

CLIMATE PROTECTION IN GERMANY

How Can the Heat Transition Succeed
in the Real Estate Sector?

Governance, Investments & Mobilization
of Private Property Owners

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Commission 9

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ENERGY ERAS IN TRANSITION



-> next ?

Source: Andriy Onufriyenko on gettyimages

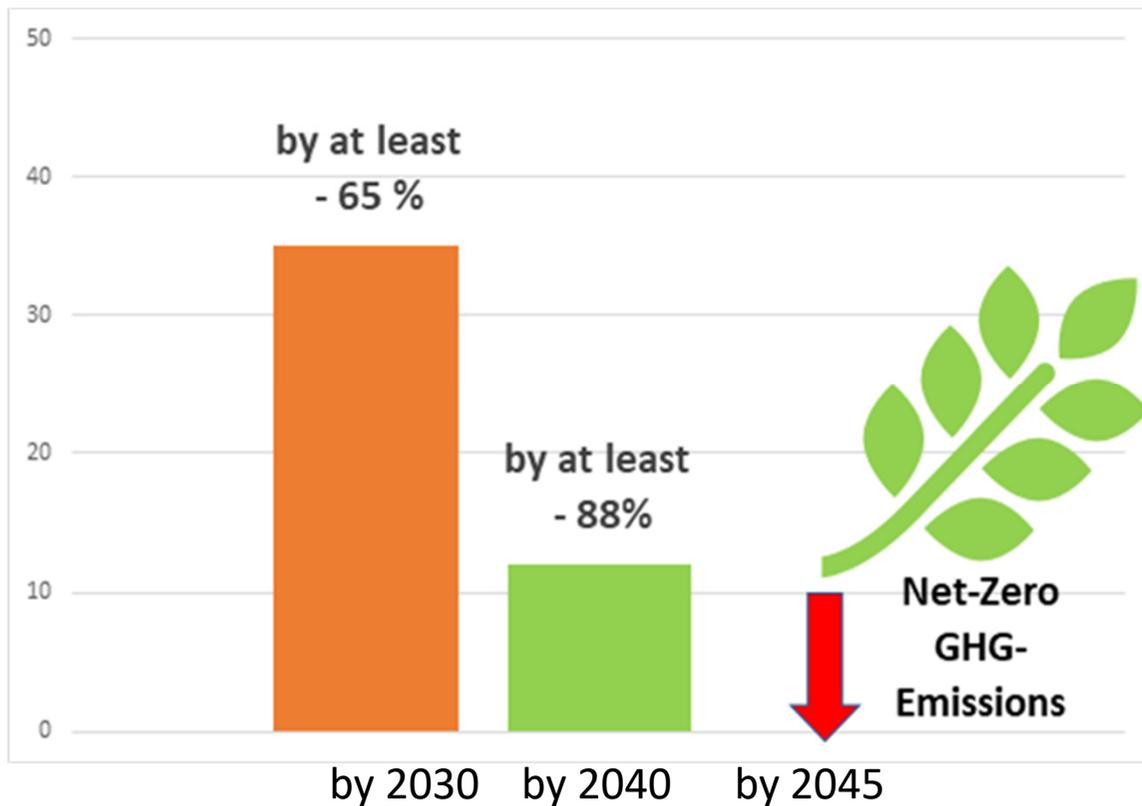
AGENDA

- Energy Transition & Real Estate 1
- Municipal Heat Planning 2
- Impacts on Market & Owners 3

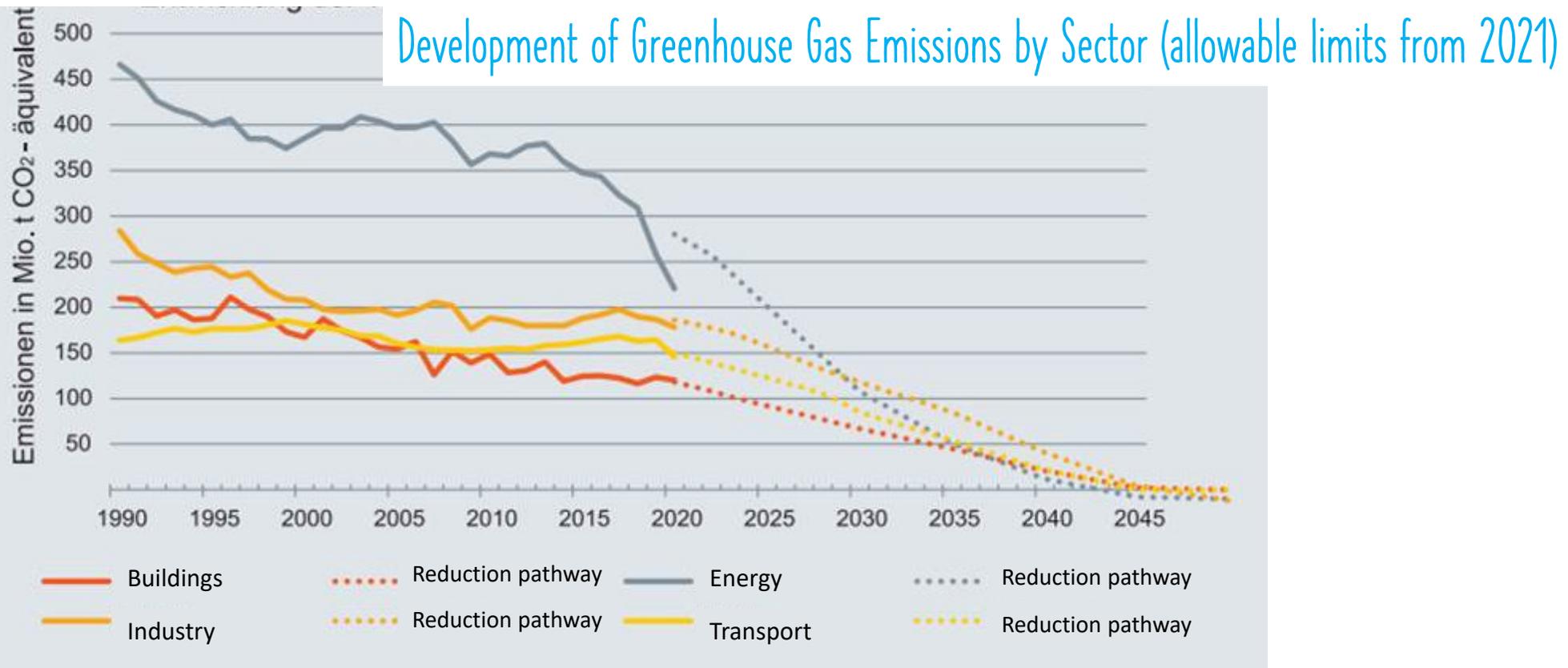
ENERGY TRANSITION & THE REAL ESTATE SECTOR

1.

GERMAN CLIMATE PROTECTION ACT (2021): REDUCE GREENHOUSE GAS EMISSIONS TO NET ZERO

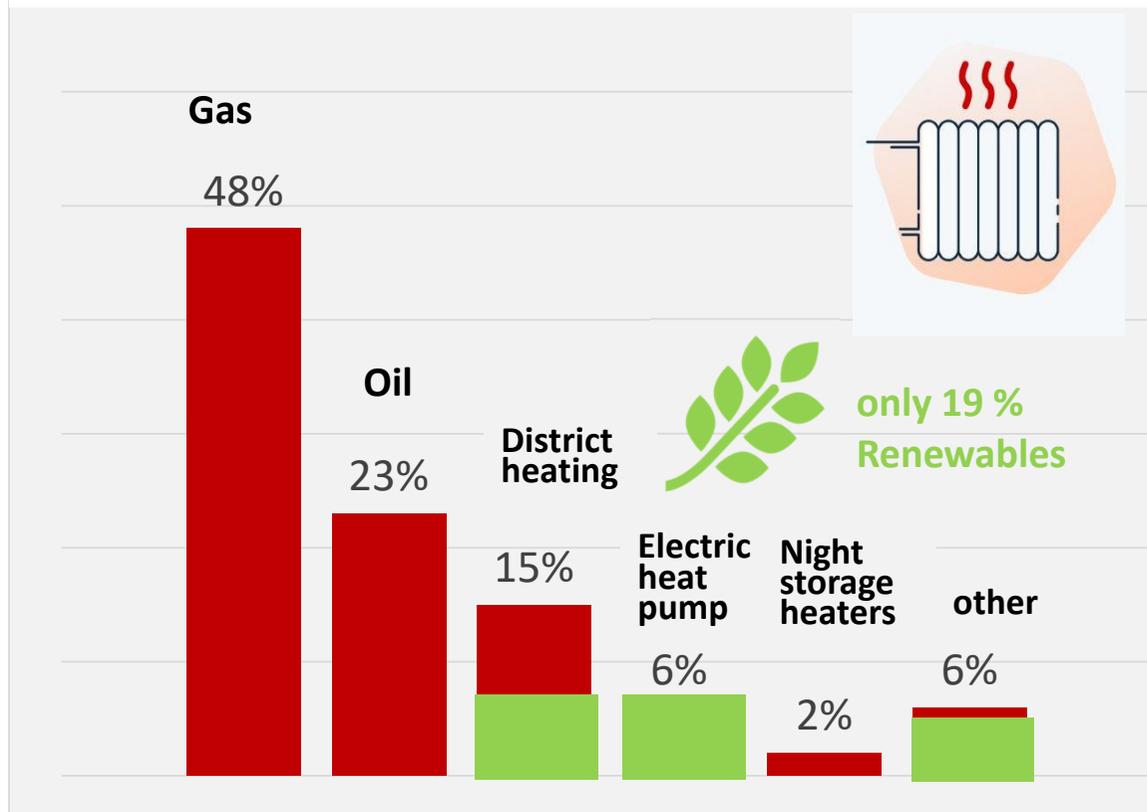


SLOW PROGRESS IN THE BUILDING SECTOR ON THE ROAD TO NET ZERO



GERMANY HEATS 70 % WITH FOSSIL FUELS - MOST HEATING SYSTEMS ARE PRE-MILLENNIAL

Share of Heating Systems in Housing Units (2023)



Heating =
66% of
final energy
consumption
in
residential
buildings

INTERIM CONCLUSION:

HEATING IS THE CENTRAL LEVERAGE FOR DECARBONIZATION!
THE BUILDING SECTOR NEEDS TO DO ITS HOMEWORK!

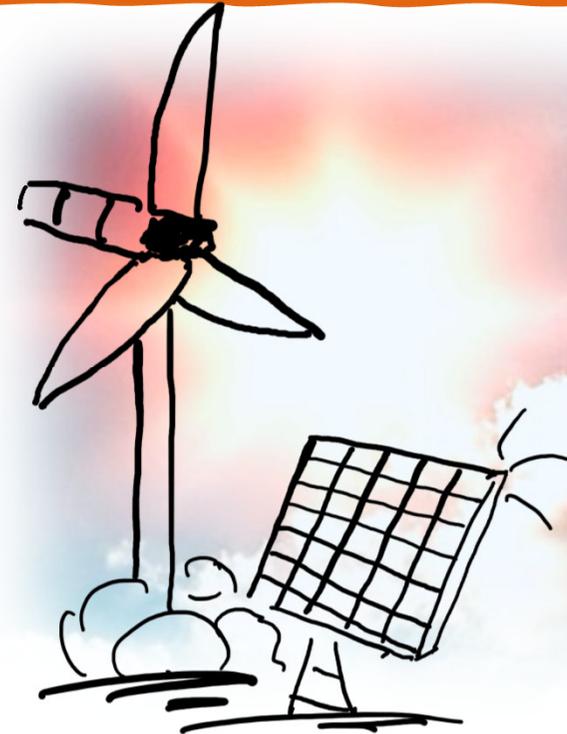
MUNICIPAL HEAT PLANNING

2.

THE VISION



loading...



RETHINKING ENERGY: GREEN, LOCAL & RESILIENT

Extensive,
long-distance
distribution

Local & regional energy systems
→ community-based



Source: Karsten Würth on Unsplash



Source: Generative AI

Source: Dengsi on Unsplash

KEY GOALS FOR SHAPING LOCAL HEAT PLANNING

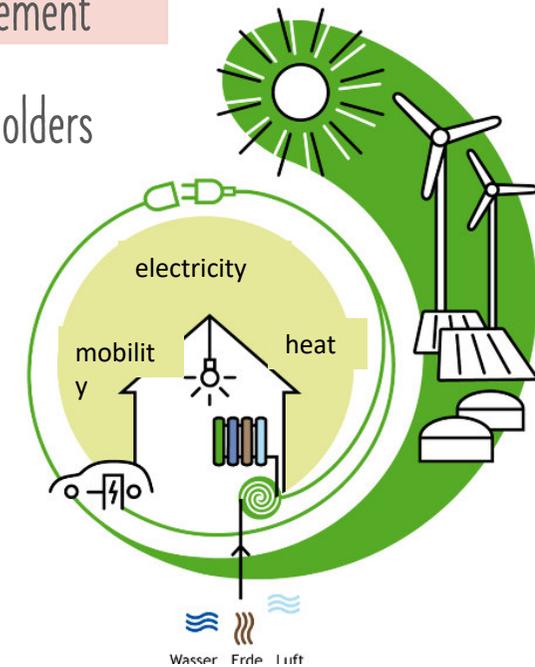
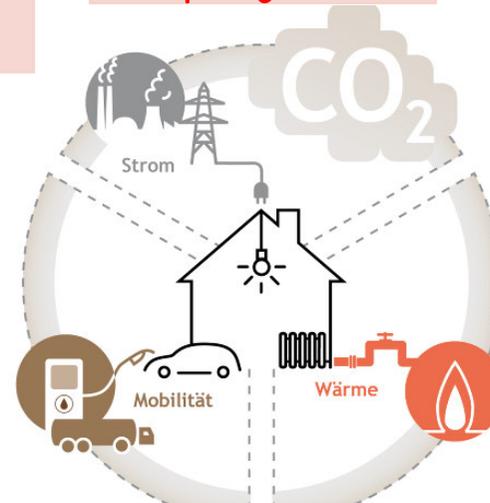
Decentralized energy supply & expansion of heat networks

Decarbonization:
- use of RES,
- ... waste heat
- ... geothermal energy

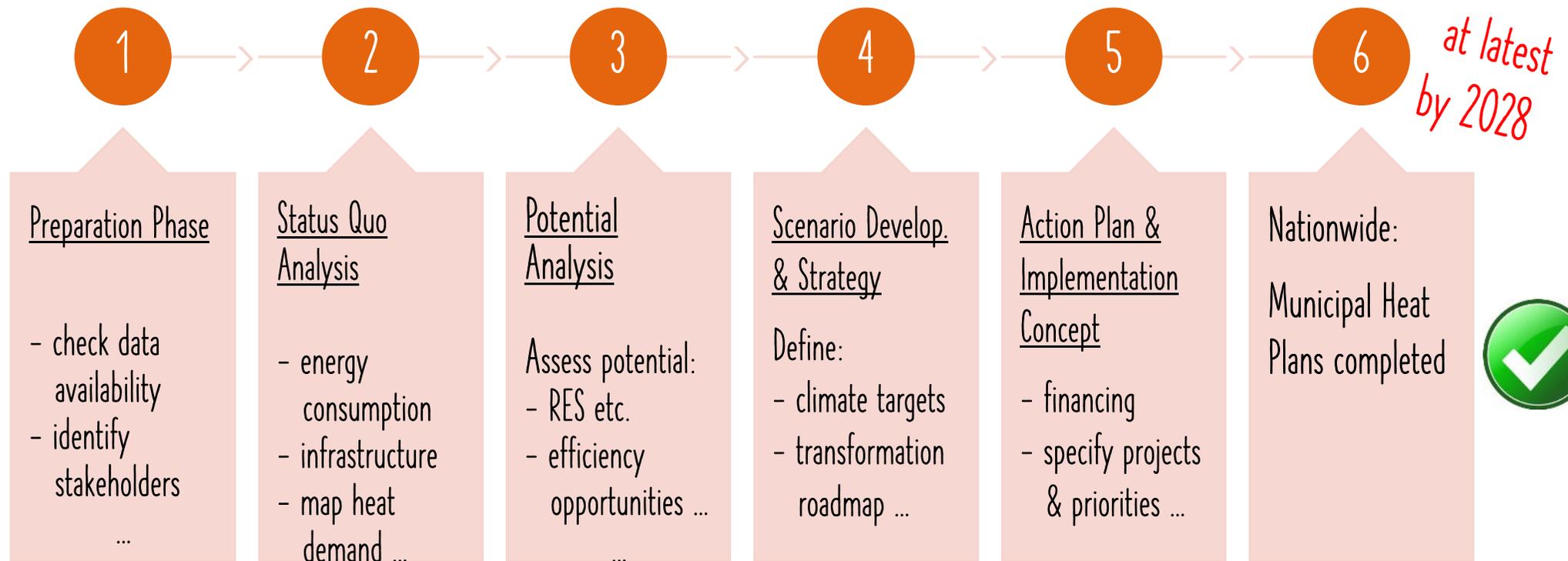
Developing climate-neutral neighbourhoods

Integrated local planning & sector coupling

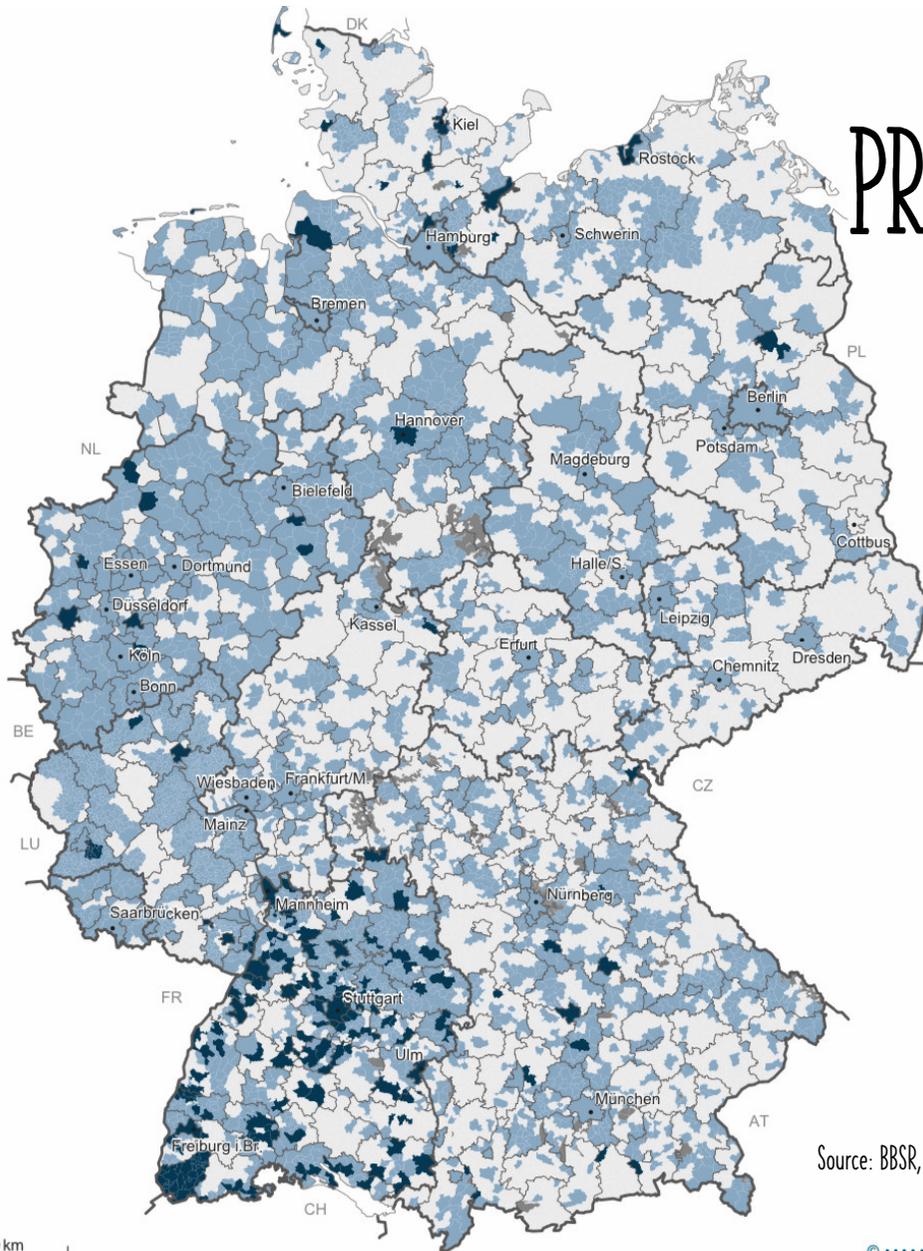
Reliable frameworks for planning & investment for all stakeholders



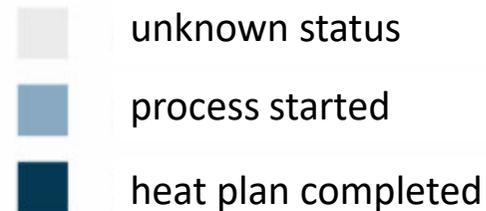
STEPS & TIMELINE



PROGRESS ON MUNICIPAL HEAT PLANS (MARCH 2025)



- ca. 1.5 % already have a heating plan in place
- 60 % have not yet started planning



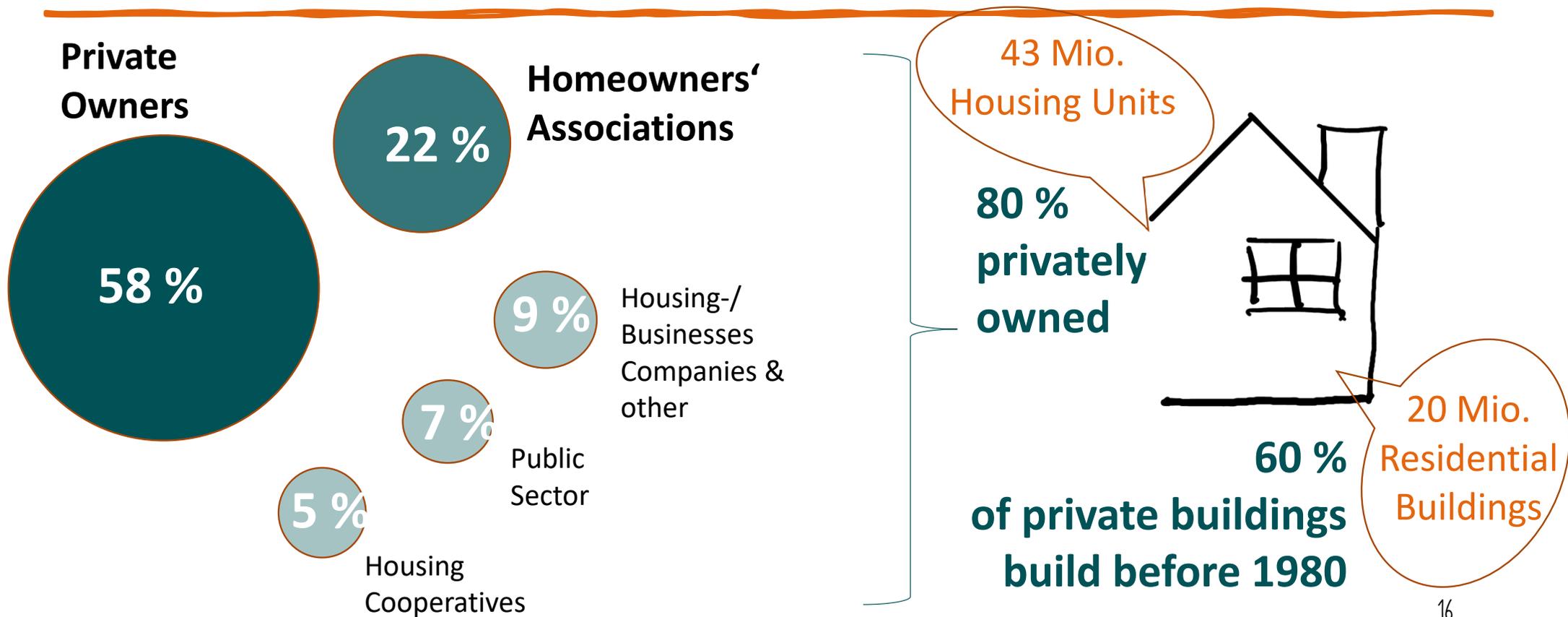
Source: BBSR, 2025



IMPACTS ON REAL ESTATE &
PRIVATE OWNERS

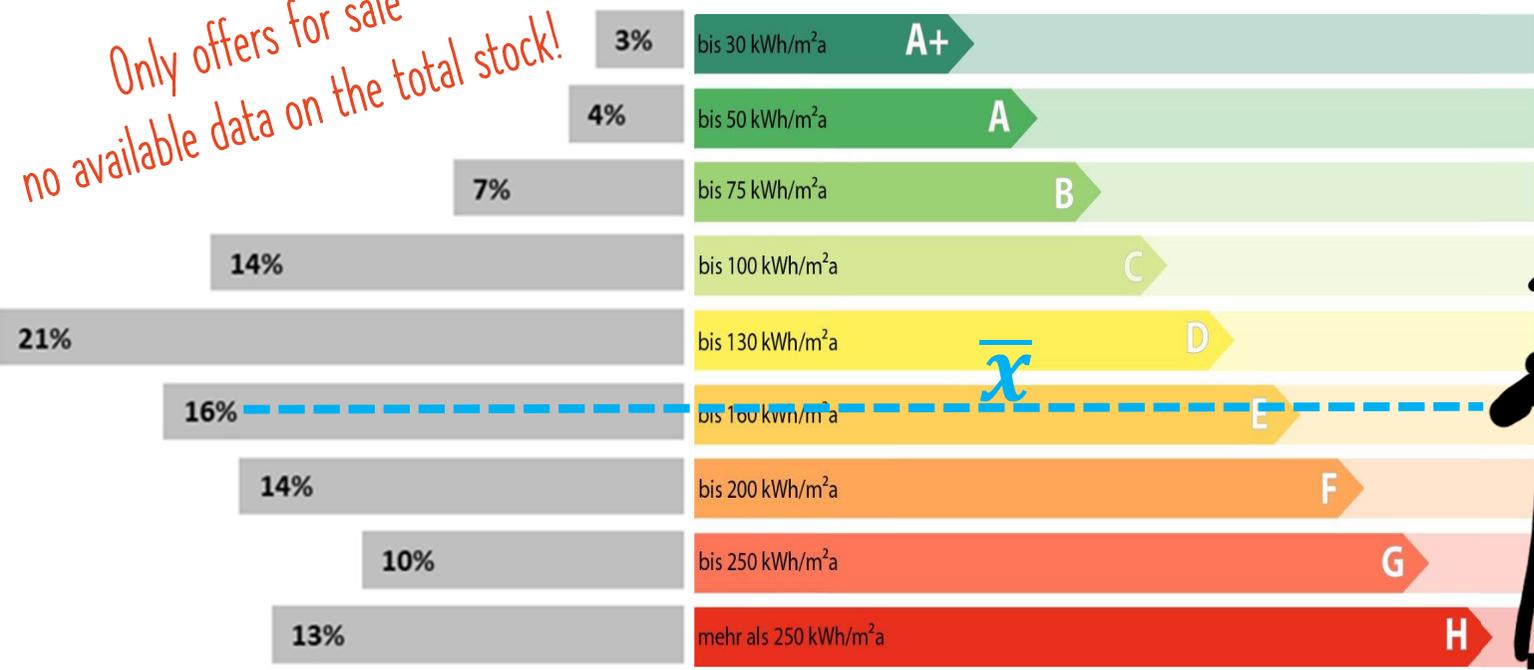
3.

80 % OF THE HOUSING STOCK IS PRIVATELY OWNED & OLD



ENERGY EFFICIENCY OF RESIDENTIAL BUILDINGS IN GERMANY

Only offers for sale -
no available data on the total stock!



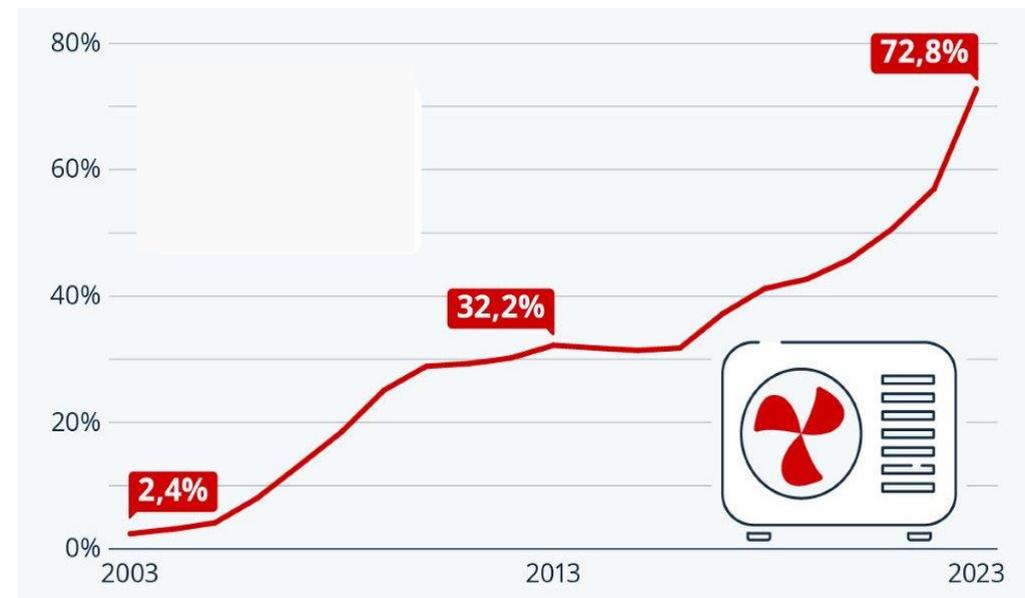
Database: Purchase offers in 2023 with information on the energy efficiency class, exclusively existing residential properties, i.e. excluding the last two years of construction

RAPID SHIFTING TO RENEWABLES IN NEW CONSTRUCTION - BUT STILL LIMITED EFFECTS ON OVERALL MARKET



Foto: Martin Lang on Adobe Stock,

Heat pumps in nearly 3/4 of new residential buildings

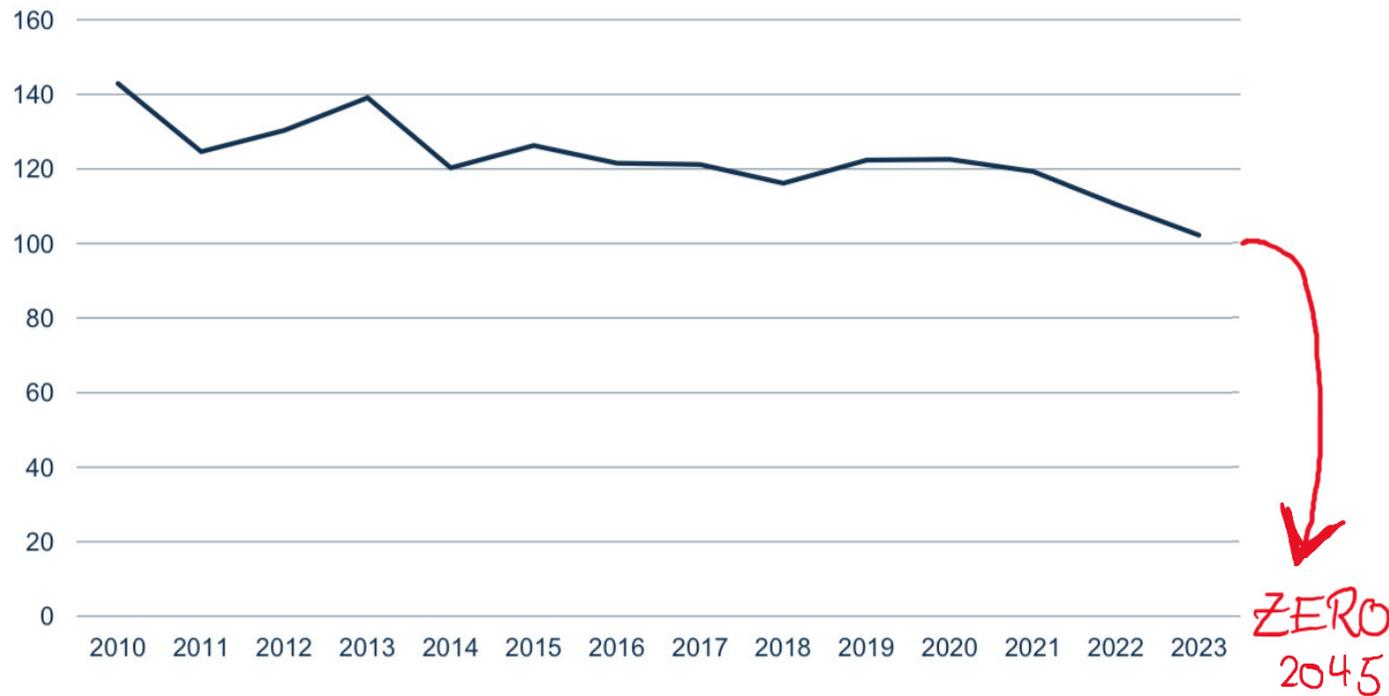


Source: statista 2024, Bundesverband Wärmepumpe

LOW REFURBISHMENT RATE (< 1 %) KEEPS GHG-EMISSIONS HIGH

Greenhouse Gas Emissions of the Building Sector

in Mio. t CO₂-äquivalent



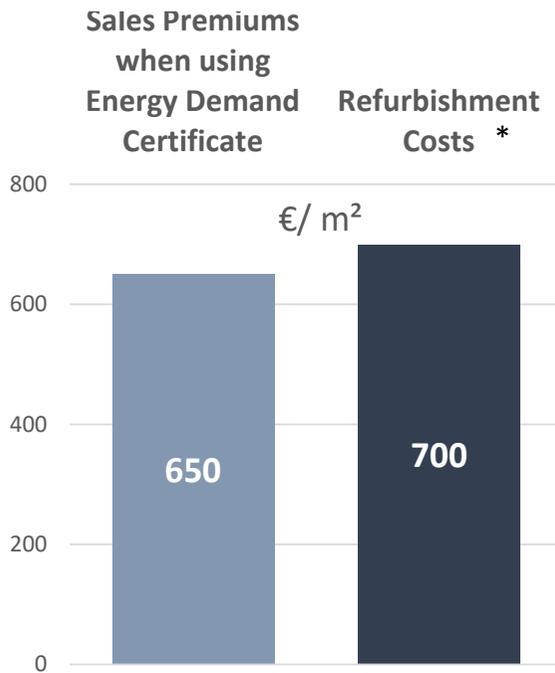
Quelle: Umweltbundesamt, LBBW Research



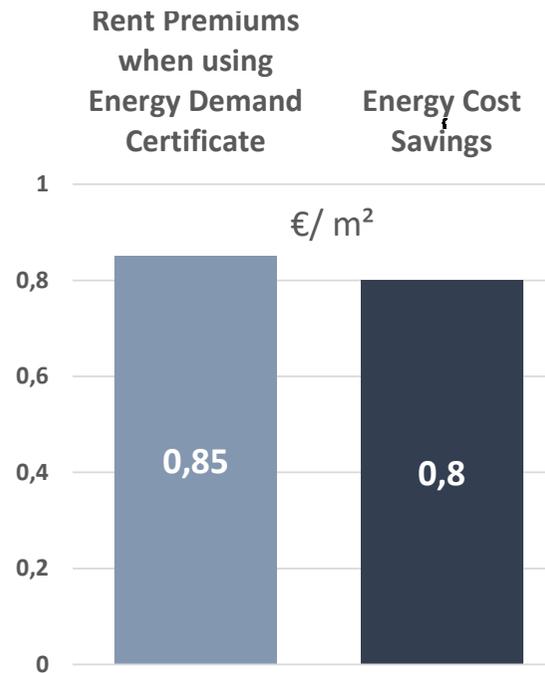
ENERGY EFFICIENCY DOES PAY OFF - THE MARKET PROVIDES THE RIGHT INCENTIVES



Sales premium effects



Rent premium effects



Source: IfW Kiel 2024 (based on Data by GREIX, Value AG). Purchase and rental prices of apartments in 19 German cities, 2014-2024. *Government subsidies for refurbishment not taken into account here.

HEAT TRANSITION AT A GLANCE...



Opportunities & Benefits	Challenges & Risks
Energy efficiency / sustainability	Financing / Funding
Planning certainty	Planning certainty & reliability
Cost advantages / reduced energy expenses	Reliability of projections
Greater independence from energy price fluctuations/ Protection against future increases in energy prices	"Swiss cheese effect" in district heating network connections (i.e. patchy coverage or missing links)
Increases in property value	Public acceptance / Activation of property owners
Higher rental cash flows	Time pressure (esp. for municipal planning)
Enhanced attractiveness due to rising future CO ₂ prices	Lack of ready-to-use standards
Sustainability as a criterion for financing (EU Taxonomy, Green Bonds) ...	Location, location, location: achievable rents as a limiting factor for full refurbishment...

„THE FUTURE WE RECEIVE IS
THE ONE WE STRIVE TO BUILD.“

*freely translated from a quote by
Mahatma Gandhi*





4 TAKE-HOME MESSAGES:

- (1) We need integrated, cross-sectoral planning – not isolated approaches.
- (2) Acceptance is key: involve end-users early, communicate early and empower local coordinators.
- (3) Coherent and reliable funding frameworks are key to investment confidence and long-term planning.
- (4) Energy efficiency shapes property value. Smart market incentives need transparent, accessible real estate data.

