

**FSSC INSIGHTS**  
*presents*

**FSSC 22000:  
PROTECTING FOOD,  
REDUCING WASTE WITH  
SMART PACKAGING**

*4 December 2024*



# OUR SPEAKERS



**Elsabe Matthee**

Technical Director  
FSSC



**Kelly Mulholland**

Technical Manager Safety & Quality  
FSSC



**Nerida Kelton**

Vice President Sustainability & Save Food  
World Packaging Organisation

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**PRESENTER: COLIN MORGAN**

MARKET DEVELOPMENT DIRECTOR  
FSSC



# TODAY'S TOPICS

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- 01.** Importance of Packaging in Food Safety
- 02.** FSSC 22000 Packaging Scope
- 03.** Packaging and Food Loss and Waste
- 04.** Q&A



# PRACTICALITIES

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- You are all muted
- Please use the Q&A functionality for questions
- This webinar will be recorded
- Recording and presentations will be shared via e-mail





# ABOUT FOUNDATION FSSC

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- ✓ Foundation FSSC is the independent non-profit owner of the **FSSC 22000 & FSSC 24000** Schemes, delivering trust and impact beyond certification.
- ✓ We support the consumer goods industry in protecting its brands and achieving its targets through the implementation of an effective **ISO-based management system**.
- ✓ We are a lean and collaborative Foundation with the goal of helping organizations contribute to the global **SDGs** and thus **create a better world**.

# FSSC BRAND IDENTITY MODEL

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# **IMPORTANCE OF PACKAGING FOR FOOD SAFETY**

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# THE IMPORTANCE OF PACKAGING

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- We recognize packaging as an essential component of the food supply chain's integrity and safety
- Through our Global Certification Program FSSC 22000 including its scope for Food Packaging Manufacturing, we integrate international standards:
  - ISO 22000
  - ISO/TS 22002-4 sector-specific Pre-Requisite Programs (PRPs) for food & feed packaging, and
  - Additional FSSC 22000 certification requirements.
- This holistic approach enables organizations to effectively control food safety hazards, minimize risks, and ensure the production of safe packaging and packaging materials worldwide.

# THE IMPORTANCE OF PACKAGING

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"As consumers, we often focus on the contents of a bottle or container but overlook the importance of the packaging itself. From a food safety perspective, it is crucial to recognize that we purchase both the packaging and its contents – together, they form the product we buy."

- Aldin Hilbrands, CEO of Foundation FSSC



# **FSSC & WPO AFFILIATE MEMBERSHIP**

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# WPO AND FSSC

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The World Packaging Organisation is a non-profit federation of national packaging institutes and associations, national packaging professional bodies, regional packaging federations, and other interested parties, including trade associations.

## The purpose of the WPO includes:

- ✓ Encouraging the development of packaging technology, science, sustainability and innovation.
- ✓ Contributing to the development of international trade.
- ✓ Stimulating education and training in packaging.
- ✓ Connecting the global packaging community.

# WPO AND FSSC

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The affiliation with WPO in 2023 underscores Foundation FSSC's dedication to:

- Uphold the integrity and safety standards of packaging materials on a global scale.
- Drive innovation and elevate food safety practices across the packaging industry.
- Increase impact through capacity building and education through technical alignment/collaboration.
- Work together on sustainability issues.

# SUSTAINABILITY

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- FSSC became a member of the UN Global Compact in October 2021



- With **FSSC 22000**, Foundation FSSC actively contributes to SDG 12.3 - reducing food loss and waste.
- FLW included in FSSC 22000 V6 as a requirement.



# SUSTAINABILITY & WPO

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Through collaboration with WPO and its members, we aim to explore innovative solutions to:

- Reduce food loss and waste from a packaging design perspective, thereby intending to advance sustainability practices in the packaging industry.
- Further deliver a positive impact to the Consumer Goods Industry.



# **PACKAGING SCOPE AS PART OF FSSC 22000**

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# FOOD SUPPLY CHAIN SECTORS

ANIMAL FEED PRODUCTION

Category D



FOOD MANUFACTURING

Category BIII, C0, CI, CII, CIII, CIV, K



FOOD PACKAGING MANUFACTURING

Category I



TRANSPORT AND STORAGE

Category G



CATERING AND FOOD SERVICE

Category E



RETAIL, WHOLESALE AND E-COMMERCE

Category FI



TRADING, BROKERING AND E-COMMERCE

Category FII



# PACKAGING MATERIALS COVERED

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- ❑ **Flexible and rigid plastics**, such as foils, blisters, crates, and sachets;
- ❑ Paper, such as cartons, boxes, and sacks;
- ❑ Metal, such as cans, bottles, and boxes;
- ❑ Glass, such as jars and bottles;
- ❑ Shipping and transport containers, such as big bags, drums, and tanks;
- ❑ Other packaging materials.





# BENEFITS

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- ✓ International certification Scheme
- ✓ Recognized by GFSI
- ✓ Approved by IAF
- ✓ Assists in meeting legislative requirements
- ✓ Integration with other ISO management systems possible
- ✓ Robust integrity program
- ✓ Includes requirements relating to quality



# STRUCTURE OF FSSC 22000

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## FSSC 22000 Scheme Requirements

include:

- FSSC 22000 Additional Requirements
- BoS decision list
- Scheme Interpretation Articles

## ISO 22000

ISO 22000 fully applied

## Sector Specific PRPs

Technical specifications for Pre-Requisite Programs

ISO/TS 22002-4  
applies

# ISO 22000:2018

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4. Context of the organization

5. Leadership

6. Planning

7. Support

8. Operation

9. Performance evaluation

10. Improvement



# ISO/TS 22002-4:2013

4.1 Establishment

4.2 Layout and workspace

4.3 Utilities

4.4 Waste disposal

4.5 Equipment suitability, cleaning and maintenance

4.6 Management of purchased materials and services

4.7 Measures for prevention of contamination

4.8 Cleaning

4.9 Pest control

4.10 Personnel hygiene and facilities

4.11 Rework

4.12 Withdrawal procedures

4.13 Storage and transport

4.14 Food packaging information and customer communication

4.15 Food defense and bioterrorism



# ADDITIONAL REQUIREMENTS

- 1) Management of services and purchased materials (**All Food Chain Categories**)
- 2) Product labelling and printed materials (**All Food Chain Categories**)
- 3) Food defense (**All Food Chain Categories**)
- 4) Food fraud mitigation (**All Food Chain Categories**)
- 5) Logo use (**All Food Chain Categories**)
- 6) Management of allergens (**All Food Chain Categories**)
- 7) Environmental monitoring (**Food chain categories BIII, C, I & K**)
- 8) Food safety and quality culture (**All Food Chain Categories**)
- 9) Quality control (**All Food Chain Categories**)
- 10) Transport, storage and warehousing (**All Food Chain Categories**)
- 11) Hazard Control and Measures for Preventing Cross-Contamination (**All Food Chain Categories, Excl. FII**)
- 12) PRP Verification (**Food chain categories BIII, C, D, G, I & K**)
- 13) Product Design and Development (**Food chain categories BIII, C, D, E, F, I & K**)
- 14) Health Status (Food chain category D)
- 15) Equipment Management (**All Food Chain Categories, Excl. FII**)
- 16) Food Loss and Waste (All Food Chain Categories, Excl. I)
- 17) Communication Requirements (**All Food Chain Categories**)
- 18) Requirements for Organization with Multi-site certification (Food chain categories E, F & G)

## 2.5.1 MANAGEMENT OF SERVICES AND PURCHASED MATERIALS

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- For food chain category I, in addition to clause 7.1.6 of ISO 22000:2018, the organization shall establish criteria related to the use of recycled packaging as a raw material input into the production of finished packaging material and ensure that relevant legal and customer requirements are being met.



## 2.5.2 PRODUCT LABELING AND PRINTED MATERIALS

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### Artwork management & print control procedures

- Approval of:
  - artwork standard or master sample;
  - each print run against the agreed standard or master sample;
- Process to:
  - manage changes to artwork and print specifications, and to manage obsolete artwork and printing materials;
  - detect and identify printing errors during the run;
  - ensure effective segregation of differing print variants; and
  - account for any unused printed product.

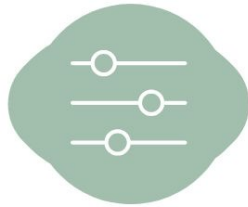


## 2.5.9 QUALITY CONTROL

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**Quality Policy  
and Objectives**



**Quality  
Parameters**



**Quality Control  
Procedures**



**Calibration &  
Verification**



**Line start-up and  
change-over  
procedures**

# EXAMPLES OF QUALITY PARAMETERS FOR PACKAGING

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Product group	Possible quality parameters
Plastics	MFI, Thickness, COF, tensile strength, shrinkage, color, etc.
Glass	Dimensions, weight, height, color, visual inspections, etc.
Metal	Dimensions, top wall, body dents, visual inspections, etc.
Paper and board	GSM, compression, dimensions, starch solids, visual inspections, etc.



## 2.5.11 HAZARD CONTROL AND MEASURES FOR PREVENTING CROSS-CONTAMINATION

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- For food chain categories BIII, C and I, the following additional requirement applies to ISO 22000:2018 clause 8.5.1.3: The organization shall have specific requirements in place where packaging is used to impart or provide a functional effect on food (e.g., shelf-life extension).





**WPO**  
**WORLD**  
**PACKAGING**  
**ORGANISATION**

Better quality of life, through better  
packaging, for more people



## World Packaging Organisation (WPO) - 63 Member Countries



Better quality of life, through better packaging, for more people



# Save Food Packaging

*The true role that packaging can play  
in minimising Food Loss & Waste  
across a value chain*

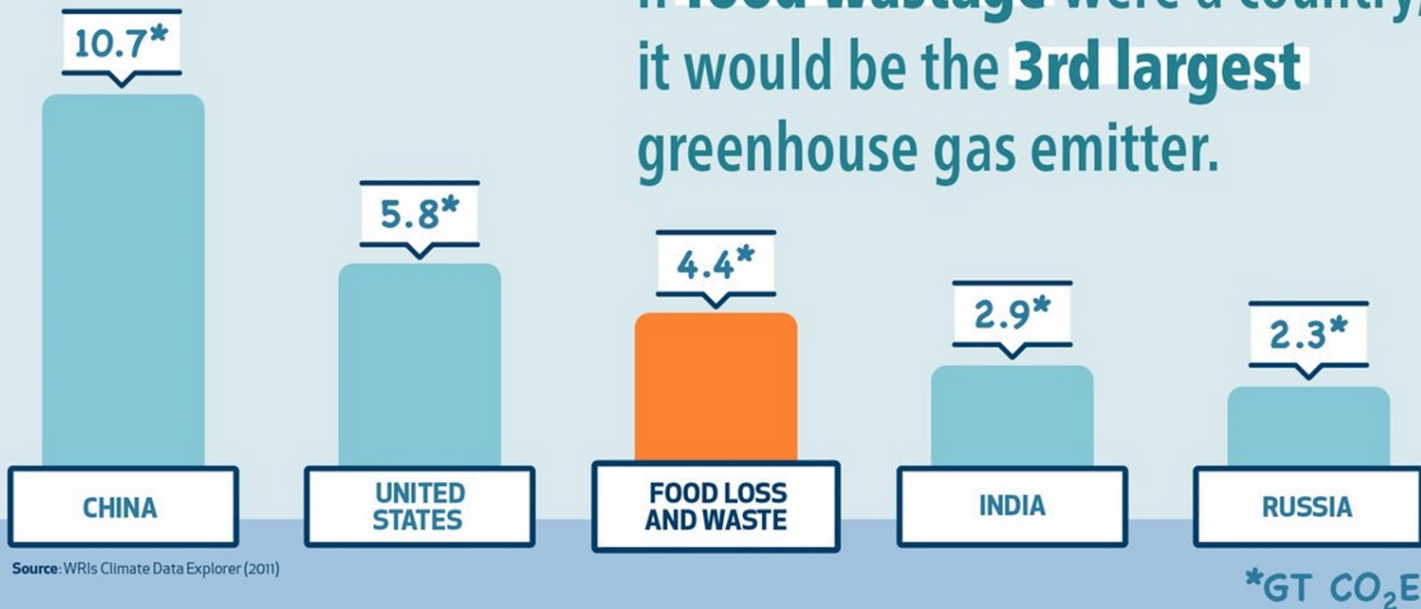


Close to 800 Million people suffer from food insecurity, are malnourished or starving.

1.05 billion tonnes of food went to waste.

On average, each person wastes 79 kilograms of food annually.

This is the equivalent of 1.3 meals every day for everyone in the world impacted by hunger.

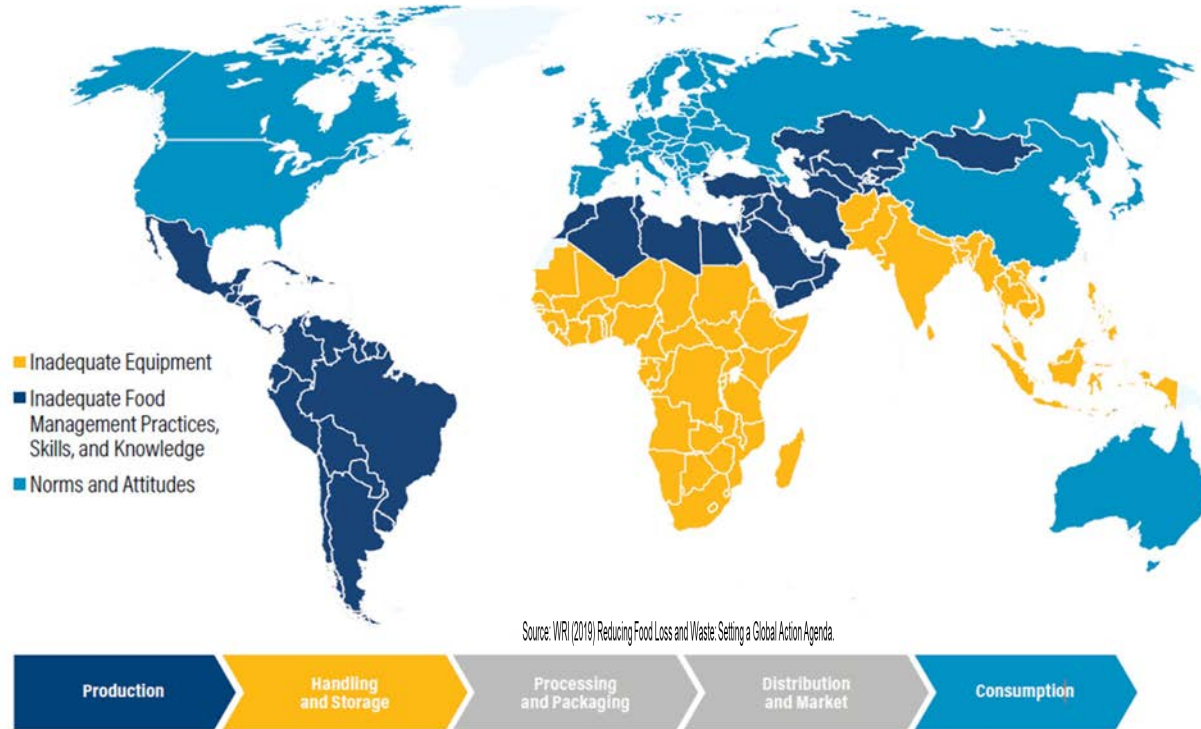


Source: WRI's Climate Data Explorer (2011)



Food and Agriculture Organization  
of the United Nations

# Food loss and waste causes differ by region



# REDUCING FOOD WASTE SUPPORTS THE UN SDGs

**TARGET 12-3**



HALVE GLOBAL PER  
CAPITA FOOD WASTE

*"By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses"*

**SDG 15 Life on Land:** Reducing food loss and waste reduces the need to convert more natural ecosystems into cropland or grazing pastures.

**SDG 14 Life under Water:** Reducing food losses at sea means reducing bycatch. Wasted food uses significant amounts of fertilizers, which contribute to eutrophication caused by agricultural run-off.

**SDG 13 Climate Action:** Reducing food loss and waste reduces the amount of greenhouse gas emissions associated with clearing land, growing, processing, and disposing of food that is not eaten.

**SDG 12 Sustainable Consumption and Production:** Meeting the food loss and waste reduction target would improve the sustainability of food consumption and production.

**TARGET 12-3**



HALVE GLOBAL PER  
CAPITA FOOD WASTE

**SDG 1 No Poverty / SDG 2 Zero Hunger:** Reducing losses means that farmers have more food available for market and to feed themselves.

**SDG 2 Zero Hunger:** Improved storage and handling facilities help smooth seasonal shortfalls and preserve nutritional quality, thereby stabilizing food supplies.

**SDG 3 Good Health:** Reducing quality losses means that food retains more nutritional value. Some food loss reduction practices, such as drying crops on tarps, can reduce the risk of contamination from aflatoxins.

**SDG 3 Good Health/SDG 4 Quality Education/SDG 5 Gender Equality:** Reducing food waste could reduce unnecessary household spending on food and free up money for health, education, and other household benefits.

**SDG 6 Clean Water and Sanitation:** Better utilizing food already grown reduces pressure on freshwater consumption by agriculture and increases efficiency of water use.

**SDG 8 Decent Work and Economic Growth:** Farmer income and prosperity can be increased when they reduce on-farm losses and thereby sell more food.

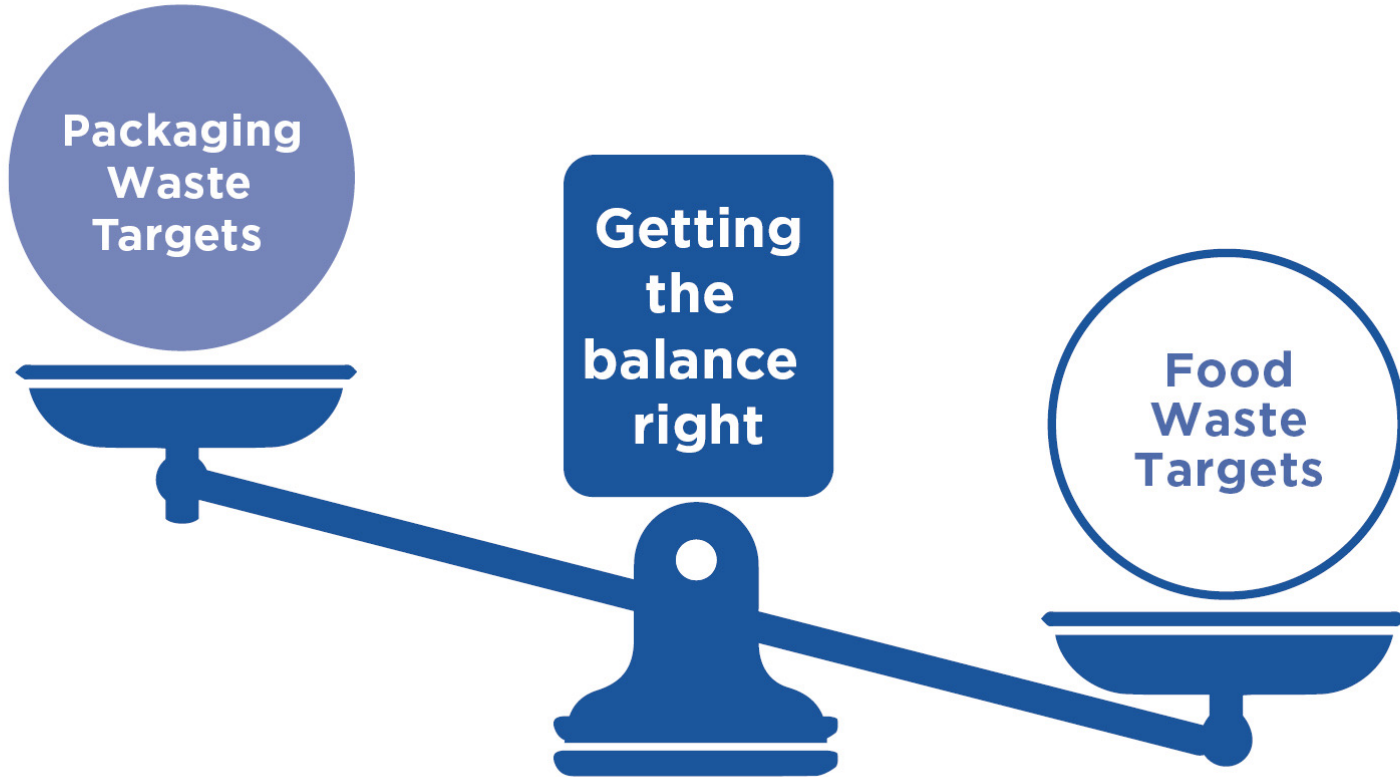
**SDG 11 Sustainable Cities and Communities:** Reducing food waste in landfills can reduce landfill disposal fees for households and local authorities. It also can enable cities to meet waste, sustainability, and hunger goals.







# Getting the Balance Right

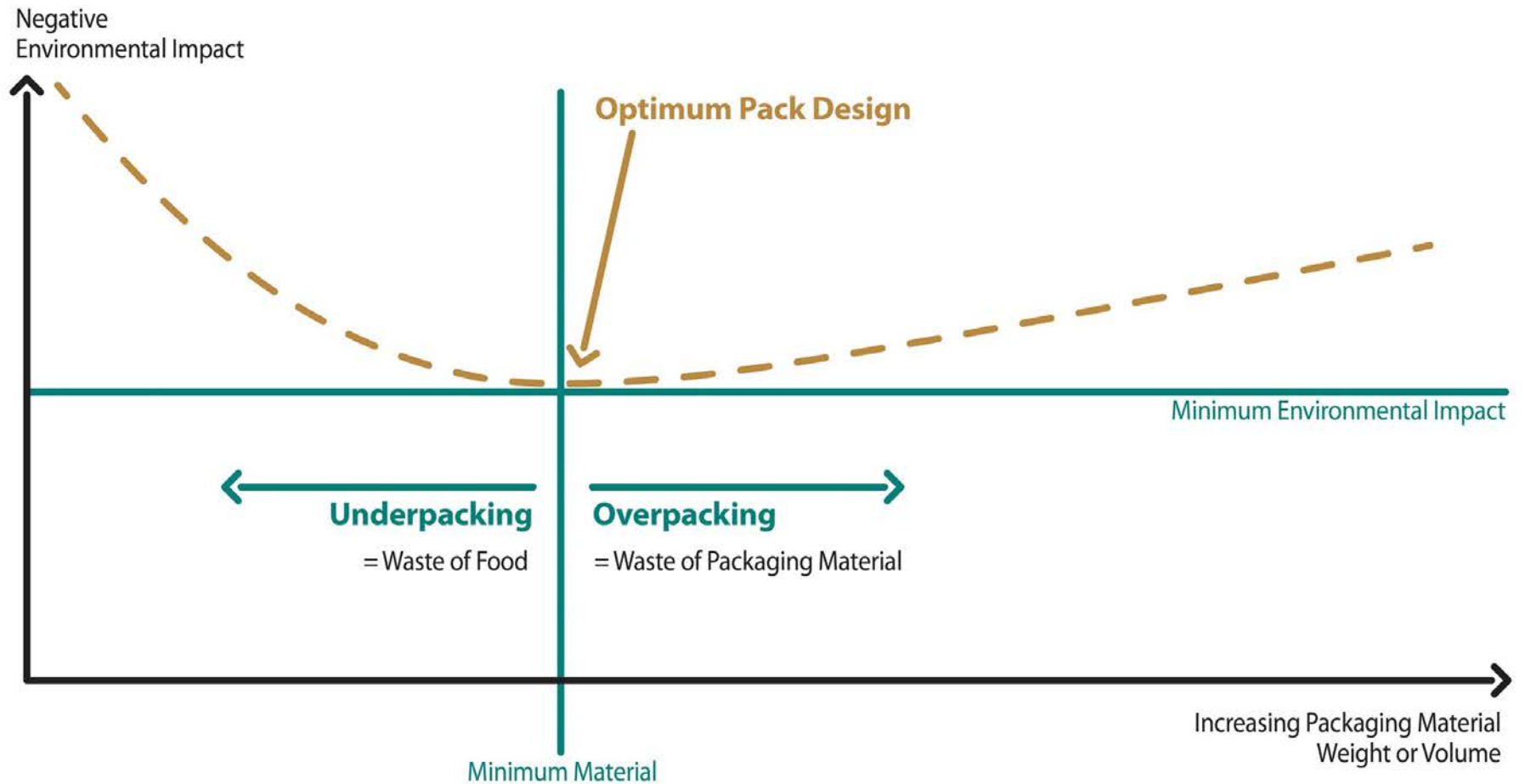


Better quality of life, through better packaging, for more people

# True role of packaging



- Packaging is designed to ensure that a product is **contained, preserved and protected** all the way across the Supply Chain until it is purchased by the consumer.
- Packaging must also ensure the **health & safety** of the product and consumers, that **product waste is kept to a minimum**, the efficiency of the packaging can **withstand the rigors of transport** and the pack is designed with the **lowest environmental impact**.

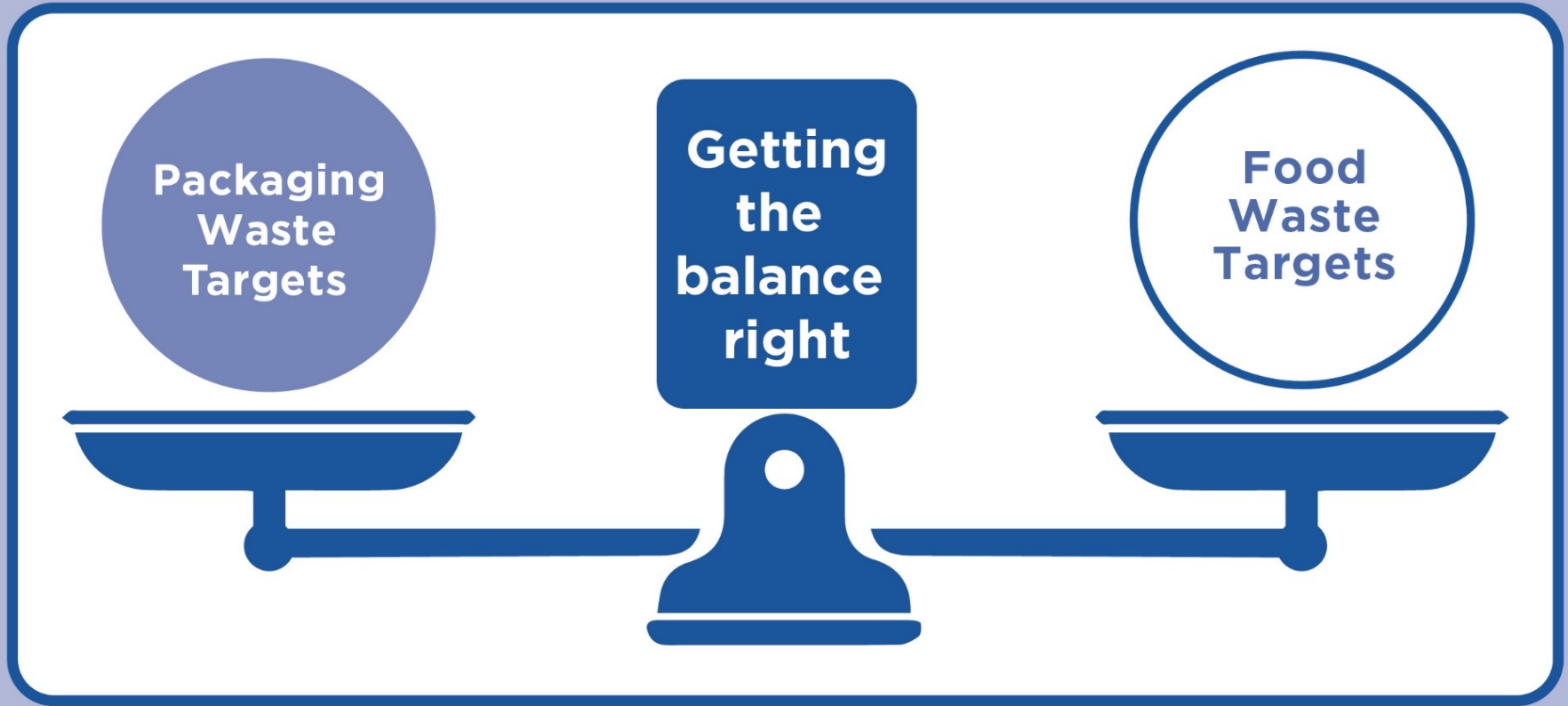


Better quality of life, through better packaging, for more people





# Putting all Waste on Equal Footing





# Where does food waste sit within Sustainable Packaging Design?

# Sustainable Packaging Design Principles



1

Design for  
recovery



2

Optimise  
material  
efficiency



3

Design to  
reduce product  
waste



4

Eliminate  
hazardous  
materials



5

Use recycled  
materials



6

Use of  
renewable  
materials



7

Design to  
minimise litter



8

Design for  
transport  
efficiency



9

Design for  
accessibility



10

Provide consumer  
information on  
sustainability

**Save Food Packaging** is designed to minimise or prevent food waste from paddock to plate using **innovative** and **intuitive** design features that can contain & protect, preserve, extend shelf life, easily **openable** and **resealable**, provide consumer convenience and portion control; all the while meeting global sustainable packaging targets.

*Source: WPO Member - AIP Save Food Packaging Guidelines*



# Save Food Packaging Design

## SAVE FOOD PACKAGING DESIGN

# 1

### DESIGN TO CONTAIN & PROTECT THE PRODUCT

FROM SPOILAGE &  
DAMAGE THROUGH  
MANUFACTURING,  
WAREHOUSING & VARIOUS  
STAGES OF DISTRIBUTION



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

SAVE FOOD PACKAGING CRITERIA

# 2

### DESIGN TO PRESERVE & EXTEND SHELF LIFE

& ENHANCE  
PRODUCT APPEAL



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 3

### DESIGN TO PROVIDE CONSUMER CONVENIENCE

TO NOT WASTE FOOD  
DURING HANDLING IN  
THE HOUSEHOLD



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 4

### DESIGN TO COMMUNICATE TO CONSUMERS

& PROMOTE HOW TO  
HANDLE, STORE, PREPARE  
& REUSE FOOD PRODUCTS



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 5

### DESIGN TO BALANCE FOOD & PACKAGING WASTE TARGETS

FOR OPTIMAL PACKAGING



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY





# Save Food Packaging Design Guidelines

1



**DESIGN TO CONTAIN & PROTECT THE PRODUCT**  
FROM SPOILAGE & DAMAGE THROUGH MANUFACTURING,  
WAREHOUSING & VARIOUS STAGES OF DISTRIBUTION

PRIMARY

SECONDARY

TERTIARY



- Palletisation
- Stabilisation

- Transport packaging
- Load utilisation

- Tamper evidence
- Leak proof & containment
  - Protection from human contamination

- Shocks and vibration
- Temperature & moisture
  - Protection from chemical contamination





## 2



**DESIGN TO PRESERVE & EXTEND SHELF LIFE  
& ENHANCE PRODUCT APPEAL**

## MANAGE PRODUCT ENVIRONMENT IN PACK

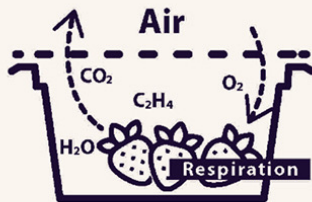
- Appropriate Barrier Performance
- Oxygen & Moisture Barrier Needs
  - Respiration Rates
  - Retain Nutrition

## EXTENSION & BARRIER PROTECTION

- Skin & Vacuum Packaging
- MAP & EMAP Packaging
  - UV Barrier

## ACTIVE & INTELLIGENT PACKAGING

- Traceability & Consumer Engagement Software
  - Sensory Labels & Indicators
  - RFID & NFC Tags (QR/2D)
- Time Temperature Indicators (TTI's)
  - IoT Devices (Internet of Things)
  - Scavengers & Absorbers



**3**



**DESIGN TO PROVIDE CONSUMER  
CONVENIENCE**

& TO NOT WASTE FOOD DURING HANDLING  
IN THE HOUSEHOLD

# 3 | DESIGN TO PROVIDE CONSUMER CONVENIENCE

## ACCESSIBLE & INCLUSIVE PACKAGING

- Easy Open
- Reclose & Reseal
- Easy Tear & Grip
- Change of Household Portions
- Reduce Pack Sizes
- Controlled Dispensing
- Ability to Remove Entire Product from pack

## FUNCTIONAL PACKAGING FOR CONSUMER CONVENIENCE

- Microwaveable
- Added-Value Cooking
- Part Preparation



4



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## DESIGN TO COMMUNICATE TO CONSUMERS

& PROMOTE HOW TO HANDLE, STORE,  
PREPARE & REUSE FOOD PRODUCTS

## ON-PACK DATE LABELLING

- Best Before Dates
- Use By Dates

## CONSUMER COMMUNICATION

- On-Pack & Off-Pack
- Storage Environment: Refrigerator/  
Freezer / Pantry
- Left-over Ideas & Recipes
- QR Codes & NFC Tags
- Food Preparation



BEST BEFORE DATES

15 03 22



5



**DESIGN TO BALANCE FOOD & PACKAGING  
WASTE TARGETS**  
FOR OPTIMAL PACKAGING

**Packaging  
Waste  
Targets**

**Getting  
the  
balance  
right**

**Food  
Waste  
Targets**



# Global Best Practice Award-winning Save Food Packaging Design



Coordinated by





SPAIN

## 2024 WORLDSTAR PACKAGING THAT SAVES FOOD SPECIAL AWARD GOLD WINNER

- ✓ AgroLife treatment is applied to paper-based agricultural packaging
- ✓ Ideal for corrugated boxes, lids, punnets or trays
- ✓ AgroLife treatment is 100% food contact friendly
- ✓ Does not affect recyclability



- ✓ Extends shelf life of fresh produce
- ✓ Reduces the losses caused by excess maturation
- ✓ AgroLife acts via the absorption of ethylene, which delays the ripening process
- ✓ Improves flavour by collecting at optimal point of maturity

REGIONAL AWARDS PROGRAM



COORDINATED BY



**Company:** Smurfit Kappa

**Product:** AgroLife®

**Country:** Spain



**WORLDSTAR  
GLOBAL  
PACKAGING  
AWARDS**



**2024 WORLDSTAR  
PACKAGING THAT SAVES FOOD  
SPECIAL AWARD  
GOLD WINNER**



## 2023 WORLDSTAR PACKAGING THAT SAVES FOOD SPECIAL AWARD GOLD WINNER

- ✓ Contains Copper microparticles
- ✓ The microparticles inhibit the development of microorganisms
- ✓ Extends shelf life by up to 250%



- ✓ Ideally suited for cheese and fresh processed meat such as ham, bacon and fresh chicken
- ✓ Preserves and protects products through the all value chain

REGIONAL AWARDS PROGRAM



COORDINATED BY



**Company:** Amcor Chile - Copperprotek  
**Product:** LifeSpan copper based film  
**Country:** Chile



## AMCOR COPPERPROTEK

LifeSpan Copper Based Film

WINS 2023 WORLDSTAR PACKAGING THAT SAVES FOOD SPECIAL AWARD



LifeSpan copper based film - Amcor Chile - Copperprotek

### KEY FEATURES

- ★ Contains Copper microparticles
- ★ The microparticles inhibit the development of microorganisms
- ★ Extends shelf life by up to 250%
- ★ Ideally suited for cheese and fresh processed meat such as ham, bacon and fresh chicken
- ★ Preserves and protects products through the all value chain

**amcor** Amcor is a global leader in developing and producing responsible packaging solutions for food, beverage, pharmaceutical, medical, home and personal care, and other products. Amcor works with leading companies around the world to protect their products and the people who rely on them, differentiate brands, and improve supply chains through a range of flexible and rigid packaging, specialty cartons, closures, and services. The company is focused on making packaging that is increasingly lighter weight, recyclable and reusable, and made using an increasing amount of recycled content.

**COPPERPROTEK** Copperprotek is a leading Chilean biotechnology company in the use of biotechnology to streamline the food production and marketing chain. They believe that their technological developments are a scalable and cost-efficient solution to ensure that your food reaches your markets and consumers in the best possible conditions.



<https://worldpackaging.org/wpo/47/>





AUSTRALIA



NEW ZEALAND

## 2023 WORLDSTAR PACKAGING THAT SAVES FOOD SPECIAL AWARD SILVER WINNER

- ✓ Design for Product Waste
- ✓ Design for Accessibility
- ✓ Design for Transport Efficiency
- ✓ Ideal for food loss & waste
- ✓ Tracking via cold chain
- ✓ Colour determines when temperature rises above set parameters



- ✓ Thermochromic dye technology
- ✓ Changes colour as environment changes
- ✓ Optical system - dynamically changes appearance at preselected temperatures
- ✓ Allows for colour changes - black to orange to red as pack gets warmer
- ✓ Extends Shelf Life

REGIONAL AWARDS PROGRAM



COORDINATED BY



**Company:** Caps & Closures

**Product:** ThermoShield Temperature Monitoring System - Food

**Country:** Australia/New Zealand



WORLDSTAR  
PACKAGING  
AWARDS



2023 WORLDSTAR  
PACKAGING THAT SAVES FOOD  
SPECIAL AWARD  
SILVER WINNER

## THERMOSHIELD TEMPERATURE MONITORING SYSTEM - FOOD

ThermoShield Temperature Monitoring System - Food

WINS 2023 WORLDSTAR PACKAGING THAT SAVES FOOD SPECIAL AWARD



ThermoShield Temperature Monitoring System - Food Caps & Closures

**KEY FEATURES**

- Design for Product Waste
- Design for Accessibility
- Design for Transport Efficiency
- Ideal for food loss & waste
- Tracking via cold chain
- Colour determines when temperature rises above set parameters
- Thermochromic dye technology
- Changes colour as environment changes
- Optical system - dynamically changes appearance at preselected temperatures
- Allows for colour changes - black to orange to red as pack gets warmer
- Extends Shelf Life

**CAPS & CLOSURES**

Caps and Closures is an Australian owned and operated company that has been designing and manufacturing award-winning innovative plastic packaging solutions for over 25 years. Caps & Closures maintains a global industry and research leaders network to ensure that their in-house design team is in tune with the packaging industry's latest developments.

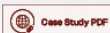



<https://worldpackaging.org/wpo/47/>

## JUNEE LAMB



- Meat contributes 20% of all carbon footprint in landfill
- No more leaking packs
- Recyclable through sot plastics programs
- Tear puncture, tear and abrasion resistant design
- Built-in bone guard protection in areas that need it the most



COORDINATED BY



INTERNATIONALLY  
ENDORSED BY



EXCLUSIVE  
ENTRY TO



WORLDSTAR  
WINNER 2022



## JUNEE LAMB



[http://aipack.com.au/  
save-food-packaging-  
design-case-studies/](http://aipack.com.au/save-food-packaging-design-case-studies/)



## 2020 WORLDSTAR PACKAGING THAT SAVES FOOD SILVER WINNER

- ✓ Recyclable egg-box
- ✓ EPP environmental protection materials
- ✓ Ideal for e-commerce transportation & community distribution
- ✓ Modular design - flexible and adaptable
- ✓ 50% reduction in egg-damage



- ✓ Shelf life extended by 50%
- ✓ Packaging efficiencies increased by 20%
- ✓ No need to throw the Egg-Box away after use
- ✓ Reusable - lead to 'Shared egg-boxes' in future



**Company:** Beijing Easite Packaging Design in China

**Product:** Npop DEQINGYUAN Recyclable Egg-box

**Country:** China



**WORLDSTAR  
WINNER 2020**



**WORLDSTAR  
SPECIAL AWARD  
WINNER 2020**





## 2019 WORLDSTAR PACKAGING THAT SAVES FOOD SILVER WINNER

- ✓ 100% recyclable (EPS)
- ✓ High thermal insulation
- ✓ Improved product preservation
- ✓ Shelf-life of fruits exceeds 45 days in cold chambers and 20% on gondolas
- ✓ Fruit weight and water loss are reduced by 50%
- ✓ Reduces loss and waste in the Supply Chain



- ✓ Extend shelf-life
- ✓ Ideal from harvest to consumer
- ✓ Suitable for transporting (shock absorption)
- ✓ Consumer Convenience - displaying product directly at retail
- ✓ Certified by European laboratories

WPO MEMBER



REGIONAL AWARDS PROGRAM



**Company:** Termotécnica

**Product:** Conserver 'Dacolheita' for Fruit Bowls

**Country:** Brazil



**WORLDSTAR  
WINNER 2019**



**WORLDSTAR  
SPECIAL AWARD  
WINNER 2019**



SRI LANKA

## 2019 WORLDSTAR PACKAGING THAT SAVES FOOD BRONZE WINNER

- ✓ Ideal for delivery during summer
- ✓ Innovative Active Packaging
- ✓ Pack retains oxygen absorbed by Albis plastic Shelf plus masterbatch
- ✓ Prevents bad odours
- ✓ Retains freshness of product



- ✓ Easy-to-tear notch and zipper
- ✓ Vacuum pack removes 95% of air inside pack
- ✓ Polyamide/PE recyclable pouch is environmentally friendly
- ✓ Enhances shelf life
- ✓ Minimises toxic microbial growth

WPO MEMBER



REGIONAL AWARDS PROGRAM



**Company:** JF Packaging(Pvt) Ltd  
**Product:** Active Packaging System for the Packing of Prawns  
**Country:** Sri Lanka



**WORLDSTAR  
WINNER 2019**



**WORLDSTAR  
SPECIAL AWARD  
WINNER 2019**



# Kenya - Hermetically Sealed Bags for Maize





# Save Grain. Save Life

## *Post Harvest Storage Solutions*

Hermetic bags that allow you to store produce longer without any food waste

- The bags protect against any food loss from insects, pests or infestation.
- Preserves original moisture content of the food.
- Minimum oxidation.
- Preserves aroma.
- Aerobic atmosphere – no quantity loss.
- Weather resistant.
- Improves storage of food.



## Breatheway Temperature Switch Technology® membrane

- Mini cucumbers have high respiration rates and short shelf-life
- Breatheway Modified Atmosphere Packaging (MAP)
- Engineered to regulate respiration rates, regulating O<sub>2</sub> and CO<sub>2</sub> levels
- Actively 'exhales' excess CO<sub>2</sub>



- Inhales the amount of O<sub>2</sub> required to keep the produce fresh
- Provide beneficial atmosphere levels to protect and maintain quality
- Protects from damaging CO<sub>2</sub> spikes that can occur during transit
- Ideal for Cold Chain environments







# SAVE FOOD PACKAGING DESIGN CRITERIA RESOURCE BOOKLET



## Available Resources

# SAVE FOOD PACKAGING DESIGN CRITERIA RESOURCE BOOKLET



## SAVE FOOD PACKAGING DESIGN

# 1

### DESIGN TO CONTAIN & PROTECT THE PRODUCT

FROM SPOILAGE &  
DAMAGE THROUGH  
MANUFACTURING,  
WAREHOUSING & VARIOUS  
STAGES OF DISTRIBUTION



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

SAVE FOOD PACKAGING CRITERIA

# 2

### DESIGN TO PRESERVE & EXTEND SHELF LIFE

& ENHANCE  
PRODUCT APPEAL



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 3

### DESIGN TO PROVIDE CONSUMER CONVENIENCE

TO NOT WASTE FOOD  
DURING HANDLING IN  
THE HOUSEHOLD



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 4

### DESIGN TO COMMUNICATE TO CONSUMERS

& PROMOTE HOW TO  
HANDLE, STORE, PREPARE  
& REUSE FOOD PRODUCTS



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY

# 5

### DESIGN TO BALANCE FOOD & PACKAGING WASTE TARGETS

FOR OPTIMAL PACKAGING



- SECTION SUMMARY
- CASE STUDIES
- ICONOGRAPHY





# Save Food Case Studies

## SAVE FOOD PACKAGING WORLDSTAR AWARD WINNING INNOVATIONS



**LifeSpan Copper Based Film**  
WING 2022 WORLDSTAR PACKAGING THAT SAVED FOOD SPECIAL AWARD



**KEY FEATURES**

- Contains Copper microcapsules
- The microcapsules inhibit the development of microorganisms
- Extends shelf life by up to 200%
- Lightly suited for chicken and fresh processed meat both as film, bag-in-box and fresh chicken
- Preserves and protects products through the full value chain

**AMCOR**  
A major in global leaders in developing and manufacturing required packaging solutions for food, beverage, pharmaceutical, consumer, home and personal care, and other products, Amorcor works with leading companies around the world to protect their products and the people who rely on them. Effective brands and robust supply chains through a range of flexible and intelligent packaging, specialty materials and services. The company is focused on creating packaging that is innovative, lighter weight, sustainable and meeting or exceeding product and material content.

**CP CORPOTREX**  
Corporation is a leading Chinese packaging company in the use of biodegradable to increase the food production and packaging chain. They believe that their technological developments are a suitable and cost-efficient solution to ensure that your food reaches your markets and consumers in the best possible condition.

**WORLDSTAR WINNERS**

**IceCoat - Mini bridge without electricity**  
WING 2022 WORLDSTAR PACKAGING THAT SAVED FOOD SPECIAL AWARD



**KEY FEATURES**

- Minimizes food waste
- Developed with renewable and recyclable materials
- Meets Material FSC-Certified Materials
- Ideal for E-Commerce
- Ideal for Cold Chain transportation
- Withstands the rigors of transport
- Protects the product
- The unique size jacket maintains the temperature

**STREIFF Gruppe**  
STREIFF Gruppe specializes in high-quality packaging, innovative packaging solutions and value packaging solutions and are expert among members in the packaging industry. We are committed to sustainability and creating a sustainable future for our customers and the environment. We are a leading manufacturer of high-quality packaging and value packaging solutions. We are committed to sustainability and creating a sustainable future for our customers and the environment. We are a leading manufacturer of high-quality packaging and value packaging solutions. We are committed to sustainability and creating a sustainable future for our customers and the environment.

**WORLDSTAR WINNERS**

**Juneo Prime Lamb**  
WING 2022 WORLDSTAR PACKAGING THAT SAVED FOOD SPECIAL AWARD



**KEY FEATURES**

- Most compatible 70% of the product
- No more waste (pack)
- No more food & water waste due to spill
- Intuitive design of storage & transport
- Packaging rate is improved
- Australian Packaging Label (APL)
- Lightweight, single layer design
- Easy to use (no need to seal)
- Low carbon, low and medium weight
- High strength and integrity
- Highly durable and resistant to wear
- Strong, durable can be repeatedly processed in Italy

**QSEE**  
QSEE is a leading manufacturer of high-quality packaging, innovative packaging solutions and value packaging solutions and are expert among members in the packaging industry. We are committed to sustainability and creating a sustainable future for our customers and the environment. We are a leading manufacturer of high-quality packaging and value packaging solutions. We are committed to sustainability and creating a sustainable future for our customers and the environment.

**WORLDSTAR WINNERS**

**ThermoShield Temperature Monitoring System - Food Caps & Closures**  
WING 2022 WORLDSTAR PACKAGING THAT SAVED FOOD SPECIAL AWARD



**KEY FEATURES**

- Design for Product Safety
- Design for Accessibility
- Design for Transport Efficiency
- Ideal for food loss & waste
- Testing its cold chain
- Colour determines when temperature rises above set parameters
- Thermochromic dye technology
- Change colour as environment changes
- Optical system - dynamically changes temperature at prescribed temperatures
- Alerts for colour changes - leads to change to red as per set point
- Extends shelf life

**CAPS & CLOSURES**  
Caps and Closures is an Australian owned and operated company that has been integrating and manufacturing glass-ceramic, mineral glass packaging solutions for over 20 years. Caps & Closures is a global leader in glass-ceramic packaging solutions. We are committed to sustainability and creating a sustainable future for our customers and the environment. We are a leading manufacturer of high-quality packaging and value packaging solutions. We are committed to sustainability and creating a sustainable future for our customers and the environment.

**WORLDSTAR WINNERS**

**Modified Atmosphere Technology**  
WING 2022 WORLDSTAR PACKAGING THAT SAVED FOOD SPECIAL AWARD



**KEY FEATURES**

- Modified Atmosphere material solution
- Senior spot technology to measure oxygen, humidity rates
- Transforming Flexible Intermediate Bulk Containers
- Extends shelf life of products
- Optimizes storage
- Improves shipping efficiencies
- Lives tracking and trace of products

**MASTERPACK GROUP**  
MasterPack is the leading provider in innovative packaging solutions, with their unique and fully integrated solution to create Modified or Controlled Atmosphere of BPA, the product and improving the quality of products, increasing value and use of product and improving the quality of products.

**WORLDSTAR WINNERS**



<https://worldpackaging.org/resources/46/>  
<https://worldpackaging.org/wpo/47/>  
<https://worldpackaging.org/wpo/6/>

## Project Competition – SAVE FOOD Initiative



The SAVE FOOD Initiative is promoting a more responsible use of resources along the entire food supply chain and actively contributing to the reduction of food loss and waste.

That's why Save Food Org are actively seeking smart agricultural practices and logistics solutions, innovative processing and packaging ideas, as well as initiatives to raise awareness among private households and encourage political engagement in this field.

Do you have a project that make a significant impact in reducing food loss and waste?  
The winning project will be awarded a grant of 10,000 Euros.





# 2023 Inaugural winner of the SAVE FOOD PROJECT COMPETITION

## SAVE FOOD PROJECT COMPETITION WINNER - SIG Foundation: *Cartons for Good*



# International Day of Awareness of Food Loss and Waste (29 September)

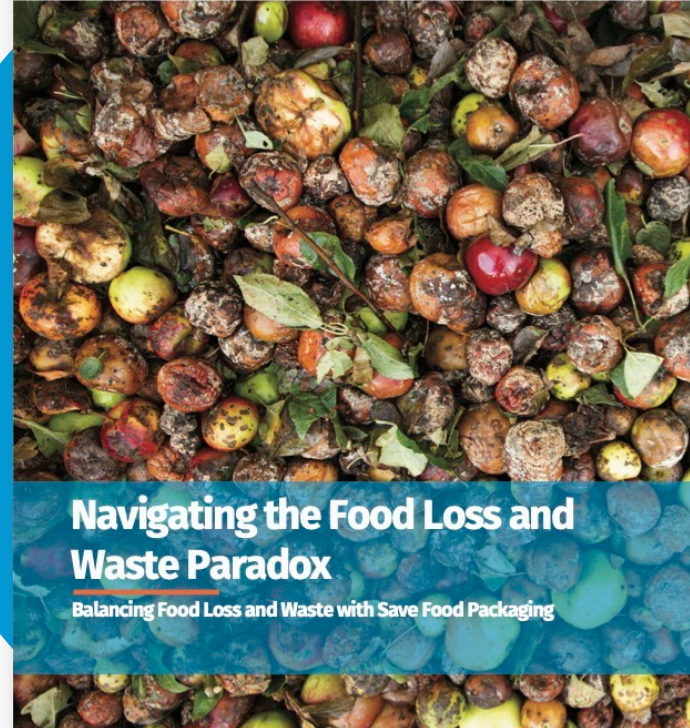




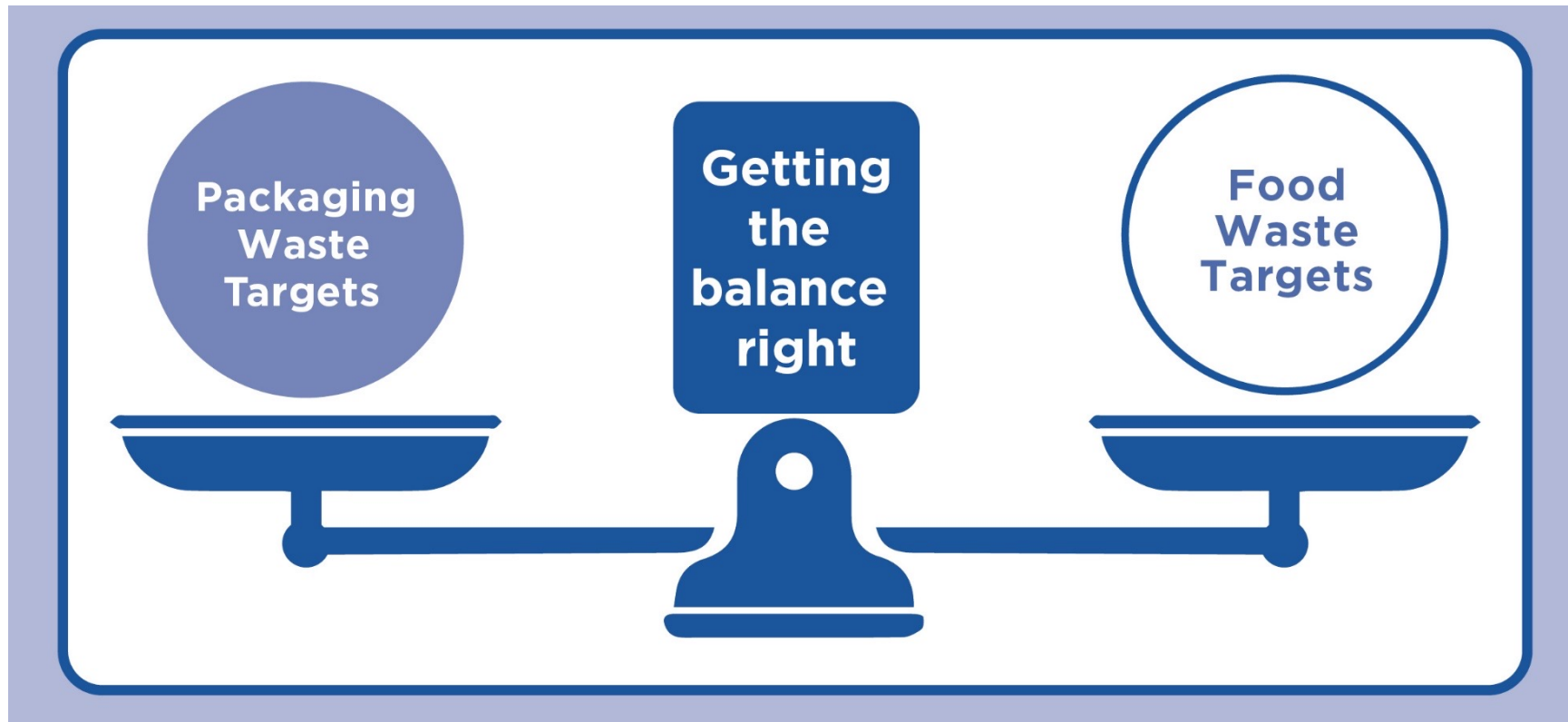
# Food Loss & Waste Paradox: Balancing Food Loss & Waste with Save Food Packaging

## NEW Position Paper

- Co-authoring a Position Paper on the topic 'Navigating the Food Loss and Waste Paradox: Balancing Food Loss and Waste with Save Food Packaging' with WPO and Wageningen University and Research.
- Highlighting the role packaging has in reducing food loss and waste and showcasing regional challenges, outlining practical save food packaging design guidelines and showcasing global solutions (Chile, Sri Lanka, Kenya, Australia, China, Brazil).



# Putting all Waste on Equal Footing







## **Nerida Kelton FAIP**

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# Q&A

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# CONTACT OUR MARKET REPRESENTATIVES



# THANK YOU



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