

Solution package 3:

Deployment of energy-efficient buildings integrating onsite RES and storage

Advancing circular approaches to the built environment within ASCEND

Session Summary

During the second session of the SP3 Community of Practice, ASCEND partners exchanged on the potential to advance circular approaches within their PCEDs. Rosalía Simón de Lama and Jonatan Viejo Rodríguez from CARTIF provided a conceptual and technical framework for circularity in the built environment, before facilitating a workshop through which cities identified potential solutions in their projects.

Common Challenges

- **Construction quality specifications and insurance coverage** are sometimes at odds with circular practices, making it less feasible for providers and contractors. While several certifications exist for industrially manufactured circular products, on-site reuse of soil or of demolition material, for example, are complicated by rigid requirements.
- **Procurement criteria** are similarly in need for adaptation to enable the deployment of more circular practices. Exceptions already exist, however. For example, the city of Porto (PR) already has a 10% recycled materials requirement for all public tenders.

Main Takeaways

- **Different scales:** ASCEND cities are planning to implement circular strategies at different scales and moments of their projects. From giving new lives to existing buildings, to selecting recycled materials and repurposing demolition material as strata, approaches encompass a diversity of approaches.
- **Circularity is crucial for climate neutrality and PCED.** It must be incorporated from the early design stages to include refusing unsuitable materials, rethinking towards intensive uses, and reducing use of raw resources. As such, recycling, while important, remains one of the last options to consider towards the end of the life cycle.

Quote

"It was inspiring to collectively brainstorm with ASCEND cities on innovative solutions that can be implemented within the cities' project locations. The interactive collaboration provided space to share ideas on how good practices of circular economy and business opportunities can be included within the energy-efficient buildings solution package to improve buildings sustainability and CO2 footprint considering their overall life cycle. The potential role of having green public procurement can offer a high impact via standardising application requirements of circular approaches."

Almos Papp, Budapest

