

September 2022



Sino-European Innovative Green and Smart Cities

Open day at Campus Ås Showcase at NMBU

Launching the bubble greenhouse and the SiEUGreen Urban Circular Solutions

Open Day, 29 & 30 August 2022 – NMBU successfully organized an Open Day at Campus Ås opening its gate to scientists and staff from NMBU, local politicians, technology providers and business experts and demonstrating SiEUGreen Urban Circular Solutions.

The showcase Campus Ås at NMBU, Norway, demonstrates an innovative combination of known and emerging technologies, to achieve a more resilient, climate, environment and human friendly urban development with near zero emissions, circular economy, low climate and water footprint as well as economic and health benefits. Campus Ås Showcase will elucidate that a combination of new and emerging technologies in UA, water technology, solar technology and waste recycling can provide a city with where the need for water for agriculture, households and green areas can be supplied up to 100% form recycling and reuse. A substantial reduction in greenhouse gas emissions is obtained, near zero emission to water achieved, climate resilience improved, fertilizer produced for local agriculture (and possibly export) and a healthier happier life obtained. The main demonstration is the "Greenergy" concept.

Source separation of wastewater has been implemented in a selected number of flats in the student housing. The toilet waste (Black water) is collected from 24 student flats that are equipped with vacuum toilets. Organic household is collected from student housing is grinded and mixed with BW as substrate for biogas production in a container-based biogas reactor which is located next to a greenhouse. The gas is burned and generate heat end power. The digestate is converted to solid and liquid fertiliser and growth media. The resources are used in an innovative bubble greenhouse adjacent to the biogas reactor. Innovative bubble greenhouse demonstrates utilization of waste products; use of the fertilizer and soil amendment in and hydroponic and soil-based growing systems. An on-site greywater treatment system integrated in the blue-green park development treats the greywater. Small scale on-site composting unit is also demonstrated.





The open day at Campus Ås was organized on August 29th and 30th between 12:00 to 14:00 hours. The program included a short lecture on the blue and green technologies implemented in Campus Ås followed by a guided tour. Approximately 175 people attended the event. The visitors included students and staffs from NMBU, local politicians and representatives from private companies. On the sideline of the event a workshop was organized to disseminate the SiEUGreen activities at Campus Ås to local politicians.

For more information about the activities please visit the project website.

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