

Optimizing Reusable Transport Packaging in Retail in Europe

The Shift towards Reusable Packaging: Policies and Best Practice

7th European REUSE Conference

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Agenda

1. Introduction of „Stiftung Initiative Mehrweg“ (SIM) (Foundation for Reusable Systems)
2. Use of one-way and reusable packaging in Europe
3. Advantages of reusable packaging
4. Breakage rate of one-way packaging
5. Sustainability of reusable packaging
6. Requests to the European Commission



Introduction of Stiftung Initiative Mehrweg (SIM)

- The goal of the German Stiftung Initiative Mehrweg (Foundation for Reusable Systems) is the national and international promotion and harmonization of reusable systems
- For this purpose the Foundation focusses on environmental protection, logistical requirements and the needs of the economy
- The Foundation takes action on supporting research projects and also on political consulting
- The Foundation pleads for the conservation of nature and resources as well as waste prevention

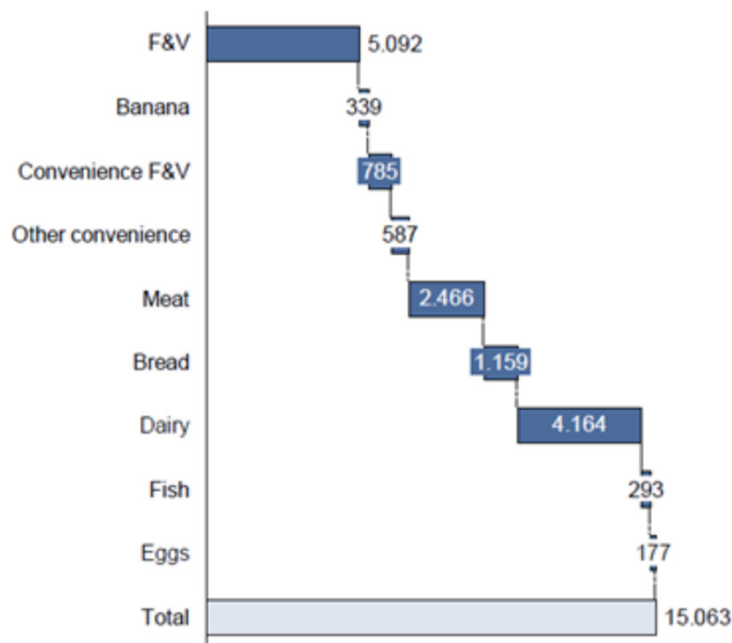


Use of one-way and reusable packaging in Europe

- Our best estimation results in the following data on the fruit and vegetable (F&V) supply chain in B2B business
- In total there are about 5 – 6 billion movements of transport packaging p.a.
- The split between oneway and reusable packaging is about 55/45
- This split differs from country to country
- The total use of transport packaging in the fresh sector is approx. 13 – 15 billion movements p.a.
 - Meat, bread, dairy fish, eggs, convenience
- In horticulture business there are 2.4 billion movements p.a. with a share of 56 % in reusable packaging



Use of one-way and reusable packaging in Europe



Movements transport packaging in mio. p.a; estimation of SIM

- In Benelux the use of reusable packaging has always been very high, especially in F&V and fresh products
- In France the split between one-way and reusable packaging is approx. 70/30. Many retailers are using reusable packaging but the standardization is not very high
- In Germany and Spain the use of reusable packaging has significantly increased during the last 10 years
- In the UK there is a high use of reusable packaging in local flows, import flows are mainly done in one-way packaging
- In the Eastern European countries the use of reusable packaging has significantly increased during the last 10 years but is still lower compared to the Western European countries

Use of one-way and reusable packaging in Europe

- Many Western European retailers have meanwhile introduced reusable packaging in their divisions in Eastern Europe
- 10 years ago most of the discount retailers were using one-way packaging. But with regard to sustainability and the prevention of waste several discounters have switched to reusable packaging in the last years
- Reusable packaging supports small and medium companies and also „green jobs“
- The pool providers and their partners in Europe are operating several hundreds of service centers and thereby provide green jobs for several thousands of employees



Advantages of reusable packaging

„Good“ reusable plastic

Transport packaging such as containers, pallets, trays, flower buckets, etc.

- can be used for more than 100 rotations and at the end of lifetime can be used to produce new reusable packaging



Advantages of reusable packaging

„Bad“ one-way plastic

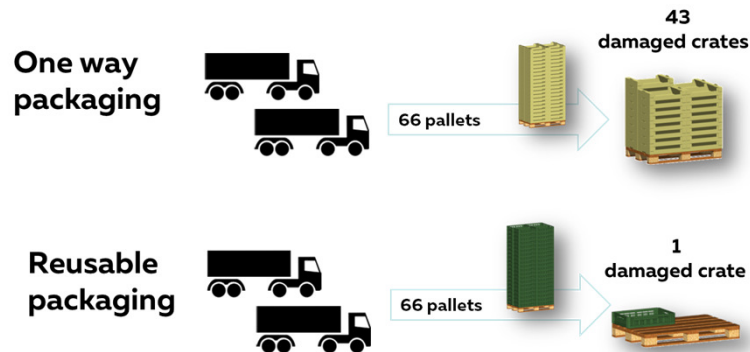
Sales packaging such as plastic bottles, pre-packed meat, F&V packaging, convenience product packaging

- mostly cannot be reused



Breakage rate of one-way packaging

- 34 out of 35 packaging damages can be prevented by using reusable trays instead of cardboard boxes*
- In Germany around 45 mio. packagings are destroyed along the supply chain. This results in up to 107 mio. kg of fruit and vegetable damages*
- Reusable packaging causes less product damage especially in comparison to cardboard boxes



**According to a study by Fraunhofer IML (Determination of spoilage levels of fresh fruit and vegetables according to the type of packaging; November, 23, 2012)*



Sustainability of reusable packaging

- With a lifetime of 15 to more than 20 years reusable plastic trays are very sustainable and the most economical and ecological solution
- In comparison to one-way packaging its production and use cause
 - 29 % less greenhouse gas
 - 39 % less energy consumption
 - 95 % less waste
- Savings of CO₂ by using reusable plastic trays instead of cardboard boxes:
1.000 rotations: savings of 383,4 kg CO₂
- One reusable tray replaces 100 one-way boxes



Sustainability of reusable packaging

Based on our benchmark data we can assume the following positive aspects by using reusable packaging:

✓ 6.000.000.000 movements in Europe x 383,4 kg CO₂ =

2.300.400 t CO₂ savings

✓ This corresponds to approx. 70 % of the annual CO₂ emission balance of the city of Stuttgart (3,2 mio t CO₂ p.a.)*

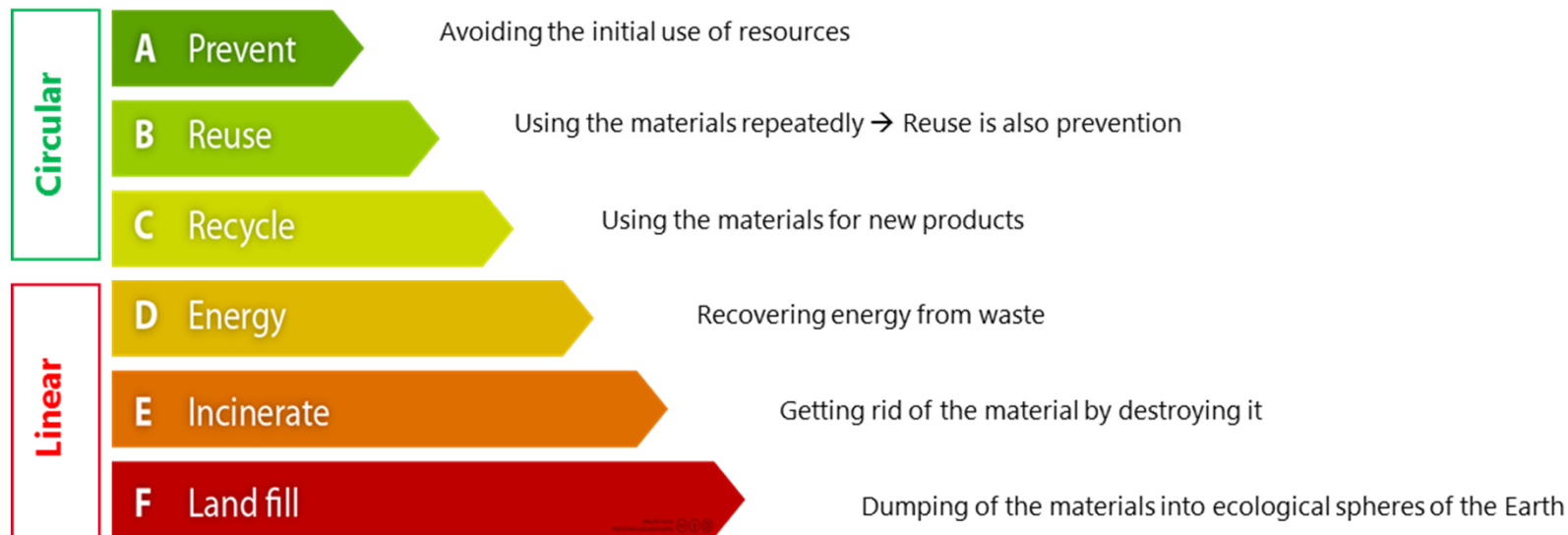
✓ 6.000.000.000 movements in Europe x 0,66 kg cardboard =

3.960.000 t cardboard waste savings



Sustainability of reusable packaging

- Damaged reusable packaging can be scrapped and used to produce new trays/packaging
- Reuse is also prevention of using new resources



Economical advantages of reusable packaging*



- Orderpicking time reduction by up to 35 % in distribution centers
 - Lower orderpicking costs
- Loading volumes after orderpicking increase by up to 20 %
 - Reduction of transportations and of freight costs
- Reduction of packaging costs (due to the reduction of repacking time)
- Reduction of breakage rate (product loss due to damage in one-way packaging)
- Less garbage in the stores
- More efficient processes due to the modularity of the reusable packaging especially in the supply chain between distribution centers and shops



Requests to the European Commission

Possible ways of promoting reusable packaging

- We are convinced that reusable packaging is not only more ecological than one-way packaging, it is also more economic
- You as the professional politicians can set the frame to support reusable packaging
- To make it clear: We are not demanding a reuse quota
- Our requests to the European Commission:
 1. Clearly differentiate between reuse and recycling. Reuse also means avoiding waste
 2. Reduce governmental barriers for reusable packaging, e.g. eliminate fiscal barriers
 3. Establish incentives to promote reusable packaging





Thank you for your kind attention!

Dr. Kurt Jäger, Executive Vice-President Stiftung Initiative Mehrweg