

Buildings and climate change - there is a massive contribution to be made

By [Mark Freeman](#)

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Many building owners, operators, developers and financiers are still not fully aware of the myriad of solutions available to make buildings, old and new, more sustainable as well as the resultant value and investment returns.



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To improve awareness and help decision-makers – from end users to real estate owners – better evaluate such investments, Schneider Electric, alongside Accenture and the World Economic Forum, in 2022 developed a Building Value Framework.

Part of the wider Net-Zero Carbon Cities initiative, this includes a practical operational checklist spanning a set of recommendations to future-proof building investments – whatever the building's size, use, or geographic location.

The decarbonised, smart building

The most obvious action point is to avoid the use of fossil fuels (heating with oil or coal, for example, or cooking with gas), and using electric alternatives instead. Electricity is not only more efficient (less energy wasted), but also cleaner (less carbon released into the atmosphere).

On the digitisation front, building operators can sharply increase energy efficiency via sensors and automation systems that ensure heating, cooling, and lighting are only provided when and where needed.

Digital also enables building managers and tenants to better monitor energy consumption, giving them insights on behavioural changes that might improve energy usage. Deploying building management systems (BMS) on top of this data allows the building to use its energy most efficiently, as well as flagging to building staff and tenants any issues for improvement.

Finally, digital twins can help developers optimise a building's efficiency right, minimising costs and waste from the design and construction stages, and reaping efficiency benefits right through to the day-to-day operations.



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The system effect

Decarbonising and digitising individual buildings are only two steps, albeit important ones. Buildings can go one step further when their energy and resource management capabilities are integrated into the wider power, transport and EV-charging ecosystems around them. Doing so can help stabilise cities' energy supplies and accelerate the transition to net-zero.

Again, concrete examples of what this looks like exist: in Järvenpää, Finland, a logistics centre operated by the retailer Lidl, harnesses the heat captured from its cooling operations through an energy management system, then sells this heat on to the local grid for use in heating the neighbouring district.

The buildings transition is possible today

Sustainable, resilient, and people-centric buildings can be achieved today. It can go a long way in addressing the twin challenges of climate change and soaring energy prices. These buildings must become commonplace in towns and cities around the globe. It's not a case of inventing new technologies, but of adopting it, fast.

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