



# Strengthening the urban-rural relationship through mineral waste - a new approach

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## INTEGRAL

### Integrated concept for mineral waste and land management

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**Partner:** TU Dresden (Waste Management and Circular Economy, Land Management)  
City of Dresden, Abfallzweckverband Oberes Elbtal  
Leibniz Institute of Ecological Urban and Regional Development  
University of Applied Sciences Frankfurt am Main (Land Management)  
Federal Institute for Materials Research and Testing  
AGS Anlagen und Verfahren GmbH Schwentinal

### Motivation

Construction and demolition waste represents the largest material flow of the waste volume in Germany and therefore plays a key role in a modern closed-loop economy.

Often, rural areas show high rates of demolition of existing buildings, whereas urban centres have an increased demand for material resources due to disparate development pressures.

Both trends lead to a utilization of natural resources in rural areas and thus to land take without sustainable compensation.

### Goals and approach

The joint project INTEGRAL will strengthen rural-urban relations by developing a sustainable recycling management for mineral construction waste fractions.

An efficient material flow management on the basis of the decision support tool to be developed will reduce inefficient extraction of primary raw materials for natural granulations and meet the goal of sustainable, efficient and resource-saving land management.

The approaches and options for action demonstrated in the project regions are exemplary in character.

### Expected Results

Both the exemplary consideration of construction residues in the region of Dresden / Meißen County and the reuse of this economic resource "secondary raw material" support utilization of existing regional interdependencies and compensation of inequalities in settlement dynamics.

In addition, there is the opportunity to develop the status quo of land use towards sustainable land management through more efficient infrastructural interdependence and thus to advance the protection of land ecosystems.



Figure 1

**Figures:**

Figure 1: Selective Deconstruction of a building [<https://pixabay.com/photomat/>]

### Methods

The project objective is to create a decision support tool to evaluate beneficial relationships based on mineral waste. For this purpose, diverse and complex data will be collected and evaluated by the partners.

In a first step, the waste amount of the region will be evaluated. On this basis, potential analyses, network analyses and site analyses are carried out. A comprehensive stakeholder analysis serves as a basis for this, which is intended to identify the key players in the region.

The second step is to disseminate the approach in business and public administrations through comprehensive workshops and appropriate public relations work.

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