

MASS TIMBER: PAVING A NEW WAY TO MAKE OUR CITIES LIVABLE.

Imagine walking through a city where the buildings breathe life, radiate warmth, and offer the gentle embrace of nature itself. No longer cold and impersonal, these structures seem to whisper hope for a greener, more harmonious future. This vision isn't a distant dream—it's within our reach, powered by one transformative material: timber.

As cities expand and urbanization transforms our landscapes, the environmental cost of construction is becoming impossible to ignore. Concrete and steel, though essential in the past, now pose serious challenges to sustainability.

The question is: can we reshape our cities to work in harmony with nature? Timber, a building material which is associated with tradition, is stepping into the spotlight as a modern solution.

Mass Timber offers more than just structural strength—it supports a sustainable future by reducing



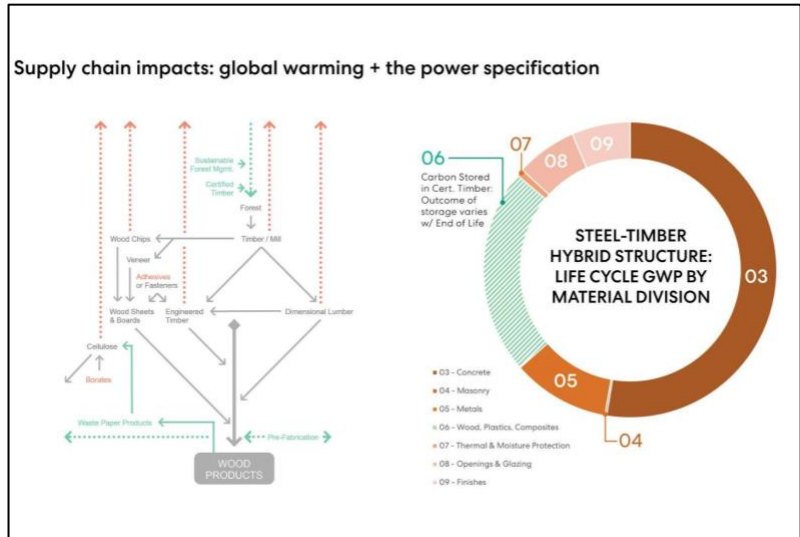
carbon emissions, encouraging recycling, and creating healthier spaces. It's a material that not only builds cities but also nurtures the people living in them. By embracing timber, we have the opportunity to rethink urban living and create cities that are not just built to last but built to heal. The time to make this shift is now.

Stockholm Wood City in Sweden, has already taken a step forward, are we prepared?

Mass Timber is emerging as a game-changer in reducing carbon emissions, especially in the construction industry, which accounts for 38% of global CO₂ emissions. Traditional materials like concrete and steel are energy-intensive, while timber offers a sustainable alternative. As trees grow, they absorb and store carbon dioxide, acting as natural carbon sinks. This stored carbon offsets emissions during processing and transportation. According to Deutsche Bank, using timber in urban construction could cut carbon emissions by up to 50% compared to cement-based buildings. Advanced products like Cross-Laminated Timber (CLT) and Glulam make it possible to build tall structures with a much smaller environmental impact. For example,

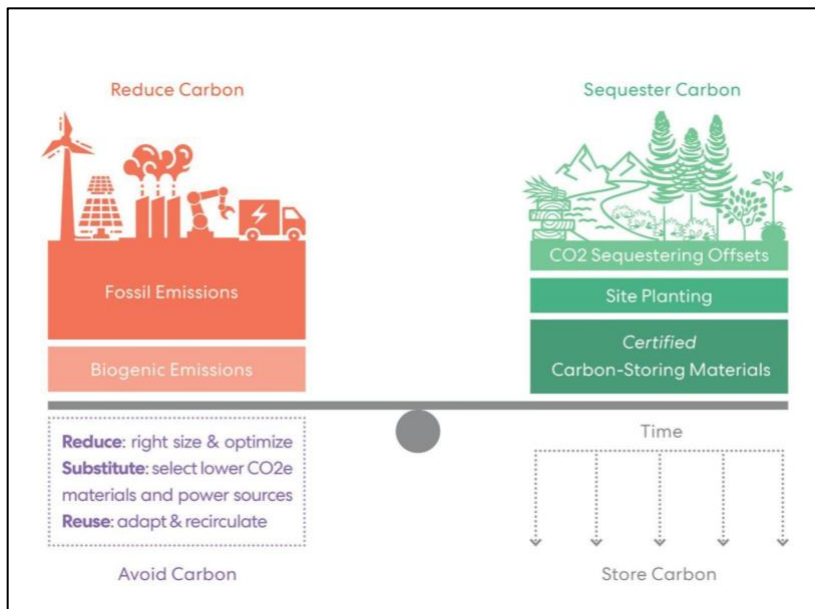
a timber skyscraper can store as much carbon as hundreds of cars emit in a year, making it a powerful solution for tackling climate change (ArchDaily)

Mass Timber plays a key role in supporting a circular economy. Unlike concrete and steel, which are often discarded at the end of a building's life, timber can be reused, recycled, or repurposed, ensuring minimal waste. For example, panels from deconstructed timber buildings can be turned into furniture, reused in new construction, or even processed as biofuel. This flexibility allows timber to contribute to a regenerative economy focused on resource efficiency and waste reduction.



The research highlighted by ArchDaily shows that construction waste makes up a large portion of landfill content worldwide. By choosing timber, architects and planners can reduce this waste while promoting sustainable building practices. Timber's adaptability ensures that buildings are not just functional but also part of a sustainable lifecycle, aligning with efforts to minimize environmental impact.

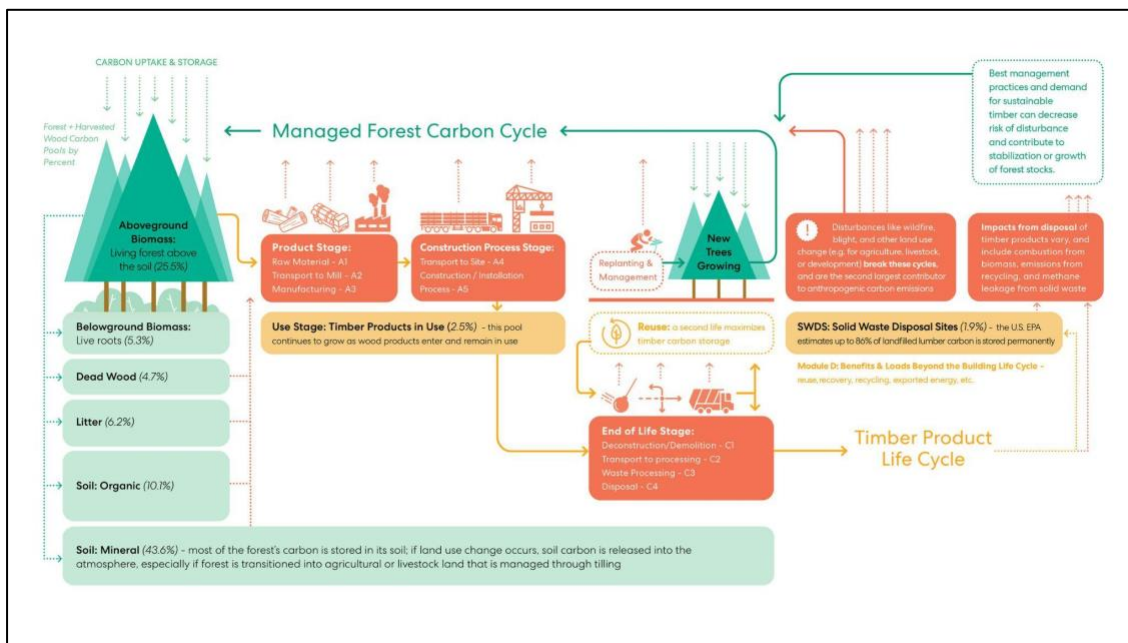
Mass Timber transforms cities into more human-centred spaces by offering emotional and sensory benefits alongside structural advantages.



Its natural warmth, texture, and beauty create welcoming environments that feel connected to nature. Unlike the cold, harsh feel of concrete and steel, timber promotes comfort and a sense of calm. Studies in environmental psychology show that being surrounded by natural materials like wood reduces stress, improves mood, and supports mental well-being. Timber fits perfectly into biophilic design, which incorporates natural elements into architecture to create healthier spaces.

Timber buildings not only meet functional needs but also offer a soothing, sensory experience, turning busy urban areas into places of comfort and relaxation.

Mass Timber offers environmental benefits throughout its entire lifecycle, from responsible sourcing to its sustainable end-of-life options. It is harvested from managed forests, where new trees are planted to replace those cut-down. This practice helps preserve biodiversity and ensures a continuous supply of renewable resources. Mass Timber buildings are also highly adaptable, allowing for extensions or



modifications without the need for significant demolition. This adaptability contributes to longer building lifespans and better resource use. At the end of its lifecycle, timber's biodegradable nature ensures it leaves a minimal ecological footprint. Even if it is no longer used as a building material, it can be repurposed or safely returned to the environment (MDPI Energies).

Mass Timber's Promise for Urban Living

Timber-based construction is proving to be a game-changer for cities, offering sustainable and human-centred solutions. Schools and hospitals built with timber report better outcomes, like improved learning and faster recovery times. Extending these benefits across urban structures can transform cities into nurturing, sustainable spaces.

Addressing Challenges

Mass timber adoption faces hurdles like concerns over fire resistance, durability, and moisture. However, technological advances have mitigated these issues. Fire Resistance: Charring properties slow combustion, providing a natural barrier & Durability: Coatings and treatments protect timber in humid conditions. To further adoption, updated building codes, subsidies, and education are needed, alongside collaboration between architects and policymakers.

A Sustainable Vision

Timber can redefine cities by lowering carbon footprints, supporting recycling, and fostering human well-being. This is a practical, science-backed solution to urban challenges. Choosing timber means creating cities that heal both people and the planet—a sustainable vision worth pursuing.



Conclusion - Mass Timber is more than material; it is a solution to the million challenges of urbanization, climate change, and mental well-being. Its environmental, economic, and human-centric benefits make it a cornerstone of sustainable urban development. As we reimagine the cities of tomorrow, let us turn to timber to build not just structures but a future that is livable, regenerative, and profoundly human

Reference

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