Circular Economy and Sustainable solutions
for Agrifood in the Mediterranean

Challenge C4

CESAM SME linked to this challenge: GO ZERO WASTE

BACKGROUND:

The problem: Single-use plastics have become a major environmental issue, contributing to pollution and waste management problems worldwide. The food industry, especially takeaway food services, contributes significantly to this problem due to the extensive use of disposable packaging.

Our company: Go Zero Waste, based in Catalonia, is a start-up developing technological solutions to facilitate a life without waste. The start-up has developed Paasiot (Packaging as a Service IoT), a reusable packaging service solution based on an IoT dispenser.

Paasiot's main goal is to promote reusable systems while guaranteeing convenience and safety to both final users and companies as a sustainable alternative for single-use items. The IoT smart dispenser is interconnected to an app that tracks the circulation of containers from delivery points to washing centers and back, and guarantees hygiene safety in the whole process. The container can

be placed in grocery stores, bulk shops, markets and malls to help businesses and consumers reduce their waste. Consumers can access clean containers through a simple log-in using their phones or personal card and return the used containers after they have used them.

By implementing a system of reusable containers, we aim to reduce the environmental footprint and improve the quality of takeaway food services across different industries.

Our solution, an IoT devolution device interconnected with Go Zero Waste app and our partners, will allow users to use this system easily and quickly.

We are looking for a supermarket (small, medium or large) that wants to offer this solution to their customers and promote responsible and zero waste consumption during this pilot.

During the pilot Go Zero Waste will install a IoT devolution device in a visible spot inside the supermarket and will install an industrial washing machine in order to clean all containers used by customers.

The supermarket and Go Zero Waste will collaborate during the whole pilot in order to have as many testers as possible and demonstrate that thanks to this service another kind of consumption is possible.

Phases:

First.- Analysis of waste generated: number of containers (tuppers, etc) used in the fish, meat and bulk section each day.

The selected SME (supermarket) will report to GoZero Waste the number of containers used per day, the material that these containers are made of and the number of people who use their own containers.

Second.- Development of specific, measurable targets for KPIs related to waste reduction to better assess the project's environment and social impact.

Third.- Acquisition of 300 containers (5€/each) and preparation of the space where we will place the return PaaSiot box.

Fourth.- Communication actions will be delivered in order to explain the project to supermarket clients (roll-ups, flyers, videos, etc).

The Supermarket and Go Zero Waste will co-design all these communication materials and will be given to customers. Example: Posters to explain the service, flyers to give away, video for social media, etc.

Fifth.- Support during the whole pilot. Personnel of the supermarket will be attracting users to the service, answering questions and contacting to Go Zero Waste in case of any tech problems that might occur during the pilot phase.

Also will be in charge of cleaning the containers that users return dirty.

Six.- Inform about the waste avoided and environmental impact will be done after the pilot.

The Supermarket and Go Zero Waste will create an inform about how many customers used the service, how many containers have been used, waste avoided and problems found during the pilot and solutions applied.

CHALLENGE DESCRIPTION	
Challenge line	**C4**
Title of the challenge	Zero Waste Supermarket
Objective(s) of the challenge	Find a Supermarket where we could implement a pilot to test all developments and get feedback from users.
Expected results of the challenge	**Technical**: 1.-Connection between App and IoT device 2.-Connection with reusable containers and IoT device and App **Economic**: 1.- Cost of implementation (staff, electricity, washing, water) of the solution in a Horeca environment. **Environmental**: 1.-Number of reusable containers used 2.- Number of reusable containers returned 3.- Number of single use plastics avoided.
Relevance of the challenge in the frame of CESAM project	Establish the use of reusable packaging as the new standard, eliminating disposable packaging waste and promoting environmental sustainability. One of the main objectives of CESAM project is to reduce waste generation and GHGs emissions so this challenge is strongly linked to CESAM goals.
Type(s) of SME(s) we are looking for	A business of the Supermarket sector with bulk products offer.
Describe the work carried out by the SME	**Testing an automated sustainable and circular IOT dispenser for bulk for groceries / food in general.** **Project includes providing the necessary space, installing the machines provided, train the staff in operating the machines, promote the solution, making an economic assessment at the end of the project.** **· Staff dedicated to monitoring and supporting the pilot on-site** **· Acquisition of around 300 units of returnable packaging (customized and individually identified) from our provider** **· Dissemination material expenses (roll-ups, flyers, etc.)** **· Logistics and transport for the installation of these IoT devolution devices.** **· Cleaning and sanitizing returnable containers"**

Maximum amount granted for this challenge	20.000€
Funding rate	100%
Duration of the work and proposed starting period	5 MONTHS starting from May 2025
Effort for the SME	Personal cost: during the Pilot the supermarket will have personal explaining the project and solving questions Water consumption: Supermarket will be in charge of cleaning the containers and restore them. During the pilot the water to clean the containers will be paid by the supermarket. Electricity consumption: Washing machine will be used to clean the containers. Communication & PR: Design and print all communication materials in order to explain the project.
Intellectual Property Rights dispositions	Background of applicants will be included (if applicable) under the IPR rights they consider
Other information (if applicable)	