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Environmental and economic assessment of building materials on regional scale: A comparative case study of the life cycle of concrete building materials in two regions in Switzerland.

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Integrated assessment methods for the sustainable built environment combine indicators for environmental impacts of building materials with indicators for regional economic benefits. As locally sourced materials can have significant environmental impacts, planners and architects must deal with conflicting goals between economy and environment.

In the research project *“Co-Evolution of Business Strategies in material and construction industries and public policies”* an assessment method for the built environment on a regional scale is developed. By focussing on environmental and economic indicators based on Material Flow Analyses, the impacts of concrete along the entire life cycle in two Swiss regions with different degrees of import dependency are assessed. Results indicate the activities in the life cycle most relevant for generating value added, creating jobs, causing emissions and consuming natural resources. Results will highlight the importance of regional differentiation and demonstrate how choosing regional products effects environmental and economic performance of the build environment.