

Glossary of Key Terms

Circular Economy in Construction: Reuse, Recycling & Material Loops

Glossary of Key Terms

- **ABCB (Australian Building Codes Board):** The body responsible for developing and maintaining the National Construction Code (NCC) in Australia and providing guidance on its application.
- **Adaptive Reuse:** The process of repurposing an existing building for a new use rather than demolishing it, preserving embodied energy and reducing waste.
- **Circular Economy:** An economic model that aims to keep resources in use for as long as possible, extracting maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each service life. Contrasts with the traditional 'linear economy'.
- **Closed-Loop Recycling:** A recycling process where materials are reused to create products of the same type or quality, without significant degradation (e.g., melting down steel to make new steel beams).
- **C&D Waste (Construction and Demolition Waste):** Waste materials generated from the construction, renovation, or demolition of buildings and infrastructure.
- **CodeMark:** A voluntary certification scheme in Australia and New Zealand that provides independent third-party verification that building products and systems meet specific compliance requirements of the Building Code.
- **Deemed-to-Satisfy (DTS):** Prescriptive solutions within the National Construction Code (NCC) that, if followed, are automatically accepted as meeting the performance requirements.

- **Design for Disassembly (DfD):** A design approach that facilitates the easy dismantling and separation of building components at the end of their useful life to enable reuse and recycling.
- **Embodied Energy:** The sum of all energy required to produce a product, including the energy needed for extracting, processing, manufacturing, transporting, and installing materials.
- **FSC (Forest Stewardship Council):** An international organisation that promotes responsible management of the world's forests and certifies timber products from sustainably managed sources.
- **Linear Economy:** A traditional economic model based on a "take-make-dispose" approach, where raw materials are extracted, manufactured into products, used, and then discarded as waste.
- **Material Passports:** Digital records containing detailed information about the composition, source, and potential for reuse or recycling of materials and products used in a building.
- **Material Loops:** The pathways through which materials flow within a circular economy, aiming to keep resources in use and prevent them from being discarded as waste.
- **Modular Construction:** A construction method where building components or modules are manufactured off-site in a factory setting and then transported and assembled on-site.
- **NatHERS (Nationwide House Energy Rating Scheme):** A scheme that assesses the thermal performance of residential buildings in Australia and is expanding to include broader Whole-of-Home efficiency factors.
- **NCC (National Construction Code):** Australia's uniform technical building code, setting minimum standards for the design, construction, and performance of buildings.
- **Open-Loop Recycling:** A recycling process where materials are reused to create products of lower quality or different types than the original, often referred to as 'downcycling' (e.g., using crushed concrete as road base).
- **Performance Solution:** A method under the National Construction Code (NCC) to demonstrate compliance by proving that a building element or system meets the

performance requirements through alternative means (e.g., testing, expert judgment) when a Deemed-to-Satisfy solution is not applicable.

- **Prefabrication:** The manufacturing of building components or sub-assemblies in a factory or off-site location before transportation to the construction site for assembly.
- **Product-as-a-Service (PaaS):** A business model where the customer pays for the use of a product or system rather than owning it outright, with the provider responsible for maintenance, repair, and end-of-life management.
- **Reclaimed Materials:** Building materials that have been salvaged from demolition or renovation projects and are suitable for reuse in new construction.
- **Take-Back Schemes:** Programmes offered by manufacturers or suppliers where used products are collected from customers for refurbishment, reuse, or recycling at the end of their service life.
- **WaterMark:** A mandatory certification scheme in Australia that ensures plumbing and drainage products meet specific requirements for health and safety outlined in the Plumbing Code of Australia.
- **Whole-of-Home Efficiency:** An assessment framework that considers the overall energy performance of a residential building, including the embodied energy of materials and the energy efficiency of systems.