

Venice | 8 May 2025

Holcim and ELEMENTAL present new carbon sink technology for buildings during 2025 Architecture Biennale

- **New biochar technology transforms buildings into carbon sinks**
- **Innovative technology can be used in cement, mortars and concrete for all projects, from infrastructure to industry and buildings**
- **First application is for a full-scale prototype of basic services housing unit**

Holcim is partnering with Pritzker Prize-winning architect Alejandro Aravena and his firm ELEMENTAL to present a new biochar technology that transforms buildings into carbon sinks. Presented in Venice during the 2025 Architecture Biennale, the technology is applied for the first time in a full-scale Basic Services Unit housing prototype. The prototype follows the principle of incremental design, entailing fast and efficient construction through the provision of essential housing components, while empowering people to finish building their home themselves. Holcim's net-zero¹ biochar concrete mix also incorporates circularity, using 100% recycled aggregates.

Miljan Gutovic, Holcim CEO: "Holcim is the leading partner for sustainable construction, and we work with stakeholders across the value chain to deliver innovative and sustainable solutions for our customers. Through our partnership with Alejandro Aravena and the ELEMENTAL team, we have demonstrated how Holcim's new carbon sink technology can shape the future of construction."

Alejandro Aravena, Founder, ELEMENTAL: "In Venice, we are bringing incremental housing to its core: a structural sanitation unit using precast panels takes care of the basic needs of inhabitation. Holcim's new decarbonization technology allows us to address the scale and speed of the housing crisis' demand without putting a strain on the environment."

At the end of life, organic matter releases CO₂; by converting it into a charcoal-like material called biochar, the CO₂ that would have been released is permanently sequestered. When added to low-carbon formulations of cement, mortar or concrete, it further reduces their CO₂ footprint, with no compromise in performance. One kilogram of biochar prevents the release of up to three kilograms of CO₂. This carbon sink technology broadens Holcim's range of innovative solutions, from its sustainable building materials ECOPact and ECOPlanet, to its circular technology ECOCycle®.

Holcim and ELEMENTAL's project will be showcased from May 7 to November 23, 2025 as part of the Time Space Existence exhibition, organized by the European Cultural Centre in Venice.

¹ Scope of concrete production phases (A1-A3 cradle to gate) in Life Cycle Assessment. Assumes average transportation distance of 300km for cement and filler & 100km for aggregates.

About Holcim

Holcim is a global leader in innovative and sustainable building solutions with net sales of CHF 26.4 billion in 2024. Our 65,000 employees are driven by our purpose to build progress for people and the planet across our regions to improve living standards for all. We partner with our customers to offer the broadest range of advanced solutions, from sustainable building materials ECOPact and ECOPlanet, to our circular technology ECOCycle®, all the way to Elevate's advanced roofing and insulation systems.

Learn more about Holcim on www.holcim.com, and by following us on [LinkedIn](#).

Sign up for Holcim's Building Progress newsletter [here](#).

About Elemental

ELEMENTAL is a Do Tank founded in 2001, led by Pritzker Prize 2016 Alejandro Aravena and partners Gonzalo Arteaga, Juan Cerda, Víctor Oddó and Diego Torres. ELEMENTAL's work stands out for engaging in projects that range from housing to public space, from objects to buildings, covering a wide spectrum of interests. Their unbiased approach to a given question enables the office to enter fields they haven't explored before, generating an original contribution to people's quality of life.

Important disclaimer – forward-looking statements:

This document contains forward-looking statements. Such forward-looking statements do not constitute forecasts regarding results or any other performance indicator, but rather trends or targets, as the case may be, including with respect to plans, initiatives, events, products, solutions and services, their development and potential. Although Holcim believes that the expectations reflected in such forward-looking statements are based on reasonable assumptions as at the time of publishing this document, investors are cautioned that these statements are not guarantees of future performance. Actual results may differ materially from the forward-looking statements as a result of a number of risks and uncertainties, many of which are difficult to predict and generally beyond the control of Holcim, including but not limited to the risks described in the Holcim's annual report available on its website (www.holcim.com) and uncertainties related to the market conditions and the implementation of our plans. Accordingly, we caution you against relying on forward-looking statements. Holcim does not undertake to provide updates of these forward-looking statements.