

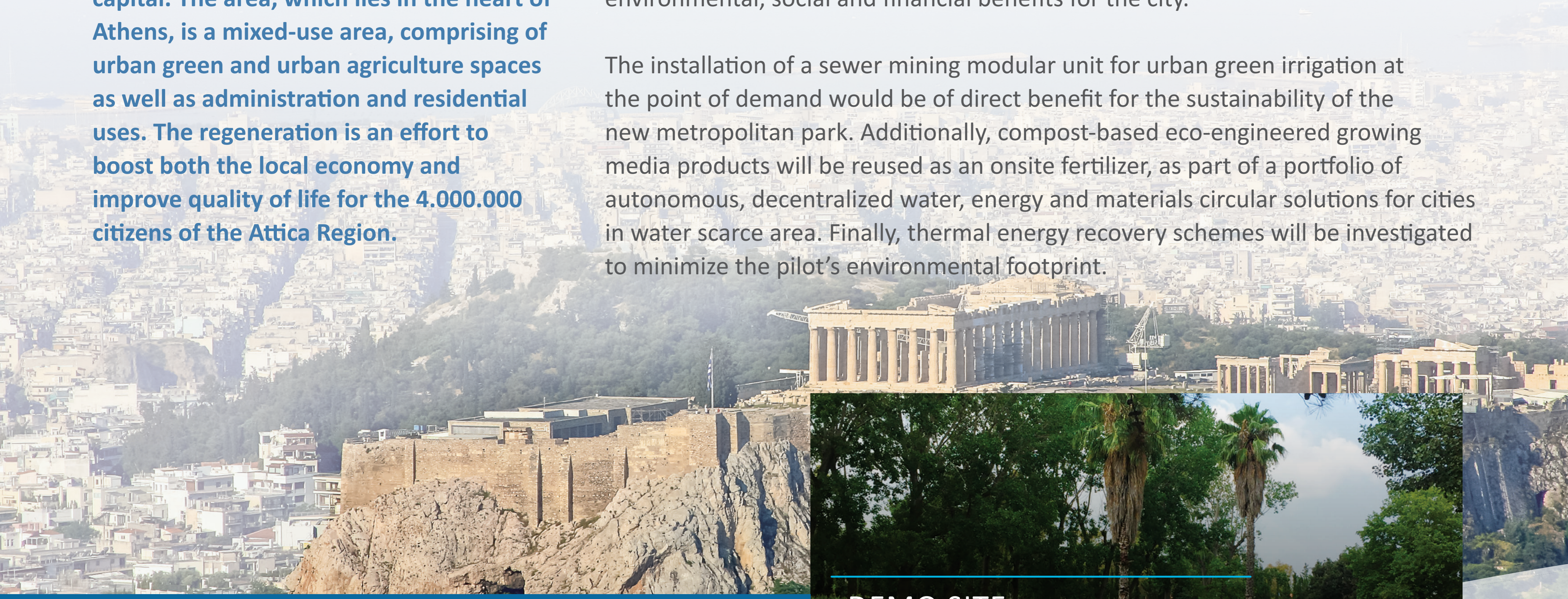
ATHENS GREECE

Circular solutions for : Water Materials Energy

The Athens Urban Tree Nursery is part of the Goudi Park, an area in the process of redevelopment and regeneration to become the key metropolitan park of the capital. The area, which lies in the heart of Athens, is a mixed-use area, comprising of urban green and urban agriculture spaces as well as administration and residential uses. The regeneration is an effort to boost both the local economy and improve quality of life for the 4.000.000 citizens of the Attica Region.

The nursery comprises 4 ha of vegetation, supplies all urban parks and green spaces of Athens with plant material and uses potable water from Athens's Water Supply and Sewerage Company (EYDAP) for its irrigation. The city is seeking alternative water sources leveraging circular economy solutions to achieve environmental, social and financial benefits for the city.

The installation of a sewer mining modular unit for urban green irrigation at the point of demand would be of direct benefit for the sustainability of the new metropolitan park. Additionally, compost-based eco-engineered growing media products will be reused as an onsite fertilizer, as part of a portfolio of autonomous, decentralized water, energy and materials circular solutions for cities in water scarce area. Finally, thermal energy recovery schemes will be investigated to minimize the pilot's environmental footprint.



Relevant Data

25 m³/day

Autonomous and modular water system

DEMO SITE:
Athens Urban Tree Nursery

Key innovations & actions

- Demonstration of a **sewer mining modular unit** for wastewater treatment with Membrane Bioreactor (MBR) and disinfection
- Enabling **novel wastewater reuse options** at the point of demand for **urban green irrigation, urban agriculture** and **other non-potable uses** (fire protection, washing of municipality vehicles)
- Supported by **biomakery™ solutions** for **nutrient and energy recovery** for more complete autonomy
- Evaluating innovative circular solutions for their ability to **address real world problems in water scarce cities**

Relevant sectors



Factory



Agriculture



Water Treatment



Drinking water