

Sensmet and City of Espoo Study the Future of Stormwater Management

As a part of the Stormwater Smart & Clean –project, new solutions are being developed in Finland for managing and cleaning stormwater. Stormwater is surface runoff resulting from rainfall or snowmelt in constructed areas. Expansion of urban areas creates more impervious surfaces such as roofs, roads and parking areas that collect metals, sediment and chemical pollutants and transmit them into stormwater that ends up in receiving waters such as lakes and rivers. If not properly managed, such nonpoint source pollution is a threat to future water quality in urbanised areas. Traditional strategies to manage stormwater require large infrastructure investments. Improving the stormwater management and reducing the runoff and associated pollution is an important long-term part of protecting public health.

Towards Healthier Constructed Environment

In a five year Smart & Clean development initiative, new methods are being developed for monitoring and controlling harmful contaminants in stormwater such as heavy metals, nutrients and microplastics. In the Smart & Clean collaboration between cities, research organisations and companies six pilot sites will be implemented to develop new stormwater quality control solutions and associated business opportunities.

Sensmet Oy and the City of Espoo have launched a collaboration to study the future of urban stormwater monitoring and management. The collaboration aims at increasing the quality of stormwater runoff from urban streets. In the study different filtration solutions are investigated and monitored to improve the quality of stormwater.

Sensmet has delivered fully automated 24/7 online multi-element stormwater monitoring system for the City of Espoo. The developed system is currently the first one of its kind in the world. “We are happy to see how such cutting-edge water monitoring technology offered by Sensmet can help us and the researchers involved to gain more accurate insight into the stormwater quality and management”, says area manager Emilia Lehikoinen from the City of Espoo.



Sensmet monitoring station continuously analyses stormwater quality in a nonstop fashion, 24 hours a day.

The stormwater study receives regional AIKO development funding as a part of the Helsinki Metropolitan Smart and Clean project (2016-2021). The Smart and Clean partners participating in the stormwater development project include cities of Helsinki, Espoo, Vantaa and Lahti, the Finavia corporation as well as Helsinki University and Aalto University.

