



# SISTERS



## Solutions and best practices to reduce food loss and waste during transportation

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### The problem

Food loss generally occurs at the **production or transport stage**, while food waste occurs at the retail and consumer stages, generally in hospitality and in households.

### The solution

Use of **smart containers** which carry active compounds (antimicrobial agents or/and ethylene absorbers) suited to each type of fruit or vegetable being transported. They also incorporate a suite of sensors that produce real-time data, predict shelf-life, and provide alerts if ideal conditions are not met during transportation. The quality control of food produce can be monitored during its displacement along the value chain. These are the solutions currently being developed and deployed in the SISTERS project.

### Benefits

-  **CO<sub>2</sub> reduction**
-  **Shelf-life extension of produce**
-  **Reduced transport costs**
-  **Real-time analysis and predictability of food spoilage**

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## PRACTICAL RECOMMENDATIONS



### Recommendations for transporting food efficiently and preventing food wastage at the logistics stage

- Use packaging that is appropriate for the type of food being transported.
- Maintain proper temperature conditions during transportation.
- Utilise technology/software to optimize routes, reduce fuel consumption, and lower transportation costs.
- Ensure older food items are used or delivered first, reducing the chances of spoilage or expiration.
- Utilise data analytics/predictive technologies to forecast demand and optimise inventory levels.
- Redistribute food surplus to short chain initiatives, like the one being developed in SISTERS called Regioneo.
- Regularly assess and update logistics practices to incorporate new technologies, best practices, and innovative solutions that can further reduce food wastage and improve efficiency.



#### About SISTERS and this Practice Abstract

This practice abstract was elaborated in the framework of the SISTERS project, based on the EIP AGRI practice abstract format. © 2023

**Project dates:** from November 2021 to April 2026.

**Goal:** to systemically reduce food loss and waste in the main stages of the food value chain in Europe through innovations targeted to each stage of the chain.