

PATRIZIA

Machine-learning-driven investment strategies

E-CREDA Conference 2026

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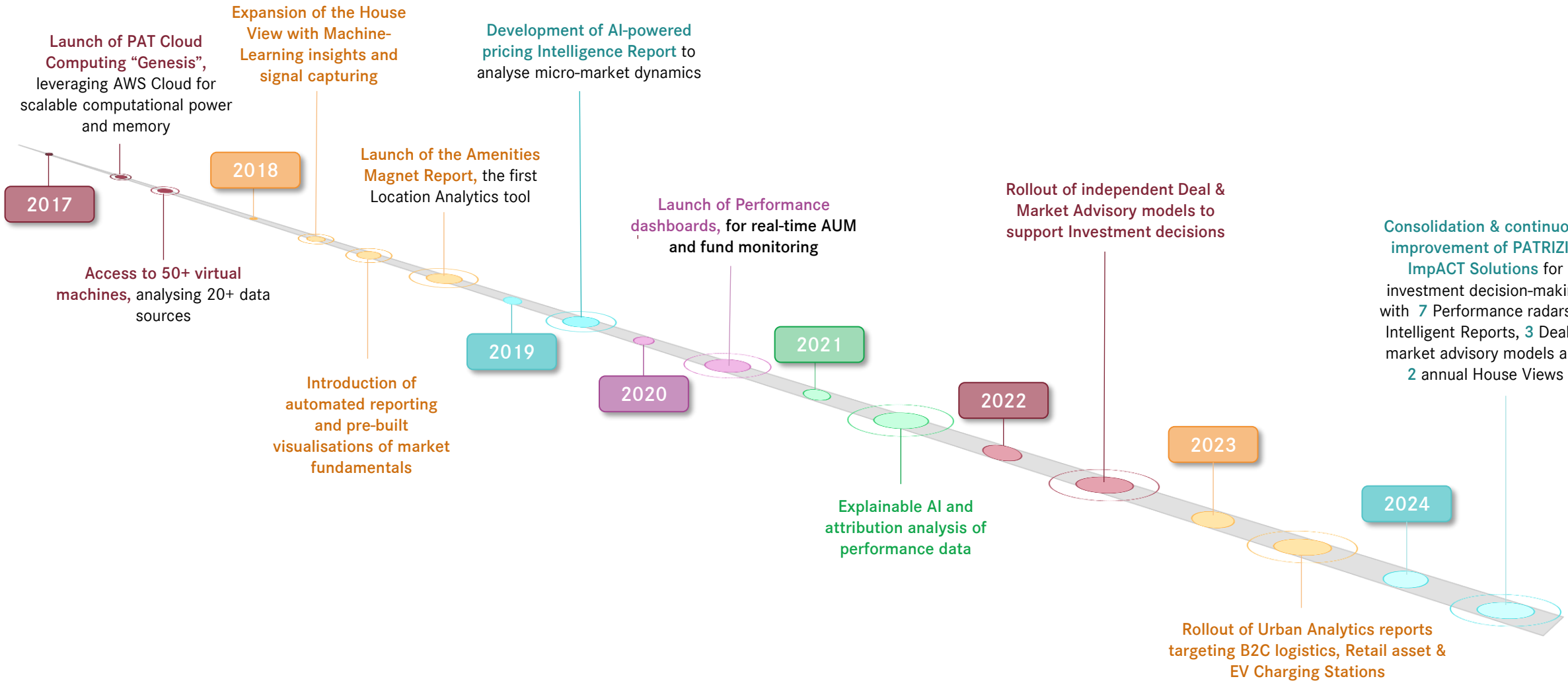
Investing in Real Estate Intelligence, a continuous strategy since 2017

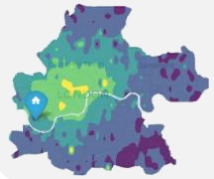


Shaping tomorrow's real estate strategies

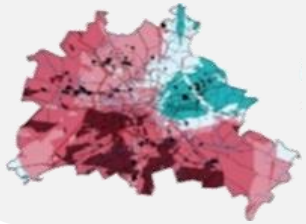
PATRIZIA's ImpACT Solutions as a catalyser for innovation….

UNDERSTANDING THE URBAN FABRIC WITH AI

Investigating critical topics to navigate evolving markets



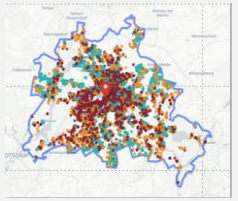
Optimising NOI and forecasting urban hotspots



Quantifying demand for healthier environment and embedding sustainability into investment strategies.

QUANTIFYING THE DRIVERS OF PERFORMANCE

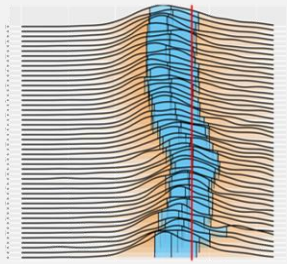
Investigating critical topics to navigate evolving markets



Impact investing for affordability and amenities

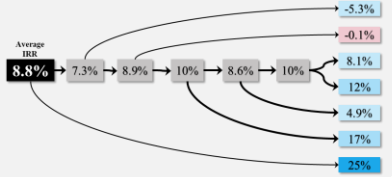


Thinking like e-commerce logistician.



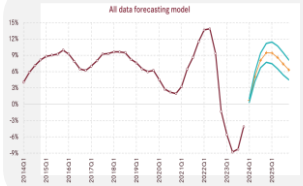
Identifying and forecasting the most influential components of rents and prices.

Pioneering methodologies to measure and deconstruct performance

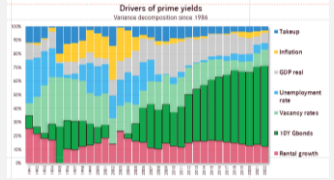


IDENTIFYING OPPORTUNITIES IN THE FUTURE

Providing actionable forecasts to anticipate and respond to market changes

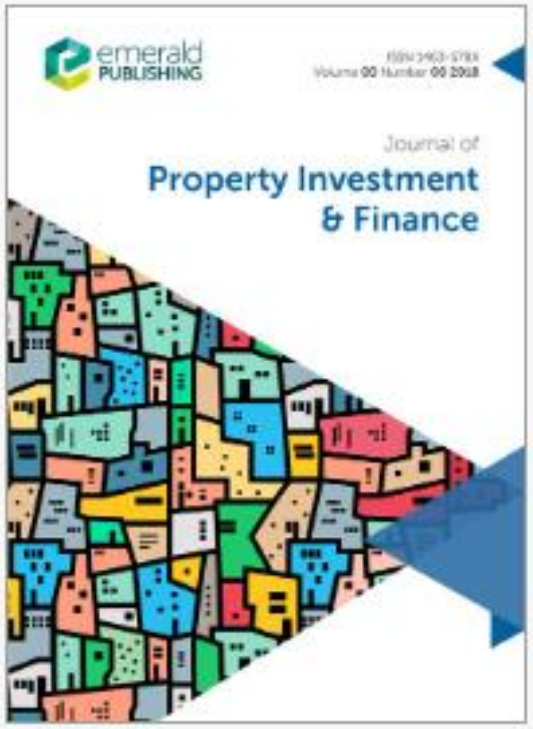


Scenario analysis to prepare for uncertainties in pricing and demands.



Predictive analytics of capital market performance.

Shaping tomorrow's real estate strategies with solid academic track record



CASE REPORT | DECEMBER 24 2024

Real Estate Insights: The impact of amenities on residential rents – exploring the urban rent premium in Berlin's vibrant community hubs

Marcelo Cajias; Anett Wins; Rebecca Restle

+ Author & Article Information

Journal of Property Investment & Finance (2025) 43 (1): 111–115.

https://doi.org/10.1108/JPIF-10-2024-0138

RESEARCH ARTICLE | JANUARY 30 2024

The price of clean air – quantifying air pollution exposure in real estate decisions

Rebecca Restle; Marcelo Cajias; Anna Knoppik

+ Author & Article Information

Journal of Property Investment & Finance (2024) 42 (2): 166–189.

https://doi.org/10.1108/JPIF-10-2023-0095 Article history

CASE REPORT | JANUARY 27 2026

AI-driven investment strategies: identifying the urban rent premium in Tokyo through the amenities magnet scores

Anett Wins; Rebecca Restle; Marcelo Cajias

+ Author & Article Information

Journal of Property Investment & Finance (2026) 44 (1): 38–48.

https://doi.org/10.1108/JPIF-10-2025-0150

Guest editorial: Artificial intelligence (AI) and its potential impact on the real estate industry

Marcelo Cajias

Journal of Property Investment & Finance

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AI-driven investment strategies

Identifying the urban rent premium in Tokyo through the amenities magnet scores

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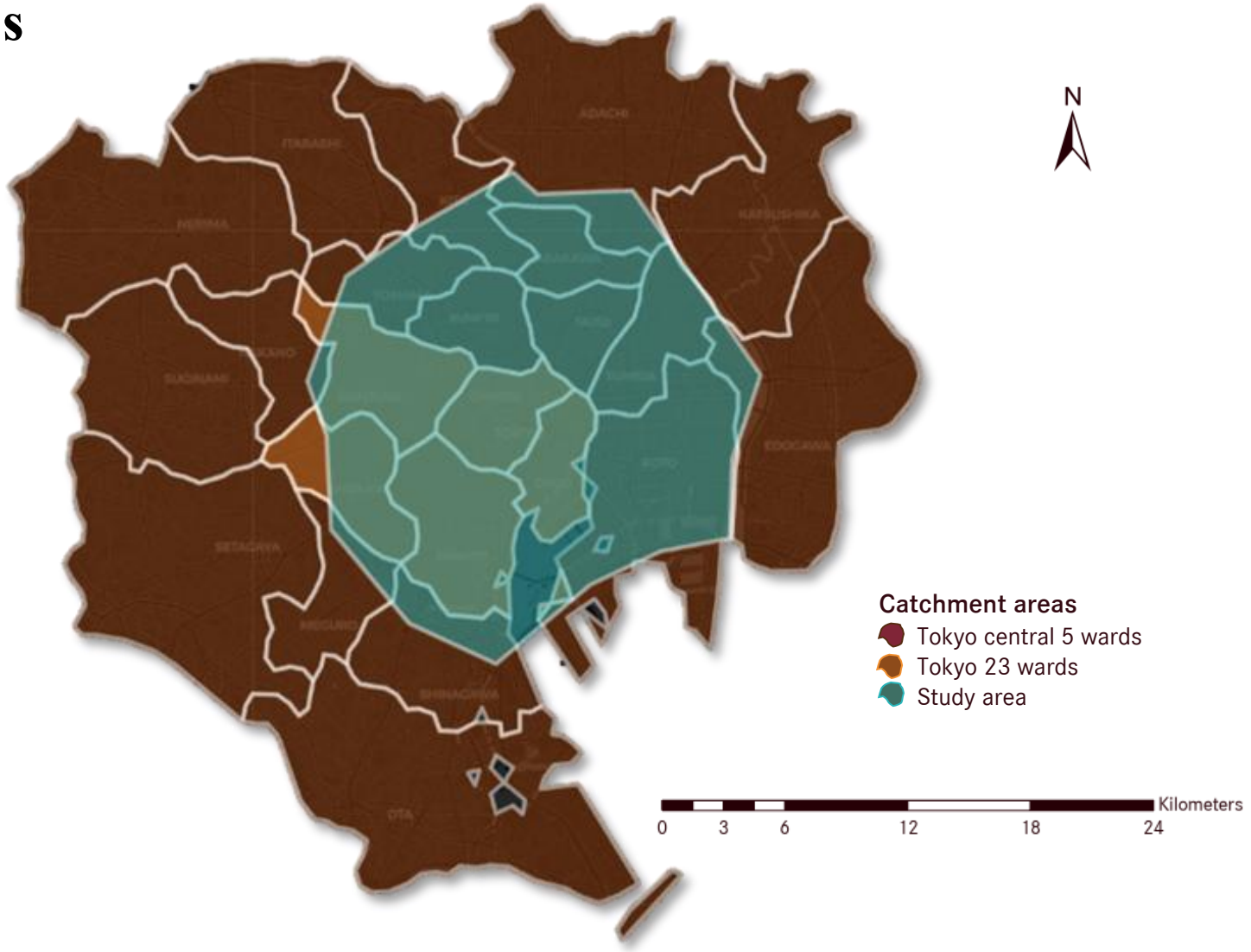
Research design focuses on Tokyo‘s central wards and adjacent areas

Defining Tokyo:

- **Boundary**: Central Circular Route C2
- **Central 5 Wards Plus (C5W+):** Includes central wards and adjacent areas
- **Population**: Approximately 3 Million inhabitants

Regression Analysis:

- **Rental Listings**: 2024
- **Observations**: 1.5 Million
- **Amenities Magnet Score**: 2024



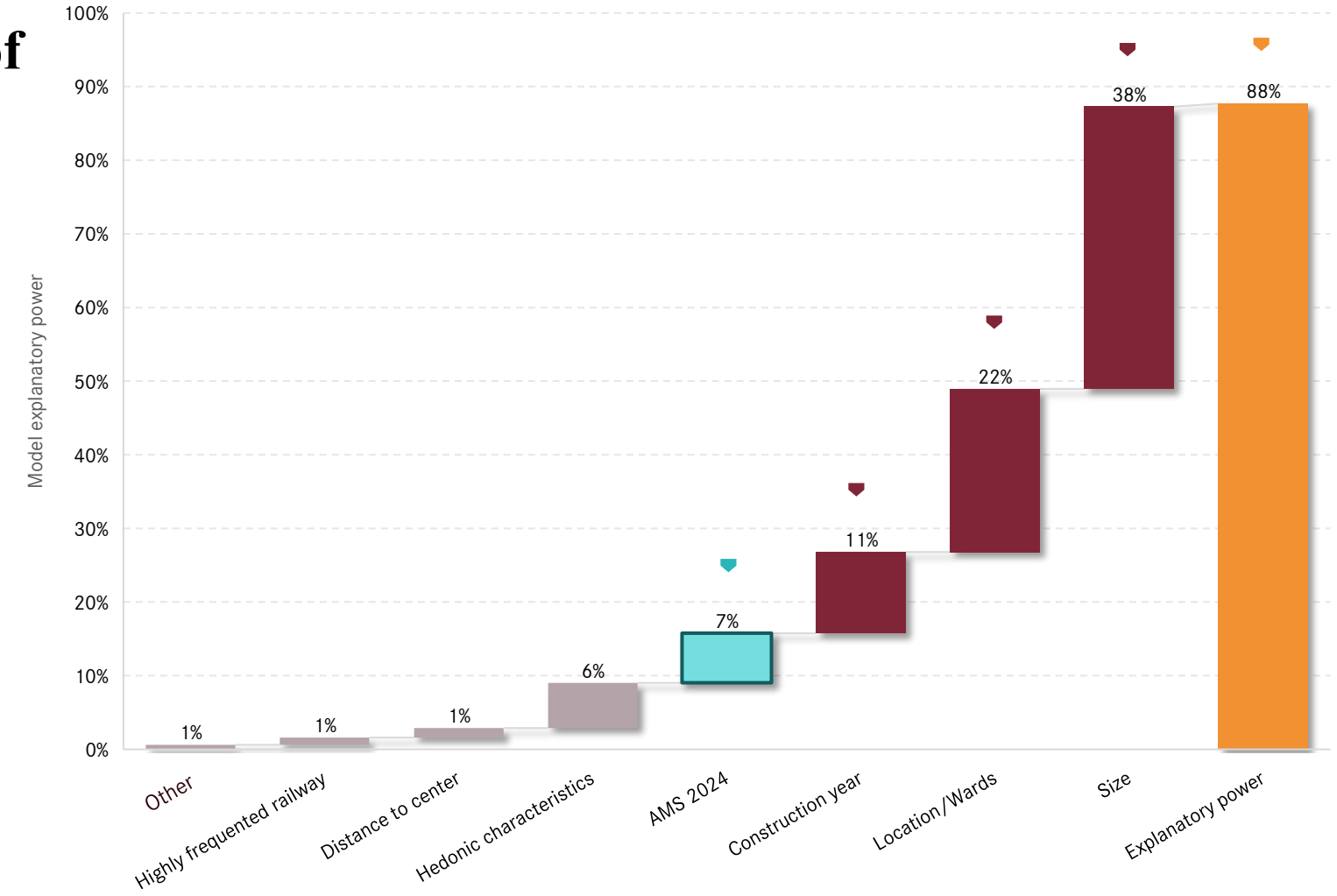
Source: PATRIZIA, OSM, GfK

Tenants' location decisions prioritize the availability of amenities in the surroundings of a location as the fourth most influential factor

- Size, location and construction year are the three most important factors influencing rent levels in Tokyo.
- The Amenities Magnet Score (AMS) is the fourth most important factor in tenants' location decisions, explaining 7% of asking rents.
- After evaluating the functionality and construction year, tenants prioritize local amenities, particularly those related to commuting. These amenities are considered even before the number of rooms or other hedonic characteristics, such as a balcony.

Explanatory power of the model according to model variables

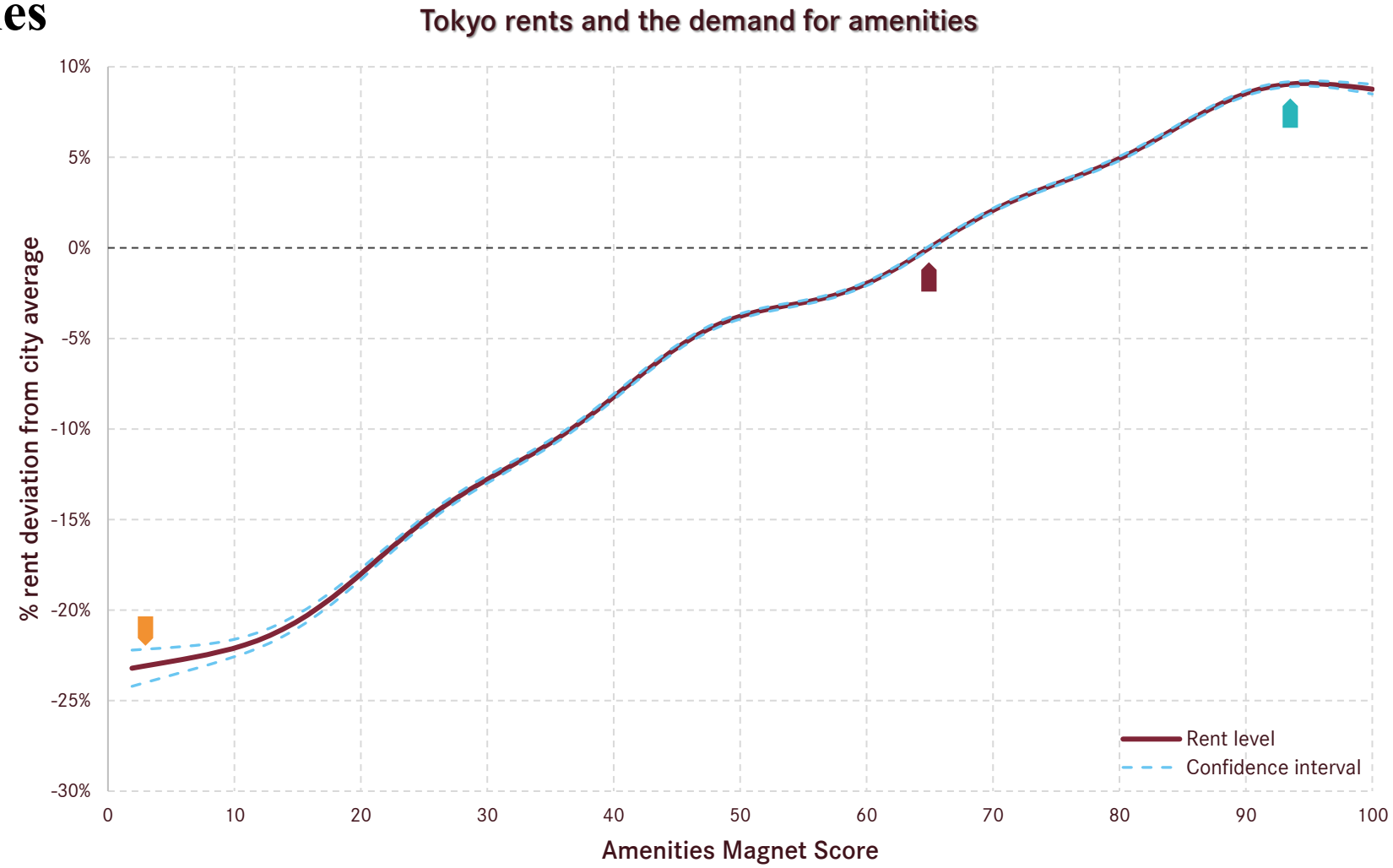
AMS = Amenities magnet score



Source: PATRIZIA, OSM and PriceHubble

The Impact of the Amenities Magnet Score on Asking Rents

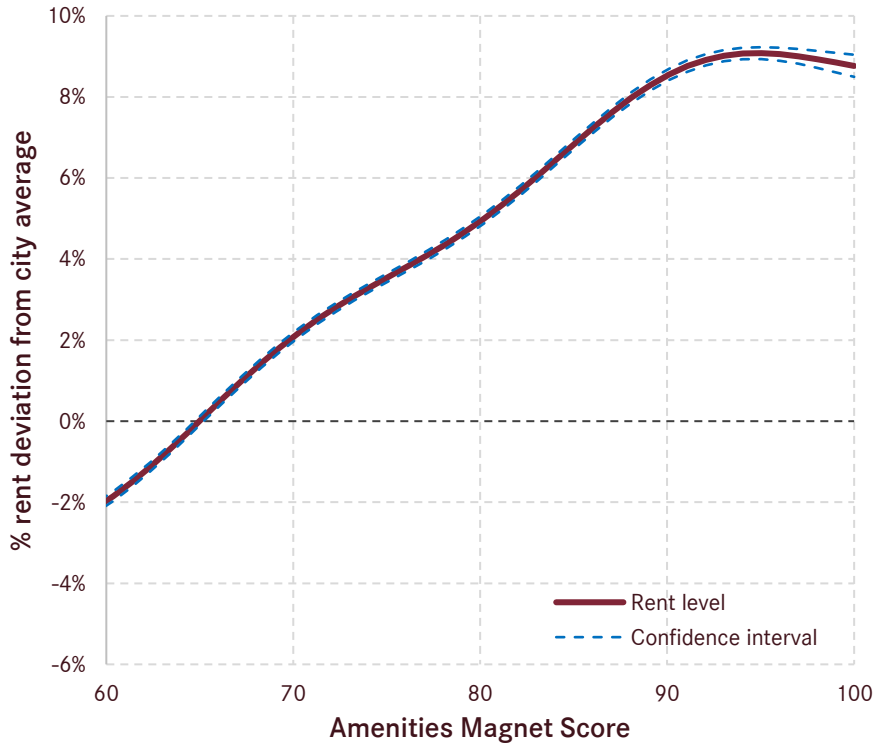
- Rents indicate **positive rental potential** above an Amenities Magnet Score (AMS) of **65**, peaking at nearly 10% above the city's average rent.
- **The highest rental premium** can be observed in areas with AMS ranging from 90 to 100.
- Location with low residential amenities, indicated by a **low AMS score**, show asking rents **23%** below the average city rent.



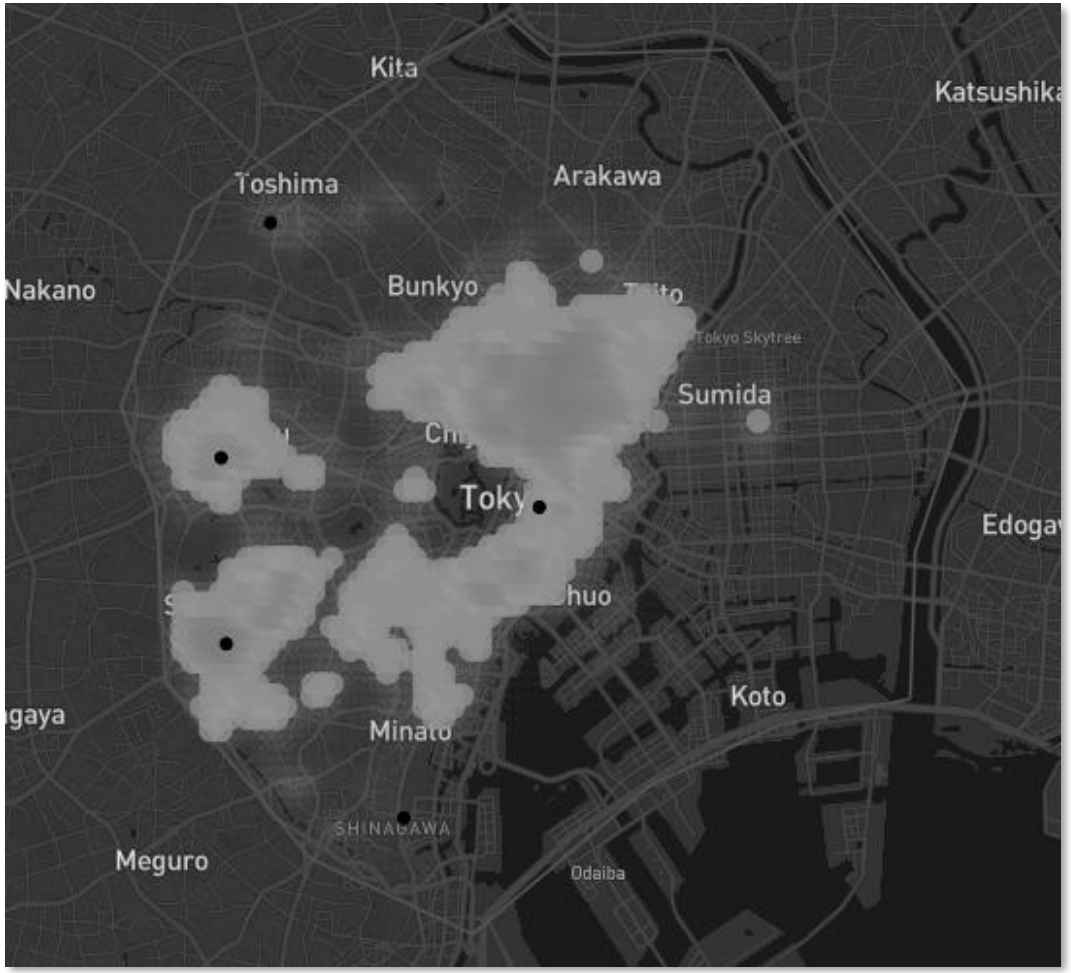
Source: PATRIZIA, OSM and PriceHubble

RENT PREMIUM: Highest rents are to observe in highly amenitized locations

Tokyo rents and the demand for amenities



Areas with peak rental premium



Source: PATRIZIA, OSM and PriceHubble | * Shibuya, Shinjuku, Shinagawa, Ikeburo, Tokyo Station

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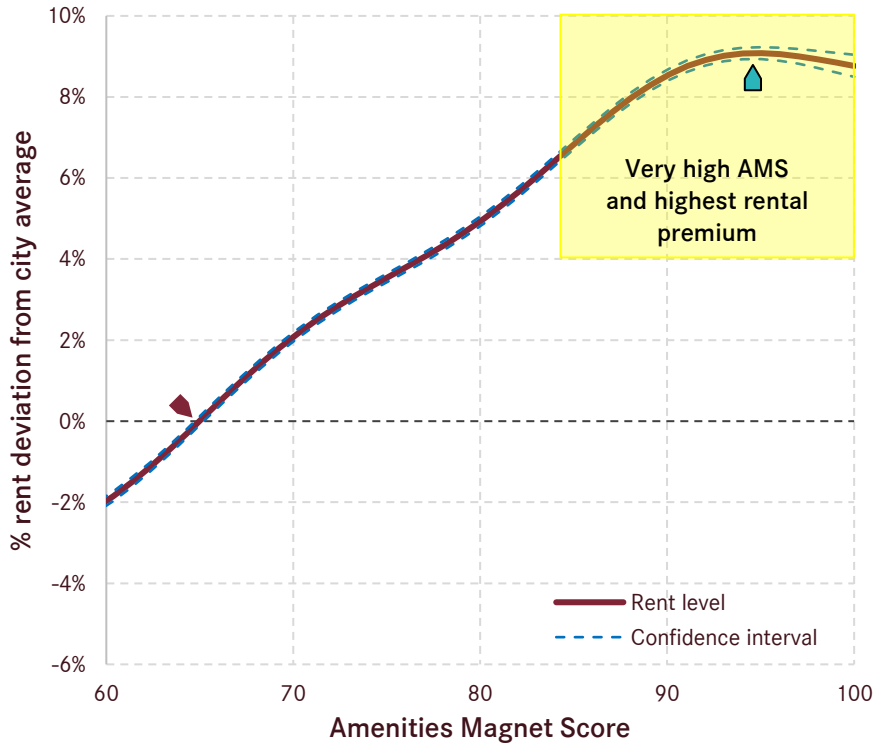
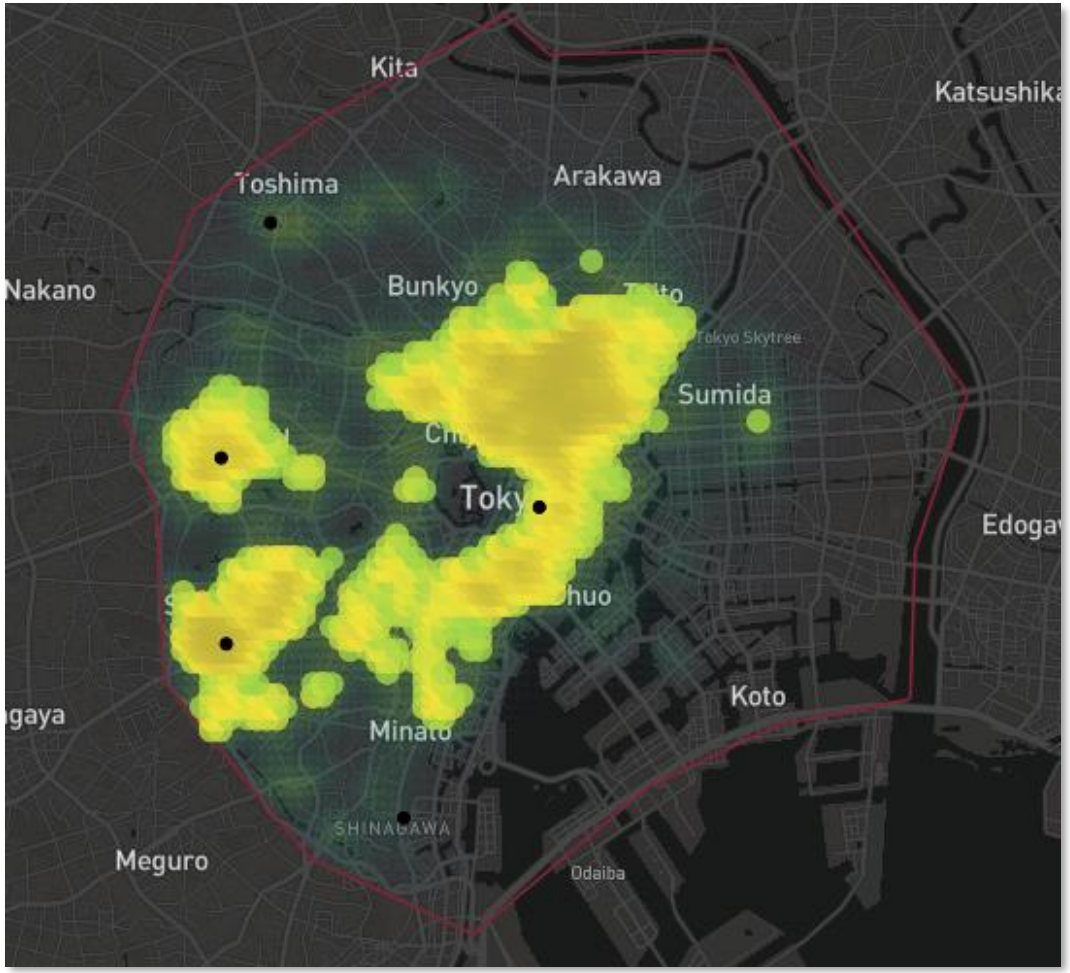


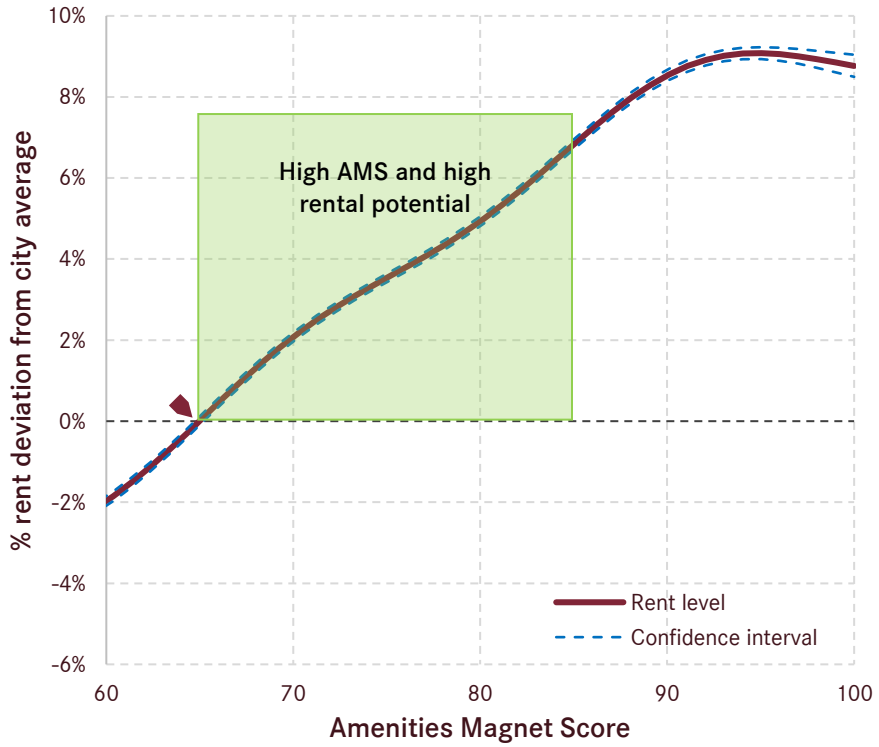
Areas with peak rental premium



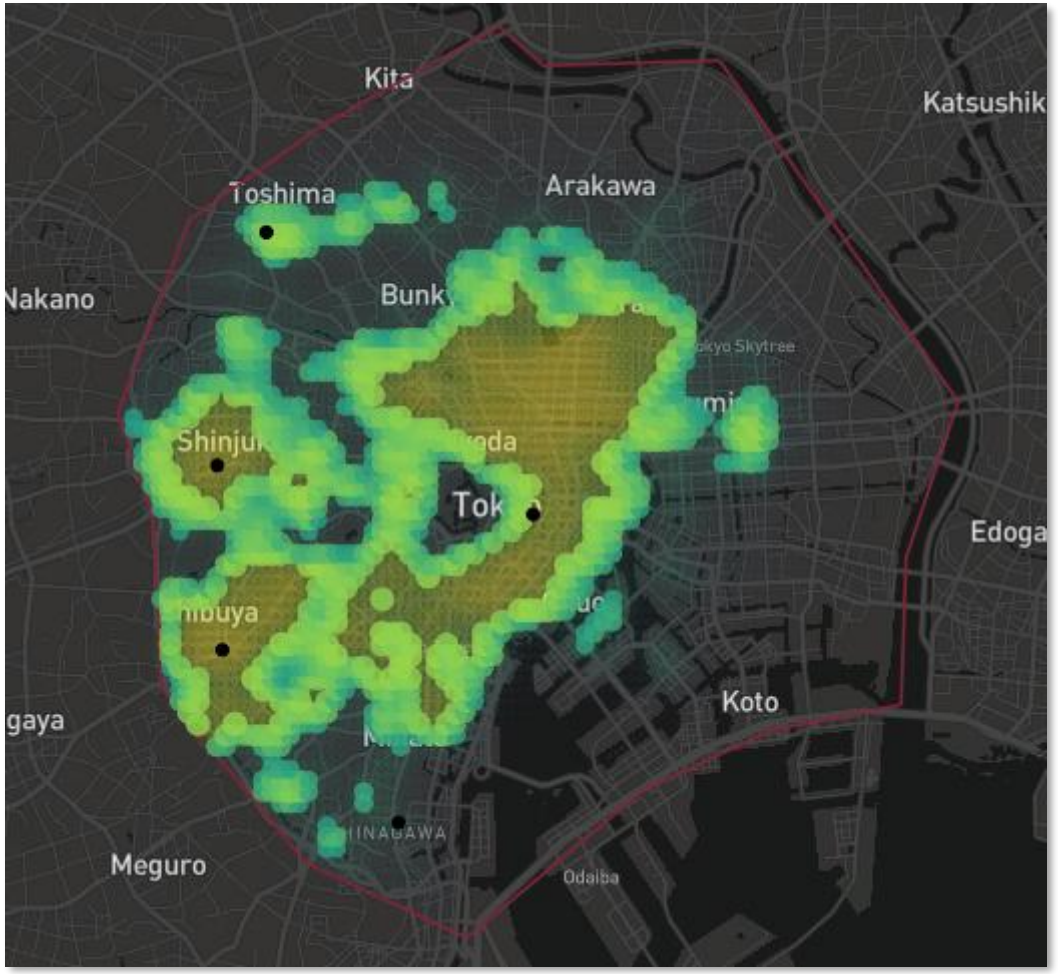
Source: PATRIZIA, OSM and PriceHubble | * Shibuya, Shinjuku, Shinagawa, Ikeburo, Tokyo Station

RENTAL GROWTH: Areas with fewer amenities still benefit from rental potential

Tokyo rents and the demand for amenities



Rental potential areas



Source: PATRIZIA, OSM and PriceHubble | * Shibuya, Shinjuku, Shinagawa, Ikeburo, Tokyo Station

PATRIZIA

AI-driven investment strategies

Exploring the urban rent premium in Berlin's vibrant community hubs

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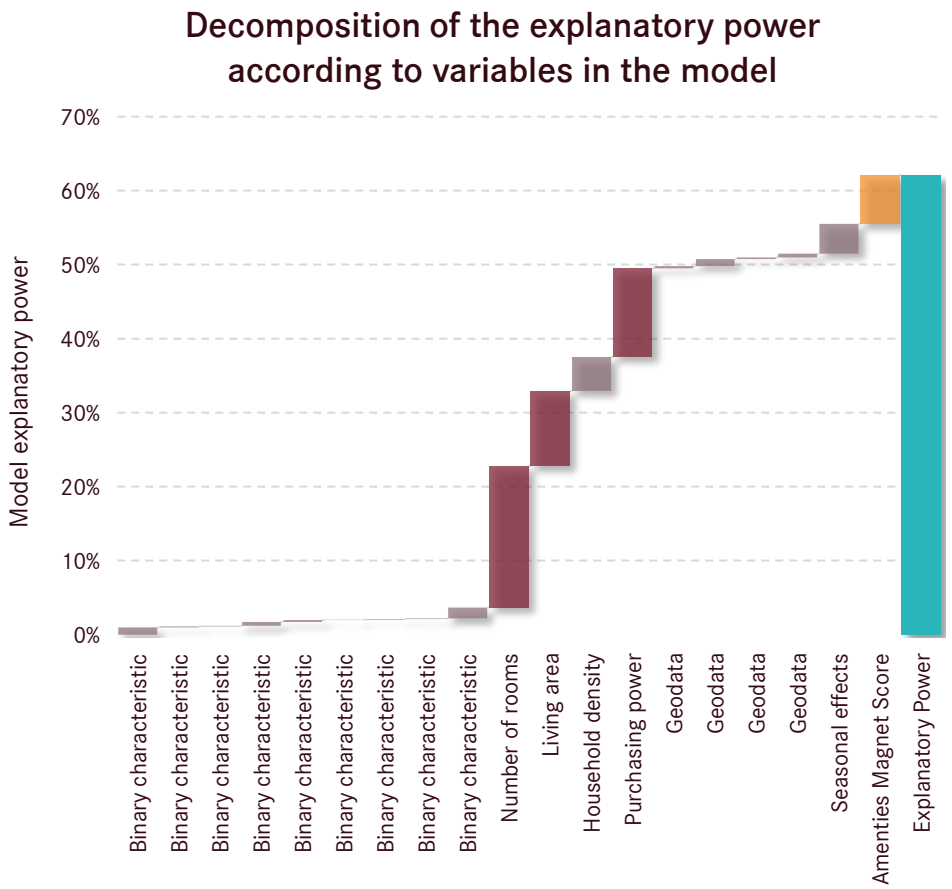
Tenants' location decisions prioritize the availability of amenities in the surroundings of a location as the fourth most influential factor





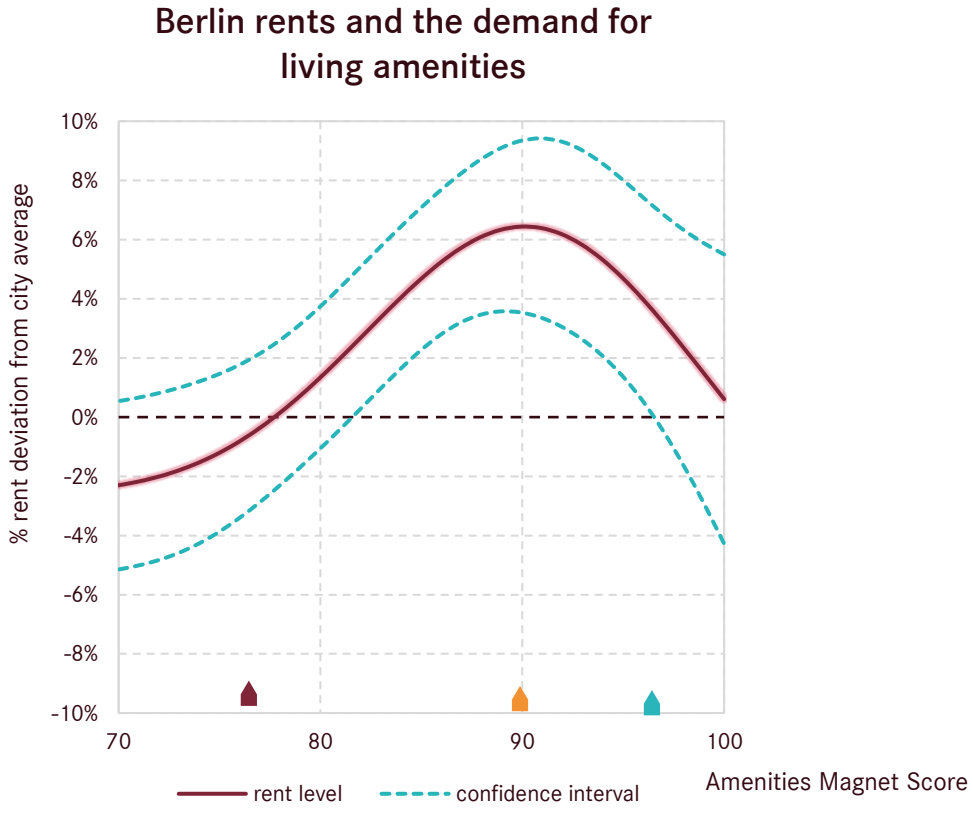
The number of rooms, the living area and the purchasing power per household in the area are the three most important variables that explain asking rents.

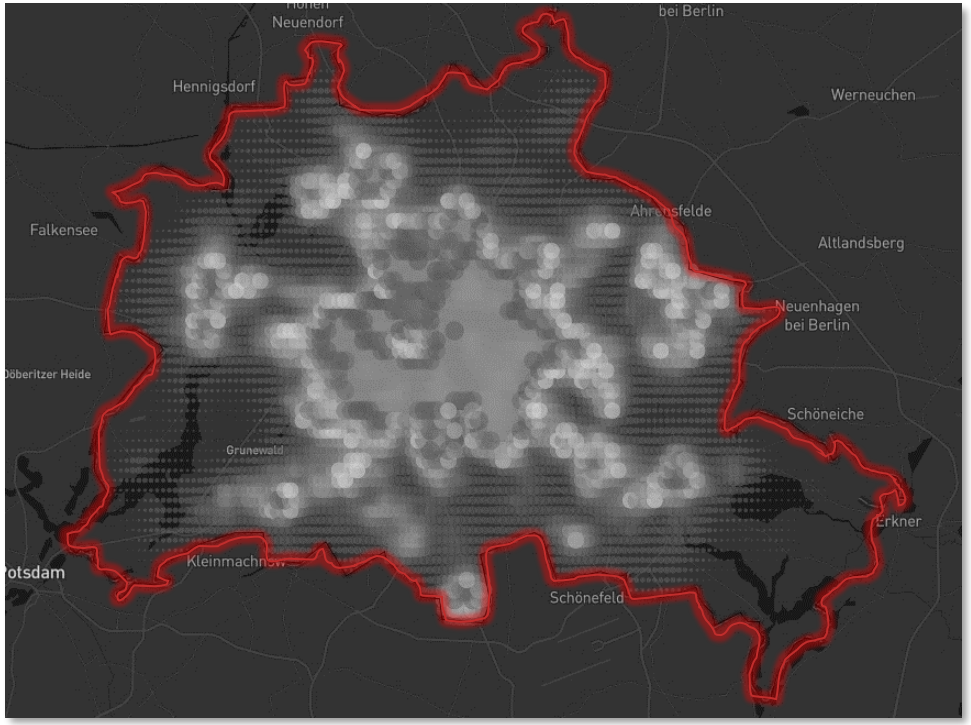
Tenants' location decisions prioritize the availability of amenities as the fourth most influential factor.

This means that after tenants evaluate the functionality, the size and the average income in a neighbourhood they focus on the local amenities that will supply their living needs.

Source: PATRIZIA and REalyse

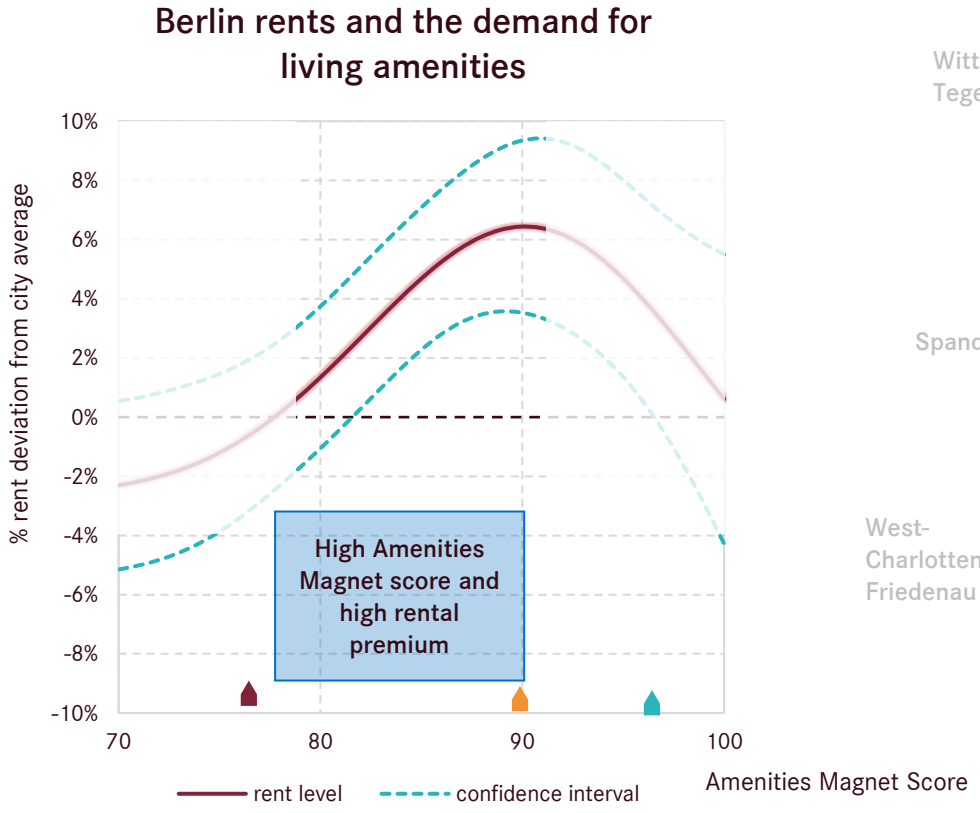
BERLIN: The case for amenity congestion: it is not the centres themselves but their immediate surroundings that have higher rental potential

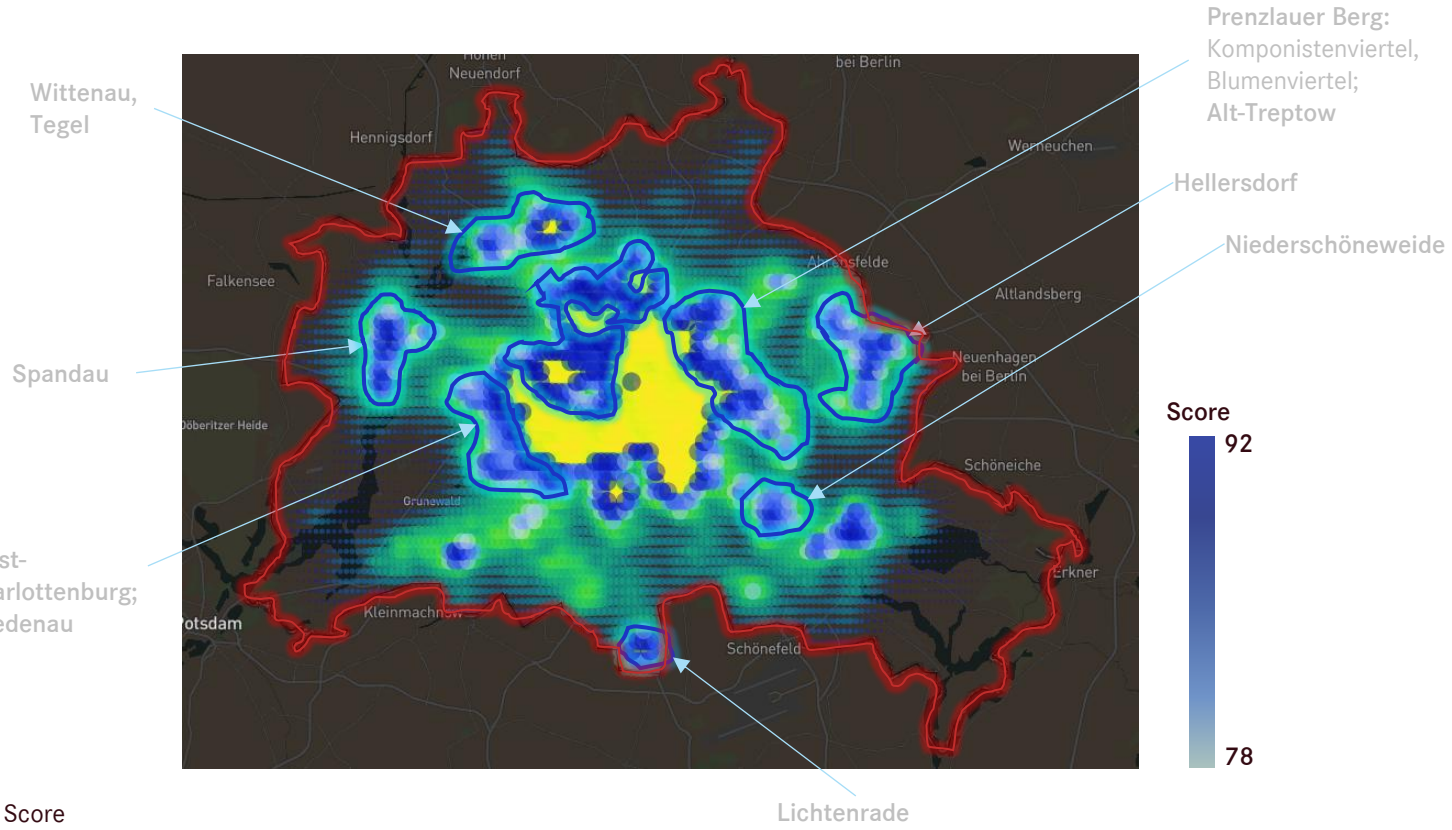




Source: PATRIZIA and VALUE Marktdaten

BERLIN: The case for amenity congestion: it is not the centres themselves but their immediate surroundings that have higher rental potential





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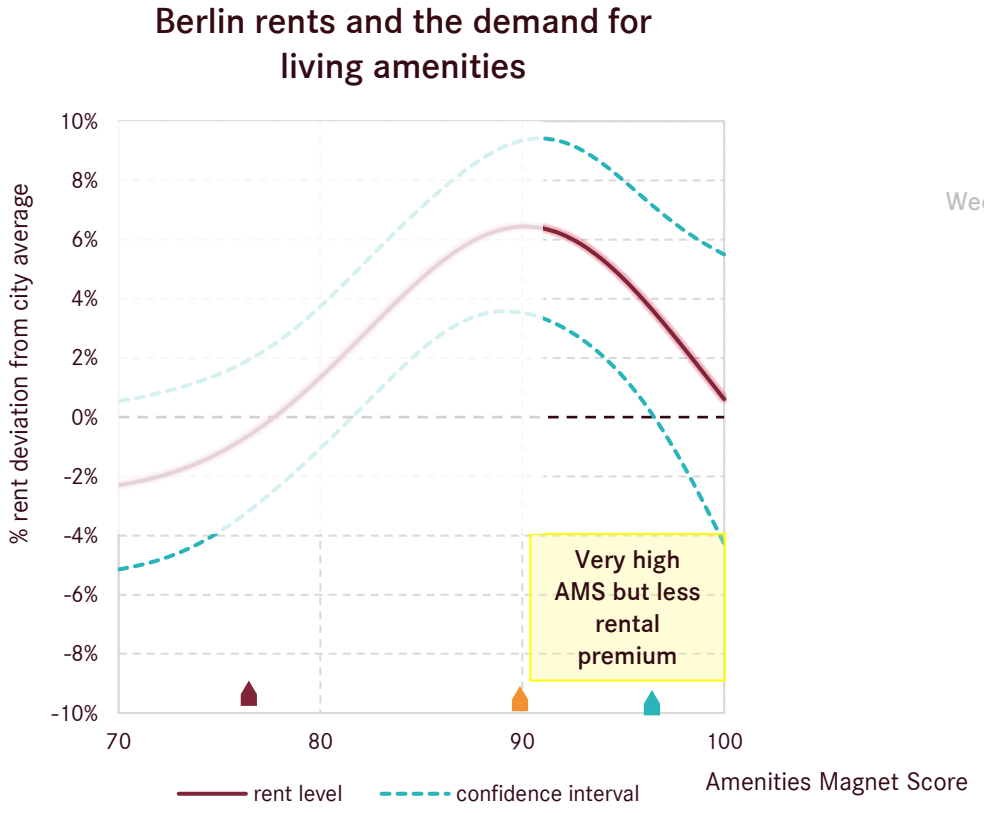

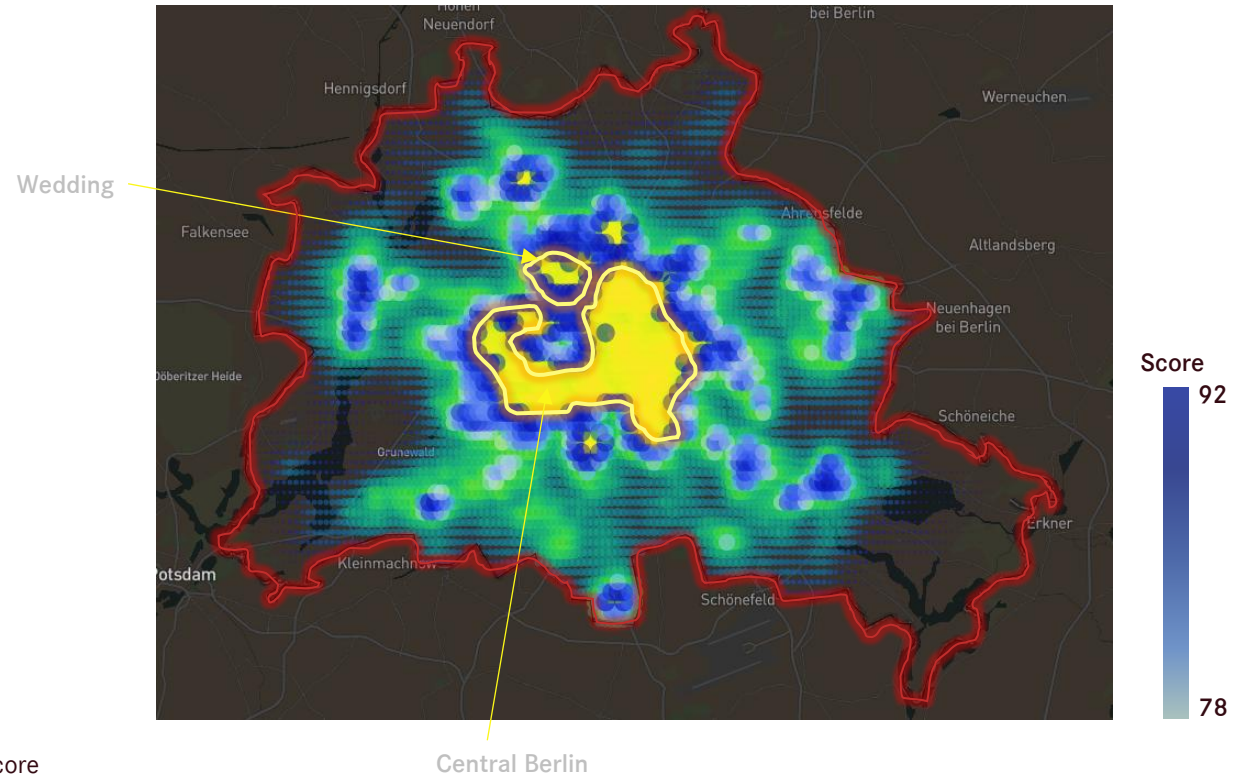

Source: PATRIZIA and VALUE Marktdaten

PATRIZIA

Tracking rental growth paths in cities

A machine learning and simulation-based analysis

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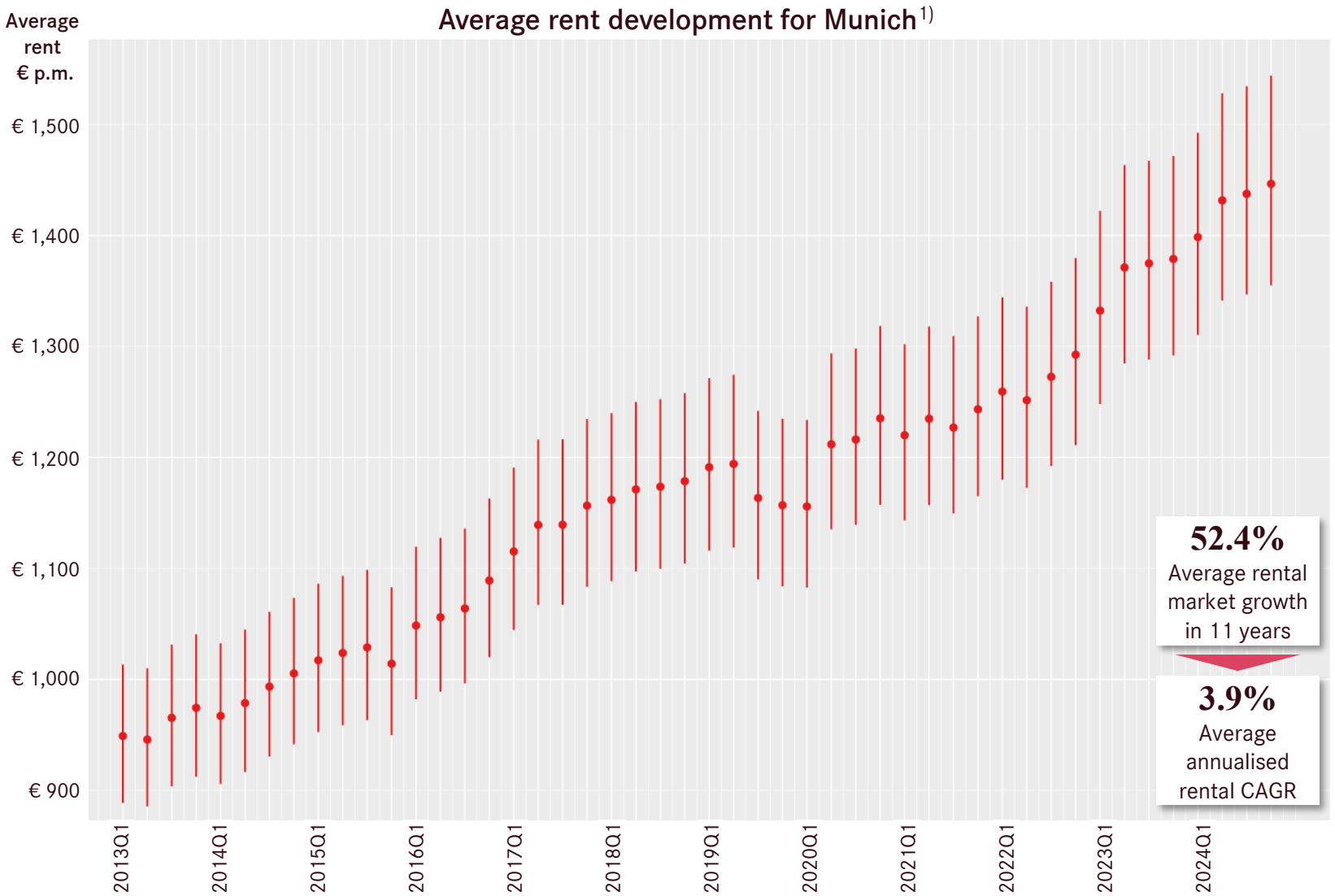
How has the rent of an average asset evolved during the last 11 years?

Analysing a decade of 52% rental growth in Munich's residential market

Significant rental increase: The average rent for an average property in Munich increased from approximately € 950 in 2013 to €1,450, reflecting a substantial 52% growth over a decade.

Attractive investment opportunity: The consistent upward trend in rental prices indicates a robust market, making Munich an appealing location for institutional investors seeking stable returns.



Source: PATRIZIA, Google, Valuemarktdaten.

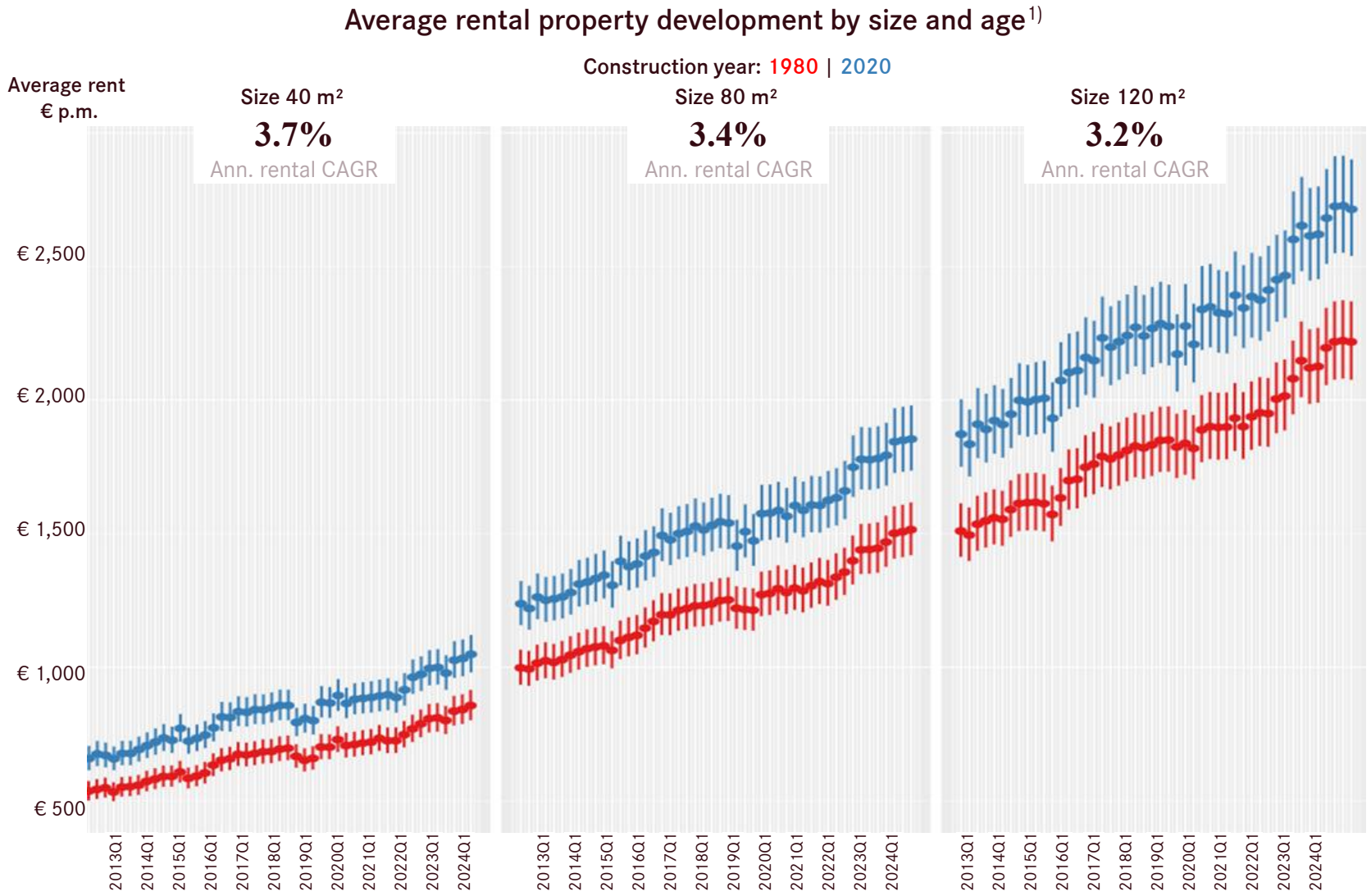
1) Results estimated for 76 m² an asset with built in 1979 by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics. Lines around the dots represent the 95% confidence interval.

Rental growth insights:
Smaller assets provide stronger rental growth than larger assets

Smaller properties & higher growth: Properties of 40 m² exhibit the highest annual rental CAGR of 3.4%

Moderate growth for mid-sized properties: Properties of 80 m² show a 3.4% CAGR, indicating moderate but consistent rental growth.

Stable growth in larger properties: Properties of 120 m² have a 3.2% CAGR, reflecting stable but lower rental growth compared to smaller assets.



Source: PATRIZIA, Google, Valuemarktdaten. Lines around the dots represent the 95% confidence interval. 1) Results estimated by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics.

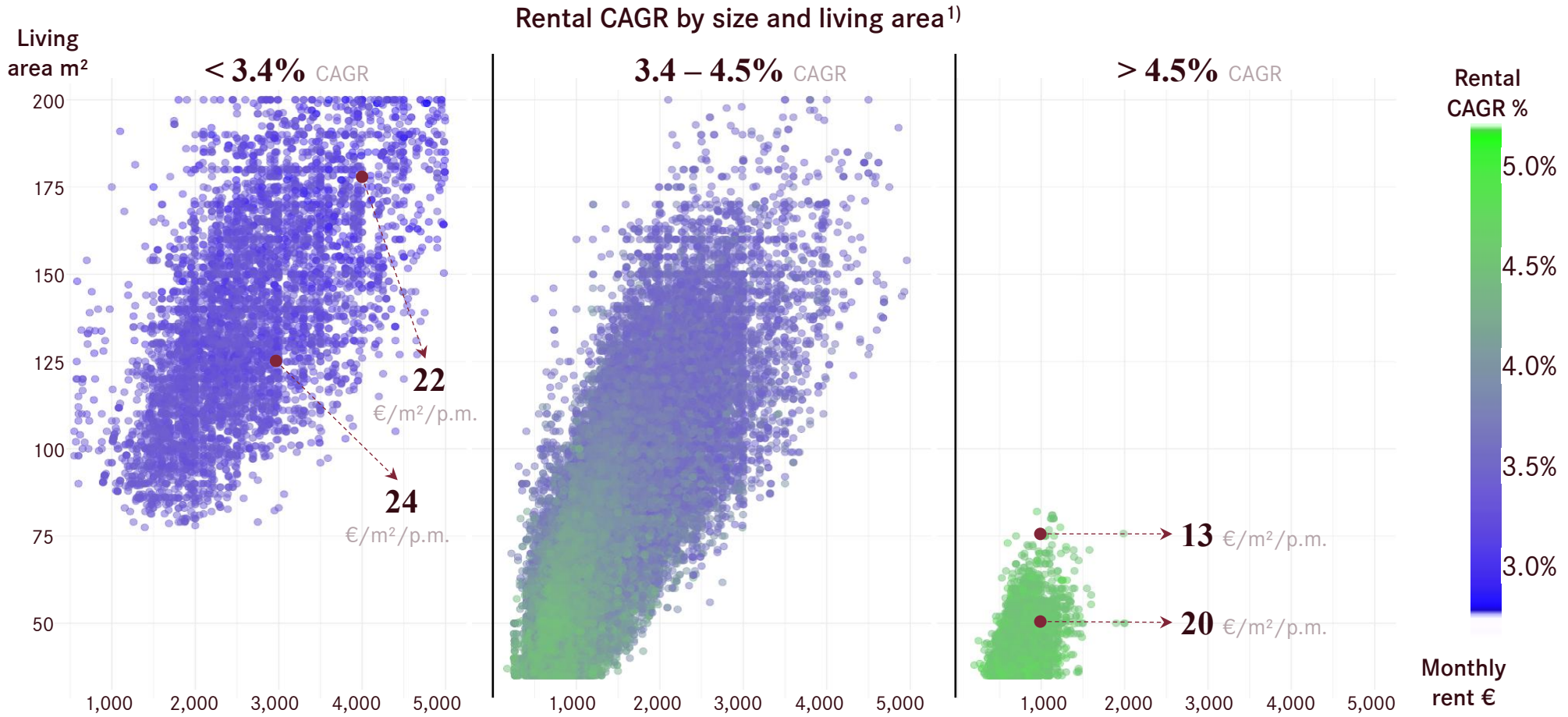
Rental growth insights: small properties with rents below 2k p.a. offer higher potential for income growth

The highest income generation is achievable with smaller properties at lower rental levels.

High asking rents limit the potential for strong rental growth.

Highest income generation is linked to smaller properties.

Lower rental levels are more favorable for income growth.

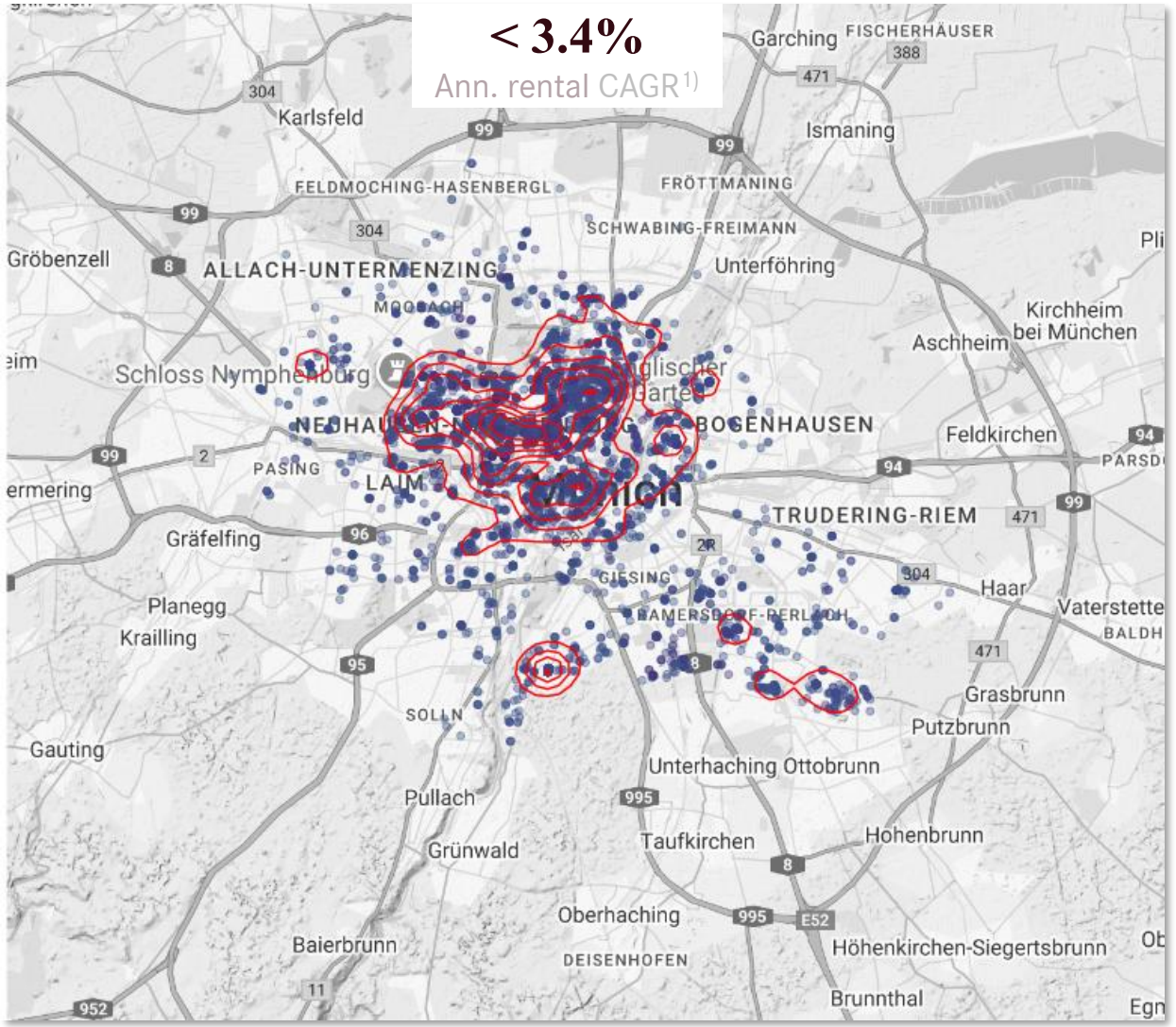


Source: PATRIZIA, Google, Valuemarktdaten. 1) Results estimated by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics. The color gradient from blue to green represents the CAGR values. Blue indicates lower CGAR values, while green indicates higher values.

Identifying *Low-growth* income-generating investment zones

Locations with rental CAGR below 3.4% p.a.

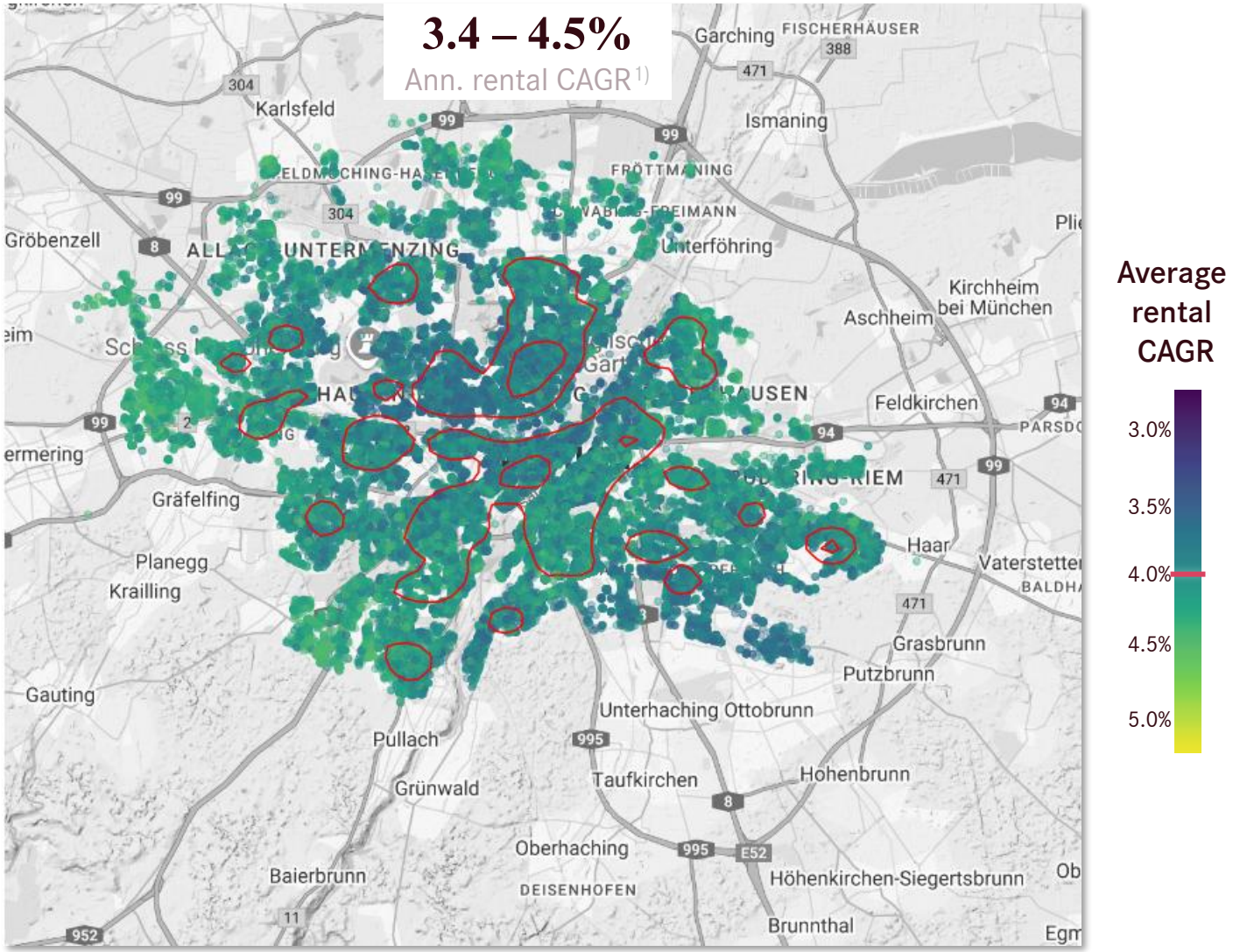
- City centre properties tend to offer moderate rental growth.
- For core investment strategies: focus on these areas for steady income and lower risk as they may provide consistent returns due to their central location and demand.



Source: PATRIZIA, Google, Valuemarktdaten. 1) Results estimated by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics. Clusters identified via bivariate density isochrones.

Identifying *Growth* income-generating investment zones
Mapping rental CAGR from 3.4% to 4.5% p.a.

- Rental growth is uniform across Munich.
- Few areas can be identified as clusters of investment opportunities with an ann. CAGR between 3.4% and 4.5%.
- Munich offers wider range of viable locations to choose from, allowing for more flexible and diversified investment strategies.

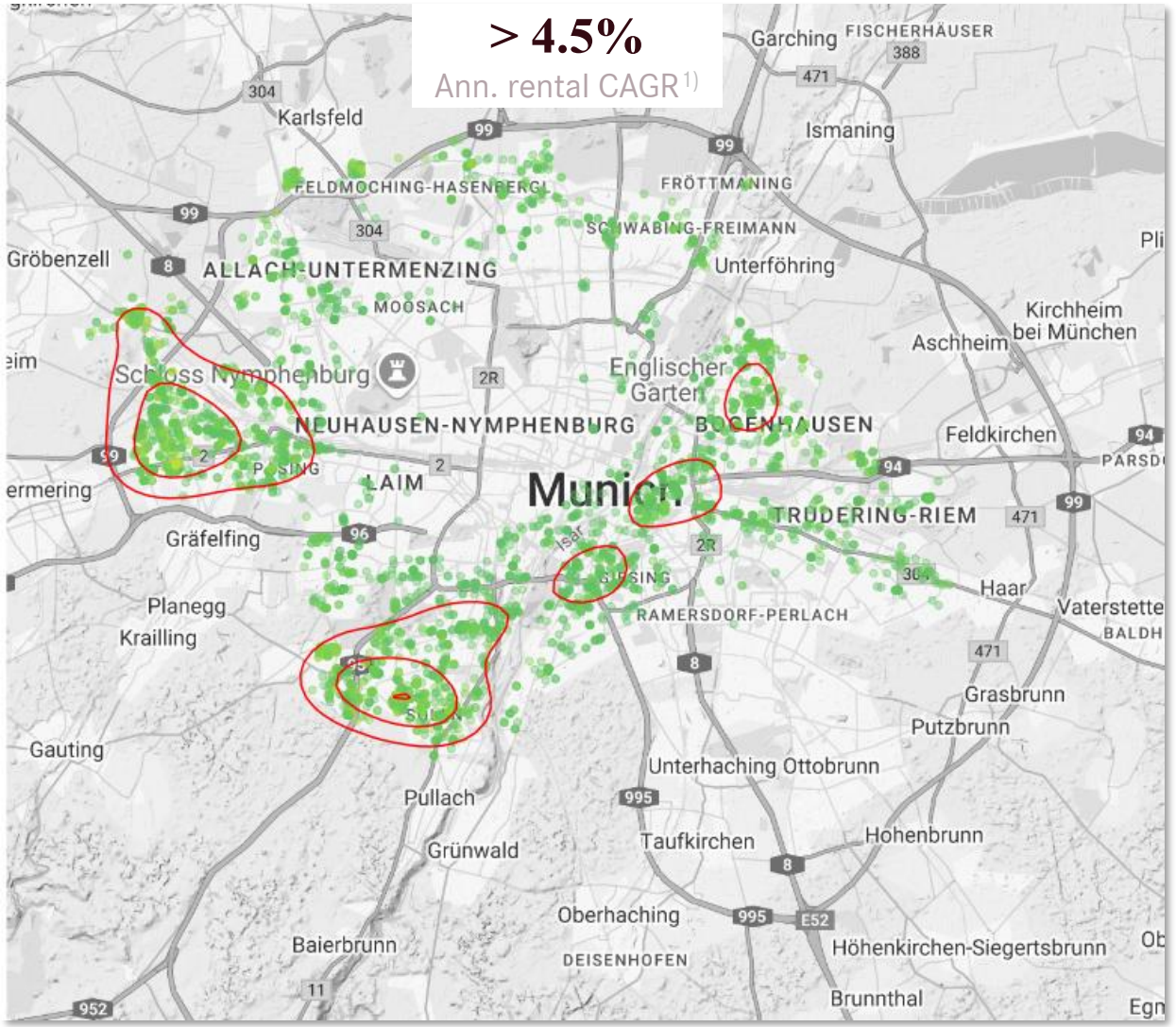


Source: PATRIZIA, Google, Valuemarktdaten. 1) Results estimated by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics. Clusters identified via bivariate density isochrones.

Identifying *High-growth* income-generating investment zones

Mapping specific locations with a rental CAGR above 4.5% p.a.

- Targeting these specific areas could yield higher returns.
- Next to the city centre as well as in the southern and western parts of Munich offer stronger growth potential.

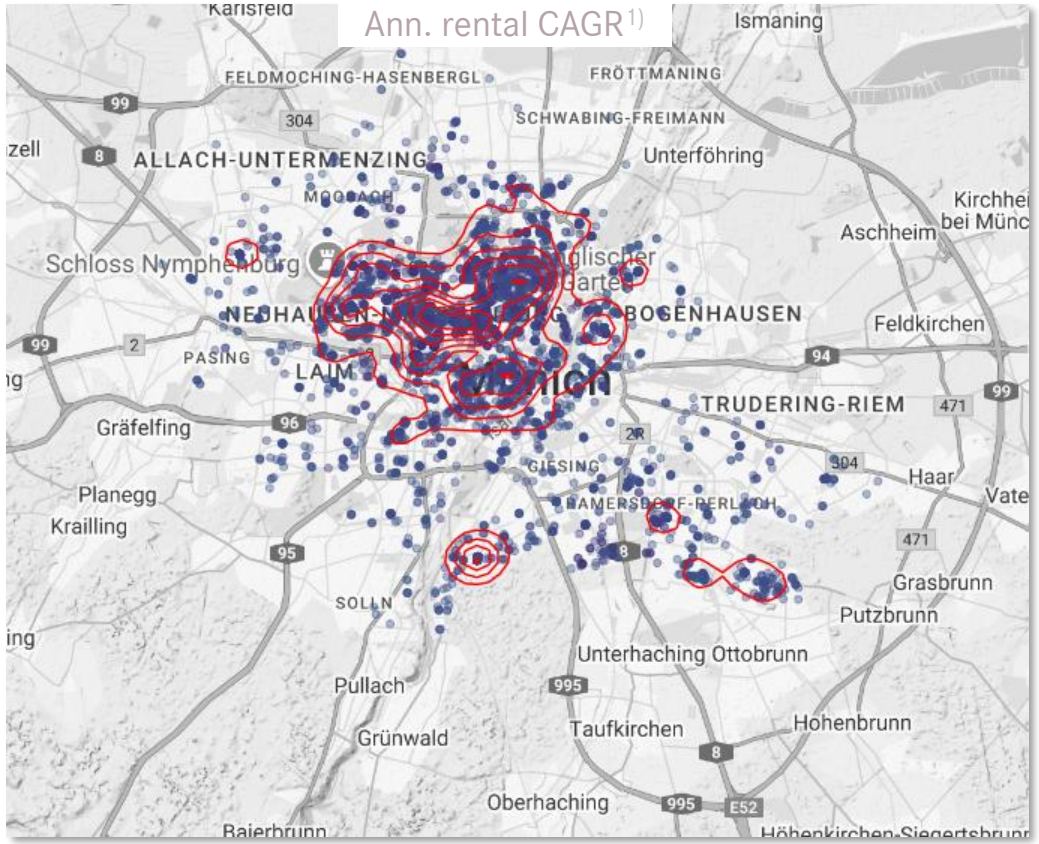


Source: PATRIZIA, Google, Valuemarktdaten. 1) Results estimated by a regression model adjusting for hedonic characteristics, location, time and socioeconomic characteristics. Clusters identified via bivariate density isochrones.

Identifying investment strategies in Munich: *low* vs. *high income-generating* zones

< 3.4%

Ann. rental CAGR[1)]

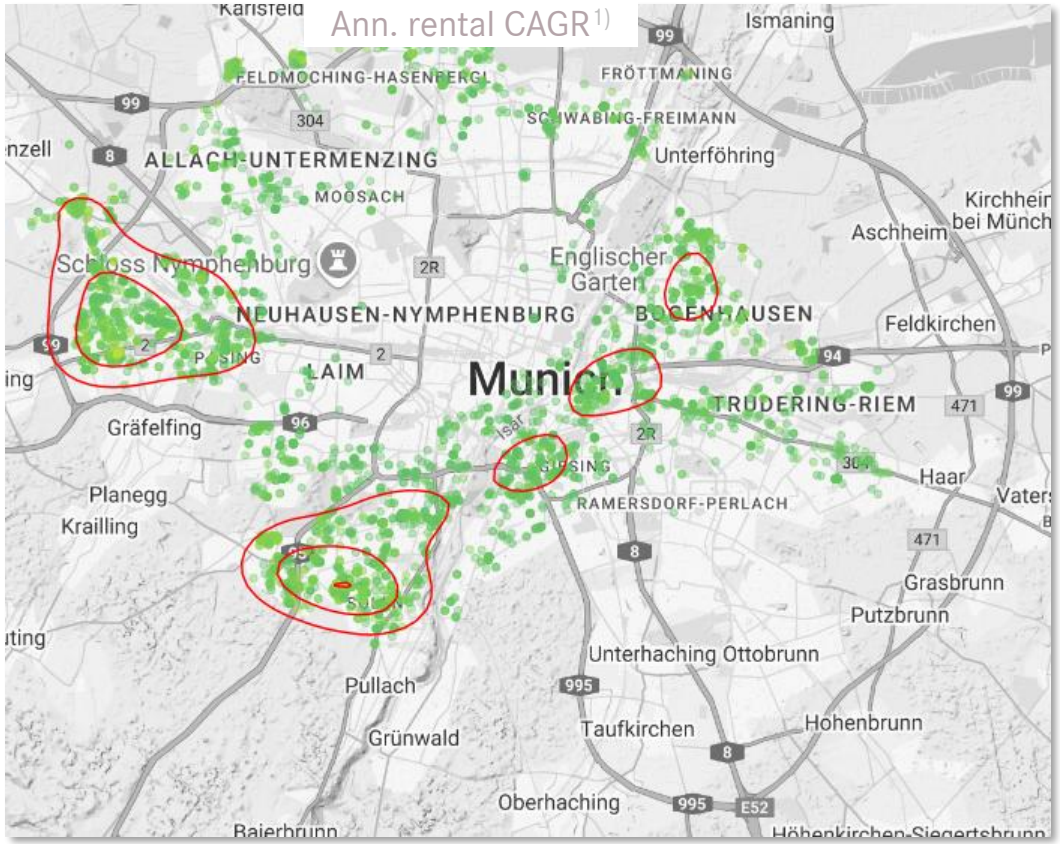


Average rental CAGR

3.0%
3.5%
4.0%
4.5%
5.0%

> 4.5%

Ann. rental CAGR[1)]



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