



Tool 7.4 Reverse Logistics Canvas

Tool 7.4 – Reverse Logistics Canvas

Phase 7 – Implementation & Operation

The Reverse Logistics Canvas

Designed for:

Designed by:

Date:

Version:

PRODUCT RETURN TRIGGERS <i>When and why do products return to the company or ecosystem?</i> ☐ End of lease contracts ☐ Customer take-back requests ☐ Office relocation or renovation ☐ Product replacement cycles ☐ Buy-back ☐ Damage or warranty claims	COLLECTION CHANNELS <i>How do products physically return to the reverse logistics system?</i> ☐ Direct pickup from customers ☐ Collection points or depots ☐ Retailer take-back services ☐ Facility manager collection programmes ☐ Logistics partners handling return flows	TRANSPORTATION & CONSOLIDATION <i>How are reverse flows transported efficiently and consolidated?</i> ☐ Direct transport to refurbishment centres ☐ Consolidation hubs for volume optimisation ☐ Regional sorting facilities ☐ Integration with existing forward logistics routes
INSPECTION & SORTING <i>How are products assessed and directed to the most valuable recovery pathway?</i> ☐ Direct reuse (minimal intervention) ☐ Refurbishment or repair required ☐ Remanufacturing potential ☐ Spare parts harvesting ☐ Recycling or material recovery	RECOVERY PATHWAYS <i>What recovery strategies maximise economic and environmental value?</i> ☐ Reuse: reselling products in secondary markets ☐ Refurbishment: restoring products for extended use ☐ Remanufacturing: rebuilding products with new components ☐ Component reuse: salvaging functional parts ☐ Recycling: recovering materials such as wood, metal, or plastics	OPERATIONAL INFRASTRUCTURE <i>What infrastructure is required to process returned furniture?</i> ☐ Refurbishment workshops ☐ Sorting centres ☐ Spare parts inventory systems ☐ Recycling partnerships ☐ Digital tracking systems for product lifecycle monitoring
ECOSYSTEM PARTNERS <i>Which ecosystem partners enable efficient value recovery?</i> ☐ Logistics providers ☐ Refurbishment companies ☐ Second-hand retailers ☐ Recyclers and material processors ☐ Digital tracking platform providers ☐ Facility managers and leasing partners	ECONOMIC MODEL <i>How does the reverse logistics system remain economically viable?</i> ☐ Resale of refurbished furniture ☐ Leasing renewal ☐ Spare parts sales ☐ Material recycling revenues	DATA & TRACEABILITY <i>What product data supports efficient reverse logistics operations?</i> ☐ Digital Product Passport data ☐ product composition and materials ☐ repair instructions ☐ ownership history ☐ refurbishment history ☐ recyclability information



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Circular Solutions for Furniture
A Horizon Europe Initiative

Objective of the Tool

The Reverse Logistics Canvas supports furniture companies in designing structured systems for the return, collection, sorting, refurbishment, and recovery of products at end-of-use.

The tool helps organisations map the operational processes, infrastructure, partners, and economic flows required to recover value from used furniture. It clarifies how products move backward through the value chain and how different recovery strategies—such as refurbishment, reuse, remanufacturing, or recycling—can be implemented efficiently.

By structuring these reverse flows, companies can reduce material losses, extend product lifetimes, and support compliance with emerging circular economy policies and extended producer responsibility requirements.

What the Tool Is

The Reverse Logistics Canvas is a system design canvas used to structure the operational architecture of circular recovery systems for furniture products.

It enables organisations to design how used products are:

- returned or collected
- transported and consolidated
- inspected and sorted
- refurbished or repaired
- redistributed to secondary markets
- dismantled for material recovery

The output is a clear reverse logistics system map connecting operational processes with ecosystem partners and economic flows.

When to Use the Tool

The Reverse Logistics Canvas is particularly useful when companies are:

- Implementing take-back systems
- Developing furniture refurbishment programmes

- Launching furniture-as-a-service models
- Preparing for extended producer responsibility schemes
- Building secondary markets for used furniture
- Improving material recovery and recycling systems

It is typically used after business model design and ecosystem mapping, when companies start planning operational implementation.

How to Use the Tool

Step 1 – Define Product Return triggers

Participants identify the situations in which furniture returns to the system.

Step 2 – Map Collection and Logistics Channels

Teams identify how products are collected and transported.

Step 3 – Design Sorting and Recovery Pathways

Participants define how products are assessed and which recovery strategy is applied.

Step 4 – Identify Required Infrastructure

Teams determine the facilities and capabilities required.

Step 5 – Map Ecosystem Partners

Participants identify the actors needed to operate the system.

Step 6 – Evaluate Economic Feasibility

Teams assess costs and revenue opportunities associated with reverse logistics.

Step 7 – Evaluation data layer

Participants challenge the existing data and traceability infrastructure to support take back.

Expected Output

The exercise produces a Reverse Logistics System Canvas scribing:

- product return flows
- collection channels
- sorting and recovery pathways
- operational infrastructure
- ecosystem partners
- economic value streams

This system overview helps organisations operationalise circular business models and implement large-scale furniture recovery systems.

Key Dimensions of the Reverse Logistics Canvas

1. Product Return Triggers

Defines the conditions under which products re-enter the system.

Typical triggers include:

- end of lease contracts
- customer take-back requests
- office relocation or renovation
- product replacement cycles
- buy-back or deposit-return schemes
- damage or warranty claims

Guiding question:

When and why do products return to the company or ecosystem?

2. Collection Channels

Identifies how used furniture is physically collected.

Typical collection channels include:

- direct pickup from customers
- collection points or depots
- retailer take-back services
- facility manager collection programmes
- logistics partners handling return flows

Key considerations:

- geographic coverage
- volume variability
- contamination risks

Guiding question:

How do products physically return to the reverse logistics system?

3. Transportation & Consolidation

Defines how returned products are transported and aggregated before processing.

Possible configurations include:

- direct transport to refurbishment centres
- consolidation hubs for volume optimisation
- regional sorting facilities
- integration with existing forward logistics routes

Guiding question:

How are reverse flows transported efficiently and consolidated?

4. Inspection & Sorting

Defines the process used to assess the condition and value potential of returned products.

Typical sorting categories include:

- direct reuse (minimal intervention)
- refurbishment or repair required
- remanufacturing potential
- spare parts harvesting
- recycling or material recovery

This stage is critical for maximising value recovery.

Guiding question:

How are products assessed and directed to the most valuable recovery pathway?

5. Recovery Pathways

Identifies the different strategies used to recover value from returned furniture.

Typical pathways include:

- Reuse: reselling products in secondary markets
- Refurbishment: restoring products for extended use
- Remanufacturing: rebuilding products with new components
- Component reuse: salvaging functional parts
- Recycling: recovering materials such as wood, metal, or plastics

Guiding question:

What recovery strategies maximise economic and environmental value?

6. Operational Infrastructure

Defines the facilities and capabilities required to manage reverse flows.

Examples include:

- refurbishment workshops
- sorting centres
- spare parts inventory systems
- recycling partnerships
- digital tracking systems for product lifecycle monitoring

Guiding question:

What infrastructure is required to process returned furniture?

7. Ecosystem Partners

Identifies the external actors required to operate the reverse logistics system.

Typical partners include:

- logistics providers
- refurbishment companies
- second-hand retailers
- recyclers and material processors
- digital tracking platform providers
- facility managers and leasing partners

Guiding question:

Which ecosystem partners enable efficient value recovery?

8. Economic Model

Defines the cost and revenue logic of reverse logistics operations.

Costs may include:

- collection and transport
- sorting and inspection
- refurbishment labour
- warehousing and storage

Revenue streams may include:

- resale of refurbished furniture
- leasing renewal
- spare parts sales
- material recycling revenues

Guiding question:

How does the reverse logistics system remain economically viable?

9. Data & Traceability

Defines how product information supports recovery operations.

Relevant data may include:

- Digital Product Passport data
- product composition and materials
- repair instructions
- ownership history
- refurbishment history
- recyclability information

Traceability improves sorting accuracy and recovery efficiency.

Guiding question:

What product data supports efficient reverse logistics operations?



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