

# **Sustainable Built Environment D-A-CH Conference 2019**

## **Business-models of gravel, cement and concrete producers in Switzerland and their relevance for resource management and economic development on regional a scale**

Ronny Meglin M.Sc.  
Daniel Kliem M.Sc.  
Prof. Dr. Susanne Kytzia

HSR University of applied sciences Rapperswil, Switzerland

Traditionally, gravel, cement and concrete producers focus on their role as material or resource suppliers. The higher the material turnover, the higher the economic success. Hence, the business-model conflicts with the societal goal of increased resource efficiency. Driven by stricter regulations, companies started to extend their business models with additional services in waste management and logistics.

In the research project *“Co-Evolution of Business Strategies in material and construction industries and public policies”* the most relevant business-models of gravel, cement and concrete producers in Switzerland are identified based on case studies of ten different companies. The analysis reveals how these business-models differ with regards to value added, jobs creation, resource consumption and CO<sub>2</sub>-emissions. To analyse the relevance of the different business-models on regional scale, an assessment model is developed based on Material Flow Analysis and economic Input-Output-Analysis. It is used to analyse the value chain of construction minerals in the Canton Aargau and its effect on job creation, resource consumption and CO<sub>2</sub>-emissions. A comparison between the results of both analyses – companies scale versus regional scale – reveals how alternative business-models could affect resource management and economic development on a regional scale and which types of business-models accelerate or hinder the transition towards a sustainable build environment.