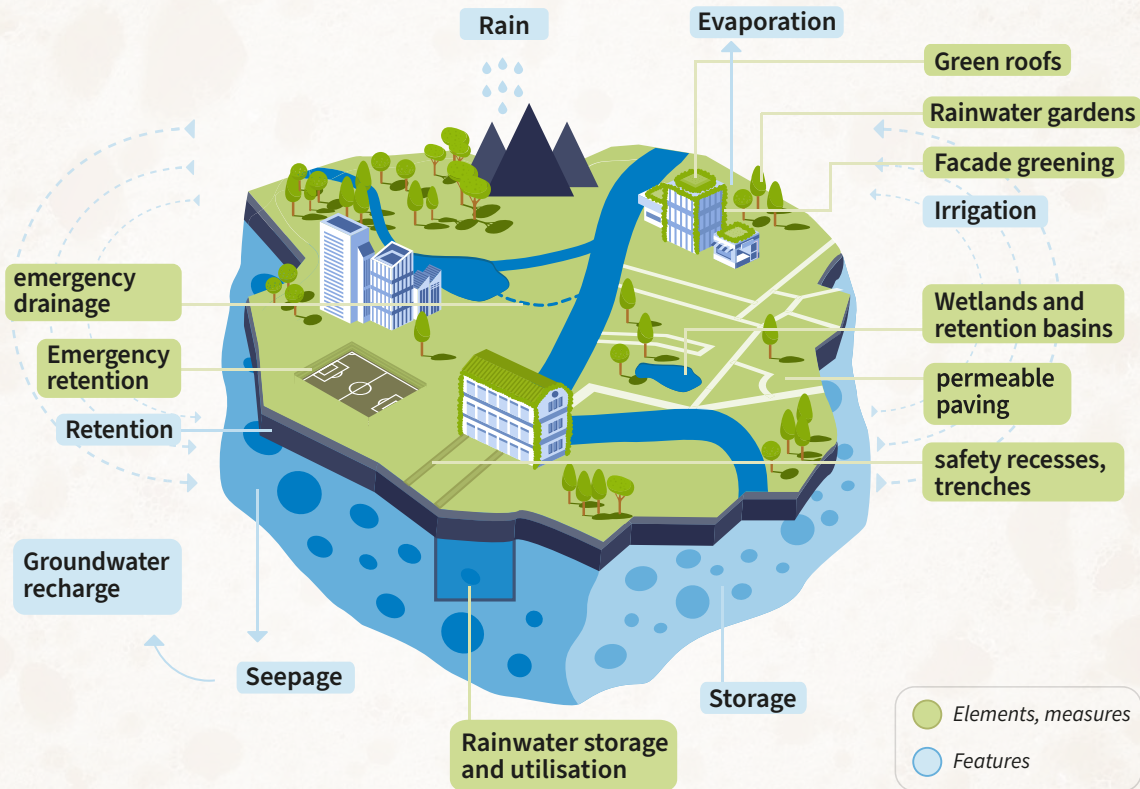


Did you know ...

... how indispensable resilient cities are in view of increasing climate extremes?

“The resilience of critical, sustainable infrastructure – including its protection against sabotage and cyber attacks – must be at the heart of national security strategy,” said Wolfgang Ischinger, Chairman of the Munich Security Conference. The IFAT Circularity Monitor confirms society’s concerns: 63 percent of Germans consider preparations for water supply crises to be inadequate – especially in the face of physical or digital attacks. By 2050, nearly 70 percent of the world’s population will live in cities, where heat-storing asphalt and heavy rainfall overwhelm sewage systems. This is where the sponge city comes in: it transforms hydrological principles into urban planning – from drainage to retention, storage and evaporation. Green roofs, green facades and smart designs make cities resilient and more liveable.

What makes a sponge city



€ 8.1 billion
in damage was caused by Heavy rainfall in 2021 alone.

Buildings and structural elements

30–60 % less heat input on a sunny summer day under an extensive green roof (10–15 cm substrate layer) compared to a gravel roof



Extensive green roofs can reduce rainwater runoff by **58 %**. With so-called intensive green roofs, this figure can even reach almost **80 %**.

A black-painted roof can reach temperatures of **70 °C**. A white-painted roof does not exceed **40 °C**.



Vegetation as a cooling and water-retaining element

At **8 °C**, trees can cool their immediate surroundings through transpiration, i.e. the water lost through their leaves.



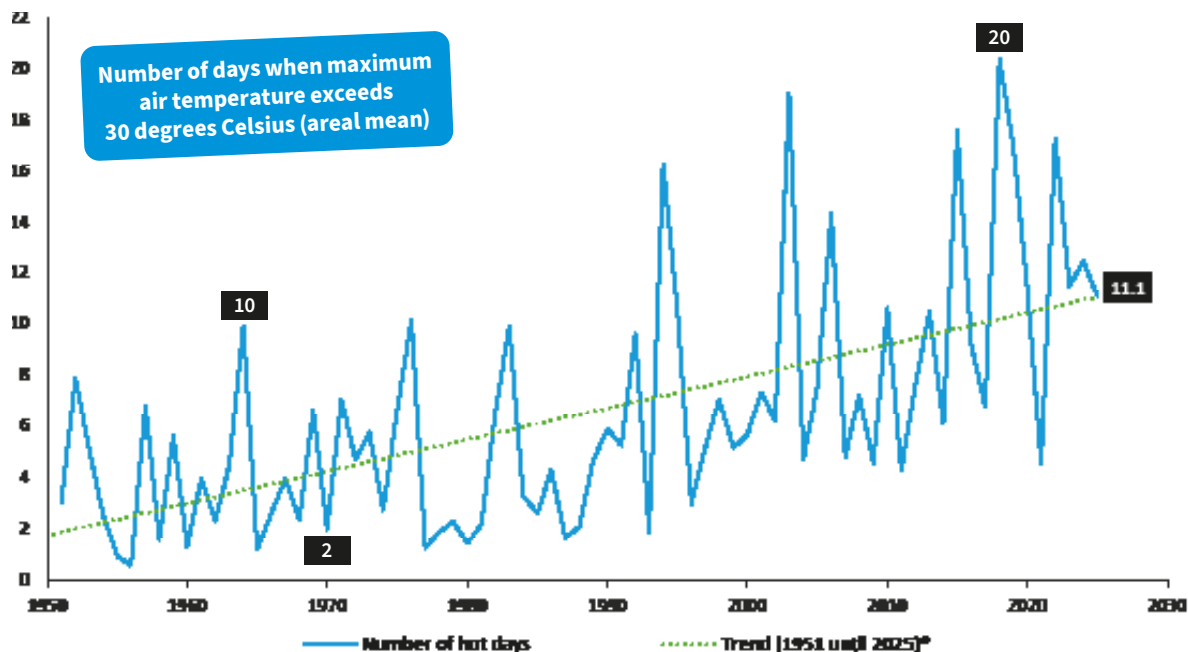
Depending on water availability, **400 l/m²** of water can evaporate annually on green roofs. This can reduce the ambient temperature by up to **1.34 °C**.

Facade greening can reduce the perceived temperature by **13 °C**.



Hot days in Germany

An average of 20 hot days were recorded in Germany in the record year of 2018.



* Linear regression line above all indicator values presented, values for 2025 are preliminary
Source: Deutscher Wetterdienst (DWD), communication dated 14 November 2025

Top 5 countries with the worst seasonal water scarcity conditions in Europe in 2023, measured by the water exploitation index plus

Water scarcity conditions intensify between April and September in most countries. This is caused by a combination of dry weather, reduced flows and increased abstractions for irrigated agriculture, tourism and recreation, and other socio-economic activities during these periods.

- 1 Cyprus **92.1%**
- 2 Malta **66.7%**
- 3 Greece **37.4%**
- 4 Türkiye **36.7%**
- 5 Romania **33.9%**

