
PRESS RELEASE

9 December 2020

Going circular in urban areas to combat climate change

The population in urban areas will grow by nearly 2.5 billion people over the next decade. To cope with this increase and still achieve the Paris Climate Agreement goals, the construction industry must move from a linear to a circular approach.

As much as nine per cent of carbon emissions stem from the production of construction materials. In order to curb this, from 2020 the EU has decided that 70 per cent of all construction waste must be recycled.

“Tear down and build new has become the norm. The need for climate action is urgent as we are witnessing an unprecedented loss of biodiverse ecosystems. By adapting our cities and towns and by adopting a circular strategy, we can bend the biodiversity curve, improve our climate and provide more appealing urban spaces,” says Nina Marie Andersen, landscape architect at Sweco in Norway.

In Oslo, there is a plan to reuse an 18-storey building from 1970. If the building is demolished and a new one built, the building materials would account for approximately 4,000 tonnes of carbon. But by refurbishing and retaining most of the heavy structure, the emissions will be 55 per cent lower.

When entire structures cannot be retained and reused satisfactorily, reusing existing construction materials makes a good choice, especially for concrete. Global cement production represents about five per cent of total carbon emissions, twice as much as emissions from air travel.

Construction City, an alliance of construction businesses in Oslo, has identified an opportunity to reuse 3,400 tonnes of concrete. As a result, they can reduce overall carbon emissions by 952 tonnes. This is the equivalent of about 350 round-trip flights from London to New York.

[Going circular – A vision for urban transition](#) is the sixth in a series of Urban Insight reports from Sweco on the topic [Climate Action](#), in which our experts highlight specific data, facts and science that are needed to plan and design safe and resilient future urban environments.

For additional information, please contact:

Johnny Nylund, Head of Public Relations, +46 73 773 5189, johnny.nylund@sweco.se

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