

## Smart City for Sustainable Construction

Online Event on **weTHINK.eu**

**Topics:** The role of modular training: between benefits and challenges – administrative, financial, and legal pathways, from smart cities to green cities, financing smart city solutions – European and national level financing.

**Date:** September 17, 2021 1100 to 1230 hrs

### Agenda:

11.00 – 11.05 – Greeting participants.

11.05 – 11.10 – Round of introduction.

11.10 – 11.45 – Presentation – Concrete Core Cooling and Heating: A CO<sub>2</sub> saving building material solution for net flexible buildings (Sebastian Spaun – Association of Austrian Cement Industry).

11.45 – 12.25 – Open discussion – how to support smart city solutions across the CEEC (round-based discussion for all participants).

12.25 – 12.30 – wrap up and follow-up steps.

## Concrete Core Cooling and Heating: A CO<sub>2</sub> saving building material solution for net flexible buildings

Around one third of Europe's energy demand is used for heating and cooling buildings. The greatest possible energy efficiency and increase in the share of renewable energies are therefore key to the success of the energy transition. But there is a catch: wind and solar energy fluctuate, and these fluctuations are placing an increasing burden on our power grids. The call for flexible consumers and/or storage systems is getting louder. Ideally, these storage systems should have high efficiencies, show hardly any fatigue, be decentralized and have little impact on the environment. This is precisely where the Energy Storage Concrete project comes in, making the thermal activation of concrete building components an optimal solution in terms of climate protection, because it enables CO<sub>2</sub>-free heating and cooling and, in the form of concrete building components as decentralized storage systems, can relieve the burden on the grid by making buildings part of the energy networks. Concrete is therefore a key element when it comes to the sensible and cost-efficient use of renewable energies in buildings.

Research results, practical examples, monitoring results