



# SUPPORT FOR THE IMPLEMENTATION OF A REVERSE LOGISTICS SYSTEM - WASHING AND DIGITIZATION SYSTEM OF RETURNABLE PLASTIC CRATES

Promoting entity:  
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TERRITORIES INVOLVED		DESCRIPTION OF THE PROJECT	RESULTS OBTAINED AND REPLICABILITY	PROJECT CONTINUATION
	EUSKADI	<ul style="list-style-type: none"> <li>Ekoalde is an association dedicated to the distribution of organic products from Navarre producers offered to large consumers (school canteens, restaurants, hospitals, etc.) and for direct sale to consumers through its online platform.</li> <li>Ekoalde has started a process to promote circular logistics by replacing single-use cardboard boxes with returnable plastic crates, and thus implement a closed-supplier-distribution-customer cycle.</li> <li>The ORHI project contacted suppliers of second-hand crates, and the feasibility analysis of the establishment of a semi-automatic washing system for available plastic boxes was carried out.</li> <li>In the accompaniment, the technical-economic criteria of the semi-automatic washing system have been established to guarantee the disinfection of the crates (complying with the food, organic and COVID-19 protocol).T</li> <li>The conditions have been defined for the digitization of the boxes and the adaptation of the invoicing and ordering system with the software currently used in the company, which allows an optimization of the returnable crates management system.</li> </ul>	<ul style="list-style-type: none"> <li>The closed logistics systems for the reuse of plastic crates will be a replicable solution in all sectors in which packaging is used for secondary and tertiary transport and delivery of goods.</li> <li>In this case, the accompaniment allows to establish the procedures and conditions to also guarantee compliance with disinfection against COVID-19 for the distribution of food, complying with the organic certification criteria.</li> <li>Semi-automatic washing systems may be also offered to other companies and Ekoalde members, what will offer the opportunity for creating an additional business model based on the servitization of the crates washing service for other organizations.</li> <li>The digital solution for the traceability of crates allows to know their location and ease the invoicing process, what guarantees return under the best conditions.</li> </ul>	<ul style="list-style-type: none"> <li>The acquisition of the washing equipment for internal use and to offer it as a new service to Ekoalde member organizations or other external agents.</li> <li>It can speed up the implementation of logistics systems with plastic crates in other sectors and companies close to Ekoalde and among its associates.</li> <li>Digitization allows complete traceability of storage and location of crates at customer.</li> <li>This service will be gradually implemented until reaching 100% in all loyal customers.</li> </ul>
	LA RIOJA			
X	NAVARRA			
	PYRENEES ATLANTIQUES			
	OCCITANIE			
	AUTRE/S TERRITOIRE/S			

## PROJECT'S CONTRIBUTION TO THE FOLLOWING INDICATORS

INDICATOR	INITIAL VALUE	FINAL VALUE
• <i>One single use cardboard boxes reduction</i>	500 plastic crates x 300 cycles= 15,000 cardboard boxes avoided	500 reused and reusable plastic crates.
• <i>Number of return cycles per crate</i>	1 life / cardboard box (they are not returned and will be recycled)	Up to 300 cycles / crates (they can be repaired several times)
• <i>Water savings in the crates washing</i>	163.2 m3 / week (manual washing)	52 m3 / week (semi-automatic washing)
• <i>Job improvement</i>	Manual washing implies complete dedication of the person in washing tasks.	Semi-automatic washing optimizes the workplace and allows simultaneous tasks.
• <i>Economic balance of washing machine</i>	Manual washing involves high consumption of water and personnel.	Cost savings (water and personnel) and can generate income in the offer of washing as a service.
• <i>Economic balance of the digital solution</i>	The exact location of the crates was not known, it carried a high risk of losses.	It guarantees the traceability, monetization of the returnable delivery system and establishes reward system.

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