



Reusable Packaging for Large Household Appliances Project Phase 1



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Background

Reusable transport packaging offers great opportunities to achieve packaging waste reduction. Although placed at the top strategy of the waste hierarchy, reuse models have not yet been exploited in the transport packaging sector for many markets. Specifically for the transport of large household appliances (LHA), reusable packaging makes economic sense. While not only reducing environmental impacts, reusable transport packaging for LHA can also offer huge economic savings, i.e. by optimizing warehouse storage and significantly reducing product damage rates through better product protection. Furthermore, pushed through upcoming legislations applicable to the European market (Packaging- and Packaging Waste Regulation, short PPWR), reusable transport packaging for LHA will need significant adopted by the sector with first targets for 2030. Companies, OEMs as well as retailers, have approached Searious Business before in the search of a solution to bring a shared system to life. Yet, setting up a common standardized approach and a pooling system to be shared by many companies is best to be done in a conglomerate of like-minded businesses.

Aim

With this project, the Reusable Packaging Association (RPA) aims to facilitate the first steps towards a pre-competitive, market-driven approach on systems design and operating pooling models for reusable transport packaging for LHAs by identifying market opportunities, development of a business case, and drafting of a shared business model. This will greatly reduce risks to have effective reuse, decrease capital investments, help RPA members' customers to use reusables, and establish a service provider network to manage the pool, thus minimizing costs and total travel distance. While the entire project is comprised of 3 phases, RPA will mostly support Phases 1A, which is being further elaborated in the following pages. The output of phase 1A *business case*, and the deliverables of phases 1B, 2, and 3, seek to leverage collaboration to demonstrate effective reuse system and operations for LHAs. Ultimately individual suppliers, OEMs, retailers, etc. will determine their own market participation independent from this project work.

Activities

Phase 1A

Aim is to bundle compelling data that convinces large appliance OEM / trade association and RPA members to finance and engage in phase 1B.

1) Define LHA Market and Regulatory Scope

Goal: Formalize market and regulatory understanding by RPA members

- Product: Define scope of applications to kick-off with.
- Geography: Define the major players / associations in EU. Create a country overview.
- Status of PPWR rulemaking: Determine status of legislation and implications for materials.

2) Define Supply chain characteristics / Business model / Business case

Goal: Identify business opportunity

- Define current supply chain characteristics (EU market)
 - How do appliances move (by channel and LHA type)
- Overview of damage and loss rates – potential costs to be avoided
- Magnitude of value opportunity across the value chain
 - Define business case and profit prospects for main stakeholders across the value chain.
- Overview of potential business model types (captive, closed, open) and ownership implications
 - Pros and cons
 - Detailed costs overviews are not required in this phase 1A

3) Stakeholder engagement

Goal: Receive feedback from RPA members and market players (OEMs/Retailers) on their interest to support and fund the further set-up of a shared business model, and get involved

- Present findings to RPA members (broader than R&E stream)
- Present findings to a selection of OEMs / retailers under NDA
 - Determine with RPA which stakeholders to involve from a strategic perspective

Phase 1B

1) Create scope for 2-3 scenarios with a high-over analysis

(Comprehensive analysis is covered in phase 2, see Annex 1)

Goal: Draft different opportunities in order to compare scenarios and identify the most suitable solution for interested stakeholders to move forward

- Write a feasibility study, incl. insights on needed packaging format, reverse logistics, maintenance, partnerships, digital infrastructure set-up, etc.
- Select most promising scenario

2) Define conditions enabling a positive business case

Goal: Assure successful implementation and workability of the identified scenario

- Set system requirements including parameters, and Key Performance Indicators (KPIs)

Deliverables

Phase 1A

External:

1) LHA industry presentation (pitch deck)

- Provide credibility, so that RPA can share as an association as an industry need.
- Enable use with industry targets to engage by Searious Business & RPA members.
- Present to industry players (2-3) or LHA trade association (1) for feedback / input.
 - RPA member companies will facilitate with LHA industry contacts.

2) A concise report (approx. 10 pages)

- Document feedback and provide recommendation to RPA.

Internal: for stakeholders still to confirm participation

1) LHA RPA & RPA member company presentations

- Share with RPA board & interested RPA member companies to show the added value.
- Use with leadership of RPA members when considering funding for next phase(s).

Phase 1B

Internal: for stakeholders that have decided to participate

1) Concise report (approx. 10 pages)

- Present findings and recommendations

Timeline



Budget

This project will focus on phase 1A and phase 1B only. RPA will fund a total of USD 25000, which will mostly be incurred in phases 1A. Throughout the project, Searious Business will reach out to relevant members and stakeholders to gain support and required budget. Phases 1B, 2, and 3 (see Annex I) shall be funded by a consortium of market players to be defined by the end of phase 1A.

Phase	Costs incl. VAT (USD)	Costs incl. VAT (EUR)	Timing
Phase 1A	\$ 25,000	€ 23.163	April 1 – June 15
Phase 1B	\$ 35,000	€ 32.428	June 16 – July 31
Total	\$ 60,000	€ 55,591	

Payment of phase 1A will be done in a total of 2 instalments, 50% of which will be upfront and 50% upon end results.

Annex I

Overview of activities in phase 2 & 3

Phase 2: Business model development

- Comprehensive *in-depth economic analysis* (CBA) and *environmental analysis* (LCA)
- Definition of *optimal business model set-up* (ownership, collaboration agreements, financing strategy, reuse scheme, packaging journey, etc.)
- Selection of *suitable packaging options* (specs of product, system & behavioral change)
- Creation of *strategic roadmap* for long-term sustained competitive advantage
- Guidelines for *stakeholder engagement plan, marketing strategy* and *communications*

Phase 3: Piloting and evaluation

- Execution of a *6-month retail pilot, testing different settings*
- Implementation of *marketing & communications campaign*
- Evaluation of pilot and *provision of improvement actions* needed for *upscaling*