# VONOVIA

H1 2023

Earnings Call Presentation.

# **Agenda**

1.

2.

Business Update & H1 2023 Results pages 3-22

Appendix pages 24-56

# **Business Update & H1 2023 Results**

Highlights Segment Overview Rental 6-7 Value-add 8 Recurring Sales 10 Development 11 Valuation 12 EPRA NTA Debt Structure & KPIs 13-14 Financing Update year to date & Liability Management **15-16 17** Cash Generation Selected Market Views on Direction of Values 18 19 Carefully Navigating through the Crisis 20 Guidance Investigation Update 21 22 Wrap-up

# 1. Cash Flow, Financing,

and Disposals

#### **Cash Flow**

- 2023 financial maturities fully covered.
- 2024 financial maturities almost fully covered (€100m to go).

#### **Financing**

#### Loans signed year to date

- €0.8bn secured loans rolled over.
- €0.6bn new secured loans.
- €0.8bn new unsecured loans.

#### <u>Liability management</u>

- €1.25bn nominal volume tendered by investors (11% acceptance rate).
- €1.0bn nominal volume purchased.
- €0.9bn cash out (11% discount).

#### **Disposals**

- Apollo JV transaction closed as scheduled; call option valued at €359m.
- New JV portfolio identified in Northern Germany; fair value volume similar to Südewo portfolio.
- Sales efforts across the different disposal clusters continue to also address 2025 financial maturities.

2.
Operating
and
Financial
Performance

- Rental EBITDA with solid growth (+7.8%)
  - accelerating rent growth;
  - · continuously high occupancy;
  - · unchanged, almost full collection rates.
- Other segments still impacted by overall market conditions, especially higher cost of capital and limited transaction volume.
- €1,338.3m Adj. EBITDA Total (-4.8%).
- €964.8m Group FFO (-9.5%).

3. Valuation

- Full portfolio valuation as of June 30, 2023.
- €6.1bn value decline in the first six months 2023 (-6.6% l-f-l), of which €3.4bn in Q1 and €2.7bn in Q2.
- Too early for reliable H2 outlook, but market appears to show first signs of stabilization.

4. Investigation Update

- Investigation by Hengeler Mueller and Deloitte is far advanced.
- The preliminary results so far confirm
  - Vonovia's initial assessment that the financial impact is not material;
  - that other business activities are not impacted;
  - that there are no findings about negative consequences for our tenants.

€m (unless indicated otherwise)	H1 2023	H1 2022 <sup>2</sup>	Delta
Total Segment Revenue	2,925.7	3,102.0	-5.7%
Adj. EBITDA Rental	1,198.2	1,111.7	+7.8%
Adj. EBITDA Value-add	44.1	83.9	-47.4%
Adj. EBITDA Recurring Sales	37.0	82.3	-55.0%
Adj. EBITDA Development	23.8	84.9	-72.0%
Adj. EBITDA Nursing	35.2	43.0	-18.1%
Adj. EBITDA Total	1,338.3	1,405.8	-4.8%
FFO interest expenses	-297.6	-236.4	+25.9%
Current income taxes FFO	-66.8	-60.1	+11.1%
Consolidation <sup>1</sup>	-9.1	-42.7	-78.7%
Group FFO	964.8	1,066.6	-9.5%
of which non-controlling interests	45.2	41.0	+10.2%
Group FFO after non-controlling interests	919.6	1,025.6	-10.3%
Number of shares (eop)	814.6	795.8	+2.4%
Group FFO p.s. (eop NOSH)	1.18	1.34	-11.9%
Group FFO p.s. (after non-controlling interests)	1.13	1.29	-12.4%

- Rental: Increase driven by rental growth, continuously high occupancy and almost full rent collection. Lower cost base for both maintenance and operating expenses. Deutsche Wohnen synergies are being realized, as planned.
- Value-add: EBITDA reduction predominantly driven by reduced investment volume and higher cost for material and energy.
- Recurring Sales: While sales volumes have increased Q-o-Q the overall level is still comparatively low. Fair value step-ups remain high; market environment still challenging.
- Development: Comparison to prior year distorted by large global exit in prior-year period; market environment still challenging.
- Nursing: smaller EBITDA contribution as a result of higher personnel and energy expenses; prior year positively impacted by Covid-related subsidies.
- FFO interest rate reflects higher financing costs.

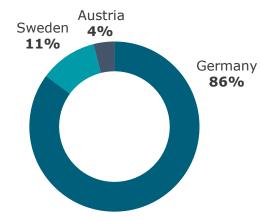
¹ Comprised intragroup losses of €5.1m (6M 2022: intrgroup profit of €-13.7m), gross profit of development to hold of €-14.2m (6M 2022: €-28.9m), ² Prior-year figures adjusted to new Adjusted EBITDA definition (excluding results from investments accounted for using the equity method). Adjustments: Adj. EBITDA Rental €-4.3m, Adj. EBITDA Value-add €0.5m. Within Q4 2022 the segment Deutsche Wohnen has been dissolved and integrated into the segments Rental, Value-add, Recurring Sales, Development and Nursing. Prior year figures H1 2022 adjusted accordingly.



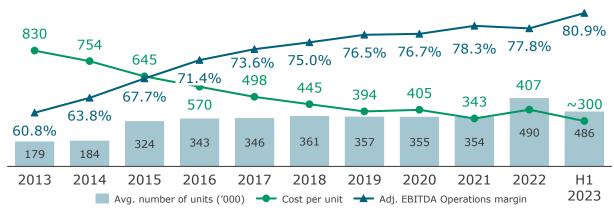
- Increased revenue driven by rental growth on a marginally smaller portfolio.
- Lower operating expenses resulting largely from Deutsche Wohnen synergies.
- Adj. EBITDA up 7.8% as a result of top line growth combined with efficient cost control on maintenance and operating expenses.

#### H1 2022<sup>2</sup> **Rental Segment (€m)** H1 2023 Delta 1,570.5 1,606.4 +2.3% Rental revenue -207.0 Maintenance expenses -215.1 -3.8% Operating expenses -201.2 -243.7 -17.4% Adj. EBITDA Rental 1,198.2 1,111.7 +7.8%

### Rental revenue by geography

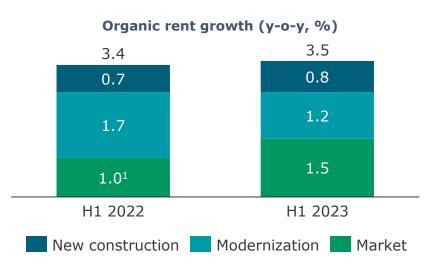


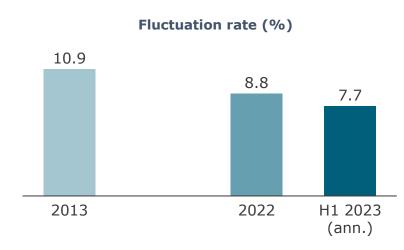
### Scale and efficiency gains in Germany<sup>1</sup>



¹ Adj. EBITDA Operations margin (Adj. EBITDA Rental + Adj. EBITDA Value-add - intragroup profits) / Rental revenue. Margin 2019 and beyond includes positive impact from IFRS 16. Cost per unit is defined as (Rental revenue - EBITDA Operations + Maintenance) / average no. of units. 2022 incl. Deutsche Wohnen. H1 2023 CPU annualized. ² Prior-year figures adjusted to new Adjusted EBITDA definition (excluding results from investments accounted for using the equity method). Adjustments: Adj. EBITDA Rental €-4.3m. Within Q4 2022 the segment Deutsche Wohnen has been dissolved and integrated into the segments Rental, Value-add, Recurring Sales, Development and Nursing. Prior year figures H1 2022 adjusted accordingly.

- Accelerating rent growth but fluctuation rate at historic low.
- Vacancy rate remains low and is almost purely the result of investments.
- · Continuously high rent collection.
- Capitalized maintenance reduced y-o-y.

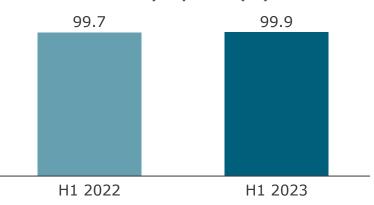




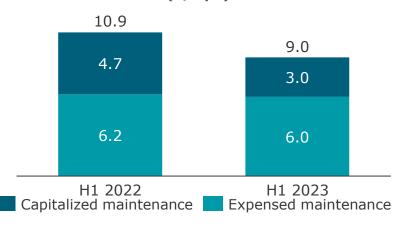




# Collection rate for rental income and all ancillary expenses (%)



# Expensed and capitalized maintenance (€/sqm)

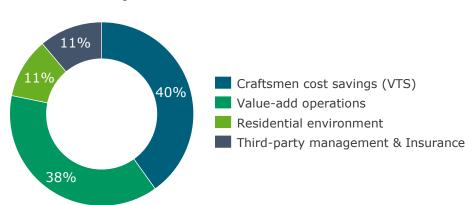


 $^{1}$  Excl. one-off effect of 0.6% due to the Berlin Rent Freeze Legislation becoming unconstitutional.

### Value-add: EBITDA reduction predominantly driven by

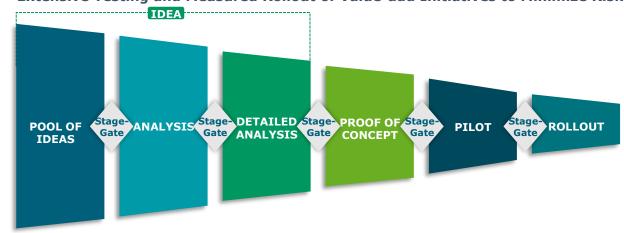
- reduced investment volume;
- increased costs for material and energy;
- higher costs for subcontractors.

#### Adj. EBITDA Value-add contributions



Value-add Segment (€m)	H1 2023	H1 2022 <sup>1</sup>	Delta
Revenue Value-add	619.8	637.4	-2.8%
of which external	66.4	57.6	+15.3%
of which internal	553.4	579.8	-4.6%
Operating expenses Value-add	-575.7	-553.5	+4.0%
Adj. EBITDA Value-add	44.1	83.9	-47.4%

#### **Extensive Testing and Measured Rollout of Value-add Initiatives to Minimize Risk**

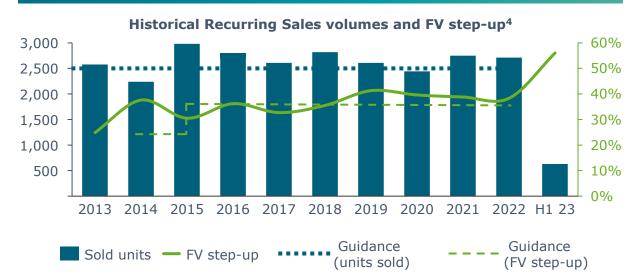


¹ Prior-year figures adjusted to new Adjusted EBITDA definition (excluding results from investments accounted for using the equity method). Adjustments: Adj. EBITDA Value-add €0.5m. Within Q4 2022 the segment Deutsche Wohnen has been dissolved and integrated into the segments Rental, Value-add, Recurring Sales, Development and Nursing. Prior year figures H1 2022 adjusted accordingly.



Appendix

- Q2 with slightly better momentum but still low volumes overall in H1.
- Fair-value step-up remains above expectations with +46% in H1 2023;
   partly driven by relatively high share of volume in Austria.
- Outside of the Recurring Sales segment, 654 non-core units were sold for gross proceeds of €101m and a fair-value step-up of 9.2%.
- The current focus remains on liquidity generation over price optimization.



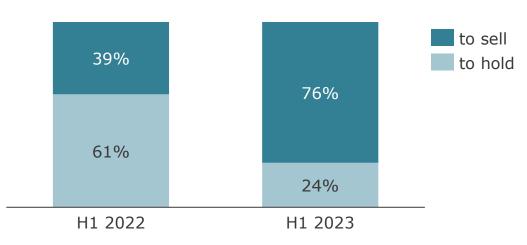
Recurring Sales Segment (€m)	H1 2023	H1 2022 <sup>1</sup>	Delta
Units sold	628	1,349	-53.4%
Revenue from recurring sales	141.4	295.2	-52.1%
Fair value	-97.1	-203.7	-52.3%
Adjusted result	44.3	91.5	-51.6%
Fair value step-up	45.6%	44.9%	+0.7pp
Selling costs	-7.3	-9.2	-20.7%
Adj. EBITDA Recurring Sales	37.0	82.3	-55.0%
Free Cash <sup>2</sup>	116.5	258.4	-55.0%
Cash conversion <sup>3</sup>	82%	88%	-6рр

<sup>1</sup> Within Q4 2022 the segment Deutsche Wohnen has been dissolved and integrated into the segments Rental, Value-add, Recurring Sales, Development and Nursing. Prior year figures H1 2022 adjusted accordingly. <sup>2</sup> Revenue minus selling costs minus taxes. <sup>3</sup> Free cash in relation to revenue. <sup>4</sup> 2018 onwards also including Recurring Sales in Austria.



- Project-driven nature of development business and overall market conditions resulted in substantially lower volume in H1 2023, as prioryear period was positively impacted by a large global exit.
- Lower gross margin in the context of overall market environment.

#### Assets under construction: ratio to hold vs. to sell



<b>Development Segment (€m)</b>	H1 2023	H1 2022 <sup>1</sup>	Delta
Revenue from disposal of to-sell properties	218.3	363.2	-39.9%
Cost of Development to sell	-195.7	-292.0	-33.0%
Gross profit Development to sell	22.6	71.2	-68.3%
Gross margin Development to sell	10.4%	19.6%	-9.2pp
Fair value Development to hold	193.6	97.0	+99.6%
Cost of Development to hold <sup>2</sup>	-179.4	-68.2	>100%
Gross profit Development to hold	14.2	28.8	-50.7%
Gross margin Development to hold	7.3%	29.7%	-22.4pp
Rental revenue Development	2.3	1.8	+27.8%
Operating expenses Development	-15.3	-16.9	-9.5%
Adj. EBITDA Development	23.8	84.9	-72.0%

Note: This segment includes the contribution of to sell and to hold constructions of new buildings. Not included is the construction of new apartments by adding floors to existing buildings. ¹ Within Q4 2022 the segment Deutsche Wohnen has been dissolved and integrated into the segments Rental, Value-add, Recurring Sales, Development and Nursing. Prior year figures H1 2022 adjusted accordingly. ² Excluding €0.5m (H1 2022: €0.0m) capitalized interest.

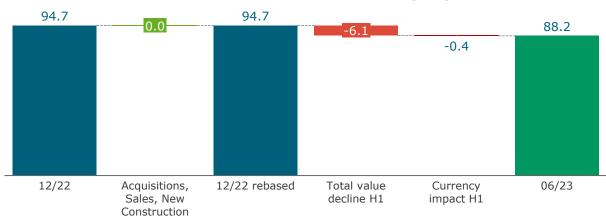


- Full portfolio valuation as of June 30, 2023.
- Following the -€3.4bn value decline in Q1, the Q2 valuation resulted in a further value decline of -€2.7bn for an aggregate value decline of -€6.1bn (-6.6% l-f-l) in the first six months of 2023.
- H1 2023 discount rate of 4.9% (H1 2022: 4.2%) and H1 2023 capitalization rate of 3.0% (H1 2022: 2.7%).<sup>5</sup>
- Total value decline of -€6.1bn from
  - -€6.4bn performance & yield expansion;
  - +€0.3bn investments.
- Too early for reliable outlook on H2, but market appears to show first signs of stabilization (cf. page 18).
- FV of €2,415/sqm (German portfolio) including the land compares to
  - ~€3,500 median purchase price for existing condos<sup>6</sup>
  - ~€5,300 median purchase price for new constructions<sup>6</sup>

### Valuation KPIs Jun. 30, 2023 (Standing Portfolio<sup>3</sup>)

	Germany	Sweden	Austria	VNA Total
In-place rent multiple	26.9x	18.5x <sup>1</sup>	24.2x <sup>1</sup>	25.9x
Fair value €/sqm	2,415	2,017	1,684	2,345
L-f-l value growth <sup>2,4</sup>	-6.8%	-4.9%	-4.8%	-6.6%
Fair value €bn³	74.5	6.2	2.9	83.7

### Fair value evolution in H1 2023 (€bn)

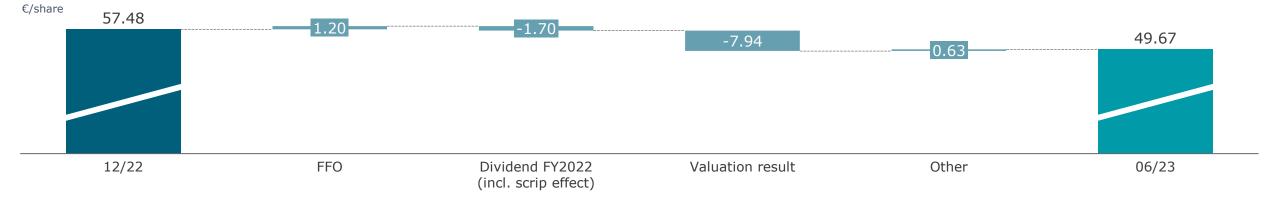


¹ In-place rents in Austria and Sweden are not fully comparable to Germany, as Sweden includes ancillary costs and Austria includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes maintenance and property improvement contributions from tenants. The data above shows the rental level unadjusted to the Germany, as Sweden includes and success to the Germany and Sweden an



Appendix

EPRA NTA (€m) (unless indicated otherwise)	Jun. 30, 2023	Dec. 31, 2022	Delta
Total equity attributable to Vonovia shareholders	27,324.2	31,331.5	-12.8%
Deferred tax in relation to FV gains of investment properties <sup>1</sup>	14,709.8	16,190.0	-9.1%
FV of financial instruments <sup>2</sup>	-124.0	-117.5	+5.5%
Goodwill as per IFRS balance sheet	-1,391.7	-1,529.9	-9.0%
Intangibles as per IFRS balance sheet	-58.2	-129.6	-55.1%
EPRA NTA	40,460.1	45,744.5	-11.6%
NOSH (million)	814.6	795.8	+2.4%
EPRA NTA (€/share)	49.67	57.48	-13.6%



<sup>1</sup> Hold portfolio only. <sup>2</sup> Adjusted for effects from cross currency swaps.

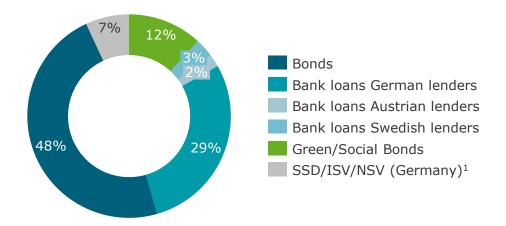
# **Debt Structure**

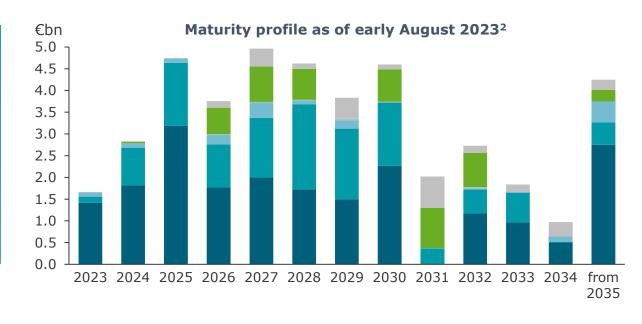
# Well-balanced and Long-term Maturity Profile with Diverse Funding Mix

Business Update & H1 2023 Results

Appendix

- Diverse funding mix with no more than 12% of debt maturing annually.
- Combination of LTV, ND/EBITDA, ICR, fixed/hedged debt ratio and maturity profile remains key in overall funding strategy.
- Well-balanced maturity profile and the heterogeneous funding mix safeguard sufficient flexibility for future refinancings.
- All financing needs for 2023 already fully covered.





KPI / criteria	Jun. 30, 2023	Dec. 31, 2022
Corporate rating (Scope) Outlook: <u>negative</u>	A-	<b>A</b> -
Corporate rating (S&P) Outlook: stable	BBB+	BBB+
Corporate rating (Moody's) Outlook: stable	Baa1	Baa1
Fixed/hedged debt ratio	96%	96%
Average cost of debt	1.6%	1.5%
Weighted average maturity (years)	6.9	7.4

SSD = Schuldscheindarlehen (promissory notes), ISV = Inhaberschuldverschreibungen (bearer bonds), NSV = Namensschuldverschreibungen (registered bonds) <sup>2</sup> June 30, 2023, adjusted for €1.0bn liability management and €0.4 repayment July 2023 bond.

# Net Debt/EBITDA Multiple, LTV & ICR

Business Update & H1 2023 Results

Appendix

 Pro forma debt KPIs adjusted for proceeds from CBRE transaction and bond buyback:

• LTV: 46.8%;

• Net debt/EBITDA multiple: 16.0x;

• ICR: 4.8x.

Net debt/EBITDA multiple €m (unless indicated otherwise)	Jun. 30, 2023	Dec. 31, 2022	Delta
Net debt (average last five quarters)	43,179.2	43,690.9	-1.2%
Adj. EBITDA (LTM)	2,695.7	2,763.1	-2.4%
Net debt/EBITDA multiple <sup>1</sup>	16.0x	15.8x	+0.2x

ICR €m (unless indicated otherwise)	Jun. 30, 2023	Dec. 31, 2022	Delta
Adj. EBITDA (LTM) <sup>2</sup>	2,699.4	2,763.1	-2.3%
Net Cash Interest (LTM)	571.7	502.6	+13.7%
ICR	4.7x	5.5x	-0.8x

LTV €m (unless indicated otherwise)	Jun. 30, 2023	Dec. 31, 2022	Delta
Non-derivative financial liabilities	44,436.5	45,059.7	-1.4%
Foreign exchange rate effects	-45.6	-50.0	-8.8%
Cash and cash equivalents <sup>3</sup>	-1,818.7	-1,302.4	+39.6%
Net debt	42,572.2	43,707.3	-2.6%
Sales receivables/prepayments	-339.8	-387.2	-12.2%
Adj. net debt	42,232.4	43,320.1	-2.5%
Fair value of real estate portfolio	88,242.8	94,694.5	-6.8%
Loans to companies holding immovable property and land	809.3	809.8	-0.1%
Shares in other real estate companies	389.4	547.4	-28.9%
Adj. fair value of real estate portfolio	89,441.5	96,051.7	-6.9%
LTV	47.2%	45.1%	+2.1pp

115.7x based on LTM EBITDA over current debt. 2 Initially reported numbers used for bond covenant calculation. 3 Incl. time deposits not classified as cash equivalents

# **Financing Update 2023 YTD**

€0.8bn rolled over. €1.4bn new loans secured. Substantial Covenant Headroom

This page has been slightly amended to clarify what loans are (not) included

Business Update & H1 2023 Results

Appendix

#### €0.8bn secured loans rolled over

- 9 loans
- 10-year maturities
- Weighted average interest rate of 4.03% (3.5% 4.3% range<sup>1</sup>)

#### €0.6bn new secured loans

- €125m Nord LB
- €130m UniCredit
- €175m Berliner Sparkasse
- Four additional loans with an aggregate volume of €160m
- 8-10 year maturities
- Weighted average interest rate of 3.75% (3.7% 4.3% range<sup>1</sup>)

#### €0.8bn new unsecured loans

- €600m EIB<sup>2</sup>
- €150m CaixaBank
- €30m other
- 5-8 year maturities
- Weighted average interest rate of 3.5%

### → Work on additional (un)secured loans is well underway.3

#### **Context for the Unencumbered Asset Ratio**

- The unencumberance bond covenant is defined as Unencumbered assets / Unsecured debt, and the threshold is >125%.
- As of June 30, 2023, the ratio was 149% (€47.7bn / €31.9bn).
- As a result, there is considerable headroom under this covenant:

Stable debt level

The absolute debt level will not increase.

Secured replaces unsecured

For the headroom analysis the relevant question is how much unsecured debt can be replaced with secured debt.

LTV for secured loans

The average LTV for our secured loans signed so far this year has been 49%.

Low LTV on debt to be rolled over The existing secured debt has a comparatively low LTV, so rolling over secured debt provides additional headroom. For example, the debt maturing in 2024 has an average LTV of 23%.

→ The <u>theoretical</u> headroom for secured loans under the unencumbered asset covenant is >€9bn (on current fair values).

1 Interest rate range excl. subsidized loans from public institutions at interest rates well below market rates. 2 Signed in 11/2022 but undrawn. 3 €0.9bn to be signed in the near term and an additional €0.6bn in negotiation but at early stages.



# **Liability Management**

Successful Completion of €1.0bn Bond Buyback

Business Update & H1 2023 Results

Appendix

### Key Results

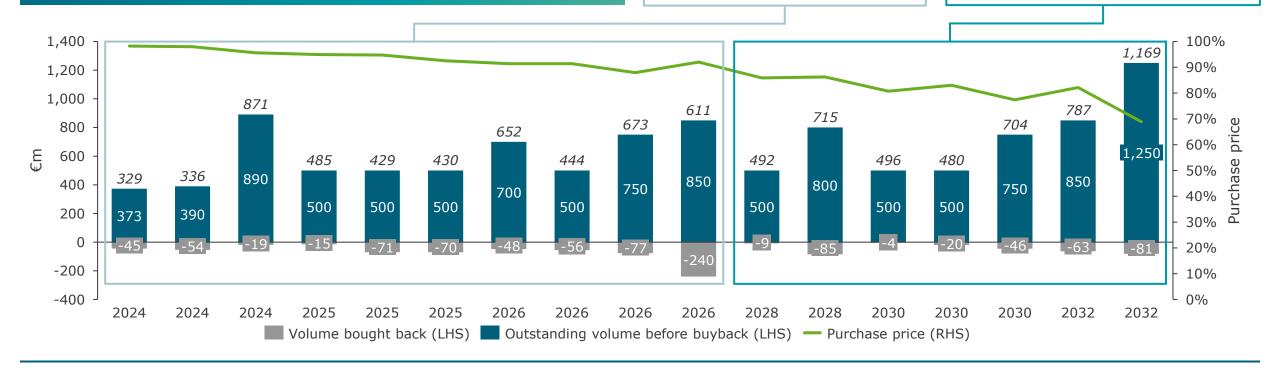
- €1.25bn nominal volume offered by investors (11% of the €11.1bn nominal bond volume included in the tender offer)
- €1.0bn nominal volume purchased
- €892m cash out (11% discount)
- €14m annualized interest cost savings

#### 2024-2026 bonds

- Fixed price/spread
- €694m offered; all accepted
- Average price of ~93%

### 2028-2032 bonds

- Modified Dutch auction
- €550m offered; €308m accepted
- Balanced pricing approach with only moderate premium
- Average price of ~80%



# **Focus on Cash Generation to Delever**

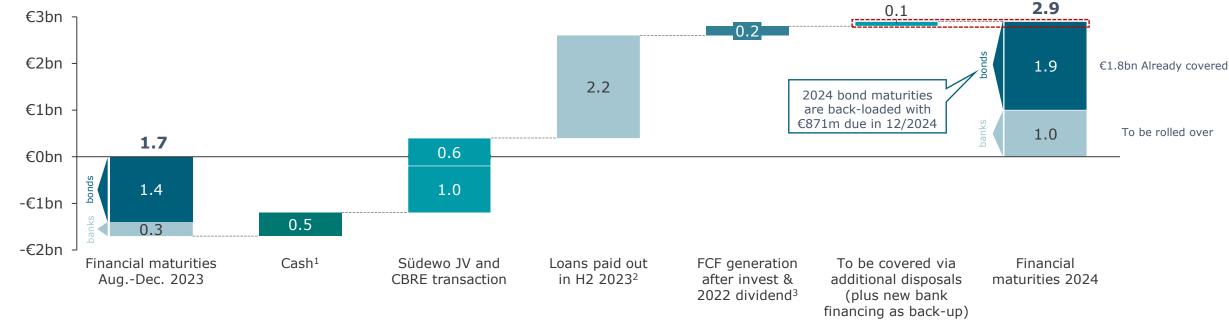
2023 Fully Covered. ~€100m Remaining for 2024 (as of June 30)

This page has been slightly amended to clarify what loans are (not) included

Business Update & H1 2023 Results

Appendix

als		Non-core	Residential assets with no strategic relevance.	Sec
		Commercial	Granular asset base.	See page 28 for KPIs of
	Non-core	MFH	Low-yielding assets in top locations.	rerent clusters of
sodsi		DW Nursing	Deutsche Wohnen efforts to sell nursing business continue and now also include more granular sale as an op- supportive at acceptable deal terms.	otion. Vonovia remains
۵		JV structures	Third JV portfolio identified in Northern Germany; fair value volume similar to Südewo portfolio; Sweden JV	remains an option.
	Opportunistic	Municipalities	Conversations and negotiations with the different municipalities continue and Vonovia remains confident that transactions are possible at attractive terms.	t one or several



1€1.8bn as of June 30, 2023, adjusted for €0.9bn liability management and €0.4 repayment July 2023 bond. Net of Commercial Paper. 2 Incl. €0.9bn to be signed in the near term. 3 2023E Group FFO accounting for Recurring Sales, capitalized maintenance, investments, FY2022 dividend and other.



# **Selected Market Views on Direction of Values**

# First Signs of Stabilization?

Business Update & H1 2023 Results

Appendix

#### Value Data Insights (formerly empirica-systeme)<sup>1</sup>

- End of price decline and new stability in sight. Offer prices continued to decline in Q2 but at a slower pace. Number of offers continued to increase.
- Transaction market still weak but showing first signs of strength; June data even shows some increasing prices.
- Berlin is a good case in point to show how the shortage of housing impacts values and rents. While values are still declining across the country in light of rising interest rates, purchase prices in Berlin are stagnating. Rental supply hardly exists and tenants can only move into a new flat if they buy or move away. The risk of a mega undersupply leads to a stabilization of purchase prices.
- The period where sellers and buyers were idling and waiting for the other side to move is coming to an end. Owner-occupiers have understood that prices will not fall forever and interest rates will not be coming down anytime soon. The environment is becoming more stable and should lead to a pick-up in transaction activity. Sellers have understood that they do not have to make larger concession on pricing in this environment and that they do not need to rush. This fact is reflected in a decline of discounted offers.

#### Hessische Landesbank (Helaba)<sup>2</sup>

• We continue to expect declining prices for German residential assets in the coming quarters. Price expectations of buyers and sellers may well converge by year-end 2023, and the number of transactions is expected to increase. Market participants will get used to the higher interest rate level, especially with the pivot coming into sight. The unabated strong demand for apartments, increasing rent growth and declining construction activities should then drive stabilization. In 2024 we may well see increasing prices again.

#### Savills<sup>3</sup>

- Window for an attractive entry point.
- Transaction market still largely driven by equity-rich investors.
- Disposals of new constructions in recent weeks and months at 3.7-4.0% gross yields; these benchmark transactions provide more clarity on achievable returns.
- While this should somewhat facilitate transactions in the coming months the yield expansion may not be quite strong enough yet to fully unlock the residential transaction market.

#### Interhyp (mortgage service provider)<sup>4</sup>

- Prices are beginning to stabilize, the market is starting to find a balance. Bids and
  offers have increasingly converged in Q2, in spite of difficult macroeconomic
  conditions. While average purchase prices continued to slightly decline compared to
  Q1, buyers and sellers are increasingly adjusting to the market's new reality.
- We continue to see solid financing structures with average tenures of more than 13 years and an average amortization rate of 2.4%; this has not changed in Q2. As a consequence, the remaining debt remains manageable at the end of the fixed interest rate period.

#### Ifo Institute<sup>5</sup>

- The latest Economic Experts Survey conducted by the ifo Institute and the Institute for Swiss Economic Policy (IWP) examined economists' house price expectations.
- According to the study, Germany's average annual nominal rate of increase is expected to be 7.2% for the next ten years.

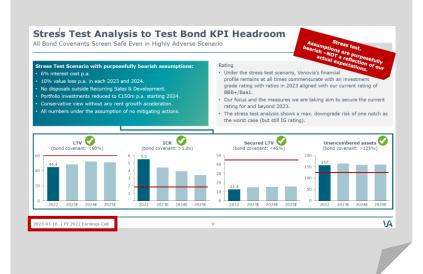
<sup>&</sup>lt;sup>1</sup> Value Data Insights (formerly empirica-systeme), H1 2023. <sup>2</sup> Helaba: Märkte und Trends July 2023. <sup>3</sup> Savills: Wohnimmobilienmarkt Deutschland July 2023. <sup>4</sup> https://www.interhyp.de/ueber-interhyp/presse/immobilienpreise-stabilisieren-sich-mit-regionalen-unterschieden/; July 2023. <sup>5</sup> IFO Institute: Economic Experts Survey: High Increases in House Prices Expected Worldwide, August 2023 (https://www.ifo.de/en/press-release/2023-07-31/experts-expect-steep-price-increases-real-estate-worldwide).



Appendix

### FY2022 Stress Test

The stress test published with our FY2022 numbers analyzed how the bond covenants evolve under certain deliberately bearish assumptions, including a 20% value decline for 2023 and 2024 combined.



### H1 2023 Update

~10% value decline in the books since H1 2022.

Transaction market still soft and uncertainty around values remains in spite of first indications of a possible market stabilization in H2 2023.

Updated stress test from a different angle: How much fair value headroom against 60% LTV bond covenant? Currently ~25% (maximum buffer can never be fully used, but large cushion).

Past twelve months have clearly shown: values do not fall off a cliff; value changes happen gradually due to the structure of the market.

So far, counter measures (esp. Südewo JV and CBRE disposal) have helped to largely mitigate impact from the value decline.

In this context, we

- ✓ continue carefully to monitor and manage all relevant debt KPIs with an unwavering commitment to bring them back towards the lower end of the respective target ranges.
- ✓ remain laser focused on all of our disposal efforts to generate the cash in time to delever.
- ✓ have **sufficient headroom** to act from a position of strength.
- ✓ are **not forced to take drastic measures** that would be detrimental to the long-term nature of our business and/or destroy long-term shareholder value.

# **2023 Guidance**

Organic Rent Growth 3.6% - 3.9%. Recurring Sales Guidance Suspended

Business Update & H1 2023 Results

Appendix

- Organic rent growth 2023E now quantified with 3.6% 3.9%; final outcome also dependent on fluctuation rate.
- Guidance confirmed with the exception of Recurring Sales, where guidance is suspended in light of limited visibility for now.
- Focus is on cash generation, and sales proceeds to delever are expected to come predominantly from the other sales channels.

	Actuals 2022	Guidance 2023
Total Segment Revenue	€6,256.9m	€6.4bn - €7.2bn
Rental Revenue	€3,163.4m	€3.15bn – €3.25bn
Organic rent growth (eop)	3.3%	3.6% - 3.9%
Recurring Sales (# of units)	2,710	Suspended
FV step-up Recurring Sales	39%	Suspended
Adj. EBITDA Total	€2,763.1m	€2.6bn - €2.85bn
Group FFO	€2,035.6m	€1.75bn - €1.95bn
Group FFO p.s. (eop shares)	€2.56	€2.15 - €2.39
Dividend	€0.85 (~35% of Group FFO after non-controlling interests)	~70% of Group FFO after non-controlling interests
Investments	Portfolio Investments: €837.4m Space creation: €607.1m	Portfolio Investments: ~€500m Space creation: ~€350m
SPI <sup>1</sup>	103%	~100%

<sup>1</sup> 2022 Actuals excl. Deutsche Wohner

# Background

- In March 2023, investigators searched the company headquarters and another Vonovia site in Bochum; the authorities were acting on the suspicion of potentially problematic activities in the awarding of contracts to subcontractors in the context of heating systems.
- Vonovia is an injured party, not the defendant.
- We have the greatest interest in a swift and comprehensive clarification of the allegations. To this end, we are not only cooperating fully with the investigating authorities, but also instructed Hengeler Mueller and Deloitte to carry out an internal investigation.

# Status Update

- This investigation by Hengeler Mueller and Deloitte is far advanced.
- Their forensic analysis covers a comprehensive set of data, including several million emails and hundreds of individual business processes.
- This data analysis will be followed by individual interviews to further support the analysis.
- The investigation is continuing in the third quarter.
- The preliminary results so far confirm
  - Vonovia's initial assessment that the financial impact is not material;
  - that other business activities are not impacted;
  - that there are no findings about negative consequences for our tenants.
- A final assessment will follow the conclusion of Hengeler Mueller's and Deloitte's investigation.



Core rental business remains rock solid with accelerating rent growth, low vacancy, and full rent collection.

All financial maturities covered until 12/2024 from successful rollover of secured debt, new secured and unsecured bank debt, and cash generation.

We remain fully committed to our disposal targets including our efforts to execute another JV transaction to address the 2025 financial maturities and optimize our balance sheet. First signs of stabilization could provide more positive backdrop for H2.

Fair value headroom allows us to continue to act from a position of strength, and we are not forced to take drastic measures that would be detrimental to the long-term nature of our business and/or destroy long-term shareholder value.

# **Agenda**

1.

2.

Business Update & H1 2023 Results pages 3-22

Appendix pages 24-56

# **Appendix**

25	Megatrends
26	Strategy
27-28	Regional Markets & Portfolio Clusters
29-30	Apollo JV
31	Investments
32	Fluctuation
33-38	ESG
39-41	Debt & Bond Covenants
42-52	Residential Market Data
53-54	Vonovia Shares
55	IR Contact & Financial Calendar
56	Disclaimer

# Our Business Is Supported by Two Dominant Megatrends...

...But the Current Environment is a Short-term Challenge

Business Update & H1 2023 Results

Appendix

- In addressing the consequences of the Russian war on Ukraine, central banks around the world have been increasing interest rates at an unprecedented speed.
- The drawback of Vonovia's stable business model in a regulated market is that it reacts only slowly to the new environment, and the initial impact on our KPIs is negative.
- However, the new environment also accelerates the relevant megatrends around which we have built our business, leading to
  even stronger fundamentals in the medium- and long-term.

## **Urbanization & Supply/Demand Imbalance**

Expected demand, permits, completions ('000 units)<sup>1</sup>

# **Climate Change**

Development of green house gas emissions in the building sector (Germany)<sup>2</sup>



Adapted from ZIA forecast based on Empirica and Pestel Institute. <sup>2</sup> Agora Energiewende (2023): "Die Energiewende in Deutschland: Stand der Dinge 2022. Rückblick auf die wesentlichen Entwicklungen sowie Ausblick auf 2023." 2022 is an estimate.



# **Established 4+2 Strategy Still Relevant**

But Focus and Priorities Have Shifted

usiness Update & H1 2023 Results

Appendix

#### **Reputation & Customer Satisfaction**



- Rent growth momentum accelerating
- · Vacancy rate at record low
- · Collection rate at all-time high
- Continuous improvements in Cost per Unit and EBITDA Operations margin



- Diverse funding sources
- General strategy is to roll over secured financing and repay unsecured bonds to delever and meet internal debt KPIs



- Reduced investment program to reflect higher cost of capital and return requirements
- Revised portfolio clustering to identify disposal assets and reallocate capital
- Additional opportunistic disposals



- Additional services: renewable energy, predictive maintenance, smart metering, multimedia
- Leverage scale, know how and experience
- Monetize platform value by rolling out service business to third-parties

**Core Strategies** 

# Mergers & Acquisitions



- Commitment to pause external growth as long as
  - debt KPIs are not in the target ranges and
  - cost of capital is elevated and acquisitions are not accretive

### European Expansion



- In 2018, Vonovia had acquired a 10% stake in the French residential company Vesta for a gross consideration of ca. €87m.
- Vonovia sold its full stake to two co-investors at a price in excess of the acquisition price.
- As a consequence, Vonovia now has no financial involvement in the French real estate market.

**Opportunistic Strategies** 

# **Regional Markets**

# Balanced Exposure to Relevant Growth Regions

usiness Update & H1 2023 Results

Appendix

Fair value <sup>1</sup>				In-place rent								
Regional Markets (Jun. 30, 2023)	(€m)	(€/sqm)	Residential units	ial Vacancy (%)	Total (p.a., €m)	Residential (p.a., €m)	Residential (€/sqm/ month)	Organic rent growth (y-o-y, %)	Multiple (in-place rent)	Purchase power index (market data) <sup>2</sup>	Market rent increase forecast Valuation (% p.a.)	Average rent growth (LTM, %) from Optimize Apartment
Berlin	25,502	2,868	143,916	1.1	798	760	7.43	1.8	32.0	84.0	2.3	34.1
Rhine Main Area (Frankfurt, Darmstadt, Wiesbaden)	6,933	2,924	36,594	2.6	261	250	9.25	3.4	26.6	103.3	2.2	33.8
Dresden	5,365	1,949	45,024	2.7	221	206	6.76	3.1	24.3	85.8	2.1	24.0
Southern Ruhr Area (Dortmund, Essen, Bochum)	5,290	1,960	43,027	2.5	223	217	6.99	4.3	23.7	100.4	1.9	31.4
Rhineland (Cologne, Düsseldorf, Bonn)	5,245	2,450	31,718	1.9	209	199	8.10	3.0	25.1	89.0	2.1	30.6
Hamburg	3,432	2,654	20,122	1.0	124	119	7.97	3.9	27.6	97.5	2.0	39.1
Munich	3,000	4,152	10,737	1.6	83	78	9.56	8.3	36.2	89.8	2.3	49.1
Hanover	3,022	2,095	22,091	2.4	127	120	7.35	3.9	23.8	75.7	2.0	33.3
Kiel	2,876	1,919	25,298	1.8	129	123	7.20	3.0	22.3	119.2	2.0	37.7
Stuttgart	2,389	2,798	13,319	1.7	89	86	8.78	3.6	26.8	102.6	2.2	28.5
Northern Ruhr Area (Duisburg, Gelsenkirchen)	2,122	1,393	24,463	2.6	116	112	6.38	3.2	18.3	80.4	1.6	25.9
Leipzig	2,011	1,989	14,273	3.2	78	71	6.54	2.1	25.7	77.6	2.0	22.5
Bremen	1,493	2,040	11,732	1.7	58	56	6.61	4.1	25.7	83.1	2.1	31.7
Westphalia (Münster, Osnabrück)	1,137	1,822	9,439	2.0	52	51	7.02	3.2	21.8	89.6	2.0	27.5
Freiburg	748	2,696	4,035	1.5	28	27	8.35	3.5	26.8	86.3	2.0	35.1
Other Strategic Locations	3,539	1,985	27,584	3.0	155	150	7.40	2.8	22.8		2.0	33.5
Total Strategic Locations	74,101	2,420	483,372	1.9	2,752	2,626	7.52	3.1	26.9		2.1	32.3
Non-Strategic Locations	442	1,706	3,590	3.1	23	19	6.92	2.0	19.0		1.9	38.7
Total Germany	74,542	2,415	486,962	1.9	2,775	2,645	7.51	3.1	26.9		2.1	32.3
Vonovia Sweden <sup>3</sup>	6,184	2,017	39,618	3.7	334	309	9.50	5.2	18.5		2.1	-
Vonovia Austria <sup>3</sup>	2,931	1,684	21,500	4.7	121	97	5.37	10.1	24.2		1.7	-
TOTAL	83,657	2,345	548,080	2.2	3,230	3,051	7.58	3.5	25.9		2.1	n/a

¹ Fair values excluding €4.5bn for undeveloped land, inheritable building rights and undeveloped land granted (€0.4bn), assets under construction (€0.4bn), development (€2.2bn), nursing and assisted living (€1.1bn) and other (€0.4bn). ² Source: GfK (2023). Data refers to the specific cities indicated in the table, weighted by the number of households where applicable. ³ Based on the country-specific definition. In-place rents in Austria and Sweden are not fully comparable to Germany, as Sweden includes ancillary costs and Austria includes maintenance and property improvement contributions from tenants. The table above shows the rental level unadjusted to the German definition.



	:	Jui	n. 30, 2023	Resi units	In-place rent (€m p.a.)	In-place rent (€/sqm)	Vacancy rate	Fair value (€bn)		Gross yield
Included in Segment Results and FFO  Recurring Sales	teaic	21691	Urban quarters & clusters (Germany)	421,631	2,338	7.44	1.8	62.8	2,389	3.8%
	S. C.	200	Sweden	39,618	334	9.50	3.7	6.2	2,017	5.7%
			Germany	28,125	173	7.42	2.8	4.8	2,415	3.8%
		Austria	21,500	121	5.37	4.7	2.9	1,684	4.4%	
	Dienocale	2008	MFH Sales	23,218	175	9.38	1.5	5.4	3,481	3.3%
			Non Core	13,988	89	6.58	4.0	1.6	1,486	6.0%
	Additional		DW Nursing	72 propertie	es			1.1	n/a	6.7% <sup>1</sup>
			Total <sup>2</sup>	548,080	3,230	7.58	2.2	83.7	2,345	4.0%

### (Includes >€10bn fair value for further potential JV structures)

- German portfolio comprises of strategic assets in 15 urban growth regions that are held in larger urban quarters ( $\sim 3/4$ ) and smaller urban clusters ( $\sim 1/4$ ).
- Swedish Properties are located in Sweden's three large urban areas Stockholm, Gothenburg, and Malmö.
- EBITDA contribution is shown in Recurring Sales Segment.
- Single-unit disposals to owner-occupiers and retail investors.
- $\boldsymbol{\cdot}$  Outside of Core Business Segments and included in Other Income
- · Focus on cash generation.
- MFH: low yielding assets outside urban quarters.
- · Non-core: non-strategic residential and commercial properties.
- DW Nursing: Vonovia is supportive of disposal efforts at acceptable terms.

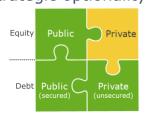
<sup>1</sup> Calculated as H1 2023 Segment EBITDA annualized / fair value (June 30, 2023). <sup>2</sup> Excl. DW Nursing

**Appendix** 

# Orderly process including thorough analysis and diligent organization...

# Q1 2022

Initial idea to tap alternative equity sources by setting up minority and joint venture partnerships to establish strategic optionality.



## Q2 2022

Feasibility study in light of complexity and granularity of residential assets including tax and legal issues.

## Q3 2022

Identification of suitable portfolios with (i) Südewo in Baden-Württemberg and (ii) Sweden.

Market approach.

## Q4 2022 - Q1 2023

Continued market approach and negotiations with potential JV partners.

Finalization of negotiations and agreement with Apollo on behalf of its affiliated and third party insurance clients and other long-term investors for a €1.0bn common equity participation in Südewo.

### ...that achieved the target

- ✓ €1bn equity to Vonovia at more favorable terms than observed in the listed space.
- ✓ Vonovia retains a long-term **call-option** to repurchase the participation at an IRR of 6.95%-8.30% (including dividends received) without an obligation to exercise the option.
- ✓ Vonovia will continue to control, operate, and consolidate the portfolio.
- ✓ Strategic optionality successfully implemented.
- ✓ Valuable knowledge and experience for potential future transactions.

Call Option valued at €359m<sup>1</sup> as of June 30, 2023

¹ The value of the call option is derived by comparing the two discounted cash flows (i) dividend payments as per the business case and (ii) price to be paid for the call option at the respective date to buy back the stake and dividend claim. The cash flows are discounted with the specific WACC for the Südewo stake. As long as the net present value of the dividend payments exceeds the purchase price for the stake, the call option is in the money. The model includes different probabilities, especially with regards to positive and negative deltas to the business plan, timing of exercising the call option and other relevant parameters

# **Balance Sheet**

# Impact of Südewo Transaction on Equity

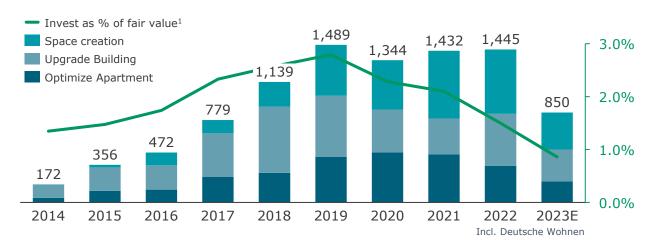
Business Update & H1 2023 Results

Appendix

€m	Dec. 31, 2022	Jun. 30, 2023		Dec. 31, 2022	Jun. 30, 2023
Intangible Assets	1,660	1,450	Total equity	34,439	30,953
Investment Properties	92,300	85,618	thereof Südewo portion in other reserves thereof Südewo Call-Option portion in other reserves thereof Südewo portion in minority interest	- - -	240 359 760
Other tangible Assets	1,333	1,182	= Südewo impact in Total equity	-	1,359
Südewo Call-Option	-	359	Non-derivative financial liabilities	41,270	40,395
Other financial assets	745	842	Other long term liabilities	1,593	1,576
			Deferred tax liabilities	18,612	16,751
Total non-current assets	96,038	89,451	Total non-current liabilities	61,475	58,721
Real estate properties in current assets	2,227	2,445	Non-derivative financial liabilities	3,790	4,041
Other current assets	1,822	1,799	Other current liabilities	1,686	1,655
Cash and Cash Equivalents	1,302	1,677			
thereof Südewo	-	1,000			
Total current assets	<u>5,352</u> _	5,920	Total current liabilities	5,476	5,697
<u>Total assets</u>	101,390	95,371	Total Equity and liabilities	101,390	95,371

### **Investment Program**

- Investment program includes Apartment Modernization (*Optimize Apartment*), Energy-efficient building modernization (*Upgrade Building*) and Space creation.
- 2023E volume substantially below prior years as a result of revised capital allocation.
- Investment hurdles have been increased to reflect higher cost of capital.
- Optimize Apartment yields have increased to >10%.
- 2024E investment program also depending on leverage target achievement.

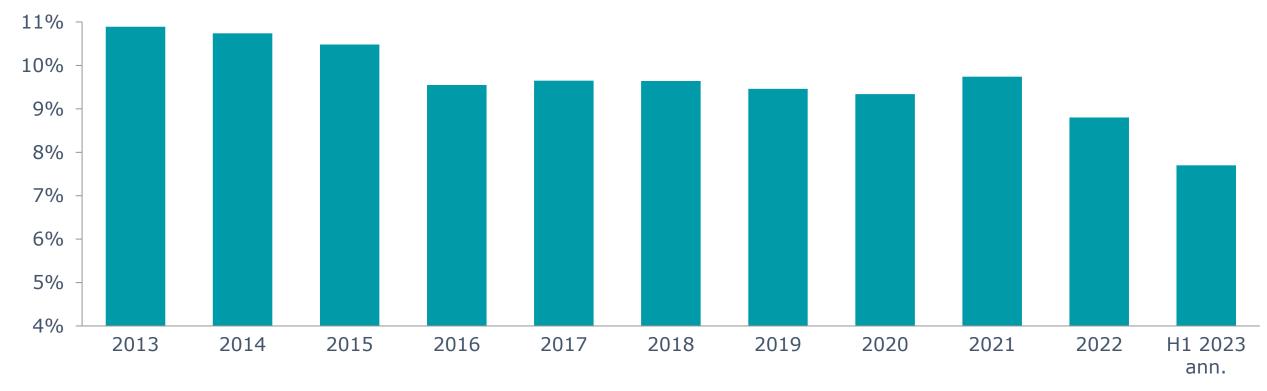


### **Development to Sell**

- €3.6bn (3.8% of balance sheet) committed.
- No additional capital to be committed at this point.
- Recycling of inventory.
- Development to sell is a self-financing entity, i.e. new projects must be financed through disposals of finished developments.
- Most new constructions sold to retail investors / owner occupiers but projects also made ready for global exits.
- Remains an attractive business in light of growing supply/demand imbalance.

<sup>1</sup> Calculated as investment amount over fair value; 2023E based on 2022 fair value.

- The fluctuation rate has been steadily declining since the IPO and is currently <8%.
- The fluctuation rate level impacts the overall rent growth as the contribution from new lettings is usually comparatively high (rent growth of ca. 10% without investments and ca. 30% with investments).



2023 onwards including Deutsche Wohnen

# Serving a Fundamental Need in a Highly Relevant Market

Our Business Is Deeply Rooted in ESG

Business Update & H1 2023 Results

Appendix

95

All of our actions have more than just an economic dimension and require adequate stakeholder reconciliation.

- We provide a home to almost 1.5 million people from ca. 150 nations.
- CO<sub>2</sub> emissions related to housing are one of the largest sources of greenhouse gas emissions.
- As a listed, blue-chip company we are rightfully held to a high standard.

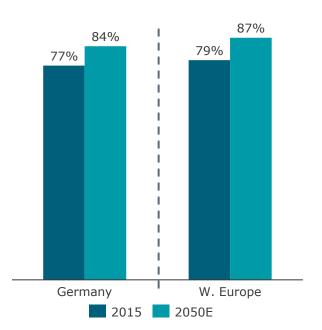


corporate governance built on trust

### **Urbanization**



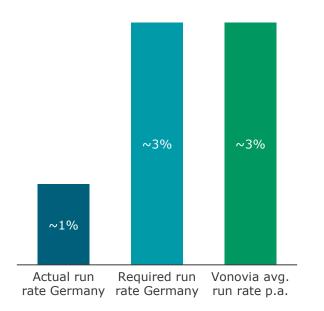
% of population living in cities



### **Climate Change**



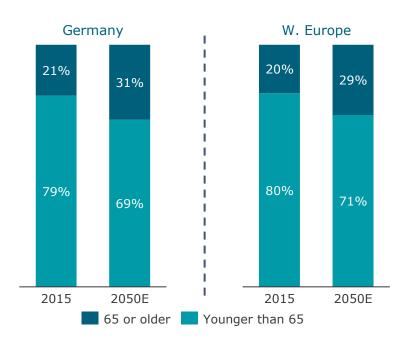
% of modernized housing units



### **Demographic Change**



% of population above/below 65 years



Sources: United Nations, European Union.

# **Commitment to Sustainability**

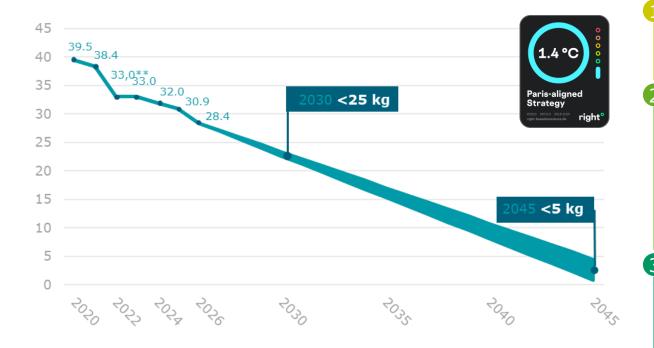
# Science-based Decarbonization Roadmap with Measurable Interim Targets

Business Update 8 H1 2023 Results

Appendix

- Accelerated decarbonization with near CO<sub>2</sub> neutrality by 2045.
- Following CRREM MFH 1.5 degree pathway.
- Including Scope 1, 2 and 3.3.

### CO<sub>2</sub> intensity in kg CO<sub>2</sub>e/sqm per year<sup>1</sup>



#### The 3 levers of our climate path

Continue deep renovation.

**Replace conventional heating** with hybrid systems and heat pumps.

**PV** on all suitable roofs.

Own local **heating networks in Urban Quarters** powered with renewable energy.

**Transformation of the energy sector** towards carbon-free district heating and green electricity.

<sup>1</sup> Includes scopes 1 & 2 as well as scope 3.3 "Fuel- and energy-related activities upstream;" referring to German building stock (incl. Deutsche Wohnen). Development of energy sector according to Scenario Agora Energiewende KNDE 20245; For comparison: CRREM pathway MFH 1.5° DE 2045=5.4kg CO2e/sqm per year (07/2021); Climate pathway development supported by Fraunhofer ISE. Per-sqm values based on rental area, not total floor space. Data refers to year end. \*\* CO<sub>2</sub> intensity for 2022 better than expected at the time of planning.



# **United Nations Sustainability Development Goals**

Vonovia Has a Meaningful Impact on 8 SDGs

usiness Update & H1 2023 Results

Appendix

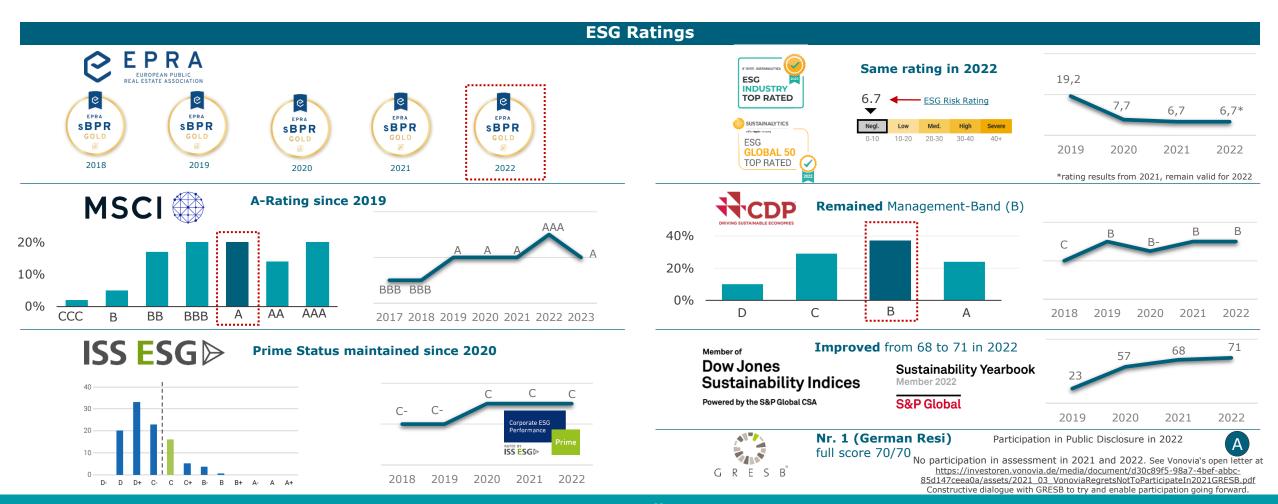


## **Recognition of ESG Performance**

ESG Ratings and Indices

usiness Update & H1 2023 Results

Appendix



#### **ESG Indices**

Vonovia is a constituent of various ESG indices, including the following: DAX 50 ESG, STOXX Global ESG Leaders, EURO STOXX ESG Leaders 50, Dow Jones Sustainability Index Europe.

## **Corporate Governance**

#### AGM, Supervisory Board, Management Board

**Appendix** 

- The duties and authorities of the three governing bodies derive from the SE Regulation, the German Stock Corporation Act and the Articles of Association. In addition, Vonovia is **fully in compliance** with the German Corporate Governance Code.
- In the two-tier governance system, the management and monitoring of the business are strictly separated from each other.

#### **Annual General Meeting (AGM)**

- Shareholders can exercise their voting rights (One Share, One Vote).
- · Decision making includes the appropriation of profit, discharge of members of the SVB and MB, and capital authorization.

#### **Two-tier Governance System**

#### **Supervisory Board (SVB)**

- · Appoints, supervises and advises MB and approves decisions of fundamental importance to the company
- Examines and adopts the annual financial statements
- Forms Supervisory Board Committees
- Fully independent
- Board profile with all required skills and experience













#### **Management Board (MB)**

CEO

Rolf Buch

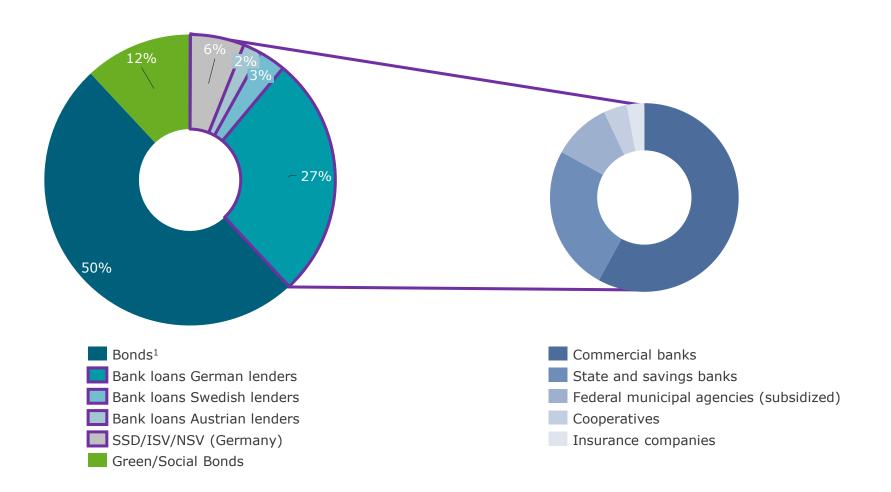
- · Jointly accountable for independently managing the business in the best interest of the company and its stakeholders
- Informs the SVB regularly and comprehensively
- Develops the company's strategy, coordinates it with the SVB and executes that strategy



The SVB has resolved to appoint Ruth Werhahn as CHRO as of October 1, 2023.

Business Update 8 H1 2023 Results

Appendix



#### **Top Five Lenders:**

- Berlin Hyp AG
- Deutsche Pfandbriefbank AG
- HVB/UniCredit
- Bayerische Landesbank
- Berliner Sparkasse

# **Bonds & Ratings**

								H1 2023 Resu	lts	Appendi	X
Name	Tenor & Coupon	ISIN	Amount	Issue price	Current Price <sup>3</sup>	Yield <sup>3</sup>	Coupon	Final Maturity Date	Moodys	Scope	S&P
Bond 028A (EMTN)	2 years 0.000%	DE000A3MP4S3	EUR 351,9m	100,484%	99,19%	5,16%	0,000%	01-Sep-2023	Baa1	A-	BBB+
Bond 004 (USD-Bond)	10 years 5.000%	US25155FAB22	USD 250,0m	98,993%	99,50%	6,81%	4,580% <sup>2</sup>	02-Okt-2023	NR	A-	BBB+
Bond 010C (EMTN)	8 years 2.250%	DE000A18V146	EUR 876,8m	99,085%	98,80%	5,08%	2,250%	15-Dez-2023	Baa1	A-	BBB+
Bond 017A (EMTN)	6 years 0.750%	DE000A19UR61	EUR 328,6m	99,330%	97,84%	4,54%	0,750%	15-Jan-2024	Baa1	A-	BBB+
Bond 023A (EMTN)	4 years 1.625%	DE000A28VQC4	EUR 336,1m	99,831%	97,62%	4,53%	1,625%	07-Apr-2024	Baa1	A-	BBB+
Bond 030A (EMTN)	2 years 3mS+95bps	XS2368364522	SEK 500,0m	100,000%	98,57%	6,76%	3mS+95bps	08-Apr-2024	Baa1	A-	BBB+
Bond 027A (EMTN)	3.25 years 0.000%	DE000A3E5MF0	EUR 278,3m	100,192%	94,30%	4,77%	0,000%	16-Sep-2024	Baa1	A-	BBB+
Bond 013 (EMTN)	8 years 1.250%	DE000A189ZX0	EUR 871,0m	99,037%	94,90%	4,72%	1,250%	06-Dez-2024	Baa1	A-	BBB+
Bond 009B (EMTN)	10 years 1.500%	DE000A1ZY989	EUR 485,4m	98,455%	94,23%	4,57%	1,500%	31-Mrz-2025	Baa1	A-	BBB+
Bond B. 500-2 (DW)	5 years 1.000%	DE000A289NE4	EUR 589,7m	98,910%	93,15%	4,99%	1,000%	30-Apr-2025	Baa1	NR	BBB+
Bond 020 (EMTN)	6.5 years 1.800%	DE000A2RWZZ6	EUR 429,2m	99,836%	93,97%	4,67%	1,800%	29-Jun-2025	Baa1	A-	BBB+
Bond 015 (EMTN)	8 years 1.125%	DE000A19NS93	EUR 429,8m	99,386%	91,70%	4,85%	1,125%	08-Sep-2025	Baa1	A-	BBB+
Bond 028B (EMTN)	4.25 years 0.000%	DE000A3MP4T1	EUR 1.250,0m	99,724%	88,08%	4,89%	0,000%	01-Dez-2025	Baa1	A-	BBB+
Bond 029A (EMTN)	3.85 years 1.375%	DE000A3MQS56	EUR 610,5m	99,454%	91,19%	4,75%	1,375%	28-Jan-2026	Baa1	A-	BBB+
Bond 018B (EMTN)	8 years 1.500%	DE000A19X8A4	EUR 652,0m <sup>1</sup>	101,119%	90,45%	4,89%	1,500%	22-Mrz-2026	Baa1	A-	BBB+
Bond 011B (EMTN)	10 years 1.500%	DE000A182VT2	EUR 444,2m	99,165%	90,47%	4,73%	1,500%	10-Jun-2026	Baa1	A-	BBB+
Bond 024A (EMTN)	6 years 0.625%	DE000A28ZQP7	EUR 673,0m	99,684%	87,08%	5,10%	0,625%	09-Jul-2026	Baa1	A-	BBB+
Bond 014B (EMTN)	10 years 1.750%	DE000A19B8E2	EUR 500,0m	99,266%	88,77%	5,01%	1,750%	25-Jan-2027	Baa1	A-	BBB+
Bond 030B (EMTN)	5 years 3mS+140bps	XS2368364449	SEK 750,0m	100,000%	93,27%	7,33%	3mS+140bps	08-Apr-2027	Baa1	A-	BBB+
Bond 031A (EMTN)	4.5 years 4.750%	DE000A30VQA4	EUR 750,0m	99,853%	98,02%	5,06%	4,750%	23-Mai-2027	Baa1	Α-	BBB+
Bond 027B (EMTN)	6 years 0.375%	DE000A3E5MG8	EUR 1.000,0m	99,947%	83,06%	5,14%	0,375%	16-Jun-2027	Baa1	A-	BBB+
Bond 022B (EMTN)	8 years 0.625%	DE000A2R8ND3	EUR 500,0m	98,941%	82,61%	5,21%	0,625%	07-Okt-2027	Baa1	A-	BBB+
Bond 017B (EMTN)	10 years 1.500%	DE000A19UR79	EUR 491,5m	99,439%	84,66%	5,02%	1,500%	14-Jan-2028	Baa1	A-	BBB+
Bond 029B (EMTN)	6.25 years 1.875%	DE000A3MQS64	EUR 715,2m	99,108%	84,93%	5,05%	1,875%	28-Jun-2028	Baa1	Α-	BBB+
Bond 028C (EMTN)	7 years 0.250%	DE000A3MP4U9	EUR 1.233,0m	99,200%	77,71%	5,21%	0,250%	01-Sep-2028	Baa1	A-	BBB+
Bond 021A (EMTN)	10 years 0.500%	DE000A2R7JD3	EUR 500,0m	98,965%	74,86%	5,09%	0,500%	14-Sep-2029	Baa1	A-	BBB+
Bond 027C (EMTN)	8.5 years 0.625%	DE000A3E5MH6	EUR 999,0m	99,605%	75,18%	5,29%	0,625%	14-Dez-2029	Baa1	A-	BBB+
Bond 018C (EMTN)	12 years 2.125%	DE000A19X8B2	EUR 495,6m	98,967%	81,23%	5,20%	2,125%	22-Mrz-2030	Baa1	A-	BBB+
Bond 023B (EMTN)	10 years 2.250%	DE000A28VQD2	EUR 479,7m	98,908%	82,30%	5,04%	2,250%	07-Apr-2030	Baa1	A-	BBB+
Bond B. 500-3 (DW)	10 years 1.500%	DE000A289NF1	EUR 587,3m	98,211%	80,26%	5,01%	1,500%	30-Apr-2030	Baa1	NR	BBB+
Bond 024B (EMTN)	10 years 1.000%	DE000A28ZQQ5	EUR 704,1m	99,189%	76,14%	5,03%	1,000%	09-Jul-2030	Baa1	A-	BBB+
Bond 031B (EMTN)	8 years 5.000%	DE000A30VQB2	EUR 750,0m	99,645%	97,54%	5,00%	5,000%	23-Nov-2030	Baa1	A-	BBB+
Bond 026 (EMTN)	10 years 0.625%	DE000A3E5FR9	EUR 600,0m	99,759%	71,96%	4,99%	0,625%	24-Mrz-2031	Baa1	A-	BBB+
Bond 500_S1-T1 (DW)	10 years 0.500%	DE000A3H25P4	EUR 318,3m	98,600%	70,17%	5,04%	0,500%	07-Apr-2031	NR	NR	BBB+
Bond 029C (EMTN)	10 years 2.375%	DE000A3MQS72	EUR 786,9m	99,003%	81,41%	5,11%	2,375%	25-Mrz-2032	Baa1	A-	BBB+
Bond 028D (EMTN)	11 years 0.750%	DE000A3MP4V7	EUR 1.169,1m	99,455%	68,56%	5,29%	0,750%	01-Sep-2032	Baa1	A-	BBB+
Bond 027D (EMTN)	12 years 1.000%	DE000A3E5MJ2	EUR 964,0m	99,450%	67,81%	5,52%	1,000%	16-Jun-2033	Baa1	A-	BBB+
Bond 021B (EMTN)	15 years 1.125%	DE000A2R7JE1	EUR 500,0m	99,822%	65,23%	5,44%	1,125%	14-Sep-2034	Baa1	A-	BBB+
Bond 018D (EMTN)	20 years 2.750%	DE000A19X8C0	EUR 500,0m	97,896%	70,90%	5,27%	2,750%	22-Mrz-2038	Baa1	A-	BBB+
Bond 022C (EMTN)	20 years 1.625%	DE000A2R8NE1	EUR 500,0m	98,105%	58,68%	4,93%	1,625%	07-Okt-2039	Baa1	A-	BBB+
Bond 025 (EMTN)	20 years 1.000%	DE000A287179	EUR 500,0m	99,355%	51,79%	5,40%	1,000%	28-Jan-2041	Baa1	A-	BBB+
Bond 500_S2-T1 (DW)	20 years 1.300%	DE000A3H25Q2	EUR 265,4m	97,838%	57,89%	5,11%	1,300%	07-Apr-2041	NR	NR	BBB+
Bond 027E (EMTN)	20 years 1.500%	DE000A3E5MK0	EUR 500,0m	99,078%	55,38%	5,04%	1,500%	14-Jun-2041	Baa1	A-	BBB+
Bond 028E (EMTN)	30 years 1.625%	DE000A3MP4W5	EUR 750,0m	97,903%	48,68%	5,29%	1,625%	01-Sep-2051	Baa1	Α-	BBB+

Overview includes publicly traded bonds of Vonovia and Deutsche Wohnen (excl. *Private Placements*, Namensschuldverschreibungen (registered bonds) and *Schuldscheindarlehen* (promissory notes)). <sup>1</sup> Incl. Tab Bond EUR 200m, Issue date 06 Feb 2020. <sup>2</sup> EUR equivalent coupon. <sup>3</sup> As of end of June 2023. Green Bond. Social Bond.



Business Update &

## **Bond Covenants**

### Substantial Headroom for All Covenants

Business Update & H1 2023 Results

Appendix

Bond covenants	Required level		<b>irrent level</b> n. 30, 2023)	Headroom <sup>1</sup>
LTV (Total financial debt / total assets)	<60%	44.4bn 95.4bn	→ 46.6%	On the current total financial debt level, fair values would have to drop ~25% for the LTV to cross 60%.
Secured LTV (Secured debt / total assets)	<45%	12.5bn 95.4bn	→ 13.1%	On the current secured debt volume, fair values would have to drop ~79% for the secured LTV to cross 45%.
ICR (LTM Adj. EBITDA / LTM net cash interest)	>1.8x	2,700m 572m	→ 4.7x	On the current EBITDA level, interest expenses would have to increase 162% to ca. €1.5bn for the ICR to fall below 1.8x.
Unencumbered assets (Unencumbered assets / unsecured debt)	>125%	47.7bn 31.9bn	<b>→</b> 149%	On the current unsecured debt level, fair values would have to drop 19% for the unencumbered assets ratio to fall below 125%.

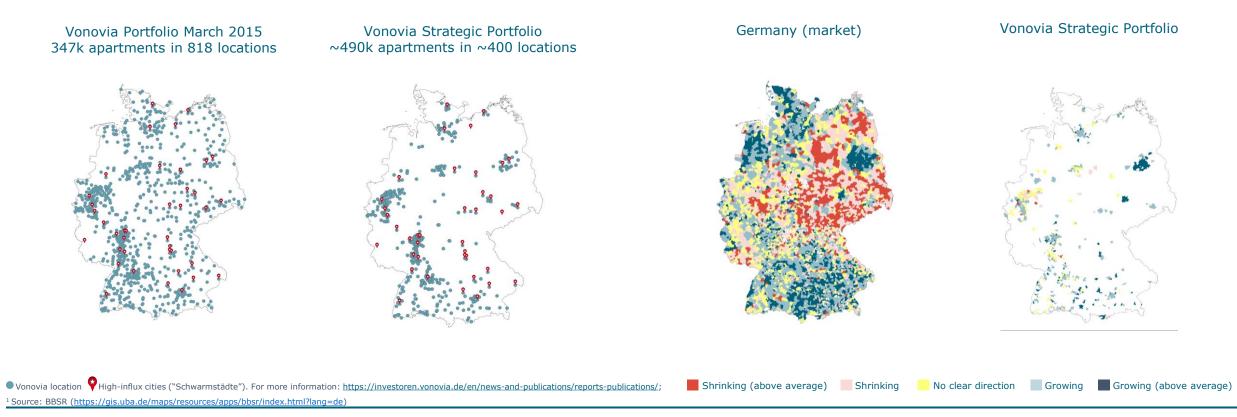
1 Headroom calculations are based on sensitivities regarding changes in investment properties, not total assets, while all other variables are kept unchanged.

Business Update & H1 2023 Results

Appendix

#### Market view – growing and shrinking regions<sup>1</sup>

- The German Federal Office for Construction and Urban Development (BBSR) has analyzed all cities and counties in Germany on the basis of the average development in terms of population growth, net migration, working population (age 20-64), unemployment rate and trade tax revenue.
- The results fully confirm our portfolio management decisions.



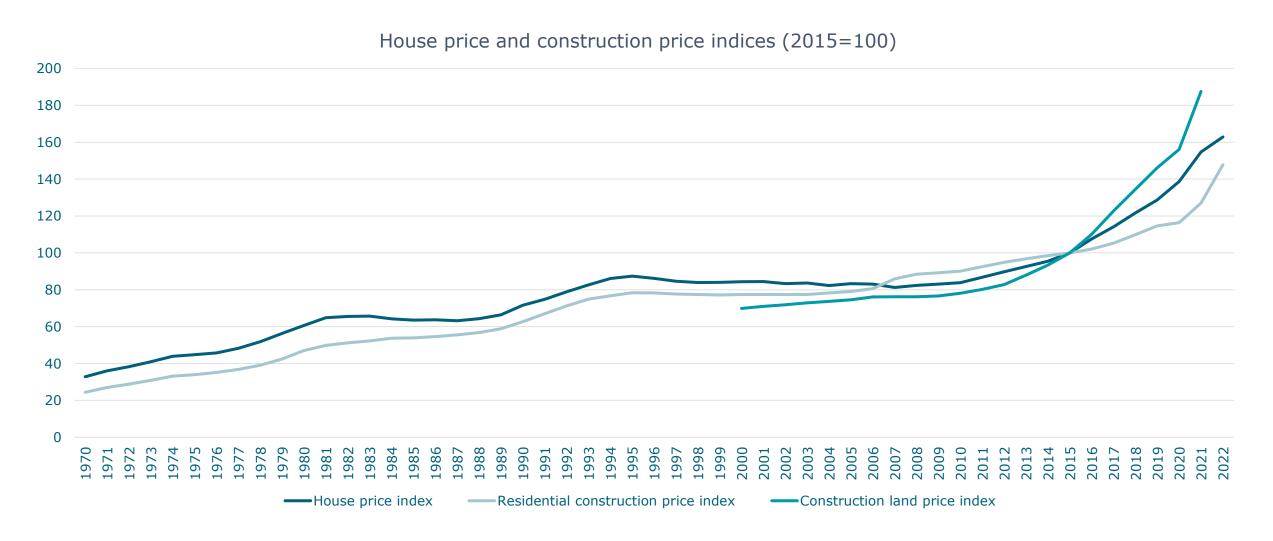


## **House Prices & Construction Costs Correlation**

Resi Prices Have Been Moving Alongside Construction Prices for 50 Years

Business Update 8 H1 2023 Results

Appendix



Sources: OECD: House price index. Federal Statistics Office: (a) Residential Construction Price Index ("Baupreisindex für Wohngebäude") and (b) Construction land price index ("Preisindex für Bauland").

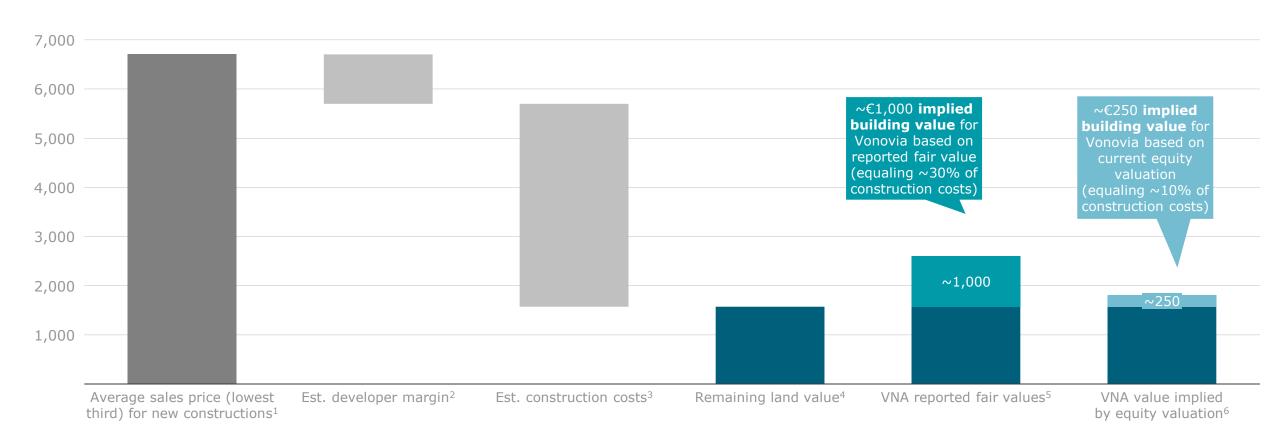
# **Comps & Implied Building Values**

Market Comps and Implied Land Values Suggest Vonovia Valuation Is Conservative

Business Update 8 H1 2023 Results

Appendix

#### Vonovia's implied building values based on reported fair values and current equity valuation (€/sqm)



¹ Source: Value Data Insights (formerly empirica-systeme), H1 2023; ² Assumption: 15% of sales price. ³ Estimated €4.1k per sqm. ⁴ Residual value of sales price minus est. developer margin minus est. construction costs. ⁵ Weighted average across the regions Berlin, Rhine Main, Southern Ruhr Area, Rhineland, Dresden, Hamburg, Stuttgart, Leipzig. ⁶ Implied fair value based on share price of €21 and LTV of 47.2%.



# Vonovia's Fair Values and Rents Are Substantially Below Market

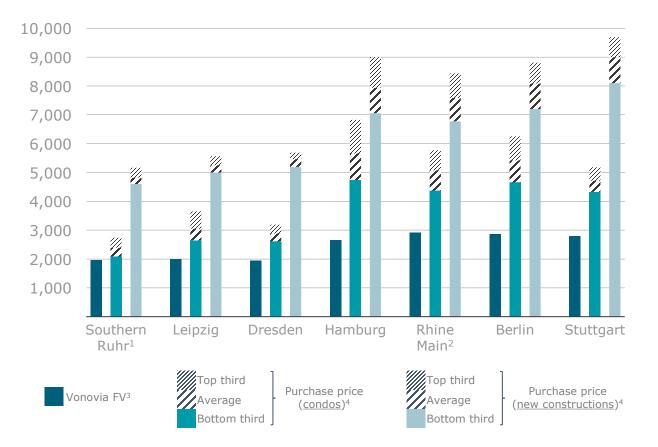
Data Points on Prices for Condos & New Constructions and Rent Levels

Business Update & H1 2023 Results

Appendix

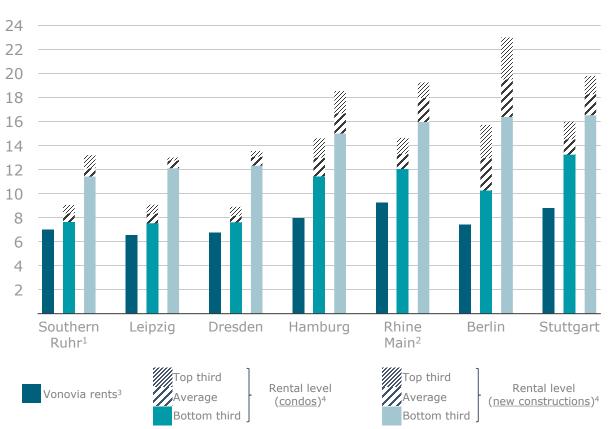
#### **Price levels**

Vonovia fair values versus prices for condos and new constructions (€/sqm)



#### **Rent levels**

Vonovia rental levels versus prices for condos and new constructions (€/sqm)



<sup>1</sup> Market data is simple average of Dortmund and Essen. <sup>2</sup> Market data is simple average of Frankfurt and Wiesbaden. <sup>3</sup> Values and rents for Vonovia refer to average of that Regional Market. <sup>4</sup> Source: Value Data Insights (formerly empirica-systeme), H1 2023.

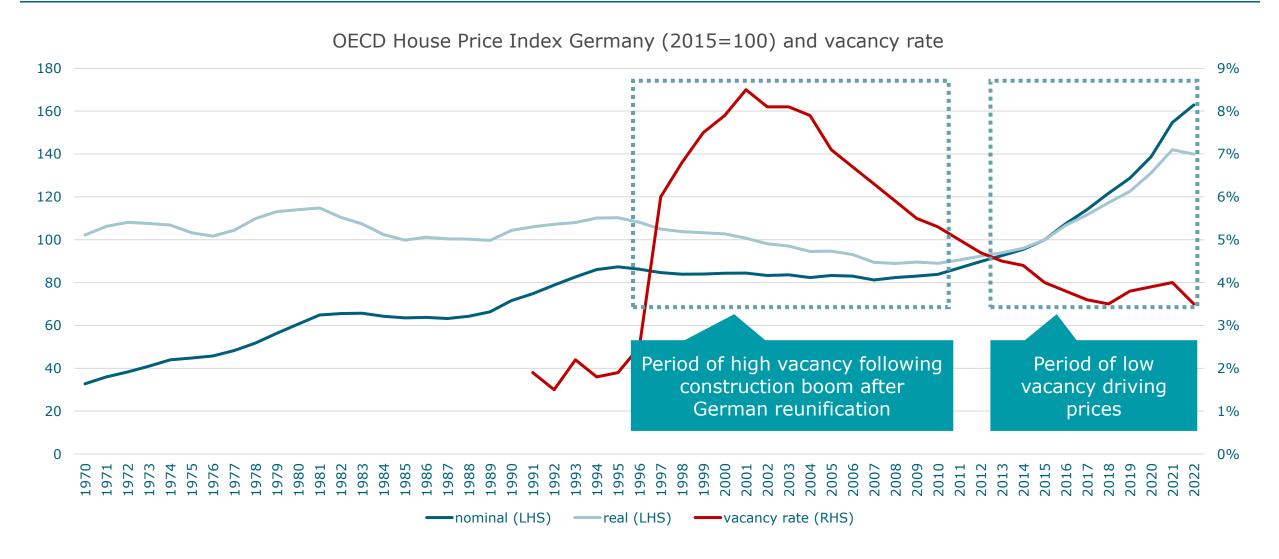


## Resi Prices Have Shown No Real Weakness in 50 Years

Only Period of Slight Decline Came During High Vacancy Phase

Business Update & H1 2023 Results

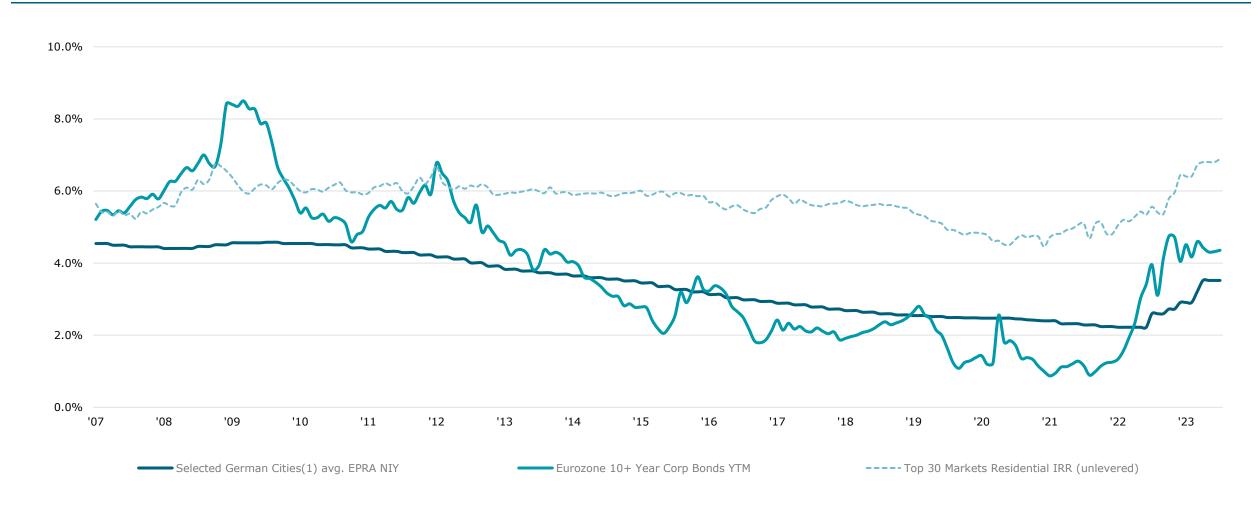
Appendix



Sources: OECD for house prices and GdW (Association of German Housing Companies) for vacancy rate. There are no reliable national statistics on vacancy levels prior to 1991

Business Update 8 H1 2023 Results

Appendix



# Residential Market Fundamentals (Germany)

Household Sizes and Ownership Structure

usiness Update & H1 2023 Results

Appendix

#### **Growing number of smaller households**

- While the overall population in Germany is expected to slightly decline, the number of households is forecast to grow until at least 2035 with a clear trend towards smaller households.
- The household growth is driven by various demographic and social trends including divorce rates, employment mobility etc.

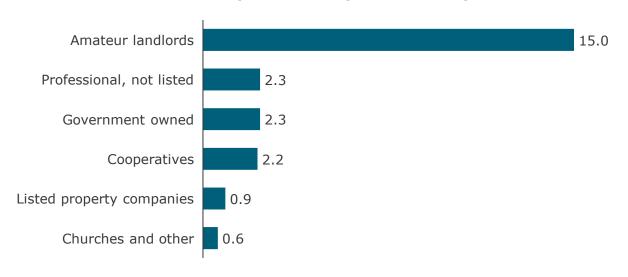
#### Fragmented ownership structure

- Germany is the largest housing market in Europe with ~43m housing units, of which ~23m are rental units.
- Ownership structure is highly fragmented and majority of owners are non-professional landlords.
- Listed sector represents ~4% of total rental market.

#### Distribution of household sizes (million)



#### **Ownership structure (million units)**



Sources: German Federal Statistics Office, GdW (German Association of Professional Homeowners). 2035E household numbers are based on trend scenario of the German Federal Statistics Offic

## **Supply/Demand Imbalance**

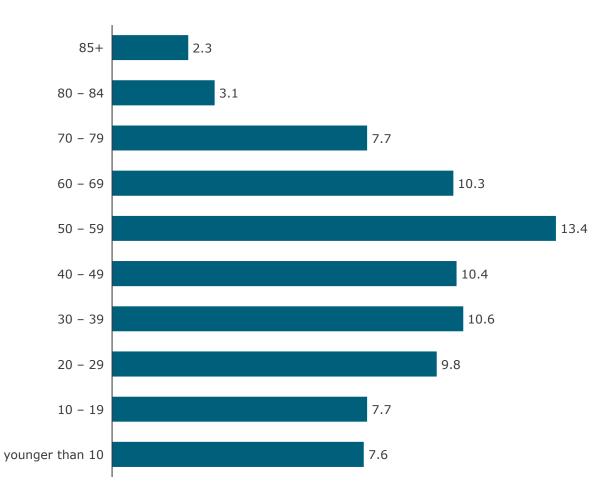
#### Gap May Become Even Larger

usiness Update & H1 2023 Results

Appendix

- Vonovia considers the structural supply/demand imbalance in urban areas to be the most relevant driver of residential property values.
- A meaningful improvement to this imbalance is not in sight:
  - · Building permits are hard to obtain;
  - · Craftsmen capacity remains a scarcity;
  - Residents do not want their neighborhood to change with new construction and new people (NIMBY – "Not In My Back Yard").
- The rate of completion falls short of current construction targets.
- At the same time, the actual need for new housing is likely to be substantially larger than widely anticipated:
  - One factor that has received little attention in housing and population forecasts is the retirement of the strongest age group 50-59 years.
  - Over the next 10 years, many members from this age group will be retiring and the younger age groups are all significantly smaller.
  - If Germany is to maintain its current productivity, there remains a gap that can only be replaced through immigration. The Head of Germany's Federal Labor Agency estimates that in order to maintain its productivity, Germany will need to see an inflow of ca. 400k immigrants per year to plug gaps in the work force as the population ages.<sup>1</sup>
  - After Russia's attack on Ukraine, about 1.1 million people from Ukraine arrived in Germany in 2022.<sup>3</sup>
- The incremental demand for housing has so far been largely ignored in discussions around the supply/demand imbalance and the need for new construction.

#### Age group distribution in Germany (million)<sup>2</sup>



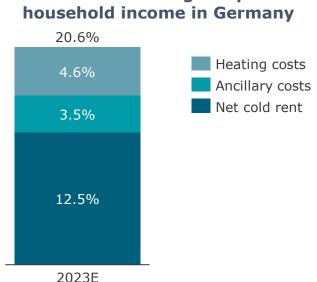
<sup>&</sup>lt;sup>1</sup> Source: https://apnews.com/article/europe-business-germany-immigration-migration-066b67d8f256f64f781793d9ea659c59. <sup>2</sup> Source: Federal Bureau for Political Education (www.bpb.de). <sup>3</sup> Source: https://www.destatis.de/EN/Press/2023/02/PE23 N010 12411.html.



Average disposable income per household in Germany in 2021 was €3,813/month (€45,756/year).¹

On that basis, the average cost of a Vonovia apartment in relation to this average disposable household income (unadjusted for recent wage increases) are as shown in the chart below.

Average cost of Vonovia apartment in relation to average disposable household income in Germany

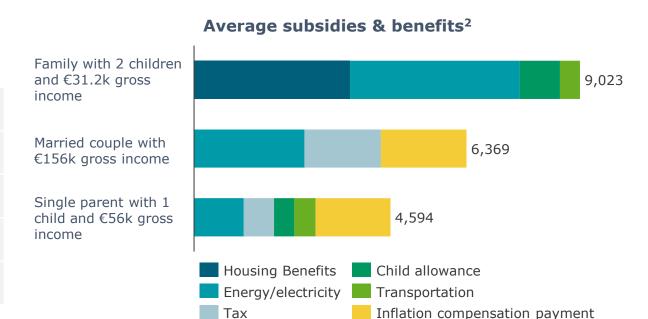


# Recent increases of wage & salaries have provided additional compensation. Examples

+24%	Minimum wage
+8.5%	Metal industry
+6%	Pensions
+6.5%	Chemical industry
+10.5%	Temp workers

In an effort to mitigate the financial burden from increased cost of living, the government has put in place various support schemes and subsidies with an aggregate amount of ca. €300bn.

The Federal Finance Ministry calculated the financial benefit of different types of households to show what the impact of the government assistance is on individual families.



<sup>1</sup> Source: Federal Statistics Office. <sup>2</sup> Source: Handelsblatt based on data provided by the Federal Finance Ministry.

# **Long-term Structural Support (Germany)**

Positive Fundamentals

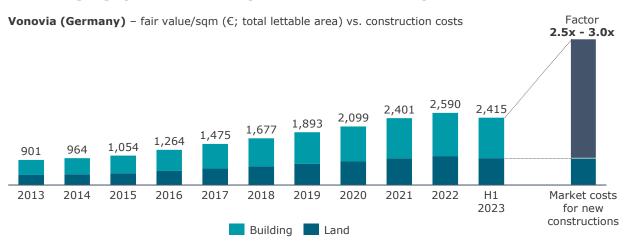
usiness Update & H1 2023 Results

Appendix

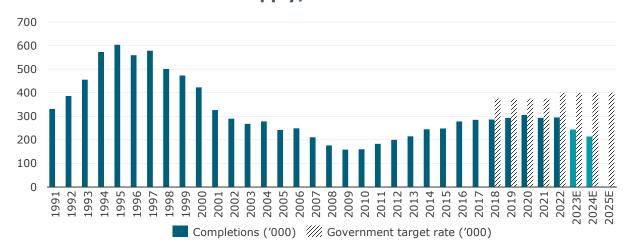
- Long-term structural support from
  - Insufficient levels of new construction
  - Urbanization driving supply/demand imbalance in urban areas
  - High replacement costs

#### Urbanization<sup>1</sup> 100 84 75 78 75 80 68 50 20 1950 2000 2022 2050 Annual Percentage of Population at Mid-Year Residing in Urban Areas (in %) Annual Urban Population at Mid-Year (in million)

#### Large gap between in-place values and replacement costs<sup>2</sup>



#### Structural supply/demand imbalance<sup>3</sup>



<sup>1</sup> Source: United Nations. <sup>2</sup> Note: VNA 2013 & 2014 refers to Deutsche Annington portfolio at the time. The land value refers to the share of total fair value estimated to relate to the land. <sup>3</sup> Federal Statistics Office for actual completions, 20223-2024E GdW estimate; CDU/SPD government for 2018-2023 and current government coalition (SPD, Greens, FDP (Liberals)) for 2022E-2025E target rate.



# Long-term Structural Support (Sweden)

Positive Fundamentals

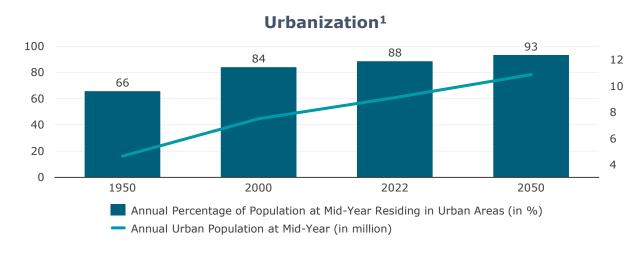
isiness Update &

Appendix

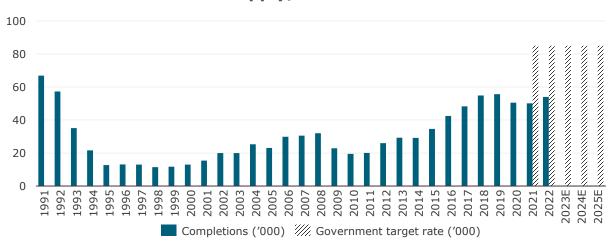
- Long-term structural support from
  - Insufficient levels of new construction
  - Urbanization driving supply/demand imbalance in urban areas
  - High replacement costs

#### Large gap between in-place values and replacement costs<sup>2</sup>





#### Structural supply/demand imbalance<sup>3</sup>



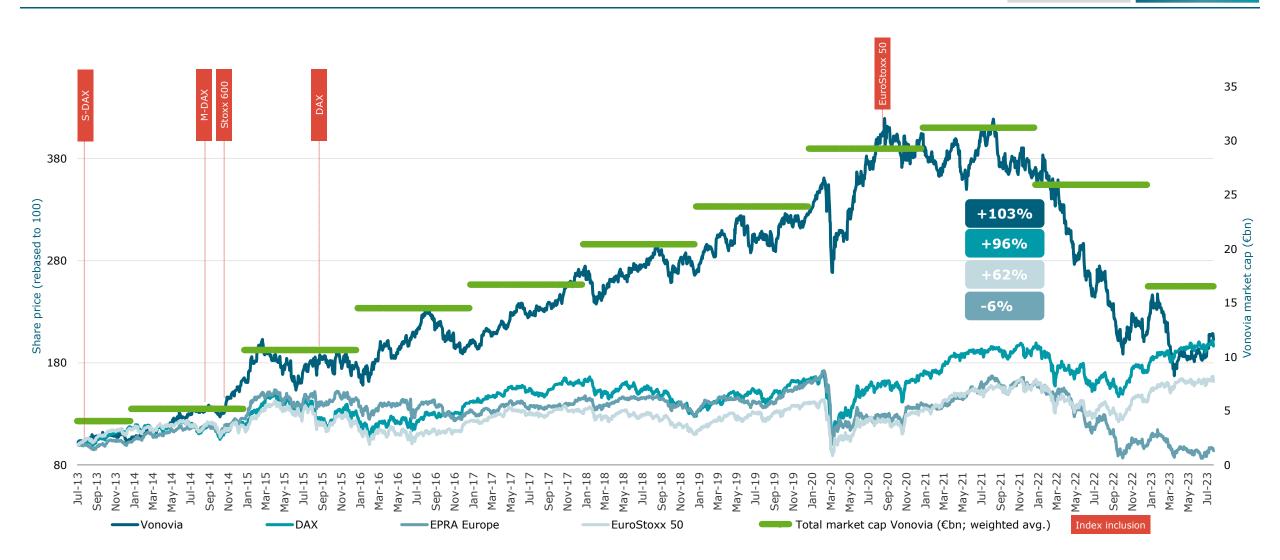
<sup>1</sup> Sources: United Nations. <sup>2</sup> Note: The land value refers to the share of total fair value estimated to relate to the land. Allocation between building and land in Sweden assumed to be similar to Germany. <sup>3</sup> Sources: Swedish National Board of Housing, Building and Planning, Statistics Sweden.

# **Liquid Large-cap Stock**

Total Performance since IPO

Business Update & H1 2023 Results

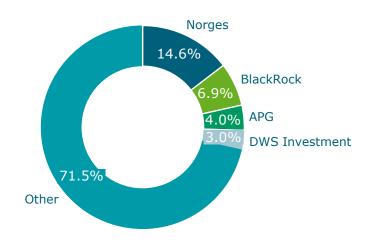
Appendix



Source: Factset until August 2, 2023, company data; VNA and DAX performance are total shareholder return (share price plus dividends reinvested); EuroStoxx50 and EPRA Europe are share price performance only.

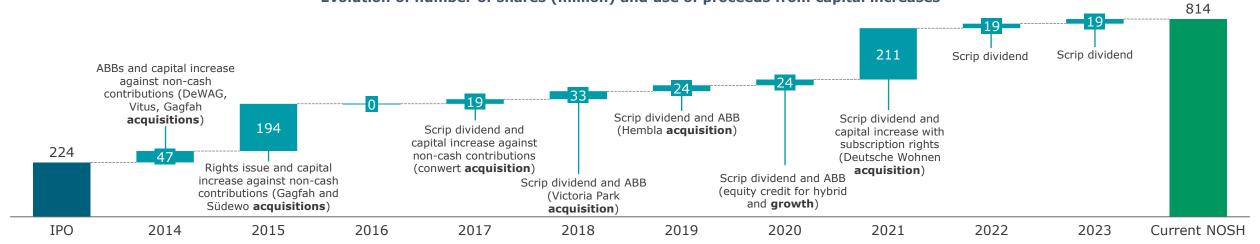
Susiness Update & H1 2023 Results

Appendix



First day of trading	July 11, 2013				
No. of shares outstanding	814.6 million				
Free float	85.4%				
ISIN	DE000A1ML7J1				
Ticker symbol	VNA				
Share class	Registered shares with no par value				
Main listing	Frankfurt Stock Exchange				
Market segment	Regulated Market, Prime Standard				
Major indices	EURO STOXX 50, DAX 40, GPR 250 World, FTSE EPRA/NAREIT Europe, DAX 50 ESG, STOXX Global ESG Leaders, EURO STOXX ESG Leaders 50, Dow Jones Sustainability Index Europe				

#### Evolution of number of shares (million) and use of proceeds from capital increases



## **IR Contact & Financial Calendar**

https://investors.vonovia.de

ısiness Update & {1 2023 Results

Appendix

#### **Contact**

Rene Hoffmann (Head of IR)

Primary contact for Sell side, Buy side
+49 234 314 1629

rene.hoffmann@vonovia.de

Stefan Heinz (Primary contact for Sell side, Buy side) +49 234 314 2384 stefan.heinz@vonovia.de

Oliver Larmann (Primary contact for private investors, AGM, regulators) +49 234 314 1609 oliver.larmann@vonovia.de

General inquiries investorrelations@vonovia.de







#### **Financial Calendar 2023**

Sep 6	Commerzbank and ODDO BHF Conference, Frankfurt (IR only)
Sep 12-13	BofA Conference, New York
Sep 18	Goldman Sachs and Berenberg German Corporate Conference, Munich
Sep 19	Baader Investment Conference, Munich (IR only)
Sep 20	Vonovia Lenders Forum (Debt)
Sep 21	Société Générale Pan-European Real Estate Conference, London (IR only)
Sep 28	Vonovia Capital Markets Day
Oct 4-5	Expo Real, Munich (Debt)
Nov 3	9M 2023 Results
Nov 21-23	UBS Asia Debt Capital Markets Issuer/Investor Event 2023 (IR only)
Nov 24	SEB Real Estate Seminar, Stockholm (Debt)
Nov 29	UBS Global Real Estate CEO/CFO Conference, London
Nov 30	Société Générale Flagship Conference, Paris
Dec 7	Berenberg European Conference, London

Dates are subject to change. The most up-to-date financial calendar is always available online.



## **Disclaimer**

This presentation has been specifically prepared by Vonovia SE and/or its affiliates (together, "Vonovia") for internal use. Consequently, it may not be sufficient or appropriate for the purpose for which a third party might use it.

This presentation has been provided for information purposes only and is being circulated on a confidential basis. This presentation shall be used only in accordance with applicable law, e.g. regarding national and international insider dealing rules, and must not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by the recipient to any other person. Receipt of this presentation constitutes an express agreement to be bound by such confidentiality and the other terms set out herein.

This presentation includes statements, estimates, opinions and projections with respect to anticipated future performance of Vonovia ("forward-looking statements") which reflect various assumptions concerning anticipated results taken from Vonovia's current business plan or from public sources which have not been independently verified or assessed by Vonovia and which may or may not prove to be correct. Any forward-looking statements reflect current expectations based on the current business plan and various other assumptions and involve significant risks and uncertainties and should not be read as guarantees of future performance or results and will not necessarily be accurate indications of whether or not such results will be achieved. Any forward-looking statements only speak as at the date the presentation is provided to the recipient. It is up to the recipient of this presentation to make its own assessment of the validity of any forward-looking statements and assumptions.

Vonovia accepts no liability whatsoever to the extent permitted by applicable law for any direct, indirect or consequential loss or penalty arising from any use of this presentation, its contents or preparation or otherwise in connection with it.

No representation or warranty (whether express or implied) is given in respect of any information in this presentation or that this presentation is suitable for the recipient's purposes. The delivery of this presentation does not imply that the information herein is correct as at any time subsequent to the date hereof.

Vonovia has no obligation whatsoever to update or revise any of the information, forward-looking statements or the conclusions contained herein or to reflect new events or circumstances or to correct any inaccuracies which may become apparent subsequent to the date hereof.

This presentation does not, and is not intended to, constitute or form part of, and should not be construed as, an offer to sell, or a solicitation of an offer to purchase, subscribe for or otherwise acquire, any securities of the Company nor shall it or any part of it form the basis of or be relied upon in connection with or act as any inducement to enter into any contract or commitment or investment decision whatsoever.

This presentation is neither an advertisement nor a prospectus and is made available on the express understanding that it does not contain all information that may be required to evaluate, and will not be used by the attendees/recipients in connection with, the purchase of or investment in any securities of the Company. This presentation is selective in nature and does not purport to contain all information that may be required to evaluate the Company and/or its securities. No reliance may or should be placed for any purpose whatsoever on the information contained in this presentation, or on its completeness, accuracy or fairness.

This presentation is not directed to or intended for distribution to or use by, any person or entity that is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction.

Neither this presentation nor the information contained in it may be taken, transmitted or distributed directly or indirectly into or within the United States, its territories or possessions. This presentation is not an offer of securities for sale in the United States. The securities of the Company have not been and will not be registered under the US Securities Act of 1933, as amended (the "Securities Act") or with any securities regulatory authority of any state or other jurisdiction of the United States. Consequently, the securities of the Company may not be offered, sold, resold, transferred, delivered or distributed, directly or indirectly, into or within in the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction of the United States unless registered under the Securities Act.

Tables and diagrams may include rounding effects.

Per share numbers for 2013-2014 are TERP adjusted (TERP factor: 1.051). Subscription rights offering in 2015 due to Südewo acquisition.

Per share numbers for 2013-2020 are TERP adjusted (TERP factor: 1.067). Subscription rights offering in 2021 due to Deutsche Wohnen acquisition.



# **For Your Notes**

