

# How the Built Environment Crisis is Impacting Climate Change

A major scientific [report](#) recently released by the UN's Intergovernmental Panel on Climate Change (IPCC) is '**code red for humanity**'.

The report warns of potential future weather catastrophes including droughts, floods and heatwaves due to the effects of the planet's temperature rising. However, there is hope and possibility that catastrophic events can be avoided if we, as a global community, act fast enough.

Every year, humanity emits roughly 40 billion tonnes of CO<sub>2</sub>. Shockingly, as much as 30 to 50% of these global CO<sub>2</sub> emissions come from the construction and operations of the built environment.

The built environment supports and drives our lives - it touches every single one of us - every single day. But unfortunately, many structures are decaying at unprecedented rates. Many have been poorly constructed - others have been poorly maintained over the years and have become inefficient.

## The situation

Structures are crumbling - as we have witnessed with the Miami condo collapse and other infrastructure collapses around the world - and the fix-when-broken approach means not only unprofitable assets, but also massive inefficiencies and safety risks. We are in the grips of a deep global built environment crisis which is having an enormous impact on our climate.

Cement alone contributes around 8 to 10 percent of global CO<sub>2</sub> emissions. Without changing the way on how we build new structures and on how we preserve and retrofit existing structures we will not achieve the crucial CO<sub>2</sub> goals.

While well designed new structures can be operated more efficiently, there are large amounts of embodied CO<sub>2</sub> in all structures. This means that knocking them down and rebuilding them - even if done in the most sustainable way - is not the answer. It would often take decades to recover the CO<sub>2</sub> damage caused by taking this path!

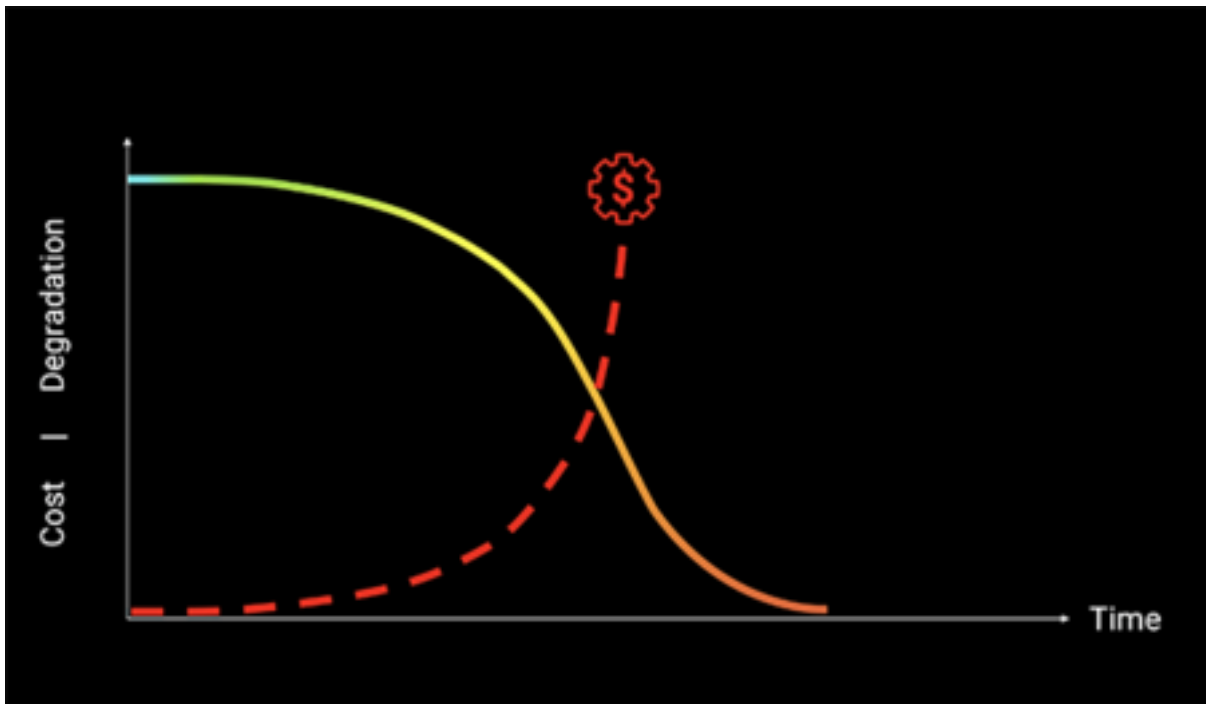
The most sustainable concrete structures are likely the ones that have already been built. If we want to achieve all our climate sustainability goals - which we must - we can no longer follow the demolish and rebuild strategy.

## What is the most sustainable solution?

It starts with good designs and high-quality construction. Next, the final as-built condition needs to be documented with inspections to get a birth certificate with all birth defects of the structure.

Visual checks are part of that inspection equation, but you do need to go much deeper. By using a multi technology approach you can scan deep into the structure and find those hidden deficiencies, so that you know from the outset where to pay attention.

Over the lifetime, the degradation of assets and the resulting repair costs follow curves that look like this...



What needs to be done is flatten those curves. To do so, it starts with preventive inspections.

[Preventive inspections](#) let you identify developing weak-spots before anything is broken and drive proactive maintenance.

Finally, when structures do get old, they can often be refurbished to have the best of both worlds. Materials can be preserved to reduce the environmental impact, while making the assets more efficient, and adding new forms and functions.

We must maintain, upgrade and refurbish our structures to operate them for as long as possible. Period.

Deep inspections are the starting point to have clear condition information on what, when and how to upgrade your assets in a sustainable way. The earlier we understand the full health condition of our structures, the better we can take continuous predictive maintenance actions.

We are here to help and will contribute with InspectionTech for a net-zero carbon society.

Want to know more about how you can contribute to winning the fight against climate change with preventive inspections? [Get in touch](#) with our team today.



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