

CEFoodCycle - Circular Economy: Mapping Food Streams and Identifying Potentials to Close the Food Cycle

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Austrian Institute of Ecology

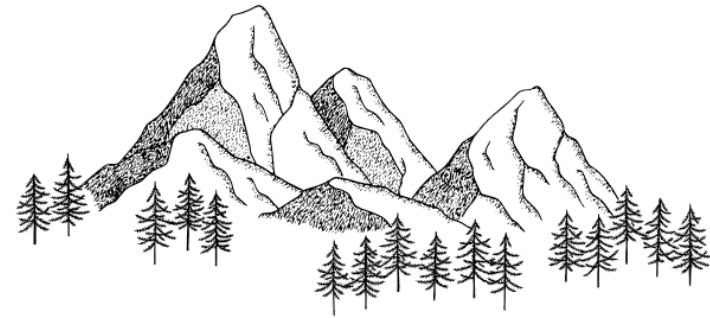


The Austrian Institute of Ecology was founded in 1985 as an **independent, non-profit research organization** and is committed to the **transition to a sustainable society**. With all its activities, the association aims to **mitigate human-induced climate change** and supports the **decarbonization of Austria**.

Together we research in the development and implementation of sustainable processes, products and services.

introduction

- **alpine region** is an ecosystem that is put under enormous pressure



why?

- due to **huge resource consumption** in the area
 - food overproduction
 - inadequate logistics
 - poorly designed packaging
 - ...

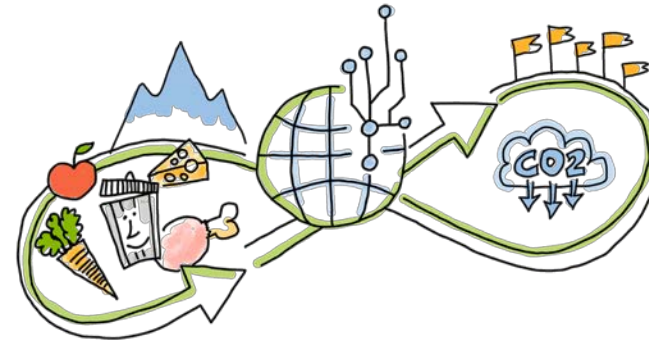


challenge

- local and international **challenge** = several countries involved
 - different languages
 - different legislations
 - different progress in solving the challenges
- different status of available data
- variety of stakeholders
 - farmers
 - industry/producers
 - hospitality sector
 - ...



CEFoodCycle



- 3-year period (2022-2025)
- create a **homogenized methodology** to avoid food waste in the alpine region

by applying the concept of **Circular Economy** to the food stream (production, use, disposal)

- defined product categories
 - Fruit & vegetables
 - Meat
 - Dairy products
- consolidating **Life-Cycle Assessment (LCA)** standards



FH Salzburg

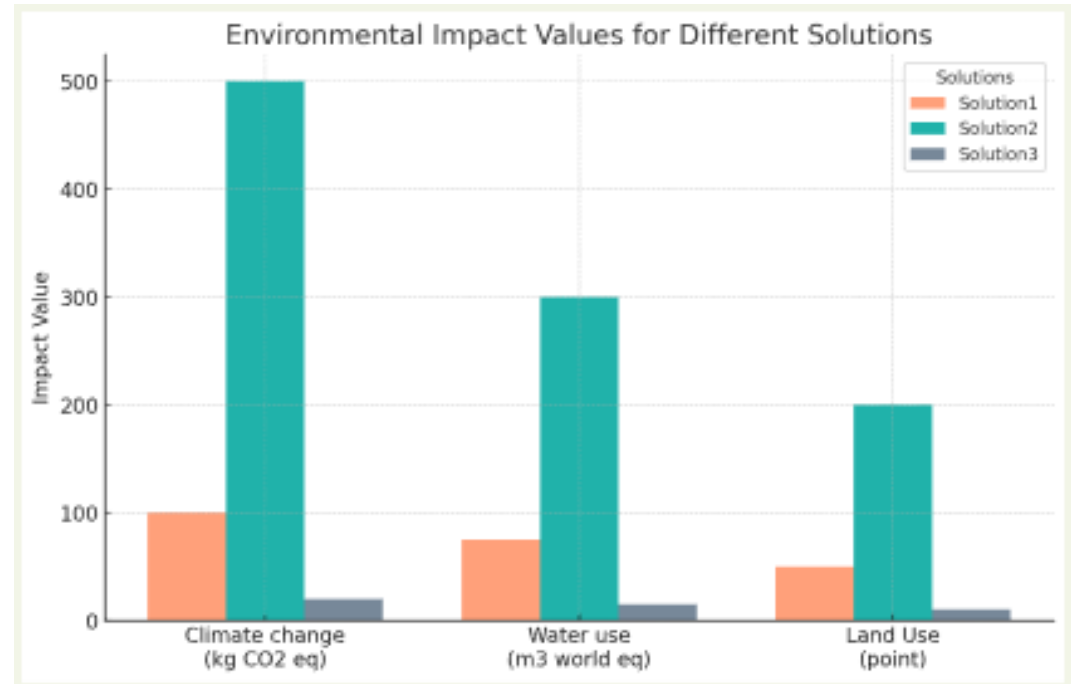
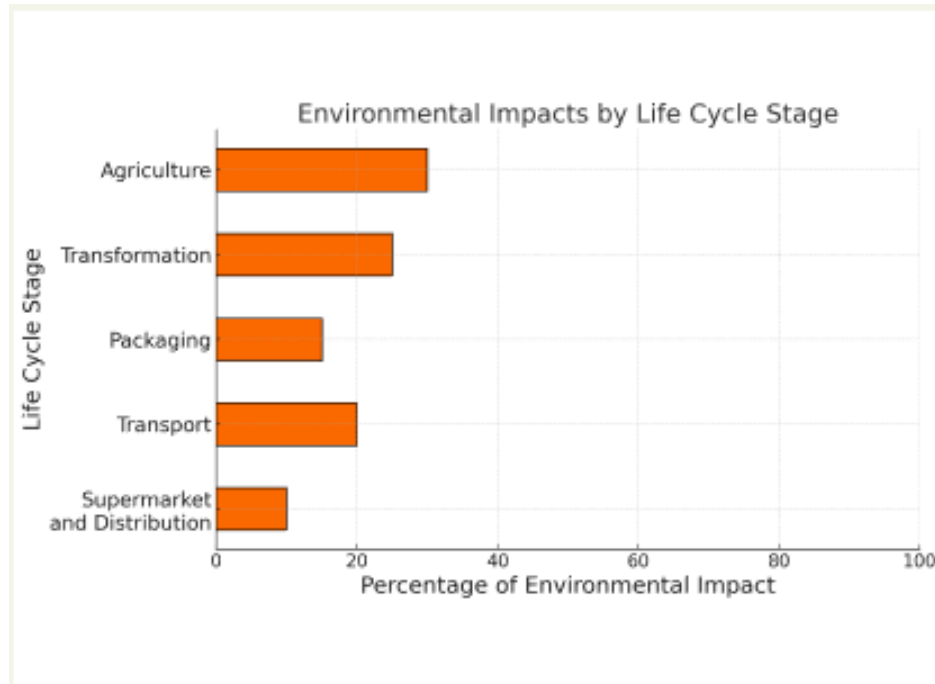


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- aim to **connect stakeholders** from inside the food stream (farmers, retailers, hospitality, ...) and outside associations, food banks, bioenergy generators, ...) -> enable them to close food cycles
- **digital service system** based on **LCA** data
 - food production
 - consumption
 - water use, land use, CO2 emissions
- system helps in the **decision-making process** and to identify key aspects within the food stream by providing



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food hubs

- **regional** food hubs (AUT, GER, FR, SLO, IT)
 - transnational, cross-boarder approach
- Implement a Circular Economy **framework** in the regions
 - provide information
 - gather information
 - Identify potentials for food waste & CO2 reduction
- connect **stakeholders** to gain more transparency
- facilitate decision making towards food savings & **closing food cycles**



project outputs

- an **alpine-wide** consolidation of **LCA methodology** for defined food product categories
- an intelligent, digital LCA service system (**foodcycle.ai**) that helps users to evaluate decisions regarding resource / CO2 savings and therefore waste prevention
- implementation of smart, closed circular **food cycle networks**
- regionally established **Circular Food Hubs** that acquire, educate and supervise stakeholders to make the impact of the AI system-supported decisions more sustainable, transparent and measurable.

Thank you for your attention!

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