Communication in Design-for-Circularity: Requirements to a Knowledge Graph

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The MaTiC-M Project Goals

Enable information exchange for:

• Recyclability Assessment

of products during the design as part of a Design-for-Circularity methodology

• Disassembling and Recycling Optimisation for end of life products

Requirements Specification Activities

- based on Linked Open Terms methodology [1]
- Competency Questions specification activities:
 - 1. CQ **Collection** from all Domain Experts

2. CQ Consolidation with Domain Experts, involving:

 Ensure Question Format – Group Questions - Split Complex Questions - Merge Duplicates

The Requirements Dataset



(i)

BY

(CC)

65 Competency

Questions in

11 Topics

14 Domain Experts from 7 DLR Institutes

Competency Questions

- Highlight Important Terms Align Terminology
- 3. CQ Verification by Domain Experts

[1] María Poveda-Villalón, Alba Fernández-Izquierdo, Mariano Fernández-López, and Raúl García-Castro. LOT: An industrial oriented ontology engineering framework. Engineering Applications of Artificial Intelligence, 111:104755, 5 2022.





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