

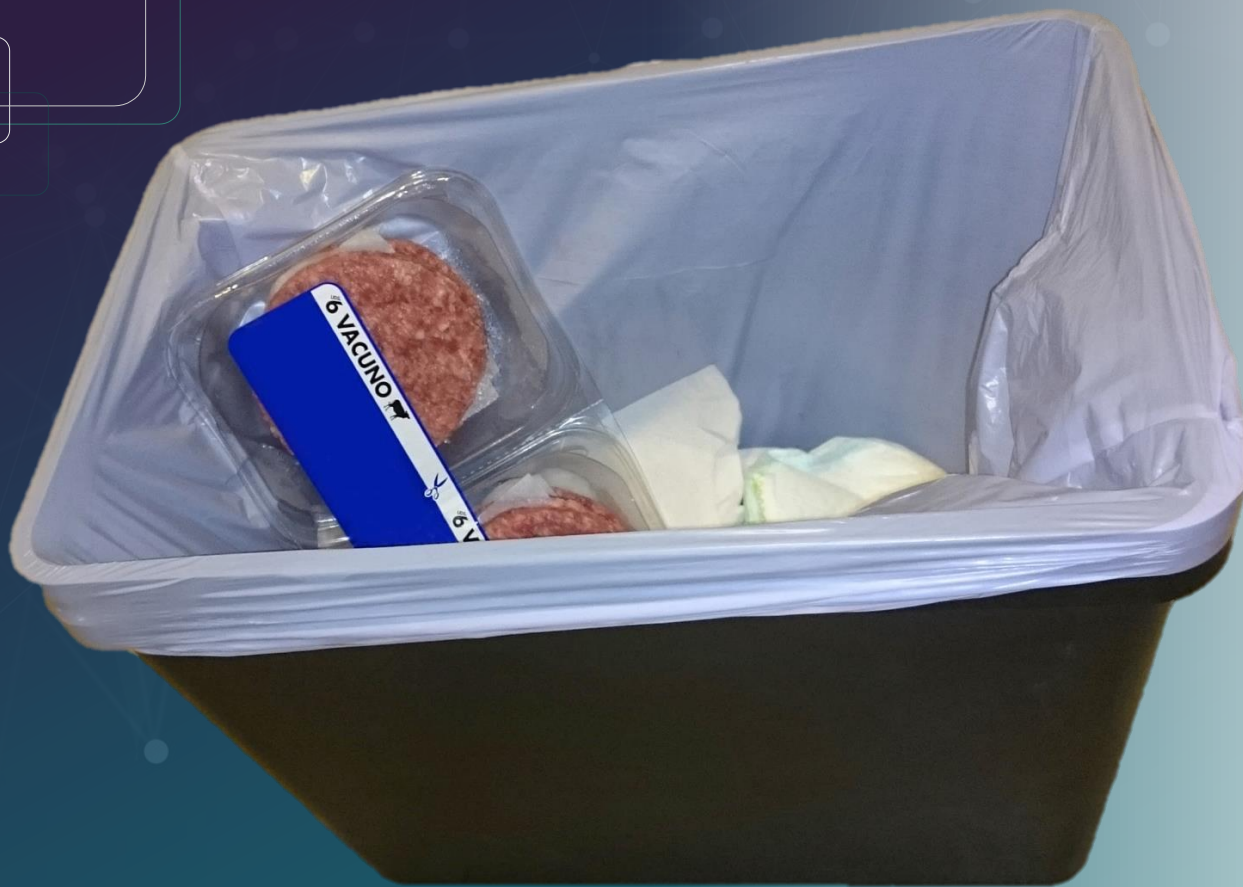
Frescode - A success story of a Freshness indicator label

Vanessa Blasco Bergelino

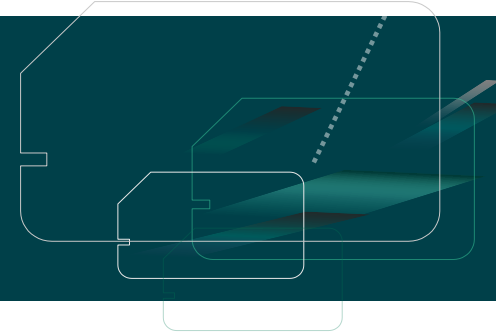
COST FP1405 ActInPak Fair and Final Conference
22 November 2018

WORLDWIDE
RELEASE





35% FOOD PRODUCTS THROWN AWAY RUBBISH AROUND THE WORLD



3.700 mm Kg.

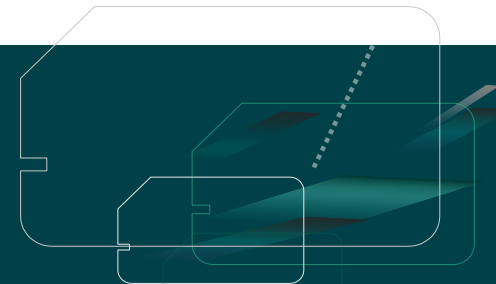
FOOD PRODUCTS THROWN AWAY IN SPAIN

1.135 mm Kg.

FOOD PRODUCTS TRHOWN AWAY NOT COOKED



FOOD WASTE AFFECTS TO THE INDUSTRY



CONSUMER	INDUSTRY	CONSUMER	INDUSTRY	CONSUMER	INDUSTRY
25 Kg	215	80 Kg	180	95 Kg	170
245 €	2.107	784 €	1.764	931 €	1.666
Anual /per cápita		Anual /per cápita		Anual /per cápita	



9,8€/kg

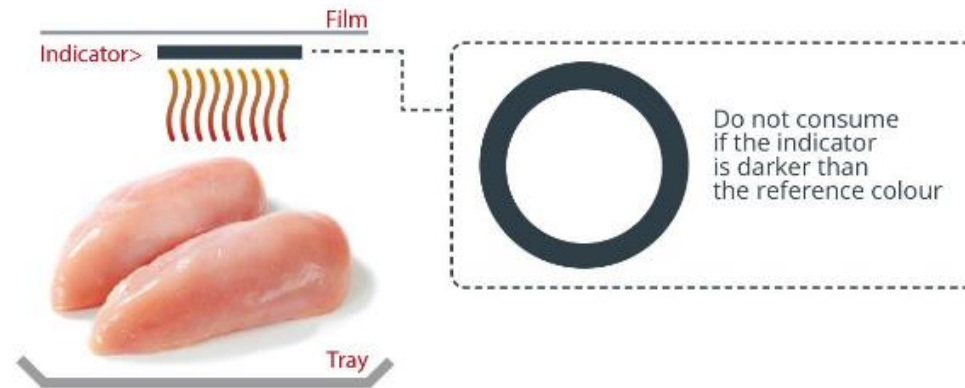
Source: Pérdidas y desperdicios alimentarios en el mundo. Alcance, Causas y prevención. Save Food. Interpack 2011, Düsseldorf, Alemania

INTELLIGENT PACKAGING
IS A SOLUTION TO REDUCE
FOOD WASTE
& COSTS...



..AS LONG AS IT'S
DEVELOPED WITH A
BUSINESS VISION

FRESHCODE CONCEPT

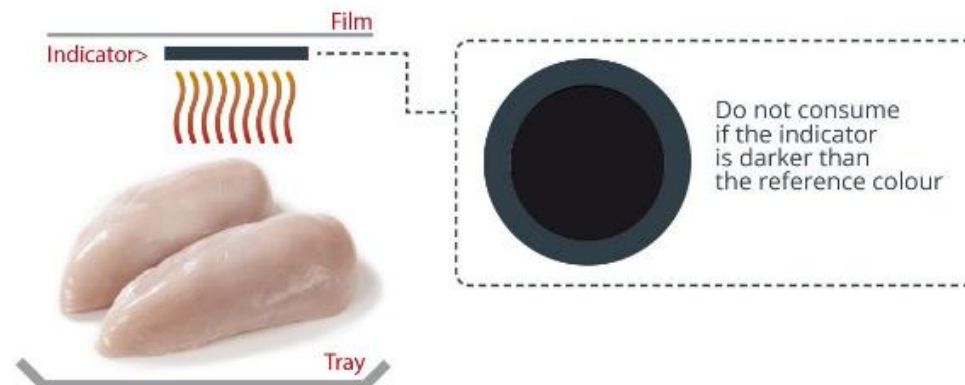


SPOILAGE



End of product life

This intelligent ink gradually changes colour to indicate the level of freshness. The product is no longer suitable for consumption when the label turns fully black.



Ink that monitor the freshness
and deterioration of chicken
packaging through an external
indicator label



ADVANTAGES:

Distribution chains

- ▶ Increases sales with a product that brings added value and reliability to the consumer, ensuring that the entire product sold is fresh.
- ▶ Allows individual food safety controls.
- ▶ Allows monitoring of suppliers in the distribution chain.



Poultry product processors and packers

- ▶ Displays and guarantees product quality and freshness.
- ▶ Increases demand and sales.
- ▶ Improves brand positioning.
- ▶ Aligned with European regulations for smart packaging. Backed by the ESFA's favourable opinion.



Consumers

- ▶ Extends consumption period.
- ▶ Promote food waste reduction.
- ▶ Improves food safety by reducing the risk of illness and poisoning.
- ▶ Monitors quality.



- Very low price compared to huge benefits.
- Between 20 and 50 times CHEAPER than other indicators.

PRICE < 0,01€ /LABEL

CHIMIGRAF/ label producer

- New market with rapid growth
- Market niche with few competitors

Poultry Producer/ Packer

- Demonstrates confidence in food freshness
- Increased demand for product
- Improves brand

Retailer

- Increases sales
- Ensures that all food sold is fresh
- Individual control of food
- Allows better monitoring of suppliers and transport

FROM LAB TO MARKET. FRESHCODE CONCEPT

Kao Chimigraf

SENSOPACK (2010 – 2013)

➤ ITENE and CHIMIGRAF developed a patent-pending ink formulation (submitted in January 2014) to be used with MAP packaging labels for continuously monitoring of chicken meat spoilage and quality.

FRESHBEL (2014 – 2016)

The ink has been printed at industrial scale to develop the Freshcode indicator. When it was tested, it has shown that it is an excellent indication of meat freshness

SME PHASE 1 (2016)

Demonstrate the technological, economic and practical viability of the Freshcode technology

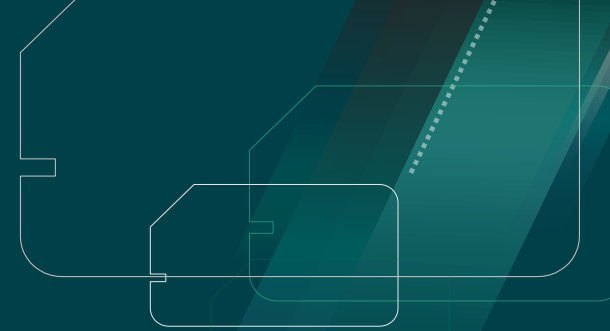
SME PHASE 2 (2016 – 2017)

The freshness indicator has been industrially validated by meat producers. Minor adaptations can be needed to be on the market





Ink that monitor the freshness and deterioration of chicken packaging through an external indicator label

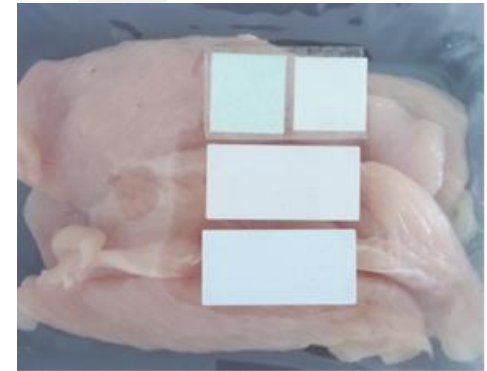


EASY
TO SEE
WHAT'S
GOOD

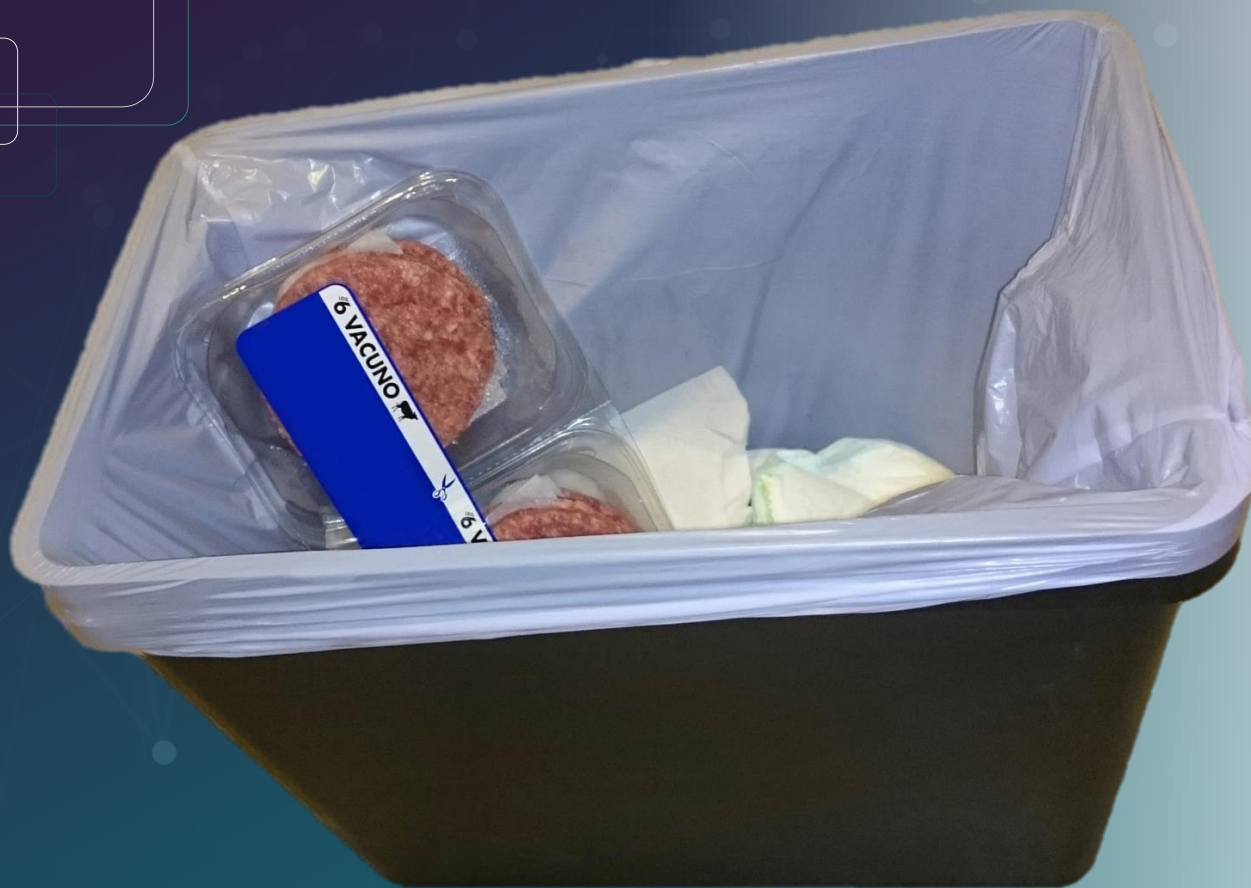
A solution that makes it easy to see product freshness from processing to final consumption.

Specially
for poultry
industry

Kao Chimigraf



More information at FRESHCODE LABEL website: <http://www.freshcodelabel.com/>





“BUSSINESS VISION IN THE DEVELOPMENT OF SMART SOLUTIONS”



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