

K.HARTWALL

Logistics Efficiency through Innovation



LEAN LOGISTICS

The backbone of Lean manufacturing

Keep things rolling with Lean Logistics

Lean manufacturing means making sure
that the right component quantities
get to the right place at the right time.
It's a question of logistics.





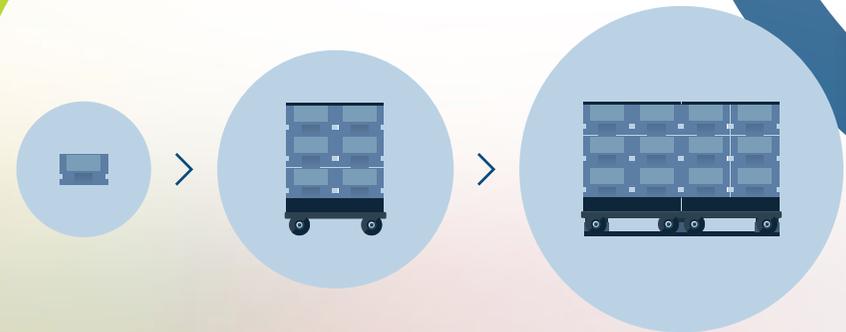
That's where we excel at K.Hartwall – we help you keep things moving, both in-house and on the road.



Start by implementing Lean Logistics in-house...

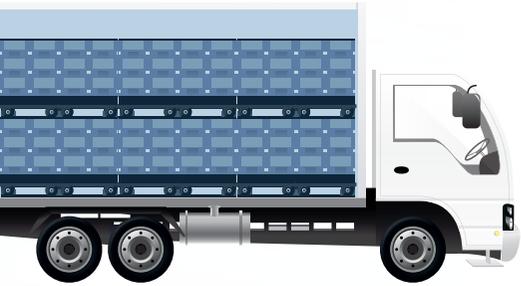
Whether you are an OEM or a sub-supplier, changing from pallets to wheels is the most important decision when deploying Lean Logistics.

Ensuring more efficient, forklift-free internal logistics can cut the costs of inventory, handling and in-house transportation. Increased efficiency also means space optimisation, shorter turnaround times and better health & safety for staff. Smooth in-house logistics will fully support Lean production principles.



Internal logistics

Move from pallets to wheels to increase efficiency in internal logistics.



External logistics

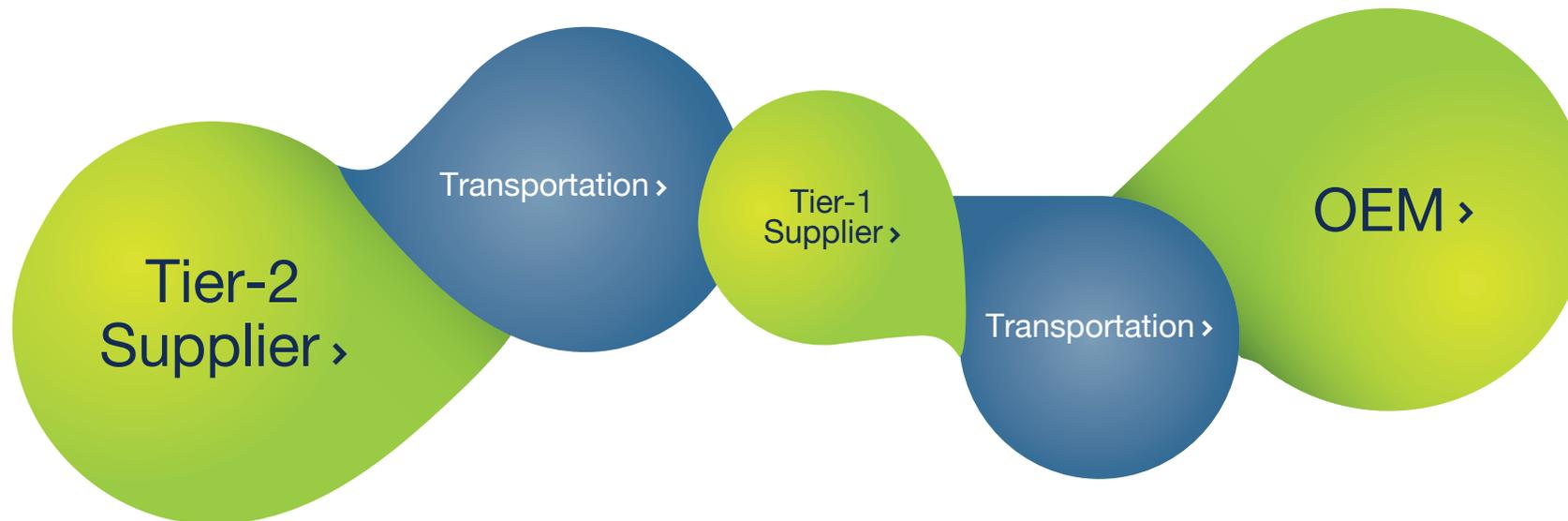
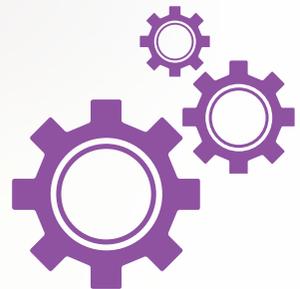
Choose a solution that allows for effortless transfer from wheels to pallets and from pallets to wheels.

...and then take Lean Logistics onto the road

Standardised integrated transport systems improve delivery efficiency and precision, creating an optimised supply chain.

Choosing the K.Hartwall Lean Solution for in-house logistics lets you expand with wheeled logistics both upstream and downstream in your supply chain.

The Lean Adaptor Pallet enables swift and efficient loading, securing and unloading of wheeled units.



Improve your supply chain efficiency with K.Hartwall Lean Modular Solutions

A modular, easily integrated wheeled system will bring significant savings throughout the supply chain.



Cost
savings
up to 40%

Productivity
increases of
up to 55%

3 to 4 times less
manual handling
operations per tote



- Optional electrostatic discharge protection for safely delivering delicate electronics.
- Optional RFID capability for automating processes as well as for reducing errors and manual labour.



Milk run



Transport



Racking



The ace of supply chain



LEAN DOLLY

The Lean Dolly is the core element of the K.Hartwall Lean Solution. Designed to carry standard plastic SLC's and trays used in the automotive industry, dollies can be towed, stacked and easily integrated into your automated system – but also handled manually. All dolly sizes are compatible with the Lean Adaptor Pallet.



The supply chain integrator



LEAN ADAPTOR PALLET

Designed for safe and efficient truck transport, the Lean Adaptor Pallet bridges the gap between internal and external logistics, ensuring an optimal fit of goods on pallets and a corresponding fit of pallets on the truck. The Lean Adaptor Pallet simplifies forklift loading of Lean Dollies into trucks, and maintains efficient wheeled logistics at destinations, whether they are Tier-2, Tier-1 or OEM Lean manufacturing plants. Lean Dollies can be easily rolled in and out from the pallet by hand.

The Lean Adaptor Pallet also safely converts wheeled Lean Dollies into easily stacked and stored pallet units. Pallets with loaded dollies can be stacked two-high for forklifting and transporting, and three-high for internal warehousing. Unloaded pallets are stackable 20-high for storage and transport.



The shifter of large items



LEAN PALLET SIZE DOLLY

The Lean Pallet Size Dolly can carry both Euro, ISO and US pallets as well as other types of primary load carriers. The Pallet Size Dolly shines in both internal and external logistics when you need to move larger items. It is compatible with all other K.Hartwall towable dollies.

The multipurpose load carrier

LEAN SHELF WAGON

The Lean Shelf Wagon is a multipurpose load carrier for both internal and external logistics. Dimensionally optimised for space utilisation and high vehicle fill, the Shelf Wagon is ergonomic to use with its height adjustable shelves. A robust unit with low maintenance requirements.

The Shelf Wagon is compatible with all other K.Hartwall towable dollies for safe and efficient transport. Thanks to the pallet size and adjustable shelves, the Shelf Wagon provides perfect fill of standard SLC's.



Better safety,
ergonomics and quality





The key to forklift-free environment



LIFTLINER TUGGER TRAIN

The LiftLiner is a unique solution for internal logistics and an excellent choice for forklift-free environments. With it you avoid the complexities of sequencing deliveries to the production line in advance. You can also load different sizes of K.Hartwall carts on it from both sides to truly enable a streamlined logistics process.

The crossbar coupling system offers an impressively tight and precise turning radius capability for very efficient transport logistics.

Its "rooftop shape", a small constant incline angle of 3°, enables a very ergonomic and safe handling of loads up to 1 ton.

ACCESSORIES

A range of value adding accessories round up our Lean offering.

- Drip pan for Lean Dolly to avoid unnecessary oil dripping
- Cover for the Lean Shelf Wagon to protect the goods from weather and contamination
- Easystrap for efficient preparation of packing units
- ESD (Electrostatic discharge protection) for delivering delicate electronics safely
- RFID capability for automating processes as well as enabling fleet management



What our customers say

“Since we started using K.Hartwall Lean Dollies in 2009, we have been able to improve production flows and reduce handling costs. Deploying the Lean Adaptor Pallet will now allow us to optimise our supply chain even further.”

– **Andreas Willaczek, Director Corporate Industrial Engineering, Schaeffler Technologies, Germany**

SCHAEFFLER





We improve our customers logistics efficiency

Innovative solutions and services for over 80 years

K.Hartwall was founded in Söderkulla, Finland in 1932. Over the years we have acquired in-depth knowledge of logistical processes and of their financial and environmental impacts.

Today we bring logistical efficiency by delivering innovative solutions, including returnable load carriers and associated services.

Modernising goods delivery and merchandising

K.Hartwall works closely with customers around the world to realise measurable benefits through improved logistical flows.

Our efficient global delivery capability has made K.Hartwall the partner of choice for several companies in the retail, dairy, beverage, logistics and Lean manufacturing sectors.



Our Lean customers



DAIMLER



DENSO

FESTO



SCHAEFFLER



MAHLE



WHY K.HARTWALL?



A global player on the load carrier market



An expert in the field of Retail, Postal & Logistics, and Automotive



An innovative partner who can develop new solutions



A company who wants to provide good quality



A supplier with a large portfolio



A reliable partner who understands the trends and listens to your issues

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MAXIMISING YOUR
LOGISTICS
EFFICIENCY



Efficiency with
the Lean Dollies and
Adaptor Pallet



Check the LiftLiner
in action



See how Schaeffler
took advantage of our
Lean Logistics Solution



K.Hartwall's
5 learnings about
logistics efficiency