

TO WHICH EXTENT DO  
ESG CRITERIA  
INFLUENCE THE COMPARATIVE  
VALUE OF CONDOMINIUMS?

# Sustainable Development Goals

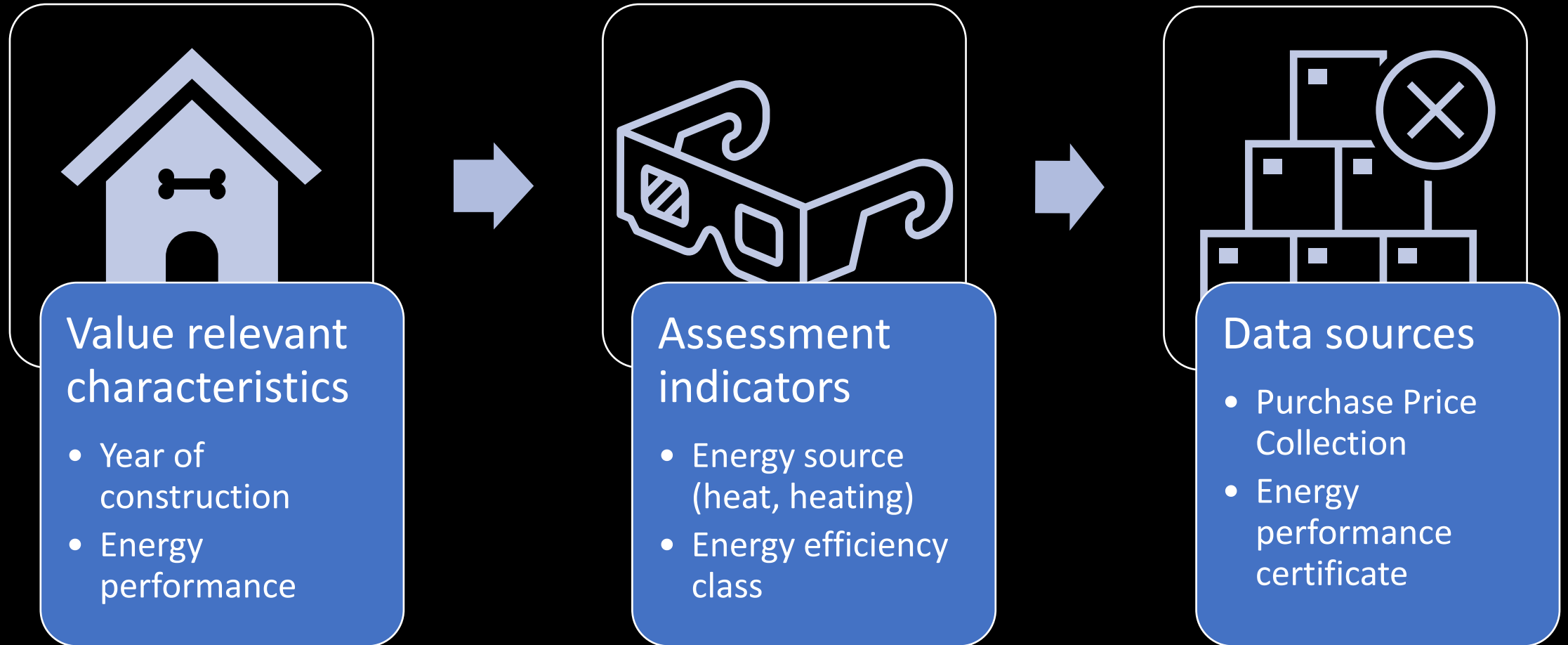


Infographic: [https://www.pngkey.com/maxpic/u2w7e6w7u2o0q8e6/E\\_2018\\_SDG\\_Poster\\_without\\_UN\\_emblem\\_Letter-US\\_sustainable\\_development\\_goals](https://www.pngkey.com/maxpic/u2w7e6w7u2o0q8e6/E_2018_SDG_Poster_without_UN_emblem_Letter-US_sustainable_development_goals)

# ESG criteria

E - Environmental	S - Social	G - Governance
<ul style="list-style-type: none"><li>• Climate protection</li><li>• Adaptation to climate change</li><li>• Reduction of environmental pollution</li><li>• Biodiversity and ecosystems</li><li>• Responsible planning of real estate, neighborhoods, and cities</li><li>• Sustainable buildings</li><li>• Real estate life cycle</li><li>• Circular economy (Cradle to cradle)</li><li>• Energy performance</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• People's safety</li><li>• People's health and wellbeing</li><li>• Inclusivity</li><li>• Appropriate life standard</li><li>• Appropriate working conditions</li><li>• Appropriate interior quality</li><li>• Infrastructure, e. g. car sharing, bicycle, public transportation</li><li>• Lightning systems</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• Management structures</li><li>• Compliance with legal requirements</li><li>• Prevention of corruption</li><li>• Prevention of child labor</li><li>• Anti-money laundering</li><li>• Equal opportunities</li><li>• Remuneration</li><li>• Green leases</li><li>• ...</li></ul>

# ESG criteria in real estate valuation



# Data acquisition

Purchase price collection of the expert committee

Data acquisition

EPC

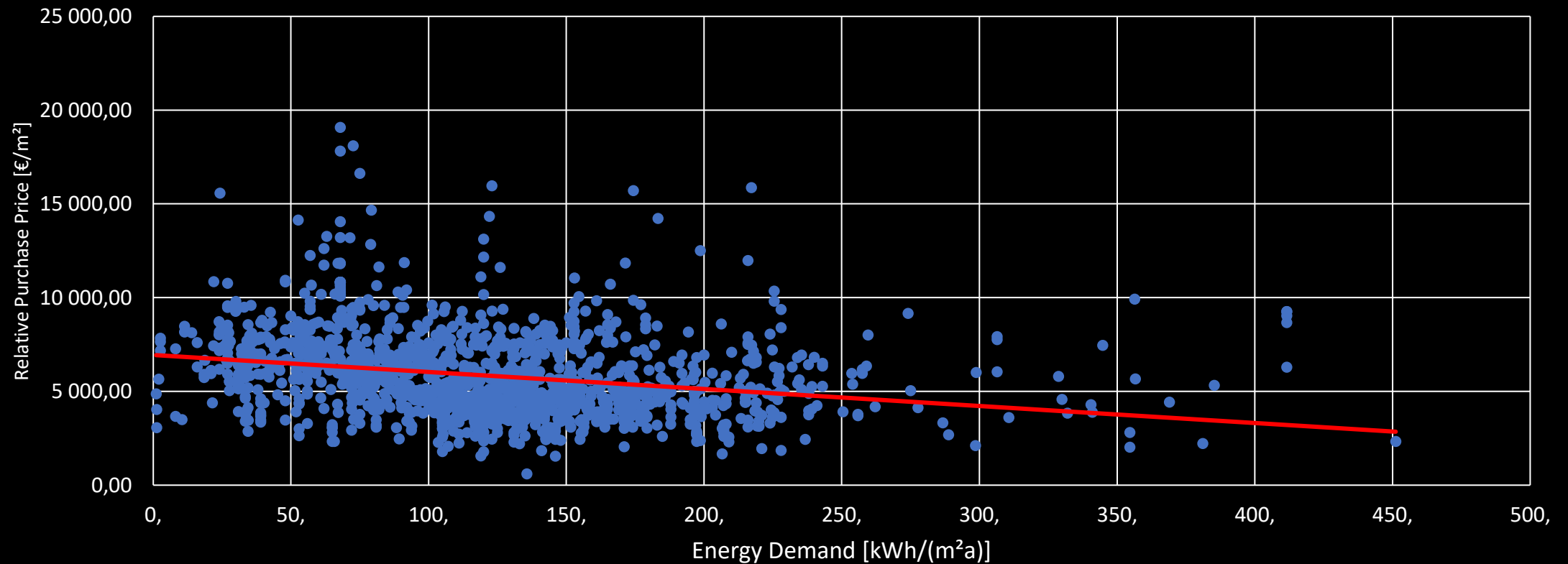
Condominiums

Frankfurt a. M.

Kalbach district

# All transactions of condominiums Frankfurt a. M. 2013-2023 with indication about energy demand

1.465 purchase prices over the past decade [€/m<sup>2</sup>]

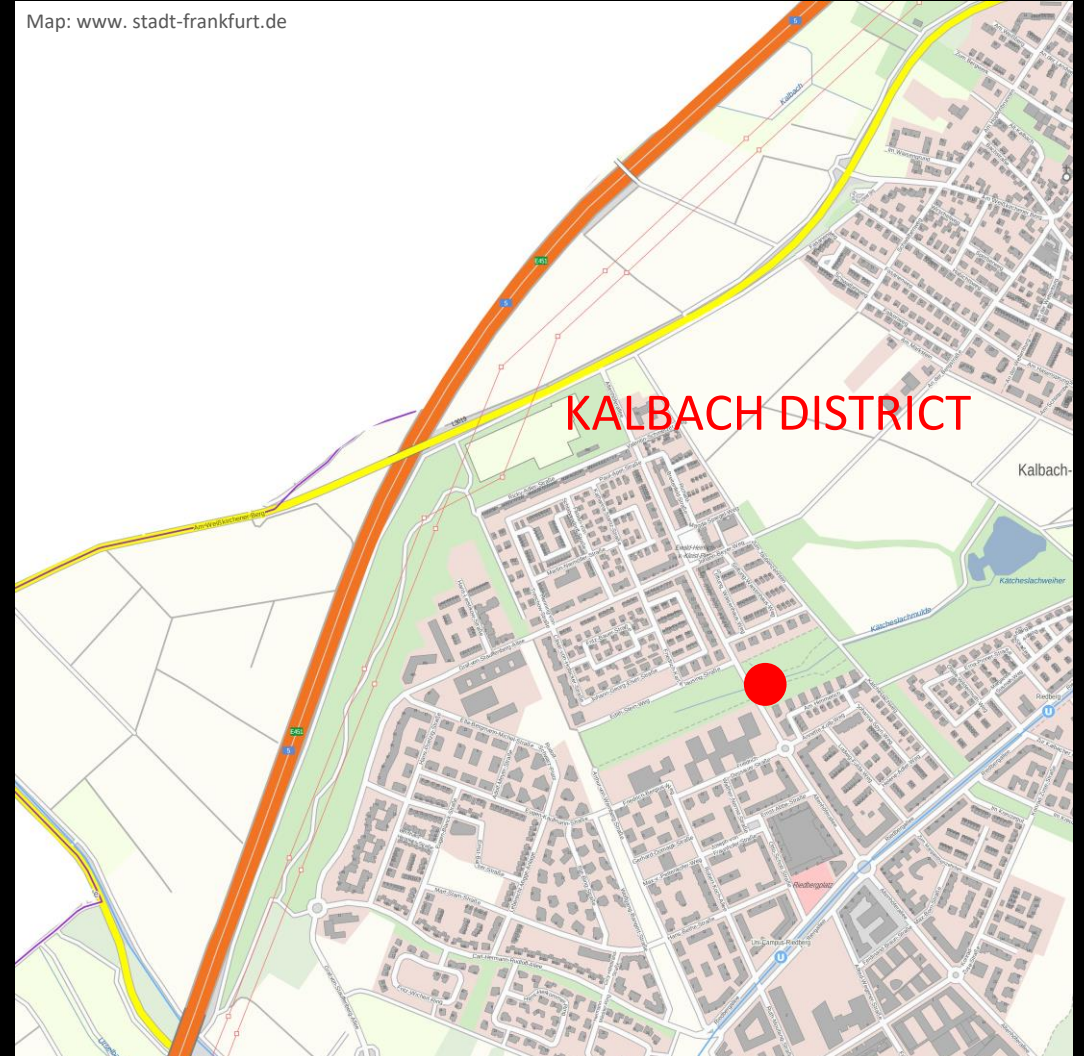


Data source: Expert committee for real estate values Frankfurt a. M.

# Data availability - Location



Photo: ROST\_WOLF PartG mbB

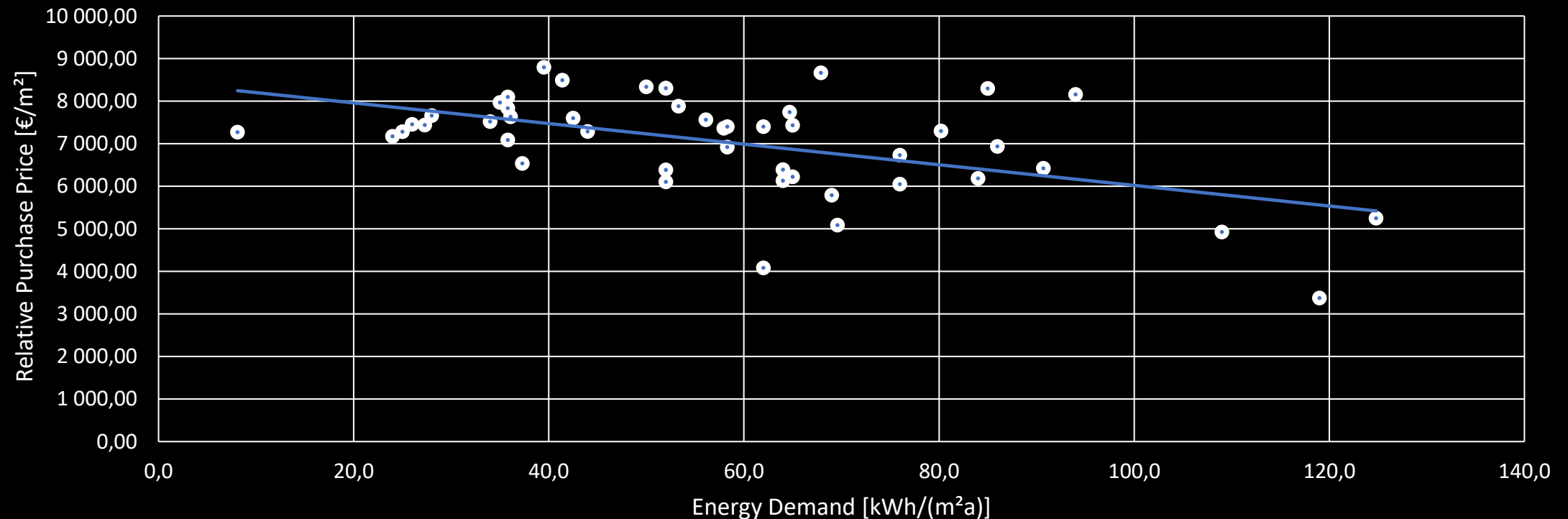


Location: Frankfurt a. M. / Kalbach – Riedberg district

# Purchase price depending on the energy demand of the building



Purchase prices (2021-2023) Frankfurt a. M., Kalbach district [€/m<sup>2</sup>]



Data source: Expert committee for real estate values Frankfurt a. M.

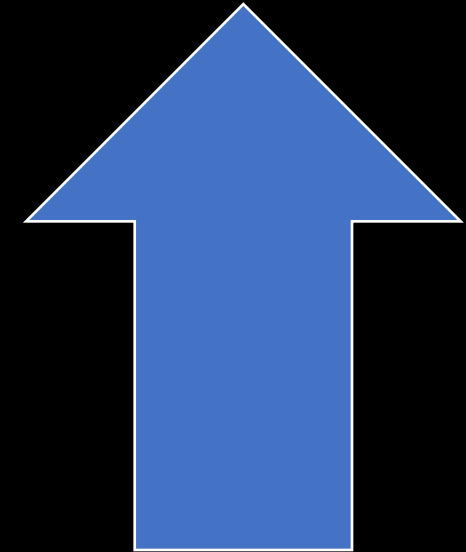


# Energy efficiency scenarios

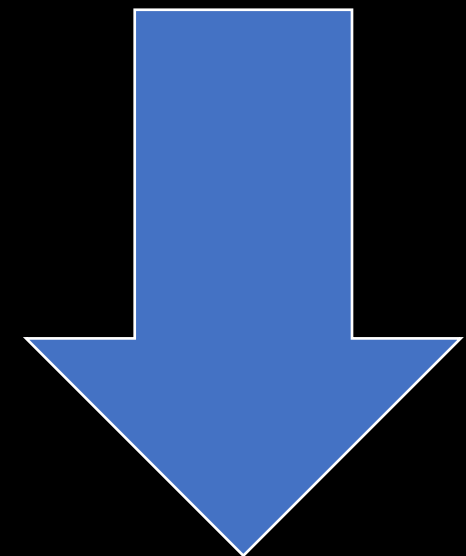
Energy efficiency class	Final energy demand or consumption	Approximate annual energy costs per m <sup>2</sup> living space
A+	unter 30 kWh/(m <sup>2</sup> a)	etwa 3 Euro
A	30 bis unter 50 kWh/(m <sup>2</sup> a)	8 Euro
B	50 bis unter 75 kWh/(m <sup>2</sup> a)	13 Euro
C	75 bis unter 100 kWh/(m <sup>2</sup> a)	18 Euro
D	100 bis unter 130 kWh/(m <sup>2</sup> a)	24 Euro
E	130 bis unter 160 kWh/(m <sup>2</sup> a)	30 Euro
F	160 bis unter 200 kWh/(m <sup>2</sup> a)	37 Euro
G	200 bis unter 250 kWh/(m <sup>2</sup> a)	47 Euro
H	über 250 kWh/(m <sup>2</sup> a)	60 Euro und mehr

**Anmerkungen:** \* Ist bei einem vor dem 1. Mai 2014 erstellten Energieausweis der Warmwasserverbrauch nicht enthalten, muss der auf dem Ausweis genannte Energieverbrauchskennwert um eine Pauschale von 20,0 kWh/m<sup>2</sup>a erhöht werden. \*\* die berechneten Energiekosten sind Durchschnittswerte, inklusive Mehrwertsteuer, die je nach Lage der Wohnung und individuellem Verbrauch stark abweichen können. Der Unterschied zwischen der Wohnfläche und der Nutzfläche, auf die sich der Energieausweis bezieht, ist rechnerisch berücksichtigt worden. Angenommener Energiepreis: 13 ct je Kilowattstunde **Quelle: Verbraucherzentrale NRW**

1



2



Infographic: <https://www.verbraucherzentrale.de>

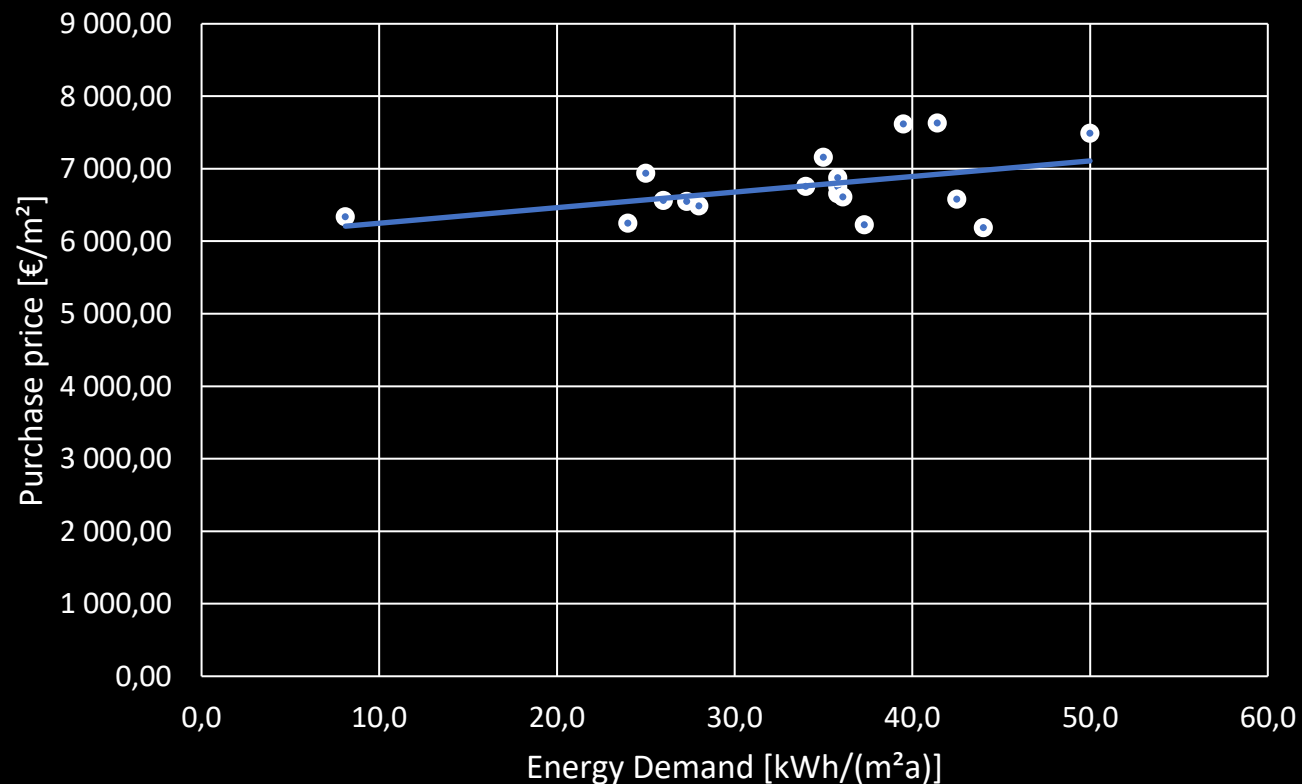
# Eliminated factors

- Location
- Date of construction
- Development over time

# Purchase prices of condominiums

## Time, location, and construction year adjusted, < / = 50 kWh/(m<sup>2</sup>a)

Comparison purchase prices / Scenario 1



Data source: Expert committee for real estate values Frankfurt a. M.

Sample:

Location: Frankfurt Kalbach district

**18 purchase cases** (2021-2023)

Year of construction: 2013 (2007-2016)

Energy demand: **33,6 kWh/(m<sup>2</sup>a)**

Average value: **6.757,10 €/m<sup>2</sup>**

Standard deviation: +/- 453,71 €/m<sup>2</sup>

Variation coefficient: 0,07

Mode: 9 purchase prices between 6.500-7.000 €/m<sup>2</sup>

# Purchase prices of condominiums

Time, location, and construction year adjusted,  
> 50 kWh/(m<sup>2</sup>a)

Sample:

Location: Frankfurt Kalbach district

**27 purchase cases** (2021-2023)

Year of construction: 2011 (2000-2018)

Energy demand: **67,3 kWh/(m<sup>2</sup>a)**

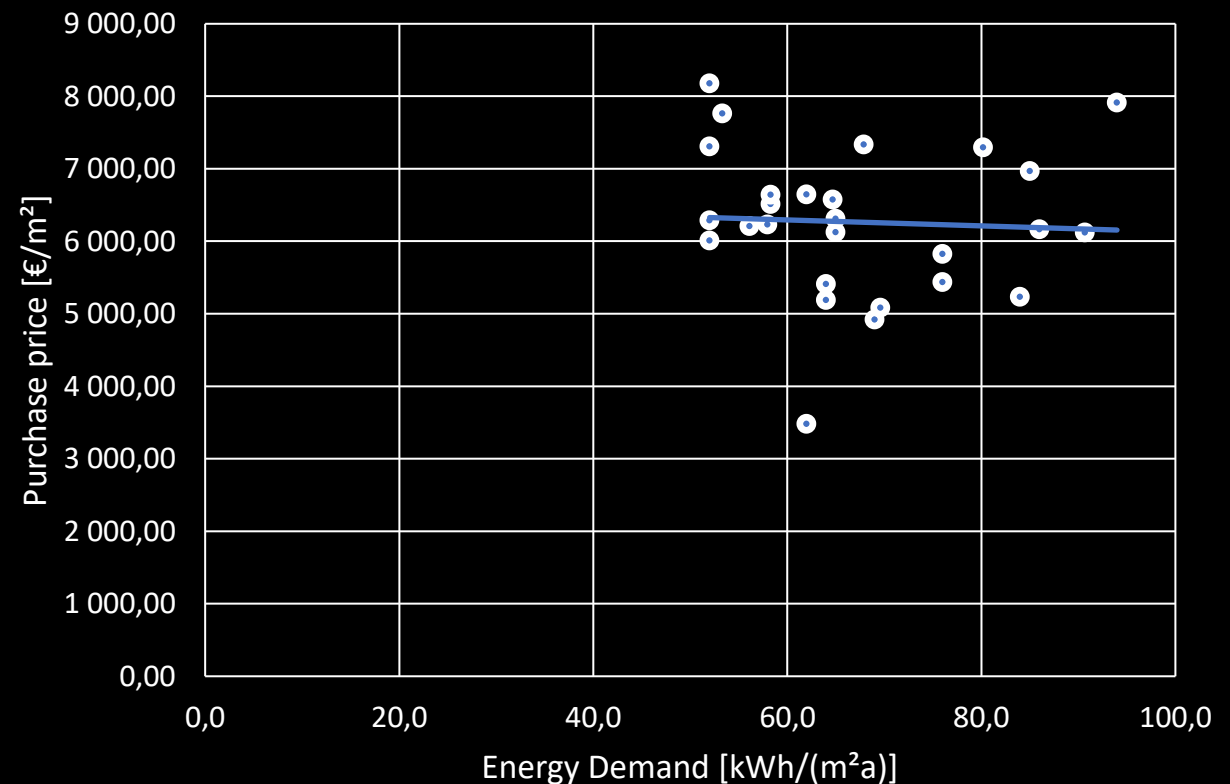
Average value: **6.264,52 €/m<sup>2</sup>**

Standard deviation: +/- 1.033,29 €/m<sup>2</sup>

Variation coefficient: 0,16

Mode: 8 purchase prices between 6.000-6.500 €/m<sup>2</sup>

Comparison purchase prices / Scenario 2



Data source: Expert committee for real estate values Frankfurt a. M.

# Object description

Object type: Condominium

Location: Germany, Frankfurt a. M., Kalbach - Riedberg

Year of construction: 2012

Date of valuation: 2023-07-31

Living space: 90 m<sup>2</sup>

Energy performance class: **A**

**33,6 kWh/(m<sup>2</sup>a)**

Energy performance class: **B**

**67,3 kWh/(m<sup>2</sup>a)**

# Relative comparison purchase price of the condominium



+ 7% ←

**EPC: A**

33,6 kWh/(m<sup>2</sup>a)

**6.757 €/m<sup>2</sup>**

**EPC: B**

67,3 kWh/(m<sup>2</sup>a)

**6.265 €/m<sup>2</sup>**

# Comparative value of the condominium

+ 7% ←



A



608.000 €



B



564.000 €

# Thank you for your attention.

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Photo: Foto Kathrein Wiesbaden

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