SENSOTERRA
we make sense of water

Flood Resilient Cities are Smart Cities

Nature Based Solutions offer a holistic response to the functionality of flood resilience

Senscity, formed in 2017 has focused on monitoring the climate resilience of urban environments, connecting Green Infrastructure and Nature Based Solutions, to understand how they support adaptation within a city. This information can be used to drive critical decision making in regard to nature based solution strategies and policies as well as climate resilience targets and adaptation plans. *"A city is living and breathing in the same way as your body,"* describes Joseph Glesta Co-Founder and CEO at ClimaSens.

"You have all these different organs that work to keep you alive and healthy, just as Natural Infrastructure Solutions support the health of a city."

Nature based solutions pose multiple benefits to cities, considering flood resilience from storm water runoff, micro-climate cooling as well as providing beautiful urban green environments for its citizens. Flood resilience and climate cooling are major beneficial components to the health and resilience of a city and reducing the systemic stresses from climate impacts is top of the agenda for many urban green decision makers.

"Nature Based Solutions are the lungs of the city, and its how we treat them as being vital for how cities function in the future. "
Joe Glesta
Co-Founder & CEO, ClimaSens

HIGHLIGHTS
Real-time insights into Nature Base Solutions for flood resilience for water management

Cities are often afflicted by heat island micro-climates which are much hotter than surrounding areas due to soil sealing. This prevents evapotranspiration and results in dangerously warm conditions. By integrating natural infrastructure within those areas, shading from trees and green ground cover provides immediate cooling effect within those heat islands.

Smart Data
Senscity develops solutions to monitor natural infrastructure systems, across urban environments.

"We chose to work with Sensoterra because their solution is completely plug & play. By working with various sensors for weather data, temperature, and satellite mapping, we can aptly determine the performance of assets across a city and therefore understand the resilience of a place."

ClimaSens works with municipal decision makers to provide real-time insights into the current situation across nature based solutions. To further drive citizen engagement and awareness to natural infrastructure, monitoring sites may include public access QR codes to show analyzed data for urban climates and environments.

Though data is often used for reporting and resilience analysis, the real-time nature allows for triggered disaster response for flood management, and operational maintenance of natural infrastructure sites.

When prolonged drought is experienced, there is an increased risk of decreased water permeability in the soil, resulting in more water runoff and increased flood risk when heavy rain occurs.
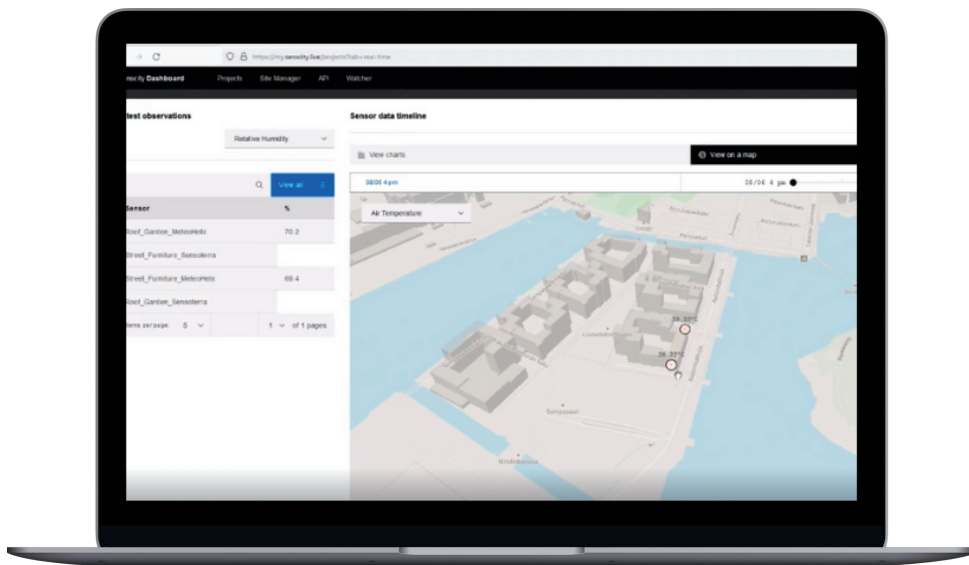
Cost Recovery
When dealing with municipal Nature Based Solutions, cost recovery is a key component to determining the scope of integrated data projects. The budget is often reliant on the optimization that can be achieved with smart IoT data, reduced labor costs, maintenance, and local city requirements.

Senscity in the Nordics
Deployment of Sensoterra sensors within ClimaSens projects in Helsinki and Stockholm have recently seen successes for natural infrastructure monitoring and ecological and social interactions.

"With healthy natural infrastructure sites, we can keep cities beautiful while supporting climate resilience."

"With Sensoterra soil moisture data we can determine when irrigation needs to take place to maintain the viability Green Infrastructure sites."

Clima Sens

ABOUT CLIMASENS
ClimaSens enables climate decision support through our software as a service (SaaS) which provides urban climate intelligence for organizations to assess their climate risk, impacts and monitor the environmental and climatic performance of infrastructure assets from a micro to macro scale.
www.ClimaSens.com

ABOUT SENSOTERRA
Sensoterra, established in 2015, with its headquarters in Houten, The Netherlands, develops water management solutions for agriculture & horticulture, smart city management, and water governance. Sensoterra has more than 12,000 sensors in the ground globally, and generates hundreds of thousands of data points for smart water management, daily.

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