Ceilings4Life – Project summary

Most of the mineral wool waste generated annually in Europe by the construction and demolition sector; total 2,5 million ton goes to landfill. Of this, 10% are ceilings and wall absorbers. C4L aims to enhance sustainability in the acoustic products industry by initiating the turn of this waste into a circular, low CO_2, and energy efficient material flow.

C4L aims to:

1. Build and run a circular value chain for glass wool acoustic ceiling and wall panels with efficient post-consumer material flows and logistic services,
2. Demonstrate the capability of recycling post-consumer sound absorbers to new sound absorbers,
3. Demonstrate the scalability of the Refiber™ technology, a method that does not imply melting of the glass wool fibers and,
4. Maintain the original function for which the fibers were created, thus avoiding unnecessary take from land and soil.

The project focuses on developing and solidifying processes and collaborations for waste collection, pre-treatment, transportation, ensuring a seamless and efficient circular value chain.

The consortium's and committed stakeholders' complementary expertise covers the whole value chain of the construction & demolition and material production industry sector. A new facility with the proof-of-concept Refiber™ technology (now TRL6) to be scaled up is currently under construction in Sweden. To scale production and further reduce carbon emissions, the construction of similar facilities elsewhere will be investigated. To ensure the market fit, the project plans to have numerous interactions with stakeholders.

At the project end, the goal is to reach 793 ton/year capacity of Refiber™ baseboard production, of which 86% consists of recycled raw material. Emission reduction is expected to be 714 tons CO_2eq/year compared to the manufacturing of new baseboards. This setup will be expanded after the end of the project by replicating the platform first in Poland and then in other European locations.

Learn more about the project.