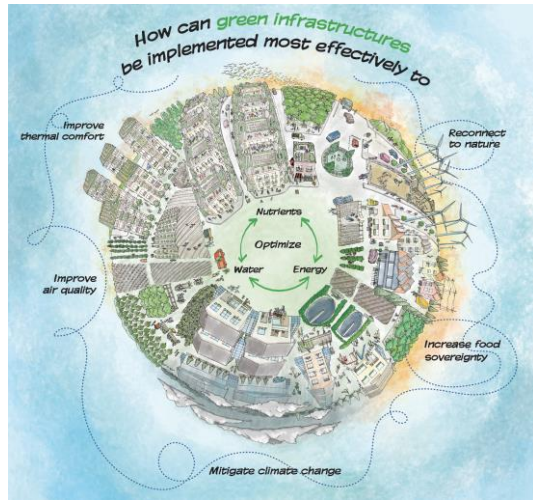


Research topic: Tracing Recoverable Nutrients in Urban Areas. The current end-use of municipal solid waste compost in urban agriculture.

Research line: Nutrient recovery, green infrastructures, solid waste management, circular cities

Research group: Sostenipra

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Urban agriculture (UA) is growing rapidly as an alternative that focuses on local resources while aiming for environmental impact mitigation. Cities may increase the benefits of UA by adopting circular strategies and potential synergies with other urban systems. Nutrients required by UA crops can be recovered from composting the organic fraction of municipal solid waste (OFMSW). However, even though its production is encouraged, the current use of OFMSW compost as an alternative fertilizer still lacks adoption in UA, thus its end-use is often unknown. Therefore, this study will seek to identify the current end-use of OFMSW compost in UA and assess it among other usage scenarios from a life cycle perspective.

Main aim: Identify the current end-use of the OFMSW compost produced in a selected OFMSW facility and determine the environmental impacts of it and other usages within UA.

MAIN TASKS:

- Characterize the production of OFMSW compost in a selected OFMSW facility of the Metropolitan Area of Barcelona (AMB).
- Quantify and map the end-use of the OFMSW compost produced in the selected OFMSW facility.
- Analyze the end-use of the studied OFMSW compost as an alternative fertilizer for the surrounding UA of the AMB.
- Collect life cycle data of the identified end-usage of the OFMSW compost and pose a BaU scenario of the selected facility.
- Perform a Life Cycle Assessment (LCA) of the BaU and other OFMSW compost usage scenarios within UA.