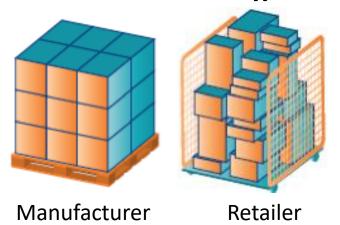
Tarneahela efektiivistamine taara näitel

Janek Balõnski, Wassermann Service OÜ

Usaldus ei ole kaasavara, mida on kogutud sukasäärde, kuni see on saanud täis. Usaldust tuleb igal jumalahommikul uuendada, päevast päeva taastada, kasvatada nagu kapitali ja hoida nagu algkapitali.

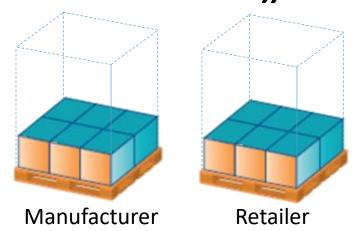
Lennart Meri

Problem 1 = "Air"





Problem 2 = "Air"





Problem 3 = "Waste"







Retailer





Problem 4 = "Return Air"



DELIVERY

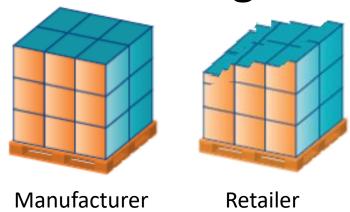
Manufacturer OR Retailer



RETURN OF EMPTIES Manufacturer OR Retailer



Problem 5 = "Product damage"





Problem 1 = "Air"





Manufacturer

Retailer







Problem 3 = "Waste"





Manufacturer

Retailer

Problem 4 = "Return Air"



DELIVERY

RETURN OF

EMPTIES Manufacturer OR Manufacturer OR Retailer

Problem 5 = ",Product damage"



Retailer

Retailer

Solution / Lahendus

CRATES

- Plastic based
- Nestable
- Cross Stackable
- Based on EUR Pallet
- Standardized
- Pan-Baltic

- **KASTID**
- Plastikust
- Mahukahanevad
- / Ühilduvad liigiti
- / Lähtuvad EUR mõõdust
- / Standardina kehtestatud
- / Üle-Baltikumi

What happened in Baltics 2006-2016

- 1M standardized plastic crates came to market (by 2 rental companies)
- Rental, Pooling, Short-Term, Long-Term, Washing Services, IT Services, ...
- 2 Washing Centers working (Tallinn, Riga)
- Pilots with RFID readers
- Paper-free collection of empties in Estonia (mobile app based signing)
- Carton replaced in 10 companies (Pallets higher)
- 10 types of old plastic crates replaced on market (Less air in logistics)

Dimensions (LxWxH)

- •400 x 300 x 118 mm
- •400 x 300 x 170 mm
- •400 x 300 x 290 mm
- •400 x 150 x 118 mm
- •400 x 150 x 170 mm
- •600 x 400 x 180 mm (in development)
- •600 x 400 x 240 mm (in development)



Central Washing Centers

- Wassermann Services OÜ offers services from 2015
- Tallinn washing center opened Q2 2015, Riga opened Q1 2016, Vilnius to be opened soon
- Washing optimized for Bepco crates. 250 000 crates washed in September 2016.
- 3 clients have carried out hygiene/sanitary inspection in our premises
- Industry practise used (pre-wash, main wash, clean water, deso, drying). 15m long washing/drying line. Washing at 50 degrees.



Clients piloting now...



1200x800

Weight 14 kg

Dynamic load 1000 kg



800x600

Weight 8,4 kg

Dynamic load 500 kg



600x400

Weight 1,5 kg

Dynamic load 250 kg

FEATURES

RFID tags give the pallet unique identification number

Antislip cover for load stabilty

Solid top deck for easy cleaning

Reinforcements in each feet makes the pallet strong and durable

Volume reducible design for 600x400

Results in meat after 1st year





Space in stock -65%

- 1. Returning efficeincy 2 times.
- 2. 100% more products on pallet place.
- 3. Loss 0%. Bepco web based tracking solution.
- 4. No tied capital.
- 5. Flexibility.
- 6. 20% win from transportation.



Results in Dairy after 1st year





- 1. Win 60% compared carton.
- 2. Returning empties ca. 200%.
- 3. 20% more products on pallet.
- 4. More space in production.
- 5. No tied capital.
- 6. Flexibility. Seasonality, peaks, Private Label.
- 7. 20% less crates daily in production stock.
- 8. Better cooling.
- 9. Less product shrinkage.
- 10. Winnings from transportation ca. 18%.

Logistics efficiency up ca. 25%





Results after 1st year









| CARTON | PLASTIC |
|---|---|
| Ave Cost of box approx. 22 cents (public market data) | Full Service (per cycle) 20 cents (Bepco price-list) |
| Additional costs: storing, taxes, folding | No additional costs |
| Average pallet height in transport: 1m | Average pallet height in transport: 1,6m |
| Delivery: Send and forget (client recycles waste) | Delivery: Send and forget (all includes in price. service provider returns, washes and replaces broken) |
| | In Estover: Small win from material price, 3-4 people cut in production, small win in transport costs |
| | In Estover: Decrease of product damage |







Client Example



Lithuanian client started to use cheaper transport package. Carton was replaced with 2 times cheaper plastic rental service. Product is now better protected. Supply chain partners win from better logistics possibilities (During transport, there is additional plastic cover, on top).





EXISTING SOLUTION

Client Example



Analyse of one specific product showed big difference in pallet volume (picture is illustrative). Implemented right now.





- 8 boxes per layer
- 6 layers
- Total 48 boxes
- 12 cups per box
- Total <u>576</u> cups on pallet



- 8 crates per layer
- 12 layers
- Total 96 crates
- 12 cups per crate
- Total **1152** cups on pallet
- 100% increase

Truck loading efficiency 50%

Truck loading efficiency 80%

























Efficiency 100-200%



