

Carbon Control: How Climate Tech Supports Sustainable CRE



We've all seen the figures pointing out that real estate is responsible for a large chunk of global greenhouse gas (GHG) emissions. Measures affecting the industry, and aimed at curbing emissions, are also increasingly part of global agreements like those laid out in the United Nations Climate Change Conference (COP26). The essential conclusion is that it's imperative to find ways to make business operations, and commercial real estate (CRE) portfolios, more sustainable.

Some of these challenges can be met by planning for climate change and keeping environmental, social and governance (ESG) concepts top of mind. Another important strategy that's recently been gaining attention, and attracting investors, is developing cutting-edge "climate tech."

What is Climate Tech?

Climate tech, as defined in PwC's 2021 State of Climate Tech report is: "technologies that are explicitly focused on reducing GHG emissions, or addressing the impacts of global warming."

And while PwC goes on to say that this includes technology that helps us adapt to and understand climate change, the subset that we, as CRE professionals, are most interested in is technologies that mitigate or remove emissions.

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Energy Tech for the Real Estate Market

The obvious “low hanging fruit” for real estate is installing energy-saving systems in existing buildings. Changes like outfitting a building with solar, upgrading HVAC (Heating, ventilation, and air conditioning) systems and using energy-friendly lighting can all make a difference to emissions profiles. An added benefit is that energy-compliant buildings that meet the criteria for energy-efficiency certifications are also more attractive to ESG-savvy investors and tenants.

In the long-term, tools like artificial intelligence (AI) and machine learning can be used to develop energy efficient buildings from the ground up and empower them to manage their own systems autonomously.

Decarbonizing Construction

Another big area where climate tech aims to add value is through better construction processes and decarbonization of construction materials, like cement. Given that the cement industry is estimated to account for 8% of global carbon emissions, innovation in this sector could have massive implications for CRE sustainability.

At the same time, the concept and design stage of a new building is crucial. As McKinsey pointed out in an article last year:

“Design is the most important factor in determining GHG emissions over a building’s lifetime. By the time the construction process begins, the majority of decisions affecting the project’s GHG emissions are locked in.”

Extending Sustainability Through PropTech

Advances in property technology (proptech) are another tool CRE can leverage to meet the challenge of energy-efficient design and energy-smart building management. Software connected to Internet-of-Things (IoT) sensors throughout a property, for example, can monitor and optimize how heating, lighting and even airflow are handled.

Other avenues include smart waste management, remote management of properties, and being able to map out and test efficiencies using digital copies of an existing building.

Meeting the Challenge Head-On

With all these technological advances in play, the ability of CRE professionals to meet sustainability goals is higher than ever. Though there are legal and compliance considerations, the real imperative is an ethical one: building a future where CRE is part of the sustainability solution, rather than part of the problem.

As PwC’s Leo Johnson puts it:

‘Technology is not the answer, it’s the amplifier of intent, and climate tech alone is not the panacea, but it’s a space that is emerging rapidly as a critical mechanism to bend the emissions curve down and get us back on track towards 1.5 degrees.’