AddMamBa: 3D-Printed Connection Elements

Enabling Circular Economy and Design Automation in Construction

Motivation and Relevance

- Increased demand for sustainability within the construction and building industry as one of the main consumer of the global energy demand
- Companies aiming for resource and energy efficient buildings, interested in architecturally ambitious building structures

Approach

- Establishment and evaluation of a process chain for the production of powder from construction scrap, which previously could not be recycled.
- Development of an automated design tool for structurally and building physics optimized façade brackets.

Results

- Increased resource and energy efficiency of buildings by material efficient and energy saving façade brackets and increasing the amount of metal material recovered from construction scrap
- Provision of an automated design tool for individual façade brackets suitable for construction companies new to AM

Research Area

- Circular Economy
- Resource & Energy Efficiency
- DfAM

Partners

Nachhaltigkeit im Metalleichtbau

Stahlbau und Leichtmetallbau

Laser Melting Innovations

RSB Rudolstädter Systembau

PK

Supported by

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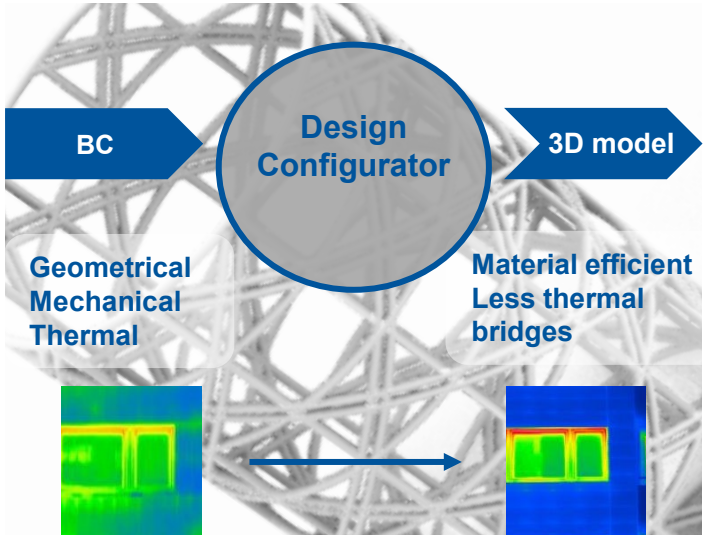
Picture



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