



# SISTERS



## Good use of bioplastics in food packaging

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Practice Abstracts

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### The problem

**Food packaging** is often made of non-biodegradable plastics, sometimes in combination with other materials like aluminium, making it hard to recycle.

### The solution

The introduction of bioplastics in packaging offers a promising alternative to conventional plastics. Novel home compostable materials for certain foods that does not need high barrier properties can be benefited from SISTERS packaging. Flexible transparent films so the product appearance can be seen by the consumer and sealable trays with the developed films are being developed. Also thermoformed packaging has been achieved.

### Benefits



**No dependence from fossil-based resources.**



**Home-compostable packaging.**



**Sustainable end of life of the packaging.**



**Reduction of CO<sub>2</sub> emissions during residues treatment (e.g. incineration or landfill).**

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## PRACTICAL RECOMMENDATIONS



### Recommendations for selecting sustainable food packaging and preventing food wastage at the production stage.

- Focusing on biobased materials derived from biomass (e.g. corn, sugarcane, or cellulose) reduce the dependency on finite petrochemical resources.
- If sustainable end of life for food packaging is pursued, then biodegradable or compostable materials should be selected for certain kind of food.
- Several new sustainable materials are on the market, but it is of high importance to select them considering the food product characteristics that the packaging must conserve.
- Certified materials give certainty about their proper disposal. Mere claims of biodegradability or compostability are insufficient without specific information. Home compostable is not the same as industrial compostable for example.



#### 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.