expense bills, among others. This process is managed according to defined service levels in order to ensure that customers receive a swift and binding response to their inquiries. The customer service structure is tailored as closely as possible to suit the needs of our customers and offers multilingual support. Two employees, for example, are currently responsible for the inquiries made by, and the concerns of, our Arabic-speaking customers. The customer service team resolves around 85% of all incoming telephone inquiries directly.

Our **customer portal** and the "self-services" that it offers allow tenants to access functions that meet the expectations of today's customers in terms of interaction and communication around the clock. Customers can use these functions, for example, to download or consult contract details or important forms such as tenancy agreement certificates or ancillary expense bills themselves. As far as new rentals are concerned, a messenger service also allows potential tenants to arrange their own apartment viewing appointments. The plan is to expand these services further in the future.

The technical customer support center is responsible for scheduling the tenant visits to be made by the local craftsperson. This is done in close cooperation with our technical service, the on-site technicians' organization. Here, too, Vonovia will be allowing tenants to arrange their own appointments using the self-service function in the future.

We conduct regular customer satisfaction surveys and measure customer satisfaction based on the Customer Satisfaction Index **(CSI)**, which is reflected in the remuneration system.

Customer Support Aimed at Local Service

Vonovia considers the management and rental of homes to be a local business that requires in-depth knowledge of the specific local market conditions, the company's own properties and customer needs. Local customer service is provided by the Group's **local business units**. The close interaction of the departments providing local customer service – New Rentals, Property Management, Technical Service, Residential Environment and Caretaking – permits high flexibility and fast response times in the on-site handling of customers' inquiries.

Our concept of maintaining a local presence with our own **residential environment, caretaker and craftsmen's organizations** makes us **less reliant on external service providers**. Having our own on-site organizations brings Vonovia closer to its customers and improves the quality of our customer service. By way of example, Vonovia gardeners can work with Vonovia caretakers to better judge which measures need to be taken on the site to maintain the residential environment to the tenants' satisfaction and develop it further, based on high quality standards and with an eye on efficiency considerations, in the long term.

On-site rental points are operated at an organizational level via the business units as a point of contact for customers interested in new rentals. These points play a key role in the reletting of units and can be opened and closed in a flexible manner in response to changes in the demand for local marketing.

Caretaker Organization

In order to become less reliant on external service providers, Vonovia has incorporated on-site services into its offering by setting up its own caretaker organization. This brings Vonovia closer to its customers and improves the quality of its customer service. The Group's caretakers support around 500 units each and respond to tenant inquiries and requests that cannot be handled on the phone by the central customer service department. The Group's caretakers are entrusted with everyday tasks, such as customer management, smaller maintenance jobs and supervising service providers. Vonovia's customers are given the address and telephone number of the caretaker responsible for their unit. Depending on the local demand, caretakers offer weekly or monthly local drop-in sessions, allowing customers to discuss and clarify their concerns with their caretaker face-to-face. Caretakers may be able to handle smaller maintenance jobs themselves and pass more complex repair jobs on to the company's own craftsmen's organization.

Craftsmen's Organization

Vonovia has established its own efficient **craftsmen's organization (Vonovia Technical Service)** which assumes responsibility for almost all repair and maintenance work for those companies in the Vonovia Group with real estate holdings. This craftsmen's organization realizes a large part of the Upgrade Buildings and Upgrade Apartments investment programs or coordinates the use of subcontractors. Taking into account the current shortage of specialists, in particular for technical trades, our own craftsmen's organization ensures a reliable supply and prompt service that could not exclusively be offered by an external provider.

As well as saving costs, the purpose of Vonovia's own craftsmen's organization is to ensure that the customer service that the Group offers adheres to uniform quality standards and increases these standards on an ongoing basis, as well as to exploit the procurement advantages resulting from bundling and standardization. The fact that the Group is able to influence quality and scheduling directly also helps to improve customer satisfaction.

In the 2018 fiscal year, the craftsmen's organization performed around 634,000 (2017: 586,000) smaller repairs and renovated around 40,000 (2017: 40,000) vacant units.

As of December 31, 2018, the craftsmen's organization as a whole employed a workforce of 4,986 (thereof 338 trainees; 2017: 4,943 employees, thereof 328 trainees), including 3,836 craftsmen (2017: 3,640) in 20 locations across Germany.

Vonovia also ensures compliance with the environmental, health and safety (EHS) regulations by scheduling regular safety inspections that are performed in all units. The specialized department plans the implementation of corrective measures without delay as and when required and monitors amendments to EHS legislation.

Residential Environment Organization

We systematically continued with our insourcing efforts relating to the residential environment in the form of the gardening and landscaping service, particularly in conurbations, in 2018. More than 660 employees are now responsible for managing and designing the outdoor areas. As far as maintenance is concerned, Vonovia also implemented its first gardening and landscaping projects with its own employees in 2018. This move also allows the company to expand its training opportunities in the gardening and landscaping segment. The offices in Dresden, Berlin and Hanover are currently training employees in gardening and landscaping. Future growth and expertise will be increasingly generated within the company itself in the field of gardening and landscaping as well. The development of standardized residential environment modules (such as playgrounds and refuse collection points) serves to boost efficiency and generate additional cost advantages. In addition to the higher quality of the services provided, cost savings can also be achieved in this area by bundling and standardizing procurement processes (consumer materials, playgrounds, etc.). Residential environment measures contribute to positive neighborhood development. Increased visual appeal and moves to rid neighborhoods of areas that feel unsafe help to boost customer satisfaction.

The residential environment organization is responsible for the management and maintenance of around 40 million m² of outdoor areas, 14 million m² of lawns, 310 km of hedges and 217,000 trees.

The residential environment plays a key role in Vonovia's neighborhood development measures, in particular. Residential environment measures such as the creation of new green spaces and playgrounds, as well as moves to design neighborhood centers outside of buildings to provide residents with a place to meet up and communicate can, in the short term, help to increase the acceptance of renovation measures and, in the long term, create real added value for tenants. Particularly in urban environments, the issue of spaces for relaxation is becoming an increasingly important factor in terms of how people assess their quality of life, and will continue to do so in the future.

Projects such as the establishment of communal gardens for tenants can also make a positive contribution to fostering social development, particularly in neighborhoods facing cultural challenges and a difficult environment. In turn, developments like these have proven long-term advantages in terms of property management costs.

Housing-related Services

As far as our housing-related services are concerned, we used 2018 to continually expand our initiatives further and also started to explore other offerings for our customers.

Value-add

Vonovia Mess Service GmbH (VMSG) considerably expanded its portfolio of smart sub-metering devices, which can be read remotely, and can now monitor remotely the consumption figures for approximately 130,000 apartments. This company bundles all activities relating to the Group's own meter reading service and the provision of energy services.

Furthermore, Vonovia Energie Service GmbH (VESG) started operations. This company is a registered energy supply company, which supplies our buildings and customers with electricity and gas.

In order to address the changing mobility requirements of the future, we continue to pilot new ideas with our partners, for example, car sharing (currently around 40 active vehicles in 18 locations) and the construction and operation of charging infrastructure for electric vehicles.

We are tapping into further potential by investing in decentralized power generation. The entry into force of the Act on the Promotion of Landlord-to-Tenant Electricity (Mieterstromgesetz) in 2017 created a legal basis for allowing electricity generated locally to be used by our tenants directly on site. We believe that this area offers considerable growth potential and we will be further stepping up our efforts to allow our customers to participate even more directly in the energy transition. Further photovoltaic projects are being planned for 2019. The electricity generated by the facility will be used almost in full to supply Vonovia itself.

Cogeneration (CHP) units also allowed electricity to be generated on a decentralized basis. The heat generated in the process is used to heat the drinking water and support heating systems within residential buildings.

One service that is already well-established is Vonovia's cable TV business. This business area was launched at the end of 2011 in the form of a strategic partnership with Deutsche Telekom. Further partnerships with other cable network operators followed and mean that, today, our multimedia subsidiary already supplies more than 80% of Vonovia's properties with TV signals. These properties feature telecommunications connections offering bandwidths of 50 Mbit/s and more. We plan to gradually expand the existing service business to include further service offerings.

Modernization in Response to Tenant Request

We are also expanding the support we provide to our older tenants in the Value-add segment: In particular, **senior-friendly apartment conversions** and bathroom design based on our tenants' wishes respond to the needs of our tenants.

In 2018, the offering for **kitchen modernization in response to tenant requests** was rolled out across the board. The offering includes customized kitchen modules that are a perfect fit for each type of building, as well as added extras that tenants can select themselves. Individual plans can also be taken into account as part of the product standard.

The issue of **burglary protection** is also relevant for many tenants. Together with the State Criminal Police Agency of North Rhine-Westphalia, we have developed an offering that will significantly increase customer security. The product line includes window and balcony security devices, door protection in the form of reinforced bolts and the installation of resistance class WK2/RC2 apartment entrance doors with or without a digital spyhole.

Condominium Administration

Vonovia offers **condominium administration** via its wholly-owned subsidiary Vonovia Immobilien-Treuhand GmbH (VIT). The subsidiary operates in six regional teams distributed across 22 office locations throughout Germany. VIT is one of Germany's biggest property managers. It now also works for external homeowners' associations in order to manage communal property in line with the German Condominium Act (Wohnungseigentumsgesetz) and offers full property management services for self-contained properties.

As of December 31, 2018, VIT supported 2,040 homeowners' associations (2017: 2,170) accounting for 65,158 residential and commercial units (2017: 72,483), 14,589 units (2017: 16,442) of which belonged to Vonovia, and also managed 50,569 units for third parties (2017: 56,041).

Through the acquisition of BUWOG, an additional 21,113 residential and commercial units from homeowners' associations were managed at the end of the year, of which 15,225 are in Austria and 5,888 in Germany. Of these, 8,321 residential units were owned by Vonovia – 8.101 in Austria and 220 in Germany.

In addition to these services, Vonovia offers its customers access to nationwide framework agreements with craftsmen and other service providers at special conditions. VIT also offers services relating to technical building evaluation for external owners.

Furthermore, as of December 31, 2018, Vonovia managed an additional 21,751 apartments for third parties – 7,581 of them from VIT (2017: 7,550), 13,826 from BUWOG in Germany and 344 from BUWOG in Austria.

Investment

The quality of our real estate portfolio plays a particularly large role. Accordingly, it is important that our properties are in good structural condition. We also strive to expand our portfolio through new construction, targeted modernization measures to improve energy efficiency and holistic neighborhood development projects, as well as acquisitions and sales.

Maintenance and Modernization

Through **maintenance**, we preserve and take care of our building stock. We include the corresponding expenses under routine and partially long-term planned economic expenses. Continuity helps to prevent order peaks and to distribute capacities evenly.

Modernization measures are long-term and sustainable value-enhancing investments in housing and building stocks. Upgrade Apartments measures involve upgrading facilities within a self-contained living area. Where required, the floor plans are altered to meet changed housing needs.

We use modernization and maintenance measures to make ongoing investments in our portfolio. As a leading residential real estate company, we have specific opportunities open to us when it comes to using standardized procedures and materials to achieve economies of scale in our investment activities. Wherever it is appropriate and technically feasible, we use standard products for our maintenance and modernization measures. The volumes we can generate as a result enable us to agree on special conditions with our suppliers, allowing us to either receive higher-quality goods for the same price, or to purchase the material to be used at a lower price. The fact that the construction work is executed almost exclusively by our technical service also allows us, thanks to the large number of recurring orders, to shape the service processes in such a way that the necessary measures can be performed with shorter construction times and optimum resource use. This saves additional costs or increases revenue because apartments can be relet more quickly.

Investments in the "Invest" subportfolio relate to measures designed to improve the standard of comfort of our properties, a process that often also involves senior-friendly conversion work. As a result, we implemented modernization measures accounting for a volume of more than € 265 million in this subportfolio in 2018. If technically feasible, conversions were carried out according to the standards of the KfW program 159 "Senior-friendly Conversions."

We make decisions about portfolio investments for both operating and strategic reasons. The investments cover the entire stock in the corresponding subportfolios and the whole of Germany. As far as its technical measures are concerned, Vonovia endeavors not only to adhere to the latest technical standards and the applicable requirements at all times, but also to anticipate future developments, and to implement them where possible.

Maintenance and modernization (incl. new construction) worth around € 1.5 billion was carried out in 2018. The focus was on energy-efficient modernization and the creation of new living space. The funds provided by KfW-Bank or the European Investment Bank (EIB) provide key support when it comes to refinancing the energy-efficient modernization measures.

Maintenance and Modernization

in € million	2017	2018	Change in %
Expenses for maintenance	258.0	289.7	12.3
Capitalized maintenance	88.2	140.7	59.5
Modernization work*	778.6	1,139.0	46.3
Total cost of modernization and maintenance	**1,124.8**	**1,569.4**	**39.5**

* Incl. new construction 2018: € 234.3 million, 2017: € 65.7 million.

New Construction and Development

The most pressing challenge facing the real estate industry in Germany is the creation of affordable living space in central locations. Vonovia is playing an active role in creating this new affordable living space.

As far as its **new construction activities** are concerned, Vonovia makes a distinction between undeveloped and developed land on the one hand, and between new land to be acquired and acquired land on the other.

New Construction

On developed land, we create new living space by adding extra stories to existing buildings. On undeveloped land, we create new living space by constructing new buildings. What both of these measures have in common is that we always focus on series production based on modular construction.

The term "modular" means that the building is erected using standardized elements produced in the factory that are then transported directly to the construction site. The modules only need to be assembled on site. Vonovia uses three approaches in this regard: Precast concrete construction, wood hybrid and steel skeleton. The company has concluded a framework agreement with a major manufacturer in the area of precast concrete construction. This standardized construction allows both the costs of new residential construction and the construction period to be reduced considerably. This allows Vonovia to create new living space more quickly. What is more, the costs are not only lower – they are also easier to calculate than with other forms of construction. The main advantage is that this more efficient construction method allows the new apartments to be offered at affordable rents as a result.

All in all, the construction of 1,000 new apartments began in 2018, part of which has already been completed. The experience gleaned in recent years will serve as an important foundation for significant expansion of the new construction volume over the next few years. Following Bremen and Dresden, upcoming projects include new construction in Dortmund, Cologne, Berlin, Oberursel and Augsburg.

Development – New Construction on Land acquired by the Company itself

The acquisition of BUWOG allowed Vonovia to expand its value chain to include BUWOG's long-standing experience in the real estate development business. This business model, in which BUWOG is one of the German market leaders, involves developing properties, either for the company's own use or for sale to investors or owner-occupiers, by purchasing suitable land at the start of the location development project. The BUWOG brand stands for a high level of customer satisfaction in the real estate development business over a period spanning many years. It stands for trust in the expertise regarding the feasibility of the projects and in reliable quality standards. The strategic target locations are metropolitan regions including Berlin, Hamburg and Vienna in particular. The current project pipeline includes around 11,800 projected residential units with a planned total volume of approx. € 3.5 billion and an expected realization period of roughly 5–6 years. These are broken down into around 6,800 units that are earmarked for sale and around 5,000 to be managed by the company itself. The availability of suitable land is a key prerequisite for the success of the real estate development project. Vonovia's strategically advantageous financing options can have a positive impact on the real estate development business. These development projects are often tied to urban development contracts and the requirements set out in these contracts. With plans to complete around 2,200 apartments under development every year, Vonovia is making a considerable contribution to easing the shortage of apartments overall.

Procurement

Vonovia's procurement activities are split primarily into construction services, construction material and material costs (indirect materials and services).

When it comes to construction services, the supplier qualification process is a very careful one based on clearly defined criteria. One important aspect from our perspective is that our suppliers and subcontractors not only accept our Business Partner Code, which we revised and expanded in 2018, as binding, but also put the principles set out in the Code into practice on a daily basis at Vonovia's construction sites. The Code stipulates, in particular, that corruption must be combated, that illicit employment must be ruled out, that the legal minimum wage must be paid and that valid German regulations on occupational safety, employee rights and the environment must be observed. We also make sure that demolition materials and rubble are disposed of in a professional and environmentally friendly manner and that construction periods are kept as short as possible.

By predominantly purchasing construction materially centrally via Vonovia's procurement department, we can keep the risk of hazardous or poisonous substances being used at a minimum. In order to protect our employees and tenants alike, we ensure material safety using the systematic TÜV Rhineland Toxic Materials Management System (TOGs®). All information is recorded, evaluated and documented centrally in an online toxic materials register. This provides us with an ideal basis within our own craftsmen's organization for conducting risk assessments and developing operating and handling instructions. We are also collaborating with our suppliers to further develop our standard materials on an ongoing basis in order to ensure both their safety and the provision of comfortable homes for our customers. The introduction of a flush-to-floor shower area in 2018 is one successful example of this.

The procurement team is working hard on efforts to standardize materials and services in order to optimize supply and ordering channels. More than 80% of Vonovia's indirect materials are supplied using an e-catalog system and delivered to the various Vonovia locations after being bundled. Efforts are made to raise awareness among all partners with which framework agreements have been concluded for indirect materials and services regarding the handling of confidential or inside information, data protection aspects or conflicts of interest.

Management System

Management Model

Our corporate governance is based on our corporate strategy and our **sustainable business activities**. In the 2018 fiscal year, we expanded our business activities outside of Germany with the purchase of BUWOG AG and Victoria Park AB, with the acquisition of BUWOG adding development activities to the scope of our business. Details on this can be found in the previous chapters.

As part of the expansion of our business activities, we made adjustments to our management system with effect from the fourth quarter 2018 to include the Development segment. The segment formerly known as the Sales segment was also renamed Recurring Sales, and the sale of buildings and properties where these relate to "Non-core Disposals" is now shown as a separate business activity.

This means that, for the purposes of managing the company, we make a distinction between four segments: **Rental, Value-add, Recurring Sales and Development**.

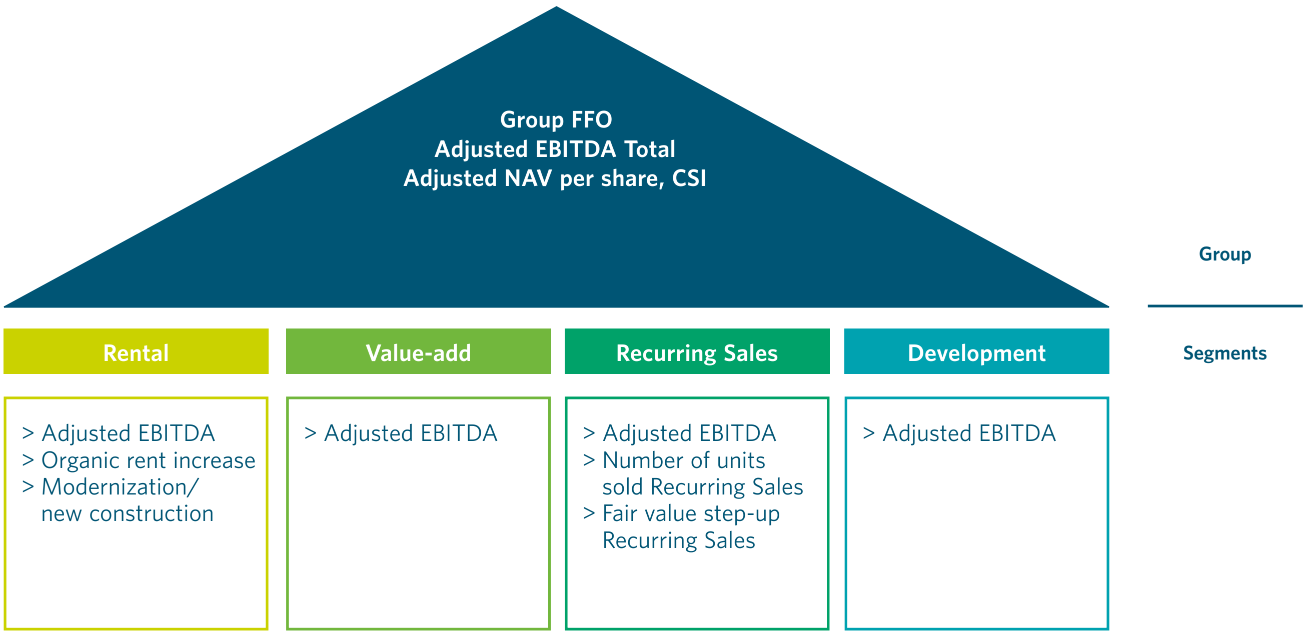
The **Rental segment** combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden.

The **Value-add segment** (formerly known as "Value-add Business") 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 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** (formerly part of the "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 (Non-core Disposals). 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. In the previous reporting period, Recurring Sales and Non-core Disposals were shown combined in the Sales segment. As a result, the prior-year figures have been adjusted accordingly for the current reporting period.

The **Development segment** encompasses the project development of new residential buildings. 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. Project development work is currently focusing on Berlin, Hamburg and Vienna. The value creation from the valuation of the properties at market prices will be allocated to the Development segment when these properties are incorporated into our own portfolio.

We have also redefined our **Funds from Operations (FFO)**. The new **Group FFO** now includes the earnings contributions made by all four segments: Rental, Value-add, Recurring Sales and Development.



Performance Indicators

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

Our 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.

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 business 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 **Adjusted NAV per share** and the **CSI** are our most meaningful financial performance indicators.

Financial Performance Indicators

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

Performance Indicators Group FFO

	Rental income
(-)	Maintenance expenses
(-)	Operating expenses Rental
=	**Adjusted EBITDA Rental**
	Income Value-add
	thereof internal income
	thereof external income
(-)	Operating expenses
=	**Adjusted EBITDA Value-add**
	Income from disposal of Recurring Sales
(-)	Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for Recurring Sales
=	Adjusted profit from disposal of Recurring Sales
(-)	Selling costs Recurring Sales
=	**Adjusted EBITDA Recurring Sales**

Performance Indicators Group FFO

	Income from disposal of development properties to sell
(-)	Construction costs Development to sell
=	Net profit Development to sell
(+)	Fair value Development to hold
(-)	Construction costs Development to hold
=	Net profit Development to hold
(-)	Operating expenses Development
=	Adjusted EBITDA Development
	Adjusted EBITDA Total
(-)	Interest expense FFO
(-)	Current income taxes FFO
(-)	Consolidation
=	Group FFO

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 segments.

The **Adjusted EBITDA Rental** reflects the operating profit from residential property management. It can be broken down into three central components: rental income from the Rental segment, 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 modernization and new construction measures for our own portfolio. The total amount of all **maintenance, modernization and new construction measures** includes the services performed by the Group's own craftsmen's organization, valued at the market price, and any third-party services that have been purchased, including the development activities for the company's own portfolio.

The Value-add segment encompasses all of the business activities relating to the expansion of our core business to include services that are closely related to and/or influence the rental business. We manage these business activities using the **Adjusted EBITDA Value-add**.

In addition to the management of our residential real estate portfolio and the services that are closely related to our rental business, another business segment relates to the privatization of individual apartments. We measure the success of our sales activities using Adjusted EBITDA Recurring Sales. The **Adjusted EBITDA Recurring Sale**s compares the proceeds generated from privatization business with the fair values of assets sold and also deducts the related costs of sale. In order to disclose profit and revenue in the period in which they are incurred and to report a sales margin, the fair value of properties sold, valued in accordance with IFRS 5, have to be adjusted to reflect realized/unrealized changes in value.

We bundle all business activities aimed at the development of attractive real estate projects both for our own portfolio and for direct sale in the Development segment. 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. We manage these business activities using the **Adjusted EBITDA Development**.

The **Adjusted EBITDA Total** is calculated as the sum total of the Adjusted EBITDA figures for our four segments. This means that 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.

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 **Net Asset Value (NAV)** is used to manage the company's value. Our NAV calculations are based on the best practice recommendations of the EPRA (European Public Real Estate Association). The **Adjusted NAV per share**, after corrections for goodwill, is the relevant performance indicator.

Calculation of NAV

	Equity attributable to Vonovia's shareholders
(+)	Deferred taxes on investment properties
(+/-)	Fair value of derivative financial instruments
(-/+)	Deferred taxes on derivative financial instruments
=	EPRA NAV
(-)	Goodwill
=	**Adjusted NAV**
/	Number of shares on the reporting date
=	**Adjusted NAV per share**

An additional non-operational key financial figure, the **loan-to-value ratio (LTV ratio)**, is also used for monitoring the degree to which debt is covered by the value of the properties. This key figure helps the real estate sector ensure a sustainable ratio of borrowings to the fair values of our properties.

All of the key financial figures shown here are so-called **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.

Non-financial Performance Indicators

We also focus on non-financial operating performance indicators as drivers for our key financial figures and supporting control parameters.

Our business activities focus on our customers. We aim to offer them affordable homes that meet their needs together with housing-related services and reliable customer support. As a result, the fourth most meaningful performance indicator at overall Group level, in addition to the financial performance indicators Group FFO, Adjusted EBITDA Total and Adjusted NAV per share, is the **Customer Satisfaction Index** (CSI). It is determined at regular intervals in systematic customer surveys conducted by an external service provider and shows the effectiveness and sustainability of our services for the customer. Our company's economic success and, in particular, the success of our Value-add strategy are directly linked to the satisfaction level of our customers. We are aware of this fact and implement a wide variety of measures with the goal of improving our services in the interest of our tenants.

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, 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 square meter gives information on the average rental income from the rented properties. In particular, over the course of time, the average rent increase achieved in the rented properties can be derived from this figure.

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. Together with the CSI 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 Disposals".

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

Report on Economic Position

Key Events During the Fiscal Year

Takeover of Victoria Park AB, Sweden

On May 3, 2018, Vonovia SE (subsequently Vonovia) announced its intention, as part of its internationalization strategy, to make a public cash offering via a subsidiary to the shareholders of Victoria Park AB (subsequently Victoria Park), a Swedish listed company, for the purchase of all shares at a price of 38.00 Swedish kronor (SEK) for each class A and class B share, and SEK 316.00 for each preference share.

Victoria Park is a leading residential real estate company in Sweden and operates in an environment that is very similar to the German housing market. As does Vonovia, Victoria Park pursues a long-term company strategy guided by social criteria with the aim of offering its tenants attractive homes and thereby creating value. The company owns and manages a high-quality real estate portfolio of approximately 14,000 apartments with a focus in the metropolitan regions of Stockholm, Malmö and Gothenburg. The shares of Victoria Park are listed in the mid-market segment of the Nasdaq Stockholm stock exchange.

As of June 18, 2018, the last day of the acceptance deadline, the shareholders of Victoria Park had accepted the offer for a total of 34,056,463 class A shares, 97,962,486 class B shares and 663,172 preference shares. This is equal to 54.4% of the share capital or 46.5% of the voting rights. Vonovia was furthermore granted two call options totaling 10.0% of the capital, or 12.4% of the voting rights. These call options can be exercised between May 15 and May 29, 2019. The offer was completed on June 28, 2018.

During the extended tender period until July 3, 2018, an additional 1.8% of the share capital or 2.0% of the voting rights were tendered to Vonovia. In addition, Vonovia acquired shares in the market at up to the offer price amounting to 0.6% of the share capital or 0.3% of the voting rights.

At the end of the extended tender period and the acquisitions on the market, Vonovia possessed 56.6% of the share capital and 48.9% of the voting rights. Including the two call options, the share of total equity equaled 66.7% or 61.2% of the voting rights. Although Vonovia had less than 50% of the voting rights as of June 28, 2018, in accordance with IFRS 10. B41–B43, de facto control had to be assumed, since it held a de facto majority of votes present at the Annual General Meeting.

By way of the agreement dated September 5, 2018, and with the execution of this agreement on September 7, 2018, Vonovia acquired a further 59,560,701 class A and B shares based on the same conditions as in the public takeover offer. This corresponds to a further 30.3 million voting rights. This means that, as of December 31, 2018, the percentage of the share capital comes to 81.4%, while the share of the voting rights amounts to 81.1%. Including the call options in the amount of 12.4%, the share of voting rights comes to 93.5%.

As a result of the completion of the transaction at the end of June 2018 and the resulting assumption of control, Victoria Park is included in the consolidated financial statements as of December 31, 2018, with an earnings contribution for the second half of 2018. The purchase price allocation and, as a result, the calculation of goodwill are still provisional.

Takeover of Austrian company BUWOG AG

On December 18, 2017, Vonovia published notice of its intention to make a voluntary public takeover offer, in accordance with the Austrian Takeover Act (ÜbG), to the shareholders of BUWOG AG (subsequently BUWOG), Vienna, Austria, for the acquisition of all shares in BUWOG. As part of this offer, all BUWOG shareholders were offered € 29.05 in cash for each share in BUWOG.

The stated goal of the BUWOG takeover is to consolidate the complementary real estate portfolios of both companies and merge Vonovia's housing stock with that of BUWOG (around 48,300 apartments). The integration of BUWOG is expected to allow synergy potential to be harnessed, in particular by way of the joint administration and management of the German and Austrian residential units, the development process know-how, the expansion of the value chain and the optimization of cost structures.

The Vonovia and BUWOG portfolios are a good geographical fit for each other and also complement each other strategically. The successful takeover of conwert Immobilien Invest SE in March 2017 allowed Vonovia not only to expand its real estate portfolio in Germany, but also to add properties in Austria for the first time to what had, to date, been a purely German portfolio. The takeover of BUWOG allowed Vonovia to acquire further properties that not only complement the real estate portfolio in Germany, but also include intelligent additions to the real estate portfolio in Austria. The merger strengthened the joint German and Austrian real estate portfolio of Vonovia and BUWOG considerably.

At the end of the first tender phase on March 12, 2018, the majority of the shares in BUWOG, namely 82,844,967 shares or 73.8% of shares, had been tendered to Vonovia. The takeover of the shares from the first tender phase and, as a result, the assumption of control were completed on March 26, 2018, in return for payment of € 2,752.5 million.

The second obligatory tender phase, in accordance with the Austrian Takeover Act (ÜbG), started on March 16, 2018, and ended at 5 p.m. CEST on June 18, 2018. In addition, Vonovia acquired BUWOG shares on the market at up to the offer price. With the conclusion of this second mandatory tender period, a further 15,281,786 shares were tendered to Vonovia, meaning that, with the completion of the transaction and the purchases, as well as the exchange of convertible bonds, Vonovia possessed more than 90.7% of the share capital of BUWOG as of June 30, 2018. On June 20, 2018, Vonovia requested a squeeze-out according to the Austrian Act on the Squeeze-out of Minority Shareholders (Gesellschafterausschlussgesetz). A corresponding resolution was passed at the Annual General Meeting held on October 2, 2018.

Due to the assumption of control on March 26, 2018, BUWOG is included in Vonovia's consolidated financial statements as of December 31, 2018, with an earnings contribution of nine months.

Investment in France

In October 2018, Vonovia acquired 80% of a portfolio of 4,000 residential units from the French state rail operator, SNCF, as part of a consortium comprising Ampere Gestion, SwissLife and French pension funds. Vonovia's stake corresponds to the equivalent of 10% and represents another key step on the French residential property market.

Vonovia SE Carries Out Capital Increase Against Cash Contributions in the Form of Accelerated Bookbuilding

On May 3, 2018, with the agreement of the Supervisory Board's Finance Committee, the Management Board of Vonovia SE passed a resolution on an increase in its share capital in return for a cash contribution, partially using the 2016 authorized capital and excluding a subscription right, by € 26,000,000.00 from € 485,100,826.00 to € 511,100,826.00.

The 26,000,000 new no-par-value registered shares were placed with institutional investors in the scope of a private placement by means of an accelerated bookbuilding procedure and carry dividend rights as of January 1, 2018.

The shares were granted at a placement price of € 38.30 per share, delivering issue proceeds to Vonovia SE in the amount of € 995.8 million before commission and expenses. The net issue proceeds from the capital increase were used, among other things, for the purchase price payments in connection with the takeover offer made to the shareholders of Victoria Park AB.

Development of the Economy and the Industry

Germany

With growth in gross domestic product (GDP) of 1.5%, the German economy experienced its ninth consecutive year of growth in 2018. The upswing did, however, start edging increasingly close to its limits and recently lost momentum after GDP contracted by 0.2% in the third quarter of the year – the first contraction seen since the beginning of 2015. Although, according to the Kiel Institute for the World Economy (IfW), the economy bounced back again in the fourth quarter of the year with GDP growth of 0.4%, GDP was, on the whole, weaker than expected in 2018.

The damper in the third quarter of the year was due primarily to the serious problems faced by the German automobile industry regarding the certification of new vehicles based on the new exhaust emissions test procedure, WLTP. High levels of macroeconomic capacity utilization along with supply chain delays, also due to low river water levels, and a severe shortage of labor also, however, stood in the way of the marked increase in production that had been predicted at the beginning of the year. This applies, in particular, to the construction industry. Although immigrant workers have increased the supply of labor, which is now scarce, and are making the biggest contribution to employment growth, the immigration figures are gradually starting to fall again and the employment potential remaining within the German population is limited.

What is more, the global trade conflicts and gradual global economic slowdown are starting to leave more of a mark. While the foreign trade balance showed a surplus at the end of the year, imports have been rising at a much faster rate since the start of the year than exports, which have lost momentum primarily due to the production losses in the automotive industry. Although the European sales markets would appear to have been the main culprits behind the export slump to date, the future development of the German economy is exposed, in this environment, to risks emanating from the latent protectionist tendencies of the U.S. government, problems in key emerging markets, concerns over a hard Brexit, a Chinese economic slowdown and political uncertainty in the eurozone. By contrast, corporate investment is proving robust – having received a boost from the capacity bottlenecks and favorable financing conditions – and contributed to growth, albeit with lower rates of growth than a year earlier.

The ifo business climate index slipped further to 101.0 points in December 2018, the lowest level seen in more than two years. Particularly in the service and manufacturing sectors, companies assessed the current situation as having deteriorated, whereas sentiment in the construction industry remained stable at a high level. It would appear that companies had started to feel more of an impact of the trade conflicts and associated deterioration in the export climate towards the turn of the year.

The positive trend on the labor market and income growth fueled brisk private consumer demand, which was one of the forces driving growth. The Federal Statistical Office reported an average of 562,000 more people employed in 2018 as a whole, up by 1.3% year-on-year. All in all, this marked the continuation of an increase in employment that has been ongoing for 13 years now. The German Federal Employment Agency (Bundesagentur für Arbeit) published an unemployment rate of 5.2% for 2018, down by 0.5 percentage points against the previous year. Consumer price performance has already been on a slight upward trajectory since the end of last year. In 2018, the average rate of inflation came in at 1.9% based on the consumer price index. Inflation was primarily driven by developments in the price of heating oil and fuel, although food prices and the prices of alcoholic drinks and tobacco products also increased significantly again.

Whereas the U.S. implemented an interest rate turnaround in its monetary policy some time ago, the European Central Bank (ECB) is still keeping the key interest rate at the record low of 0.0%, where it has been since March 2016, announcing that it would remain unchanged at least until the fall of 2019. By contrast, the ECB's purchases of additional government and corporate bonds came to an end at the turn of 2018/2019.

Further Increase in Rent and Apartment Prices

Home prices continued to rise in 2018, as the research and consulting institute empirica reported based on an analysis of their price database. Across Germany, the empirica real estate price index for average rents over all years of construction increased by 3.2% in the fourth quarter of 2018 compared to the previous year (for new construction, the increase was 2.9%). The increase in rent was, however, less pronounced than in 2017. The increase in the quoted prices for condominiums was once again more pronounced than the increase in rents. The price index for condominiums (all years of construction) increased by 9.0% during the same period (new construction 7.7%). Due to ongoing immigration, particularly from the European Union, and the very positive situation on the labor market, the demand for apartments (and offices) remains high, according to reports by Deutsche Bank Research (DB Research). According to a preliminary estimate released by the German Federal Statistical Office (Statistisches Bundesamt), the German population continued to grow in 2018. The situation on the residential property market is not tight across the board. According to the German Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), growing cities and regions are experiencing significant growth in demand, together with housing shortages and rising rents and prices. On the other hand, other cities and, in many cases, rural regions in various parts of Germany are faced with a dwindling population. Given the supply bottlenecks, the slightly lower rental growth momentum in a year-on-year comparison is likely to be no more than a temporary blip, according to DB Research. DB Research expects 300,000 apartments to have been completed in 2018, while the annual demand for living space comes to at least 350,000 apartments. This means that the subdued growth in apartment completions is likely to have continued in 2018. A lack of land available for construction and the increasingly pressing shortage of skilled workers are expected to stand in the way of any rapid increase in completions. Supply is now lagging more than 1 million apartments behind demand in total, particularly in the country's large and very large cities. Since, according to DB Research, it will take a good few years for the real estate boom to reach the end of its cycle, the risk of a bubble forming in the current cycle has increased considerably. In its country report on Germany, for example, the International Monetary Fund (IMF) reports that prices in some German cities are above the level that would be expected given the fundamental data, which points to an overvaluation. In these cities, the purchase prices for residential real estate have experienced an unusually significant increase over recent years in relation to income and rents, and also compared to other large European cities. According to DB Research, the price pressure can be expected not to ease for now, with the bottlenecks on the residential real estate market expected to drive further price increases in the future. In 2018, residential portfolios and complexes of 50 units or more accounted for a total transaction volume of around € 17.2 billion in the German residential investment market, according to the real estate service provider CBRE. Compared to the previous year, the transaction volume increased by 10%. Thanks to the promising macroeconomic fundamental data and the sustained low interest rates, CBRE reports that the German real estate market as a whole remains one of the most important target markets for domestic and foreign investors. According to BNP Paribas Real Estate (BNPPRE), project developments, which are in high demand both on the particularly tight real estate markets in A cities and in many smaller locations, but also the asset class comprising student apartments and "microapartments" have been gaining in popularity for some years now.

As part of a housing initiative, the German federal government reached an agreement in 2018 on the implementation of a number of housing policy measures to promote more housing, affordable rents and residential property ownership. The housing subsidy for families with children, which aims to offer support to families looking to buy residential property, was already introduced in September 2018. The German Tenancy Law Amendment Act (Mietrechtsanpassungsgesetz), which is designed to ensure greater transparency with regard to the rent ceiling and to limit and simplify the modernization allocation, came into force on January 1, 2019.

Austria

The Austrian economy is in the latter stage of a marked economic upswing. Bolstered by strong domestic demand and solid export performance, real GDP growth will come in at 2.7% according to the Austrian Institute of Economic Research (WIFO), on a par with the previous year and significantly outperforming the eurozone average. The current boom is being driven by industrial production, as well as by construction and services, in particular. The ongoing positive economic development is also reflected in the labor market: Job vacancies and employment are expanding at a rapid rate, with the unemployment rate falling below the 8% threshold (as a percentage of the workforce excluding the self-employed), namely to 7.7%, for the first time since 2013. According to the WIFO, inflation is still unusually restrained and is comparable to the prior-year level. The Austrian Economic Chambers (WKO) are reporting a rate of inflation, based on the consumer price index, averaging 2.0% year-on-year in 2018.

Given that the overall conditions remain very positive for the Austrian real estate market, the demand for real estate remains high, according to experts from Bank Austria. Thanks to strong population growth and accelerated by the boom in the demand for investment properties, residential real estate prices have increased considerably in recent years. The values of the current DSS OeNB residential real estate price index – the 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 third quarter of 2018 of 8.0% compared to the previous year's period. In Vienna, prices increased compared to the previous year by 6.5%. In the rest of Austria, price development was higher; excluding Vienna, the increase in Austria in the same period was 9.7%. According to the consumer price index published by the Austrian statistical office, Statistik Austria, apartment rents rose by 3.7% in 2018 compared with 2017. The OeNB reports that the residential construction segment overcame a prolonged period of weakness in 2017, making further gains in the first half of 2018. Production in the building construction segment was up by 7.6% in a year-on-year comparison and the development in building permits points towards a further acceleration in residential construction activity. Bank Austria expects more than 62,000 new apartments to have been built in Austria in 2018. Although this would reduce the existing excess demand on the Austrian residential property market, it would not close all supply gaps at regional level – particularly not in the country's conurbations. According to CBRE, the amendment to the Viennese building regulations is likely to considerably reduce the supply of newly built privately financed residential properties in the medium term. The real estate service provider EHL reports that construction costs and the price of land are increasing considerably. According to its figures, transactions accounting for a total volume of around € 4 billion were executed on the Austrian real estate investment market in 2018. 20% of these investments relate to institutional residential investments. EHL considers the Austrian market to still be attractive to national and international investors alike, pointing to a good level of acceptance for the current price levels despite a drop in yields.

Sweden

After the Swedish economy faltered in the third quarter of 2018, with GDP down by 0.2%, GDP is expected to have bounced back again in the fourth quarter of 2018 – largely thanks to a recovery in consumption among private households – with growth of 0.6%, according to the National Institute of Economic Research (NIER). A decline in residential property investments and a temporary drop in private consumption were the main factors behind the temporary slump. The sale of new cars alone plummeted as a temporary result of the new bonus-malus system for road tax that came into force in July 2018 in an attempt to boost the proportion of low-emission cars. GDP growth is tipped to come in at 1.9% for 2019 as a whole. Most indicators suggest that the economy reached its peak in 2018. Both the consumer and business climate indicators on economic development have fallen in recent months. The demand for labor, however, remains brisk as employment levels continue to increase. The foreign trade balance remains positive, in particular due to a drop in imports. As Sweden exports around three-quarters of its goods to other EU countries, the slowdown in European economic growth is having a direct impact on Swedish exports. Capital investment has also made a positive contribution to GDP, whereas the growth in residential construction investment has slowed slightly. Seasonally adjusted and smoothed data shows an unemployment rate of 6.2% in December 2018. Compared with the same month a year earlier, the inflation rate as measured by the consumer price index came to 2.0%. This prompted the Swedish Central Bank – for the first time in seven years – to raise its key interest rate in December, lifting it by 0.25 percentage points to -0.25% now that the inflation target of around 2.0% has been reached.

In the meantime, the wait for a new government is over: now, more than four months after the election, a minority government consisting of Social Democrats and the Green Party has been running the country since January 2019.

According to SABO, the Swedish Association of Public Housing Companies, the housing market is under significant pressure. Much of Sweden is facing a housing shortage, primarily in its metropolitan regions. The population has seen strong growth in recent years and is expected to continue expanding rapidly. New construction has not been able to keep up with this population growth. In its forecast of June 2018, the Swedish National Board of Housing, Building and Planning (Boverket) therefore expects an annual construction demand of 93,000 units by 2020. In this environment, the increases on the Swedish rental housing market continued. According to data supplied by Statistics Sweden, rents rose by an average of 1.1% in 2018, as against 0.8% in 2017. By contrast, prices on the market for residential property ownership came under pressure at the end of 2017. Stricter mortgage rules governing real estate financing – in response to the high levels of household debt accumulated during the real estate boom – contributed to a downward price trend which, according to the European Commission, was driven mainly by weakness in the tenant-owned apartment ("Bostadsrätt") market. The term "tenant-owned apartments" refers to the cooperative property ownership of apartment buildings that is common in Sweden. Each resident owns a share in the overall building together with a legal right to occupy a specific residential unit. While house prices have stabilized in the country as a whole, new build owner-occupied flats are still under pressure in the metropolitan areas, according to Swedbank. Although the Valueguard HOX price index, which reflects the price development of typical condominiums and single-family homes, was up by 2.0% year-on-year in December 2018, it is important to remember, when drawing comparisons with December 2017, that the housing market had reached a low point following a slump in the fall of the same year. In addition to higher mortgage restrictions, the increase in the supply of new homes coming on to the market is also likely to have contributed to the cooling prices. However, Newsec says that these homes are often being built in a market segment that is too expensive. According to SABO, the Swedish construction market is suffering from very high prices. After several years of brisk construction activity, home construction started to slow down in 2018. Due to the falling prices and the high supply of expensive tenant-owned apartments, SEB expects construction starts in 2018 to have dropped to 57,000 (2017: 65,000). Savills is still reporting keen interest in real estate investments in Sweden. The volume of investment on the transaction market came to SEK 159 billion in 2018 (+ SEK 5 billion year-on-year). With a total investment volume of SEK 51.5 billion, residential real estate accounted for around one-third of the transaction volume, with growing interest in Swedish residential real estate among foreign investors.

Group's Business Development

Business Development in 2018 – An Overview

The 2018 fiscal year was very successful for Vonovia on the whole. We were systematic in the implementation of our corporate strategy. With the acquisitions of BUWOG and Victoria Park, we were able to further expand our leading market position and make our business more international.

The table below provides an overview of the development of our forecast performance indicators and the target achievement level for these indicators in the 2018 fiscal year. It also shows the new performance indicators, Adjusted EBITDA Total and Group FFO.

	Actual 2017	Last forecast for 2018 in the 2018 Q3 Report	Actual 2018
Adjusted NAV/share	€ 38.49	approx. € 45	€ 44.90
EPRA NAV/share	€ 43.88	approx. € 52	€ 50.39
FFO 1*	€ 919.5 million	€ 1,050–1,070 million	€ 1,064.7 million
FFO 1/share**	€ 1.90	€ 2.03–2.07	€ 2.06
Adjusted EBITDA Total	€ 1,319.7 million		€ 1,554.8 million
Group FFO	€ 975.0 million		€ 1,132.0 million
Group FFO/share	€ 2.01		€ 2.18
CSI	Increase of 1.6%	Down slightly year-over-year	Decrease of 2.6%

* FFO1 2017 adjusted incl. transaction holding costs.
** Based on the current number of shares in each case, 2018: 518.1 million.

The **Adjusted NAV** per share came in at € 44.90 in 2018, up by 16.7% on the prior-year value of € 38.49. This corresponds to an EPRA NAV per share of € 50.39 (2017: € 43.88). This increase was due primarily to the net income from fair value adjustments of investment properties of € 3,517.9 million (2017: € 3,434.1 million).

FFO 1 rose by € 145.2 million to € 1,064.7 million in 2018 (2017: € 919.5 million in line with the current definition) and was therefore within the forecast range of € 1,050–1,070 million. This corresponds to FFO1 per share of € 2.06 (2017: € 1.90, most recent forecast € 2.03–2.07). The improvement in Adjusted EBITDA Rental was the main factor behind the increase in FFO 1, which rose from € 1,148.7 million in 2017 to € 1,315.1 million in 2018, primarily because of acquisitions. The interest expense excluding non-recurring items (FFO 1 interest expense) came to € 317.4 million in 2018, up by 10.4% on the prior-year value of € 287.5 million.

The Customer Satisfaction Index **(CSI)** was slightly down on the prior-year value.

Statement of the Management Board on the Economic Situation

The net assets, financial position and results of operations of the Group are extremely 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 both organic and external growth. The ongoing improvements to the property management processes, the expansion of the Value-add segment, the steady Recurring Sales and a successful development business promote ongoing improvement in profitability.

Results of Operations

The following key figures provide an overview of how Vonovia's results of operations and their drivers developed in 2018. When comparing the figures with the prior year, it is important to remember that BUWOG is included in the 2018 figures with an earnings contribution for the months from April to December, and that Victoria Park is included with an earnings contribution for the months from July to December. The key figures are shown based on the new management system. The prior-year figures are shown based on the new definitions.

Key Figures on Earnings Development

in € million	2017	2018	Change in %
Income from property management	2,391.6	2,708.2	13.2
thereof rental income in the Rental segment	1,667.9	1,894.2	13.6
Income from disposal of properties	1,206.4	1,097.5	-9.0
Income from disposal of real estate inventories (Development)	–	225.1	-
Adjusted EBITDA Total	1,319.7	1,554.8	17.8
Adjusted EBITDA Rental	1,148.7	1,315.1	14.5
Adjusted EBITDA Value-add	102.1	121.2	18.7
Adjusted EBITDA Recurring Sales	62.2	79.1	27.2
Adjusted EBITDA Development	6.7	39.4	>100
Group FFO	975.0	1,132.0	16.1
EBITDA IFRS	1,271.8	1,534.4	20.6
Monthly in-place rent (€/m²)	6.27	6.52	4.0
Average area of own apartments in the reporting period (in thou. m²)	22,056	24,293	10.1
Average number of own units (number of units)	352,848	384,777	9.0
Vacancy rate in %	2.5	2.4	-0.1 pp
Maintenance expenses and capitalized maintenance (€/m²)	15.70	17.72	12.9
thereof maintenance expenses (€/m²)	11.70	11.92	1.9
thereof capitalized maintenance (€/m²)	4.00	5.79	44.8
Number of units bought	24,847	63,706	>100
Number of units sold	11,780	15,102	28.2
thereof Recurring Sales	2,608	2,818	8.1
thereof Non-core Disposals	9,172	12,284	33.9
Number of employees (as of December 31)	8,448	9,923	17.5

Income from property management came to € 2,708.2 million, 13.2% higher than the value of € 2,391.6 million seen in the previous year. This increase was due primarily to the acquisitions made in the 2018 fiscal year. All in all, rental income in the Rental segment rose by 13.6%, from € 1,667.9 million to € 1,894.2 million. Of the rental income in the Rental segment, € 1,751.4 million is attributable to rental income in Germany (2017: € 1,639.3 million), € 83.1 million to rental income in Austria (2017: € 25.8 million) and € 58.4 million in Sweden.

As of the end of 2018, Vonovia managed a portfolio comprising 395,769 of its own residential units (2017: 346,644). We sold a total of 15,102 units in the course of 2018 (Recurring Sales and Non-core Disposals) (2017: 11,780) and acquired 63,706 units (2017: 24,847).

BUWOG's portfolio contributed € 242.1 million to the income from property management in 2018, and Victoria Park's portfolio contributed € 59.5 million.

Income from disposal of properties came to € 1,097.5 million, 9.0% below the value of € 1,206.4 million seen in the previous year.

The **Adjusted EBITDA Total** rose by € 235.1 million from € 1,319.7 million in the 2017 fiscal year to € 1,554.8 million in 2018. All segments contributed to this development. The Adjusted EBITDA Rental increased by 14.5% from € 1,148.7 million in 2017 to € 1,315.1 million. Adjusted EBITDA Value-add rose by 18.7% from € 102.1 million in the 2017 fiscal year to € 121.2 million in 2018. The Adjusted EBITDA Recurring Sales came in at € 79.1 million, up by around 27.2% on the value of € 62.2 million seen in the previous year. The Adjusted EBITDA Development amounted to € 39.4 million in 2018 (2017: € 6.7 million own new construction VTS).

Group FFO rose by 16.1% from € 975.0 million in 2017 to € 1,132.0 million in 2018. The FFO interest included in Group FFO came to € 328.8 million in 2018 (2017: € 287.5 million), while current FFO taxes came to € 36.5 million (2017: € 22.6 million).

At the end of 2018, Vonovia employed a workforce of 9,923 (2017: 8,448).

Group FFO

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

in € million	2017	2018	Change in %
Rental income in the Rental segment	1,667.9	1,894.2	13.6
Expenses for maintenance	-258.0	-289.7	12.3
Operating expenses in the Rental segment*	-261.2	-289.4	10.8
Adjusted EBITDA Rental	**1,148.7**	**1,315.1**	**14.5**
Revenue Value-add	1,170.5	1,462.2	24.9
thereof external revenue	161.6	203.9	26.2
thereof internal revenue	1,008.9	1,258.3	24.7
Operating expenses Value-add	-1,068.4	-1,341.0	25.5
Adjusted EBITDA Value-add	**102.1**	**121.2**	**18.7**
Income from disposals Recurring Sales	305.9	356.1	16.4
Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for sale in the Recurring Sales segment	-230.6	-262.8	14.0
Adjusted result Recurring Sales	**75.3**	**93.3**	**23.9**
Selling costs Recurring Sales	-13.1	-14.2	8.4
Adjusted EBITDA Recurring Sales	**62.2**	**79.1**	**27.2**
Income from disposal of “Development to sell” properties	–	225.1	–
Cost of Development to sell	–	-181.8	–
Gross profit Development to sell	**–**	**43.3**	**–**
Fair value Development to hold	23.3	98.0	>100
Cost of Development to hold	-16.6	-79.3	>100
Gross profit Development to hold**	**6.7**	**18.7**	**>100**
Operating expenses in the Development segment	–	-22.6	–
Adjusted EBITDA Development	**6.7**	**39.4**	**>100**
Adjusted EBITDA Total	**1,319.7**	**1,554.8**	**17.8**
FFO interest expense	-287.5	-328.8	14.4
Current income taxes FFO	-22.6	-36.5	61.5
Consolidation***	-34.6	-57.5	66.2
Group FFO	**975.0**	**1,132.0**	**16.1**

* Prior-year value adjusted incl. transaction holding costs.
** Prior-year value new construction VTS.
*** thereof intragroup profits in 2018: € 38.8 million (2017: € 27.9 million), valuation result new construction/development to hold in 2018: € 18.7 million (2017: € 6.7 million).

As of the end of December 2018, our apartments were still virtually fully occupied. The apartment vacancy rate of 2.4% was down slightly on the value of 2.5% seen at the end of 2017. Rental income in the Rental segment rose by 13.6% from € 1,667.9 million in 2017 to € 1,894.2 million in 2018. BUWOG's contribution accounted for a volume of € 155.5 million, while Victoria Park contributed a volume of € 58.4 million. Out of the total rental income in the **Rental segment** of € 1,894.2 million, € 1,751.4 million is attributable to the portfolio in Germany, € 83.1 million to the portfolio in Austria and € 58.4 million to the portfolio in Sweden. All in all, rent increases more than compensated for the disposals due to portfolio adjustments. The increase in rent due to market-related factors came to 1.3%. We were also able to achieve an increase in rent of 2.9% thanks to property value improvements achieved as part of our modernization program. The corresponding like-for-like increase in rent came to 4.2% in the 2018 reporting period. If we also include the increase in rent due to new construction measures and measures to add extra stories, then we arrive at an organic increase in rent of 4.4% in total. The average monthly in-place rent at the end of December 2018 came to € 6.52/m² compared to € 6.27/m² at the end of 2017. At the end of 2018, the monthly in-place rent in the Austrian portfolio came to € 4.53/m², and a value of € 9.11/m² for the Swedish portfolio. The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating and heating costs.

In the 2018 reporting period, we continued to successfully implement our modernization and maintenance strategy. The total volume rose from € 1,124.8 million in 2017 to € 1,569.4 million in 2018. This was driven by an increase in the modernization volume including new construction, which rose by 46.3% from € 778.6 million in 2017 to € 1,139.0 million in 2018.

Maintenance and Modernization

in € million	2017	2018	Change in %
Expenses for maintenance	258.0	289.7	12.3
Capitalized maintenance	88.2	140.7	59.5
Modernization work*	778.6	1.139.0	46.3
Total cost of modernization and maintenance	**1,124.8**	**1,569.4**	**39.5**

* Incl. new construction 2018: € 234.3 million, 2017: € 65.7 million.

Operating expenses in the Rental segment in the 2018 reporting period were up by 10.8% on the figures for 2017, from € 261.2 million to € 289.4 million. This development is due primarily to the larger portfolio thanks to the acquisitions of BUWOG and Victoria Park. All in all, Adjusted EBITDA Rental rose by 14.5%, from € 1,148.7 million in 2017 to € 1,315.1 million in 2018.

We expanded the **Value-add segment** further in the 2018 fiscal year. The increase in the output of our craftsmen's organization once again significantly contributed to this trend and allowed us to continue our investments in improving our portfolio. In addition, we also continued to expand our business activities in the areas of condominium administration, the provision of cable television to our tenants, metering services and insurance and residential environment services in the 2018 reporting period. As a leading real estate service provider, Vonovia Immobilien Treuhand now provides services to a total of around 107,000 units, of which approximately 84,000 are apartments managed for third parties. We also established a new service: energy supply. We supplied a total of 8,500 households with energy directly.

External revenue from our Value-add activities with our end customers rose by 26.2%, from € 161.6 million in 2017 to € 203.9 million in 2018. Group revenue rose by 24.7%, from € 1,008.9 million to € 1,258.3 million in the same period. Overall, this results in a 24.9% increase in the revenue from the Value-add segment from € 1,170.5 million in the 2017 fiscal year to € 1,462.2 million in 2018. The Adjusted EBITDA Value-add was up 18.7% year-on-year to € 121.2 million in 2018.

The EBITDA margin of the core business, calculated based on the Adjusted EBITDA Operations (total of the Adjusted EBITDA Rental and the Adjusted EBITDA Value-add incl. consolidation effects) in relation to rental income within the Group, once again showed positive development in the reporting period. For Vonovia, it increased from 73.2% in 2017 to 73.6% in 2018.

We continued to pursue our selective sales strategy in the 2018 fiscal year. In the Recurring Sales segment, we report all business activities relating to the sale of single residential units (Privatize).

In the **Recurring Sales segment**, the income from disposal of properties came to € 356.1 million in 2018, up by 16.4% on the value of € 305.9 million reported in 2017; of this, € 268.7 million are attributed to sales in Germany (2017: € 269.2 million) and € 87.4 million to sales in Austria (2017: € 36.7 million). We privatized 2,818 apartments in 2018 (2017: 2,608), thereof 2,393 in Germany (2017: 2,444) and 425 in Austria (2017: 164). Adjusted EBITDA Recurring Sales came in at € 79.1 million in the 2018 reporting period, up by 27.2% on the value of € 62.2 million seen in 2017. The fair value step-up for Recurring Sales came in at 35.5% in the 2018 reporting period, up against the comparative value of 32.6% for 2017. This was due to the higher property values.

Outside of the Recurring Sales segment, we made 12,284 Non-core Disposals as part of our portfolio adjustment measures (2017: 9,172). At 23.0%, the fair value step-up for Non-core Disposals was higher than for the same period in the previous year (7.9%). This increase was primarily due to block sales in northern Germany and Zwickau with above-average margins.

The earnings contributions made by the **Development segment** were reported for the first time in the 2018 fiscal year. In the "Development to sell" area, the income from disposal of properties came to € 225.1 million, with € 107.8 million attributable to project development in Germany and € 117.2 million attributable to project development in Austria. This produced a gross profit from "Development to sell" of € 43.3 million. In the "Development to hold" area, a fair value of € 98.0 million was reported, with € 66.0 million attributable to project development in Germany and € 32.0 million attributable to project development in Austria. The resulting gross profit for "Development to hold" amounted to € 18.7 million, with € 12.9 million attributable to project development in Germany and € 5.8 million attributable to project development in Austria. The Adjusted EBITDA for the Development segment amounted to € 39.4 million in the 2018 fiscal year. A total of 470 units were completed in the "Development to sell" area, 128 in Germany and 342 in Austria. A total of 478 units were completed in the "Development to hold" area, 297 in Germany and 181 in Austria. All in all, 11,786 units were listed in the development pipeline at the end of 2018.

In the 2018 fiscal year, the primary key figure for the sustained earnings power of the core business, Group FFO, increased by 16.1%, from € 975.0 million to € 1,132.0 million. This trend was fueled primarily by the positive development in Adjusted EBITDA Total, which rose by 17.8% from € 1,319.7 million to € 1,554.8 million during the reporting period.

In the 2018 fiscal year, the **non-recurring items** eliminated in the Adjusted EBITDA Total came to € 106.6 million, up 22.7% on the prior-year value of € 86.9 million. The acquisition costs including integration costs for 2018 include € 20.0 million for acquisitions in earlier years, which are offset against tax income in the same amount, meaning that they are not compensated for in the profit for the period. Taking this into account, the non-recurring items in the fiscal year came to € 86.6 million, on a par with the prior-year value of € 86.9 million. The following table gives a detailed list of the non-recurring items.

Non-recurring Items

in € million	2017	2018	Change in %
Acquisition costs incl. integration costs*	48.9	87.8	79.6
Severance payments/pre-retirement part-time work arrangements	13.9	18.3	31.7
Business model optimization/development of new fields of business	22.5	0.8	-96.4
Refinancing and equity measures	1.6	-0.3	–
Total non-recurring items	**86.9**	**106.6**	**22.7**

* Including takeover costs and one-time expenses in connection with acquisitions, such as HR measures relating to the integration process. Figures for the previous year shown in line with the current reporting structure for 2018.

The **financial result** changed from € -326.3 million in 2017 to € -440.1 million in 2018. FFO interest expense is derived from the financial result as follows:

Reconciliation of Financial Result/FFO Interest Expense

in € million	2017	2018	Change in %
Income from loans	1.6	2.2	37.5
Interest income	25.1	6.8	-72.9
Interest expense	-353.0	-449.1	27.2
Financial result*	**-326.3**	**-440.1**	**34.9**
Adjustments:			
Transaction costs	7.9	14.2	79.7
Prepayment penalties and commitment interest	16.4	8.4	-48.8
Effects from the valuation of non-derivative financial instruments	-8.8	14.9	–
Derivatives	-3.9	14.3	–
Interest accretion to provisions	9.0	9.1	1.1
Accrued interest	3.1	43.4	>100
Interest on prior-year tax	–	20.3	–
Other effects	2.6	13.5	>100
Net cash interest	**-300.0**	**-302.0**	**0.7**
Deferred interest adjustment	-3.1	-43.4	>100
Adjustments income from investments in other real estate companies	13.0	14.0	7.7
Adjustment of interest paid due to taxes	2.6	2.6	–
Interest expense FFO**	**-287.5**	**-328.8**	**14.4**

* Excluding income from other investments.
** Thereof in the 2018 fiscal year: FFO 1 interest € 317.4 million, interest Development segment € 11.4 million.

The FFO interest expense came to € -328.8 million in 2018, up by 14.4% on the prior-year value of € -287.5 million, primarily due to the 100% debt financing of the BUWOG acquisition. The acquisitions of BUWOG and Victoria Park also resulted in additional non-derivative interest from the operating business in the amount of € 38.8 million.

The profit for the period came to € 2,402.8 million in the 2018 reporting period, down by 6.4% on the previous year's value of € 2,566.9 million. BUWOG contributed total Adjusted EBITDA of € 221.9 million to the Group's profit for the period in the 2018 reporting period, with Victoria Park contributing Adjusted EBITDA of € 33.7 million.

The previous key figure FFO 1 is derived from the profit for the period as follows:

Reconciliation of Profit for the Period/FFO

in € million	2017	2018	Change in %
Profit for the Period	2,566.9	2,402.8	-6.4
Financial result*	326.3	440.1	34.9
Income taxes	1,440.5	1,471.5	2.2
Depreciation and amortization	372.2	737.9	98.3
Net income from fair value adjustments of investment properties	-3,434.1	-3,517.9	2.4
= EBITDA IFRS	1,271.8	1,534.4	20.6
Non-recurring items	86.9	106.6	22.7
Total period adjustments from assets held for sale	-10.7	-0.5	-95.3
Financial income from investments in other real estate companies	-13.0	-14.0	7.7
= Adjusted EBITDA	1,335.0	1,626.5	21.8
Adjusted EBITDA Sales	-112.1	-208.3	85.8
Adjusted EBITDA Development (excl. gross profit to hold)	–	-20.7	–
= Adjusted EBITDA OPERATIONS	1,222.9	1,397.5	14.3
Interest expense FFO 1**	-287.5	-317.4	10.4
Current income taxes FFO 1	-15.9	-15.4	-3.1
= FFO 1	919.5	1,064.7	15.8
Capitalized maintenance	-85.7	-137.7	60.7
= AFFO	833.8	927.0	11.2
Current income taxes Sales	-19.2	-53.9	>100
FFO 2 (FFO 1 incl. Adjusted EBITDA Sales/current income taxes Sales)	1,012.4	1,219.1	20.4
FFO 1 per share in €***	1.90	2.06	8.4
AFFO per share in €***	1.72	1.79	4.1

* Excluding income from investments.
** Incl. financial income from investments in other real estate companies.
*** Based on the shares carrying dividend rights on the reporting date Dec. 31, 2018: 518,077,934, Dec. 31, 2017: 485,100,826.

As part of the change in the management system, the reconciliation of profit for the period will from now on take place in Group FFO:

Reconciliation of Profit for the Period/Group FFO

in € million	2017	2018	Change in %
Profit for the Period	2,566.9	2,402.8	-6.4
Financial result*	326.3	440.1	34.9
Income taxes	1,440.5	1,471.5	2.2
Depreciation and amortization	372.2	737.9	98.3
Net income from fair value adjustments of investment properties	-3,434.1	-3,517.9	2.4
= EBITDA IFRS	1,271.8	1,534.4	20.6
Non-recurring items	86.9	106.6	22.7
Total period adjustments from assets held for sale	-10.7	-0.5	-95.3
Financial income from investments in other companies	-13.0	-14.0	7.7
Other (Non-core Disposals)	-49.9	-129.2	>100
Intragroup profits	27.9	38.8	39.1
Valuation result New construction/development to hold	6.7	18.7	>100
= Adjusted EBITDA Total	1,319.7	1,554.8	17.8
Interest expense FFO**	-287.5	-328.8	14.4
Current income taxes FFO	-22.6	-36.5	61.5
Consolidation	-34.6	-57.5	66.2
= Group FFO	975.0	1,132.0	16.1
Group FFO per share in €***	2.01	2.18	8.7

* Excluding income from investments.
** Incl. financial income from investments in other real estate companies.
*** Based on the shares carrying dividend rights on the reporting date Dec. 31, 2018: 518,077,934, Dec. 31, 2017: 485,100,826.

Assets

Consolidated Balance Sheet Structure

	Dec. 31, 2017		Dec. 31, 2018	
	in € million	in %	in € million	in %
Non-current assets	36,719.6	97.9	47,639.6	96.5
Current assets	796.7	2.1	1,748.0	3.5
Assets	**37,516.3**	**100.0**	**49,387.6**	**100.0**
Total equity	16,691.2	44.5	19,664.1	39.8
Non-current liabilities	18,585.2	49.5	25,577.8	51.8
Current liabilities	2,239.9	6.0	4,145.7	8.4
Equity and Liabilities	**37,516.3**	**100.0**	**49,387.6**	**100.0**

The Group's total assets increased by € 11,871.3 million as against December 31, 2017, rising from € 37,516.3 million to € 49,387.6 million. This increase results primarily from a € 10,308.1 million increase in investment properties from € 33,182.8 million to € 43,490.9 million, of which € 6,537.5 million results from the integration of the BUWOG Group and the Victoria Park Group and € 3,517.9 million results from the real estate valuation. In addition, assets rose as a result of an increase in goodwill of € 228.9 million from € 2,613.5 million to the current total of € 2,842.4 million due to the first-time consolidation of the BUWOG Group and Victoria Park. For the BUWOG Group brand name, a value of € 66.6 million was recognized in connection with its development business as part of the purchase price allocation. Goodwill and trademark rights comprise 5.9% of the total assets. Total current assets increased mainly through an increase in trade receivables and real estate inventories due to the integration of BUWOG's development business. Furthermore, cash and cash equivalents increased by € 281.5 million.

The € 3,517.9 million increase in the value of the real estate portfolio in the 2018 fiscal year increased the carrying amount of the groups of cash-generating units (regions) affected by the valuation, which in turn led to impairment losses being recognized on the goodwill allocated to the regions in the amount of € 681.2 million.

As of December 31, 2018, the **gross asset value (GAV)** of Vonovia's property assets came to € 44,226.9 million, which corresponds to 89.6% of total assets compared with € 33,424.9 million or 89.1% at the end of 2017.

The € 2,972.9 million increase in total equity from € 16,691.2 million to € 19,664.1 million results in particular from the capital increase in the amount of € 1,257.4 million, from the profit for the period for the 2018 fiscal year in the amount of € 2,402.8 million and from the distribution of € 640.3 million. The change in minority interests in the amount of € 173.5 million is due, on the one hand, to the profit share attributable to minority shareholders of € 96.3 million and, on the other, to the integration of Victoria Park.

This brings the equity ratio to 39.8%, compared with 44.5% at the end of 2017.

Liabilities rose by € 8,898.4 million from € 20,825.1 million to € 29,723.5 million. The amount of non-derivative financial liabilities thereby rose by € 6,075.5 million, of which € 2,896.3 million were due to the integration of Victoria Park and BUWOG, and € 3,179.21 million resulted primarily from the net increase in acquisition financing. Moreover, liabilities include financing contributions from tenants – a liabilities position in relation to tenants that is typical for Austria and is based on fixed earlier payments tenants have made toward maintenance and financing.

Net Asset Value

Vonovia's net asset value (NAV) figures are based on the best practice recommendations of the EPRA (European Public Real Estate Association). At the end of the fiscal year, the EPRA NAV came to € 26,105.0 million, up by 22.6% on the prior-year value of € 21,284.6 million. EPRA NAV per share increased from € 43.88 at the end of 2017 to € 50.39 at the end of 2018. At the end of 2018, the Adjusted NAV amounted to € 23,262.6 million, 24.6% higher than the € 18,671.1 million seen at the end of the previous year. This represents an increase in the Adjusted NAV per share from € 38.49 to € 44.90 at the end of 2018. The revaluation of the property portfolio had a significant impact on the NAV. Net income from fair value adjustments amounted to € 3,517.9 million in the 2018 fiscal year (2017: € 3,434.1 million).

Net Asset Value (NAV)

in € million	Dec. 31, 2017	Dec. 31, 2018	Change in %
Total equity attributable to Vonovia shareholders	15,080.8	17,880.2	18.6
Deferred taxes on investment properties	6,185.7	8,161.1	31.9
Fair value of derivative financial instruments*	26.9	87.2	>100
Deferred taxes on derivative financial instruments	-8.8	-23.5	>100
EPRA NAV	21,284.6	26,105.0	22.6
Goodwill	-2.613.5	-2.842.4	8.8
Adjusted NAV	**18,671.1**	**23,262.6**	**24.6**
EPRA NAV per share in €**	**43.88**	**50.39**	**14.8**
Adjusted NAV per share in €**	**38.49**	**44.90**	**16.7**

* Adjusted for effects from cross currency swaps.
** Based on the number of shares on the reporting date Dec. 31, 2018: 518,077,934, Dec. 31, 2017: 485,100,826.

Over a period of five years, Vonovia has continually created value and increased NAV and GAV (gross asset value) every year.

in € million	EPRA NAV	GAV
2018	26,105.0	44,226.9
2017	21,284.6	33,424.9
2016	17,047.1	27,106.4
2015	13,988.2	24,153.9
2014	6,578.0	12,757.1

Fair Values

Major market developments and valuation parameters that have an impact on the fair values of Vonovia are assessed regularly. In addition to the revaluation performed as of June 30, 2018, the entire portfolio was revalued at the end of the year.

As in 2017, Vonovia's portfolio has shown very positive development. The demand for apartments in metropolitan areas remains stronger than the supply, pushing rent levels up considerably. Rental growth is also being helped along by the extensive investments made in the energy-efficient modernization of our buildings and improvements to the fittings in our apartments. At the same time, the residential real estate market remains particularly dynamic. Since the return expectations of property buyers have dropped further, the increase in market values is ahead of rent developments (yield compression). The positive effects resulting from the increased demand, modernization and yield compression have resulted in a considerable 13.0% increase in the value of our property portfolio compared with the previous year, after adjustments for acquisitions and sales. In addition to the internal valuation, the property assets are also assessed by the independent property appraiser CBRE GmbH and Savills Sweden AB in cooperation with Malmöbryggan Fastighets-ekonomi AB. The market value resulting from the CBRE expert opinion deviates from the internal valuation result by less than 0.1%. The net income from the external valuation was adopted for the Swedish, Austrian and German portfolios of BUWOG.

The fair values for each strategic real estate portfolio cluster are as follows:

	Residential units		Fair value* (in € million)	
	Dec. 31, 2017	**Dec. 31, 018**	**Dec. 31, 2017**	**Dec. 31, 2018**
Strategic	319,014	323,056	30,508.0	34,360.5
Operate	101,697	74,775	10,252.9	8,594.2
Invest	217,317	248,281	20,255.1	25,766.3
Recurring Sales	14,099	29,563	1,509.7	3,670.0
Non-core disposals	11,473	5,832	535.6	597.9
Vonovia Germany	344,586	358,451	32,553.3	38,628.4
Vonovia Austria	2,058	23,030	551.6	2,517.0
Vonovia Sweden		14,288		1,737.7
Total	**346,644**	**395,769**	**33,104.9**	**42,883.0**

* Fair value of the developed land excluding € 1,356.8 million (previous year: € 331.4 million), of which € 405.1 million for undeveloped land and inheritable building rights granted, € 302.5 million for assets under construction, € 492.6 million for development and € 156.6 million for other.

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.

The valuation methodology used by Vonovia is based on the discounted cash flow (DCF) methodology. Under the DCF methodology, the fair values are derived from the income and costs associated with a property. Under the DCF methodology, the expected future income and costs of a property are forecast over a period of ten years and discounted to the date of valuation as the net present value. The income mainly comprises expected rental income (current in-place rent, market rents as well as their development) taking vacancy losses into account. These are derived for each location from the latest rent indices and rent tables (empirica and IVD), as well as from studies on spatial prosperity (Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), Prognos, empirica, Bertelsmann Stiftung, etc.).

On the cost side, maintenance expenses and management costs, as well as other cost items such as ground rent, non-allocable ancillary costs and rent losses, have been taken into account and 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 area. Different cost approaches were used to those for residential properties, and the capitalized interest rates were adjusted to reflect the market specifics.

As far as the foreign portfolios and BUWOG's German portfolio are concerned, the fair values determined by external and independent appraisers have been used in the annual financial statements. The Austrian portfolio and BUWOG's German portfolio were valued by CBRE GmbH, while the Swedish portfolio was valued by Savills Sweden AB in collaboration with Malmöbryggan Fastighetsekonomi AB.

The recognition and valuation of investment properties are explained in detail in the Notes to the consolidated financial statements (note [23]).

The fair value of the real estate portfolio of Vonovia comprising residential buildings, commercial properties, garages and parking spaces as well as project developments, undeveloped land and any inheritable building rights granted was € 44,239.9 million as of December 31, 2018 (previous year: € 33,436.3 million). The determination of fair values led overall to net income from fair value adjustments of investment properties of € 3,517.9 million.

Financial Position

Cash Flow

The following table shows the Group cash flow:

Key Data from the Statement of Cash Flows

in € million	2017	2018
Cash flow from operating activities	946.0	1,132.5
Cash flow from investing activities	-1,350.1	-3,892.5
Cash flow from financing activities	-870.5	3,041.5
Net changes in cash and cash equivalents	**-1,274.6**	**281.5**
Cash and cash equivalents at the beginning of the period	1,540.8	266.2
Cash and cash equivalents at the end of the period	**266.2**	**547.7**

The cash flow from **operating activities** rose from € 946.0 million in 2017 to € 1,132.5 million in 2018. The increase is mainly due to the improvement in the operating result, which itself in turn increased because of the first-time inclusion of BUWOG and Victoria Park. The low payouts in net current assets continued to have a positive effect on operating cash flow.

The cash flow from **investing activities** shows a payout balance of € 3,892.5 million for 2018, which is mainly due to the net purchase price payments for the shares in BUWOG and Victoria Park in the total amount of € 3,387.7 million within the process of initially acquiring control. The additional payouts for acquisitions and modernization of the real estate portfolio came to € 1,358.8 million. On the other hand, income from portfolio sales in the amount of € 1,054.2 million was collected. In addition, cash flow from investment activities includes payouts for the construction of Vonovia's new head office and its furniture and office equipment.

Cash flow from **financing activities** includes cash inflows from the cash capital increase in the amount of € 995.8 million. The additional proceeds in a total amount of € 5,064.2 million result primarily from EMTN drawdowns in connection with the takeover of BUWOG. On the other hand, payouts were made through scheduled and unscheduled repayments in the amount of € 1,901.6 million. Payouts for transaction and financing costs amounted to € 77.2 million. Interest paid in 2018 amounted to € 305.8 million with dividend payments amounting to € 401.1 million, as against figures of € 303.5 million and € 277.9 million in 2017, respectively. In addition, cash flow from financing activities includes payouts for the acquisition of shares in non-controlling interests in the amount of € 309.0 million, € 217.7 million of which was attributable primarily to the stake that Vonovia acquired in Victoria Park from the Starwood Capital Group and € 60.7 million of which was attributable to further BUWOG shares.

The net increase in **cash and cash equivalents** came to € 281.5 million.

Financing

According to publications dated May 7, 2018, and August 2, 2018 (which already include the acquisitions of BUWOG and Victoria Park), Vonovia's credit rating as awarded by the agency Standard & Poor's is unchanged at BBB+ with a stable outlook for the long-term corporate credit rating and A-2 for the short-term corporate credit rating. At the same time, the credit rating for the issued and unsecured bonds is BBB+.

A European medium-term notes program (EMTN program) has been launched for the Group via Vonovia Finance B. V., allowing funds to be raised quickly at any time using bond issues, without any major administrative outlay. The prospectus for the EMTN program has to be updated annually and approved by the financial supervisory authority of the Grand Duchy of Luxembourg (CSSF).

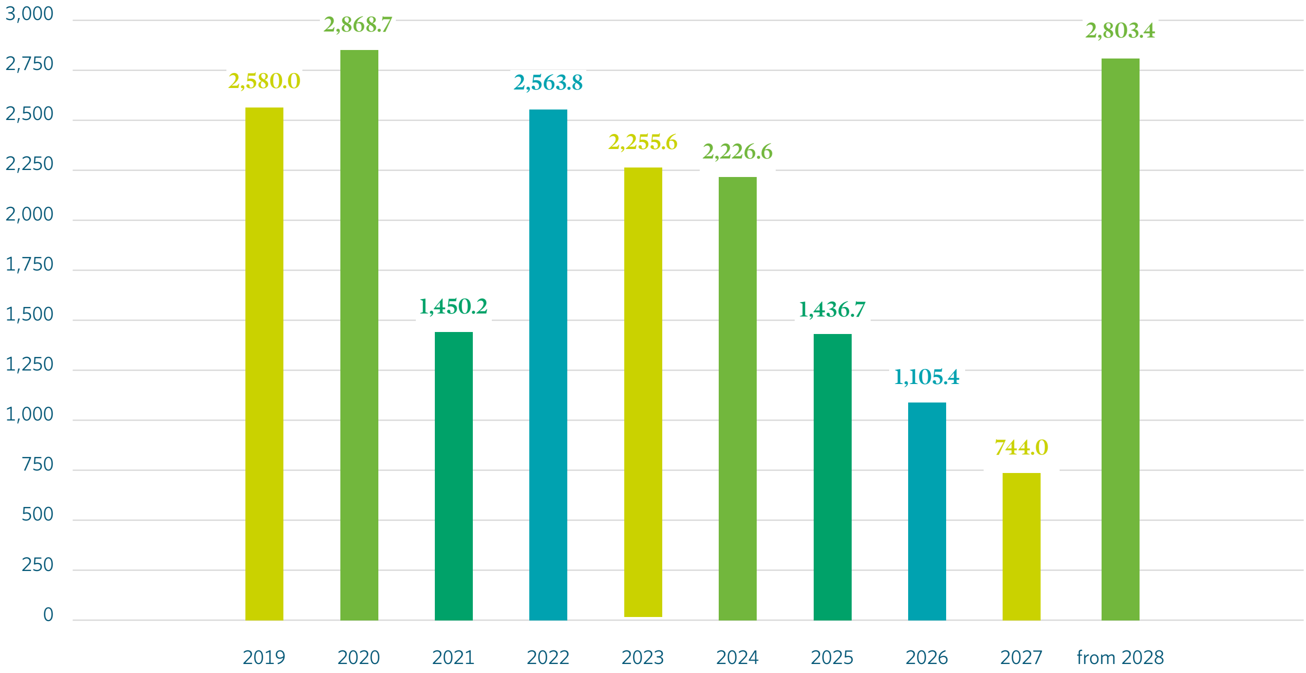
Vonovia Finance B. V. has currently placed a total bond volume of € 14.3 billion, € 11.8 billion of which relates to the EMTN program on the reporting date of December 31, 2018. The total volume also includes € 1.7 billion in hybrid bonds, € 1.0 billion of which is reported as equity.

In November 2017, Vonovia concluded a master commercial paper agreement via its Dutch financing company with a total volume of € 500 million with Commerzbank AG as lead arranger and several banks as traders. This master program was increased to a total volume of € 1,000 million in September 2018. Issues in the amount of € 420 million were outstanding under this program as of December 31, 2018.

The **debt maturity profile** of Vonovia's financing was as follows as of December 31, 2018:

Maturity Profile

as of December 31, 2018, in € million



The 2018 fiscal year was characterized by the financing of the cash component of the BUWOG and Victoria Park takeovers. At the same time, financing with a volume of € 341.8 million was repaid prematurely.

Scheduled repayments were made in the amount of € 1,559.9 million, with € 803.0 million of this amount attributable to the repayments part of the commercial paper program, and € 500 million to the repayment of EMTN tranches. In return, Vonovia Finance B. V. issued bonds with a total volume of € 3,600 million as part of the EMTN program. These bonds have a term from 4.75 to 20 years and a coupon rate between 0.750% and 2.750%, whereby issues exceeding € 600 million represent floating rate bonds.

Vonovia Finance B. V. also issued short-term commercial papers in the amount of € 813 million as part of the commercial paper program with a volume of € 1,000 million.

The working capital facility was drawn down in the amount of € 100.0 million during the year.

Bridge financing worth € 2.65 billion was agreed with J.P. Morgan as part of the BUWOG takeover; however, no use was made of it. In addition, the financing provided by Berlin-Hannoversche Hypothekenbank which falls due in 2018 was extended early in January 2018 until 2028 in the amount of € 500 million.

For more detailed information on financing, please refer to the relevant explanations in the Notes under "Non-derivative Financial Liabilities."

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 LTV (loan to value) is as follows as of the end of the year:

in € million	Dec. 31, 2017	Dec. 31, 2018	Change in %
Non-derivative financial liabilities	14,060.5	20,136.0	43.2
Foreign exchange rate effects	-23.5	-33.5	42.6
Cash and cash equivalents	-266.2	-547.7	105.7
Net debt	13,770.8	19,554.8	42.0
Sales receivables	-201.2	-256.7	27.6
Adjusted net debt	13,569.6	19,298.1	42.2
Fair value of the real estate portfolio	33,436.3	44,239.9	32.3
Shares in other real estate companies	642.2	800.3	24.6
Adjusted fair value of the real estate portfolio	**34,078.5**	**45,040.2**	**32.2**
LTV	**39.8%**	**42.8%**	**3.0 pp**

The financial covenants have been fulfilled as of the reporting date.

in € million	Dec. 31, 2017	Dec. 31, 2018	Change in %
Non-derivative financial liabilities	14,060.5	20,136.0	43.2
Total assets	**37,516.3**	**49,387.7**	**31.6**
LTV bond covenants	**37.5%**	**40.8%**	**3.3 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 further successful acquisitions over the course of time, it now forms the Vonovia Group together with its subsidiaries and is Germany's leading residential real estate management company.

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 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. 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 Federal Gazette (Bundesanzeiger).

Development of Business in 2018

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 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 the IFRS, the properties are remeasured at periodic intervals. Under the HGB, the fixed assets are stated at amortized cost, taking depreciation into account. The capitalization regulations also vary.

Expenses relate largely to personnel expenses 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 governed by the Group financing.

Business developments in 2018 were characterized, among other things, by the acquisition of Victoria Park and the takeover of BUWOG, as well as the integration and structuring work that followed.

The main factor impacting the **result for 2018**, however, was the **income** from profit transfer, in particular relating to Deutsche Annington Acquistion Holding GmbH, Düsseldorf, in the amount of € 1,448.1 million. In addition to that, other operating income was positively affected by a reversal of impairments amounting to € 42.3 million from receivables from affiliated companies and the disclosure of hidden reserves in the amount of € 247.8 million. These extraordinary earnings contributions all result from a structuring measure under company law implemented at the conwert Immobilien Invest GmbH Group (hereinafter: conwert), which was acquired in 2017, as part of its integration into the Vonovia Group. This structuring measure transferred the shares in the German conwert companies from Austria to Germany using a series of conversion-related steps. The previous year had also been characterized by significant non-recurring items due to the company law structuring of the GAGFAH companies, which had a positive impact on the previous year's other operating income.

Personnel expenses came to € 31.7 million in 2018, down on the prior-year figure of € 36.6 million due primarily to lower allocations to the long-term profit-sharing model and a drop in the number of employees.

Depreciation and amortization increased due to volume-related aspects.

Net financial expenses to affiliated companies improved considerably, from € 25.5 million to € 63.3 million, due to volume-related aspects. The extremely positive financial result of € 1,474.5 million is characterized by the profit transfer made by Deutsche Annington Acquisition Holding GmbH in the amount of € 1,448.1 million.

Tax expenses came to € 3.8 million as against € 8.9 million in the previous year. As the controlling company in a VAT group, Vonovia SE owes the corresponding income taxes. The tax expenses relate exclusively to previous years.

Vonovia SE closed the 2018 fiscal year with **net income** of € 1,673,317,417.29 (2017: € 398,830,574.65). Pursuant to Section 58 (2) of the German Stock Corporation Act (AktG), the Management Board may allocate up to one half of net income to retained earnings. As a result of this authorization, the Management Board has allocated € 800,000,000.00 to other retained earnings with a partial appropriation of profit. Taking into account the profit carried forward from the previous year in the amount of € 36,325,964.33, the profit for the 2018 financial year amounts to € 909,643,381.62.

The Management Board and the Supervisory Board propose to the Annual General Meeting that, of the profit of Vonovia SE for the 2018 fiscal year of € 909,643,381.62, an amount of € 135,000,000.00 be added to other revenue reserves and an amount of € 746,032,224.96 on the 518,077,934 shares of the share capital as of December 31, 2018, be paid as a dividend, corresponding to € 1.44 per share, to the shareholders and the remaining amount of € 28,611,156.66 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, 2018.

As with the 2017 financial year, the dividend for the 2018 fiscal year, payable after the Annual General Meeting in May 2019, will again include the election of a non-cash dividend in shares, to the extent deemed economically sensible by the Supervisory Board.

Income Statement

in € million	2017	2018
Revenues	127.1	138.1
Other operating income	540.3	325.7
Cost of purchased services	-46.2	-50.6
Personnel expenses	-36.6	-31.7
Other administrative expenses	-206.4	-178.9
Profit before Financial Result and Tax	**378.2**	**202.6**
Income from profit transfer	69.0	1,523.4
Income from investments	66.0	101.2
Write-downs of long-term financial assets	-	-0.3
Interest and similar income	9.3	5.2
Expense from the assumption of losses	-64.0	-66.9
Interest and similar expenses	-50.8	-88.1
Financial Result	**29.5**	**1,474.5**
Tax	-8.9	-3.8
Net Income	**398.8**	**1,673.3**

Net Assets and Financial Position of Vonovia SE

The company's non-current assets of € 15,289.9 million are naturally characterized by **financial assets** in the amount of € 15,259.6 million. The increase in 2018 is due primarily to the acquisition of the shares in BUWOG, as well as to the adjustments made to the statement of the equity investments in conwert Invest GmbH and Deutsche Annington Acquisition Holding GmbH as a result of the company law structuring measures relating to the conwert Group.

Intangible assets and **property, plant and equipment** increased as a result of the investments to equip the Group's new head office.

Net current assets (current assets less current liabilities) including net liquidity are governed by the Group financing structure, in which Vonovia SE assumes the function of the cash pool leader. The Group's net lending/borrowing position led to charges of a total of € 1,106.3 million to Vonovia SE in 2018. The company was also hit by a change in the amount of € 187.3 million in the "net liquidity from cash and cash equivalents and bank liabilities," which corresponds to an overall change in Vonovia SE's net financial position of € 1,293.6 million. The change in the Group's net lending/borrowing position is mainly due to the payment of the BUWOG shares and the payment of the cash component of the dividend. The integration of the conwert and BUWOG companies into the Group cash pool also results in a net investment. As of December 31, 2018, the Group's net lending/borrowing position also includes the amounts already credited from the profit-and-loss transfer agreements, with the profit transfer of € 1,448.1 million made by Deutsche Annington Acquisition Holding GmbH reducing the Group's net lending/borrowing position considerably.

The increase in liabilities to financial institutions relates to the subsidized development loans taken out with the European Investment Bank (EIB) and the German government-owned development bank Kreditanstalt für Wiederaufbau (KfW) that Vonovia SE passes on to its subsidiaries.

Provisions came to € 134.9 million at the end of the year (2017: € 119.8 million), with € 59.7 million of this amount attributable to provisions for pensions, € 16.4 million to income tax provisions and € 5.6 million to HR-related provisions. Provisions increased by € 15.1 million in total, largely driven by the rise in provisions for pensions.

Total equity increased in 2018 as a result of the profit for the period, the capital increase for the stock dividend and the cash capital increase implemented on May 11, 2018, as part of accelerated bookbuilding. The 26,000,000 new no-par-value registered shares were placed with institutional investors in the scope of a private placement by means of an accelerated bookbuilding procedure and carry dividend rights as of January 1, 2018. The cash dividend distribution had the opposite effect of reducing total equity.

The **profit for the period** 2018, which increased considerably compared to 2017, is also reflected in the **net income** for the year in 2018. For the 2018 fiscal year, a **dividend distribution** of € 746,032,224.96 is to be resolved at the Annual General Meeting to be held on May 16, 2019. This corresponds to € 1.44 per share. A further € 135 million will be allocated to **other retained earnings** in addition to the € 800 million already allocated here according to Section 58 (2) of the AktG.

Assets

in € million	Dec. 31, 2017	Dec. 31, 2018	in € million	Dec. 31, 2017	Dec. 31, 2018
Assets			Equity and liabilities		
Financial assets	11,402.0	15,259.6	Total equity	7,231.8	9,522.1
Other assets	19.5	30.3	Provisions	119.8	134.9
Receivables from affiliated companies	2,514.2	4,675.6	Liabilities to banks	515.5	684.3
Other receivables and assets	12.8	80.1	Liabilities to affiliated companies	6,252.1	9,519.9
Cash and cash equivalents	184.8	166.4	Other liabilities	14.1	350.8
Total Assets	**14,133.3**	**20,212.0**	**Total Equity and Liabilities**	**14,133.3**	**20,212.0**

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, selective borrowing and the repayment of debt financing, mainly subsidized development loans and/or promissory note loans, as well as the corresponding interest payments. **Liquidity** dropped from € 184.8 million to € 166.4 million in 2018.

Employees of Vonovia SE

At the end of the 2018 fiscal year, an average of 179 people were employed by Vonovia SE (2017: 198 employees).

Opportunities and Risks for Vonovia SE

The likely development of Vonovia SE in the 2019 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 earnings for 2018 are exceptionally positive and were influenced primarily by positive earnings contributions made by company law structuring measures. Leaving these special effects out of the equation, the company's earnings for the 2018 fiscal year would be well in the red, on a par with the level seen in previous years, as predicted.

The results for the 2019 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. Looking ahead to the 2019 fiscal year, we expect to see expenses increase again due to the integration and structuring measures associated with the BUWOG takeover. By contrast, the extraordinary special effects seen in 2018 will cease to apply.

All in all, we expect the result for the 2019 fiscal year to again be on a par with the figure seen in the previous year without special effects.

It is still generally planned for Vonovia SE to distribute 70% of the Group FFO to the shareholders as a dividend, which would correspond to a dividend of € 1.44 per share for the 2018 fiscal year.

Further Statutory Disclosures

Corporate Governance

In the corporate governance declaration, we report, in accordance with No. 3.10 of the German Corporate Governance Code (GCGC) and Section 289a of the German Commercial Code (HGB) on the principles of management and corporate governance. 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 has been published on the website **www.vonovia.de** under Investor Relations 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 housing 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 corporate governance initiative of the German housing industry. The initiative 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.

Remuneration Report

The remuneration report describes the principles of the remuneration system for members of the Management Board of Vonovia SE and explains the structure, as well as the amount, of the income received by each Management Board member. Furthermore, the remuneration report contains information on the principles and the amount of remuneration for the members of the Supervisory Board. The total remuneration received by each Management Board member, including the names of the members, is shown in the notes.

The remuneration report takes account of the applicable regulations of the German Commercial Code (HGB), the German Accounting Standards (DRS 17), the laws on disclosure and appropriateness of Management Board remuneration (VorstAG, VorstOG) as well as the principles of the German Corporate Governance Code (GCGC).

Remuneration of the Management Board

Remuneration System

The remuneration system and the amount of remuneration of the Management Board are determined by the Supervisory Board on the proposal of the Executive and Nomination Committee. They are discussed yearly, for the last time in March 2018, and adjusted according to the framework found as adequate. The Annual General Meeting approved the basic principles of the remuneration system on May 9, 2014, and its last amendment on April 30, 2015.

The criteria used to assess whether the remuneration is appropriate include the duties of the individual Management Board member, his or her personal performance, the economic situation, the company's success and future outlook and the extent to which such remuneration is standard practice. When determining whether the level of remuneration is standard practice, the company looks at its peer group and the remuneration structure that applies in the rest of the company. Furthermore, we compare ourselves with other listed companies of a similar size. The remuneration structure is oriented towards the sustainable growth of the company.

In addition to fixed remuneration, the members of the Management Board receive variable short-term as well as variable long-term remuneration which takes account of both positive and negative developments. The Supervisory Board can, at their own due discretion, award Management Board members a discretionary bonus for particular achievements, even without a prior agreement. There is no entitlement to these bonuses. In the event that a discretionary bonus is paid, the underlying decision-making criteria are published. Furthermore, the members of the Management Board receive fringe benefits in the form of insurance premiums, as well as the private use of means of communication and company vehicles. In addition to his Management Board contract with Vonovia, Management Board member Daniel Riedl has another Management Board contract with the Austrian company BUWOG. This means that, in Daniel Riedl's case, the remuneration amounts listed below include the remuneration components from both Management Board contracts.

Fixed Remuneration and Fringe Benefits

The fixed remuneration, which contains not only the basic remuneration but also, in varying amounts, the remuneration for assuming mandates at Vonovia Group companies, subsidiaries and participating interests, is paid to the Management Board members in twelve equal monthly installments. In addition to their fixed remuneration, the Management Board members are given the opportunity to pay an annual pension contribution into a deferred compensation scheme, with the exception of Daniel Riedl, whose annual pension contribution is paid by BUWOG into an external pension fund. The contribution for Rolf Buch comes to € 355,000, while the contribution for Klaus Freiberg, Dr. A. Stefan Kirsten, Gerald Klinck, Daniel Riedl and Helene von Roeder amounts to € 160,000 in each case. Alternatively, the amount is paid out as cash remuneration. Due to the termination of the contracts of employment concluded with Dr. A. Stefan Kirsten and Gerald Klinck with effect from May 9, 2018 and the commencement of the contracts of employment concluded with Daniel Riedl and Helene von Roeder on May 9, 2018, the contributions are on a pro rata basis.

The fringe benefits include 50% of health and nursing care insurance contributions, albeit up to the amount of the maximum statutory employer's share at the most, and, in one case, a term life insurance policy. In the event of illness, salaries continue to be paid for a period of twelve months, but until the end of the employment contract at the latest. In the event of death, the company continues to pay the salary to the employee's surviving dependents for up to six months. The members of the Management Board are provided with a company car as well as communication means, which they have the right to use for private purposes. Travel expenses are reimbursed in line with the Vonovia/BUWOG Travel Expense Policy. An agreement was reached in Daniel Riedl's contract of employment with Vonovia that the company would reimburse the costs associated with travel from Vienna to Bochum and back, as well as any overnight accommodation in Bochum.

In addition, the contract of employment concluded with Helene von Roeder includes an agreement that, upon presentation of corresponding proof furnished by her previous employer, Helene von Roeder will receive compensation payments for all entitlements to variable remuneration that are not satisfied by her previous employer because the contractual relationship between her and that previous employer ended as a result of her move to Vonovia.

Based on the evidence presented, this results in a gross compensation payment of € 194,621.00 that will fall due for payment in three equal tranches: the first tranche will fall due in 2018, the second following the adoption of the annual financial statements for the 2018 fiscal year and the third following the adoption of the annual financial statements for the 2019 fiscal year.

Should the Management Board members be held liable for financial losses while executing their duties, this liability risk is, in principle, covered by the D&O insurance for Management Board members of the company. Vonovia follows the statutory requirements, which provide for a deductible of 10% of any claim up to an amount of one-and-a-half times the fixed annual remuneration for all claims in one fiscal year.

Bonus

The variable short-term remuneration is based on success criteria set in advance by the Supervisory Board as well as personal targets. The variable short-term remuneration is capped at € 700,000 for Rolf Buch as the Chairman of the Management Board, and at € 440,000 for Klaus Freiberg, Dr. A. Stefan Kirsten, Gerald Klinck, Daniel Riedl and Helene von Roeder. The Supervisory Board is authorized to increase or reduce the arithmetical entitlement to the variable short-term remuneration by up to 20% at its own due discretion. The variable short-term remuneration payable to Klaus Freiberg was increased by 20% (€ 88,000) on the basis of a one-off discretionary adjustment to the variable short-term remuneration approved by the Supervisory Board and was paid out in 2018. Due to the termination of the contracts of employment concluded with Dr. A. Stefan Kirsten and Gerald Klinck with effect from May 9, 2018, and the commencement of the contracts of employment concluded with Helene von Roeder and Daniel Riedl on May 9, 2018, the amounts for 2018 are granted on a pro rata basis. The success criteria state that 40% of the variable short-term remuneration depends on the achievement of the Group FFO target, 15% on the achievement of the Group Adjusted NAV/ share target and a further 15% on the achievement of the Group EBITDA sales target. A further 30% of the variable short-term remuneration is related to the achievement of the personal targets agreed with the Supervisory Board.

The targets for the three quantitative success criteria and the target achievement levels for the 2018 calendar year are set out below:

STIP target achievement level	FFO 1	Adjusted NAV/share	EBITDA Sales
85% = budget	970.6	39.79	55.6
100%	999.6	40.74	63.9
Actual target achievement level	100%	100%	100%

The Management Board members receive the variable short-term remuneration one month after the adoption of the annual financial statements of Vonovia.

Long-term Incentive Plan

The variable long-term remuneration (long-term incentive plan, LTIP plan) is a plan which meets the requirements set out in the German Stock Corporation Act (AktG) and the German Corporate Governance Code and aims to ensure that the remuneration structure focuses on sustainable corporate development. The LTIP plan was introduced in 2015 and replaced the previous plan, which was launched at the time of the successful IPO.

The members of the Management Board are offered an annual remuneration component with a long-term incentive effect and a balanced risk-return profile in the form of notional shares ("performance shares") in line with the provisions of the LTIP plan.

The Supervisory Board offers the Management Board members a prospective target amount ("grant value") in EUR for each performance period, which corresponds to four years as a general rule. Rolf Buch is awarded performance shares with a grant value of € 1,900,000 a year respectively. Klaus Freiberg, Dr. A. Stefan Kirsten, Gerald Klinck, Daniel Riedl and Helene von Roeder are each awarded performance shares with a grant value of € 800,000 a year. Due to the termination of the contracts of employment concluded with Dr. A. Stefan Kirsten and Gerald Klinck with effect from May 9, 2018, and the commencement of the contracts of employment concluded with Helene von Roeder and Daniel Riedl on May 9, 2018, the grant values for 2018 are granted on a pro rata temporis basis in line with the contractual provisions.

The actual payout amount is calculated based on this grant value, the target achievement level during the performance period and the performance of Vonovia's shares, including dividends paid during the performance period. If the share price remains the same and the target achievement level comes to 100%, then the actual payout amount corresponds to the grant value (plus any dividends paid to the shareholders during the performance period).

The initial number of performance shares for the performance period in question corresponds to the grant value divided by the initial share price, rounded up to the next full share.

The overall target achievement level for a performance period is determined based on the following success targets:

a) Relative Total Shareholder Return (RTSR)
b) Development of NAV per share
c) Development of FFO 1 per share
d) Customer Satisfaction Index (CSI)

Each of the four success targets is assigned a weighting of 25%.

At the start of each performance period, the Supervisory Board sets an objective for each of the four success targets. If all of these objectives are reached, the target achievement level comes to 100%. It also sets a minimum value for each of the four success targets as the lower target corridor threshold. If this value is reached, the target achievement level comes to 50% ("minimum value"). The Supervisory Board also sets a maximum value. If this value is reached or exceeded, the target achievement level comes to 200% ("maximum value").

The Supervisory Board has the right and the obligation to appropriately adjust the calculation modalities if there are significant changes in the comparator group.

The reporting on the new LTIP plan is based on actuarial reports of an independent actuary.

At the end of each performance period, the initial number of performance shares is multiplied by the overall target achievement level and rounded up to the next full share. This multiplication produces the final number of performance shares.

The final number of performance shares is multiplied by the final share price, which, by definition, includes the total dividends paid per share during the performance period in relation to the final number of performance shares. This multiplication produces the cash payout amount.

The payout amount is limited to 250% of the grant value ("cap").

As far as Klaus Freiberg, Dr. A. Stefan Kirsten and Gerald Klinck are concerned, the performance period for 50% of the performance shares granted as part of the 2015 tranche ended on December 31, 2017, marking the end of a three-year period. The payment made in line with the contractual provisions, totaling € 1,000,000 (gross) for Klaus Freiberg and Dr. A. Stefan Kirsten and € 750,000 (gross) for Gerald Klinck, was made in the 2018 fiscal year.

The targets for the four success criteria for the 2015 tranche and the target achievement levels following the end of the performance period on December 31, 2018, are set out below:

Targets	Minimum value	Target value (100%)	Maximum value (200%)	Target Achievement
Relative Total Shareholder Return	-30%	0%	30%	94.95%
Growth of NAV per share (NAV per share on Dec. 31, 2014 = € 24.22)	1% growth rate p. a.	4% growth rate p. a.	6% growth rate p. a.	200%
Growth of FFO 1 per share (FFO 1 per share in the 2014 fiscal year = € 1.06)	4% growth rate p. a.	8% growth rate p. a.	10% growth rate p. a.	200%
Customer satisfaction (CSI in the 2014 fiscal year = 55 points)	+2 points	+6 points	+8 points	98.44

In 2013, Rolf Buch was granted 400,000 notional shares (SAR = stock appreciation rights) as part of the LTIP in force at that time. These shares were earned over five annual tranches of equal size. The notional shares were converted into payout amounts for each annual tranche on the basis of a formula laid down in the LTIP agreement. The fifth, and consequently the last, tranche under this LTIP was paid out to Rolf Buch in the 2018 fiscal year.

Due to the commencement of his contract of employment with Vonovia on May 9, 2018, Daniel Riedl was granted a one-off payment of € 15,111.11 to settle the LTI award made by BUWOG AG "LTIP March 2017" for the period from May 1–May 8, 2018, in full.

Upper Remuneration Thresholds

In addition to the provisions governing variable remuneration, upper thresholds have been contractually agreed for the remuneration paid to the Management Board as a whole in line with the recommendations set out in the German Corporate Governance Code (GCGC). As a result, the total remuneration for Rolf Buch is capped at a total of € 6,970,000 a year, excluding the claims under the LTIP dated June 14, 2013. The total remuneration for Klaus Freiberg, Dr. A. Stefan Kirsten, Gerald Klinck and Helene von Roeder is capped at € 3,500,000.00 respectively. The total remuneration for Daniel Riedl is capped at € 2,500,000.00 year in his Vonovia contract. The Austrian BUWOG contract concluded with Daniel Riedl does not include any corresponding provision. Due to the termination of the contracts of employment concluded with Dr. A. Stefan Kirsten and Gerald Klinck with effect from May 9, 2018, and the commencement of the contracts of employment concluded with Helene von Roeder and Daniel Riedl on May 9, 2018, the upper remuneration thresholds have been set on a pro rata basis.

Share Holding Provision

The Management Board members are obliged, for the duration of their appointment as members of Vonovia's Management Board, to hold shares in the company (restricted shares) in the amount of the annual fixed remuneration and to furnish evidence showing that this obligation has been met at the end of each fiscal year by presenting suitable documents to the Chairman of the Supervisory Board. The value of the shares to be held is to be redefined in the event of changes to the annual fixed remuneration/a share split. In the first four fiscal years after an individual's initial appointment as a Management Board member, the restricted shares can be accumulated on a pro rata basis.

Retirement Provision/Deferred Compensation Scheme

The pension entitlements of the Management Board members are based on the opportunity to pay an annual pension contribution into a deferred compensation scheme. Rolf Buch, Dr. A. Stefan Kirsten (with the exception of May 2018), Gerald Klinck and Helene von Roeder make use of this opportunity, whereas Klaus Freiberg opts for a payout as cash remuneration. In Daniel Riedl's case, the annual pension contribution made by BUWOG is paid into an external pension fund.

For each calendar year, the contractually agreed pension contribution is converted in accordance with the in-house "Pension Instead of Cash Remuneration" model and is converted into an annuity based on actuarial principles depending on the age of the individual in question.

In 2018, the pension contribution was € 966,356 for Rolf Buch, € 265,457 for Helene von Roeder, € 116,396 for Dr. A. Stefan Kirsten, € 192,180 for Gerald Klinck and an amount of € 103,188 for Daniel Riedl, corresponding to the pension fund contribution made.

Payments in the Event of Premature Termination of Management Board Duties

Payments to a Management Board member on premature termination of his or her contract, including fringe benefits, are contractually regulated to not exceed the value of two years' remuneration and are paid for no more than the remaining term of the employment contract (severance pay cap). Payments in the event of premature termination of a Management Board member's contract due to a change of control are limited to 150% of the severance pay cap.

After the collaboration with Dr. A. Stefan Kirsten was terminated prematurely by way of an amicable agreement, Dr. A. Stefan Kirsten received a gross severance payment of € 5,822,000 in accordance with the provisions set out in his contract of employment.

Following the termination of their contracts of employment, Rolf Buch and Daniel Riedl are subject to a twelve-month non-competition clause. The ex gratia payment for Rolf Buch corresponds to 75% of the contractual payments most recently received by him (incl. STI and LTIP) over a period of 12 months, while the ex gratia payment for Daniel Riedl amounts to a gross total of € 1,700,000 over the same period. The other Management Board members are not subject to any non-competition regulation.

Loans/Advances

The Management Board members were not granted any loans or advances.

Remuneration of the Management Board Within the Meaning of the German Corporate Governance Code

	Rolf Buch CEO				Klaus Freiberg COO			
Grants allocated in €	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**
Fixed remuneration	1,150,000	1,150,000	1,150,000	1,150,000	600,000	600,000	600,000	600,000
Compensation payment	–	–	–	–	–	–	–	–
Cash remuneration	–	–	–	–	160,000	160,000	160,000	160,000
Fringe benefits	24,006	26,651	26,651	26,651	27,603	27,600	27,600	27,600
Total	1,174,006	1,176,651	1,176,651	1,176,651	787,603	787,600	787,600	787,600
Annual variable remuneration (bonus)	700,000	700,000	0	700,000	440,000	440,000	0	440,000
Multi-year variable remuneration (LTIP plan)								
2017–2020	2,040,633	–	–	–	859,224	–	–	–
2018–2021	–	1,902,392	0	4,750,000	–	801,007	0	2,000,000
Total	2,740,633	2,602,392	0	5,450,000	1,299,224	1,241,007	0	2,440,000
Pension expenses	949,253	966,356	966,356	966,356	–	–	–	–
Total remuneration	**4,863,892**	**4,745,399**	**2,143,007**	**6,970,000***	**2,086,827**	**2,028,607**	**787,600**	**3,500,000***

* This is the total contractually agreed upper threshold.
** This is the total contractually agreed upper threshold for the Vonovia contract.

	Dr. A. Stefan Kirsten CFO until May 9, 2018				Gerald Klinck CCO until May 9, 2018			
Grants allocated in €	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**
Fixed remuneration	600,000	215,217	215,217	215,217	600,000	215,217	215,217	215,217
Compensation payment	–	–	–	–	–	–	–	–
Cash remuneration	–	4,058	4,058	4,058	–	–	–	–
Fringe benefits	32,723	24,105	24,105	24,105	24,503	7,317	7,317	7,317
Total	632,723	243,380	243,380	243,380	624,503	222,534	222,534	222,534
Annual variable remuneration (bonus)	440,000	157,826	0	157,826	440,000	157,826	0	157,826
Multi-year variable remuneration (LTIP plan)								
2017–2020	859,224	–	–	–	859,224	–	–	–
2018–2021	–	333,753	–	834,383	–	333,753	0	834,383
Total	1,299,224	491,579	0	992,209	1,299,224	491,579	0	992,209
Pension expenses	367,388	116,396	116,396	116,396	491,198	192,180	192,180	192,180
Total remuneration	**2,299,335**	**851,355**	**359,776**	**1,458,333***	**2,414,925**	**906,293**	**414,714**	**1,458,333***

* This is the total contractually agreed upper threshold.

Helene von Roeder CFO since May 9, 2018				Daniel Riedl CDO since May 9, 2018			
2017	2018	2018 (Min)	2018 (Max)	2017	2018	2018 (Min)	2018 (Max)
–	386,957	386,957	386,957	–	386,957	386,957	386,957
–	64,874	64,874	64,874	–	15,111	15,111	15,111
–	–	–	–	–	103,188	103,188	103,188
–	13,157	13,157	13,157	–	18,932	18,932	18,932
–	**464,988**	**464,988**	**464,988**	**–**	**524,188**	**524,188**	**524,188**
–	283,768	0	283,768	–	283,768	0	283,768
–	–	–	–	–	–	–	–
–	516,592	0	1,291,480	–	516,592	0	1,291,480
–	**800,360**	**0**	**1,575,248**	**–**	**800,360**	**0**	**1,575,248**
–	265,457	265,457	265,457	–	–	–	–
–	**1,530,805**	**730,445**	**2,257,246***	**–**	**1,324,548**	**524,188**	**2,099,436****

Inflow in €	Rolf Buch CEO 2017	2018	Klaus Freiberg COO 2017	2018
Fixed remuneration	1,150,000	1,150,000	600,000	600,000
Compensation payment	–	–	–	–
Cash remuneration	–	–	160,000	160,000
Fringe benefits	24,006	26,651	27,603	27,600
Total	**1,174,006**	**1,176,651**	**787,603**	**787,600**
Annual variable remuneration (bonus)	694,750	700,000	433,400	528,000
Multi-year variable remuneration (LTIP)				
4. 2017 tranche	2,855,444	–	2,150,265	–
5. 2018 tranche	–	3,568,511	–	–
Multi-year variable remuneration (LTIP plan)				
2015–2017	–	–	–	1,000,000
Total	**3,550,194**	**4,268,511**	**2,583,665**	**1,528,000**
Pension expenses	949,253	966,356	–	–
Total remuneration	**5,673,453**	**6,411,518**	**3,371,268**	**2,315,600**

Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is determined by the shareholders at the Annual General Meeting and is regulated in Article 13 of the Articles of Association of Vonovia.

The current Supervisory Board remuneration system is based on the resolution passed by the Annual General Meeting on June 9, 2013.

Each member of the Supervisory Board receives annual fixed basic remuneration of € 100,000. The Chairman of the Supervisory Board receives double this amount and a Deputy Chairman receives one-and-a-half times this amount.

The members of the Audit Committee receive additional annual fixed remuneration of € 40,000; the Audit Committee Chairman receives double this amount. Supervisory Board members who are members of one or more other Supervisory Board committees that have acted at least once a year receive additional annual remuneration of € 20,000 per committee; in the case of the Committee Chairman € 40,000.

The sum total of all aforementioned remuneration plus remuneration for membership of Supervisory Boards and comparable supervisory bodies of Group companies must not exceed an amount of € 300,000 per calendar year and Supervisory Board member.

The company reimburses the Supervisory Board members for appropriate expenses incurred due to the exercising of their office. VAT is reimbursed by the company to the extent that the Supervisory Board members are eligible to separately invoice VAT and have exercised such right.

Helene von Roeder CFO since May 9, 2018		Daniel Riedl CDO since May 9, 2018		Dr. A. Stefan Kirsten CFO until May 9, 2018		Gerald Klinck CCO until May 9, 2018	
2017	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**
–	386,957	–	386,957	600,000	215,217	600,000	215,217
–	64,874	–	15,111	–	–	–	–
–	–	–	103,188	–	4,058	–	–
–	13,157	–	18,934	32,723	24,105	24,503	7,317
–	**464,988**	**–**	**524,190**	**632,723**	**243,380**	**624,503**	**222,534**
–	283,768	–	283,768	423,500	146,667	403,700	157,826
–	–	–	–	2,150,265	–	–	–
–	–	–	–	–	–	–	–
	-		-		1,000,000	-	750,000
-	283,768	-	283,768	2,573,765	1,146,667	403,700	907,826
-	265,457	-	-	367,388	116,396	491,198	192,180
-	**1,014,213**	**-**	**807,958**	**3,573,876**	**1,506,443**	**1,519,401**	**1,322,540**

The remuneration of the Supervisory Board of Vonovia breaks down as follows for each member – on a pro rata basis according to the length of service on the Supervisory Board:

	Fixed remuneration		Remuneration for committee work		Total remuneration	
in €	2017	2018	2017	2018	2017	2018
Supervisory Board members in office as of December 31, 2018						
Jürgen Fitschen [3, 6] (since May 9, 2018) Chairman since May 9, 2018	–	133,333	–		–	
Prof. Dr. Edgar Ernst [1, 3, 6] (since June 18, 2013) Deputy Chairman since May 9, 2018, Chairman until May 9, 2018	166,667	170,833	100,000	105,000	266,667	275,833
Burkhard Ulrich Drescher [2] (since December 12, 2014)	100,000	100,000	40,000	40,000	140,000	140,000
Vitus Eckert [2] (since May 9, 2018)	–	66,667	–	26,667	–	93,334
Dr. Florian Funck [2] (since August 21, 2014)	100,000	100,000	40,000	40,000	140,000	140,000
Dr. Ute Geipel-Faber [6] (since November 1, 2015)	100,000	100,000	20,000	20,000	120,000	120,000
Daniel Just [6] (since June 2, 2015)	100,000	100,000	20,000	20,000	120,000	120,000
Hildegard Müller [4] (since June 18, 2013)	100,000	100,000	20,000	20,000	120,000	120,000
Prof. Dr. Klaus Rauscher [4] (since August 1, 2008) Deputy Chairman until May 9, 2018	116,667	120,833	20,000	20,000	136,667	140,833
Dr. Ariane Reinhart [4] (since May 13, 2016)	100,000	100,000	20,000	20,000	120,000	120,000
Clara-Christina Streit [4, 5] (since June 18, 2013)	100,000	100,000	60,000	60,000	160,000	160,000
Christian Ulbrich [6] (since August 21, 2014)	100,000	100,000	20,000	20,000	120,000	120,000
Former Supervisory Board members						
Hendrik Jellema [2] (until May 9, 2018)	100,000	41,667	40,000	16,667	140,000	58,334
Dr. Wulf H. Bernotat [2, 3, 6] (until August 26, 2017) Chairman	166,667	–	33,333	–	200,000	–
Total					**1,783,334**	**1,781,667**

(1) Chairman of the Audit Committee
(2) Member of the Audit Committee
(3) Chairman of the Executive and Nomination Committee
(4) Member of the Executive and Nomination Committee
(5) Chairman of the Finance Committee
(6) Member of the Finance Committee

All remuneration is payable after the expiry of each fiscal year. Supervisory Board members who are Supervisory Board members or members of a committee of the Supervisory Board for only part of a fiscal year receive corresponding pro rata remuneration rounded up to the full month.

Furthermore, Vonovia has taken out a liability insurance (D&O insurance) for the members of the Supervisory Board. Vonovia follows the statutory requirements, which provide for a deductible of 10% of any claim up to an amount of one-and-a-half times the fixed annual remuneration for all claims in one fiscal year.

Opportunities and Risks

Structure and Instruments

Vonovia has implemented a comprehensive risk management system that is designed to identify, measure and manage all of the opportunities and risks that are relevant to the company. This reduces risk potential, secures the company's survival, promotes its strategic further development and supports sustainable action.

Whereas **risks** are defined as possible developments or events in the future that could result in a negative forecast/deviation from targets for the company, **opportunities** are seen as positive deviations from an expected outcome.

In the 2018 fiscal year, the risk management system that applied in 2017 was continued. The companies acquired in 2018 were incorporated into the risk process. The reporting threshold for individual risks was increased from € 10,000 to € 500,000.

In organizational terms, risk management is still assigned directly to the Management Board. The Management Board has overall responsibility for the risk management system. It decides on the organizational structures and workflows of risk management and provision of resources. It approves the documented risk management findings and takes account of them in steering the company. The Audit Committee of the Supervisory Board monitors the effectiveness of the risk management system. The risk manager (who is also the Head of Controlling at the same time) reports to the Chief Financial Officer (CFO). Executives belonging to the first level below Management Board level are appointed as **risk owners** and, in this role, assume responsibility for the identification, assessment, documentation and communication of all material risks in their area of responsibility.

Risk management is responsible for:

> Raising/increasing risk awareness,
> Identifying and assessing risks early on,
> Communicating risks to the relevant decision-makers within the Group,
> Supporting the budget process by supplying information that is relevant to risk,
> Taking suitable measures to manage risks and, where appropriate, taking appropriate counteraction and
> Meeting the statutory requirements by putting the risk management principles into practice and ensuring appropriate documentation.

In the interests of the key stakeholders, customers, employees, suppliers, investors and society, the Management Board pursues a conservative, security-focused risk strategy that also takes the sustainability of our actions into account.

Each and every Vonovia employee is encouraged to act in a risk-conscious manner, i. e., to fully clarify the risk situation in their area of responsibility on the one hand and to handle any risks identified in a responsible manner on the other. Unreasonably high risks are to be avoided.

The risk manager coordinates the recording, assessment, documentation and communication of the risks as part of the risk management process. They trigger the risk management process, consolidate the risk reports of the risk owners and prepare the report for the Management Board and the Supervisory Board. This system helps to ensure the continued existence of the company and to achieve the company's goals. This allows the Management Board to identify and assess material risks within the company and in the company's environment systematically and in good time at all times, as well as to take appropriate counteraction.

In order to take the opportunities and risks into account, the company uses an integrated management approach based on five key pillars.

5 Pillars of Risk Management at Vonovia

Management Board

(Strategy, Requirements/Goals, Control Environment, Monitoring)

1 Performance	2 Compliance	3 Risik Management	4 Internal Control System	5 Internal Audit
Controlling > Budget > Forecast > Results	**Compliance Officer** > Guidelines, regulations > Contracts > Capital market compliance > Data protection	**Controlling** > Risk management process > Risk reporting	**IT/Internal Audit** > Process documentation **Accounting** > Accounting-based internal control system	**Internal Audit** > Process-oriented audits > Risk-oriented audits
Operational Areas > Performance management > Technical integrity	**Operational Areas** > Ensuring compliance	**Operational Areas** > Risk identification and evaluation > Risk control	**Operational Areas** > Documentation of core processes > Control activities > Control self assessment	**Operational Areas** > Process improvements

(1) Performance Management

Differentiated and high-quality corporate planning and appropriate reporting on deviations between the actual and target 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, a forecast is prepared regularly which takes appropriate account of the effect of any potential risks and opportunities on the development of business. Reporting includes detailed monthly controlling reports to 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 basis. On the basis of these reports and the deviations that they highlight between the actual and target figures, countermeasures are implemented and then checked in subsequent reporting periods to ensure they are effective.

(2) Compliance Management

Compliance describes the lawful action of the company, its bodies and employees. 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.

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 in respect of compliance issues.

(3) Risk Management

Vonovia's risk management system ensures the early identification, assessment, control and monitoring of all material 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 such as the company's reputation. This means that potential risks which might impair the value and/or development of the company can be identified at an early stage. Early warning indicators that are specific to the environment and the company are taken into account, as are the observations and regional knowledge of our employees across Germany. The range of early warning indicators is extensive and includes, by way of example, the technical monitoring of the condition of our buildings and the residential environment, the monitoring of the socioeconomic composition of our tenant structure, the analysis of demographic trends and recording of regional migration patterns, the monitoring of adherence to overall regulatory requirements, the monitoring of quoted rents and quoted prices, as well as their development in the portfolio and in newly built properties in our regional residential real estate submarkets, the analysis of developments relating to the regulations governing rental prices, the monitoring of our peers and their business activities, the observation of construction technology trends and developments in the field of building optimization, modernization and new construction, demand analyses on the development of property-related services, monitoring environmental influences, analyses and forecasts relating to the development of the financial markets as well as of interest and exchange rates.

The risk owners use the systematic risk inventory process described above to identify and update the risks in their respective areas of responsibility on a regular basis. Once validated by the risk manager, these risks are split into **five risk categories**: "economic environment and market-related risks," "regulatory and legal risks," "risks related to business," "financial risks" and "other risks." The potential amount of loss and the probability of occurrence are classified within set ranges before action (gross) and after action (net) for each risk and documented in a Group-wide risk register. As with the period used for medium-term corporate planning, the observation period used is five years. Based on the probability of occurrence and the amount of loss arising from the gross and net risk assessments, a score is established for each risk and the risks are prioritized accordingly. The ten risks with the highest score make up the "Top 10 risks."

Risk Classification

Category	Probability of occurrence	in %	Amount of loss	in € million
I	Unlikely	< 20	Low	< 5
II	Possible	21 to 50	Moderate	5 to 25
III	Likely	51 to 80	Considerable	25 to 250
IV	Very likely	> 80	High	> 250

The risk management system and the risk register are updated and refined on a regular basis and are also adjusted to reflect changes at the company. The effectiveness of the risk management system is examined in regular audits.

Risk management is documented regularly in a half-yearly risk report, which is made available to the Management Board. The Audit Committee of the Supervisory Board is informed twice a year at its regular meetings about the risk situation. The risk management system is described in a risk reporting policy that is updated on an annual basis.

This reporting system ensures that both managers and supervisory bodies are comprehensively informed and provides relevant operational early warning indicators. In this way, misguided developments can be recognized in good time and counteraction taken at an early stage. Should material risks occur unexpectedly, they are reported directly to the Management Board on an ad hoc basis.

(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. 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 establishment and further technical development of the ICS in addition to performing its primary audit duties in full. IT is responsible for providing technical and administrative support for the documentation software.

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 department and, in particular, with the Accounting department. Therefore, 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 center functions of the Accounting department, which ensures consistent and continual application of accounting policies 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 Sweden and France – 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 four-eye principle are taken appropriate account of with preventive and also subsequent checks. The subsidiaries in Sweden and France report their data as part of a structured 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 the auditor's presence at the committee meeting 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 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/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 ad hoc reviews are also performed in consultation with the compliance officer and the Management Board. The internal reports are presented to the Management Board, the individuals responsible for the area reviewed, the risk manager and 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.

The Internal Audit department also reviews the Sustainability Report and the Non-financial Declaration.

Current Risk Assessment

Overall Assessment of the Risk Situation by the Management

A scheduled risk inventory was taken in both the first and second half of the 2018 fiscal year based on a risk scoring system in line with the internal risk guidelines. The risk scoring model used in the previous year was applied unchanged in 2018. The resulting risk report was presented to the Management Board and the Audit Committee. There were no unscheduled ad hoc risk reports in 2018. The risk situation of the companies acquired in the 2018 fiscal year, BUWOG and Victoria Park, was reviewed as part of the risk inventory taken in the second half of the year and was incorporated into the reporting system.

A total of 141 individual risks were identified for Vonovia in the second half of 2018, 14 more than in 2017. The increase is largely due to the specific risks associated with the new business activities in Austria relating to project development for newly constructed residential properties (Development) as a result of the BUWOG acquisition. As far as the overall assessment of the risk situation is concerned, there was a slight year-on-year increase in the risk assessment for Vonovia in the 2018 fiscal year. From today's point of view, Vonovia's Management Board has not identified any risks which the company cannot suitably combat or which may jeopardize the Group's results of operations, net assets and/or financial position. Both our business model and our diversified capital market instruments ensure that we have the greatest possible degree of independence from economic fluctuations.

At its ordinary meeting for the fourth quarter of 2018, the Audit Committee approved the risk report submitted by the Management Board.

The following overview shows the top 10 risks in 2018:

No.	Risk	Risk category	Net potential impact
1	Changes to the regulatory framework	Regulatory and legal risks	High
2	Recoverability of goodwill	Economic environment and market-related risks	High
3	Public image/reputation and customer satisfaction	Economic environment and market-related risks	Considerable
4	Incorrect determination of the fair value of our properties	Risks related to business	High
5	Incorrect acquisition decisions	Risks related to business	Considerable
6	Unfavorable interest rate development	Financial risks	Considerable
7	Unfavorable refinancing	Financial risks	Considerable
8	Development risks	Risks related to business	Considerable
9	Tax risks due to regulatory changes/operational tax risks	Regulatory and legal risks	Moderate
10	Construction risks (e.g. fire protection, building materials, etc.)	Risks related to business	Moderate

The number of risks within the top 10 risks with a high potential net impact came to three risks at the end of 2018, as in 2017. The number of risks with a material potential net impact came to five risks at the end of 2018, as in 2017. The number of risks with a moderate potential net impact came to two risks at the end of 2018, as in 2017.

Overall, Vonovia's Management Board continues to see no risks to the Group's survival.

Regulatory and Legal Risks

Risk 1: Vonovia keeps a very close eye on planned changes in the legal framework, particularly with regard to tenancy, construction and environmental law, so that it can react to any binding changes in a timely manner. Any changes in the legal environment that are relevant to our business activities, such as regulations regarding rental amounts/developments, provisions regarding modernization measures as well as restrictions on modernization opportunities or provisions, that result in the incurrence of costs in the event of a property sale may be detrimental to Vonovia's business activities.

Risk 9: Changes in the overall tax law environment relating to Vonovia's operating business or its acquisition strategy, or the incorrect application/implementation of tax law regulations and provisions within the operating business could have an adverse impact on the development of the company's results. This also includes the tax groups for income tax and VAT purposes established by Vonovia. The fulfillment of the individual tax group requirements is part of regular company tax audits. If these tax groups are not recognized in the last instance, this could result in a significant or high tax burden, plus interest.

In order to be able to pick up on potential changes in the overall statutory framework early on, Vonovia is involved in active dialog with policymakers and other stakeholders. Vonovia is also represented in associations and monitors the legislative procedure and recent court decisions on a regular basis.

Economic Environment and Market-related Risks

Risk 2: The acquisitions made have resulted in considerable stated goodwill for Vonovia, which may be associated with certain risks. The value of this stated goodwill depends largely on the development of market interest rates, average market and sector developments as well as the cash flow from the Group that can be generated in the future by the cash-generating units. Any impairment in this goodwill would be recognized in the income statement. This means that it would have a direct impact on the net assets and results of operations, but no direct impact on the company's liquidity. With regard to possible "triggering events," we monitor interest rate and real estate value developments in particular, and perform an annual impairment test.

Risk 3: Reputation is an aspect that is crucially important to Vonovia. A poor image is not consistent with Vonovia's mission statement and could hinder our business activities in local markets. This is why we are committed, at all times, to timely and open communication and direct dialog with all groups who have legitimate interests with regard to conflicts such as the affordability of living space or modernization or new construction projects in the neighborhoods in which our properties are located. We react to justified objections accordingly. Furthermore, on the financing side, there is the risk that the raising of capital could be impaired. Vonovia takes reputation and customer satisfaction very seriously and counteracts this risk with a large number of measures. For example, customer satisfaction is measured on a quarterly basis and is monitored using the performance indicator CSI in order to identify potential problems at an early stage. Improvements to the process workflows and quality initiatives increase customer satisfaction. Active public relations work helps to communicate the efforts made to improve customer satisfaction and enhance Vonovia's reputation.

Risks Related to Business

A whole range of risks can arise for Vonovia in connection with the performance of its business activities.

Risk 4: Vonovia applies the fair value measurement model. The determination of the fair values of our housing stocks, for example, is subject to assumptions that may deviate from our current expectations. Should, for example, the estimate of the microlocation of the buildings and the quality of the macrolocation deteriorate or the current low interest rate level start to increase, the fair value of our entire real estate portfolio would decrease. As far as our investment properties are concerned, changes in value are recognized in the income statement as increases or decreases in value. This means that they have a direct impact on the company's net assets, financial position and results of operations. We counter the associated risk of error with a separate department for internal determination of fair value. This department works in line with the standards that apply to professional property appraisers. Furthermore, our fair values are checked or calculated on neutral terms by professional, external and independent valuation companies that, in turn, work in line with professional rules and regulations. In the 2018 fiscal year, the appraisal of the German and Austrian properties was performed by CBRE GmbH, while the Swedish properties were assessed by Savills Sweden AB. The results of the internal appraisal have been reported for the portfolio in Germany, excl. BUWOG. The results of the external property appraiser deviate from the internal valuation result by less than 0.1%. The results of the external property appraiser have been applied to the balance sheet for the portfolio in Austria and Sweden, as well as for BUWOG's portfolio in Germany. These results were reviewed by the in-house valuation department beforehand.

Risk 5: Risks can arise for Vonovia in connection with acquisition decisions. These risks can include, for example, excessive purchase prices, unexpected cases of liability, greater indebtedness, higher interest expenses, and challenges with respect to integrating acquisitions into the procedural landscape and achieving anticipated synergies. Furthermore, portfolios or real estate companies that can be acquired in the future may not develop as favorably as expected.

By applying complex, quality-assured investment models during the investment decision process, we counter the risk of uneconomic real estate acquisitions. These models not only take the purchase price and the financing cost into consideration but also regional scenarios for regular maintenance and the development of rents. We also use the in-depth market knowledge of our local regional managers to assess potential acquisition portfolios. Vonovia's response to the risk associated with procedural integration is a systematic, structured and tried and test integration process.

Risk 8: The integration of BUWOG could result in additional project development risks for Vonovia due to the development business. Project development work is focusing on Berlin, Hamburg and Vienna. Real estate development activities are associated with significant risks as a matter of course. These risks are manifold. By way of example, incorrect market and competitive assessments, delays in the planning approval process, incorrect location and project development plans, contamination risks, requirements linked to preservation orders or environmental requirements, subcontractor default risks, warranty issues, construction defects or defective construction materials or structural components can give rise to further risks.

In projects involving the extensive use of general contractors and subcontractors, default scenarios can result in financial risks and legal liability. To counterbalance this, corresponding master agreements are signed with the general contractors and subcontractors, and the market and subcontractors are monitored continuously. Cost, performance and deadline checks are also performed on a regular basis for the development projects in order to identify risks in a timely manner and counteract their effects.

Risk 10: Insufficient information regarding the materials used in the construction of the residential properties or the implementation of new or updated structural regulations, e.g. fire protection measures, could give rise to business risks, especially in connection with the acquisition of real estate portfolios. This is because a full appraisal and integration of larger real estate portfolios, in particular, requires time. Vonovia counters this risk by performing inspections on its properties, conducting regular building safety checks taking all of the construction law provision into account, checking for any hazardous materials and developing fire protection concepts for gradual implementation in large-scale projects, involving experts to optimize the structural measures and performing regular assessments on special buildings. Implementation is based on clearly defined instructions and responsibilities, and as a standardized integration process.

We do not believe that climate change gives rise to any significant direct risks at the moment, e.g. caused by extreme weather conditions with heavy rain and the potential for floods.

Financial Risks

Risk 6/7: The expansive monetary policy pursued by the European Central Bank (ECB) and the decision made by the United Kingdom (UK) to leave the European Union (EU) mean that there is still increased demand for bonds issued by continental European issuers. As a result, refinancing conditions and property valuations remain attractive.

The outcome and implications of the UK's exit from the EU are impossible to forecast at the moment. In particular, however, the less favorable economic outlook could have a negative impact on both general credit demand and the quality of existing credit exposures. Both could encumber the banking sector and, as a result, on the financial system as a whole. We concur with a large number of analysts and market participants and expect receptive borrowing markets and attractive financing conditions to continue due to an economic outlook that remains attractive, albeit slightly less so than in the previous year, and based on the levels of liquidity that are still available. Given the global nature of the borrowing markets, we do not currently expect the ongoing Brexit negotiations to have any long-term impact in this regard either. With a level of debt that is consistently in the Pfandbrief-eligible range and their investment grade rating, Vonovia's debt instruments will remain a sought-after investment even if liquidity levels drop.

An escalation in the potential trade wars could put a damper on the macroeconomic climate and the global growth outlook, possibly leading to negative repercussions on the capital markets. The reputation of German real estate stocks as a safe haven could be enhanced as a result of Brexit if investors opt to pull capital out of real estate stocks in the UK and seek alternative investment opportunities.

To limit the financial risks, we continuously monitor the financial markets and are also in constant contact with many different market players. Furthermore, we continually evaluate all financing options available on the capital and banking markets. We expect to be able to refinance the necessary volumes by making use of all financing instruments in the future as well. This is based on our investment grade rating, the balanced maturity profile of the financial liabilities, the versatility of the financing instruments that we can use and our standing as a regular and reliable issuer on the capital market.

Our external loans are normally subject to loan conditions that are customary on the market (covenants) which, on the one hand, require adherence to defined key financial ratios but can also, for example, restrict the sale of properties or prescribe minimum selling prices. Vonovia also has to adhere to the conditions required to maintain the credit rating awarded by rating agencies, which also relate mainly to compliance with certain key financial ratios. As a result, adherence to the relevant conditions is monitored and reported on an ongoing basis.

Some of our borrowings are loans granted by promotional banks, which limit rent increases and thus our business options. Here, we pay strict attention to compliance with all covenants but use any scope available to us.

As part of the financial risks, we are also exposed to a liquidity risk. Our liquidity management is based on daily cash management of our bank accounts, a weekly financial flexibility status and rolling liquidity planning on a monthly basis, allowing for the relevant restrictions. The regular positive cash flows from our core business do not indicate any particular liquidity risk in the forecast period.

Overall, as of the reporting date, Vonovia SE has sufficient liquid funds and potential financing options to guarantee the Vonovia Group's ability to pay at all times.

The liabilities with variable interest rates expose the Group to a cash-effective interest rate risk. The company uses derivative financial instruments in order to limit or eliminate these risks. The purpose of these financial instruments is to hedge interest rate risks in connection with existing loans and they may never be used for speculation. For a description of the derivative financial instruments, we refer to the Notes to the consolidated financial statements, specifically note [44] (Cash Flow Hedges and Stand-alone Interest Rate Swaps).

Other Risks

Vonovia could be affected by other risks that do not fall into the categories described above. By way of example, Vonovia could be exposed to risks resulting from residual pollution, including mining subsidence damage, soil conditions or wartime ordnance. Moreover, Vonovia is the owner and/or property manager of a large number of buildings in the Ruhr area which are situated in the area of near-surface mine workings where the overburden layers are only thin. These properties are predominantly located in the Essen/Bochum/Dortmund region. These mine workings may represent risks of damage to the surface and/or structures (e.g., traffic routes, buildings, etc.). Vonovia counters this economic and liability risk by having inspections of all buildings in the area of near-surface mining works systematically conducted by external experts. On the basis of the inspection findings and the opinions of external experts, the properties classified as subject to risks are examined for mining damage, which is immediately rectified where necessary. Proof of stability and public safety is then confirmed in an expert opinion.

At the time this report was drawn up, there were no risks in connection with future development that were identified as potentially posing a risk to the survival of Vonovia SE, a major company included in the scope of consolidation or the Group as a whole. Compared with the previous year, the estimated probability of occurrence and/or possible financial impact of some risk areas/some opportunity areas has increased slightly. Nevertheless, there are no fundamental changes to the risk or opportunity situation on the whole.

Current Assessment of the Main Opportunities

Economic Environment and Market-related Opportunities

The demand for accommodation is largely determined by demographic factors and the economic climate. In general, households in Germany are becoming increasingly smaller. One- to two-person households have made up the largest group for several decades now, and their combined share has increased almost continuously. According to the 2017 household forecast performed by the Federal Statistical Office (DESTATIS), the number of private households will continue to increase between 2015 and 2035. In the future, this development will also be driven by an increase in one- to two-person households, while the number of households in Germany with three or more members will drop on the whole between 2015 and 2035. Given recent trends towards more marriages and births, the sharp decline witnessed to date in the number of households with three or more members is likely to slow in the future. This development will vary considerably from region to region: While the number of households in the western German federal states is likely to increase by 7%, and by as much as 13% in the city states, between 2015 and 2035, the number of households in the eastern German federal states is set to drop by around 3%. In view of these trends, demand and market opportunities are likely to increase for existing small- and medium-sized apartments, which represent Vonovia's core product.

The German population has been growing for several years now, albeit with different growth rates from region to region. At local level, population growth fueled by migration from abroad is being supplemented by internal migration within Germany. Major cities and large metropolitan areas, as well as the areas surrounding them, are the winners of this trend. According to information supplied by the German Association of German Housing and Real Estate Companies (GdW), Germany's 66 large independent cities grew by a total of 1.35 million inhabitants between 2010 and 2016. Despite a recent drop in internal migration, population levels in Germany's major cities are still increasing considerably, bolstered by migration from abroad. The trend towards the reurbanization of the country's major cities continues unabated, but as the capacities available to absorb the increasing influx of people are becoming increasingly scarce, individuals looking for a home are turning to areas on the outskirts. As a result, migration to areas located just outside of major cities has increased considerably in recent years.

As large parts of Vonovia's residential real estate portfolio are located in major cities and metropolitan areas, Vonovia could also benefit from these trends.

In addition, the continued strained situation on the housing market in certain conurbations may lead to government decisions to extend housing or rent subsidies. This may have positive effects on Vonovia's business activities in some regions.

Opportunities Arising From the Business

With the acquisition of BUWOG and Victoria Park in 2018, Vonovia started to expand its business activities to include attractive markets in other European countries. The continuation of this corporate strategy could open up further growth opportunities in these and other European countries. Our acquisition strategy is aimed at observing the markets, evaluating specific acquisition opportunities and tapping into new markets. We pursue our acquisitions as and when opportunities present themselves. Acquisitions have to be expected to increase value before they are conducted. Such increases in value are generally assessed in terms of strategic suitability, increases in FFO per share and a neutral impact on the NAV per share. Furthermore, an acquisition must not pose any risk to the stable BBB+ long-term corporate credit rating.

Our new Development segment creates further expansion opportunities for the company. With the long-standing project development experience of the BUWOG team, we will be developing more contemporary apartments with a promising future in high-growth locations, further expanding our development business. As part of these efforts, we will be forging ahead with both project developments for sale to third parties and construction for our own portfolio. We also believe that new construction on our own properties using modular construction or conventional construction methods, as well as measures to add extra stories, offer additional opportunities for further expanding our portfolio.

We provide a significant proportion of the repair and maintenance services for our residential properties with our own craftsmen's organization. We are also continually increasing the proportion of building and apartment upgrading services we provide ourselves via our craftsmen's organization. We intend to extend the scope of these services to all kinds of technical work and to our entire residential portfolio and thus bring added value from these services to Vonovia. We are also coordinating our new construction activities via our craftsmen's organization and working on new construction concepts such as modular construction solutions.

In addition, we have expanded the range of services provided by our own employees to cover upkeep and the modernization of a building's surroundings. We plan to continually increase the proportion of work we carry out ourselves in this area, too.

By offering our tenants the option of targeted modernization measures in their own homes, we can boost customer satisfaction and help promote longer-term loyalty to the company. This also allows us to further improve the quality of the homes we offer.

At the end of 2018 we had supplied around 297,000 households with a direct cable TV signal. We expect to further extend this business in the coming years and also provide broadband data access.

The expansion of smart submetering, the radio-based recording of heating costs, is progressing as planned. By the end of 2018, the retrofitting of more than 130,000 apartments had been commissioned. We plan to further expand these business activities in our portfolio over the next few years.

Our initial experience in the field of energy supplies, i. e. the distribution of electricity and gas to our customers, was positive in the 2018 fiscal year. The market response to our offering has been positive. We expect further opportunities to arise in this area as we expand the business volume.

Vonovia manages its housing stocks throughout Germany using standardized systems and processes. The acquisition of further residential real estate portfolios offers the opportunity to generate additional value through economies of scale on the property management side by reducing the costs per residential unit. Therefore, we watch the market very closely for acquisition portfolios and assess them on the basis of our strict success criteria.

We also see targeted small-scale "tactical" acquisitions of single or multiple buildings in specific locations as well as 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. There is also the option of constructing new buildings on land that we own and adding additional floors to existing buildings in order to expand Vonovia's housing supply in metropolitan areas, which also allows us to help reduce the short supply of housing in urban locations. Targeted monitoring, the early involvement of tenants and cooperation projects with social, cultural and city institutions allow Vonovia to make ideal use of the economies of scale available to it in order to achieve sustainable neighborhood development and maintain/increase the value of its properties in these neighborhoods.

Financial Opportunities

Vonovia's financing depends on the conditions on the capital market, which are very favorable at the moment due to the low interest rates. Furthermore, we strive to improve the financing costs while maintaining our credit rating performance indicators and the desired financing structure. The internal determination of the fair values of our residential properties not only takes account of building-specific parameters but also location features in the valuation. Given the possibility, described above, of a further increase in demand with the supply of affordable accommodation remaining virtually the same, our fair values could increase further beyond the increase in the value of our properties seen in this fiscal year. This would have a direct positive impact on the results of operations and our company's stated level of debt.

Forecast Report

Expected Development of the Economy as a Whole and the Industry

Germany

According to the German Institute for Economic Research (DIW), the German economy has made a strong start to 2019. The economy is still growing and the research institutes continue to predict a sustained recovery, albeit with a slower pace of growth. They do not believe that a recession is on the cards given that the domestic economic forces appear to remain intact. While the Kiel Institute for the World Economy (IfW) and the German Institute for Economic Research (DIW) expect GDP to increase by 1.8% and 1.6% respectively in 2019, the ifo institute believes that the period of weakness triggered by the automotive industry and the manifold uncertainty surrounding the global economy are part of a longer-term trend and has made a more pronounced downward correction to its growth forecast for 2019, bringing it down to 1.1%, with the German federal government predicting growth to the tune of 1.0%. This means that the economy would appear to have reached the latter stage of the upswing, which has been ongoing for nine years now. Nevertheless, the general consensus is that the German economy is still in relatively good shape. The IfW expects to see considerable impetus again now that the production and supply problems affecting the automotive industry due to the transition to the new WLTP testing regime have been resolved and also thanks to the end of the low water levels that had hindered inland waterway transport and, as a result, logistical supplies and production.

Various fiscal measures that will provide a significant boost to household purchasing power came into force at the start of 2019, such as the reduction in the rate of contribution to unemployment insurance, the 50/50 financing of health insurance by employers and employees and the "mothers' pension." As a result, private consumption is likely to benefit from strong impetus. Industry is unlikely to be one of the main driving forces behind the economy as foreign sales markets are losing momentum and, in addition, many areas are operating at their capacity limit. This is also likely to result in a slowdown in job creation, also due to the short supply of labor. Those consumer-related sectors that are not export-oriented, on the other hand, including the construction industry and the trades segment in particular, still expect to achieve growth. The economic institutes expect inflation based on consumer prices of 2.1% (IfW)/2.2% (Ifo). The unemployment rate is expected to slip to below the 5.0% mark (IfW: 4.9%, Ifo: 4.8%).

The international trade conflicts are cause for concern. The disputes between the U.S. and China are already putting a damper on growth in the key Chinese economy. German exporters, automotive manufacturers and other investors will have to brace themselves for lower sales in China, one of their major export destinations. The trade dispute could also fuel a more rapid increase in inflation due to higher import prices. The situation is further exacerbated by the uncertainty surrounding Brexit. In the event of a "hard Brexit," the reintroduction of customs duties and border controls would likely have a huge impact on the British economy and, as a result, on the eurozone. Italy's debt policy also has the potential to usher in turbulent times on the financial markets, as the high risk premiums on Italian government bonds pose a risk to economic development. Although the ECB is not likely to implement an initial rate hike in 2019 in response to the weaker developments, it remains extremely vigilant.

Looking ahead to 2020, the IfW and the ifo insitute predict growth of 1.8%/1.6%, inflation based on consumer prices of 1.8%/2.0% and an unemployment rate of 4.7%/4.6%.

Housing Market: Rent and Prices Expected to Rise Again in 2019

The upswing on the real estate market is entering its tenth year, meaning that it has reached a mature phase, according to experts at Helaba Landesbank Hessen-Thüringen. Continued low interest rates and robust economic growth – Helaba predicts GDP growth of 1.5% in its outlook for 2019 – will keep the real estate sector in excellent order in 2019. According to Helaba, the increase in rents and purchase prices on the German residential property market is primarily due to the widening gap between supply and demand in the country's conurbations in particular – a situation that is unlikely to change to any considerable degree in 2019.

Experts from Deutsche Bank Research (DB Research) expect to see only a slight drop in price and rent momentum at the very most in 2019, with residential real estate prices once again likely to increase at a faster rate than consumer prices. The German Tenants' Association (Deutscher Mieterbund) expects the standard local comparative rent to rise by between 3% and 5% in Germany's cities in 2019. Bolstered by positive wage and income development, price developments are, according to DB Research, only likely to put a slight damper on demand, and even a further increase in the 5- to 10-year mortgage rates would only push demand down ever so slightly. While residential property remains affordable on the interest side of things according to DB Research, this affordability will presumably decrease further in 2019 and the market is characterized by considerable differences from region to region. Although a turnaround in interest rates appears to be a very likely prospect in 2019, Immobilienscout 24 does not expect to see an immediate turnaround in the price trend at a nationwide level. Rather, the property "supercycle" is expected to taper off slowly. The subdued growth in completed apartments will continue in 2019. DB Research expects 315,000 (Helaba 320,000) apartments to be completed in 2019 as against around 300,000 in 2018. This is likely to widen the gap between supply and demand even further. Based on the subdued growth momentum, DB Research does not expect the additional annual supply to exceed the additional annual demand for living space of at least 350,000 apartments until 2022. As DB Research believes that it will take a good few years for the real estate boom to reach the end of its cycle, the risk of a bubble forming in the current cycle has increased considerably. The IMF and Deutsche Bundesbank report that, following the dynamic increase witnessed over the last few years, prices for apartments in some German cities are above the level that would be expected given the fundamental data, which points to an overvaluation. The empirica bubble index for Germany had already surpassed the "zero threshold" back in the third quarter of 2017, as against the "bubble-free" reference year of 2004. The index as a whole increased further as against the prior-year quarter in the fourth quarter of 2018. Rents and purchase prices in 278 out of 402 administrative districts and self-governing cities are no longer developing in tandem. According to empirica, too many apartments are being built in 18 districts. The bubble index indicates a medium to high risk for 223 districts.

In addition to the overall housing policy goal to build 1.5 million apartments, the German federal government has planned, and in some cases already taken, various measures as part of a housing initiative. Whereas the housing subsidy for families with children was introduced in September 2018 and the German Tenancy Law Amendment Act (Mietrechtsanpassungsgesetz) came into force on January 1, 2019, the draft bill on the introduction of special write-downs for the construction of rented apartments had not yet been passed by the German upper house (Bundesrat) in December 2018.

As far as the planned changes to real estate transfer tax in cases involving share deals are concerned, the finance ministers of the federal states have now, according to the Ministry of Finance of the federal state of Hesse, agreed on legislative texts that are to be included in the legislative procedure at federal level. The intention is to create greater hurdles for share deals. Other legislative projects that are relevant to the real estate sector and will be discussed in 2019, according to the German Association of Real Estate Consultants, Agents, Managers and Experts (IVD), include a reform of both the rent indices and the land tax system.

Austria

After exports and the domestic economy, driven by high consumer momentum and strong investment, resulted in the highest rate of GDP growth since 2011, at 2.7%, a slowdown in the pace of growth had already emerged in 2018. The Austrian economy is in the latter stage of a boom. In 2019, the Austrian Institute of Economic Research (WIFO) predicts slower, but still robust, economic growth of 2.0%, with GDP growth still tipped to come in at 1.8% in 2020. Bank Austria predicts lower economic growth of 1.9% in 2019 and 1.5% in 2020. Austria is countering the global slowdown and associated mounting demands for the export industry with solid domestic demand, in particular sustained strong private consumption, which will play a key role in cushioning the blow dealt by the unfavorable external factors influencing the domestic economy both this year and next. By contrast, investment growth is only likely to be moderate going forward. As the positive development on the labor market looks set to continue, the WIFO predicts a further drop in the unemployment rate, based on the national definition, to 7.3% in 2019 (Bank Austria: 7.5%) and 7.2% in 2020 (Bank Austria 7.5%). The WIFO predicts that inflation will stabilize at 2.0%. Austria is exposed to the same risks as those facing Germany, as described above. These include, in particular, the impact of the trade conflict between the US and China and the political uncertainty in the eurozone, such as the implications of Brexit and the global economic slowdown.

Overall conditions on the real estate market remain positive after 2018 was characterized by low interest rates, an ongoing good supply of properties despite a slight drop and very high demand for real estate among owner-occupiers and investors alike. Experts from the real estate service provider RE/MAX Austria do not expect to see any significant change in these conditions in 2019 either. According to the RE/MAX Real Estate Future Index – which consolidates the expert opinions of around 560 real estate professionals throughout Austria – the demand for real estate is expected to increase at a faster rate than supply in 2019, meaning that real estate prices will continue to increase slightly overall, although the rate of increase will be lower than in previous years. Apartment purchase prices are likely to increase at a faster rate than rents that can be freely agreed. The biggest increase in demand and prices is expected to relate to land to build on. The RE/MAX experts estimate that rents and prices for condominiums will continue to increase both in city centers and on the outskirts of cities, whereas the prices for condominiums in country municipalities will remain virtually unchanged and rents will falter. They describe the market for townhouses and apartment complexes as moving towards an equilibrium and expect to see price growth in this segment, too. According to the real estate service provider EHL, rents in Vienna are expected to increase by around 1.5% in 2019, with purchase prices for properties in average locations expected to rise by between around 2.75% and 4%. EHL believes that the Viennese residential property market will be hit by the new building regulations, e.g. including requirements relating to a higher proportion of subsidized apartments in cases in which areas are rezoned for residential development, and a judgment passed by the Austrian Supreme Court (OGH) on location surcharges. In the short and medium term, the impact on the supply of apartments will be a negative one, which could also put an end to the slight easing of the situation regarding apartment prices and rents. Looking at the residential investment market, EHL believes that demographic change – in particular the forecast of population growth – and the ongoing trend towards urbanization will result in the sort of long-term stable development that appeals to buyers that place particular emphasis on security, creating an extremely sustainable investment scenario. The fundamental price indicator of the OeNB for residential real estate shows a further increase in possible overvaluation for Vienna and Austria overall in the second quarter of 2018, compared with the previous quarter.

Sweden

Economic researchers at NIER believe that the Swedish economy is currently in the midst of a slowdown. After predicted GDP growth of 1.9% in 2018, the NIER expects GDP growth at market prices of 1.4% in 2019 and 1.6% in 2020. Growth in domestic demand will soften in 2019, especially as a result of a sustained decline in housing investment. Swedbank takes a more positive view of expected economic growth in its outlook and expects to see growth of just under 2.0% in both 2019 and 2020. While real estate investment and private consumption will continue to slow, the outlook for public-sector investment remains fairly solid and the business climate still appears to be stable despite mounting uncertainty. Although the Swedish economy is close to its capacity limit, inflation and wage growth are still relatively subdued. Given the trend towards increasing protectionism, however, the export risks are increasing for Sweden, too, also due to growing uncertainty on the country's main sales market, Europe, as a result of Brexit and Italy's budget woes. The predicted population growth will increase the working-age population as well. As only low employment growth appears to be on the cards, unemployment is expected to increase slightly in 2019. NIER has also made a slight downward adjustment to its forecast for wage growth in 2019. The Swedish Riksbank is planning further rate hikes in steps of 0.5% – with the next increase to 0.25% scheduled for December 2019 and a further increase to 0.75% likely to come a year later. All in all, while the economy is expected to flatten out due to lower domestic demand, the drop in exports and the weak Swedish krona, a marked downturn does not appear to be likely.

There is still a housing shortage in most parts of the country. The National Board of Housing, Building and Planning's 2018 Housing Market Survey reveals that 243 of Sweden's 290 municipalities have a housing shortage and 195 municipalities also predict a shortage of housing in three years. According to Riksbank's Business Survey (November 2018), property companies are reporting a strong market for both premises and rental housing. However, as regards sales of tenant-owned apartments, a clear decrease is visible and housing developers are being particularly impacted by the declining demand for newly produced tenant-owned apartments. According to the European Commission, it appears that the recent surge in construction activity may be overly skewed towards high-end developments including in some regional markets where end-user demand for such properties tends to be especially limited. As a result, there is a risk of oversupply in specific segments of the housing market, while a chronic shortage of affordable housing near major economic hubs remains. Sweden's rental market is regulated with restrictions on rent increases, although rents can be increased if investments are made in measures to increase the standard of the properties. After housing investment climbed to historically high levels at the beginning of 2018, it is decreasing again. According to NIER, this is partly due to housing prices falling in late 2017 and early 2018. The drop in housing prices has meant that construction starts have fallen sharply, and housing investment is expected to decline in 2019. Meanwhile, Helaba expects residential real estate prices to stabilize due to the continued low interest rates and positive situation on the labor market. Despite the recent drops, the European Commission believes that some indicators point towards prices that remain above the level that appears justified based on the fundamental data. While CBRE reports that the growth outlook remains broadly positive, according to NIER there is a risk of further decreases in house prices. According to Swedbank, newly built condominiums for owner-occupiers are still under pressure in the metropolitan areas.

Expected Development of the Group

Comparison of the Forecast with the Results from the 2018 Fiscal Year

The 2018 fiscal year was very successful for Vonovia on the whole. We were systematic in the implementation of our corporate strategy. With the acquisitions of BUWOG and Victoria Park, we were able to further expand our leading market position and make our business more international. We also implemented our investment program aimed at modernizing our portfolio as planned and made further improvements to efficiency when managing our properties. We expanded our Value-add segment further, in particular by expanding our craftsmen's and residential environment organization. We also set up our energy supply business in 2018. We offer our tenants across Germany electricity and gas supplies via Vonovia Energie Service GmbH.

In the 2018 fiscal year, we achieved a significant Group-wide improvement in our most meaningful performance indicators (according to our management system 2017), namely DRS 20, Adjusted NAV per share and FFO 1. We outperformed the forecast for Adjusted NAV per share and FFO 1 that we published in the 2017 Annual Report considerably and adhered to the forecast most recently published in the interim statement for the third quarter of 2018, while the CSI was down slightly year-on-year.

The table below provides an overview of the development of our forecast performance indicators and the target achievement level for these indicators in the 2018 fiscal year. It also shows the 2019 forecast for the new performance indicators, Adjusted EBITDA Total and Group FFO.

	Actual 2017	Forecast for 2018*	Forecast for 2018 in the 2018 Q3 Report	Actual 2018	Forecast 2019
Adjusted NAV/share	€ 38.49	suspended	approx. € 45	€ 44.90	suspended
FFO 1*	€ 919.5 million	€ 960–980 million	€ 1,050–1,070 million	€ 1,064.7 million	–
FFO 1/share	€ 1.90	€ 1.98–2.02	€ 2.03–2.07	€ 2.06	–
Adjusted EBITDA Total	€ 1,319.7 million			€ 1,554.8 million	€ 1,650–1,700 million
Group FFO	€ 975.0 million			€ 1,132.0 million	€ 1,140–1,190 million
Group FFO/share	€ 2.01			€ 2.18	€ 2.20–2.30
CSI	Increase of 1.6%	Similar CSI as 2017	Down slightly year-on-year	Decrease of 2.6%	Up slightly year-on-year
Rental income	€ 1,667.9 million	€ 1,660–1,680 million	€ 1,890–1,910 million	€ 1,894.2 million	€ 2,020–2,070 million
Organic rent increase	4.2%	Increase of 4.6–4.8%	Increase of approx. 4.4%	4.4%	Increase of approx. 4.4%
Vacancy rate	2.5%	< 2.5%	< 2.5%	2.4%	–
Maintenance incl. capitalized maintenance	€ 346.2 million	approx. € 360 million	approx. € 410 million	€ 430.4 million	–
Modernization and new construction	€ 778.6 million	approx. € 1,000 million	approx. € 1,000 million	€ 1,139.0 million	€ 1,300–1,600 million
Number of units sold Recurring Sales	2,608	approx. 2,300	approx. 2,800	2,818	approx. 2,500
Step-up Recurring Sales	32.6%	approx. 30%	approx. 35%	35.5%	approx. 30%
Number of units sold Non-core Disposals	9,172	Continue opportunistic sales	approx. 13,000	12,284	–
Step-up Non-core Disposals	7.9%	>0%	> 20%	23.0%	–

* FFO 1 adjusted incl. transaction holding costs; prognosis according to the Group management report for 2017 without BUWOG, Victoria Park.
** Based on the current number of shares in each case, 2019: 518.1 million.

Our **Adjusted NAV** per share came in at € 44.90 in 2018, up by 16.7% on the prior-year value of € 38.49. This includes effects from fair value adjustments of investment properties in the amount of € 3.5 billion in total. The distribution of the dividend – taking into account the scrip dividend (acceptance rate 40.9%) of € 378.8 million to our shareholders in 2018 had the opposite effect. Our EPRA NAV increased by 22.6%, from € 21,284.6 million at the end of 2017 to € 26,105.0 million as of December 31, 2018.

FFO 1 rose by 15.8% to € 1,064.7 million in 2018 (2017: € 919.5 million), putting it within the most recent forecast range value of between € 1,050 million and € 1,070 million, and well ahead of the forecast range value of between € 960 million and € 980 million announced at the beginning of the year in the 2017 Annual Report. This is largely due to the acquisition of BUWOG and Victoria Park, and business developments that were, in general, better than expected at the time the 2017 Annual Report was published.

Mainly due to acquisitions, the **Adjusted EBITDA Total** rose from € 1,319.7 million in 2017 to € 1,554.8 million.

In the 2018 fiscal year, **Group FFO** increased by 16.1%, from € 975.0 million to € 1,132.0 million.

Customer satisfaction measured using the performance indicator CSI was slightly lower than the level we were aiming for. The CSI for 2018 was down slightly as against the 2017 fiscal year.

Forecast for the 2019 Fiscal Year

Our forecast for the 2019 fiscal year is based on the corporate planning for the Vonovia Group as a whole described in the chapter on our management system. Our plans for 2019 have taken appropriate account of possible opportunities and risks associated with the company's future development, meaning that these plans reflect realistic expectations regarding portfolio development and Vonovia's development. The forecast data below is based on Vonovia's portfolio as it stood when the plans for 2019 were drawn up in the fall of 2018.

Furthermore, the Group's further development remains exposed to general opportunities and risks. These have been described in the chapter on opportunities and risks.

The forecast for the main performance indicators was based on the accounting principles used in the annual financial statements, with the adjustments described elsewhere in the management report being made.

The planning for 2019 is based on the above-mentioned assumptions on the development of the overall economy and on the development of the real estate market in Germany.

In the 2019 fiscal year, we plan to further expand our leading position on the German residential real estate market and continue with our successful business strategy. In particular, we will be further expanding our investment program in the areas of modernization and new construction, as well as our activities in the Value-add segment. In 2019, we will remain faithful to the sales strategy of apartment privatization that we have been pursuing to date.

We plan to further improve our sustained operational earnings power in the 2019 fiscal year. The modernization measures taken in the 2018 fiscal year will also help us to achieve this. We expect our **adjusted EBITDA total** to increase to between € 1,650 million and € 1,700 million in 2019. We predict that **Group FFO** will increase to somewhere in the range of € 1,140 million and € 1,190 million in 2019. This corresponds to a Group FFO per share – based on an unchanged number of shares – of € 2.20 to € 2.30. The forecast does not take account of any further larger acquisitions of real estate portfolios. In the 2019 fiscal year, we will continue to forge ahead with our efforts to improve our customer service. We expect the **CSI** to increase slightly in 2019 as against the customer satisfaction index for 2018. We expect the value of our company to increase further in 2019 and predict a moderate increase in Adjusted NAV/share.

We will continue to invest a considerable amount in our real estate portfolio in 2019. In the 2019 fiscal year, we plan to spend around € 1,300 million to € 1,600 million on modernization measures, including new construction.

As far as rental development is concerned, we expect the monthly in-place rent per square meter to increase organically by around 4.4% in 2019. All in all, we expect rental income in the Rental segment to come to between € 2,020 million and € 2,070 million in 2019.

In the Recurring Sales segment, we have concentrated on sustainable disposals of condominiums. In the privatization business, we expect around 2,500 apartments to be sold in 2019 with a step-up on the fair value of these apartments of around 30%.

We again plan to allow our shareholders to participate adequately in our company's success in 2018 and intend to propose a dividend of € 1.44 per share.

Bochum, Germany, February 25, 2019

Management Board

Rolf Buch
(CEO)

Klaus Freiberg
(COO)

Helene von Roeder
(CFO)

Daniel Riedl
(CDO)