

SUSTAINABLE AND CIRCULAR

Recycling and reusing materials





Introduction

The world's population continues to grow, resulting in an ever-increasing demand for raw materials. These resources are not infinite – without intervention, we will soon exceed our planet's capabilities and limitations. It is essential to drastically reduce waste and extend the life cycle of packaging for as long as possible.

Environmental impact of pallet production

The European Federation of Wooden Pallet and Packaging Manufacturers ([FEFPEB](#)) reports that around **500 million new wooden pallets** are produced annually in Europe. The total number of wooden pallets in circulation in the EU is estimated to be around 3 billion.

This high packaging volume significantly impacts the environment, mainly through wood consumption, as up to **25% of the production of European sawmills is focused on pallet production**.

Harvesting wood for pallets contributes to **deforestation, loss of biodiversity, and increased carbon emissions**. In addition, the production process itself consumes energy and generates waste.



For this reason, European countries are increasingly emphasizing recycling and reusing pallets to reduce these environmental burdens. The idea is to reuse, repair, and recycle existing packaging for as long as possible. As a result, existing packaging is kept in circulation for longer, and the waste generated is drastically reduced.



Watch the animation below and see how we can help your business introduce a sustainable packaging cycle:



B2B producer responsible for introducing packaging

Recycling in the Business-to-Business (B2B) sector, with a particular focus on pallets, is a crucial element of sustainable business practices and waste management. When a business places packaged products on the domestic market, it has many obligations related to ensuring that the waste from such packaging is recycled.

It expresses the so-called Extended Producer Responsibility (*EPR-Extended Producer Responsibility*), who is responsible for the waste arising from the packaging he introduces.

The [Packaging and Packaging Waste](#) Regulation requires EU Member States to establish systems for the return and reuse or recovery (including recycling) of used packaging from consumers. The EPR regulations require producers to be responsible for the entire life cycle of their products, from design to disposal.

The EPR aims to encourage manufacturers to design packaging that is easier to recycle and reduces waste. Implementing such obligations can be organized by the entrepreneur or entrusted to specialized entities, i.e., packaging recovery organizations.



Pallet recycling

Recycling wooden pallets is an integral part of reducing their environmental impact. Many are designed to be reusable before being recycled.

The European Federation of Wooden Pallet and Packaging Manufacturers (FEFPEB) promotes the recovery and repair of pallets to help conserve resources and reduce waste.

Around **70% of European wooden pallets are recycled or reused**, and repair and refurbishment are standard practices. This positive practice saves natural resources and reduces waste and energy consumption compared to producing new packaging.

Benefits of recycling wooden pallets

Corporate pallet recycling has several valuable aspects that bring economic, environmental, and operational benefits.

➔ Economic benefits



Cost savings

Repairing and reusing damaged pallets reduces the cost of purchasing new pallets.

Companies can reduce costs associated with product charges by demonstrating the recycling and reuse of pallets.



Sale of waste

In many cases, pallet waste can be sold as a secondary raw material, generating additional revenue.





➔ Environmental Benefits

➔ Waste reduction

Recycling pallets reduces the amount of wood waste going to landfills, contributing to more sustainable waste management.

➔ Conservation of natural resources

Pallet recycling helps conserve natural resources by reducing the need for newly harvested wood.

➔ Reducing CO₂ emissions

Reusing and recycling pallets reduces the CO₂ emissions associated with producing and transporting new pallets.

➔ Operational Benefits

➔ Operational efficiency

Pallet recycling ensures the continued availability of pallets (especially in self-pooling), which is critical to the continuity of logistics operations.

➔ Regulatory compliance

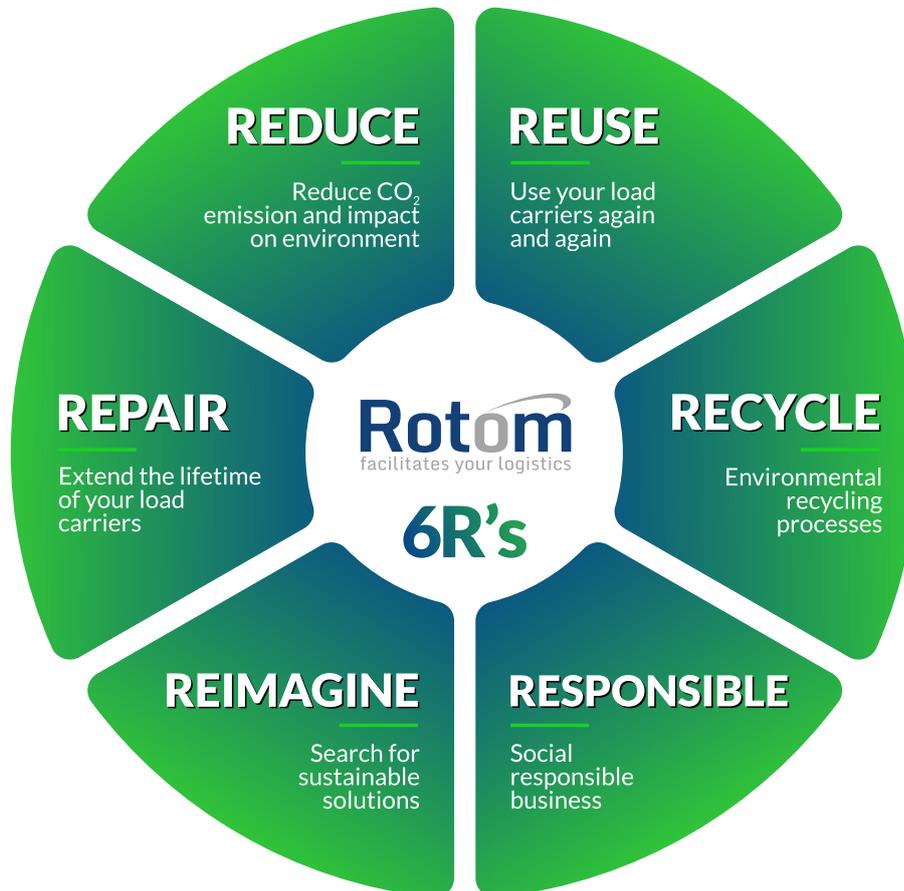
Companies comply with Extended Producer Responsibility (EPR) legislation, which requires manufacturers to ensure that their products are recycled and disposed of appropriately.





Rotom – the European organization that looks after the closed loop of load carriers

At Rotom, we maximize the use of load carriers to meet sustainability targets. For example in 2023 alone, in Poland, we recycled 3 865.85 tonnes of Mg (the sum of the weight of a given KPO used for DPR) without pollution.



For years, we have been working with B2B companies to sell waste as a product for recycling. We are authorized to issue recycling documents (this is the DPR document in Poland). In this way, we enable companies to reduce product fees and comply with regulations. It pays off both in terms of costs and environmental care.

We propose various action scenarios, from selling waste to repairing packaging, reusing, or working the media in the company's closed loop. Below, we will discuss the process of working together in responsible waste management.



Responsible recycling. How can you treat your useable load carriers?

➔ Pallets as waste for recycling

A company may decide to sell its pallets as waste. They do not necessarily have to be destined directly for disposal; it is always important to check this carefully beforehand.

Process:

- ↓ Based on the price list, we specify the goods' destination to the customer: waste or repairable packaging
- ↓ We deliver empty trailers to be filled with damaged pallets at the customer's location. The trailer is unloaded at Rotom warehouses and reloaded at the customer's location
- ↓ We carry out pallet sorting at Rotom warehouses or the customer's premises
- ↓ We entirely dismantle those pallets where the level of damage is so great that repair is uneconomical
- ➔ We carry out the recycling and provide documents to prove it. This allows the customer to reduce the product fee's cost





➔ Pallet repair extends the life of the carrier

The second scenario is when it may initially appear that the scrap pallets are waste, but after careful sorting, we determine that **we can repurchase the damaged pallets as products rather than waste.**

To this end, we carry out **packaging repair**. The repair consists primarily of replacing damaged components and improving the attachment of boards or blocks by hammering in additional nails. We hold an EPAL license authorizing the repair of pallets following EPAL standards. Repair is carried out on an automated pallet repair lines and manual repair stations. The repair process is sustainable, as we use previously used pallet components.

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The repair process itself is sustainable because we use previously used pallet components.

The recovery process involves dismantling and repairing used pallets:



We carry out pallet sorting at Rotom's warehouses or the customer's premises



We sort the damaged pallets according to condition and type of repairs needed



In the first stage, we check the pallet's wear and tear, its dimensions, and the quality of the fixings of all its components



If the dimensions are correct and the strength is adequate, we classify them as reusable without repair. In other cases, the degree of damage determines whether they go for repair or dismantling. We completely dismantle those pallets whose degree of damage is too great



We recover repairable parts from a dimensionally damaged pallet. Pallets are carefully checked against EPAL requirements and standards to ensure they are 100% serviceable and replaceable



Repaired pallets can be reused by other companies



The recovery process through Rotom aims to return used wooden pallets, accepted as waste, to reuse so that they can be a full-value product. It allows us to sell them for reuse. In this way, we impact the sustainable packaging cycle, as repaired pallets can still work multiple times without purchasing new carriers.

See how the repair process works at Rotom Group:

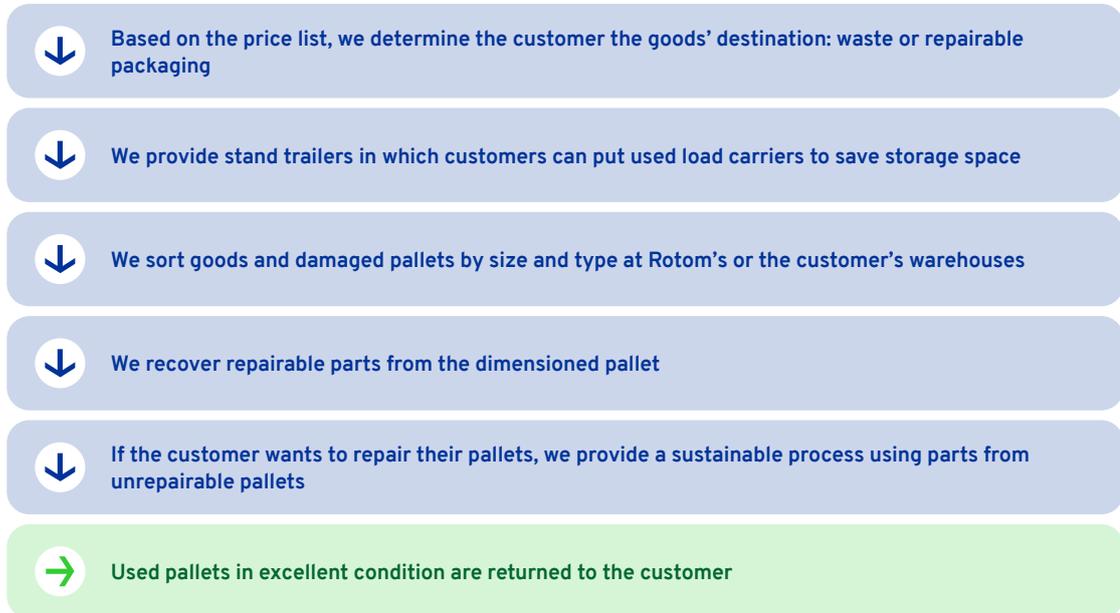




Re-using own pallets

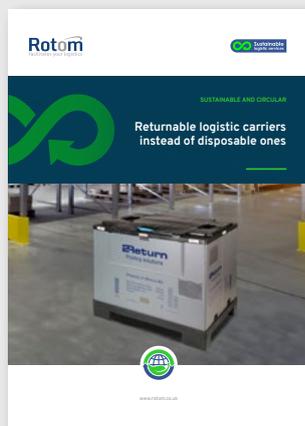
Some companies use closed-loop systems, in which their load carriers are continually reused in the supply chain. It reduces the need for new pallets and ensures that damaged pallets are repaired and fed back into the system.

Closed pallet circulation process:



Re-using your own carriers is a sustainable solution:

- The customer does not have to buy new pallets but reuses the pallets after repair.
- He does not put new packaging on the market. By buying a reused pallet, he is exempt from the product fee and does not generate CO₂.



Returnable logistic carriers instead of disposable ones

Can disposable packaging become a returnable load carrier?

The answer to this question is surprisingly simple: it can, and even should. Download our special White Papers and read how we helped our partners become more sustainable organizations.

[DOWNLOAD WHITE PAPERS](#)



Wise recycling, or how to prolong the life of pallets

While it may sometimes seem that used pallets are pure waste, a sustainable approach includes making the best use of them. Companies are now implementing take-back schemes for used pallets, which are then repaired and reused, reducing waste and saving resources.

Organizations such as Rotom support their customers to use the packaging they produce for as long as possible. This approach is fundamental to achieving sustainability.

Summary

We support our customers by ensuring responsible recycling of wooden packaging and tailoring our activities to specific needs:

- We buy back pallets as a product that can be reused after appropriate repair and maintenance
- We buy back pallets as waste, which we pass on for proper disposal
- We issue recycling documents that allow companies to reduce product fees
- We repair pallets for customers who use them in a closed loop

We do this sustainably, maximizing the use of components from damaged pallets, extending their life, and reducing CO₂ emissions.

This way, we extend the life of packaging that can still be used and ensure that wood waste is sent for reprocessing. This waste is used to manufacture products in many industries. Pallet recycling is good for the environment, brings companies tangible financial and operational benefits, and promotes more sustainable business practices.



Do not miss other editions of our White Papers:



Reusage of bespoke load carriers is the sustainable solution

[DOWNLOAD](#)



Repurchase inspect & repair and re-sell load carriers

Available soon



Rental, shared usage of logistic means

[DOWNLOAD](#)



Pooling

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Product life time extension is sustainable

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Sustainable & ergonomic product design

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