



## ***TOP FRIDGE STORAGE TIPS: HOW TECHNICAL INNOVATION AND POLICY CAN HELP***

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*WHIRLPOOL EMEA cooling team  
leader*



## AGENDA:

- THE REFRIGERATION PARADIGMA
- FOOD PRESERVATION ENHANCEMENT ON PRODUCT DEVELOPMENT
- FOOD PRESERVATION ENHANCEMENT ON ADVANCED DESIGN
- OPEN DISCUSSION

# Where are we in the cooling roadmap??

La Repubblica 19/05/2014  
**La cucina sostenibile? E' senza il frigorifero**  
Un nuovo progetto Ikea per rimpiazzare l'elettrodomestico più energivoro della casa. Per sostituirlo una dispensa intelligente

## CORRIERE DELLA SERA / AMBIENTE

HOME **CORRIERE TV** ECONOMIA SPORT CULTURA SCUOLA SPETTACOLI SALUTE SCIENZE INNOVATION



1

IL CIBO SCARTATO VALE 13 MILIARDI L'ANNO. DA TIM AL VATICANO, DA EXPOLIS A BREADING: CHI SI MUOVE

## Basta sprechi alimentari: il frigorifero diventa virtuale

Fare incontrare domanda e offerta si può. Ecco sei proposte

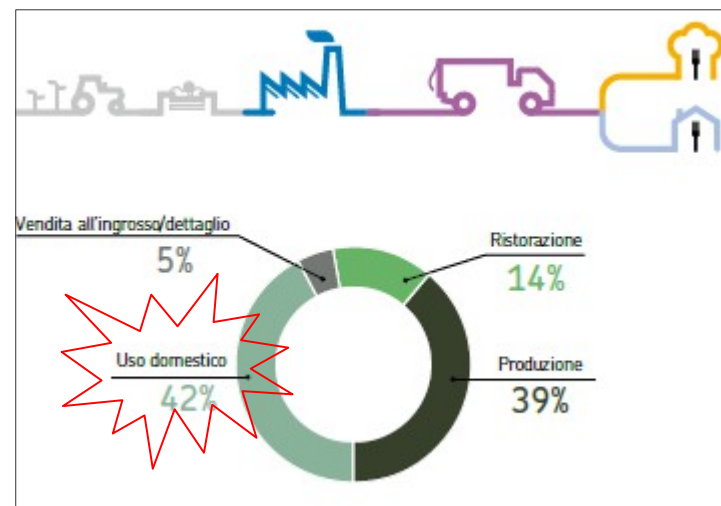
Corriere della Sera 01/12/2014



# The food waste is real



AMOUNT OF FOOD WASTED (kg/year)- BCFC,2010



European food waste composition-BCFN 2010

# How to enhance the design of the refrigerator?

THE NEW COMBIS PLATFORMS UNDER LAUNCHING IN 2015



ACTIVE IONIZER

AIR FLOW DISTRIBUTION TO MINIMIZE  
TEMPERATURE FLACTUATION

NORMATIVE CHILLER 0° FOR BETTER  
MEAT/FISH CONSERVATION

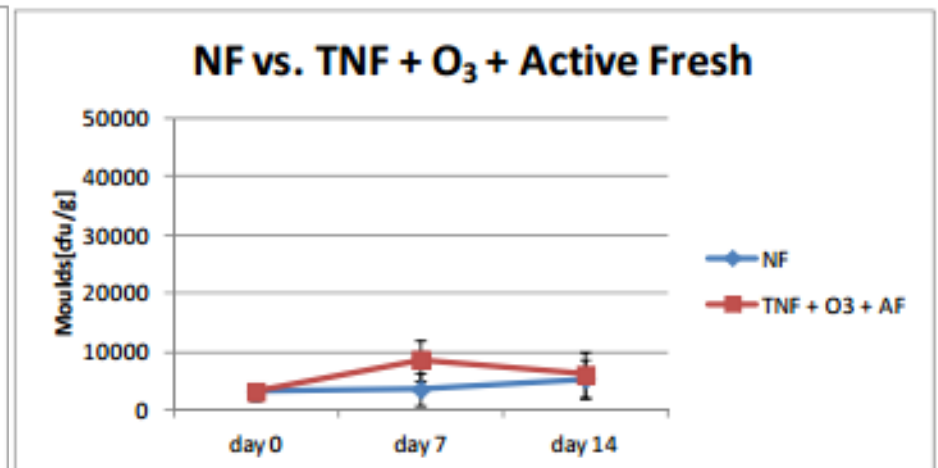
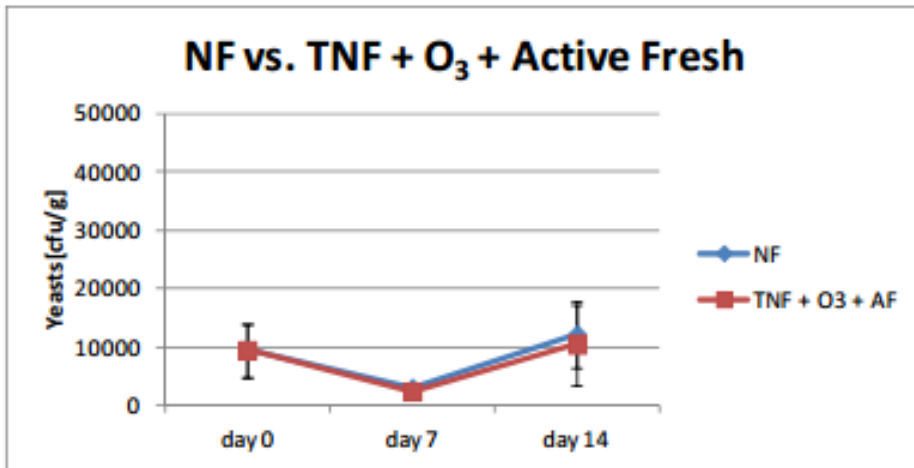
«SUPERINSULTED» CRISPER WITH  
ETHYLEN FILTER

HORIZONTAL HEAT EXCHANGERS

FAST FREEZING COMPARTMENT: FROM  
+70° TO -18° IN 4 HRS

# How to enhance the design of the refrigerator?

TEST PERFORMED ON SPINACH AND STRAWBERRIES STORED ON CRISPER BIN



## FURTHER COLLABORATIONS WITH:

- AMADORI;
- SINTEF;
- GRANAROLO;
- FERRERO
- .....



# How to enhance the design of the refrigerator?



Supreme No Frost



Total No Frost



No Frost

HUMIDITY LEVEL & CONTROL



FRIDGE TEMPERATURE STABILITY



0 FROST



SPECIAL COMPARTMENTS FOR DELICATE FOODS

Active 0°

3 in 1 chiller

Flexi Use Box

SPECIAL COMPARTMENTS FOR FRUITS & VEGETABLES

Crisper at 80% RH

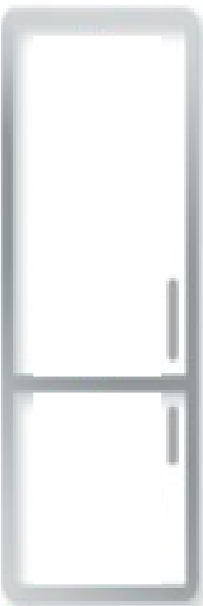
Ultra Fresh Crisper

Flexi Use Box

FREEZER TEMPERATURE STABILITY



0 ICE



The transaction and operational details are subject to relevant employee consultation requirements

# Dialogic: the connectivity experience



PLACE THE LABEL  
ON THE PACKAGING

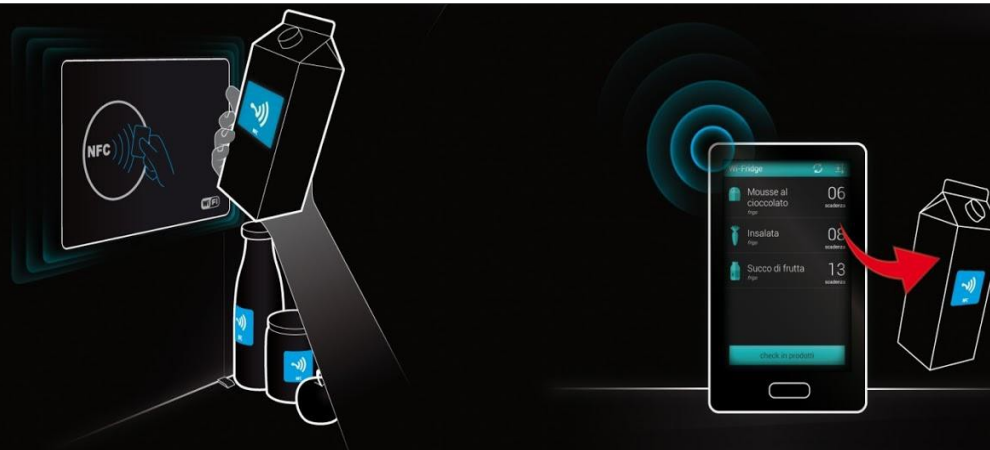
ACTIVATE AND WRITE  
CONTENTS ON LABEL

AUTOMATIC CHECK-IN

“Labels can be rewritable”

“Bar Code Scanner automatically  
detects the food DNA ”  
“Expiring date information is not  
mandatory ”

“The smart option transfers in few  
seconds tagged items on your virtual  
fridge storage”  
“Only one action needed: 1 touch”

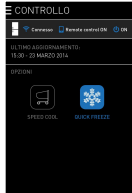


SM  
“Item is aut  
yo  
“No m



# Dialogic: the connectivity experience

*Dialogic gives the possibilities...*



## **Remote access of fridge/freezer options**

*to activate, SUPER FREEZE, SUPER COOL, HOLIDAY and all the functions before coming home from your shopping, preparing your fridge-freezer to host big quantities of food*



THE APP



THE WEB PORTAL



## **Virtual storage & shopping list**

*to monitor the cold storage, while the SMART SHOPPING LIST suggest you the products to buy, making your shopping easier and conscious*



THE APP



THE WEB PORTAL



## **Food Expiring data monitoring**

*to be aware and alerted on food expiring dates*



THE APP



THE WEB PORTAL



## **Food Statistics**

*to keep under control FOOD STATICS, in order to monitor family eating habits and suggesting how to lead a healthy life style.*

*Ex: statics on habits, food expiring dates...*



THE WEB PORTAL

# Dialogic:the innovation roadmap

APP DEVELOPMENT WITH **UNIVPM/FBK** FOR:

- receipts assistant with food stored in the fridge
- food near to expiring date re-usage (integration with Bring the food)
- shopping assistance

**TRIAL EXPECTED FROM SEPT 2015 IN TRENTO**



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