The long way to RFID

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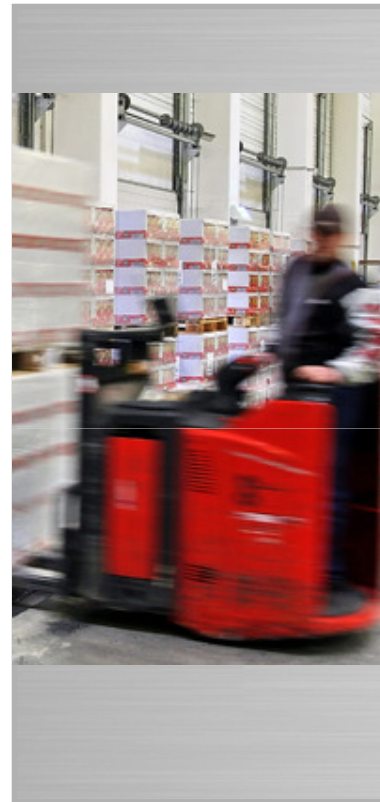
agenda

- **pilot project BLG Logistics**

- **scope**

- **use case CKD**

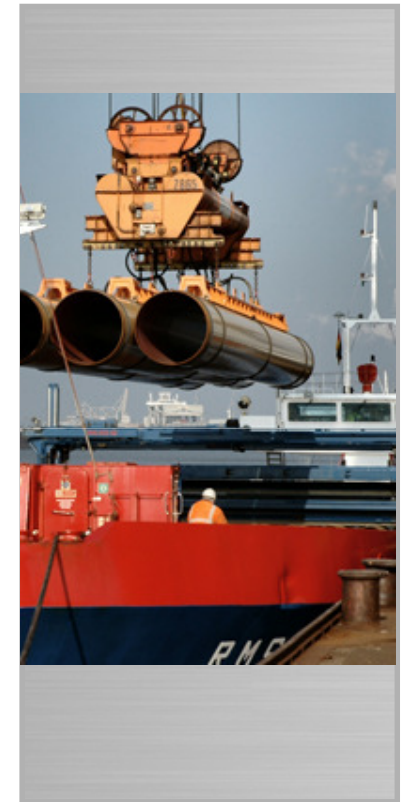- **result**

- **use case Tchibo**

Automotive Logistics

**Industrial &
Production Logistics**

**Retail &
Distributions Logistics**

Port Logistics

Pilot project at BLG Logistics

RFID-aided process-control within the automotive-supply-chain

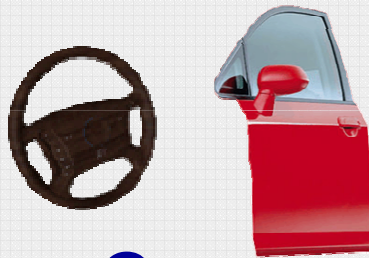*using the example of the CKD-business for Daimler AG.*

In collaboration with BLG Logistics

and the **ITA**

(**I**nformation **T**echnology for the

Automotive industry.

CKD Project – Daimler AG

CKD (completely knocked down)

6 x

- *wordwide supply of automotive-parts to the OEM-plants*

- *Assembly and bodyshop parts*

- *Repackaging of the parts into sets according to the packinginstructions*

- *repackacking in relation to the linestation or gate in the plant*

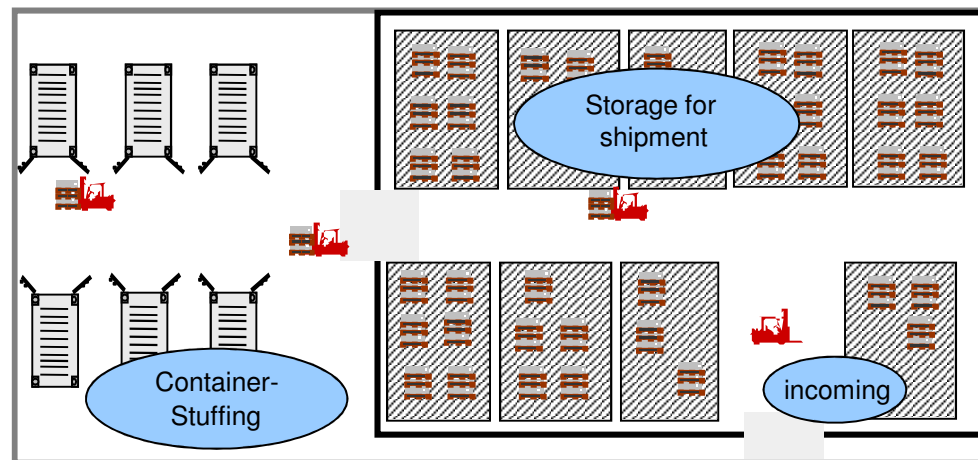- *Containerization*

- *Approx. 350.000 one-way-pallets*

scope

RFID-based solution for warehouse-handling and automated control

- simple identifcation of the pallets

- cleary identification of the stuffed pallets in a sea-container
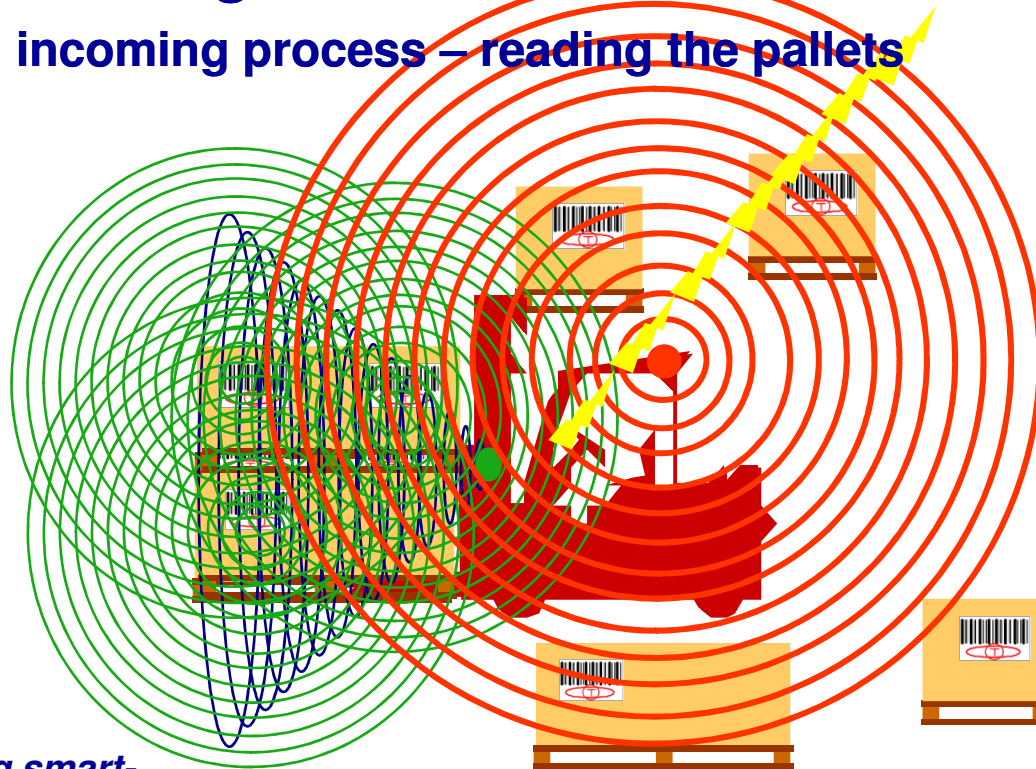
- provide proof of the technical feasibility

BLG LOGISTICS

Case: bulk registration of the pallets by th forklift

locating of the forklifts

Step 1 – incoming process – reading the pallets

Unloading the trucks and fixing smart-label at the pallets the forklift reads the pallets
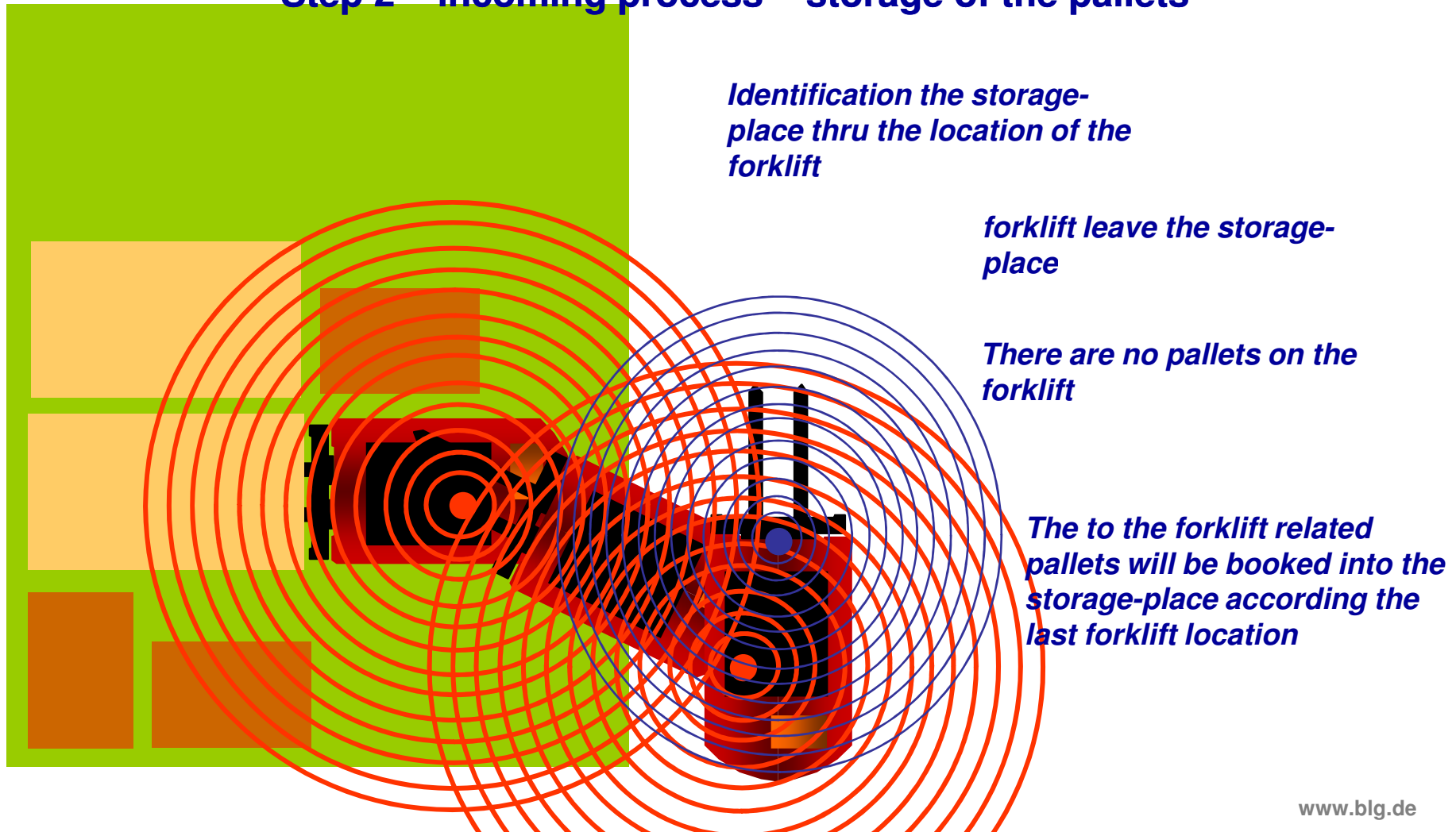
…. And relate these pallets to a specific forklift

Case: forklift is in / out of the store location

Locating of the forklifts
Step 2 – incoming process – storage of the pallets

Identification the storage-place thru the location of the forklift

forklift leave the storage-place

There are no pallets on the forklift

The to the forklift related pallets will be booked into the storage-place according the last forklift location

Case: forklift is inside / outside of the sea-container

locating of the forklifts
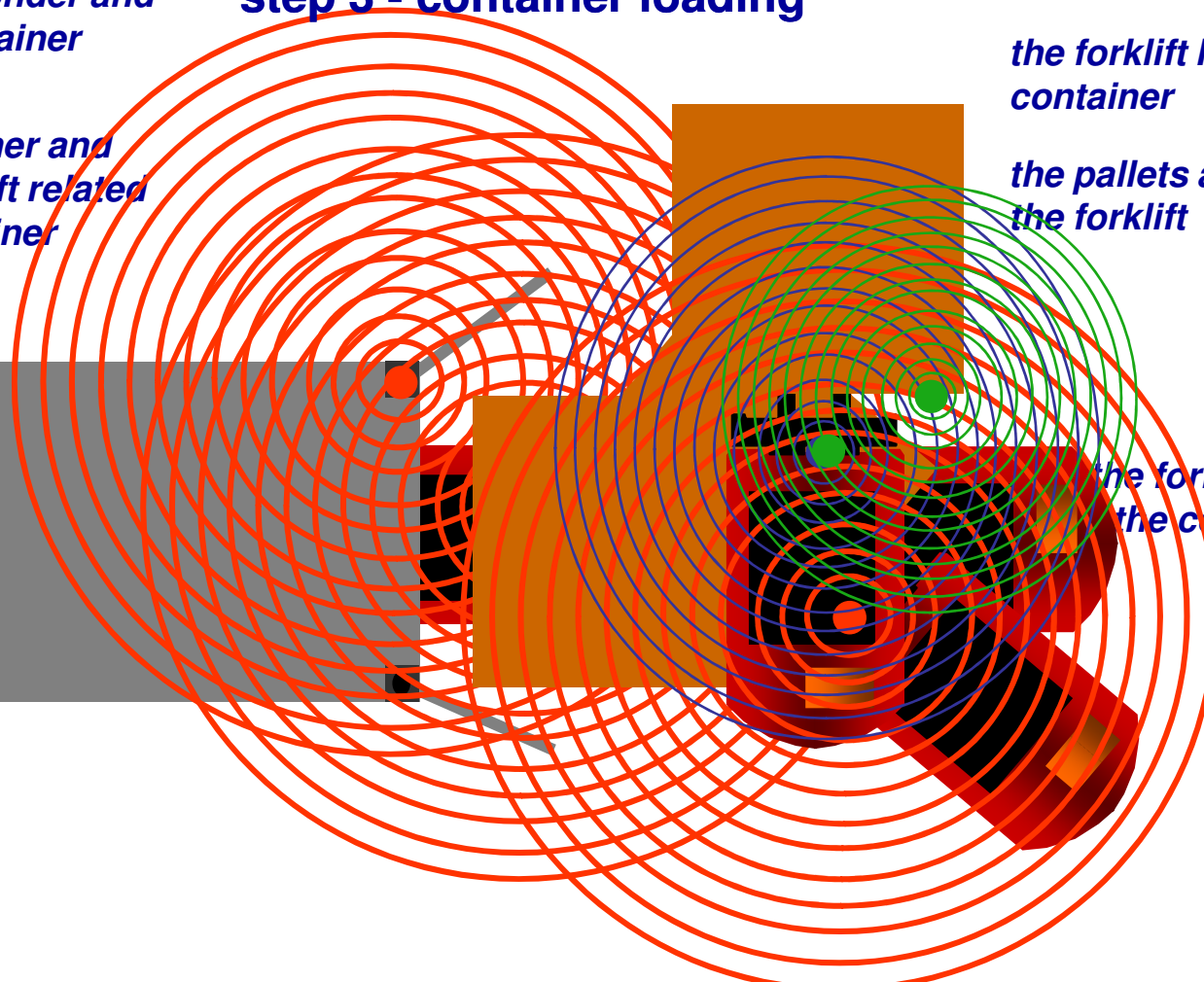
Reading the transponder and identificate the container

step 3 - container loading

the forklift leaves the container

Loading the container and link the to the forklift related pallets to the container

the pallets are read by the forklift

the forklift will not the container

RESULT

technical feasibility to read the smart-label at the pallets and locating the forklift
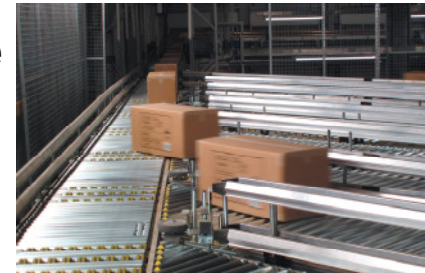
Tchibo - Logistics Center
Central Warehouse

„Every week a new world": Central warehouse and distribution centre for Non-Food and coffee. Dispatch of coffee and Café service-supply worldwide

Facts & Figures:

- Total area: 150.000 m²

- Roofed warehousing area 70.000 m²

- Pallet storage units in 3 HBW silos: 200.000

- Multifunctional storage area: 30.000m²

- Dimensions of HBW silos (each)

  - Height 42 m

  - Length 146 m

  - Width 70 m

RFID – technology in the high bay warehouse Tchibo

- use-case1: forklift transports in the dispatch area

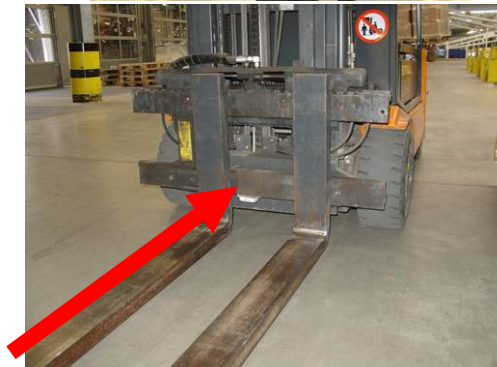- use-case2: docking of swap-bodies at a gate

tag

port

Access Point

Case1: forklift transports in the dispatch area

data-terminal

**port at conveyance**

forklift with a tag

ports at the gates

- *each move of the forklift from the conveyance to the gates will be controlled*

- *the forkliftdriver has a transport-order from conveyance to a gate*

- *both ports are sending a clear magnetic signal*

- *the transponder at the forklift reads and sends e.g the gate-no to the WMS-system.*

- *the WMS checks the correct gate-no for this transport-order*

Case2: docking of swap-bodies at a gate in the dispatch area
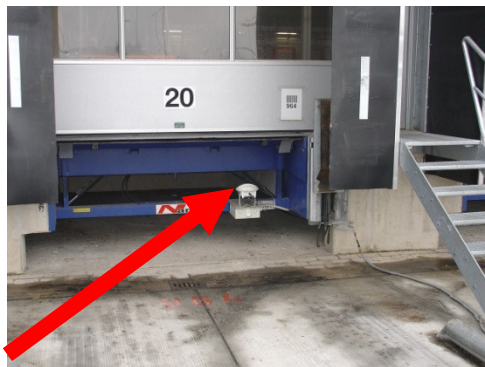
data-terminal

ports at the gates

Swap-body with mobile tag

mobile tag

- *each incoming swap-body will be furnished with a mobile active transponder*

- *when docking the swap-body at the gate the transponder sends e.g the gate-no to the WMS-system*

- *the WMS checks the correct gate-no for this transport-order*

Thank you very much for your attention.