

# Folding Carton Criteria

Prepared for **TESCO**

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**EUROPEAN  
CARTON MAKERS  
ASSOCIATION**

# Folding cartons, sustainability & product protection

Food is precious -  
food waste must  
be minimized

- ▶ European forests have net growth of 2% per annum & larger than 100 years ago - equivalent to 1,500 football pitches per day<sup>1</sup>
- ▶ Packaging generally represents only 3-3.5% of the carbon footprint of a food or beverage product<sup>2</sup>
- ▶ In developing countries, the lack of packaging or inadequate packaging in the distribution sector causes 30% to 50% of all food to decay before it reaches the consumer<sup>3</sup>
- ▶ In "packaging-oriented" countries, the amount of food that deteriorates is "only" 3%<sup>3</sup>

Sources:

1. UNFAO, Global Forest Resources Assessment 2005-2015
2. Food Packaging Sustainability (based on the results of the project "STOP waste - SAVE food") Vienna, Feb 2020
3. Food Packaging Technology, Jackie Trinh



# Proposed Unavoidable folding carton packaging functionality

- ▶ Product protection, primary packaging function ✓
- ▶ Regulatory need - information, product / safety messaging ✓
- ▶ Product size/ compatibility with distribution - small product, theft protection, multipacks, aids packaging minimisation in total supply chain ✓
- ▶ Hygiene / safety / anti-counterfeit / tamper evidence ✓
- ▶ Recyclability and ability to use recycled content ✓
- ▶ Plastic replacement\* ✓

*\*substituting 1kg of plastic by 1kg of paper has a better circularity and Carbon footprint (DEFRA average emission factors: 0.884 vs 3.11 kg CO<sub>2</sub>e/kg material)*

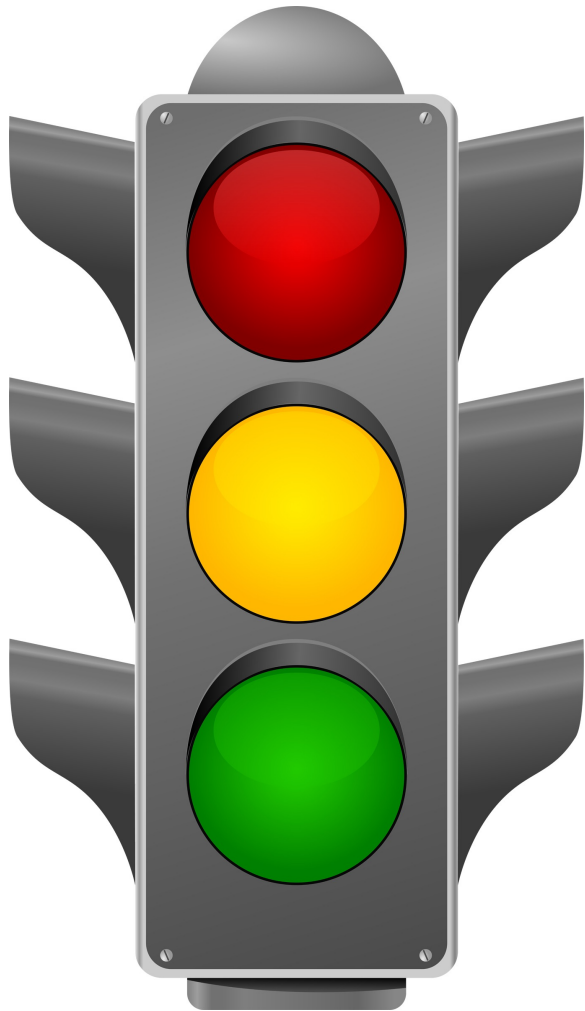


# Link to EC Packaging & Packaging Waste Regulation proposal

- ▶ Our proposal closely relates to the **Performance criteria** for justifying packaging can not be further minimized (limitation of weight, volume, empty space) in PPWR:
  1. **Product protection**
  2. **Packaging manufacturing processes**
  3. **Logistics**
  4. **Information requirements**
  5. **Hygiene and safety**
  6. **Legal requirements**
  7. **Recycled content, recyclability and re-use**
  
- ▶ Additional specific restrictions of plastics in multipacks, produce packaging as well as of single use packaging in some HORECA applications



# Following Tesco's traffic light guidance for packaging materials, we consider the following:



## **AVOIDABLE PACKAGING**

Performance worse than packaging-free scenario on all considered functions

## **FUNCTIONAL PACKAGING**

Qualitative benefits can be demonstrated and the pack has been working in practice on the market

## **NON-AVOIDABLE PACKAGING**

Significantly better than packaging-free scenario on at least one relevant function





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# Appendix

Examples of application of the proposed criteria to folding cartons



# LINERLESS / FITMENT REPLACEMENT PACKAGING

Packaging that enhances brand values whilst eliminating unnecessary liners for fragrances, wines & spirits and other high value contents.

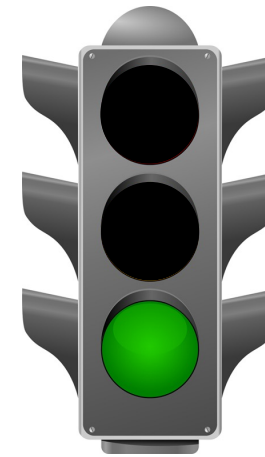
## Functional Benefits:

- Single component carton that incorporates an integral fitment or utilises board-to-board or fluted cartonboard material where the removal of the separate liner offers material and cost savings.
- Removes corrugate liner to create a single material pack - easy to recycle.
- Carton constructions that offer the potential to reduce overall pack weight and complexity

## Other benefits:

- Numerous end-load packing options including a style to accommodate a divider for an information leaflet.
- Inventory and logistics savings - less SKUs, sourcing from one rather than multiple suppliers, increased pallet counts.

Unavoidable Functionality	
Product/Primary Protection	■
Regulatory Need	□
Product Size	□
Hygiene/Safety/Security	■
Recyclability/PCR	■
Replaces Plastic	■



# ECO-FORMED PACKAGING

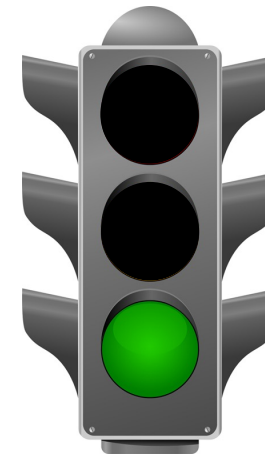


High-quality alternative to plastic vacuum formed trays allowing product presentation suitable for gift boxes, collections and other multi-product offerings.

## Functional Benefits:

- Free of rigid plastics
- Optimally recyclable
- Can be monomaterial equipped with an opening or paired with cellulose-based window film for product visibility and protection
- Maintains product security
- Tray can be shipped flat or designed to facilitate nesting which can help maximise storage space prior to packing.

Unavoidable Functionality	
Product/Primary Protection	
Regulatory Need	
Product Size	
Hygiene/Safety/Security	
Recyclability/PCR	
Replaces Plastic	





# BLISTERLESS PACKAGING



A paper-based alternative to plastic blister packs and paperboard back cards that still provides product visibility.

## Functional Benefits:

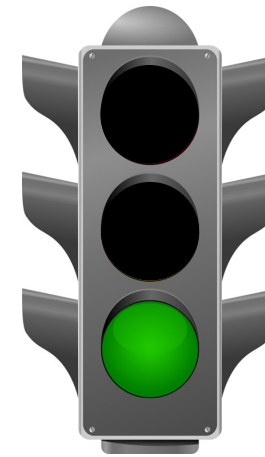
- Free of rigid plastics
- Optimally recyclable
- Can be monomaterial equipped with an opening or paired with cellulose-based window film for product visibility and protection
- Maintains product security

## Other benefits:

- Easy to erect & fill - one-piece solution.



Unavoidable Functionality	
Product/Primary Protection	
Regulatory Need	
Product Size	
Hygiene/Safety/Security	
Recyclability/PCR	
Replaces Plastic	



# PRODUCE PACKAGING

Tailored paper-based alternative to rigid and flexible plastics

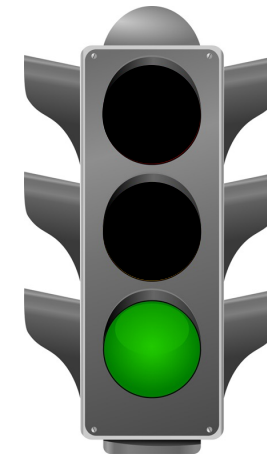
## Functional Benefits:

- Improved product protection vs. flexible solution and bulk sales: the transition from plastic bags to fibre packs e.g. led to 15% less bruising and defects for apples
- Avoid lightweight single use plastic bags still needed in case of bulk sales
- Free from plastics to comply PPWR requirements or French AGECL law
- Recyclable single material which can optionally be paired with cellulose-based window film/lid for product visibility and protection.
- Easy to erect & fill - one-piece solution
- Much clearer provenance information for consumers (e.g. origin, production methods)

## Other benefits:

- Product premiumization, custom shapes

Unavoidable Functionality	
Product/Primary Protection	■
Regulatory Need	□
Product Size	□
Hygiene/Safety/Security	□
Recyclability/PCR	■
Replaces Plastic	■



# PRIMARY MULTIPLE PRODUCT SOLUTIONS

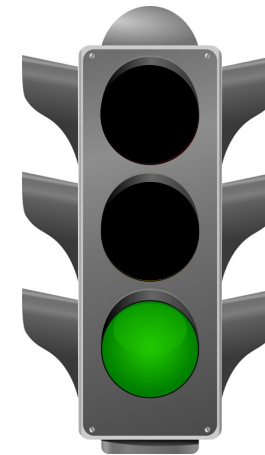


Cardboard replacing rigid plastics without functional compromise

Functional Benefits:

- New cardboard-based packaging, designed to be child safe and easier to use for adults.
- Improved sustainability: fully recyclable, high renewable and optionally recycled content
- Durability and performance demonstrated by in-home consumer use.

Unavoidable Functionality	
Product/Primary Protection	■
Regulatory Need	□
Product Size	□
Hygiene/Safety/Security	■
Recyclability/PCR	■
Replaces Plastic	■



# WRAP & CLIP STYLE BOARD MULTIPACKS



A fibre alternative to plastic rings and shrink wrap solutions

## Functional Benefits:

- Improved sustainability: fully recyclable, high renewable content
- Eliminates the need for single use plastics in multi-pack presentations to comply with PPWR restrictions
- Durability and performance – High strength designs hold up to tough supply-chain conditions and protect the product from packing and transport to retail and in-home consumer use.
- Enable material efficiency improvement vs. fully enclosed cartons and can optionally enable direct palletisation and shelf display leading to tertiary / transport packaging systems savings
- High compatibility with filling process

## Other Benefits:

- Convenience, portability
- Multiple designs to meet a range of needs

Unavoidable Functionality	
Product/Primary Protection	
Regulatory Need	
Product Size	
Hygiene/Safety/Security	
Recyclability/PCR	
Replaces Plastic	



# MULTIPACK SOLUTIONS



Cardboard also replaces rigid plastics without compromise and aids consumer navigation

## Functional Benefits:

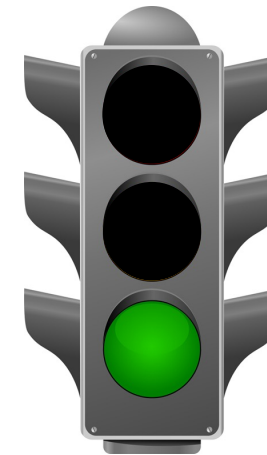
- Improved sustainability: fully recyclable, high renewable content
- Eliminates need for single use plastics in multi-pack presentations to comply PPWR restrictions
- Durability and performance – protects the product from packing and transport to retail and in-home consumer use.
- High compatibility with filling and distribution process
- Facilitates palletisation and shelf display

## Other Benefits:

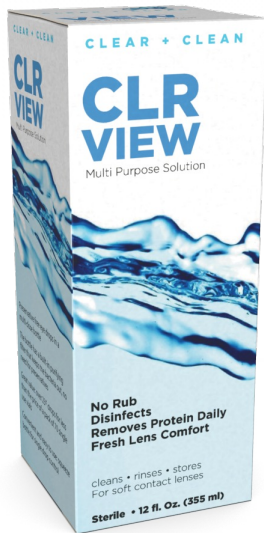
- Provides on-shelf differentiation, conveys brand premiumization



Unavoidable Functionality	
Product/Primary Protection	
Regulatory Need	
Product Size	
Hygiene/Safety/Security	
Recyclability/PCR	
Replaces Plastic	



# SECONDARY PACKAGING SOLUTIONS



Custom-sized and designs folding cartons to accommodate a wide range of products

## Functional Benefits:

- Protects the product, reduces wastes from packing and transport to retail
- Facilitates palletisation and shelf display
- High compatibility with distribution processes
- Support hygiene, safety and tamper evidence
- Recyclable and optionally using recycled content
- Provide further consumer information not fitting on the smaller primary packaging. Ability to provide information in Braille
- Anti-Counterfeiting,

## Other Benefits:

- May include opening or cellulose based windows for product visibility
- Provides on-shelf differentiation, conveys brand premiumization.

Unavoidable Functionality	
Product/Primary Protection	■
Regulatory Need	□
Product Size	□
Hygiene/Safety/Security	■
Recyclability/PCR	■
Replaces Plastic	■

