

The PROSUST Project - Planning Tool for Sustainable Construction in South Tyrol

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Abstract The PROSUST project proposes the development of an integrated approach to address sustainability challenges in the construction sector in South Tyrol, aimed at improving the competitiveness of local companies and reducing the overall carbon footprint. The initial phase will be dedicated to research and technological development activities focused on analyzing the local construction sector and assessing environmental and economic impacts through Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) approaches. Subsequently, an intuitive and accessible tool will be developed for all stakeholders in the sector, integrating GIS (Geographic Information System) information for the geolocation of material recycling sites. The primary objective of the tool is to optimize the use and reuse cycle of materials within the South Tyrolean construction sector, with particular attention to reducing the environmental and economic impact associated with the disposal of processing waste. The development of the tool will be guided by an initial phase of co-design workshops with stakeholders, followed by training sessions and the technical development of the tool. Finally, communication and awareness activities will inform stakeholders about the benefits of using the tool. Primarily, the tool will enable construction companies to plan sustainable solutions ex-ante, promoting circular economy practices already in the design phase of buildings, considering the entire life cycle of materials from installation to dismantling (from cradle-to-cradle approach). The collateral aim is to support the province in identifying and implementing sustainability strategies in the field of sustainable construction, promoting more efficient resource management and reducing the CO2 footprint in South Tyrol.