

# Research topic: *Green roofs in Oslo by 2030: understand their impacts through life-cycle assessment*

Research line: Life-cycle assessment, urban ecology

Research group: **URBAG** Integrated System  
Analysis of  
Urban Vegetation  
and Agriculture

CONTACT: David A. Camacho  
davidalejandro.camacho@uab.cat



Rooftops often represent unused areas and offer an opportunity for the implementation of green spaces, which can help to tackle challenges posed by climate change, increased urbanization and densification. The Municipality of Oslo is currently pushing for an active planning and development of green roofs in order to achieve the 2030 urban targets. However, within the Norwegian context, there is little information about the environmental impacts of the production and maintenance of these spaces. This is a relevant aspect to consider given that the city expects the creation of at least 1,000 new green roofs by the year 2030. Life-cycle assessment can shed light on the influence that the creation of such spaces could have on the city and its sustainability.

Supervisor:  
David A. Camacho (ICTA)  
Susana Toboso, PhD (ICTA)

**Main aim: to carry out a Life Cycle Assessment of Norwegian green roofs and scale its impacts to the expected green roof's development scenarios for 2030**

## MAIN TASKS:

- Compiling life cycle inventory for green roofs in Norwegian context
- Carry out Life Cycle Impact Assessment of green roofs
- Carry out different Sensitivity Analysis
- Scale up its impacts based on the expected quantity of implemented green roofs by 2030
- Calculate the expected blue-green factor (*blågrønn faktor*) achieved by each scenario