

WP7 update - September 2025

Circular economy – Economic, social and environmental impact assessment

Deliverables

- D7.1 – Definition of goal & scope, assessment methodology ✓
- D7.2 – LCA, LCCA and SLCA screening studies, data gaps ✓
- D7.3 – Set of circularity indicators as proxy for environmental impact for RPP   due Q3 2025
- D7.4 – Full circularity, economic and social assessment of all business cases   due Q1 2026

Objectives

- Carry out for each business case a two-step (screening then full assessment) environmental, social and economic impact assessment
- Enable a simple circularity assessment of reusable packaging
- Support environment, social and economic performance improvements in other WPs

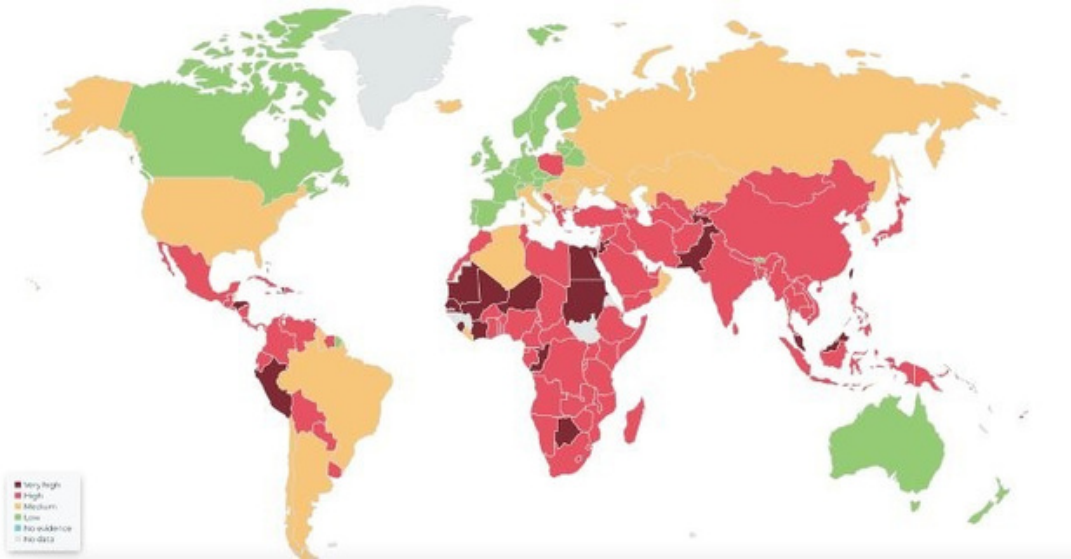
Key Activities

- Methodology and scope definition for all studies
- Data collection within the project and in databases/literature
- Impact assessment and interpretation
- Circularity tool development

? Key Research Questions

- Is it possible to provide a robust insight into potential impact of a developed reusable packaging without primary data?
- How do we find trade-offs between environmental and economic results if they don't give the same conclusions?
- How can a simple sustainability and circularity analysis can be provided to assess the benefits of switching to a reusable system?

- SLCA methodology development



📊 Intermediary results

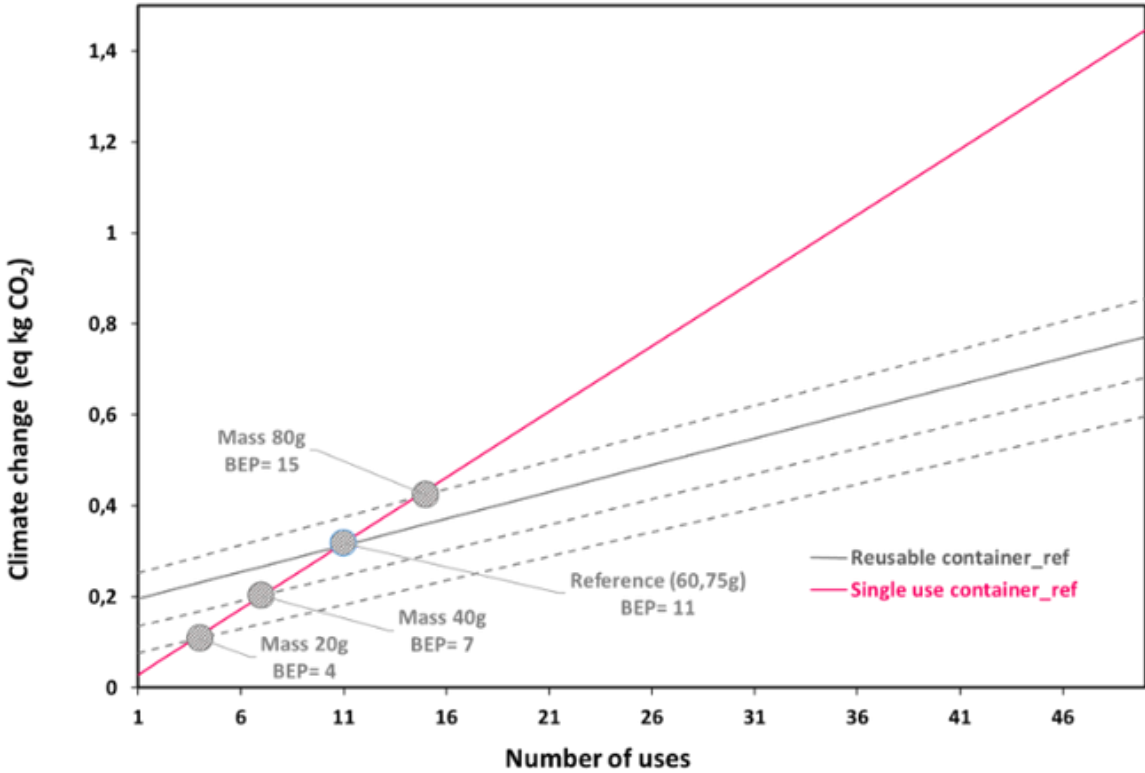
- Screening results: Break-even point (number of reuses necessary to be better than single-use) on climate change, water-use and cost for all business cases. Enabled to identify the most influencing parameters and hypotheses to refine.

Scale level	Impact Indicator Assessment Criteria
+2	A, B, C, D, & E achieved
+1	A, B, C, & D achieved
0	A, B, & C achieved
-1	A & B achieved
-2	None achieved

- Development of circularity indicator structure based on ISO59004 definition of Circular Economy

🌍 Impact & Outcomes

- Methodological improvement in LCA/LCCA/SLCA and modelling reuse
- Decision-support on the durability of a change towards a reusable packaging system
- Publication of 4 papers expected



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