

# WRITING A NEW CHAPTER IN THE HISTORY OF INTRALOGISTICS.

If you want to redefine the principles of intralogistics, many conditions must be met. Above all, a groundbreaking idea is required as well as a customer who is enthusiastic about this idea and brave enough to support it.

Unna, the regional centre of LIDL, is one such customer.

LIDL's visions to optimize its logistic flow of goods are perfectly in line with the philosophy of **Complete Logistics Systems international GmbH (CLSi)** based in Leer.

Here, customer-specific, intralogistic system solutions are developed and built under the Logispeed brand label.



The most stringent quality criteria are hereby complied with for our customers – typically "Made in Germany". CLSi is a subsidiary of the renowned Logaer Maschinenbau GmbH which was founded in 1974. Our customers can thus rely on the extensive knowledge and skills of qualified staff and on state-of-the-art production machines.

#### The initial situation at LIDL:

In the Unna logistics centre, a very wide range of goods is stored and prepared for transport to the region's subsidiaries. Until now, all charges were assembled on pallets and loaded into the trailers using conventional shop floor vehicles and the corresponding tractor vehicles were detached and changed in a time-consuming process.



#### LIDL's objective:

To accelerate loading processes, increase the flow of goods, optimally utilize the vehicle fleet and improve staff efficiency.

#### Our solution for LIDL:

Project planning, development and production of a system which ensures the economical delivery of the goods to the trucks.

An existing warehouse with ramps provided the physical framework of the Logispeed system solution for the customer. A system comprising four loading stations was developed, allowing the CLSi project team to demonstrate that even comparatively "small solutions" offer large scope for great engineering.

The system advantages are significant:

- quick, careful and safe loading
- simplified scheduling of commodity flows using less space
- more efficient use of the truck fleet
- reduction in costs due to shorter down times
- low running costs due to smaller shop floor vehicle fleet
- streamlining labour costs and ancillary labour costs due to efficient use of personnel

Do you have any questions?

We look forward to seeing you for an advisory meeting on your own premises or within the context of a product presentation with no obligation at our Engineering Centre in Leer.

#### Further information can be found at:

Complete Logistics Systems international GmbH  
Mühlenweg 2d  
D-26789 Leer  
Tel. +49 (0)491 97928-140  
Fax +49 (0)491 97928-144  
info@clsi-leer.de  
www.clsi-leer.de



LOGISPEED: INDIVIDUAL SOLUTIONS FOR INTRALOGISTICS.

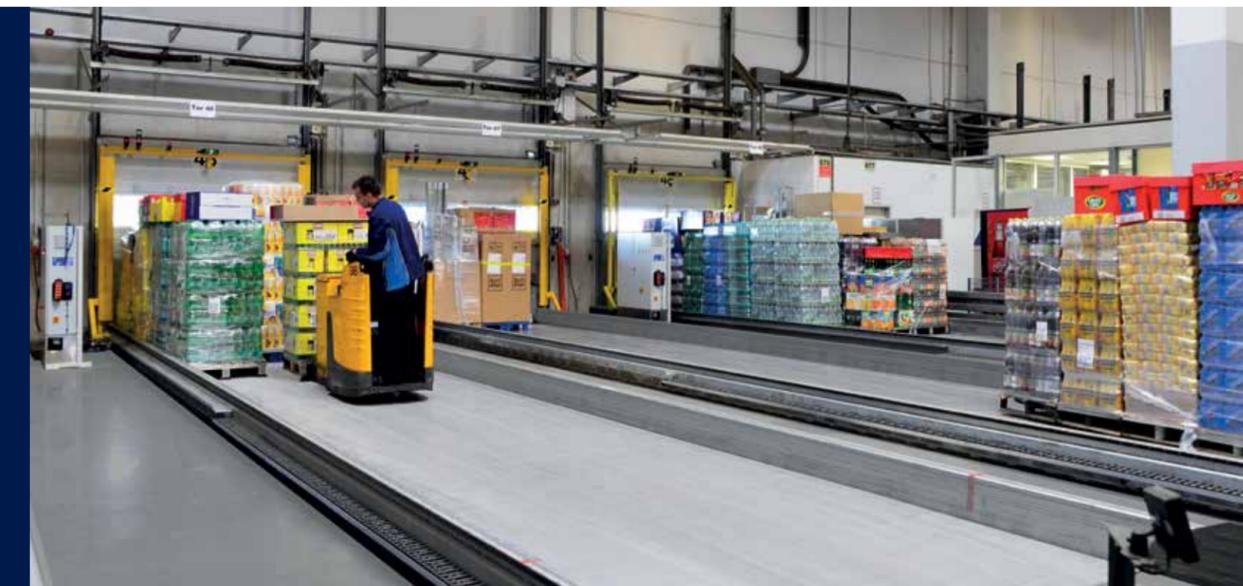


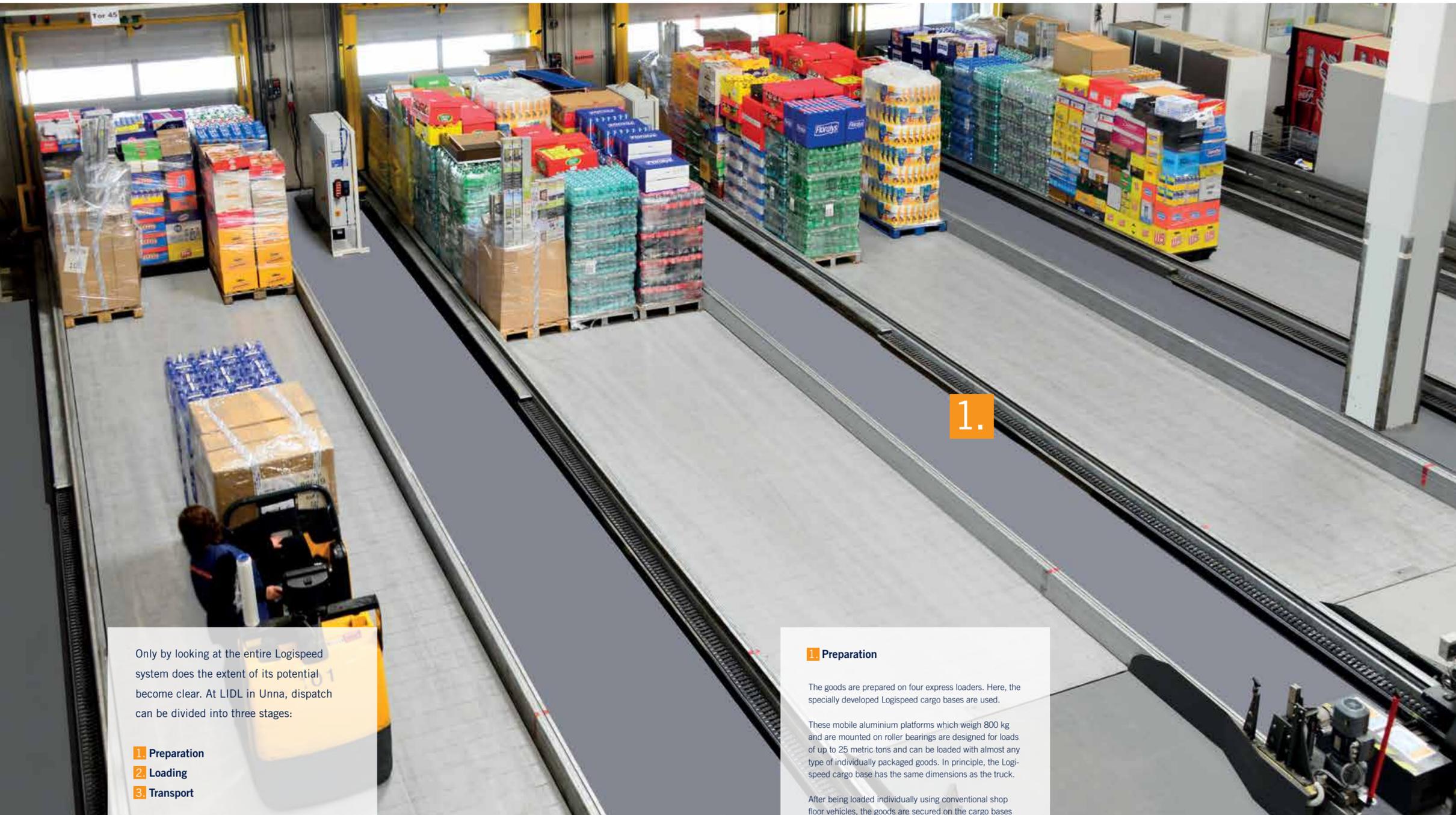
## A MASTERPIECE OF GERMAN ENGINEERING.



01.2013

INA+++CLSi\_Project report+++LIDL\_UNNA+++CLSi\_Project report+++LIDL\_UNNA+++CLSi\_Proj





Only by looking at the entire Logispeed system does the extent of its potential become clear. At LIDL in Unna, dispatch can be divided into three stages:

- 1. Preparation
- 2. Loading
- 3. Transport

The integration of the Logispeed system components has seen the internal flow of goods be adjusted so that it is now more efficient and economical than ever. Instead of taking 50 minutes to load each truck as was the case previously, it now takes well under 15 minutes.

**1. Preparation**

The goods are prepared on four express loaders. Here, the specially developed Logispeed cargo bases are used. These mobile aluminium platforms which weigh 800 kg and are mounted on roller bearings are designed for loads of up to 25 metric tons and can be loaded with almost any type of individually packaged goods. In principle, the Logispeed cargo base has the same dimensions as the truck. After being loaded individually using conventional shop floor vehicles, the goods are secured on the cargo bases and made ready for transport.

It doesn't matter whether the cargo bases are fully or partially loaded – once order picking has been completed, they are moved into the trailer from the rear.



**2. Loading**

The vehicles are loaded and unloaded according to the so-called sandwich principle. This is the simple and quick exchange of unloaded Logispeed cargo bases for loaded ones and vice versa. The semi-automatic, high-performance drive unit of the express loader thus ensures high process reliability. First, the loaded Logispeed base is slid into the trailer above the unloaded base. Then, both components are withdrawn from the vehicle together. The express loader is now on the ramp where the lower (empty) cargo base is safely deposited in the end position while the upper (loaded) cargo base is slid back into the vehicle. The "empties for full" exchange is thus completed.

The cargo base is locked inside the trailer using a TÜV-tested, pneumatic device which has been specially developed for this purpose. Any differences in level between the trailer and the ramp due to varying load weights and temporary strain when the cargo base moves in and out are compensated by a scissors lift in front of the ramp which lifts or lowers the vehicle as required.

**3. Transport**

Once the truck has "docked" at a right angle to the loading bay, any remaining differences regarding the correct angle are automatically recognized by an electronic system which has been specially developed for this purpose and the deviations are corrected by adjusting the whole system using an electric motor drive unit. It's good to know that the vehicle modifications required to accommodate the Logispeed cargo base are so minor that full conventional use of the vehicle remains guaranteed. The necessary conversion work can be carried out within a short time.

