

Spanish SME is seeking partners for EU Life project on scaling reuse systems for fresh food and beverage packaging in Europe

Summary

Profile type

Research & Development Request Spain

Company's country

POD reference

RDRES20251110012

Profile status

PUBLISHED

Type of partnership

Research and development cooperation agreement

Targeted countries

- Spain
- Slovenia
- Netherlands
- Poland
- Latvia
- Hungary
- Italy
- Lithuania
- Germany
- France
- Slovakia
- Ireland
- Bulgaria
- Romania
- Belgium
- Denmark
- Luxembourg
- Malta
- Cyprus
- Estonia
- Austria
- Portugal

- Croatia
- Greece
- Sweden
- Czechia
- Finland

Contact Person

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Term of validity

11 Nov 2025**11 Nov 2026**

Last update

11 Nov 2025

General Information

Short summary

The company aims to accelerate Europe's shift from single-use plastics to circular packaging. They built a digitally enabled reuse ecosystem for fresh food, integrating smart return stations, traceability, deposits, and washing logistics. They are forming a consortium for the EU LIFE Programme (submission Sept 2026, start June 2027) to run pilots proving environmental and economic viability and to eventually scale reuse with key partners in several contexts across Europe.

Full description

The European Union faces a major challenge with plastic waste, especially in the packaging sectors. While recycling remains important, reuse offers a far more resource-efficient and impactful pathway to cut waste and emissions. To meet EU circular economy goals, we must move beyond short-lived packaging toward systematic, scalable reuse.

The company is developing a project proposal under the EU LIFE Programme - Circular Economy and Quality of Life. It builds on PAKA, a reusable packaging ecosystem replacing single-use food packaging with durable and traceable containers. It integrates smart return stations, digital traceability, deposit management, and optimised washing and logistics, forming a full-ecosystem including reuse infrastructure ensuring hygiene, convenience, and economic viability.

The LIFE project will demonstrate environmental and economic feasibility of reusable packaging systems across multiple European contexts (e.g. municipal fresh food markets, supermarkets, events, canteens, amusement parks). The project aims to prove that the adoption of reuse is achievable when supported by the right infrastructure, digital tools, and business model.

They are aiming to avoid estimated 6.4 tonnes of plastic and 16 tonnes of CO₂ emissions, with impacts multiplying as adoption grows. With an initial 5% uptake across pilots, the project will deliver measurable results and a clear roadmap for EU-wide replication.

Goals:

- Replace single-use packaging with reusable systems.
- Avoid plastic and CO₂ emissions.
- Implement reuse infrastructure (return stations, washing, logistics, tracing software)
- Measure impact with external scientific partner.

Advantages and innovations

The project's innovation lies in its systemic integration of packaging, digital tools, logistics, and washing, addressing the main barriers to reuse (tracking, convenience, cost, hygiene).

- Digitally enabled traceability: each packaging will carry a unique QR code linked to a digital platform managing returns, deposits, and analytics to support operational efficiency.
 - Data-driven operations: the system will generate data on losses, washing cycles, and impacts, enabling continuous optimization and transparent reporting.
 - Plastic-free and durable packaging: the project will explore stainless-steel-based packaging and test plastic-free lids, ensuring hygiene, long life, and industrial washing compatibility.
 - Smart infrastructure: return bins will be designed to automatically recognise containers, improving convenience and reducing operational costs.
 - Modular logistics and washing solutions.
 - A product-as-a-service approach will be piloted to promote shared ownership, efficient asset use, and impact traceability, aligned with the LIFE Programme's circular economy goals.
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Technical specification or expertise sought

Implementation partner/s:

Organizations that are willing to test and implement the reusable packaging ecosystem:

- (Eco) supermarkets with fresh food stands, delis or ready meals.
- University or corporate canteens using single-use plates or cups as a take-away option.
- Places with regular events like trade fairs and exhibitions with catering or beverage services in single use packaging.
- Festivals and events with food stands or bars.
- Amusement parks, cinemas, hotels.
- Other.

Steel Manufacturer:

- Expertise in prototyping and producing stainless steel items for food contact (deep drawing), ideally with capability to mold or apply alternative lid materials.
- Expertise to co-develop mold for lid alternative fitting onto stainless steel container base.
- Based in Europe.

Logistics partner:

- Expertise in designing and operating efficient logistics between use locations, washing and storage.
- Ideally near pilots (Catalonia & to be determined), but methods should be scalable EU-wide.

Material supplier for a lid:

- Requirements material: food safe, need to be able to last up to 100 washing cycles in industrial dishwasher, ideally plastic-free, fitting onto stainless steel container base.
 - Based in Europe.
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Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 12: Responsible Consumption and Production**
- **Goal 13: Climate Action**
- **Goal 17: Partnerships to achieve the Goal**

IPR Status

Secret know-how

IPR Notes

The system components (containers, return stations, and software) are developed by PAKA and partners. Current intellectual property is held by PAKA for the design of containers and (digital) infrastructure. New developments during the project (e.g. material formulations, software modules, or design improvements) will be protected following consortium agreements

Partner Sought

Expected role of the partner

- Implementation partners will host pilots and co-design operational setups with PAKA, providing feedback on logistics, hygiene, and user experience. They will track packaging circulation, help test the digital return system, and participate in communication and dissemination.
- Steel manufacturer will co-develop and produce stainless-steel containers adapted for reuse logistics, supporting testing for durability and washing compatibility, and participate in life-cycle analysis validation.
- Logistics partner will design and optimise the collection and washing transport network for one or more pilot sites, ensuring data collection for environmental assessment and scalability planning.
- Material supplier (lid) will collaborate on R&D of plastic-free material applications compatible with stainless steel bases, co-develop prototypes, and provide performance data on safety and durability after repeated washings.

Type of partnership

Type and size of the partner

Research and development cooperation agreement

- Big company
- SME ≤ 10
- SME 50 - 249
- SME 11-49
- Other

Call Details

Framework program

Climate action, environment, resource efficiency and raw materials

Call title and identifier

EU LIFE Call 2025: Circular Economy and Zero Pollution

Project fit: Circular Economy and the Environment

Priority area fit: Product-as-a-service solutions (and other business models or technologies to optimise asset use)

Submission and evaluation scheme

One-stage submission and one-step evaluation. The admissibility, eligibility, and operational capacity will be assessed, and then proposals will be scored on relevance, impact, quality, and resources. Highest-ranked projects invited for grant preparation.

Anticipated project budget

2-2.5 M€ (exact budget TBD)

Coordinator required

No

Deadline for EoI

23 Jan 2026

Deadline of the call

23 Sep 2026

Project duration in weeks

156

Web link to the call

Project title and acronym

Scaling Reuse Systems for Fresh Food and Beverage Packaging (acronym TBD)

Dissemination

Technology keywords

- **02003005 - Information processing & Systems, Workflow**
- **08001003 - Food Packaging / Handling**
- **10003004 - Recycling, Recovery**
- **02007008 - Iron and Steel, Steelworks**

Market keywords

- **07004008 - Other consumer products**
- **08001012 - Speciality metals (including processes for working with metals)**
- **07001002 - Amusement and recreational facilities**
- **07002005 - Other retailing**
- **08006001 - Process control and logistics**

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Sector groups involved