

A Knowledge-based Product Design Assistance for the Advanced Circular Economy

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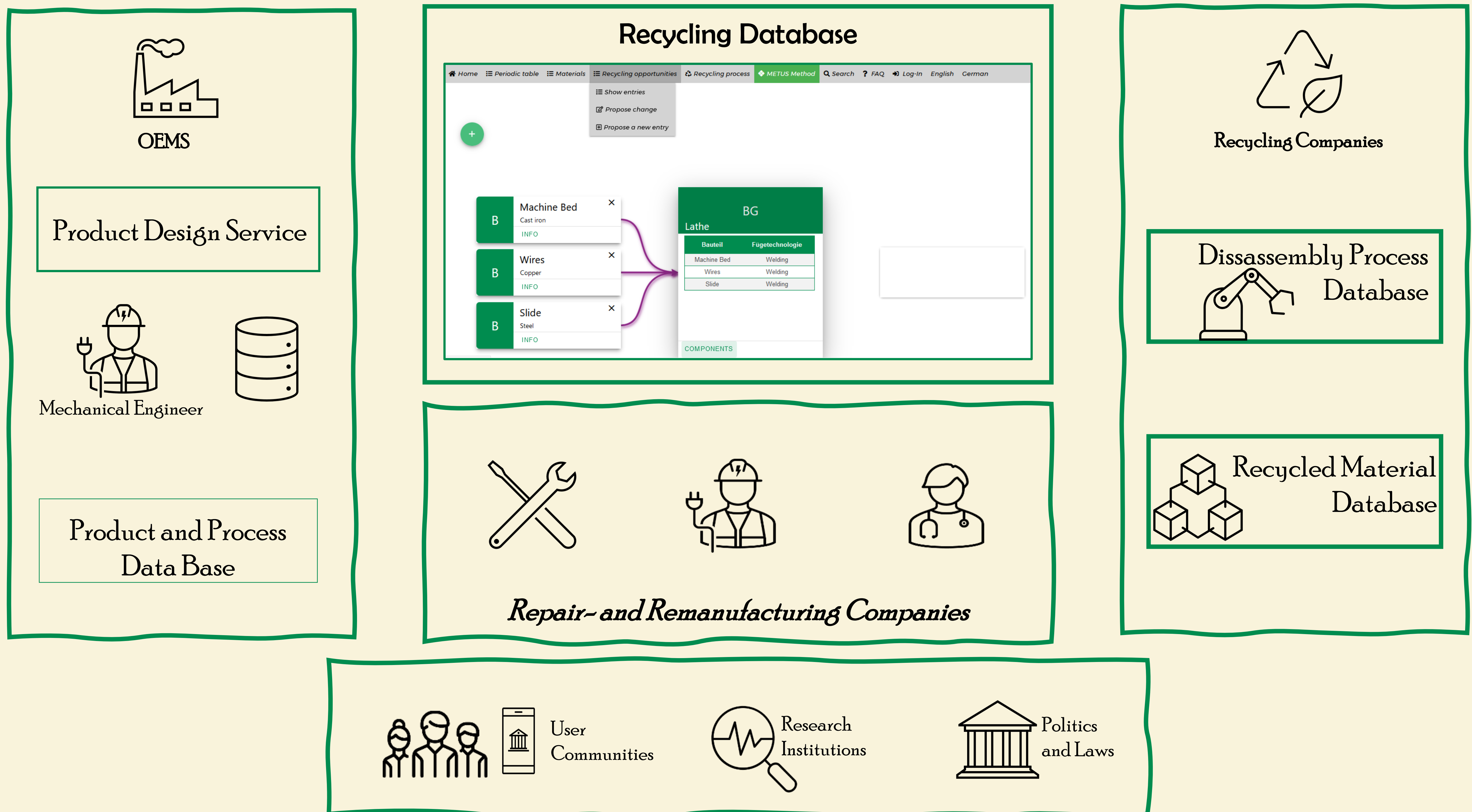
Motivation

- Design for reuse, remanufacturing, repair and recycling (DfR) are important steps towards the circular economy
- Classical engineering process are not always taking DfR into account
- Data and Information play a key role for DfR, and for the achievement of the Circular Economy
- Goal: *Design of an Knowledge-based Product Design Assistance for the Advanced Circular Economy*

Problem & Baseline Situation

- While designing a product, circularity is not always taken into account.
- The designer needs information to design a product accordingly.
- The gathering of information is time consuming
- An initial database (Recycling Database) is already created with data regarding recycling technologies, chemical material properties, and joint technologies for disassembly processes
- However, the data is not yet transformed into information & knowledge for the different Stakeholder

Knowledge-based Product Design Assistance System



Conclusion and Outlook

- New developed services connect data and generate information to assist various stakeholder
- Further connection between services are necessary to gain knowledge and provide autonomous and automatic assistance

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