

Keeping it circular

Project-specific goals and focus

Depending on the initial situation, circular strategies can be implemented to varying degrees in a construction project. For example, there are different options for a renovation project than for a new construction project with a deconstruction or partial deconstruction. It is therefore important to explore the individual options in each project anew and implement them accordingly as far as possible. As an actor in the circular construction and real estate industry, we invite you to use the following checklist for implementing circular strategies in your projects.

This checklist is an extract from the knowledge module "Keeping it circular". Further information can be found here: wissensstiftung.eu/en/knowledge-nuggets/keeping-it-circular

This knowledge was donated by:

Protecting resources and valuing what already exist

Avoiding resource consumption

- Meeting purely idealistic needs, dispensing with material resources that are usually used
 - Meeting needs without using material resources
 - Reduction of areas and functions of buildings and elements
 - More intensive and longer use of existing areas, e.g. through multiple use
 - Reduction to necessary components, elements and buildings
 - Material-saving solutions
 - Use resource-saving prefabrication
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Preserving existing buildings

- Preservation and revitalization of existing buildings
 - Maintenance, repair and overhaul of existing buildings
 - Renovation / modernization
 - Expansion of existing buildings
 - Rejection of unnecessary new construction
 - Deconstruction only as a last resort if there is sufficient justification
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Use existing buildings as a source of materials and component storage

- Reuse of components with the same function
 - Reuse of components in a different function
 - Offer components on component exchanges or similar Platforms
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Make intensive use of recyclable materials, operate waste-free

Use recycled materials

- Prioritize the use of high-quality recycled materials (reuse)
 - Use of "recycling" materials with reduced quality
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Reduce the amount of waste

- Waste-free or waste-minimized production and supply chains
 - Waste-free or waste-minimized construction sites
 - Waste-free or waste-minimized building use
 - Waste-free or waste-minimized deconstruction
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Safeguarding values in the long term

Consider environmental and health aspects of materials

- Consistent avoidance of harmful and hazardous substances, including in coatings, finishes, etc.
 - Observing environmentally friendly and responsible supply chains
 - Use CO₂ emissions as a basis for decision-making
 - Use of renewable, compostable materials
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Ensure durability and intensive use over the entire service life

- Ensure ease of repair
 - Planning flexibility and adaptability tailored to the use and context
 - Planning multiple uses and functions of surfaces, components and elements
 - Use of sharing models and circular business models
 - Use of components with an adequately long predicted useful life
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Ensuring long-term usability and future recyclability

- Use of reusable products/components and planning of future removal
 - Preference for mono-materiality
 - Standardized formats
 - Ensure separability by type and the use of reversible, non-destructively separable compounds
 - Ensure recyclability / compostability, evaluation in the planning stage
 - Use of products with manufacturer or association take-back
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Prepare relevant information adequately and keep it available in the long term

- Material and component catalog
 - Building resource passport
 - Repair, maintenance and usage instructions
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Positive effects on people and their livelihoods

If circular strategies are implemented, this has a positive impact on local economic systems. It creates identity and promotes health. It also has a variety of positive effects on climate protection, ecosystems and water cycles. Many of these effects can be recorded using life cycle-oriented methods such as life cycle assessment and life cycle costing. Like assessment criteria for the sustainability of supply and value chains, they serve as a fact-based basis for decision-making.