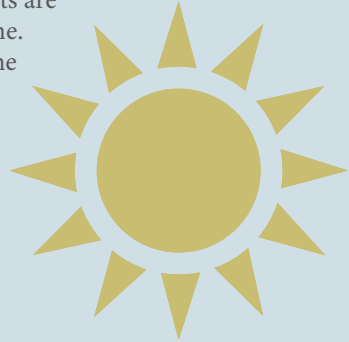


# Urban Densification - Climate Change, Heat Islands and Green Spaces

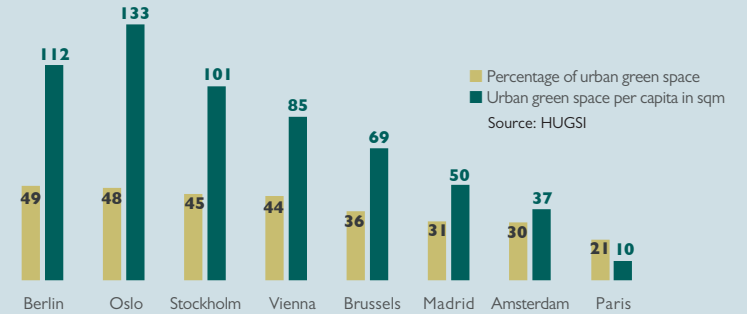


Climate change and the associated effects are one of the most central issues of our time. One consequence is increasingly extreme weather phenomena with foreseeable consequences on cities and real estate.



In the fight against urban heat islands, green spaces and open spaces are important tools:

- Plants reduce the ambient temperature through evaporation
- Improvement of air quality and provide space for recovery and leisure <sup>2</sup>



High stress within the metropolitan areas due to heat islands \*

\* Schematic representation of a midsummer day in a temperate climate zone. Source: Klimaphat 2021

Source: Catella Research 2022



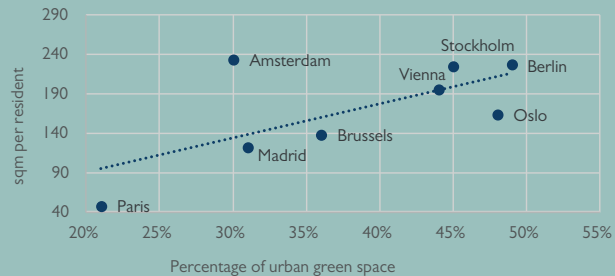
Percentage of urban green space and green space per capita in sqm

Due to increasing urbanisation, a growing proportion of the world's population lives in cities and is therefore affected by heat island effects.

This phenomenon describes the difference in temperature between urban areas and the less urban surrounding countryside, which can be as much as 10 °C: <sup>1</sup>

- In Europe, about three quarters of people live in urban environments <sup>2</sup>
- Sealed surfaces store heat and are thus a major reason for heat islands
- Increasing green space by 10% can reduce the temperature on summer days by approx. 3 °C <sup>3</sup>
- Latent loads are measurable for people, quality of life and real estate

## Density of population vs. proportion of green space



In addition to green space, there are also clear differences in terms of population density: Cities with a high degree of population density tend to have less green space per capita.

1: DWD  
2: BMUV  
3: Stadt Marketing Austria

Proportion of green space varies greatly in Europe: Berlin 49% - Paris 21% / Oslo 133 sqm - Paris 10 sqm per capita