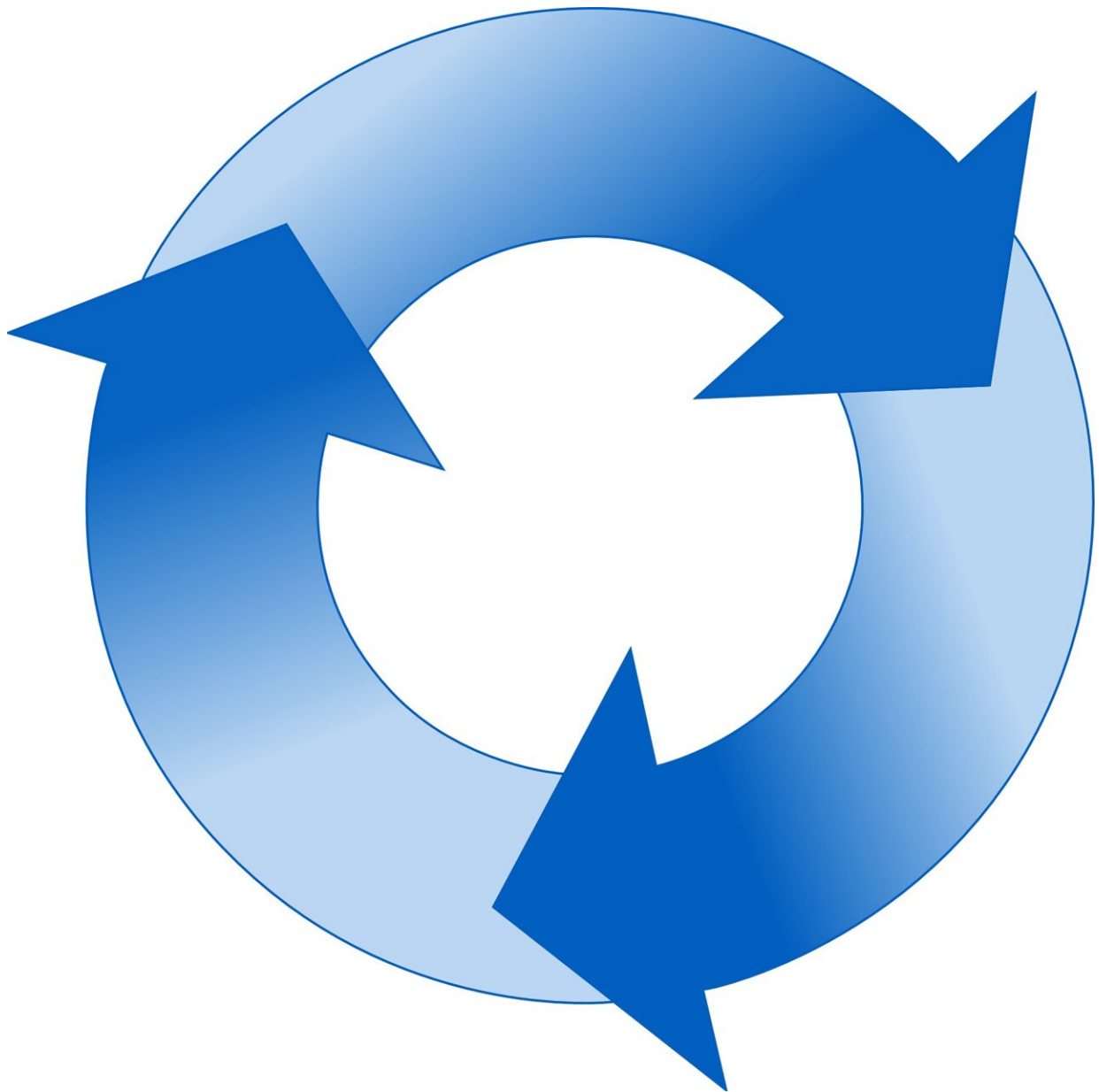


Transitioning urban economy from linear to circular

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Transitioning to a circular economy and utilizing resources efficiently in cities is necessarily a collaborative effort. We interviewed two experts, Jaana Pelkonen and Heikki Sorasahi, to learn what they thought are the things to consider in addressing these urban challenges.

As part of the Erasmus+ project Urban GoodCamp, our Aalto team has studied local urban challenges in the Helsinki metropolitan region. Central part of this research was a series of expert interviews, where we discussed the most relevant urban challenges in the Helsinki metropolitan region. The expert interviews provided us with many great insights on the challenges we are currently facing. In this series of articles, we share some of those insights and ideas.

This is the first in the series of four thematic articles providing some insight from our expert interviewees and addressing the urban challenges in the Helsinki region.

Systemic challenges require systemic solutions

In creating a sustainable city, Helsinki aims to transition from a linear [economy](#) to a circular one. A key idea in the circular economy is keeping products and materials in circulation for as long as possible by reusing products and recycling materials to be used in new products at the end of their service life. Circular economy is also closely connected to the sharing economy, which focuses on using products efficiently instead of owning them, for example, through renting and sharing. Re-using materials reduces the need for new products. Long term goal of Helsinki is to operate in a carbon-neutral circular economy by 2050.

Jaana Pelkonen, a Leading Specialist at Smart & Clean Foundation, notes that cities have good and ambitious goals and roadmaps towards circular economy and carbon neutrality. She finds however, that the main [challenge](#) is that cities have not gathered capacities to grab climate solutions on a systemic level.

"There is too much focus on single solutions. The climate challenges are systemic by nature: if you want to solve the energy problem, you must change the whole energy system," says Pelkonen.

Circularity is seeing value differently

At the core of a circular economy is efficient use of resources we already have at our disposal. Construction is one of the fields, where actions can be taken to increase resource efficiency. Finnish Ministry of the Environment senior specialist Heikki Sorasahi mentions, for example, that securing space for deposits of overflow construction material and landmasses would be needed for effective reuse of construction materials. "Adding circularity requirements for procurement processes is another important tool for tackling sustainability challenges," he says.

In the [construction sector](#), efforts are made to adopt increasingly sustainable practices. The goal of the city of Helsinki is to implement a carbon-neutral circular economy in land use and construction by 2035. Actions towards this goal are, for example, adding circular economy requirements to the planning and implementation of service buildings and housing and compiling comparable data on the lifecycle costs of [construction](#) projects.

While these efforts are promising, the adaptation of circularity has been incremental and insulated. Pelkonen points out that there is not enough understanding of the whole circle of material and value when creating

[circular-economy](#) solutions.

"Lack of good quality data and knowledge is hindering the circularity from emerging. This creates points of disconnection and discontinuity in the circle and optimizes only parts in the circle," she says.

Provided by Aalto University

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