



takes care of the Environment.

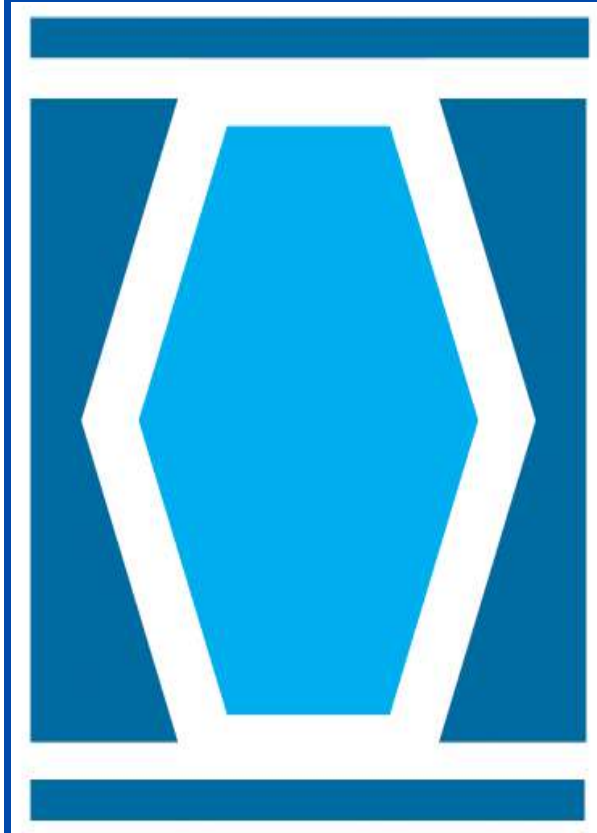
Returnable Protective Packaging (RPP) for the White Goods / Large Household Appliances

How to :

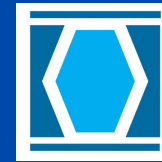
- Reduce damages to zero
- Reduce packaging waste to zero
- Reduce CO₂ emissions by 76%
- Reduce overall costs along the supply chain
- Be compliance with the Circular Economy

by

Renting a Returnable Protective Packaging



Who's Free Pack Net

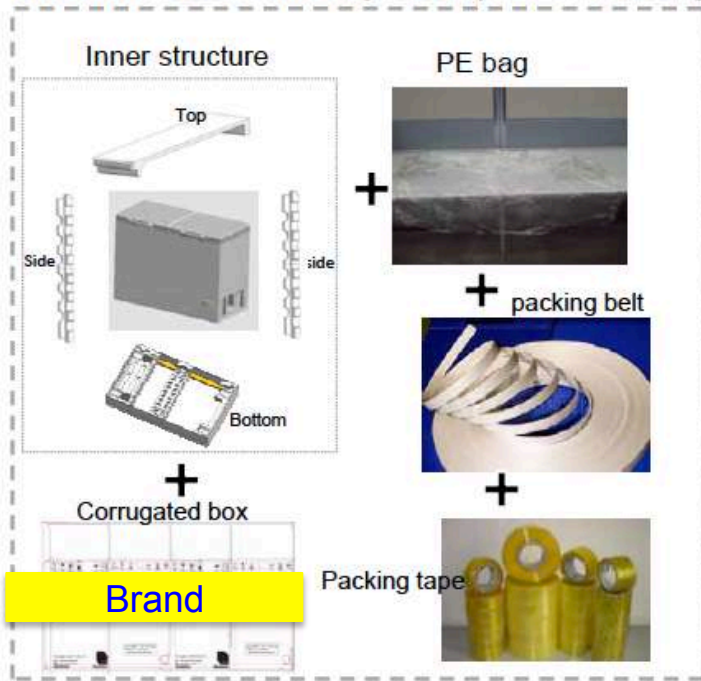


- **Company Purpose** : “We provide our Customers with solutions in Sustainable Development, Quality improvements in the Supply Chain and overall Costs Reduction by Integrating **Returnable Protective Packaging with Reverse Logistic Management**”.
- **It developed its own:**
 - **RPP - Returnable Protective Packaging (global patent & mono material - Polypropylene PP)**
 - **Standard for White Goods product families (start sector)**
 - **Reverse Logistics Network**
 - **Reverse Logistic Tracking Management System**
- Offering a full service, it replaces proprietary disposable one way packages with **returnable** ones, which are basically **rented per cycle to Manufacturers or Retailers** to protect the appliances (and the environment) from the factories to the final customers. With the support of its Reverse Logistics organization and the integration with Retailers and 3PL, it collects the RPP and deliver it back to the factories. After 20 cycles the RPP are grinded and the recycled material is re-injected to produce new one.

About Disposable packaging

2, Current packaging solution

Materials: EPS/ Honeycomb panel+ PE bag+ Corrugated box



Disposable Packaging Weight: from 2,4 kg to 5,6 Kg and more.

Disposable packaging materials:

Styrofoam, cardboard, polyethylene film, wood, PET strips

1 - Disposable packaging is not resisting to vertical and clamping forces



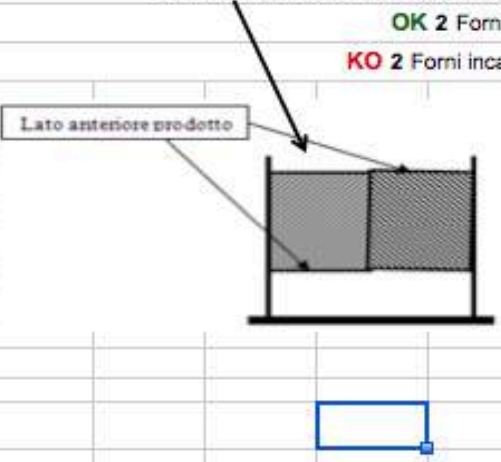
Prove Imballo Forno incasso **Brand** peso 46Kg

Modifica: Forno Incasso con Nuovo Imballo in plastica Riutilizzabile a noleggio ditta Freepacknet

La prova strizione 900Kg con **2 prodotti** uguali affiancati su lato pinzabile disposti in prodotti sfalsati di 5 cm e disposti fronte retro


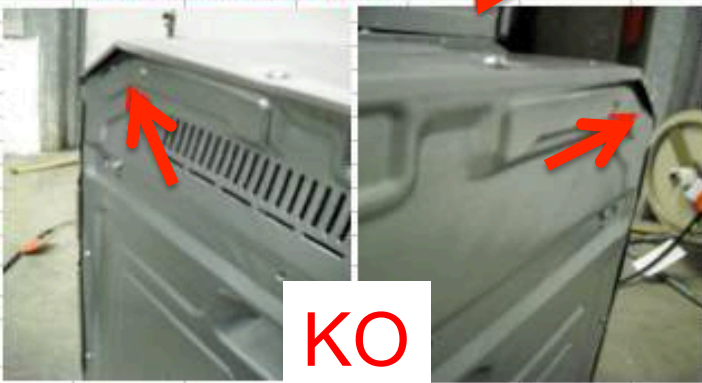
OK 2 Forni incasso uguali affiancati con Imballo in plastica Riutilizzabile

KO 2 Forni incasso uguali affiancati con Imballo attuale produzione in polistirolo



KO Forno incasso Imballo attuale produzione
Si ammacca fiancate Dx e Sx

OK Forni incasso Imballo in plastica Riutilizzabile a noleggio ditta Freepacknet
NON si ammacca fiancate Dx e Sx



KO

OK with RPP

2 - Disposable packaging is not resisting to vertical and clamping forces

Prove Imballo Forno incasso peso 46Kg

Modifica: Forno Incasso con Nuovo Imballo in plastica Riutilizzabile a noleggio ditta Freepacknet

KO Imballo Attuale produzione Si rompe listello imballo in legno posteriore (solamente Pinze 900Kg presa "pizzicato")

OK Forni incasso con Imballo in plastica Riutilizzabile Strizione 900Kg presa "tutta" e 900Kg presa "pizzicato"(OK anche a 1200Kg presa "tutta")

Technical Report from a Manufacturer - clamping 900 Kg and 1200 Kg - OK

Products handling today

Clamping forces on the product
from 600 Kg to 1200 Kg



Over the past 30 years there has been not technological innovation in packaging and **Disposable Packaging** is a big problem for Manufacturers, Retailers, final customers and social parties.

From a Global problem to a Global solution

全球性的问题，全球性的解决方案

Damages - China



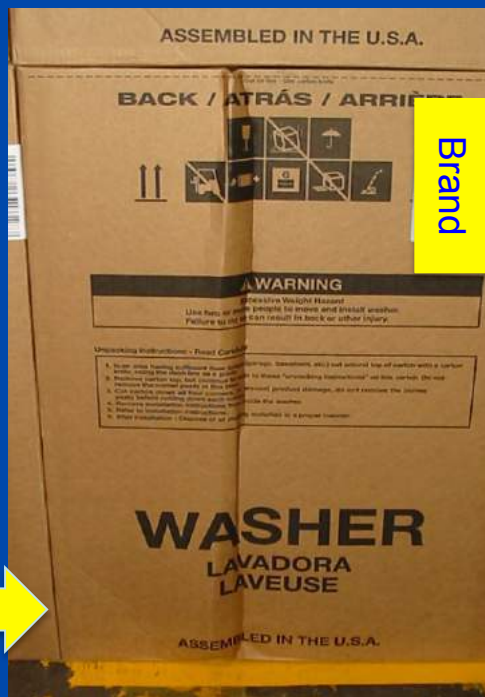
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Damages - USA



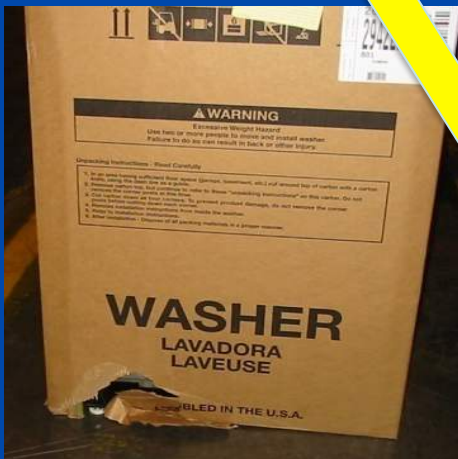
CLAMPING



Brand



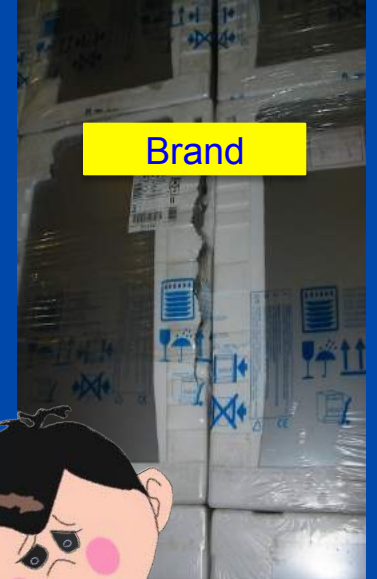
Brand



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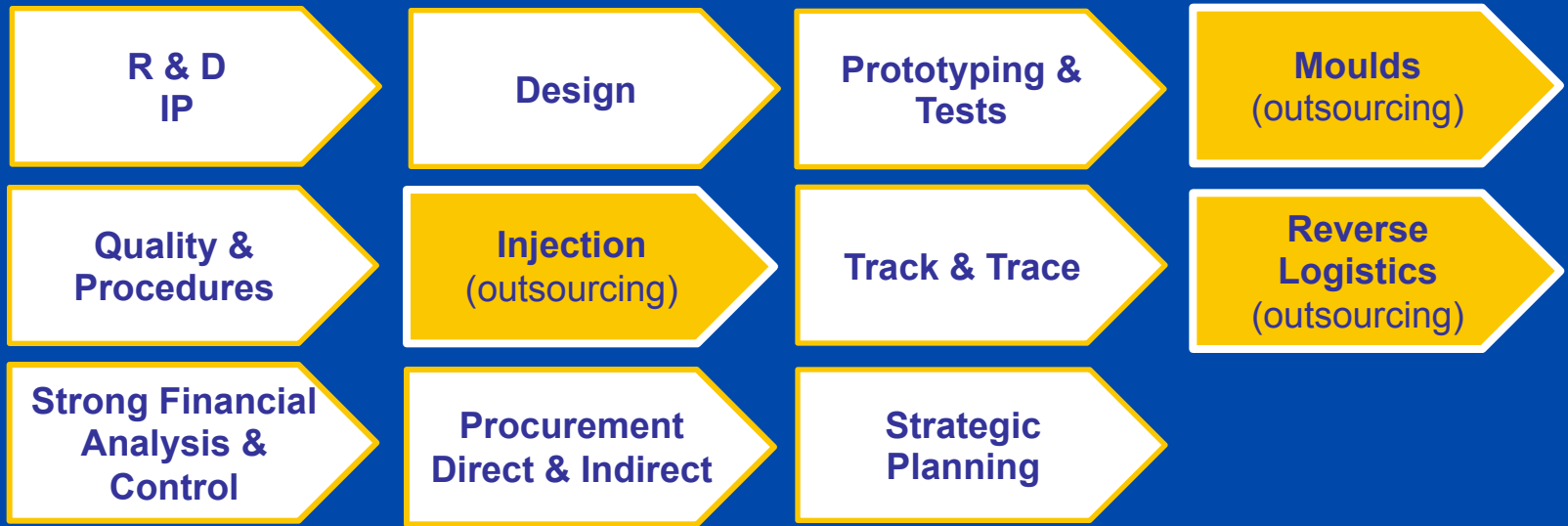
Damages – Latin America



Damages - Europe



Free Pack Net take care of that



because
Returnable Protective Packaging
is our core business



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Stacking forces on the RPP

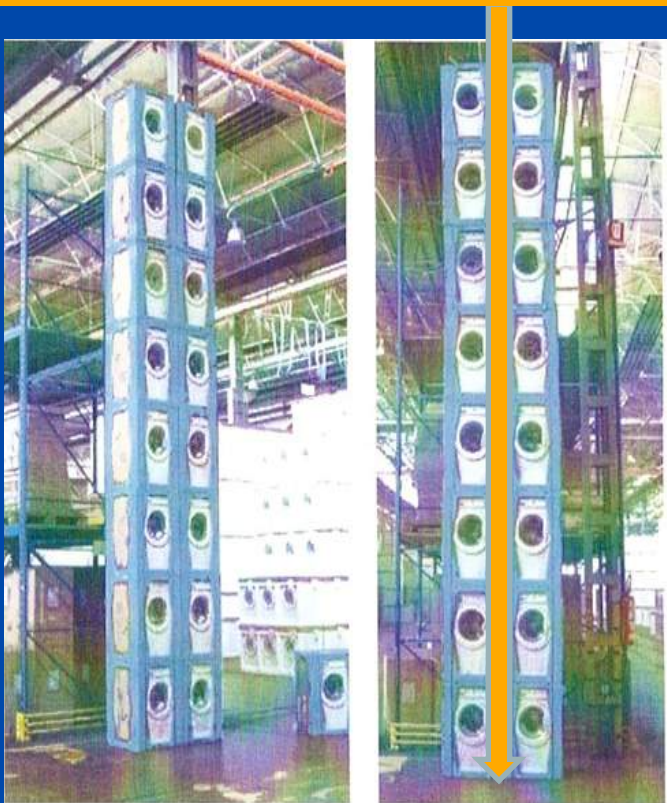
The stacking limit is the height of the warehouse



Disposable packaging 1200 Kg on the product



RPP 1200 Kg on the shell



可回收包装的堆码承重
堆码层数受仓库高度的限制
一次性包装是产品承重1200公斤
可回收的保护性包装是包装物自身承重1200公斤
产品能被再设计，从而带来可观的原材料的节省！

The product can be redesigned with important savings in material !

RPP = High Stacking & Costs saving

- a) Warehouse 40.000 sqm
- b) n. 2 appliances (640 x 670 mm - w x d) x sqm
- c) n. 12 rotations x year

✓ Example 1

Stacking **3** level : $3 \times 40.000 \times 2 \times 12 =$
2.880.000 pcs / year

✓ Example 2

Stacking **5** level : $5 \times 40.000 \times 2 \times 12 =$
4.800.000 pcs / year

✓ Example 3

Stacking **8** level : $8 \times 40.000 \times 2 \times 12 =$
7.680.000 pcs / year

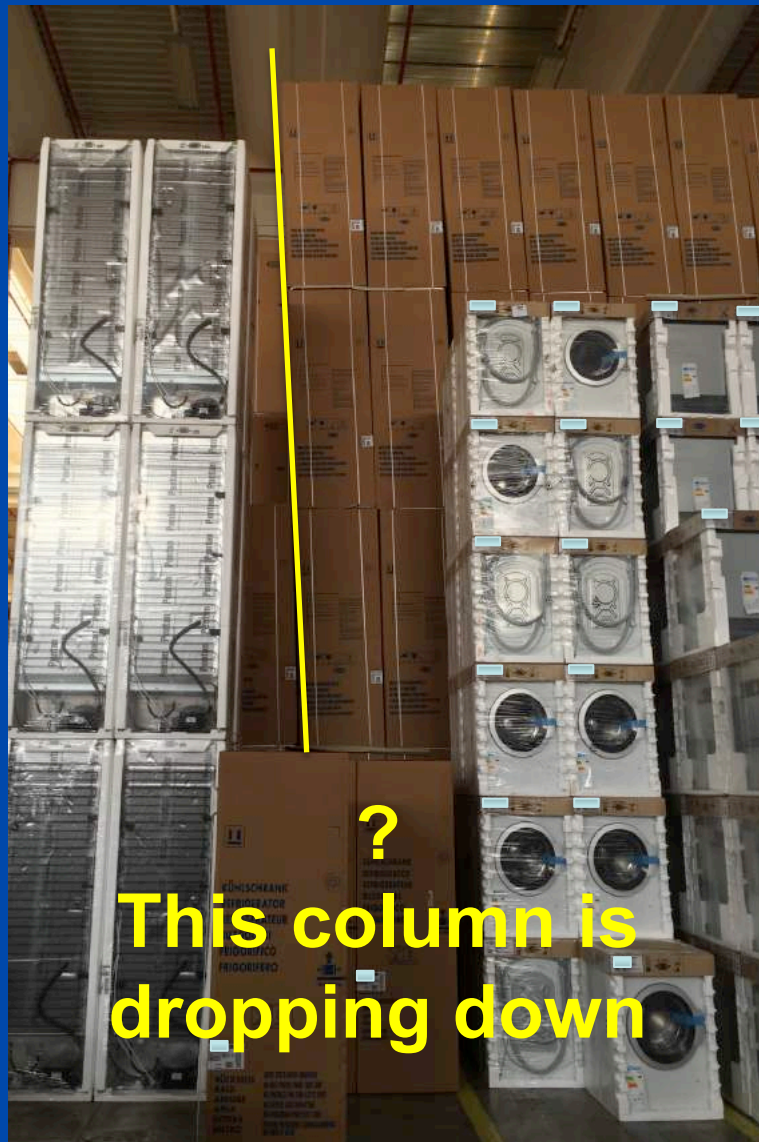


The RPP increase flexibility and reduce costs.
With the RPP it is possible to manage the seasonality and the
overstock without extra investments.

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Stacking, vibrations and Safety



With our antisliding technology, there is not any relative movements between the products

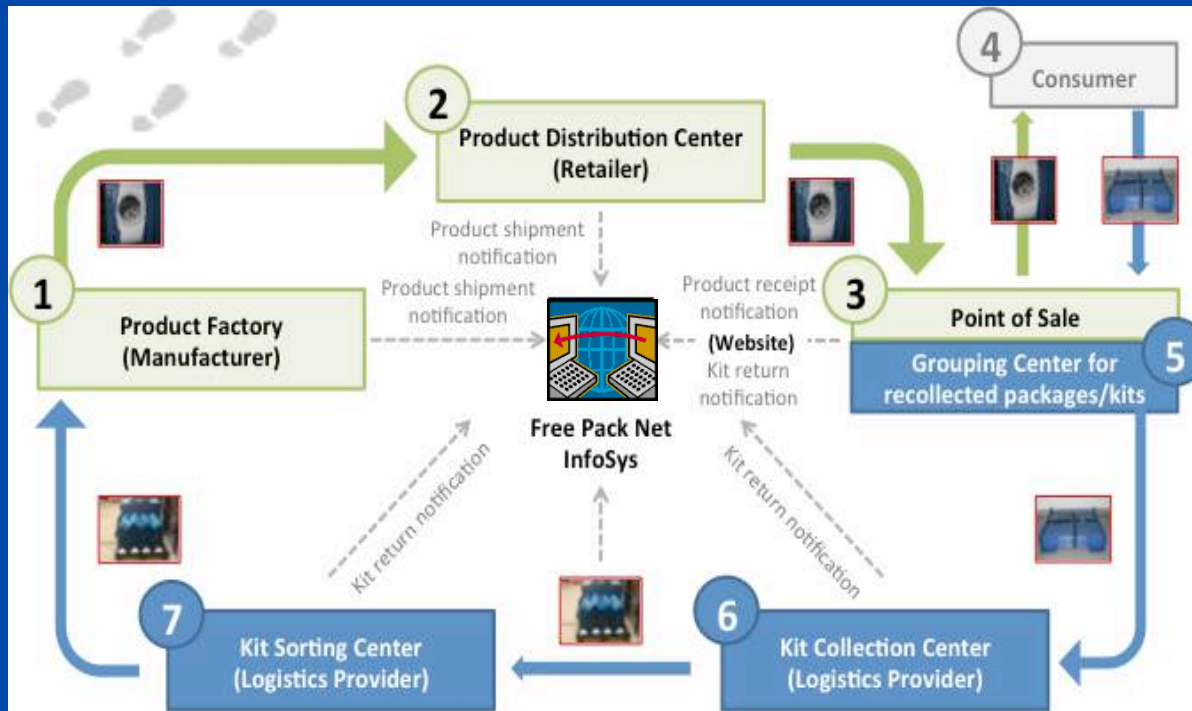


Time and Costs reduction

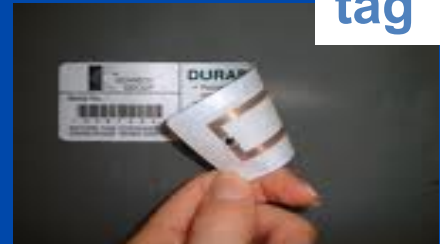
With our patented antisliding, no more wrapping with polyethylene film



Reverse Logistics & traceability



To improve the virtual network:
RFid could be used for RPP traceability along the Supply Chain



On primary, secondary and thertiary packaging, Rfid improves, stock turn, inventory control with access to more accurate inventory data and reduces costs which leads to higher revenue and profits for manufacturers, 3rd part logistics, retailers and vendors.

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Integration with Leader in Logistics



1 – Market validation – the Factory

A semi-automatic assembly line has been used in parallel of the main production flow.



2 - Market validation - the Stores



商场里的RPP
商场经理发自内心的喜欢RPP因为他们再也不需与客户
交涉由于外损产生的问题。



Stores managers really enjoy the RPP because finally they have not to have anymore discussions on damages with customers



3 - Market validation – report from a Retailer

Stacking, Clamping, Safety, Environment

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White goods re-usable packaging

Performance of packaging (clamping, stacking and container air bags)



Clamping

The re-usable packaging can be safely clamped in all six directions without affecting the integrity of the product up to 1500kg of pressure



Stack height

Units can be safely stacked to 10 high or a safe stacking weight of 1000kg



Container air bags

The re-usable packaging has a specially designed lid and base which gives maximum friction when stacking and transporting which negates the need for air bags to be used.



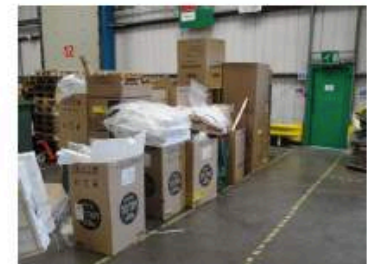
4 - Market validation – report from a Retailer

Environment

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White goods re-usable packaging

Environmental concerns



Approximately 2kg of mixed packaging waste per unit is returned, sorted and processed at DC
Approximately 140 tonnes of polystyrene waste is generated each year just from built-in oven packaging.
Polystyrene packaging is extremely difficult to recycle as there are very few processing plants in the UK which are prepared to handle the material.

The re-usable packaging removes all of this waste and can be reused at least 20 times. The re-usable packaging is also 100% recyclable.



Benefits package

1. Damages elimination

slide 24

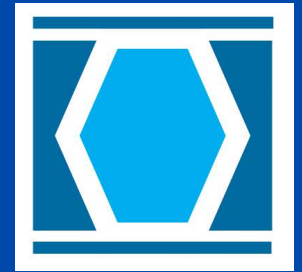
2. Environmental protection

slide 25

3. Costs saving with IPPC

slide 26 - 28

Integrated Product Protection Costs



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外损破坏了客户的满意度，而且你永远无法达到你的合作伙伴的期望。如果在搬运和运输的过程中外损如果不能有效控制，通过网络销售，销量也不会有所增加。

1 – Global Damages

From the Factories to the Final Customers, **the 5% of appliances per year (equivalent to 16 M appliances)** are damaged during handling and transports .

With the RPP, damages are reduced **to zero.**

The RPP rent price may include an **insurance** that cover any possible damage during handling and transports.



2 – Environmental impact

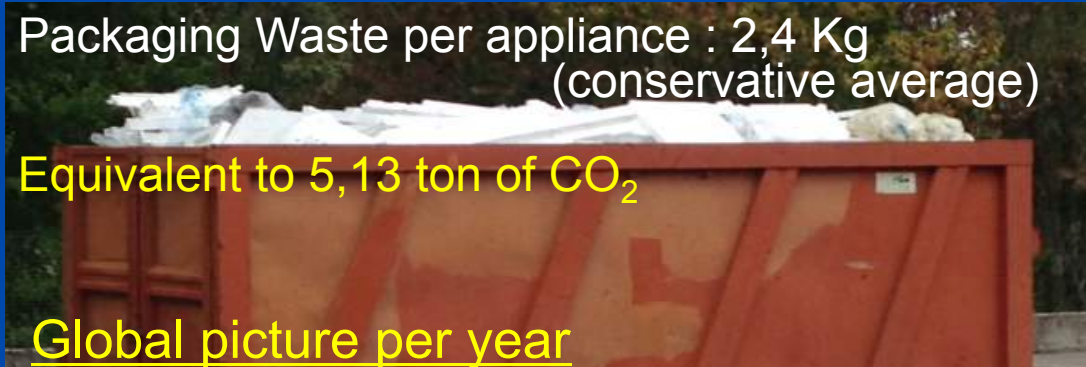
Packaging Waste per appliance : 2,4 Kg
(conservative average)

Equivalent to 5,13 ton of CO₂

Global picture per year

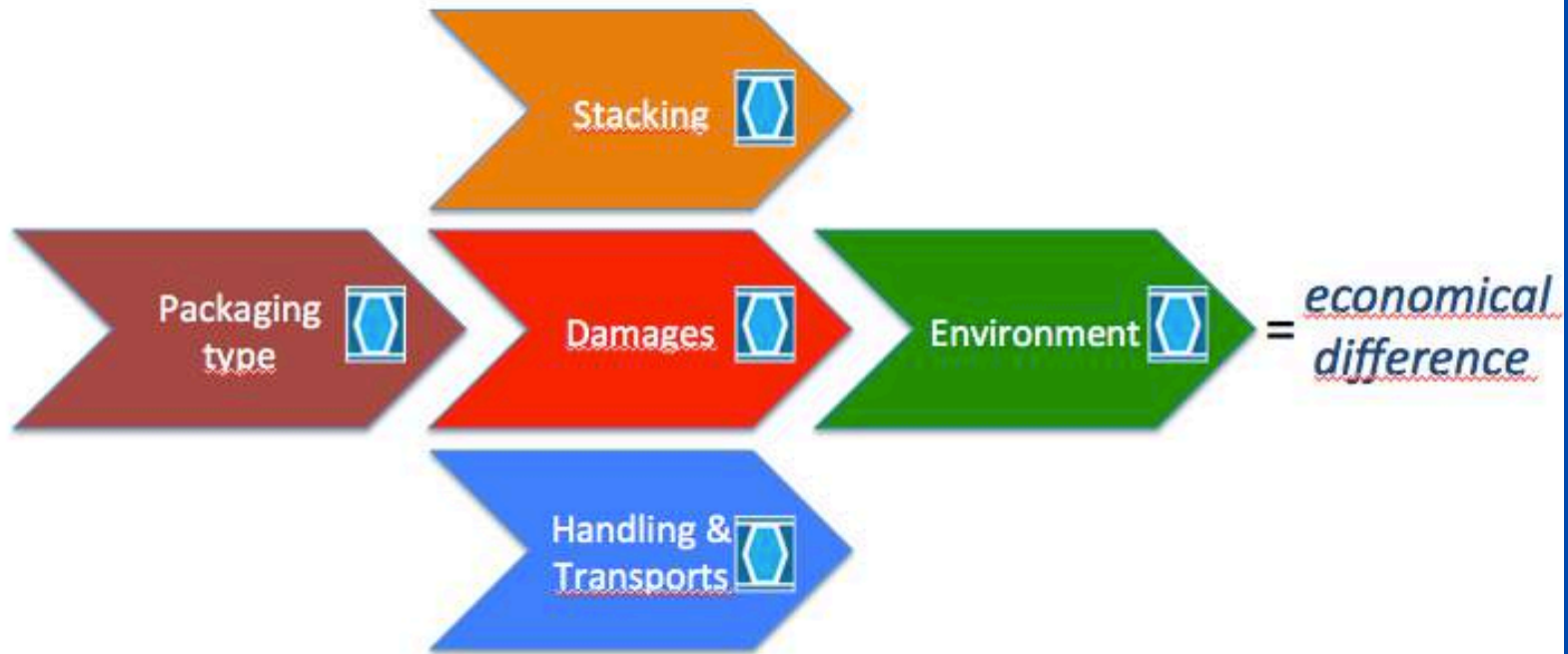
- Production of white goods : **320 Million units**
- Packaging waste : **768.000 ton**
(equivalent to 2.560.000 Trucks)
- CO₂ emissions : **1,640 Billion ton**

With the RPP, waste is reduced to Zero and CO₂ emissions are reduced by 77%



3 – Protection Costs - A

The IPPC - Integrated Product Protection Costs comparison model



takes in consideration 5 main areas of cost in the whole Supply Chain from the factory to the final customer.

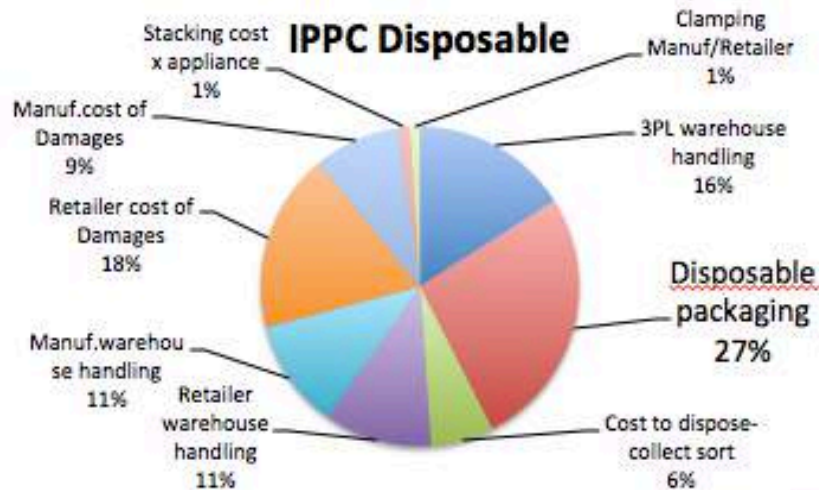
3 – IPPC comparison - B

Disposable packaging Vs RPP

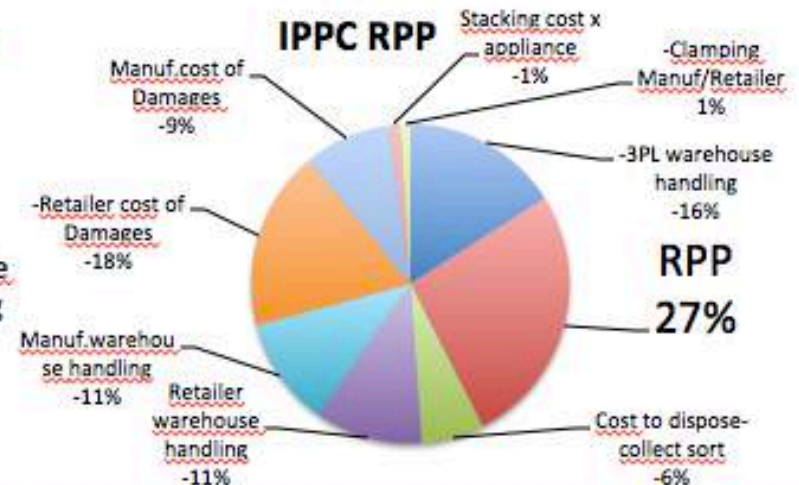
Working with Manufacturers and Retailers we have built up several real IPPC models. With disposable Packaging the IPPC values start from 14 € per appliance to 28 €

If we assume an IPPC average of 21 € (conservative), the economical saving per piece is around 15 €

Disposable pack cost 6 € = 27% of total IPPC



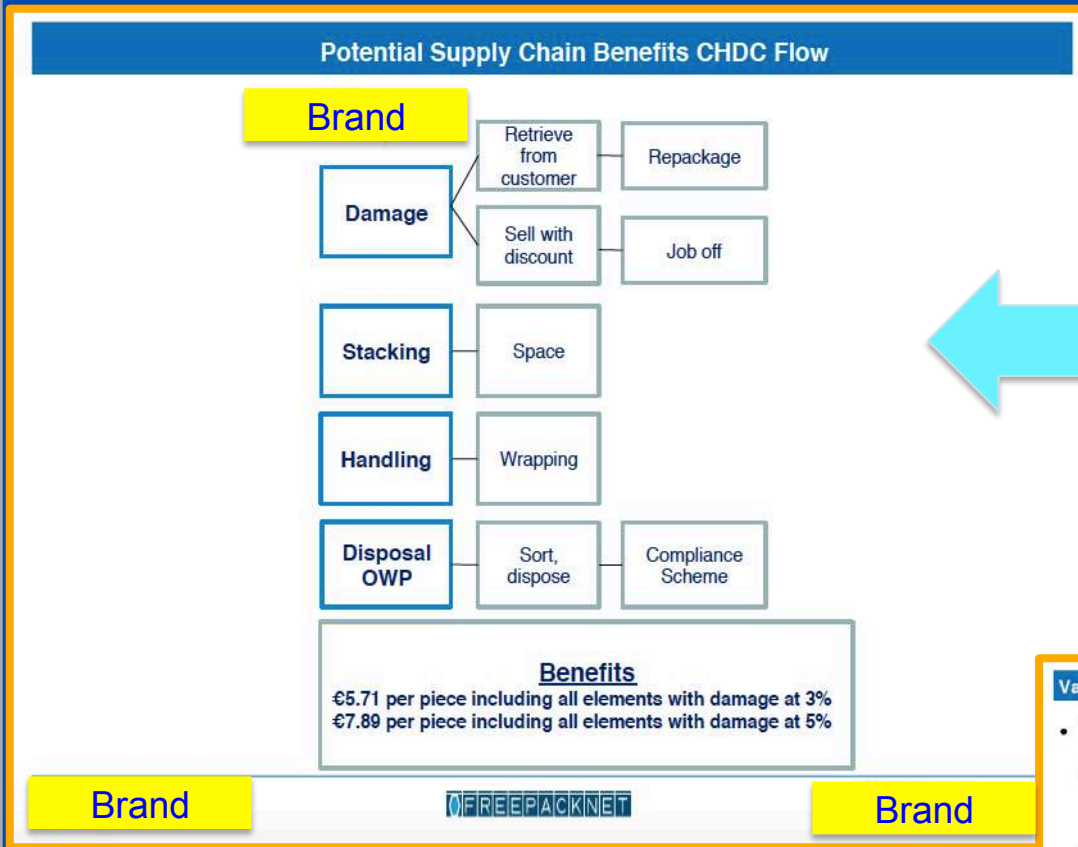
RPP rent cost 6 €



Saving with RPP 70 % = 15€ x piece

IPPC – Benefits Example (conservative)

Manufacturer, Retailer and FPN, working together to reduce waste and CO₂ emissions



Official Report developed working together with a Manufacturer and Retailer in the UK.

The slide on the right has been produced by the Manufacturer and delivered to the Retailer. Numbers has been built as consequence of the volumes they sell to them per year.

Valuing the opportunity

- With our partnership the cost saving is estimated at **£6,000,000**
- This equates to a **3.25%** tab margin improvement – **c20%** more than today

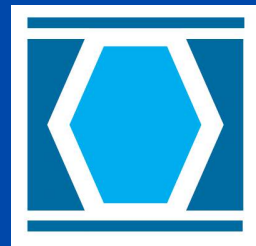
As well as savings, there is also a **Brand** brand perception change and a key message to the **City** on eco initiatives

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Thank you for your "attention"



info@freepacknet.com