



changeNOW 2023 Featured Solution

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GREEN ROOF PANELS MADE FROM RECYCLED TYRES

 SPRINGWISE CHANGENOW

The panels also cool buildings and reduce carbon emissions

Spotted: Around one billion tyres reach the end of their life **each year**, and there are already more than four billion tyres in landfills around the world. Such pollution is really a waste of useful supplies. Experts have recognised end-of-life tyres as being an inexpensive, yet valuable, **resource** for the circular economy for use in a variety of applications. Dutch tyre recycling consultancy company Ceyes agrees, providing businesses with several tyre recycling service options along with green roof cooling panels.

For smaller industrial organisations or projects, a single container recycling box called the MTB Gator rips and grinds used tyres into rubber grain. For larger facilities, the four container-sized MTB Tire Recycling system handles from one to six tonnes of waste tyres per hour.

Urban buildings use Ceyes' CE Green City stormwater retention panel as the basis for a green roof that reduces heat and noise stress. As well as used tyres, Ceyes incorporates the waste from artificial grass playing fields into the company's green panels. Built in a grid shape with small pockets to hold water, each Green City panel holds around 20 litres of liquid.

In hot weather, the water evaporates, providing a cooling effect for the building. In cooler temperatures, the water sits longer and provides irrigation for plants, helping make green roofs self-sustaining with minimal maintenance and each CE Green City panel has a lifespan of more than 100 years.

Video source [Ceyes](#)

The Green City panel can be produced in bespoke sizes and shapes, making it ideal for any rooftop or outdoor space seeking to retain water and cool the built environment. Ceyes' products and services are available commercially, and the company is seeking new partners interested in setting up a production hub as part of the development of a local, circular tyre economy.

As well as recycling old tyres, innovations that Springwise has spotted include the use of new materials such as recycled plastic [bottles](#) and [soy oil](#) to manufacture more sustainable tyres.

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Takeaway:

The World Business Council for Sustainable Development's (WBCSD) Tire Industry Project created a [framework](#) for action that centres around seven ways the industry can focus efforts to achieve the Sustainable Development Goals (SDGs). One of those actions is to advance innovation to enhance low-carbon and circular solutions while ensuring sustainable management of end-of-life tires (ELT). With so much waste product already available, the focus must be on developing upcycling and recycling methods capable of coping with the global volume of tyre waste. Ceyes' Green City panel is an excellent example of designing for longevity while reducing emissions throughout the product's lifespan.