

LCA study

Executive summary



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1. Through the **PAKi open pooling exchange system**, customers can **preserve trees, prevent significant emissions and streamline load-carrier management**, so that they can focus on their core business
2. To attain **external validation of the environmental impact**, PAKi commissioned RDC to conduct a **Life Cycle Assessment (LCA) comparison** between 1to1 exchange, closed- and open pooled pallets
3. The LCA study finds that open pooling pallets generate **8-24% less CO₂eq* compared to closed pooling and 1to1 exchange** – per usage. Compared to **one-way; savings are even higher (78%)**
4. Key driver behind the sustainability impact is that **open pool logistic movements are more optimal**. In addition; **production, transport to customer and end-of-life processing are spread over many uses**
5. The study was performed in **compliance with the international guidelines** set forth in ISO 14044:2006 and has undergone evaluation by an independent panel of experts

8%

CO₂eq emission
reduction vs.
closed pooling

24%

CO₂eq emission
reduction vs.
1to1 exchange

78%

CO₂eq emission
reduction vs.
one-way pallets

Through the PAKi open pooling exchange system, customers can prevent significant emissions and streamline load-carrier management

For a typical customer with 10,000 pallets; switching from 1to1 exchange to PAKi open pooling would result in:



13,726 passenger car kilometers avoided



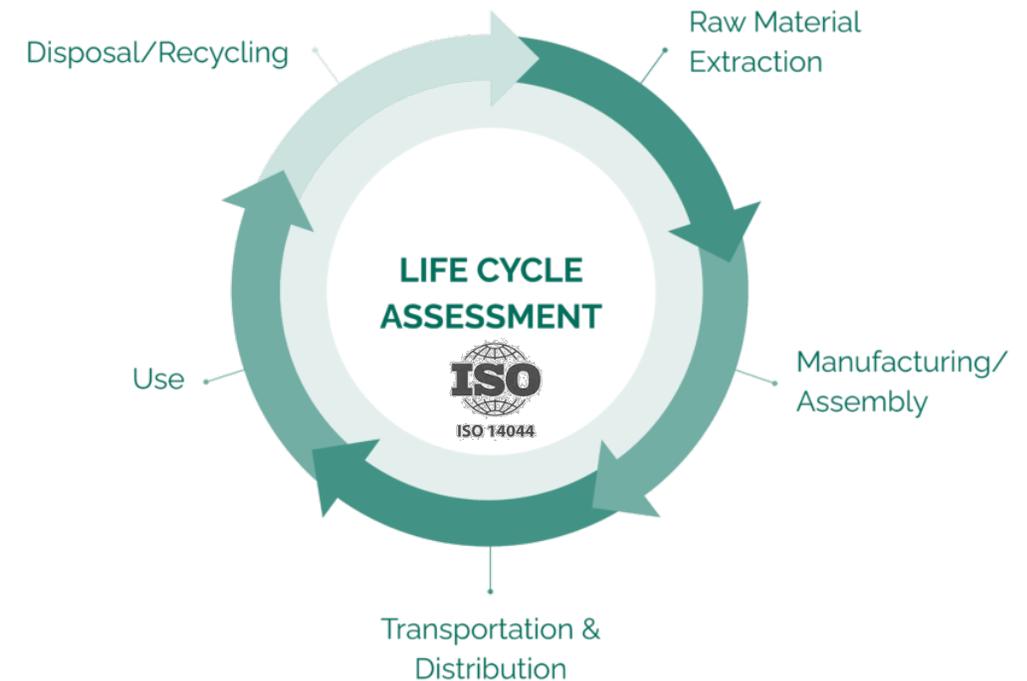
666 Kg virgin wood saved



1 tree saved

External validation

- **LCA supplier:** PAKi commissioned RDC to conduct a Life Cycle Assessment (LCA). RDC is an expert with a 20yr track-record and experience in packaging / pooling
- **Objective:** To attain external validation of the impact of open-pallet-pooling, and to do an objective comparison
- **Methodology:** The study was performed in compliance with international ISO 14044:2006 guidelines. Moreover; it has undergone evaluation by a critical independent panel
- **Scope:** Lifecycle coverage includes material extraction, manufacturing, transport, use and disposal/recycling
- **Data:** Credible data is sourced from EcoInvent and calculations are made through RDC's RangeLCA software



How does PAKi reduce impact?



PAKi pallets are made using timber from sustainable sources (e.g. FSC or PEFC certified)



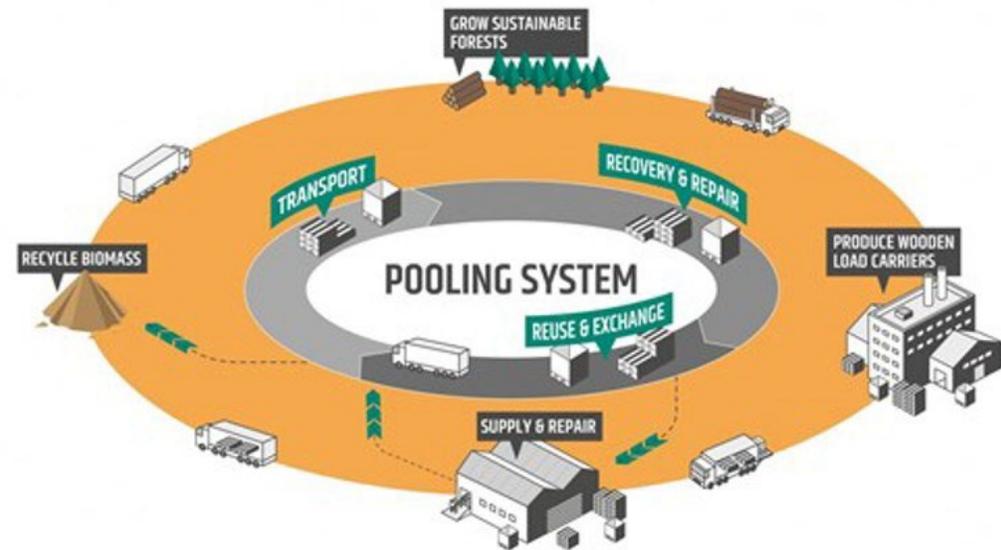
Robust high-quality pallets and the circular pooling system allow for longer lifetime and re-use



Open-pooling model minimizes and simplifies logistic movements (e.g. no empty runs or reloading of goods)



Comprehensive end-of-life processing involves recycling to preserve wood and biomass to generate energy



Solution Partner
PAKi Logistics
GmbH

Open pooling minimizes impact from logistics

10K

PAKi Spots
across Europe

500M

EURO pallets
in open pool

250

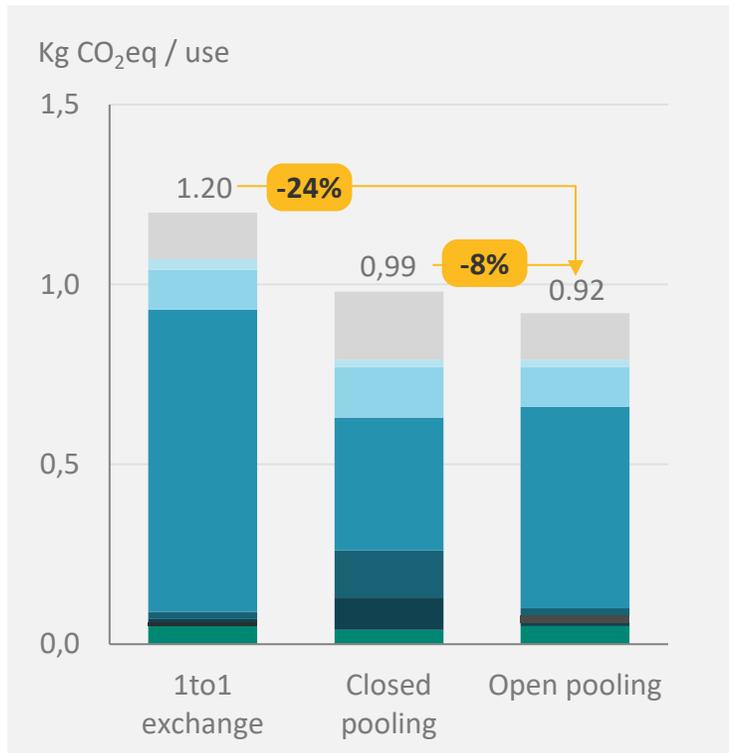
Employees of which
230 multilingual

- Empty runs and time-consuming reloading no longer required
- Shorter distances through efficient network of EU-wide exchange spots
- Optimal linking of demand and excess supply of pallets leads to less containers needed in the system

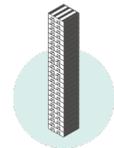


LCA results: 8-24% less CO₂eq impact from open pooling

Pallet system comparison



10,000 PAKi pallets instead of 1to1 exchange pallets



2,800 Kg CO₂eq emissions prevented



13,726 passenger car kilometers avoided

PAKi is a market leader in open pooling

Founded in
1974



250
employees



13
languages



5 countries
Germany, France, Poland, Italy, Netherlands



Member of the
Faber Group



28 countries

Our pooling system is applicable to mainstream carriers

Via the PAKi network we operate Europe's most popular load carriers:

Euro Pallet



Euro Box Pallet



Euro Container



Düsseldorfer Pallet



→ The PAKi system is applicable to any **exchangeable** and **standard** load carrier.

Sustainability is at our heart



'Carrying impact' points to load carriers, providing a link with Fabers Group's current and future activities.

'Carrying impact' points to the circular model, and a commitment/effort towards sustainability.

'Carrying impact' points to the whole range of (future) products and services, increasing the impact of the company itself and its customers.

'Carrying impact' points to our efforts in giving back to our local communities and creating decent working conditions and growth for our employees.



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We feel we have a duty to our clients and to future generations to offer high-quality, reusable and sustainable services. The reusability of load carriers like pallets and boxes has helped our clients and us to significantly reduce our use of resources. The availability of all types and quantities of load carriers across the EU helps to avoid empty runs and therefore markedly reduces CO₂ emissions. In turn, our digital and paperless services help to save valuable resources and time.

PAKi | *CARRYING
IMPACT*

MEMBER OF FABER GROUP

