



SISTERS



Good practices for a scalable distribution of perishable goods

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The problem

The distribution of perishable goods can be a challenge, particularly in terms of scalability. The SISTERS Project aims to roll out **a scalable solution at a very large scale** to be distributable to all the elements of the food production, storage and distribution chain across various countries, and continents.

The solution

The creation of **a scalable, portable sensor kit** for food production facilitates tracking of environmental conditions during transportation and storage. These kits, independently powered, record and transmit data to the cloud periodically. This setup enables distributors to monitor and redirect produce based on real-time environmental data analysis. The cloud-based platform stores and analyzes data, providing actionable intelligence to end-users.

Benefits



Reduced waste



CO₂ 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 implementing scalable sensor kit solutions at the logistics stage:

- **Monitoring of power requirements** for each sensor kit and supplementary power sources added if required.
- Near **constant monitoring of environmental conditions** within the transportation unit.
- **Ensuring produce is redirected early** if an issue with the conditions arises.
- **Offloading to a short-chain distribution system** like the one being developed in SISTERS called Regioneo. This will ensure produce is used within its updated best-before date.
- **Regularly assessing and updating sensor kit sensors** 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.