UNaLab Nature-based Solutions

Green square in Eindhoven

The Clausplein square, located in the city centre of Eindhoven, has been refurbished 🦽 and several nature-based solutions have been implemented on the square. The stone-covered square is greatly affected by extreme weather events. During a heat wave, the square turns into an unpleasant hot place that citizens avoid, whereas rain showers cause an overload for the sewerage system resulting in floods. An underground water retention system has been installed to reduce the risk of floods, whereas trees, grasses and plant sections have replaced the pavement. The new square has been designed together with the surrounding inhabitants and entrepreneurs as well as a local NGO.

Quick facts

Site: Paved square in the city centre **Aim:** Reduce the risk of floods and mitigate heat stress **Cost:** 837,000 EUR



Technical specifications

Rain- and stormwater draining from the square and from parts of the 'Witte Dame' building is collected into 2000 m² and 15cm high boxes on top of the parking located under the square. Capillary action makes the water available for the trees and plants on the square. Excess stormwater is later collected by the sewer, which by that time is empty again. This results in a decreased load for

the sewers. Trees, shrubs, perennials and grasses have been planted to help regulating the peak temperatures and flood peaks on the square. The pavement on the square has been replaced with plant sections. To ensure the success of the capillary action, extra moistureregulating clay granulate was mixed through the soil substrate.

