



Nuevos desarrollos orientados al  
"convenience", sostenibilidad,  
eficiencia operativa y digitalización  
New developments in convenience,  
sustainability, operative efficiency  
and digitization

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Manuel De Las Peñas (SEALED AIR)

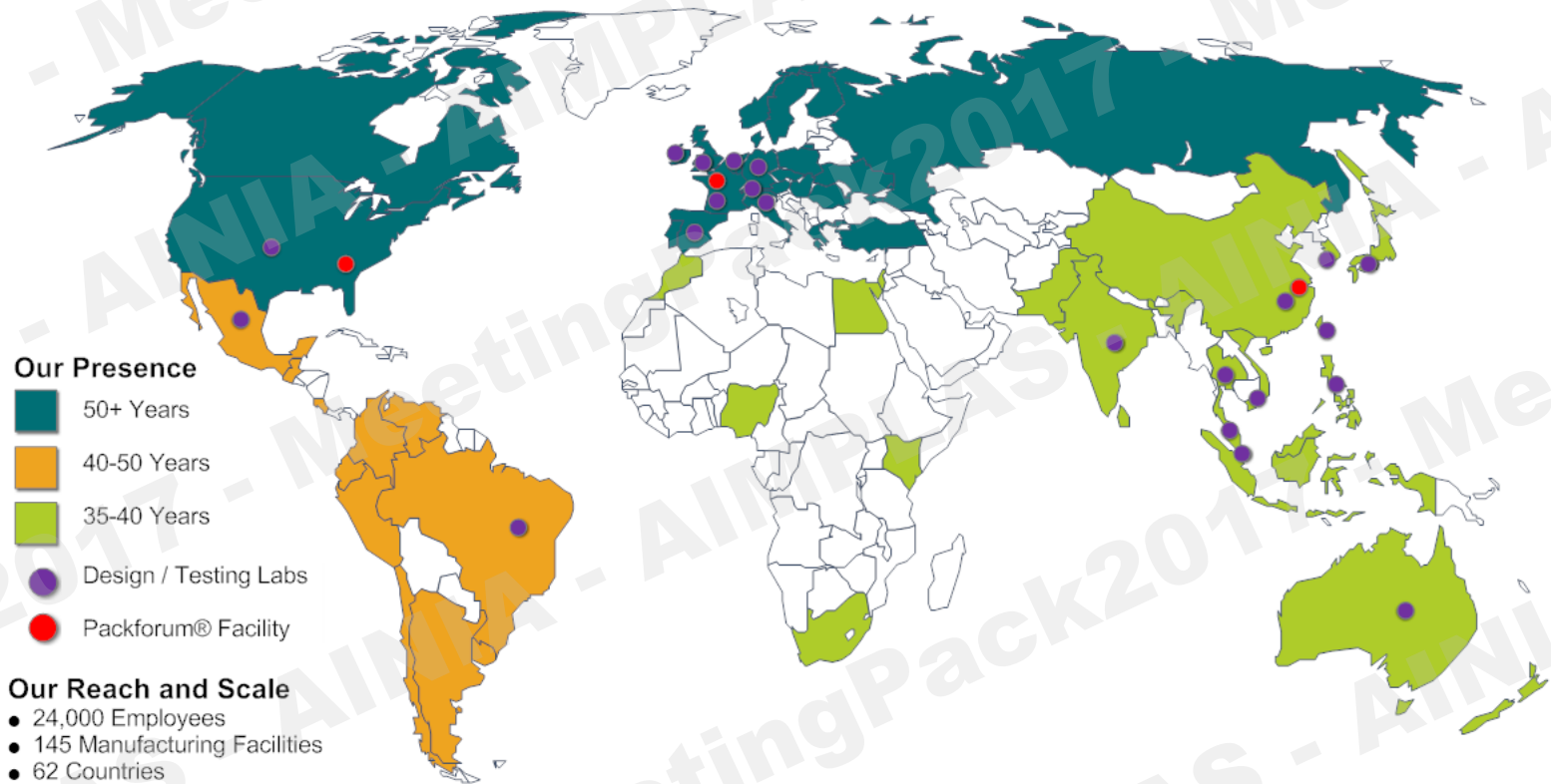
May 31th, 2017

# Convenience, sustainability, operational efficiency and digitalization: new developments in Sealed Air

Manuel de las Peñas · Sealed Air



# Sealed Air: A Global Network Supported by Local Experience



## Our Presence

- 50+ Years
- 40-50 Years
- 35-40 Years
- Design / Testing Labs
- Packforum® Facility

## Our Reach and Scale

- 24,000 Employees
- 145 Manufacturing Facilities
- 62 Countries
- 175 Country Distribution
- 56 Labs
- 500+ Scientists

# 3 trends that are shaping the future of food packaging



**Industry 4.0**

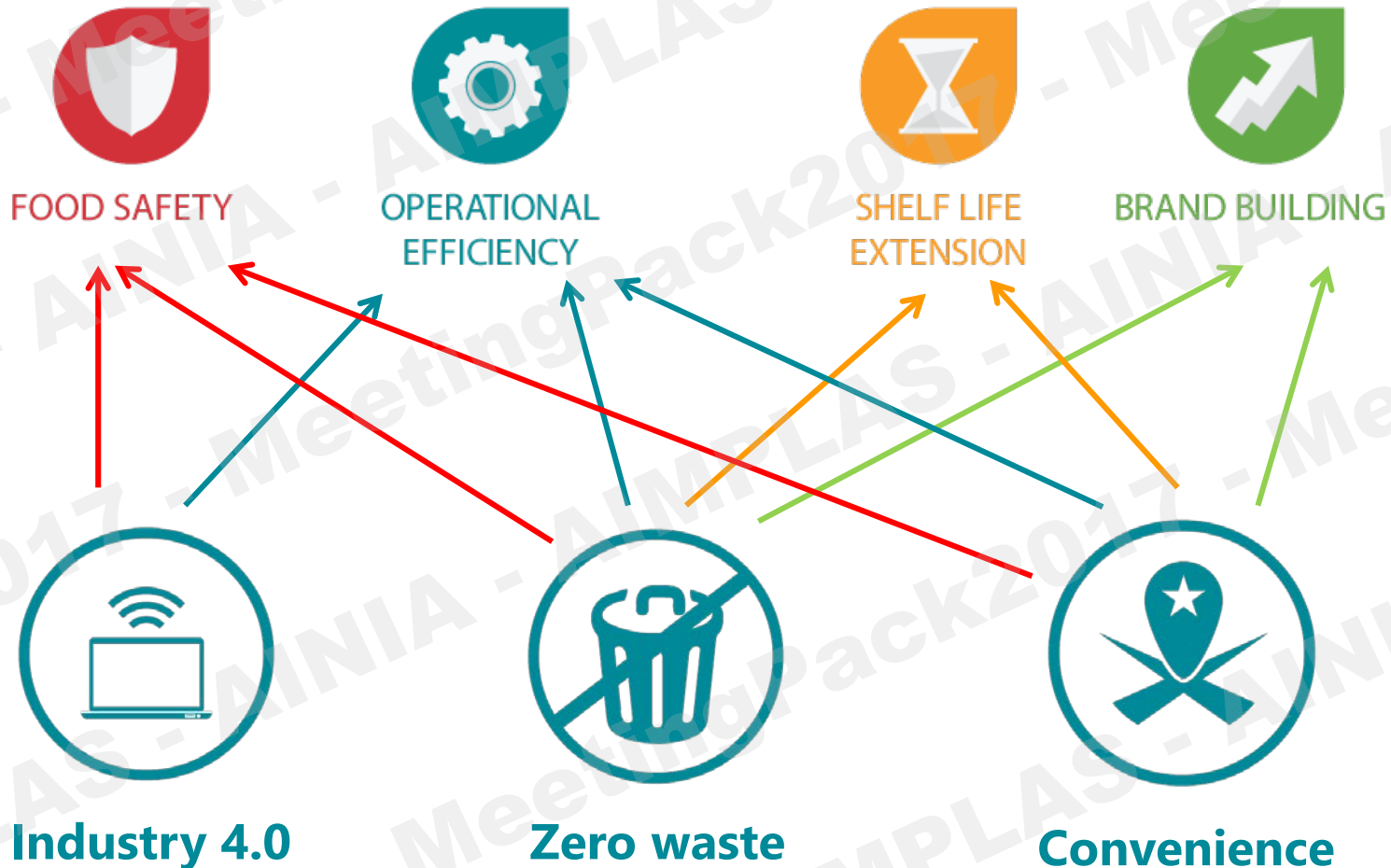


**Zero waste**



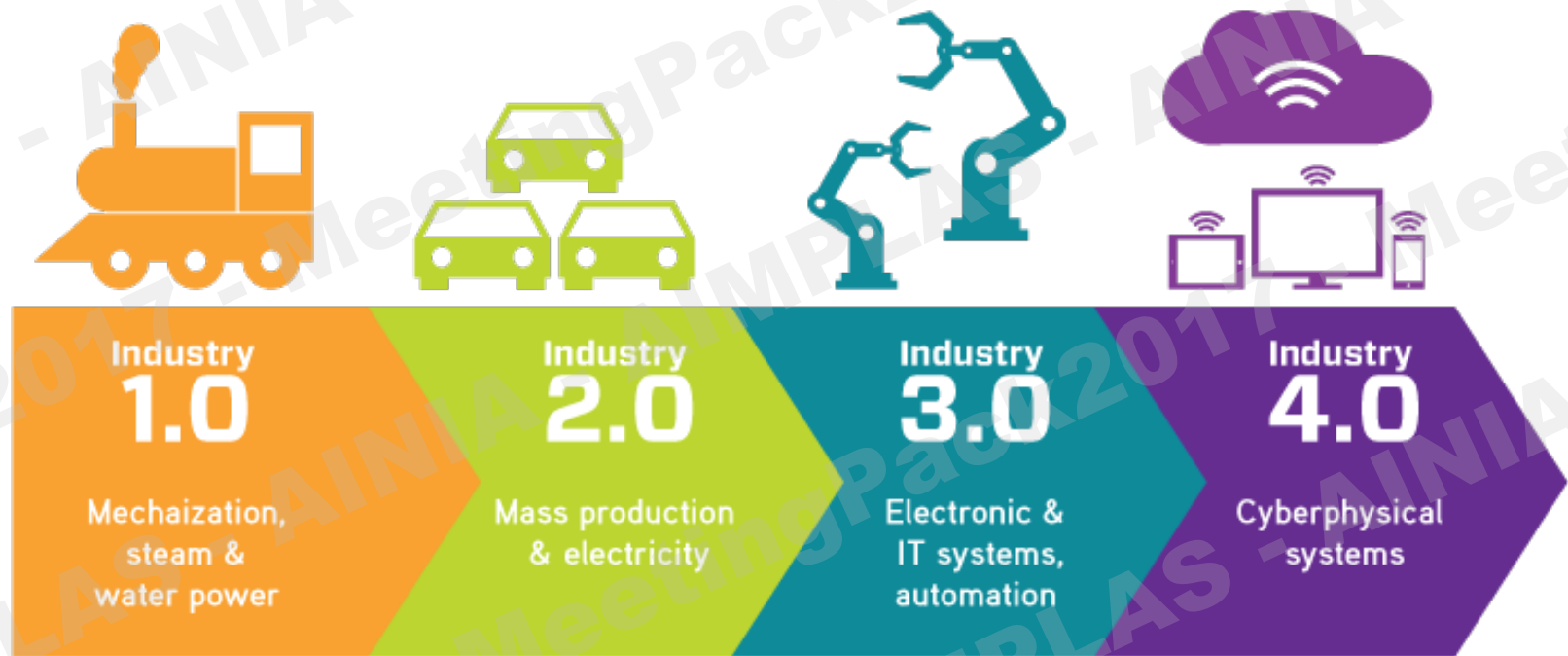
**Convenience**

# 3 trends that are shaping the future of food packaging



# Industry 4.0 in food processing

“ Industry 4.0 is changing how the food industry tackles problems like food safety, waste and speed of their operations ”





# Industry 4.0 in food processing



greater flexibility, agility and efficiency to the productive processes, in order to meet demands of:



Lower prices



Higher product quality



Improved sustainability



OPERATIONAL  
EFFICIENCY

# Industry 4.0 Knowledge based services. CogniPRO™

## Systems

Services designed for packaging equipment

COGNIPRO™  
CORE SERVICES

COGNIPRO™  
INTEGRATION SERVICES

COGNIPRO™  
LINK

## Supply chain

value added services to improve processors' operation in 3 pillars

OPERATIONAL  
EFFICIENCY AND YIELD



CogniPRO Cryovac® Focus™



# CogniPRO™ Cryovac® Focus™ A Yield Improvement System

meetingPACK  
2017

3rd  
EDITION

1

CAMERA CAPTURES  
IMAGES AND SENDS  
TO COMPUTER



# CogniPRO Cryovac® Focus™ A Yield Improvement System

*"You can't improve what you can't measure"*

## Value captured in manual & automated processing

1. **Eliminate manual audits** – reassign auditor to higher-valued role
2. **Improved data consistency** – eliminate variation from multiple auditors
3. **Optimize automated equipment** for improved yields (in automated deboning)
4. **Training tool** – Can measure improvement and put a value on training
5. **Testing tool** – Can compare techniques of deboning (equipment settings for deboning in automated systems)



## Zero waste

**"70%** of Spaniards claim that they throw away food because they forget the products in the refrigerator, in the pantry or in the freezer so that they expire, are damaged or are not completely reliable for the consumer"

Source: AECOC "Hábitos de aprovechamiento de los alimentos 2017"



Companies are recognizing the benefits of lightweight, sustainable food packaging which results in:



fewer manufacturing costs



less environmental impact from transportation



reduced waste going to a landfill.



# Zero waste Cryovac® Darfresh® on Tray

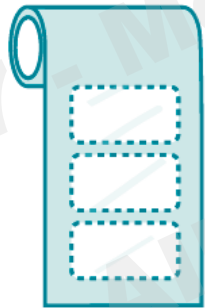


**WORLDSTAR  
WINNER 2017**



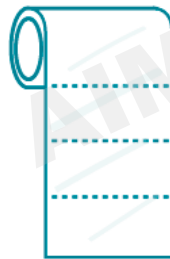
# Zero waste Cryovac® Darfresh® on Tray

Traditional skin  
pack machines



30-40%  
film scrap

Cryovac® Darfresh® on Tray

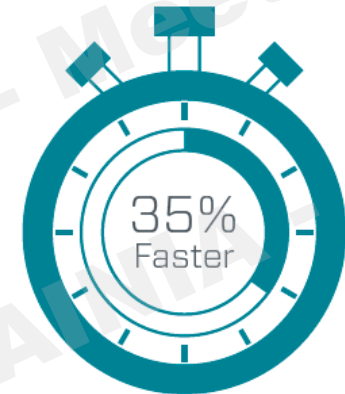


0%  
film scrap

VS

30-40%  
Less film usage with  
Cryovac® Darfresh® on Tray

Cryovac® Darfresh® on Tray



Faster than pre-made tray skin  
packaging technologies



# Zero waste New Cryovac® Darfresh® top webs

These new generation of material are aligned with the 3 **Guiding Principles of Sealed Air for Creating Customer Value:**

## COST COMPETITIVENESS

- Move to **mono PP/PET**
- Downgauged trays
- Zero scrap of Darfresh on Tray:
  - Vs. tray skin: higher m/c speed
  - Vs. MAP: no pad, no gas, lower waste

## SUSTAINABILITY

- Food Waste reduction
- Fresher for longer
- Zero scrap
- **Mono PP/PET trays**
- Thin Top webs

## PERFORMANCE

- Brand building/pack look
- Merchandizing/Display/Communication
- Leak proof / Safe seal
- **Ultra high barrier**
- **EZO**
- High Forming/Abuse Top



# Zero waste New Cryovac® Darfresh® top webs

## NEW BEST IN CLASS TOP SKIN OFFER FOR MULTI SEALANT

- Excellent seal
- Outstanding transparency before and after the opening



# Zero waste New Cryovac® Darfresh® top webs

TOP WEBS FOR:  
Mono PP trays

TOP WEBS FOR:  
Mono PET trays

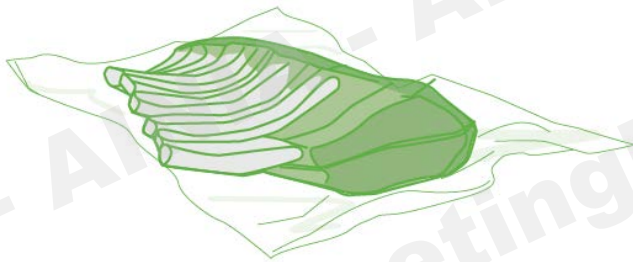
Low seal top web For  
PP/PE – PET/PE trays



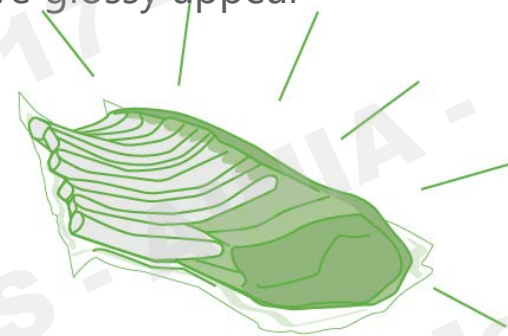
# Zero waste Cryovac® Optidure™ Bags

Thermoforming  
or PA/PE pouches

**Cryovac® Optidure™**  
**Pet** bags  
No excess plastic  
Attractive glossy appeal



VS



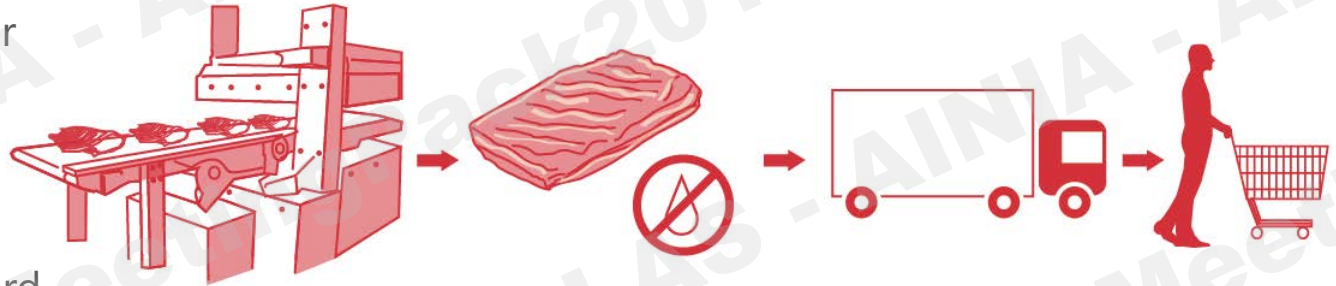
# Zero waste Cryovac® Optidure™ Bags

It is estimated that a **1% reduction in leak rates** could **eliminate \$140 million** in food waste globally

Perforation leaker  
reduced by

**3%**

vs Market standard



- Reduce global warming potential and cumulative energy demand by **30%** vs standard vacuum bags
- **25%** less of plastic material vs. standard bag (Pet based)
- Transparency and shrink
- Excellent sealing properties without bags sticking when overlapped



# Zero waste Cryovac® Optidure™ Bags



## BRAND BUILDING

Make sure your products stand out with an attractive glossy finish after shrinking process

## Convenience

"more than **40%** % of the  
US population purchases prepared  
meals from grocery stores.

Source: Forbes: Why 'Grocerants' Are The Future Of Food Shopping



### The rise of the 'grocerant': How millennials impact supermarket growth

Since 2008, in-store dining and prepared foods  
have grown nearly 30 % in groceries —  
accounting for 2.4 billion foodservice visits and  
\$10 billion in consumer spending in 2015.

Source: AECOC "Hábitos de aprovechamiento de los alimentos 2017"





## Convenience

### Cryovac<sup>®</sup> convenience range

Functional packaging allow us to develop new categories, with traditional fresh food products, that meet new consumer habits

- Easy opening (EZO)
- Peelable
- Reclosable
- Pasteurizable
- Microwaveable
- Ovenable (from the freezer to the oven)
- Superb optics & pack appearance (AF & transparency)

# Convenience Cryovac® EOR311 reclosable

- Stronger and stable reclose-ability with no decay during 6-7 reclosing operations
- Prevents dehydration
- No glue odor



# Convenience Cryovac® Sealappeal® OSF

- Suitable for **THS** & **FFS** applications
- Cpet or Alu trays
- Printable
- Peelable in one piece
- Pasteurizable, MWable, **Ovenable**
- Antifog version
- Low sealing temperature version



# Convenience Cryovac® Oven Ease®

- For THF applications
- Cooking or regeneration
- -25°C up to 220°C
- Constant quality
- Reduce cooking time



SOCIAL BENEFITS  
PackTheFuture Award 2017



# Convenience Cryovac® Simple Steps®

- Skin system for ready meals
- Pasteurizable, MWable, HPP
- Easy opening (EZO feature)
- Vertical display
- Freshness for longer
- Consumer health expectations continue to rise
- Self venting



# Convenience Cryovac® Simple Steps®





# Convenience Cryovac® Sealappeal® PSF

- For THS & THF applications
- Pet based
- For Apet trays
- Peelable in 1 piece (no sharding)
- Optics (AF & transparency)
- Low sealing temperature (tray thickness reduction, less energy)
- Hermeticity
- F&V, fresh proteins



ECODESIGN  
PackTheFuture Award 2017



# Convenience

## Cryovac® Sealappeal® PSF

## Peel in 1 piece !



## Convenience: Clarity



Clarity

**"38%** of consumers said they would be motivated to choose one food product over another if the packaging allowed them to view the contents"

Source: <http://www.cstoredecisions.com> Marilyn Odesser-Torpey, Clearly Delicious

"To today's consumers, transparency equals trust"





meetingPACK  
2017

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EDITION

# Convenience Cryovac® Sealappeal® PSF

Sealed Air  
Food Care



# Convenience Cryovac® LID39ZAP



- For THS ready meals applications
- PP sealant
- Shrinkable
- Perfect peelability
- Optics (AF & transparency)
- Pasteurizable & MWable
- Thinner than ever



## ... to sum up...

Our new developments are aligned with the new trends shaping the future of packaging, allowing for food processors to meet their goals and consumers satisfy their demands.







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